

ASTRA SPACE, INC.

Primary Offering Of
15,333,303 Shares of Common Stock

Secondary Offering of
189,026,575 Shares of Common Stock
5,333,333 Warrants to Purchase Common Stock

This prospectus supplement amends and supplements the prospectus dated August 12, 2021 (as supplemented or amended from time to time, the “Prospectus”), which forms a part of our Registration Statement on Form S-1 (No. 333-257930). This prospectus supplement is being filed to update and supplement the information in the Prospectus with the information contained in our Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on November 15, 2021 (the “Quarterly Report”). Accordingly, we have attached the Quarterly Report to this prospectus supplement.

The Prospectus and this prospectus supplement relate to the issuance by us of up to an aggregate of (i) 9,999,970 shares of our Class A common stock that may be issued upon exercise of warrants to purchase Class A common stock at an exercise price of \$11.50 per share (the “public warrants”) issued by Holicity Inc. (“Holicity”) in its initial public offering; and (ii) 5,333,333 shares of our Class A common stock that may be issued upon exercise of private placement warrants at an exercise price of \$11.50 per share that were originally sold to X-icity Holdings Corporation (the “Sponsor”) in a private placement consummated simultaneously with Holicity’s IPO (the “private placement warrants” and, together with the public warrants, the “warrants”).

The Prospectus and this prospectus supplement also relate to the offer and sale, from time to time, by the selling securityholders named in this prospectus (the “Selling Securityholders”), or any of their permitted transferees, of (i) 5,333,333 private placement warrants; (ii) up to an aggregate of 5,333,333 shares of our Class A common stock that may be issued upon exercise of the private placement warrants held by the Selling Securityholders; (iii) up to an aggregate of 20,000,000 shares of our Class A common stock that were issued to certain investors (collectively, the “PIPE Investors”) in a private placement in connection with the closing of the Business Combination (as defined herein); (iv) 7,500,000 shares of Class A common stock issued to the Sponsor prior to Holicity’s initial public offering and registered for sale by the Selling Securityholders; (v) up to an aggregate of 92,277,793 shares of Class A common stock that were issued to certain affiliates of Astra (collectively, the “Astra Affiliates”) pursuant to the Business Combination Agreement (as defined herein); (vi) up to an aggregate 56,239,188 shares of Class A common stock issuable upon conversion (on a one-for-one basis) of shares of our Class B common stock, par value \$0.0001 per share (“Class B Common Stock”) held by certain Selling Securityholders and (vii) up to an aggregate of 7,676,261 shares of our Class A common stock issued in connection with our acquisition of Apollo Fusion, Inc. (“Apollo Fusion”), which closed on July 1, 2021 comprised of (x) 2,558,744 shares of our Class A common stock (the “Initial Apollo Shares”) issued to certain of the Selling Securityholders on July 1, 2021, in connection with our merger with Apollo Fusion, Inc. (“Apollo Fusion”) and (y) 5,117,517 additional shares of our Class A common stock (the “Additional Apollo Shares”) which may be issued to certain of the Selling Securityholders assuming (a) the achievement of all remaining performance milestones set forth in the Apollo Fusion Merger Agreement (as defined herein), (b) we elect to pay all future milestone consideration in shares of our Class A common stock as required by the terms the Apollo Fusion Merger Agreement, and (c) the per share price used to calculate the number of shares of our Class A common stock to be issued is \$11.7243, which is the same per share price used to calculate the number of Initial Shares issued to the Selling Securityholders. The Additional Shares have not been earned and are not currently outstanding. The actual number of Additional Shares issued to the selling stockholders could be materially greater or less than 5,117,517 shares of Class A common stock depending whether and to what extent the future performance milestones are met and/or the actual average closing price of our Class A common stock at the time such milestones are achieved. The Prospectus and this prospectus supplement also cover any additional securities that may become issuable by reason of share splits, share dividends or other similar transactions.

Our common stock and warrants are listed on Nasdaq under the symbols “ASTR” and “ASTRW”, respectively. On November 12, 2021, the closing price of our common stock was \$10.60 per share and the closing price of our warrants was \$3.24 per share.

This prospectus supplement updates and supplements the information in the Prospectus and is not complete without, and may not be delivered or utilized except in combination with, the Prospectus, including any amendments or supplements thereto. This prospectus supplement should be read in conjunction with the Prospectus and if there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

Investing in our securities involves risks that are described in the “Risk Factors” section beginning on page 15 of the Prospectus.

Neither the SEC nor any state securities commission has approved or disapproved of the securities to be issued under the Prospectus or determined if the Prospectus or this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is November 15, 2021.

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2021

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number: 001-39426

ASTRA SPACE, INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

85-1270303
(I.R.S. Employer
Identification No.)

1900 Skyhawk Street
Alameda, CA
(Address of principal executive offices)

94501
(Zip Code)

Registrant's telephone number, including area code: (866) 278-7217

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, par value \$0.0001 per share	ASTR	The NASDAQ Global Select Market
Warrants to purchase one share of common Stock, each at an exercise price of \$11.50	ASTRW	The NASDAQ Global Select Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer
Non-accelerated filer Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of November 12, 2021, the registrant had 202,076,073 shares of Class A common stock, \$0.0001 par value per share, outstanding and 56,239,189 shares of Class B common stock, \$0.0001 par value per share, outstanding.

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PART I—FINANCIAL INFORMATION
Item 1. Financial Statements.

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share data)
(Unaudited)

	As of	
	September 30, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 378,652	\$ 10,611
Inventories	5,027	649
Prepaid and other current assets	15,215	485
Total current assets	398,894	11,745
Non-current assets:		
Property, plant and equipment, net	43,576	24,069
Right-of-use asset	9,425	—
Goodwill	58,893	—
Intangible assets, net	19,263	—
Other non-current assets	253	77
Total assets	\$ 530,304	\$ 35,891
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	\$ 4,921	\$ 2,474
Operating lease obligation, current portion	1,746	—
Accrued expenses and other current liabilities	28,658	4,390
Long-term debt, current portion	—	41,132
Long-term debt, current portion due to related parties	—	10,503
Total current liabilities	35,325	58,499
Non-current liabilities:		
Long-term debt	—	7,286
Warrant liabilities	36,339	—
Operating lease obligation, net of current portion	7,433	—
Other non-current liabilities	14,275	1,685
Total liabilities	93,372	67,470
Commitments and Contingencies (Note 11)		
TEMPORARY EQUITY		
Series A convertible preferred stock, \$0.0001 par value; none authorized, issued and outstanding as of September 30, 2021; 44,017,454 shares authorized, and 43,744,059 shares issued and outstanding as of December 31, 2020, net of issuance cost	—	15,922
Series B convertible preferred stock, \$0.0001 par value; none authorized, issued and outstanding as of September 30, 2021; 47,406,862 shares authorized and 47,024,227 shares issued and outstanding as of December 31, 2020, net of issuance costs	—	92,907
Total temporary equity	—	108,829
STOCKHOLDERS' EQUITY (DEFICIT)		
Founders convertible preferred stock, \$0.0001 par value; none authorized, issued and outstanding as of September 30, 2021; 12,302,500 shares authorized, issued and outstanding as of December 31, 2020		1
Class A common stock, \$0.0001 par value; 400,000,000 and 176,225,000 shares authorized as of September 30, 2021 and December 31, 2020, respectively; 202,034,520 and 15,679,758 shares issued and outstanding as of September 30, 2021 and December 31, 2020, respectively	21	2
Class B common stock, \$0.0001 par value; 65,000,000 and 61,512,500 shares authorized as of September 30, 2021 and December 31, 2020; 56,239,189 and 47,281,500 shares issued and outstanding as of September 30, 2021 and December 31, 2020, respectively	6	4
Additional paid in capital	1,794,023	50,282
Accumulated deficit	(1,357,118)	(190,697)
Total stockholders' equity (deficit)	436,932	(140,408)
Total liabilities, temporary equity and stockholders' equity (deficit)	\$ 530,304	\$ 35,891

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share data)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Operating expenses:				
Research and development	\$ 21,724	\$ 5,423	\$ 44,159	\$ 20,955
Sales and marketing	1,090	—	2,229	—
General and administrative	19,730	2,358	50,712	9,341
Total operating loss	(42,544)	(7,781)	(97,100)	(30,296)
Interest (expense) income, net	18	(1,312)	(1,194)	(3,564)
Other income, net	25,895	3,891	25,177	7,852
Loss on extinguishment of convertible notes	—	—	(131,908)	—
Loss on extinguishment of convertible notes attributable to related parties	—	—	(1,875)	—
Loss before taxes	(16,631)	(5,202)	(206,900)	(26,008)
Income tax (benefit) expense	(383)	—	(383)	—
Net loss	\$ (16,248)	\$ (5,202)	\$ (206,517)	\$ (26,008)
Adjustment to redemption value on Convertible Preferred Stock	—	—	(1,011,726)	—
Net loss attributable to common stockholders	\$ (16,248)	\$ (5,202)	\$ (1,218,243)	\$ (26,008)
Net loss per share:				
Weighted average number of shares of Class A common stock outstanding				
– basic and diluted	201,080,003	6,367,490	79,784,524	6,334,324
Net loss per share of Class A common stock – basic and diluted	\$ (0.06)	\$ (0.09)	\$ (9.39)	\$ (0.47)
Weighted average number of shares of Class B common stock outstanding				
– basic and diluted	56,239,188	49,210,000	49,970,071	48,722,577
Net loss per share of Class B common stock – basic and diluted	\$ (0.06)	\$ (0.09)	\$ (9.39)	\$ (0.47)

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF TEMPORARY EQUITY AND STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands, except share and per share data)
(Unaudited)

	Temporary Equity		Permanent Equity							Additional Paid in Capital	Accumulated Deficit	Total Equity (Deficit)	
	Convertible Preferred Stock Shares	Amount	Common Stock		Class A Common Stock (New Astra)		Class B Common Stock (New Astra)		Founders Preferred Stock				
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance as of December 31, 2020 (as previously reported)	136,493,663	\$ 108,829	94,678,583	\$ —	—	—	—	—	18,500,000	\$ —	\$ 50,289	\$ (190,697)	\$ (140)
Retroactive application of recapitalization	(45,725,377)	—	(31,717,325)	6	—	—	—	—	(6,197,500)	1	(7)	—	—
Balance as of December 31, 2020, effect of reverse recapitalization (refer to Note 3)	90,768,286	\$ 108,829	62,961,258	\$ 6	—	—	—	—	12,302,500	\$ 1	\$ 50,282	\$ (190,697)	\$ (140)
Cumulative effect adjustment due to adoption of ASU 2020-06	—	—	—	—	—	—	—	—	—	—	(9,719)	691	(9)
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	2,177	—	2
Exercise of options	—	—	498,807	—	—	—	—	—	—	—	228	—	—
Issuance of Series C Convertible Preferred Stock, net of issuance costs	28,498,141	221,943	—	—	—	—	—	—	—	—	—	—	—
Conversion of Founders Convertible Preferred Stock to Series C Convertible Preferred Stock	5,073,576	—	—	—	—	—	—	—	(5,073,576)	—	8,156	—	8
Adjustment to redemption value on Convertible Preferred Stock	—	1,011,726	—	—	—	—	—	—	—	—	(51,131)	(960,595)	(1,011)
Net loss	—	—	—	—	—	—	—	—	—	—	—	(158,972)	(158)
Balance as of March 31, 2021	<u>124,340,003</u>	<u>\$ 1,342,498</u>	<u>63,460,065</u>	<u>\$ 6</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>\$ —</u>	<u>7,228,924</u>	<u>\$ 1</u>	<u>\$ (7)</u>	<u>\$ (1,309,573)</u>	<u>\$ (1,309)</u>
Stock-based compensation	—	\$ —	—	\$ —	—	—	—	\$ —	—	\$ —	\$ 7,444	\$ —	\$ 7
Exercise of options	—	—	1,812,081	—	—	—	—	—	—	—	1,081	—	1
Adjustment to redemption value on Convertible Preferred Stock	—	(1,011,726)	—	—	—	—	—	—	—	—	1,011,726	—	1,011
Merger recapitalization-Class A	(124,340,003)	(330,772)	(16,261,881)	(2)	140,601,884	14	—	—	—	—	330,751	—	330
Merger recapitalization-Class B	—	—	(49,010,265)	(4)	—	—	56,239,189	6	(7,228,924)	(1)	—	—	—
Private offering and merger financing, net of redemptions and equity issuance costs of \$23,337	—	—	—	—	57,489,019	6	—	—	—	—	406,863	—	406
Net loss	—	—	—	—	—	—	—	—	—	—	—	(31,297)	(31)
Balance as of June 30, 2021	<u>—</u>	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>	<u>198,090,903</u>	<u>\$ 20</u>	<u>56,239,189</u>	<u>\$ 6</u>	<u>—</u>	<u>\$ —</u>	<u>\$ 1,757,858</u>	<u>\$ (1,340,870)</u>	<u>\$ 417</u>
Stock-based compensation	—	\$ —	—	\$ —	—	—	—	\$ —	—	\$ —	\$ 2,688	\$ —	\$ 2
Exercise of options	—	—	—	—	912,760	1	—	—	—	—	469	—	—
Exercise of warrants	—	—	—	—	472,113	—	—	—	—	—	—	—	—
Issuance of common stock upon acquisition of Apollo Fusion, Inc.	—	—	—	—	2,558,744	—	—	—	—	—	33,008	—	33
Net loss	—	—	—	—	—	—	—	—	—	—	—	(16,248)	(16)
Balance as of September 30, 2021	<u>—</u>	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>	<u>202,034,520</u>	<u>\$ 21</u>	<u>56,239,189</u>	<u>\$ 6</u>	<u>—</u>	<u>\$ —</u>	<u>\$ 1,794,023</u>	<u>\$ (1,357,118)</u>	<u>\$ 436</u>

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	Convertible Preferred Stock		Common Stock		Founders Preferred Stock		Additional Paid in Capital	Accumulated Deficit	Total Deficit
	Shares	Amount	Shares	Amount	Shares	Amount			
Balance as of December 31, 2019 (as previously reported)	136,493,663	\$108,829	80,294,900	\$ —	18,500,000	\$ —	\$ 7,490	\$ (122,404)	\$(114,914)
Retroactive application of recapitalization	(45,725,377)	—	(26,898,791)	5	(6,197,500)	1	(6)	—	—
Balance as of December 31, 2019, effect of reverse recapitalization (refer to Note 3)	<u>90,768,286</u>	<u>\$108,829</u>	<u>53,396,109</u>	<u>\$ 5</u>	<u>12,302,500</u>	<u>\$ 1</u>	<u>\$ 7,484</u>	<u>\$ (122,404)</u>	<u>\$(114,914)</u>
Stock-based compensation	—	—	1,508,720	—	—	—	372	—	372
Exercise of options	—	—	173,729	—	—	—	19	—	19
Net loss	—	—	—	—	—	—	—	(11,981)	(11,981)
Balance as of March 31, 2020	<u>90,768,286</u>	<u>\$108,829</u>	<u>55,078,558</u>	<u>\$ 5</u>	<u>12,302,500</u>	<u>\$ 1</u>	<u>\$ 7,875</u>	<u>\$ (134,385)</u>	<u>\$(126,504)</u>
Stock-based compensation	—	—	482,125	—	—	—	141	—	141
Exercise of options	—	—	10,640	—	—	—	5	—	5
Net loss	—	—	—	—	—	—	—	(8,825)	(8,825)
Balance as of June 30, 2020	<u>90,768,286</u>	<u>\$108,829</u>	<u>55,571,323</u>	<u>\$ 5</u>	<u>12,302,500</u>	<u>\$ 1</u>	<u>\$ 8,021</u>	<u>\$ (143,210)</u>	<u>\$(135,183)</u>
Stock-based compensation	—	—	—	—	—	—	95	—	95
Exercise of options	—	—	41,077	—	—	—	9	—	9
Net loss	—	—	—	—	—	—	—	(5,202)	(5,202)
Balance as of September 30, 2020	<u>90,768,286</u>	<u>\$108,829</u>	<u>55,612,400</u>	<u>\$ 5</u>	<u>12,302,500</u>	<u>\$ 1</u>	<u>\$ 8,125</u>	<u>\$ (148,412)</u>	<u>\$(140,281)</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ASTRA SPACE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2021	2020
Cash flows from operating activities:		
Net Loss	\$ (206,517)	\$(26,008)
Adjustments to reconcile net loss to cash flows used in operating activities		
Stock-based compensation	20,465	608
Depreciation	2,958	2,479
Amortization of intangible assets	938	—
Non-cash lease expense	767	—
Deferred income taxes	(383)	—
Change in fair value of warrant liabilities	(20,447)	—
Gain on forgiveness of PPP note	(4,850)	—
Loss on extinguishment of convertible notes	131,908	—
Loss on extinguishment of convertible notes attributable to related parties	1,875	—
Amortization of convertible note discounts	315	2,242
Amortization of convertible note discounts attributable to related parties	55	464
Gain on mark to market derivatives	—	(4,474)
Gain on mark to market derivatives attributable to related parties	—	(914)
Changes in operating assets and liabilities:		
Inventories	(4,246)	—
Prepaid and other current assets	(13,935)	(576)
Other non-current assets	(101)	61
Accounts payable	1,333	(743)
Change in lease liabilities	(861)	—
Accrued expenses and other current liabilities	11,355	1,627
Other non-current liabilities	(205)	338
Net cash used in operating activities	<u>\$ (79,576)</u>	<u>\$(24,896)</u>
Cash flows from investing activities:		
Acquisition of Apollo, net of cash acquired	(19,360)	—
Acquisition of trademark	(3,200)	—
Purchases of property, plant and equipment	(18,546)	(992)
Investment made in leasehold improvements	(174)	(1,231)
Net cash used in investing activities	<u>\$ (41,280)</u>	<u>\$(2,223)</u>
Cash flows from financing activities:		
Proceeds from business combination and private offering, net of transaction costs of \$23,337	463,648	—
Borrowings on Pendrell bridge loan	10,000	—
Repayment on Pendrell bridge loan	(10,000)	—
Proceeds from issuance of Series C preferred stock	30,000	—
Issuance cost of Series C preferred stock	(94)	—
Proceeds from issuance of convertible notes	—	17,900
Repayments on term loans	(2,800)	—
Repayments on equipment advances	(3,636)	(933)
Borrowings on economic injury disaster loan	—	500
Repayments on economic injury disaster loan	—	(500)
Borrowings on paycheck protection program loan	—	4,850
Proceeds from stock issued under equity plans	1,779	33
Net cash provided by financing activities	<u>\$ 488,897</u>	<u>\$ 21,850</u>
Net increase (decrease) in cash, cash equivalents and restricted cash	\$ 368,041	\$ (5,269)
Cash, cash equivalents and restricted cash at beginning of period	10,611	10,519
Cash, cash equivalents and restricted cash at end of period	<u>\$ 378,652</u>	<u>\$ 5,250</u>
Non-cash activities:		
Conversion of Series A, Series B, Series C, and Founders' convertible preferred into Class A common stock	\$ 330,764	\$ —
Assets acquired included in accounts payable and accrued expenses	4,903	449
Public and private placement of warrants acquired as part of business combination	56,786	—
Change in redemption value of Convertible Preferred Stock	1,011,726	—
Issuance of Class A common stock upon acquisition of Apollo Fusion, Inc.	33,008	—
Fair value of contingent consideration provided upon acquisition of Apollo Fusion, Inc.	23,000	—
Supplemental disclosures of cash flow information:		
Cash paid for interest	\$ 691	\$ 313

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements

ASTRA SPACE, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1 — Description of Business

Astra Space Operations, Inc. (formerly Astra Space, Inc., and herein “Astra Space Operations”) designs, tests, manufactures and operates next generation space services that will enable a new generation of global communications, earth observation, precision weather monitoring, navigation, and surveillance capabilities. Astra Space Operations’ goal is to improve life on our planet through greater connectivity and more regular observation and to enable a wave of innovation in low Earth orbit by expanding our space platform offerings.

Holcity Inc. (“Holcity”) was originally incorporated in Delaware and was established as a special purpose acquisition company, which completed its initial public offering in August 2020. On June 30, 2021 (the “Closing Date”), Holcity consummated a business combination (the “Business Combination”) pursuant to the Business Combination Agreement dated as of February 2, 2021 (the “BCA”), by and among Holcity, Holcity Merger Sub Inc., a wholly owned subsidiary of Holcity (“Merger Sub”), and Astra Space Operations (“pre-combination Astra”). Immediately upon the consummation of the Business Combination, Merger Sub merged with and into Astra Space Operations with Astra Space Operations surviving the merger as a wholly owned subsidiary of Holcity. Holcity changed its name to “Astra Space, Inc.”, and pre-combination Astra changed its name to “Astra Space Operations, Inc”.

Unless the context otherwise requires, “we”, “us”, “our”, “Astra” and the “Company” refers to Astra Space, Inc., the combined company and its subsidiaries following the Business Combination. Refer to Note 3 for further discussion of the Business Combination. The Company’s Class A common stock and warrants to purchase Class A common stock are now listed on the Nasdaq under the symbols “ASTR” and “ASTRW”.

Note 2 — Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation

The Company’s condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”) as determined by the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) and pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (“SEC”) for interim financial reporting. Certain information and disclosures normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. Accordingly, these interim condensed consolidated financial statements should be read in conjunction with the audited financial statements and accompanying notes for the years ended December 31, 2020 and 2019. The Condensed Consolidated Balance Sheet as of December 31, 2020, included herein, was derived from the audited financial statements of the Company as of that date.

The unaudited condensed consolidated interim financial statements, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary to present fairly our financial position, our results of operations, cash flows and stockholders’ equity (deficit) for the periods presented. The results are not necessarily indicative of the results of operations to be anticipated for any future annual or interim period.

On July 1, 2021, we, through our wholly owned indirect subsidiary, merged with Apollo Fusion, Inc. (“Apollo”). The fair value of the consideration paid as of July 1, 2021, was \$75.4 million, net of cash acquired (the “Apollo Merger”). Apollo designs, tests, manufactures and operates propulsion modules to enable satellites to orbit in space. The results of operations of Apollo are included in the unaudited condensed consolidated financial statements commencing as of July 1, 2021, or the Apollo Acquisition Date. See Note 3 — Acquisitions for additional information.

The Business Combination, pursuant to the BCA, by and among Holcity, Merger Sub, and pre-combination Astra, is accounted for as a reverse recapitalization as pre-combination Astra was determined to be the accounting acquirer under FASB’s ASC Topic 805, Business Combination (“ASC 805”). The determination is primarily based on the evaluation of the following facts and circumstances:

- the equity holders of pre-combination Astra hold the majority of voting rights in the Company;
- the board of directors of pre-combination Astra represent a majority of the members of the board of directors of the Company;
- the senior management of pre-combination Astra became the senior management of the Company; and
- the operations of pre-combination Astra comprise the ongoing operations of the Company.

In connection with the Business Combination, outstanding common stock and preferred convertible stock of the pre-combination Astra was converted into common stock of the Company, par value of \$0.0001 per share, representing a recapitalization, and the net assets of the Company were acquired and recorded at historical cost, with no goodwill or intangible assets recorded. Pre-combination Astra was deemed to be the predecessor and the consolidated assets and liabilities and results of operations prior to the Closing Date are those of pre-combination Astra. Reported shares and earnings per share available to common stockholders, prior to the Business Combination, have been retroactively restated as shares reflecting the exchange ratio established in the BCA. The number of shares of preferred stock was also retroactively restated based on the exchange ratio. See Note 3 — Acquisitions for additional information

Principles of Consolidation and Liquidity

The condensed consolidated financial statements include the accounts for the Company and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

The Company has historically funded its operations primarily by equity financings and convertible promissory notes prior to the Business Combination and subsequently funded its operations through cash proceeds obtained as part of the reverse recapitalization. As of September 30, 2021, the Company's existing sources of liquidity included cash and cash equivalents of \$379 million. The Company has a limited history of operations and has incurred negative cash flows from operating activities and loss from operations in the past as reflected in the accumulated deficit of \$1,357 million as of September 30, 2021. The Company expects to continue to incur operating losses due to the investments it intends to make in its business, including the development of products. The Company has adequate cash balances that will be sufficient to fund operating and capital expenditure requirements through at least 12 months from the date of issuance of these financial statements.

Emerging Growth Company

Section 102(b)(1) of the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act") exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies (that is, those that have not had a Securities Act registration statement declared effective or do not have a class of securities registered under the Exchange Act) are required to comply with the new or revised financial accounting standards. The JOBS Act provides that an emerging growth company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such election to opt out is irrevocable. The Company has elected not to opt out of such extended transition period, which means that when a standard is issued or revised, and it has different application dates for public or private companies, the Company, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard.

This may make comparison of the Company's condensed consolidated financial statements with another public company that is neither an emerging growth company nor an emerging growth company that has opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

Risks and Uncertainties

The Company is subject to those risks common in the technology industry and also those risks common to early stage companies including, but not limited to, the possibility of not being able to successfully develop or market its products or services, competition, dependence on key personnel and key external alliances, the successful protection of its proprietary technologies, compliance with government regulations, and the possibility of not being able to obtain additional financing when needed.

On March 11, 2020 the World Health Organization declared the novel strain of coronavirus ("COVID-19") a global pandemic and recommended containment and mitigation measures worldwide. The COVID-19 pandemic has disrupted everyday life and markets worldwide, leading to significant business and supply-chain disruption, as well as broad-based changes in supply and demand. Many of the Company's customers worldwide were impacted by COVID-19 and temporarily closed their facilities which impacted the speed of research and development. Additionally, we implemented cost-cutting measures in response to the anticipated impact of the COVID-19 pandemic in early 2020, including employee layoffs and temporary furloughs. Further, the Company's fund raising was negatively impacted in the first half of 2020 as a result of a number of factors surrounding the COVID-19 pandemic. As the global outbreak of COVID-19 continues to rapidly evolve, future impacts on the Company's business depend on future developments, which remain highly uncertain and cannot be predicted with confidence. This includes factors such as the ultimate geographic spread of the disease, the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease. While the masking, social distancing and other regulatory measures instituted or recommended in response to COVID-19 are expected to be temporary, the duration of the business disruptions, and related financial impact on the Company, cannot be estimated at this time.

Use of Estimates

The preparation of the condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities in the condensed consolidated financial statements and accompanying notes. The Company bases these estimates on historical experience and on various other assumptions that it believes are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying amounts of assets and liabilities that are not readily apparent from other sources. Actual results could differ significantly from those estimates. Significant items subject to such estimates and assumptions include the valuation of goodwill and intangible assets, stock-based compensation, common stock, derivatives and warrants, useful lives of intangible assets and fixed assets, deferred tax assets, income tax uncertainties, contingent considerations and other contingencies.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash and cash equivalents. The Company maintains cash and cash equivalent balances in bank accounts with one bank. All cash accounts are located in the United States and insured by the Federal Deposit Insurance Corporation (“FDIC”). Although balances may exceed amounts insured by the FDIC, the Company believes there is no exposure to any significant credit risks related to its cash or cash equivalents and has not experienced any losses in such accounts.

Segment Reporting

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker (“CODM”) in making decisions regarding resource allocation and assessing performance. All of the Company’s assets are maintained in the United States. The Company has determined that it operates in one operating segment and one reportable segment, as the CODM reviews financial information presented on a consolidated basis for purposes of making operating decisions, allocating resources and evaluating financial performance.

Revenue Recognition

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* (“ASU 2014-09”). ASU 2014-09, combined with all subsequent amendments, which is collectively Accounting Standards Codification Topic 606 (“ASC 606”), Revenue from Contracts with Customers, provides guidance outlining a single five-step comprehensive revenue model in accounting for revenue from contracts with customers which supersedes all existing revenue recognition guidance, including industry-specific guidance. ASC 606 also requires additional disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to fulfill a contract. The Company adopted the new accounting guidance and related amendments (collectively, the “new revenue accounting standard”) on January 1, 2020 using the modified retrospective method. As the Company did not have any revenue from contracts with any customers prior to the Company’s adoption date, there was no accounting impact upon adoption.

Under ASC 606, the Company will recognize revenue to reflect the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. Through its current and anticipated offerings, the Company expects to generate revenue by providing the following services:

Launch Services — To provide rapid, global, and affordable launch services to satellite operators and governments.

Design and Production of Propulsion Systems — To design and provide the propulsion modules based on the customer’s needs for a successful satellite launch. The propulsion module consists of a thruster, a power processing unit, tank and a feed system.

Spaceport Services — To offer turn-key spaceports with the capability to launch Astra rockets for key government customers. Spaceports will require minimal on-site infrastructure and will leverage Astra’s highly automated launch operations.

Space Services — To provide modular configurable satellite buses for customers, leveraging both in-house and partner-provided subsystem components and in-house design and integration services, as well as operational support of satellites on orbit, to turn-key provision of entire constellations, offering “concept to constellation” in months instead of years. Specifically, our Space Services encompass all aspects of hosted satellite and constellation services, including hosting customer payloads onto our satellites, and delivering services, such as communication and other services, to customers from our space platform.

As of September 30, 2021, the Company has only entered into contracts for Launch Services and Design and Production of Propulsion Systems. As of September 30, 2021, the Company has not completely achieved commercial viability of the technology required to perform spaceport services or space services. The Company’s contracts may provide customers with termination for convenience clauses, which may or may not include termination penalties. In some contracts, the size of the contractual termination penalty increases closer to the scheduled launch date. At each balance sheet date, the Company evaluates each contract’s termination provisions and the impact on the accounting contract term, i.e., the period in which the Company has enforceable rights and obligations. This includes evaluating whether there are termination penalties and if so, whether they are considered substantive. The Company applies judgment in determining whether the termination penalties are substantive. No revenue has been recognized for the three and nine months ended September 30, 2021 and 2020.

Revenue for Launch Services and Design and Production of Propulsion Systems is expected to be recognized at a point in time when the Company has delivered the promised services to customers. Although the Company’s contracts are anticipated to last anywhere from 6 to 24 months, depending on the number of launch services or propulsion units ordered, the delivery of services leading up to the launch within the contracts is short-term in nature, generally between 30 to 60 days. The timing of revenue recognition may differ from contract billing or payment schedules, resulting in revenues that have been earned but not billed (“unbilled revenue”) or amounts that have been collected, but not earned (“contract liabilities”).

Typical Contractual Arrangements

The Company expects to provide its services based upon a combination of a Statement of Work (“SOW”) and an executed contract detailing the General Terms & Conditions. Services are expected to be provided based on a fixed price per launch service or units identified in the contract.

Performance Obligations and Transaction Price

At contract inception, an assessment of the goods and services promised in the contracts with customers is performed and a performance obligation is identified for each distinct promise to transfer to the customer a good or service (or bundle of goods or services). To identify the performance obligations, the Company considers all the goods or services promised in the contract regardless of whether they are explicitly stated or are implied by customary business practices. A contract for Launch Services generally requires the Company to provide an integrated service for each launch, which includes launch vehicle analysis and design, development and production, payload integration, launch preparation and launch support execution. The intention of contract is to provide a full-service launch to the customer rather than providing separate deliverables of each of the services outlined above, and these services are interdependent and interrelated. The Company believes that each dedicated launch will represent one single performance obligation.

The transaction price is defined as the amount of consideration in a contract to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, which is a fixed price stated in the contract.

When a contract involves multiple launches, the Company will account for each launch as a separate performance obligation, because the customer can benefit from each launch on its own or with other readily available resources and the launch is separately identifiable. The transaction price will be allocated to each performance obligation on an estimated relative standalone selling price basis. The Company’s process to estimate standalone selling prices will involve management’s judgment and will consider multiple factors such as prices charged for similar goods and services and the Company’s ongoing pricing strategy and policies.

Recognition of Revenue

The work performed by the Company in fulfilling the launch performance obligation is not expected to create an asset to the customer since the launch vehicle that is built to deliver the customer’s payload into orbit will not be owned by the customer. The Company expects to recognize revenue upon completion of the performance obligations under its Launch Services agreements. Contracts related to research and development activities are recognized as other income. See *Other Income, net*.

Other Policies, Judgments and Practical Expedients

Contract balances. Contract assets and liabilities represent the differences in the timing of revenue recognition from the receipt of cash from the Company’s customers and billings. Contract assets reflect revenue recognized and performance obligations satisfied in advance of customer billing. Contract liabilities relate to payments received in advance of the satisfaction of performance under the contract. Receivables represent rights to consideration that are unconditional. Such rights are considered unconditional if only the passage of time is required before payment of that consideration is due. The Company had contract assets of \$3.8 million as of September 30, 2021 and none as of December 31, 2020. The Company had contract liabilities of \$5.6 million as of September 30, 2021 and none as of December 31, 2020. Payment terms are expected to vary by customer and type of revenue contract.

Remaining performance obligations. Revenue allocated to remaining performance obligations represents the transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied. It includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods and does not include contracts where the customer is not committed. Customers are not considered committed when they are able to terminate their contractual obligations to us without payment of a substantive penalty under the contract. Many of the Company’s contracts allow the customer to terminate the contract prior to launch without a substantive penalty, and therefore the enforceable contract is for a period less than the stated contractual term. Further, the Company has elected not to disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less. The Company had unsatisfied performance obligations of \$16.3 million as of September 30, 2021, which are expected to be recognized in 2022. The Company had no unsatisfied performance obligations as of December 31, 2020.

Costs to obtain a contract. The Company recognizes an asset for the incremental costs of obtaining a contract with a customer. These costs will be ascribed to or allocated to the underlying performance obligations in the contract and amortized consistent with the recognition timing of the revenue for the underlying performance obligations. During the three months and nine months ended September 30, 2021 and 2020, the Company did not recognize any expenses related to contract costs. The Company had no assets related to costs to obtain contracts as of September 30, 2021 and December 31, 2020.

For contract costs related to performance obligations with an amortization period of one year or less, the Company applies the practical expedient to expense these sales commissions when incurred. These costs are recognized as incurred within sales and marketing expenses on the accompanying Condensed Consolidated Statements of Operations.

Significant financing component. In certain arrangements, the Company may receive payment from a customer either before or after the performance obligation has been satisfied. Depending on the expected timing difference between the payment and satisfaction of performance obligations, the Company will assess whether a significant financing component exists.

For the three and nine months ended September 30, 2021 and 2020, the Company has not recognized any revenues with respect to the Company's launch services business of delivering payloads into low-earth orbit. Contracts with governmental entities involving research and development milestone activities do not represent contracts with customers under ASC 606 and as such, amounts received are recorded in other income, net in the Condensed Consolidated Statements of Operations. The company recorded \$0.6 million for the three and nine months ended September 30, 2021. The Company recorded \$1.1 million and \$2.2 million for the three and nine months ended September 30, 2020, respectively.

Other Income, net

Other income, net, primarily consists of changes in fair value of mark to market derivative liabilities of convertible notes, fair value of warrant liabilities, funding received from governmental entities, and one-time charges incurred during the period. The remaining balance is non-recurring charges that are outside of the Company's operations. The Company recognizes all derivative instruments and warrant liabilities in the Condensed Consolidated Balance Sheets at their respective fair value at each reporting date, with measurement adjustments recorded in other income, net within the Company's Condensed Consolidated Statements of Operations. See Note 5 — Supplemental Financial Information.

Loss on Extinguishment of Convertible Notes

No loss was recognized for the extinguishment of convertible notes for the three months ended September 30, 2021. For the nine months ended September 30, 2021, the Company recognized a total loss on extinguishment of convertible notes of \$133.8 million. On January 28, 2021, the Company settled all convertible notes outstanding as of December 31, 2020 through its Series C financing. Given that certain convertible notes were settled based on negotiated terms between the Company and the note holders, the Company concluded that such settlement should be treated as a privately negotiated debt settlement transaction where debt extinguishment accounting should be applied. Therefore, the Company recognized the loss on extinguishment of convertible notes, which represents the difference between the net carrying amount of the convertible notes at the time of extinguishment and the fair value of Series C convertible preferred stock issued to settle these convertible notes. See Note 7 — Long-Term Debt.

Research and Development

The Company incurs various direct costs in relation to the research and development of launch vehicles along with costs to build the facility to test such vehicles. Research and development costs consist primarily of production supplies, testing materials, personnel costs (including salaries and benefits), depreciation expense, overhead allocation (consisting of various support and facility costs), stock-based compensation and consulting fees. Research and development costs are expensed as incurred. For the three months ended September 30, 2021 and 2020, the Company expensed research and development costs of \$21.7 million and \$5.4 million, respectively. For the nine months ended September 30, 2021 and 2020, the Company expensed research and development costs of \$44.2 million and \$21.0 million, respectively.

Inventories

Inventories consist of materials expected to be used for customer specific contracts. Inventories are stated at the lower of cost or net realizable value determined by the first-in, first-out method. The Company assesses inventories quarterly for events or changes in circumstances indicating that the utility of our inventories have diminished through damage, deterioration, obsolescence, changes in price or other causes and records write-downs of inventories to cost of sales or research and development expense in the period for which they occur.

Property, Plant and Equipment

Property, plant and equipment is measured at cost less any impairment losses and represents those assets with estimated useful lives exceeding one year. Repairs and maintenance are expensed as incurred. Costs for research and development equipment include amounts related to design, construction, launch and commissioning. Costs for production equipment include amounts related to construction and testing. Interest expense is capitalized on certain qualifying assets that take a substantial period of time to prepare for their intended use. Capitalized interest is not material for the period ended September 30, 2021 and December 31, 2020.

When the costs of certain components of an item of property, plant and equipment are significant in relation to the total cost of the item and the components have different useful lives, they are accounted for and depreciated separately.

Depreciation expense is recognized in income on a straight-line basis over the estimated useful life of the related asset to its residual value.

The estimated useful lives are as follows:

<i>Asset Class</i>	<i>Estimated useful life</i>
Leasehold improvements	Lesser of lease term or useful life
Research and development equipment	5 years
Production equipment	10 years
Furniture and fixtures	5 years
Computer and software	3 years

Business Combinations

We account for business combinations under the acquisition method of accounting, which requires us to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recognized in our consolidated statements of operations. Accounting for business combinations requires our management to make significant estimates and assumptions, especially at the acquisition date including our estimates for intangible assets, contractual obligations assumed, pre-acquisition contingencies, and contingent consideration, where applicable. Although we believe the assumptions and estimates we have made are reasonable and appropriate, they are based, in part, on historical experience and information obtained from the management of the acquired company and are inherently uncertain. Critical estimates in valuing certain acquired intangible assets under the income approach include growth in future expected cash flows from product sales, revenue growth rate, technology royalty rate, expected life of the technology acquired, customer retention rate and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

Goodwill

Goodwill represents the excess of purchase price and related costs over the value assigned to the net tangible and identifiable intangible assets of businesses acquired. Goodwill is not amortized but is reviewed annually (or more frequently if impairment indicators arise) for impairment. To review for impairment, we first assess qualitative factors to determine whether events or circumstances lead to a determination that it is more likely than not that the fair value of our reporting unit is less than its carrying amount. Our qualitative assessment of the recoverability of goodwill, whether performed annually or based on specific events or circumstances, considers various macroeconomic, industry-specific and company-specific factors. Those factors include: (i) severe adverse industry or economic trends; (ii) significant company-specific actions; (iii) current, historical or projected deterioration of our financial performance; or (iv) a sustained decrease in our market capitalization below our net book value. After assessing the totality of events and circumstances, if we determine that it is not more likely than not that the fair value of our reporting unit is less than its carrying amount, no further assessment is performed. If we determine that it is more likely than not that the fair value of our reporting units is less than its carrying amount, we calculate the fair value of that reporting unit and compare the fair value to the reporting unit's net book value. If the fair value of the reporting unit is greater than its net book value, there is no impairment. Otherwise, we calculate the implied fair value of goodwill by deducting the fair value of all tangible and intangible assets, excluding goodwill, of the reporting unit from the fair value of the reporting unit. The implied fair value of goodwill is compared to the carrying value of goodwill. If the implied fair value of goodwill is less than the carrying value of goodwill, an impairment loss is recognized equal to the difference. Determining the fair value of a reporting unit involves the use of significant estimates and assumptions.

Long-lived Assets

Purchased finite-lived intangible assets are carried at cost less accumulated amortization. Amortization is recognized over the useful life on a straight-line method. Purchased indefinite-lived intangible asset are capitalized at fair value and assessed for impairment thereafter. On a quarterly basis, we monitor factors and changes in circumstances that could indicate carrying amounts of long-lived assets, including purchased intangible assets and property, plant and equipment, may not be recoverable. Factors we consider important which could trigger an impairment review include (i) significant under-performance relative to historical or projected future operating

results, (ii) significant changes in the manner of our use of the acquired assets or the strategy for our overall business, and (iii) significant negative industry or economic trends. An impairment loss must be measured if the sum of the expected future cash flows (undiscounted and before interest) from the use and eventual disposition of the asset (or asset group) is less than the net book value of the asset (or asset group). The amount of the impairment loss will generally be measured as the difference between the net book value of the asset (or asset group) and the estimated fair value.

Leases

On January 1, 2021, the Company adopted ASU 2016-02, *Leases (Topic 842)* (“ASC 842”). Under the adoption of the new lease accounting standard, the Company elected practical expedients that allow entities to not reassess 1) initial direct costs, 2) lease classification for existing or expired leases and 3) lease definition for existing or expired contracts as of the effective date of January 1, 2021.

Upon adoption of ASC 842, the Company determines whether a contract is or contains a lease at contract inception by evaluating whether substitution rights exist and whether the Company obtains substantially all of the benefits and directs the use of the identified asset. When the Company determined a lease exists, the Company records a right-of-use asset (“ROU asset”) and corresponding lease liability in the Condensed Consolidated Balance Sheets. ROU assets represent the Company’s right to use an underlying asset for the lease term. Lease liabilities represent the Company’s obligation to make lease payments arising from the lease. ROU assets are recognized at the commencement date of the lease at the value of the lease liability, adjusted for any prepayments, lease incentives received, and initial direct costs incurred. Lease liabilities are recognized at the commencement date of the lease based on the present value of remaining lease payments over the lease term. As the discount rate implicit in the lease is not readily determinable in most leases, the Company uses its incremental borrowing rate based on the information available at the commencement date of the lease in determining the present value of lease payments. Lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option.

The Company does not record lease contracts with a lease term of 12 months or less on its Condensed Consolidated Balance Sheets. Fixed lease costs associated with these short-term contracts are expensed on a straight-line basis over the lease term.

The Company does not record lease contracts acquired in a business combination with a remaining lease term of 12 months or less on its Condensed Consolidated Balance Sheets. Fixed lease costs associated with these short-term contracts are expensed on a straight-line basis over the lease term.

The Company recognizes lease expense for operating leases on a straight-line basis over the lease term. For finance leases, the Company recognizes amortization expense on the ROU asset and interest expense on the lease liability over the lease term.

The Company has lease agreements with non-lease components that relate to the lease components. The Company accounts for each lease component and any non-lease components associated with that lease component as a single lease component for all underlying asset classes. Accordingly, all costs associated with a contract that is or contains a lease are accounted for as lease costs.

Some leasing arrangements require variable payments that are dependent on usage, output, or may vary for other reasons, such as insurance and tax payments. These variable lease costs are recognized as incurred over the lease term.

The Company does not include significant restrictions or covenants in lease agreements, and residual value guarantees are generally not included within the Company’s leases. See Note 9 — Leases.

Fair Value Measurements

The carrying amounts of cash, prepaid expenses, other current assets, accounts payable, accrued liabilities and certain other current liabilities approximate fair value because of their short-term maturities. The carrying amounts of the 2018 Term Loans and 2018 Equipment Advances (as defined in Note 7 — Long-Term Debt) approximate fair value as the interest rate varies with the Prime Rate.

According to ASC 820, Fair Value Measurements and Disclosures, fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the measurement date. The fair value hierarchy establishes three tiers, which prioritize the inputs used in measuring fair value as follows:

- Level 1** — Observable inputs, such as quoted prices in active markets for identical assets or liabilities;
- Level 2** — Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3** — Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Entities are permitted to choose to measure certain financial instruments and other items at fair value. The Company has not elected the fair value measurement option for any of the assets or liabilities that meet the criteria for this election.

Derivative Instruments

The Company recognizes all derivative instruments as either assets or liabilities in the Consolidated Balance Sheets at their respective fair values. The Company evaluates its debt and equity issuances to determine if those contracts or embedded components of those contracts qualify as derivatives requiring separate recognition in the Company's condensed consolidated financial statements. The result of this accounting treatment is that the fair value of the embedded derivative is revalued as of each reporting date and recorded as a liability, and the change in fair value during the reporting period is recorded in other income, net in the Condensed Consolidated Statements of Operations.

The classification of derivative instruments, including whether such instruments should be recorded as assets/liabilities or as equity, is reassessed at the end of each reporting period. Derivative instrument assets and liabilities are classified in the Condensed Consolidated Balance Sheets as current or non-current based on whether or not net-cash settlement of the derivative instrument is expected within twelve months of the Condensed Consolidated Balance Sheets dates. When a derivative instrument is sold, terminated, exercised or expires, the gain or loss is recorded in the Consolidated Statements of Operations.

The Company did not have a derivative liability related to the share settlement obligation of the Company's convertible notes as of September 30, 2021 and December 31, 2020, respectively. See Note 7 — Long-Term Debt.

Stock-Based Compensation

We recognize compensation expense for time-based restricted stock units ("RSUs") using the straight-line amortization method based on the fair value of RSUs on the date of grant. The fair value of RSUs is the closing market price of Astra common stock on the date of grant. We recognize compensation expense for time-based stock options and employee stock purchase plan rights under the 2021 Employee Stock Purchase Plan, based on the estimated grant-date fair value determined using the Black-Scholes valuation model with a straight-line amortization method.

Certain equity awards include service, market and performance conditions ("Performance-based awards"). The fair value of Performance-based awards is estimated on the date of grant using the Monte Carlo simulation technique. Compensation expense for Performance-based awards is amortized based upon a graded vesting method over the requisite service period which is defined as the longest explicit, implicit or derived service period based on management's estimate of the probability of the performance criteria being satisfied, adjusted at each balance sheet date.

The Company does not apply an expected forfeiture rate and accounts for forfeitures as they occur. See Note 14 — Stock-Based Compensation.

Convertible Preferred Stock

Series A, B and C convertible preferred stock ("Convertible Preferred Stock") are classified in temporary equity as they contain terms that could require the Company to redeem them for cash at the option of the holder or the occurrence of other events not solely within the Company's control. The shares of Series A, B and C Convertible Preferred Stock were converted into Class A common stock upon consummation of the Business Combination.

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities are recognized when events or circumstances have occurred, and amounts are probable and estimable. The Company's accrued expenses and other current liabilities balances relate to accruals that are recurring in nature to the company's operations and primarily include payments on corporate credit cards used for routine operational and travel related expenses, accrued payroll and other employee related liabilities, accrued interest related to debt and the current portion of the fair value of the contingent consideration. The Company also recognizes legal accruals in accrued expenses and other current liabilities for material litigation when payments are probable and estimable.

Warrant Liabilities

As part of Holicity's initial public offering ("IPO") in 2020, Holicity issued 9,999,976 warrants to third party investors, and each whole warrant entitles the holder to purchase one share of the Company's Class A common stock at an exercise price of \$11.50 per share (the "Public Warrants"). Simultaneously with the closing of the IPO, Holicity completed the private sale of 5,333,333 warrants to Holicity's sponsor ("Private Placement Warrants") and each Private Placement Warrant allows the sponsor to purchase one share of the Company's Class A common stock at \$11.50 per share. All 9,999,976 Public Warrants and 5,333,333 Private Placement Warrants remained outstanding as of September 30, 2021.

The Private Placement Warrants and the shares of common stock issuable upon the exercise of the Private Placement Warrants are not transferable, assignable or salable until after the completion of a Business Combination, subject to certain limited exceptions. Additionally, the Private Placement Warrants are exercisable for cash or on a cashless basis, at the holder's option, and are non-redeemable so long as they are held by the initial purchasers or their permitted transferees. If the Private Placement Warrants are held by someone other than the initial purchasers or their permitted transferees, the Private Placement Warrants will be redeemable by the Company and exercisable by such holders on the same basis as the Public Warrant.

The Company accounts for Public Warrants and Private Placement Warrants as liability-classified instruments based on an assessment of the warrant's specific terms and applicable authoritative guidance in FASB ASC 480, Distinguishing Liabilities from Equity ("ASC 480") and ASC 815, Derivatives and Hedging ("ASC 815"). Specifically, the exercise of the Public and Private Placement Warrants may be settled in cash upon the occurrence of a tender offer or exchange that involves 50% or more of the Company's Class A shareholders. Because not all of the Company's shareholders need to participate in such tender offer or exchange to trigger the potential cash settlement and the Company does not control the occurrence of such an event, the Company concluded that the Public Warrants and Private Placement Warrants do not meet the conditions to be classified in equity. Since the Public and Private Placement Warrants meet the definition of a derivative under ASC 815, the Company recorded these warrants as liabilities on the balance sheet at fair value upon the closing of the Business Combination, with subsequent changes in their respective fair values recognized in the consolidated statement of operations at each reporting date. For the three and nine months ended September 30, 2021, the Company recorded a gain of \$20.4 million related to change in fair value of warrant liability in other income, net.

Income Taxes

The Company follows the asset and liability method of accounting for income taxes under ASC 740, Income Taxes ("ASC 740"). Deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between consolidated financial statement carrying amounts and the tax basis of assets and liabilities and net operating loss and tax credit carryforwards. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

The Company determines whether it is more likely than not that a tax position will be sustained upon examination. If it is not more likely than not that a position will be sustained, no amount of benefit attributable to the position is recognized. The tax benefit to be recognized of any tax position that meets the more likely than not recognition threshold is calculated as the largest amount that is more than 50% likely of being realized upon resolution of the contingency.

It is the Company's policy to include interest and penalties related to unrecognized tax benefits as a component of income tax expense. The Company is currently not aware of any issues under review that could result in significant payments, accruals or material deviation from its position. See Note 8 — Income Taxes.

Earnings (Loss) per Share

Net loss per share is calculated using the two-class method required for participating securities and multiple classes of common stock. The Company considers convertible preferred stock to be participating securities as the holders have the right to participate in dividends with the common stockholders on a pro-rata, as converted basis. Prior to any dividends or earnings distribution to common stock, the holders of the Convertible Preferred Stock have a right to preferential dividends. Thus, losses are allocated to common stock and convertible preferred stock on a pro-rata, as converted basis following distribution of the preferential dividends to convertible preferred stockholders. Since application of the if-converted method results in anti-dilution, the two-class method is not applied to convertible preferred stock in the diluted earnings (loss) per share calculation. The dilutive effect of warrants, RSUs and stock options is computed using the treasury stock method. Diluted earnings (loss) per share excludes all dilutive potential shares if their effect is anti-dilutive. See Note 15 — Loss per Share.

Commitments and Contingencies

The Company accrues for claims and litigation when they are both probable and the amount can be reasonably estimated. Where timing and amounts cannot be reasonably determined, a range is estimated, and the lower end of the range is recorded. Legal costs incurred in the connection with loss contingencies are expensed as incurred. See Note 11 — Commitments and Contingencies.

Note 3 — Acquisitions

Acquisition of Apollo Fusion, Inc.

On the Apollo Acquisition Date, we, through our wholly owned indirect subsidiary, merged with Apollo. The results of Apollo's operations have been included in the consolidated financial statements since that date. Apollo designs, tests, manufactures and operates propulsion modules to enable satellites to orbit in space.

The acquisition-date fair value of the consideration transferred totaled \$75.4 million, net of cash acquired, which consisted of the following:

Purchase Consideration (in thousands)	
Cash paid for outstanding Apollo common stock and options	\$19,926
Fair value of Astra Class A common stock issued	33,008
Fair value of contingent consideration	23,000
Total purchase consideration	75,934
Less: cash acquired	566
Total purchase consideration, net of cash acquired	\$75,368

The fair value of the shares of Class A common stock issued in the Apollo Merger was determined based on the closing market price of the Company's Class A common stock on the Apollo Acquisition Date.

The vesting of all unvested stock options of Apollo granted prior to the Apollo Acquisition Date were accelerated prior to the acquisition and were then cancelled in exchange for a right of each option-holder to cash, equity and contingent consideration based on their pro-rata percentage, assuming all stock options of Apollo had been exercised.

The contingent consideration requires the Company to pay \$75.0 million of additional consideration to Apollo's former shareholders and option-holders, if Apollo meets certain customer revenue related milestones over a two and a half period ending on December 31, 2023. The contingent consideration is payable on a quarterly basis based on the milestones achieved. The fair value of the contingent consideration arrangement at the acquisition date was \$23.0 million. We estimated the fair value of the contingent consideration using a Monte Carlo simulation model. This fair value measurement is based on significant inputs not observable in the market and thus represents a Level 3 measurement as defined in ASC 820. As of September 30, 2021, there were no significant changes in the fair value and range of outcomes for the contingent consideration recognized as a result of the acquisition of Apollo.

In addition, an additional \$10.0 million of cash ("Cash Payment") and options to purchase shares of the Company's Class A common stock, having a value of \$10.0 million ("Incentive Shares"), at a reference price per share equal to the then volume weighted average trading price over a five day trading period prior to the business day prior to issuance, will be issued or issuable to employees of Apollo that join Astra, subject to certain performance-based milestones and other vesting provisions. This consideration is accounted for as compensation expense over the requisite service period in the post-acquisition period as the cash payment and vesting of incentive shares is subject to continued employment with the company until the satisfaction of certain performance-based milestones and other vesting provisions. As of September 30, 2021, no Incentive Shares were granted to employees of Apollo that joined the Company subsequent to the acquisition as certain key terms and conditions of the Incentive Shares were not finalized. The Company assessed the probability of success of performance milestones related to the Cash Payment and determined that it is probable that certain milestones will be met. Therefore, the Company recognized \$1.4 million in compensation cost which was included in research and development expense for the three months and nine months ended September 30, 2021 and \$1.4 million was accrued in accrued expenses and other current liabilities as of September 30, 2021.

We allocated the fair value of the purchase consideration to the tangible assets, liabilities and intangible assets acquired, based on their estimated fair values. The excess purchase price over those fair values is recorded as goodwill. Our valuation assumptions of acquired assets and assumed liabilities require significant estimates, especially with respect to intangible assets. Our preliminary allocation of the purchase price of Apollo, based on the estimated fair values of the assets acquired and liabilities assumed as of the acquisition date, is as follows:

(in thousands)	Estimated Fair Value
Inventory	\$ 131
Prepaid and other current assets	796
Property, plant and equipment	996
Right of use assets	163
Goodwill	58,893
Intangible assets	17,000
Other non-current assets	75
Total assets acquired	78,054
Accounts payable	(950)
Accrued expenses and other current liabilities	(836)
Operating lease obligation	(163)
Other non-current liabilities	(737)
Total liabilities assumed	(2,686)
Fair value of net assets acquired	\$ 75,368

The merger consideration allocation set forth herein is preliminary and may be revised as additional information becomes available during the measurement period which could be up to 12 months from the closing date of the acquisition. Any such revisions or changes may be material. The primary areas that remain provisional are determining the fair values of intangible assets and contingent consideration and the identification of contingencies.

Goodwill is primarily attributable to the assembled workforce and anticipated synergies expected from the integration of the Apollo business. The synergies include operating efficiencies, and other strategic benefits projected to be achieved as a result of the Apollo Merger. Goodwill is not deductible for tax purposes.

There were no revenues recorded during the three months ended September 30, 2021 related to Apollo. It was impracticable to determine the effect on net income attributable to Apollo as we had integrated a substantial portion of Apollo into our ongoing operations during the year. Transaction costs related to the Apollo Merger of \$3.1 million and \$4.0 million, respectively, were included in general and administrative expense for the three months and nine months ended September 30, 2021.

Intangible Assets

	<u>Fair Value</u> (in thousands)	<u>Weighted-Average</u> <u>Amortization Periods</u> (in years)
Developed technology	\$ 13,400	6
Customer contracts and related relationships	2,900	3
Order backlog	400	1
Tradename	300	2
Total identified intangible assets	<u>\$ 17,000</u>	

Developed technology relates to Propulsion modules. We valued the developed technology using the relief-from-royalty method under the income approach. This method is based on the application of a royalty rate to forecasted revenue that are expected to be generated by developed technology. The economic useful life was determined based on the technology cycle related to the developed technology, as well as the cash flows over the forecast period.

Customer contracts and related relationships represent the fair value of future projected revenue that will be derived from sales of products to existing customers of Apollo. Customer contracts and related relationships were valued using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the customer contracts and related relationships less charges representing the contribution of other assets to those cash flows. The economic useful life was determined based on historical customer turnover rates.

Order backlog represents business under existing contractual obligations. The fair value of backlog was determined using the multi-period excess earnings method under the income approach based on expected operating cash flows from future contractual revenue. The economic useful life was determined based on the expected life of the backlog and the cash flows over the forecast period.

Trade name relates to the “Apollo” trade name. The fair value was determined by applying the relief-from-royalty method under the income approach. This method is based on the application of a royalty rate to forecasted revenue under the trade name. The economic useful life was determined based on the expected life of the trade name and the cash flows anticipated over the forecast period.

We believe the amounts of purchased intangible assets recorded above represent the fair values of, and approximate the amounts a market participant would pay for, these intangible assets as of the Apollo Acquisition Date.

Unaudited Pro Forma Information

The following unaudited pro forma financial information presents combined results of operations for each of the periods presented, as if Apollo had been acquired as of the beginning of fiscal year 2020. The unaudited pro forma results include certain pro forma adjustments to revenue and net loss that were directly attributable to the acquisition including transaction costs and amortization of intangible assets. Transaction costs of approximately \$4.4 million are assumed to have occurred on January 1, 2020 and are recognized as if incurred in the first quarter of 2020. Of these transaction costs, \$0.4 million are incurred by Apollo and \$4.0 million are incurred by the Company. Intangible assets are assumed to be recognized at their assigned fair values as of the pro forma close date of January 1, 2020 and are amortized over their estimated useful lives. The amortization expenses were \$0.8 million and \$2.5 million for the three and nine months ended September 30, 2021, respectively, and \$0.9 million and \$2.8 million for the three and nine months ended September 30, 2020, respectively. The unaudited pro forma information presented below is for informational purposes only and is not necessarily indicative of our consolidated results of operations of the combined business had the acquisition actually occurred at the beginning of fiscal year 2020 or of the results of our future operations of the combined business.

<i>(in thousands)</i>	<u>For the Three Months Ended</u> <u>September 30,</u>		<u>For the Nine Months Ended</u> <u>September 30,</u>	
	2021	2020	2021	2020
Pro forma net revenue	\$ —	\$ 88	\$ 1,485	\$ 322
Pro forma net loss and net loss attributable to common stockholders	\$ (13,367)	\$ (7,602)	\$ (206,501)	\$ (36,277)

Reverse Recapitalization.

On June 30, 2021, pre-combination Astra Space, Inc. and Holicity Inc. consummated the merger contemplated by the BCA, with Astra Space, Inc. surviving the merger as a wholly owned subsidiary of Holicity, or the Business Combination. Upon consummation of the merger, Holicity changed its name to Astra Space, Inc., and pre-combination Astra changed its name to Astra Space Operations, Inc.

Immediately following the business combination, there were 198,090,903 shares of Class A common stock and 56,239,189 shares of Class B common stock issued and outstanding with a par value of \$0.0001. Additionally, there were outstanding options to purchase an aggregate of 5,993,412 share of Class A common stock and outstanding warrants to purchase 15,813,829 shares of Class A common stock.

The Business Combination was accounted for as a reverse recapitalization in accordance with GAAP as pre-combination Astra has been determined to be the accounting acquirer. Under this method of accounting, while Holicity was the legal acquirer, it has been treated as the “acquired” company for financial reporting purposes. Accordingly, the Business Combination was treated as the equivalent of pre-combination Astra issuing stock for the net assets of Holicity, accompanied by a recapitalization. The net assets of Holicity were stated at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Business Combination are those of pre-combination Astra. Reported shares and earnings per share available to holders of the Company’s common stock, prior to the Business Combination, have been retroactively restated as shares reflecting the exchange ratio established in the Business Combination (approximately one pre-combination Astra share to 0.665 of the Company’s shares).

The most significant change in the post-combination Company’s reported financial position and results was an increase in cash, net of transactions costs, of \$463.6 million, including \$200.0 million in gross proceeds from the private placements (the “PIPE”). In connection with the Business Combination, \$25.2 million of transaction costs were paid on the Closing Date. Additionally, on the Closing Date, the Company repaid the short-term promissory notes with Pendrell (the “Bridge Loan”) of \$10.4 million, which included principal of \$10.0 million and end of term fee of \$0.4 million. The Company also repaid the outstanding principal and interest of \$4.6 million for the term loan and equipment advances with Silicon Valley Bank. Refer to Note 7 – Long-term Debt.

The Company incurred \$25.5 million in transaction costs relating to the merger with Holicity, of which \$23.3 million has been recorded against additional paid-in capital in the Condensed Consolidated Balance Sheets and the remaining amount of \$2.2 million was recognized as general and administrative expenses on the Condensed Consolidated Statements of Operations. On the date of the Business Combination, the Company recorded a liability related to the Public and Private Placement Warrants of \$56.8 million, with an offsetting entry to additional paid-in capital. In relation to the Public and Private Placement Warrants, the Company recognized a portion of pre-combination Astra’s capitalizable transaction costs relating to the merger with Holicity, using the relative fair value method, as general and administrative expenses in the Condensed Consolidated Statements of Operations.

Upon closing of the Business Combination, the shareholders of Holicity, including Holicity founders, were issued 37,489,019 shares of Class A common stock. In connection with the Closing, holders of 10,981 shares of common stock of Holicity were redeemed at a price per share of \$10.00. In connection with the Closing 20,000,000 shares were issued to PIPE investors at a price per share of \$10.00.

The number of shares of Class A common stock issued immediately following the consummation of the Business Combination were:

Common stock of Holicity	29,989,019
Holicity founder shares	7,500,000
Shares issued in PIPE	20,000,000
Business Combination and PIPE shares	57,489,019
Pre-combination Astra shares	140,601,884
Total shares of Class A common stock immediately after Business Combination	<u>198,090,903</u>

In addition, in connection with the consummation of the Business Combination, 56,239,189 shares of Class B common stock were issued to two executive officers and founders of the Company: Chris Kemp and Adam London in exchange for an aggregate 73,699,647 shares of common stock and an aggregate 10,870,562 shares of Founders Preferred Stock of pre-combination Astra.

Note 4 — Recently Issued Accounting Pronouncements

As an emerging growth company (“EGC”), the JOBS Act allows the Company to delay adoption of new or revised accounting pronouncements applicable to public companies until such pronouncements are applicable to private companies. The Company elected to use this extended transition period under the JOBS Act until such time the Company is no longer considered to be an EGC. The adoption dates discussed below reflect this election.

In December 2019, the FASB issued ASU No. 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes. The new guidance removes certain exceptions for recognizing deferred taxes for investments, performing intraperiod allocation and calculating income taxes in interim periods. It also adds guidance to reduce complexity in certain areas, including recognizing deferred taxes for tax goodwill and allocating taxes to members of a consolidated group. This guidance is effective for the Company for fiscal year beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022, with early adoption permitted with simultaneous adoption of all provisions of the new standard. The Company is currently evaluating the impact of adopting this guidance.

In March 2020, the FASB issued ASU No. 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting. This temporary guidance provides optional expedients and exceptions for applying US GAAP to contracts, hedging relationships and other transactions that reference London Interbank Offered Rate (“LIBOR”) or another reference rate expected to be discontinued. ASU 2020-04 is effective from March 12, 2020 and may be applied prospectively through December 31, 2022. The Company is currently evaluating the impact of adopting this guidance.

Recently Adopted Accounting Guidance

In February 2016, the Financial Accounting Standards Board issued ASU 2016-02, Leases (Topic 842) (“ASU 2016-02”), and since that date has issued subsequent amendments to the initial guidance intended to clarify certain aspects of the guidance and to provide certain practical expedients entities can elect upon adoption. The principle of ASU 2016-02 is that a lessee should recognize assets and liabilities that arise from leases. Lessees will need to recognize a right-of-use asset and a lease liability for all leases (other than leases that meet the definition of a short-term lease). The lease liability will be equal to the present value of lease payments. The right-of-use asset will be based on the liability, with differences related to deferred rent and initial direct costs, etc. For income statement purposes, ASU 2016-02 requires leases to be classified as either operating or finance. Operating leases will result in a straight-line expense pattern while finance leases will result in a front-loaded expense pattern. ASU 2016-02 is effective for the Company beginning January 1, 2022. As of January 1, 2021, the Company early adopted Topic 842 using the modified retrospective approach and as a result will not restate prior periods. The cumulative effect of the changes made to the January 1, 2021 Condensed Consolidated Balance Sheet for the adoption of ASU 2016-02 was the addition of a right-of-use asset of \$4.6 million and a lease liability of \$4.7 million. See Note 9 — Leases.

In August 2020, the FASB issued ASU 2020-06, Debt — Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging-Contracts in Entity’s Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity’s Own Equity (“ASU 2020-06”), which simplifies the accounting for convertible instruments by removing the separation models for (1) convertible instruments with a cash conversion feature and (2) convertible instruments with a beneficial conversion feature (“BCF”). As a result, a convertible debt instrument can be accounted for as a single liability measured at its amortized cost under certain circumstances. These changes may reduce reported interest expense and increase reported net income for entities that have issued a convertible instrument where the embedded conversion option was separated according to beneficial conversion or cash conversion guidance. ASU 2020-06 also requires the application of the if-converted method for calculating diluted earnings per share for convertible instruments and the treasury stock method will be no longer available. This standard will be effective for the Company’s fiscal years beginning in the first quarter of 2022, with early adoption permitted in 2021. The Company elected to early adopt ASU 2020-06 as of January 1, 2021 using a modified retrospective transition method. In transition, the Company was required to apply the guidance to all impacted financial instruments that were outstanding as of January 1, 2021 with the cumulative effect recognized as an adjustment to the opening balance of accumulated deficit. As a result of early adopting ASU 2020-06, the Company made certain adjustments to its accounting for certain outstanding convertible notes issued in 2020 with separately recognized BCFs. The adoption of ASU 2020-06 resulted in the re-combination of the liability and equity components of these convertible notes into a single liability instrument, which required the Company to record a \$9.7 million decrease in additional paid in capital from the derecognition of the BCFs, a \$9.0 million increase in debt from the derecognition of the discount associated with the BCFs, and a \$0.7 million cumulative effect, net of tax effects, decrease to the opening balance of its accumulated deficit as of January 1, 2021 upon transition. Since the Company had a net loss for the three months and nine months ended September 30, 2021, the convertible notes were determined to be anti-dilutive and therefore had no impact to basic or diluted net loss per share for the period as a result of adopting ASU 2020-06.

Note 5 — Supplemental Financial Information

Inventory

<i>in thousands</i>	As of September 30, 2021	As of December 31, 2020
Raw materials	4,810	649
Work in progress	217	—
Finished goods	—	—
Total inventory	5,027	649

The Company’s inventories included materials which are necessary to construct the Company’s launch vehicles for customer-specific contracts. Costs related to the construction of research and development launch vehicles are recorded as research and development expenses when incurred. Under the Company’s business model, launch vehicles are manufactured to deliver customer payloads of various sizes to various locations in low-earth orbit. There were \$0.4 million inventory write downs as of September 30, 2021. There were no inventory write downs as of December 31, 2020.

Property, Plant and Equipment, net

Presented in the table below are the major classes of property, plant and equipment:

<i>in thousands</i>	As of September 30, 2021	As of December 31, 2020
Construction in progress	\$ 19,316	\$ —
Computer and software	2,178	1,440
Leasehold improvements	13,975	13,873
Research and development equipment	7,882	4,903
Production equipment	8,855	8,174
Furniture and fixtures	825	466
Kodiak Spaceport	—	2,079
Total property, plant and equipment	53,031	30,935
Less: accumulated depreciation	(9,455)	(6,866)
Total property, plant and equipment, net	<u>\$ 43,576</u>	<u>\$ 24,069</u>

Depreciation expense is recorded within operating costs in the Condensed Consolidated Statements of Operations and amounted to \$0.8 million and \$1.0 million for the three months ended September 30, 2021 and 2020, respectively, and \$3.0 million and \$2.5 million for the nine months ended September 30, 2021 and 2020, respectively. No impairment charges were recorded for the three months and nine months ended September 30, 2021 and 2020.

Kodiak Spaceport

On June 19, 2019, the Company entered into an agreement with Alaska Aerospace Corporation (“AAC”) to develop a commercial launch pad site (“Launch Pad”) in Kodiak, Alaska. The Launch Pad development includes construction of the Launch Pad and obtaining Federal Aviation Agency spaceport license approval for launch operations beginning in August 2019. The Launch Pad’s costs were jointly funded by AAC and the Company. Throughout the term of the agreement, the State of Alaska retains ownership of the developed Launch Pad site.

The Company’s involvement in the construction of the Launch Pad, inclusive of the land, resulted in the Company being recognized as the owner of the Launch Pad during the lease term. Prior to the adoption of ASC 842, the arrangement was accounted for as a build-to-suit lease under ASC 840 — Leases. The total construction costs of \$2.1 million were capitalized within property, plant and equipment, net on the Consolidated Balance Sheet, and were depreciated on a straight-line basis over the life of the lease term. AAC’s contributions of \$0.8 million were recorded as a financing obligation which was included in other non-current liabilities on the Company’s Condensed Consolidated Balance Sheets to be released at the end of the lease term.

Upon adoption of ASC 842 on January 1, 2021, the Company derecognized the Kodiak Spaceport asset of \$2.1 million, the accumulated depreciation of \$0.4 million, and the financing obligation of \$0.8 million, with an adjustment to equity for the difference. The Company also recognized a right-of-use asset of \$0.9 million for the Kodiak Spaceport lease. No lease payments remained to be paid as of the transition date. As such, equity was adjusted against the right-of-use asset. See Note 9 — Leases.

Accrued Expenses and Other Current Liabilities

<i>in thousands</i>	As of September 30, 2021	As of December 31, 2020
Fair value of contingent consideration	\$ 9,000	\$ —
Employee compensation and benefits	5,839	484
Contract liabilities	5,343	—
Construction in progress related accruals	4,296	—
Accrued expenses	3,548	2,751
Other (miscellaneous)	632	1,155
Accrued expenses and other current liabilities	<u>\$ 28,658</u>	<u>\$ 4,390</u>

Other Non-Current Liabilities

<i>in thousands</i>	As of September 30, 2021	As of December 31, 2020
Fair value of contingent consideration	\$ 14,000	\$ —
Contract liabilities	275	—
Other (miscellaneous)	—	1,685
Other non-current liabilities	<u>\$ 14,275</u>	<u>\$ 1,685</u>

Other Income, Net

<i>in thousands</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Change in fair value of warrant liabilities	\$ 20,447	\$ —	\$20,447	\$ —
Gain on forgiveness of PPP note	4,850	—	4,850	—
Gain on mark to market derivatives	—	2,570	—	5,388
Other (miscellaneous)	598	1,321	(120)	2,464
Other income, net	<u>\$ 25,895</u>	<u>\$ 3,891</u>	<u>\$25,177</u>	<u>\$7,852</u>

Note 6 — Goodwill and Intangible Assets
Goodwill

<i>in thousands</i>	
Balance as of December 31, 2020	\$ —
Apollo Merger	58,893
Balance as of September 30, 2021	<u>\$58,893</u>

Intangible Assets

<i>in thousands</i>	Carrying Amount	Accumulated Amortization	Net Book Value
As of September 30, 2021:			
Developed technology	\$13,400	\$ 558	\$12,842
Customer contracts and related relationship	2,900	242	2,658
Order backlog	400	100	300
Trade names	300	37	263
Intangible assets subject to amortization	17,000	937	16,063
Trademark	3,200	—	3,200
Total	<u>\$20,200</u>	<u>\$ 937</u>	<u>\$19,263</u>

There were no intangible assets as of December 31, 2020. Based on the amount of intangible assets at September 30, 2021, the expected amortization expense for each of the next five years and thereafter was as follows:

<i>in thousands</i>	Expected Amortization Expense
2021 (remainder)	\$ 938
2022	3,550
2023	3,275
2024	2,717
2025	2,233
Thereafter	3,350
Total intangible assets	<u>\$ 16,063</u>

Note 7 — Long-Term Debt

The Company's debt obligations consist of the following:

<i>in thousands</i>	As of			
	September 30, 2021		December 31, 2020	
	Principal	Unamortized Discount	Principal	Unamortized Discount
Term loan	\$ —	\$ —	\$ 2,800	\$ —
Equipment advances	—	—	3,636	—
Paycheck Protection Program note	—	—	4,850	—
Convertible notes	—	—	59,835	12,200
Total debt	—	—	71,121	—
Less: debt discount	—	—	(12,200)	—
Less: current portion	—	—	(51,635)	—
Total long-term debt book value, net	\$ —	\$ —	\$ 7,286	\$ —

There is no long-term debt outstanding as of September 30, 2021. Debt issuance costs were not material for any debt obligations individually, or in the aggregate, for the issuances of the above debt obligations. Therefore, debt issuance costs were expensed upon the issuance of respective debt obligations.

Current portion of long-term debt outstanding as of December 31, 2020 includes those principal balances and unamortized debt discount expected to be repaid within twelve months from December 31, 2020.

In connection with the Business Combination, all outstanding debt at the Closing Date with the exception of the Paycheck Protection Program note were settled on June 30, 2021. Refer to Note – 3 Acquisitions. In August 2021, the Company's application for forgiveness of Paycheck Protection Program was approved in the full amount.

Term Loan and Equipment Advances

On December 25, 2018, the Company entered into a loan agreement (the "2018 Loan Agreement") with Silicon Valley Bank ("SVB"). Pursuant to the 2018 Loan Agreement, the Company can borrow up to a total of \$3.0 million term loans ("2018 Term Loans") and \$7.0 million equipment loans ("2018 Equipment Advances") with access period ending on April 30, 2020 for 2018 Term Loans and June 30, 2019 for 2018 Equipment Advances. For the 2018 Term Loans, monthly payments of interest only were required to be made commencing on the first day of the month following the month in which the funding occurs with respect to such term loan, and continuing thereafter on the first day of each successive calendar month, through April 30, 2020. Commencing May 1, 2020 and continuing thereafter on the first day of each successive calendar month through its maturity date, monthly payments of equal principal and accrued interest are required to be remitted. For each equipment advance, commencing on the first day of the month following the month in which the funding date occurs with respect to such equipment advance, and continuing thereafter on the first day of each successive calendar month through its equipment maturity dates, monthly payments of equal principal and accrued interest are required to be remitted. The 2018 Term Loans bear an interest rate equal to the greater of (i) 5.25% or (ii) 1.5% above the Prime Rate. The 2018 Equipment Advances bear an interest rate equal to the greater of (i) 5.25% or (ii) 1.0% above the Prime Rate. As of June 30, 2021 and December 31, 2020, the interest rate for the 2018 Term Loans and the 2018 Equipment Advances is 5.25%. The Prime Rate is defined as the rate of interest per annum from time to time published in the money rates section of The Wall Street Journal or any successor publication. Interest is payable monthly and compounded monthly based on a 360-day year.

Borrowings under the 2018 Loan Agreement are secured by a security interest in all goods, equipment, inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, general intangibles, accounts, documents, instruments, chattel paper, cash, deposit accounts, fixtures, letters of credit rights, securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located.

In connection with the execution of the 2018 Loan Agreement, the Company entered into a 2018 warrant agreement which granted certain warrants to SVB (the "Warrants"). The Warrants were issued in one initial tranche on December 25, 2018 and three subsequent tranches in 2019 each time the Company made an additional debt draw under the 2018 Loan Agreement. Pursuant to the warrant agreement, SVB has the option to purchase an aggregate of 480,520 shares of Class A common stock. The warrants have a weighted average exercise price of \$0.24 per share and are exercisable for a period of 10 years. The Company accounted for all the Warrants issued as equity instruments since the Warrants are indexed to the Company's common shares and meet the criteria for classification in stockholders' equity. In July 2021, SVB exercised all the outstanding Warrants and Company issued 472,113 shares of Company's Class A Common Stock, net of exercise price.

The issuances under the 2018 Term Loan and 2018 Equipment Advances are as follows:

<u>in thousands</u>	<u>Principal</u>	<u>Maturity Date</u>
Term Loan	\$ 3,000	April 1, 2023
Equipment Advances – January 31, 2019 Issuance	2,410	January 1, 2022
Equipment Advances – April 29, 2019 Issuance	2,428	April 1, 2022
Equipment Advances – June 27, 2019 Issuance	2,162	June 1, 2022
Total	<u>\$10,000</u>	

Paycheck Protection Program Note (“PPP Note”)

On April 20, 2020, the Company received loan proceeds of approximately \$4.9 million under the Paycheck Protection Program (“PPP”), offered by the U.S. Small Business Administration (the “SBA”) pursuant to Title 1 of the Coronavirus Aid, Relief and Economic Security Act (the “CARES Act”). The PPP Note proceeds were available to be used to pay for payroll costs, including salaries, commissions, and similar compensation, group health care benefits, and paid leaves, rent and utilities, and mortgage interest payments. The PPP Note was subject to forgiveness to the extent proceeds were used for payroll costs, including payments required to continue group health care benefits, and certain rent, utility, and mortgage interest expenses (collectively, “Qualifying Expenses”), pursuant to the terms and limitations of the PPP Note.

The Company used the PPP Note amount intended for Qualifying Expenses. In the first quarter of the year ended December 31, 2021, the Company submitted a forgiveness application to its lender seeking full forgiveness of the PPP Note. On August 24, 2021, we received notice from the lender that the Small Business Administration has approved our application for forgiveness of the PPP Note in the full amount. For the three and nine months ended September 30, 2021, the Company recorded a gain of \$4.9 million related to forgiveness of PPP Note in other income, net. No such gain was recorded for the three and nine months ended September 30, 2020.

Convertible Notes

Issuance of Convertible Notes

From June 2019 through July 2019, the Company issued \$14.8 million of convertible promissory notes (the “June 2019 Convertible Notes”) to certain investors. The June 2019 Convertible Notes mature on June 10, 2021 and accrue interest at 2.37% or 2.13%, compounded annually on basis of 360-days year of twelve 30-day months. Principal and any accrued but unpaid interest are due and payable at maturity.

From October 2019 through December 2020, the Company issued \$45.0 million of convertible promissory notes (the “October 2019 Convertible Notes” and collectively with the June 2019 Convertible Notes, the “Convertible Notes”) to certain investors. The October 2019 Convertible Notes mature on October 1, 2021 and accrue interest at 1.69%, 1.59% or 1.85%, compounded annually on basis of 360-days year of twelve 30-day months. Principal and any accrued but unpaid interest are due and payable at maturity.

Pursuant to the terms of the Convertible Notes, the Convertible Notes will convert, including outstanding principal and any accrued but unpaid interest, with no fractional shares and proper notice based on the below:

Maturity: Upon maturity, convert into the shares issued in the then most recent Preferred Stock financing at the lowest price per share of such shares in such financing at the option of the holders.

Next Equity Financing: Upon the Company’s next equity financing yielding at least \$20 million in a single transaction for the June 2019 Convertible Notes and \$50 million in a single transaction for the October 2019 Convertible Notes (“Next Equity Financing”), the Convertible Notes shall automatically convert into those equity securities issued at a price lesser of 80% of the qualified financing price or a per share price reflecting a pre-money, fully-diluted valuation of \$350 million for the June 2019 Convertible Notes and \$450 million for the October 2019 Convertible Notes.

Change of Control: In the event of a change of control, immediately prior, the note shall convert into cash equal to 1.5 times the outstanding principal and any accrued but unpaid interest or at the option of the holder convert into common stock at a price per share equal to the lesser of 80% of the change of control price per common stock or a per share price reflecting a pre-money, fully-diluted valuation of \$500 million for the June 2019 Convertible Notes and \$450 million for the October 2019 Convertible Notes.

Upon maturity, the holders of the Convertible Notes have the option to extend the maturity date for another 2 years.

The Company determined that the contingent share-settled redemption upon the Next Equity Financing or Change of Control at 80% of the next round price and the contingent redemption upon Change of Control at 1.5 times of the outstanding principal and accrued interest were embedded derivatives (“Redemption Obligation”) that required bifurcation as derivative liabilities as well as upon issuance a reduction in the carrying value of the underlying note. The Company measures the bifurcated compound derivative at fair value based on significant inputs not observable in the market, which causes them to be classified as Level 3 measurements within the fair value hierarchy. Redemption Obligation derivatives are determined to be material at each issuance date. The bifurcated derivative was bifurcated from each note at the amount of the fixed premium, and the expected premium based on likelihood of the Next Equity Financing at different dates which result in differing levels of premium.

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The bifurcated embedded derivative had a zero fair value as of December 31, 2020 and through the settlement of the Convertible Notes in January 2021. The following tables present changes in fair value of the embedded compound derivative (associated with the Company's Convertible Notes) for the nine months ended September 30, 2021 and 2020:

<i>in thousands</i>	Embedded Derivative in Convertible Notes	
	September 30,	
	2021	2020
Balance – December 31	\$ —	\$ 4,698
Additions	—	3,261
Measurement adjustments	—	(5,388)
Balance – September 30	<u>\$ —</u>	<u>\$ 2,571</u>

The measurement adjustments are recognized in other income, net within the Company's Condensed Consolidated Statements of Operations. To determine the fair value of the embedded derivatives, the Company used an income approach considering potential future conversion and calibrated a discount rate to be consistent with the price paid at Issuance. The income approach considered assumptions including preferred stock values, volatilities, risk free rates, and discount rates/additional discount factors calibrated to be consistent with the price paid at Issuance. Additionally, other key assumptions included probability and timing of financing or the note remaining outstanding through maturity. The following table sets forth the range of inputs for the significant assumptions utilized to determine the fair value of embedded derivatives at each issuance:

<i>At Issuance</i>	June 2019 Convertible Notes	October 2019 Convertible Notes	Q4 2020 Convertible Notes
Preferred stock value	\$ 1.30	\$ 1.30	\$1.98 – 2.32
Risk free rates	1.8% – 2.0%	0.9% – 1.8%	0.1%
Risk-adjusted discount rate	15.0%	15.0%	15.0%
Additional discount factor	0.1% – 0.9%	0.9% – 4.7%	4.7%
Preferred volatility	15.3%	15.3%	20%

Prior to the adoption of ASU 2020-06 on January 1, 2021 and upon issuance of the Convertible Notes, the Company assessed whether an immediate beneficial conversion feature ("BCF") existed with regards to the non-contingent conversion option upon maturity to convert the Convertible Notes into the shares issued in the most recent Preferred Stock financing (i.e., Series B Preferred Stock) at the issuance of the Convertible Notes. A beneficial conversion feature exists when convertible instruments are issued with an initial "effective conversion price" that is less than the fair value of the underlying stock. The Company determined that there was no BCF associated with such conversion feature upon issuance except for the Convertible Notes issued on October 29, 2020, November 12, 2020, November 16, 2020, November 19, 2020, December 1, 2020 and December 11, 2020 ("Q4 2020 Convertible Notes"). At the commitment dates, the Company determined the conversion feature related to the Q4 2020 Convertible Notes to be beneficial to the investors. The following table summarizes the calculation of the BCFs as of the issuance dates of these Q4 2020 Convertible Notes, which continued to be presented in additional paid in capital as of December 31, 2020:

	Effective Conversion Price	Fair Value of Series B Preferred Stock	Number of Shares upon Conversion (pre-combination)	As of December 31, 2020 BCF in thousands
October 29, 2020	\$ 1.33	\$ 2.32	1,125,281	\$ 1,113
November 12, 2020	1.33	2.32	4,456,114	4,407
November 16, 2020	1.33	2.32	871,378	862
November 19, 2020	1.33	2.32	2,504,466	2,476
December 1, 2020	1.33	2.32	120,030	119
December 11, 2020	1.33	2.32	750,188	742
Total				<u>\$ 9,719</u>

Prior to the adoption of ASU 2020-06 on January 1, 2021, the Company recorded a total BCF of \$9.7 million, representing the intrinsic value of the in-the-money portion of the non-contingent conversion option upon maturity, in equity, with an offsetting reduction to the carrying amount of the Q4 2020 Convertible Notes as a debt discount upon issuance. The equity component of \$9.7 million was not re-measured as long as it continued to meet the conditions for equity classification. The debt discounts resulting from the accounting for a beneficial conversion option and the fair value of embedded derivative at issuance were amortized using the effective interest method over the term of the Q4 2020 Convertible Notes.

For all other Convertible Notes, the debt discount resulting from the bifurcation of the embedded derivatives at issuance was amortized into interest expense using the effective interest method over the term of the Convertible Notes. All Convertible Notes were classified as current liabilities as of December 31, 2020.

On January 1, 2021, the Company elected to adopt ASU 2020-06 based on a modified retrospective transition method. Under such transition, prior-period information has not been retrospectively adjusted. In accounting for the Q4 2020 Convertible Notes after the adoption of ASU 2020-06, the BCFs and unamortized debt discount associated with the recognition of such BCFs were derecognized from the Condensed Consolidated Balance Sheets as of January 1, 2021, resulting in a \$9.0 million increase in the carrying amount of the Q4 2020 Convertible Notes, a \$9.7 million decrease in additional paid in capital, and a \$0.7 million cumulative decrease to the opening balance of its accumulated deficit as of January 1, 2021, net of tax effects.

The issuances under the Convertible Notes are as follows:

<i>in thousands</i>	<u>Maturity Date of June 10, 2021</u>	
	<u>Principal</u>	<u>Interest Rate</u>
June 10, 2019	\$ 12,950	2.37%
June 12, 2019	500	2.37%
June 13, 2019	400	2.37%
July 19, 2019	235	2.13%
July 25, 2019	750	2.13%
Total	<u>\$ 14,835</u>	

<i>in thousands</i>	<u>Maturity Date of October 01, 2021</u>	
	<u>Principal</u>	<u>Interest Rate</u>
October 1, 2019	\$ 14,000	1.69%
February 6, 2020	6,000	1.59%
February 12, 2020	5,000	1.59%
February 28, 2020	6,900	1.59%
October 29, 2020	1,500	1.85%
November 12, 2020	5,940	1.85%
November 16, 2020	1,162	1.85%
November 19, 2020	3,338	1.85%
December 1, 2020	160	1.85%
December 11, 2020	1,000	1.85%
Total	<u>\$ 45,000</u>	

Settlement of Convertible Notes

On January 28, 2021, the Company entered a stock purchase agreement with certain investors to close the issuance of Series C convertible preferred stock at a cash purchase price of \$6.62 per share and settle all outstanding Convertible Notes through Series C convertible preferred stock at a conversion price of \$1.33 or \$1.71 per share (“Series C Financing”). The Company issued 38,323,292 shares of Series C Convertible Preferred Shares (pre-combination) for conversion of outstanding Convertible Notes of \$61.0 million.

The June 2019 Convertible Notes were settled pursuant to the contractual conversion upon the Next Equity Financing feature with such financing yielding at least \$20 million in a single transaction. The Company credited the net carrying amount of the June 2019 Convertible Notes of \$14.5 million, including any unamortized debt discount, to Series C convertible preferred stock with no gain or loss recognized.

The October 2019 Convertible Notes were settled based on negotiated terms between the Company and the note holders as the Series C Financing did not meet the definition of Next Equity Financing for the October 2019 Convertible Notes. The Company assessed the economics of the settlement of the October 2019 Convertible Notes and concluded that it should be treated as a privately negotiated debt redemption/settlement transaction where debt extinguishment accounting should be applied. Therefore, the Company derecognized the net carrying amount, including any unamortized debt discount, of the October 2019 Convertible Notes of \$42.6 million and recognized the Series C convertible preferred stock issued specifically to settle the October 2019 Convertible Notes at fair value as the reacquisition consideration. Accrued and unpaid interest of \$0.6 million was settled and not paid in cash and therefore it was included in calculating the extinguishment loss. The difference between the net carrying amount of the October 2019 Convertible Notes, plus accrued and unpaid interest, and the reacquisition consideration was recorded as a loss on extinguishment within other income, net in the Condensed Consolidated Statement of Operations.

The Company issued in aggregate 26,727,308 shares of Series C convertible preferred stock (pre-combination) to settle the October 2019 Convertible Notes. The fair value of the Series C convertible preferred stock was determined to be \$176.9 million using the cash purchase price of \$6.62 per share on January 28, 2021. These October 2019 Convertible Notes had a carrying amount plus accrued and unpaid interest of \$43.2 million upon settlement. The difference of \$133.8 million was recognized as a loss on extinguishment on the Company's Condensed Consolidated Statement of Operations for the nine months ended September 30, 2021.

Bridge Loan

On May 20, 2021, the Company entered into a short-term promissory note (the "Bridge Loan") with Pendrell as the lender, pursuant to which Pendrell agreed to make available to the Company up to \$20.6 million in borrowings. Pendrell is the parent of X-icity Holdings Corporation, the sponsor of Holicity. The interest rate on the Bridge Loan borrowings is a fixed rate of 5.00% per annum. However, if repaid in full in connection with the closing of the Business Combination, then no interest shall be due and payable. The Company is required to pay an upfront fee in the amount of 1.00% of the principal amount and an end of term fee in the amount of 2.00% of the principal amount. The funds drawn on the Bridge Loan may be prepaid by the Company at any time. The Bridge Loan matures upon the earliest of (a) the closing of the Business Combination, (b) 60 days following the abandonment of the Business Combination and (c) the date when the commitment amount is otherwise paid in full or accelerated pursuant to the terms of the Bridge Loan. Under the terms of the Bridge Loan, the Company borrowed \$10.0 million in June 2021, and subsequently paid off the outstanding principal and end of term fee totaling \$10.4 million on June 30, 2021. Refer to Note – 3 Acquisitions.

Note 8 — Income Taxes

We compute our provision for income taxes by applying the estimated annual effective tax rate to year-to-date income from recurring operations and adjust the provision for discrete tax items recorded in the period.

There has historically been no federal or state provision for income taxes because the Company has incurred operating losses and maintains a full valuation allowance against its net deferred tax assets. For the three and nine months ended September 30, 2021, the Company recognized a tax benefit of \$0.4 million primarily due to the change in the realizability of certain U.S. deferred tax assets as a result of the Apollo Fusion Inc. acquisition. For the period ended September 30, 2020, the Company recognized no provision for income taxes consistent with the losses incurred and the valuation allowance against the deferred tax assets.

Utilization of net operating loss carryforwards, tax credits and other attributes may be subject to future annual limitations due to the ownership change limitations provided by Section 382 of the Internal Revenue Code and similar state provisions.

The Company files income tax returns in the U.S. federal jurisdiction and various states. The Company is not currently under examination by income tax authorities in federal, state or other jurisdictions. All tax returns will remain open for examination by the federal and state authorities for three and four years, respectively, from the date of utilization of any net operating loss or credits.

Note 9 — Leases

The Company has operating leases for warehouse, production, and office facilities and equipment. Lease contracts have remaining lease terms of one year to eight years, some of which include options to extend the term by up to 5 years. The Company included renewal options that are reasonably certain to be exercised as part of the lease term. Additionally, some lease contracts include termination options. The Company does not expect to exercise the majority of termination options and generally exclude such options when determining the term of leases. See Note 2 — Basis of Presentation and Summary of Significant Accounting Policies for the Company's lease accounting policy.

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The components of lease costs for three and nine months ended September 30, 2021 are as follows (in thousands):

	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2021
Operating lease costs	\$ 510	\$ 1,159
Finance lease costs:		
Amortization of right-of-use assets	—	—
Interest on lease liabilities	—	—
Short-term lease costs	37	—
Variable lease costs	—	—
Sublease income	—	—
Total lease costs	<u>\$ 547</u>	<u>\$ 1,159</u>

For the three and nine months ended September 30, 2020, rent expense recognized under ASC 840 amounted to \$0.2 million and \$0.5 million, respectively.

There were no losses or gains on sale and leaseback transactions for the three months and nine months ended September 30, 2021.

The weighted average remaining lease term as of September 30, 2021 is 6.90 years and the weighted average discount rate is 7.35%.

Cash flows arising from lease transactions for the three and nine months ended September 30, 2021 were as follows (in thousands):

	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2021
Cash paid for amounts included in the measurements of lease liabilities:		
Operating cash inflows/(outflows) from operating leases	\$ (484)	\$ (1,254)
Operating cash inflows/(outflows) from finance leases	—	—
Financing cash inflows/(outflows) from finance leases	—	—
Supplemental non-cash information on lease liabilities arising from		
obtaining right-of-use assets	—	—
Operating leases	—	—
Finance leases	—	—

Future minimum lease payments under non-cancellable leases in effect as of September 30, 2021 are as follows (in thousands):

Year Ending December 31,	Operating Leases	Finance Leases
2021 (excluding the nine months ended September 30, 2021)	\$ 458	\$ —
2022	1,761	—
2023	1,655	—
2024	1,655	—
2025	1,655	—
Thereafter	4,481	—
Total future undiscounted minimum lease payments	<u>\$ 11,665</u>	<u>\$ —</u>
Less: imputed Interest	(2,486)	—
Total reported lease liability	<u>\$ 9,179</u>	<u>\$ —</u>

The following table summarizes our lease commitments as of December 31, 2020:

<u>Year Ending December 31,</u>	<u>Minimum Lease Commitment</u> (in thousands)
2021	\$ 712
2022	766
2023	763
2024	762
2025	762
Thereafter	1,708
Total	\$ 5,473

Note 10 — Fair Value Measurements

The Company measured Level 1 financial instruments at fair value based on observable inputs, including unadjusted, quoted prices in active markets for identical assets and liabilities. Financial instruments classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotation, alternative pricing sources or U.S. Government Treasury yield of appropriate term. When quoted prices in active markets for identical assets or liabilities are not available, the Company relies on non-binding quotes from its investment managers, which are based on proprietary valuation models of independent pricing services. These models generally use inputs such as observable market data, quoted market prices for similar instruments, historical pricing trends of a security as relative to its peers. To validate the fair value determination provided by its investment managers, the Company reviews the pricing movement in the context of overall market trends and trading information from its investment managers. The Company performs routine procedures such as comparing prices obtained from independent source to ensure that appropriate fair values are recorded. The Public Warrants of \$23.7 million are classified as Level 1 instruments as the Public Warrants are actively traded in public markets.

The Private Placement Warrants are classified as Level 2 financial instruments. The Company estimated the fair value of the Private Placement Warrants using a Monte Carlo simulation based on observable inputs including implied volatility from short term options, common stock price, Public Warrants price and risk-free rate.

The fair value of contingent consideration related to Apollo acquisition is classified as Level 3 financial instruments. The company estimated the fair value of the contingent consideration using a Monte Carlo simulation based on non observable inputs including forecasted revenue and risk adjusted rate.

The following table presents information about the Company’s assets and liabilities that are measured at fair value on a recurring basis as of September 30, 2021 (in thousands):

<u>Description</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Liabilities:				
Public Warrants	\$23,700	\$ —	\$ —	\$23,700
Private Placement Warrants	—	12,640	—	12,640
Contingent Consideration	—	—	23,000	23,000
Total	\$23,700	\$12,640	\$23,000	\$59,340

The following table presents a summary of the changes in fair value of the Company’s Level 3 financial instruments:

<u>in thousands</u>	<u>Contingent Consideration</u>
Fair value as of January 1, 2021	\$ —
Recognition of contingent consideration liability upon acquisition	23,000
Change in the fair value included in other income, net	—
Fair value as of September 30, 2021	\$ 23,000

To determine the fair value of the contingent consideration, the Company used Monte Carlo simulation method. The Monte Carlo simulation considered assumptions including revenue volatilities, risk free rates, discount rates and additional revenue discount rate.

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Additionally, other key assumptions included forecasted revenue from new customers and probability of achieving it. The following table sets forth the range of inputs for the significant assumptions utilized to determine the fair value of contingent consideration:

	Contingent Consideration
Risk-free interest rate	0.18%
Expected revenue volatility	20.0%
Revenue discount rate	5.50%
Discount rate	3.25%

Note 11 — Commitments and Contingencies

Legal Proceedings

The Company is party to ordinary and routine litigation incidental to our business. On a case-by-case basis, the Company engages inside and outside counsel to assess the probability of potential liability resulting from such litigation. After making such assessments, the Company makes an accrual for the estimated loss only when the loss is probable, and an amount can be reasonably estimated.

As of September 30, 2021, there is no material litigation, arbitration or governmental proceeding currently pending or to Astra's knowledge, threatened against us or any members of Astra's management team in their capacity as such that could have a material effect on the Condensed Consolidated Balance Sheets, Condensed Consolidated Statements of Operations, or Condensed Consolidated Statements of Cash Flows.

Purchase Commitments

On May 25, 2021, the Company entered a contract with a supplier to purchase components. The Company is obligated to purchase \$22.5 million of components over 60 months. The Company may terminate the supply agreement by paying 50% of the remaining purchase commitment at any point during the contract term. There were no purchases made during the three months ended September 30, 2021. The Company made total purchases of \$0.4 million during the nine months ended September 30, 2021.

Note 12 — Convertible Preferred Stock

Convertible Preferred Stock

From pre-combination Astra's inception until the consummation of the Business Combination, approximately \$100.2 million of cash capital contributions was raised, net of issuance costs, through the issuance of three rounds of convertible preferred equity.

The three classes of convertible preferred stock of pre-combination Astra are: Series A convertible preferred stock, Series B convertible preferred stock and Series C convertible preferred stock (collectively, the "Convertible Preferred Stock"). Immediately before the consummation of the Business Combination, the Convertible Preferred Stock of pre-combination Astra consisted of:

<u>Series</u>	<u>Shares Outstanding (pre-combination)</u>	<u>Liquidation Price Per Share</u>	<u>Conversion Price Per Share</u>	<u>Annual Noncumulative Dividend Rights Per Share</u>
A	65,780,540	\$0.243233	\$0.243233	\$ 0.019459
B	70,713,123	1.333008	1.333008	0.106640
C	50,483,785	6.620970	6.620970	0.529680
Total	<u>186,977,448</u>			

Upon the consummation of the Business Combination in June 2021, 186,977,448 shares of Convertible Preferred Stock (pre-combination) converted into 124,340,003 shares of Class A common stock of the Company. The Company no longer had Convertible Preferred Stock authorized, issued or outstanding subsequent to the close of business combination in June 2021. The terms and rights of the Convertible Preferred Stock described below represent the terms and rights of the Convertible Preferred Stock prior to the closing of the Business Combination.

Voting Rights and Dividends

Each holder of the Convertible Preferred Stock is entitled to a number of votes equal to the number of whole shares of Class A common Stock into which such holder's shares are convertible as defined in the amended and restated certificate of incorporation. The holders of outstanding Convertible Preferred Stock are entitled to receive defined dividends per share, when, if, and as declared by the board of directors. These rights are not cumulative, and no right accrues by reason of the fact that dividends on said shares are not

declared in any period, nor any undeclared or unpaid dividend bears or accrues interest. After payment of such dividends, and additional dividends or distributions are distributed to all holders of Common Stock, Founders Convertible Preferred Stock and Convertible Preferred Stock in proportion to the number of shares of common stock what would be held on an “as converted” basis.

Liquidation

In the event of a liquidation event (as defined), the holders of the Convertible Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Company to the holders of Founders Convertible Preferred Stock and Common Stock, by reason of their ownership, an amount per share equal to the liquidation price per share for each outstanding share of the Convertible Preferred Stock, plus any declared but unpaid dividends thereon to the date fixed for such distribution. If the assets of the Company legally available for distribution are insufficient to permit the payment of the full preferential amounts to the holders of the Convertible Preferred Stock, then the entire assets available for distribution to stockholders are distributed ratably among the holders of the Convertible Preferred Stock in proportion to the preferential amount each such holder is otherwise entitled to receive.

Upon the completion of the distribution to the holders of Series A, Series B and Series C Convertible Preferred Stock, the holders of outstanding shares of Founders Convertible Preferred Stock and Common Stock are entitled to receive all of the remaining assets of the Company pro rata based on the number of shares of Common Stock held by each assuming conversion of all such Founders Convertible Preferred Stock into Common Stock.

Each of the Convertible Preferred Stock shares are conditionally puttable by the holders upon Deemed Liquidation events, which includes a change of control or a sale of substantially all the Company’s assets. The Company determined that triggering events that could result in a Deemed Liquidation are not solely within the control of the Company. Therefore, the Convertible Preferred Stock is classified outside of permanent equity (i.e., temporary equity). The Convertible Preferred stock is subject to standard protective provisions, none of which provide creditor rights. As of December 31, 2020, the Company is not required to remeasure the Convertible Preferred Stock to the redemption value as none of the Deemed Liquidation events were probable at the time.

On January 28, 2021, concurrent with Series C Financing, the Company amended its certificate of incorporation to add a merger with a special purpose acquisition company (“SPAC Transaction”) as one of the defined Deemed Liquidation events. In addition, upon triggering of the Deemed Liquidation events, the holders of the Convertible Preferred Stock are entitled to receive the greater of their liquidation preference per share and the as converted value per share. As of March 31, 2021, the Company assessed the probability of a SPAC Transaction to be probable and therefore, the Convertible Preferred Stock are considered probable of becoming redeemable.

Subsequent measurement of Convertible Preferred Stock is then required for the three months ended March 31, 2021. The Company elected to apply the current redemption value method to measure the redeemable Convertible Preferred Stock. Under this method, changes in the redemption value are recognized immediately as they occur and the carrying value of the Convertible Preferred Stock is adjusted to the redemption value at the end of each reporting date. In the absence of retained earnings, adjustments to redemption value were recorded against additional paid-in capital, if any, and then to accumulated deficit. As of March 31, 2021, adjustments to the carrying amount of the Convertible Preferred Stock of \$1.1 billion, reflecting the estimated redemption value of \$7.18 per share as of March 31, 2021, are treated as deemed dividends and are recognized against additional paid-in capital and accumulated deficit on the Condensed Consolidated Balance Sheet as of March 31, 2021.

On the Closing Date of the Business Combination, all outstanding Convertible Preferred Stock converted into Class A common stock of the Company, therefore, the Company applied conversion accounting to derecognize the existing carrying amount of the Convertible Preferred Stock and increased additional paid-in capital.

Conversion

The holders of the Convertible Preferred Stock shall have conversion rights as follows:

Right to Convert: Each of the Company’s Convertible Preferred Stock shall be convertible at the option of the holder thereof into a number of fully paid and nonassessable shares of Class A common Stock as is determined by dividing the liquidation preference by the conversion price for each series, respectively.

Automatic Conversion: Each share of the Convertible Preferred Stock shall automatically be converted into fully paid and nonassessable shares of Class A common Stock, at the then-effective conversion rates upon the earlier of (i) the vote or written consent of holders of at least a majority of the voting power represented by the then-outstanding shares of Convertible Preferred Stock, voting as a separate class on an as-converted basis or (ii) the closing of a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of common stock at an offering price of not less than \$19.9 per share and with aggregate gross proceeds to the Company (prior to deduction of underwriters’ commissions and expenses) of not less than \$30.0 million.

Redemption

Convertible Preferred Stock are not mandatorily redeemable.

Note 13 — Stockholders' Equity

Common and Preferred Stock

As of September 30, 2021, the Company had authorized a total of 466,000,000 shares of stock, consisting of (i) 400,000,000 shares of Class A common stock, par value \$0.0001 per share ("Class A common stock"), (ii) 65,000,000 shares of Class B common stock, par value \$0.0001 per share ("Class B common stock"), and (iii) 1,000,000 shares of preferred stock, par value \$0.0001 per share ("Preferred Stock"). As of September 30, 2021, the Company had 202,034,520 and 56,239,189 shares of Class A and Class B common stock issued and outstanding, respectively. There was no share of preferred stock outstanding as of September 30, 2021.

Holders of the Class A and Class B common stock have identical rights, except that holders of the Class A common stock are entitled to one vote per share and holders of the Class B common stock are entitled to ten votes per share. Shares of Class B common stock can be converted to shares of Class A common stock at any time at the option of the stockholder and automatically convert upon sale or transfer, except for certain transfers specified in our amended and restated certificate of incorporation.

In connection with the Business Combination, the Company's executive officers and founders, Chris Kemp and Adam London, converted an aggregate 10,870,562 shares of Founders Preferred Stock and an aggregate 3,599,647 shares of Class A common stock of pre-combination Astra, which were entitled to one vote per share, into 9,622,689 shares of Class B common stock of the Company, which are entitled to ten votes per share.

Founders Convertible Preferred Stock

The Company issued 18,500,000 shares of pre-combination Astra's Founders Convertible Preferred Stock in 2016. Upon vesting, the compensation expense associated with the Founders Convertible Preferred Stock was recorded as stock-based compensation based on the fair value of the Founders Convertible Preferred Stock on the grant date fair value. Immediately before the closing of the Business Combination, 10,870,562 shares of pre-combination Astra's Founders Convertible Preferred Stock were outstanding. Upon closing of the Business Combination, the Founders Convertible Preferred Stock were converted into shares of Class B common stock of the Company. Refer to Note 3 – Acquisitions.

Note 14 — Stock-based Compensation

Stock-based incentive awards are provided to employees under the terms of various Astra equity incentive plans.

2021 Omnibus Incentive Plan

In June 2021, the Board of Directors approved the 2021 Omnibus Incentive Plan (the "2021 Plan"), which reserved 36.8 million shares of Class A common stock for issuance for awards in accordance with the terms of the 2021 Plan. In addition, the pool will increase on January 1 of each year from 2022 to 2031 by the lesser of (i) 5% of the sum of number of shares of (x) Class A common stock and (y) Class B common stock outstanding as of the close of business on the immediately preceding December 31 and (ii) the number of shares of Class A common stock as determined by the Board. The purpose of the 2021 Plan is to advance the Company's interests by providing for the grant to employees, directors, consultants and advisors of stock and stock-based awards. As of September 30, 2021, 11 million shares remain available for issuance under the plan.

2021 Employee Stock Purchase Plan

In June 2021, the Board of Directors approved the 2021 Employee Stock Purchase Plan (the "2021 ESPP") to reserve 5 million shares of Class A common stock for issuance for awards in accordance with the terms of the ESPP. In addition, the number of shares reserved for issuance will ultimately increase on January 1 of each year from 2022 to 2031 by the lesser of (i) 1% of the sum of number of shares of (x) Class A common stock and (y) Class B common stock outstanding as of the close of business on the immediately preceding December 31 and (ii) the number of shares of Class A common stock as determined by the Board. The purpose of the ESPP is to enable eligible employees to use payroll deductions to purchase shares of Class A common stock and thereby acquire an interest in the company. Eligible employees are offered shares through a 24-month offering period, which consists of four consecutive 6-month purchase periods. Employees may purchase a limited amount of shares of our stock at a discount of up to 15% of the lesser of the fair market value at the beginning of the offering period or the end of each 6-month purchase period. No shares were issued under the Employee Stock Purchase Plan during the three months ended September 30, 2021. As of September 30, 2021, 5 million shares remain available for issuance under the Employee Stock Purchase Plan. As of September 30, 2021, the Company had \$0.6 million of unrecognized stock-based compensation expense related to the ESPP. This cost is expected to be recognized over a weighted-average period of 0.9 years

2016 Equity Incentive Plan

In 2016, pre-combination Astra adopted the 2016 Equity Incentive Plan (the “2016 Plan”). Under this Plan, the Board of Directors or a committee appointed by the Board of Directors is authorized to provide stock-based compensation in the form of stock options, stock appreciation rights, restricted stock, and other performance or value-based awards within parameters set forth in the Plan to employees, directors, and non-employee consultants.

In connection with the Business Combination, the Company assumed the 2016 Plan upon closing. Each outstanding and unexercised option (“Astra Option”) was converted, at the exchange ratio established in the BCA, into an option (“New Astra Option”) to acquire shares of the Company’s Class A common stock with the same terms and conditions as applicable to the Astra Option immediately prior to the Business Combination. As of September 30, 2021, there were no shares available for issuance under the plan.

The following table summarizes stock-based compensation expense that the Company recorded in the Condensed Consolidated Statements of Operations for the three and nine months ended September 30, 2021 and 2020:

<i>in thousands</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Research and development	\$ 1,334	\$ 49	\$ 4,638	\$ 254
Sales and marketing	15	—	70	—
General and administrative	1,339	46	15,757	354
Stock-based compensation expense	<u>\$ 2,688</u>	<u>\$ 95</u>	<u>\$ 20,465</u>	<u>\$ 608</u>

On September 20, 2021, under the 2021 Plan, the Company’s compensation committee granted 3,972,185 restricted stock units (“RSUs”), 3,426,094 time-based stock options and 13,016,178 performance-based stock options to its executive officers. RSUs and time-based stock options granted have service-based vesting conditions only. The service conditions vary for each executive officer’s and is based on their continued service to the Company. Typically, these RSUs and time-based stock options vest over four years with 25% of awards vesting on the first anniversary of the grant date and the remaining 75% vesting quarterly over the remaining 12 quarters. Option holders have a 10-year period to exercise their options before options expire. Forfeitures are recognized in the period of occurrence and stock-based compensation costs are recognized based on grant-date fair value as RSUs and time-based stock options vest. Refer to disclosures below for the Company’s RSUs and option activities for the nine months ended September 30, 2021.

Performance-based stock options, only eligible to the executive officers of the Company, are subject to performance conditions as follows, and the milestones do not need to be achieved in any specific order or sequence:

Milestone A: The Company has had a successful orbital delivery.

Milestone B: The Company has had six orbital launches during a six consecutive month period.

Milestone C: The Company has completed a prototype for a spacecraft that has achieved an orbital launch.

Milestone D: The Company has conducted twenty-six orbital launches during a six consecutive month period.

Milestone E: The Company has achieved an orbital launch for an aggregate of 100 spacecraft.

These performance-based stock options also require the volume weighted average share price for a period of thirty trading days meet certain share price thresholds before a milestone will be deemed achieved. After each milestone is achieved, 20% of the performance-based stock options will vest on the vesting date immediately following the date at which the price thresholds are met. For this purpose, a “vesting date” is February 15, May 15, August 15 and November 15 of any applicable year. The milestones must be achieved over a period of approximately five years, with the earliest vesting date of November 15, 2022 and the last vesting date no later than November 15, 2026, if all vesting conditions are met. No unvested portion of the performance-based stock options shall vest after November 15, 2026. As of September 30, 2021, the Company assessed the probability of success for the five milestones mentioned above and determined that it is probable that the Company will achieve all five milestones within the requisite period. Therefore, the Company recognized \$0.9 million compensation costs related to performance-based stock options for the three and nine-months ended September 30, 2021.

In April 2021, the Board of Directors has approved the acceleration of the vesting of 1,900,000 pre-combination Astra stock options issued to two executive officers: Kelyn Brannon and Martin Attiq, on December 27, 2020. The Company recognized the remaining stock-based compensation expense of \$7.2 million on its Condensed Consolidated Statements of Operations for the nine months ended September 30, 2021.

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In February 2021, the Board of Directors approved the acceleration in vesting of 206,250 pre-combination Astra stock options that were issued to one employee on May 15, 2020. The remaining unvested options were fully vested upon acceleration. The Company recorded a \$1.4 million stock-based compensation expense related to the modification for the nine months ended September 30, 2021.

As of September 30, 2021, the Company had \$164 million of unrecognized stock-based compensation expense related to the stock-based awards. This cost is expected to be recognized over a weighted-average period of 3.08 years.

Secondary Sales

In January 2021, concurrent with Series C Financing, two executive officers, Chris Kemp, founder and Chief Executive Officer (“CEO”), and Adam London, founder and Chief Technology Officer (“CTO”), entered stock purchase agreements with certain investors including ACME SPV AS, LLC to sell 3,775,879 and 2,265,529 shares, respectively, of Founders Convertible Preferred Stock at purchase prices in excess of the estimated fair value at the time of the transactions (“January 2021 Secondary Sales”) to certain investors. Upon the sale, the Founders Convertible Preferred Stock automatically converted into Series C Convertible Preferred Stock. The Company’s board member, Scott Stanford, is a member of ACME SPV AS, LLC and the Company facilitated the January 2021 Secondary Sales. As a result, for the nine months ended September 30, 2021 the Company recorded a total of \$8.2 million in stock-based compensation expense for the difference between the price paid by these investors and the estimated fair value of the Founders Convertible Preferred Stock on the date of the transaction.

In April 2021, four executive officers, Chris Kemp, CEO, Adam London, CTO, Kelyn Brannon, Chief Financial Officer (“CFO”), and Martin Attiq, Chief Business Officer (“CBO”), entered into stock purchase agreements with new investors to sell 2,534,793, 865,560, 1,500,000 and 400,000 shares, respectively, of Class A common stock of pre-combination Astra, at a purchase price per share of \$5.66 (“April 2021 Secondary Sales”). No additional stock-based compensation expense was recognized for the nine months ended September 30, 2021 as the purchase price was below fair market value of Class A common stock of pre-combination Astra at the time of the sales.

Stock Options Awards

The following is a summary of stock option activity for the nine months ended September 30, 2021:

	No. of Options	Weighted- Average Exercise Price	Weighted- Average Remaining Term (in Years)	Aggregate Intrinsic Value
Outstanding – December 31, 2020	8,546,017	\$ 0.85	8.6	\$52,120,105
Granted	16,442,272	9.04	10.0	
Exercised	(3,524,943)	0.49	5.2	32,369,971
Forfeited	(690,398)	1.05	—	
Expired	(20,005)	0.59	—	
Outstanding – September 30, 2021	20,752,943	\$ 7.38	9.6	\$33,039,517
Unvested – September 30, 2021	18,946,136			
Exercisable – September 30, 2021	1,806,807			

The company uses the Black-Scholes option pricing-model to calculate the grant date fair value of time based options and Monte Carlo simulation model to calculate the grant date fair value of performance based options. The following table summarizes the assumptions used in estimating the fair value of options granted in the nine months ended September 30, 2021:

	Time Based Options	Performance Based Options
Expected terms (years)	6	2.5 - 4.4
Expected volatility	68.8%	68.9%
Risk-free interest rate	0.98%	1.31%
Expected dividend rate	0%	0%

Restricted Stock Units Awards

The following is a summary of restricted stock units for time-based awards for the nine months ended September 30, 2021:

	Number of RSUs Outstanding	Weighted- Average Grant Date Fair Value Per Share
Outstanding – December 31, 2020	—	\$ —
Granted	9,352,100	9.04
Vested	—	—
Forfeited	—	—
Outstanding – September 30, 2021	9,352,100	\$ 9.04

Note 15 — Loss per Share

Founders Convertible Preferred Stock, Convertible Preferred Stock, and unvested Restricted Stock Awards (“RSA’s”) are participating securities in periods of income, as the Founders Convertible Preferred Stock, Convertible Preferred Stock, and unvested RSAs participate in undistributed earnings on an as-if-converted or as-vested basis. However, the Founders Convertible Preferred Stock, and Convertible Preferred Stock, do not share in losses.

The Company computes earnings per share of Common Stock using the two-class method required for participating securities and does not apply the two-class method in periods of net loss. Basic and diluted earnings per share were the same for the years presented as the inclusion of all potential Common Stock outstanding would have been anti-dilutive. Earnings per share calculations for all periods prior to the Business Combination have been retrospectively restated to the equivalent number of shares reflecting the exchange ratio established in the BCA. Subsequent to the Business Combination, earnings per share was calculated based on weighted average number of shares of common stock then outstanding.

The following tables set forth the computation of basic and diluted loss for the three months ended September 30, 2021 and 2020, and the nine months ended September 30, 2021 and 2020:

	Three Months Ended September 30,			
	2021		2020	
	Class A Common	Class B Common	Class A Common	Class B Common
<i>(in thousands, except share and per share amounts)</i>				
Net loss attributed to common stockholders	\$ (12,697)	\$ (3,551)	(596)	(4,606)
Basic weighted average common shares outstanding	201,080,003	56,239,188	6,367,490	49,210,000
Dilutive weighted average common shares outstanding	201,080,003	56,239,188	6,367,490	49,210,000
Loss per share attributable to common stockholders:				
Basic and Diluted loss per share	\$ (0.06)	\$ (0.06)	\$ (0.09)	\$ (0.09)

	Nine Months Ended September 30,			
	2021		2020	
	Class A Common	Class B Common	Class A Common	Class B Common
<i>(in thousands, except share and per share amounts)</i>				
Net loss attributed to common stockholders	\$ (126,985)	\$ (79,532)	\$ (2,992)	\$ (23,016)
Adjustment to redemption value on Convertible Preferred Stock	(622,098)	(389,628)	—	—
Net loss attributed to common stockholders	\$ (749,083)	\$ (469,160)	\$ (2,992)	\$ (23,016)
Basic weighted average common shares outstanding	79,784,524	49,970,071	6,334,324	48,722,577
Dilutive weighted average common shares outstanding	79,784,524	49,970,071	6,334,324	48,722,577
Loss per share attributable to common stockholders:				
Basic and Diluted loss per share	\$ (9.39)	\$ (9.39)	\$ (0.47)	\$ (0.47)

There were no preferred dividends declared or accumulated as of September 30, 2021 and December 31, 2020. The following securities were not included in the computation of diluted shares outstanding because the effect would be anti-dilutive:

	As of September 30,			
	2021		2020	
	Class A Common	Class B Common	Class A Common	Class B Common
Stock options	20,752,943	—	10,299,548	—
RSUs	9,352,100	—	—	—
Convertible Preferred Stock	—	—	103,070,786	—
Warrants	15,333,309	—	480,520	—
Total	45,438,352	—	113,850,854	—

For the Convertible Notes, before settlement, for purposes of diluted earnings (loss) per share, the Company applies the if-converted method. However, because the adjustment to the numerator for interest expense was anti-dilutive, the Convertible Notes were not included in diluted earnings (loss) per share. Refer to Note 7 — Long-Term Debt for the key terms of the Convertible Notes.

Note 16 — Related Party Transactions

In June 2019, the Company issued promissory convertible notes to A/NPC Holdings LLC and Sherpa Ventures Fund, II LP for gross proceeds of \$10.0 million and \$0.6 million, respectively. In November 2020, the Company issued promissory convertible notes to Sherpa Ventures Fund II, LP and Eagle Creek Capital LLC, for gross proceeds of \$0.2 million and \$0.5 million, respectively. Some of the Company's board members at that time were or are related parties of these entities. Nomi Bergman, who was serving as our director when the promissory convertible notes were issued, is a principal of A/NPC Holdings LLC and Scott Stanford, who serves as our director, is a principal of Sherpa Ventures Fund II, LP and a member of Eagle Creek Capital, LLC. In all instances the terms of these transactions were the same as third-party investors.

On January 28, 2021, the Company settled promissory convertible notes through the issuance of Series C convertible preferred stock. 7,819,887 and 469,193 shares of Series C convertible preferred stock were issued to A/NPC Holdings LLC and Sherpa Ventures Fund II, LP at a per share price of \$1.33 to settle \$10.4 million and \$0.6 million outstanding principal and accrued interest, respectively. Additionally, 264,928 and 115,771 shares of Series C convertible preferred stock were issued to Eagle Creek Capital, LLC and Sherpa Ventures Fund II, LP at a per share price of \$1.71 to settle \$0.5 million and \$0.2 million outstanding principal and accrued interest, respectively. See Note 7 — Long-Term Debt for mechanism of settlement.

Note 17 — Subsequent Events

On November 9, 2021, the Company granted 33,000 restricted stock units (the "RSUs") to the spouse of its chairman, chief executive officer and founder, Chris Kemp ("Ms. Kemp") as compensation for investor relations and marketing services Ms. Kemp provided to the Company as a consultant. The RSUs vest in one installment on November 15, 2021. The value of the RSUs is \$0.3 million, which is based on the closing per share price of the Company's Class A common stock on November 9, 2021. Ms. Kemp's consulting agreement was ratified, and the grant of RSUs was approved, under the Company's related party transaction policy.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS OF ASTRA

The following discussion and analysis of the financial condition and results of operations of Astra Space, Inc. should be read together with our audited consolidated financial statements as of and for the years ended December 31, 2020 and 2019 and unaudited interim condensed consolidated financial statements as of and for the three and nine months ended September 30, 2021 and 2020, together with related notes thereto. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those projected in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors". Certain amounts may not foot due to rounding. Unless the context otherwise requires, all references in this section to "the Company" "Astra," "us," "our" or "we" refer to Astra Space, Inc. prior to the Business Combination, and to New Astra following the consummation of the Business Combination on June 30, 2021.

Overview

Our mission is to launch a new generation of space services to improve life on Earth. These services are enabled by new constellations of small satellites in Low Earth Orbit ("LEO"), which have rapidly become smaller, cheaper, and more numerous than legacy satellites. Launch vehicles, however, have not evolved in the same way — most rockets remain focused on serving legacy satellites and human spaceflight missions. As a result, we believe most existing launch vehicles are too large, expensive, infrequently launched, and insufficiently responsive to meet the needs of the evolving space market.

We aim to solve this problem with the world's first mass-produced orbital launch system. Our system consists of a small launch vehicle and mobile ground infrastructure that can fit inside standard shipping containers for rapid deployment anywhere in the world. Our rocket requires a launch site with little more than a concrete pad and only six Astra employees on-site, leveraging our highly automated launch operations, and our production system is designed to scale efficiently to hundreds of launches per year. Our rocket's payload capacity is tailored for the needs of modern LEO satellite constellations, allowing precise and rapid placement of individual satellites into their required orbits. We believe this makes Astra's system more responsive and affordable than other launch alternatives, for thousands of LEO satellites planned in the coming decade.

While our primary focus remains the growth and development of our launch services business, we continue to develop other product and service offerings to support our overall mission to Improve Life on Earth from Space. On November 4, 2021, we announced the filing of an application with the Federal Communications Commission for V-band spectrum access, which, if approved, would allow us to offer a satellite constellation in the future.

Holicity Business Combination and Public Company Costs

We entered into a business combination agreement with Holicity Inc. ("Holicity") on February 2, 2021. On June 30, 2021 (the "Closing Date"), the previously announced business combination was consummated. Upon the consummation of the business combination, Holicity Merger Sub Inc. ("Merger Sub"), a wholly owned subsidiary of Holicity, merged with and into Astra with Astra surviving the merger as a wholly owned subsidiary of Holicity (the "Business Combination"). Astra became a wholly owned subsidiary of Holicity, which renamed to Astra Space, Inc. ("New Astra"), and Astra renamed to Astra Space Operations, Inc. upon the consummation of the Business Combination.

The Business Combination was accounted for as a reverse recapitalization. Astra was the predecessor and New Astra is the successor SEC registrant, meaning that Astra's financial statements for previous periods will be presented in New Astra's future periodic reports filed with the SEC. Holicity was treated as the acquired company for financial statement reporting purposes.

The most significant change in the post-combination Company's reported financial position and results was a net increase in cash of \$463.6 million. We paid \$25.2 million in transaction costs relating to the Business Combination at the closing. We recorded a liability related to the Public and Private Placement Warrants of \$56.8 million in the condensed consolidated balance sheet on Closing Date.

As a consequence of the Business Combination, the Company trades under the ticker symbol "ASTR" on the Nasdaq. We anticipate that we will need to hire additional personnel and implement procedures and processes to address public company regulatory requirements and customary practices. We expect to incur additional annual expenses as a public company for, among other things, directors' and officers' liability insurance, director fees and additional internal and external accounting and legal and administrative resources, including increased audit and legal fees.

COVID-19 Impact

On March 11, 2020, the World Health Organization declared the novel strain of coronavirus ("COVID-19") a global pandemic and recommended containment and mitigation measures worldwide. The extent of the impact of the coronavirus pandemic on Astra's operational and financial performance will depend on various future developments, including the duration and spread of the outbreak and impact on its customers, suppliers, and employees, all of which is uncertain at this time. Astra expects the COVID-19 pandemic to adversely impact revenue and results of operations, but Astra is unable to predict at this time the size and duration of this adverse impact. Astra has seen some signs of positive effects for its long-term business prospects and partnerships as a result of the pandemic. The COVID-19 pandemic has created an even greater need for broadband internet access from anywhere in the world, and businesses are thinking differently about how their workforce can stay connected. There have also been recent government and commercial announcements about continuous investments in this area and we believe this will continue to support the growth of the small satellite market for the foreseeable future.

For more information on Astra's operations and risks related to health epidemics, including the COVID-19 pandemic, please see the section entitled "Risk Factors."

Key Factors Affecting Our Results and Prospects

We believe that our performance and future success depend on a number of factors that present significant opportunities for us but also pose risks and challenges, including competition from better known and well-capitalized companies, the risk of actual or perceived safety issues and their consequences for our reputation and the other factors discussed under "Risk Factors." We believe the factors discussed below are key to our success.

Commencing and Expanding Commercial Launch Operations

We are on track to monthly production of our launch vehicles, with a goal of reaching a regular launch cadence in the future. When we refer to a "commercial launch," we mean a launch conducted under an FAA commercial launch license. With binding agreements for over 50 launches (as of September 30, 2021), our contracted revenue is significant, and we are in active discussions with numerous potential customers, including government agencies and private satellite companies, to add to our contracted revenue.

In December 2020, we successfully launched Rocket 3.2 to an altitude of 380 km, demonstrating orbital launch capability. We improved propellant depletion controls to address the findings from the December 2020 flight. In August 2021, we launched Rocket LV0006 of which engine was aborted. During liftoff, fuel and liquid oxygen leaked from the propellant supply system attached to the rocket. The leaked propellants mixed and ignited, which disabled one of the five first-stage engines. We analyzed the cause of the anomaly and implemented certain design changes to avoid having this issue in future. Prior to commencing commercial launches, we must secure launch licenses with the Federal Aviation Administration (FAA). On August 18, 2021, the FAA issued us a license to launch the current version of our launch vehicle (Rocket 3) from our spaceport in Kodiak, Alaska through March 9, 2026. Any delays in commencing our commercial launch operations, including due to delays or cost overruns in obtaining FAA licenses or other regulatory approvals for future versions of our launch vehicles or at future spaceports, could adversely impact our results and growth plans.

Lowering Manufacturing Costs and Increasing Payloads

We aim to be the most cost-efficient dedicated orbital launch system provider. We plan to increase the maximum payload capability of our rockets from approximately 50 kg for our first commercial flight to up to 500 kg for a mid-inclination 500 km orbit, which we believe will make Astra a compelling option for low Earth orbit constellation deployment and replenishment. Our affordable manufacturing processes use normally readily available materials and are highly scalable, while we believe our ongoing improvements in design and manufacturing will further reduce our per rocket manufacturing costs. We have invested approximately \$19.3 million in our manufacturing facility through September 30, 2021 and we expect the facility will be at full capacity by the end of 2024, which we believe will enable us to increase the pace of launch vehicle construction and our launch cadence. While we believe that our estimate is reliable, the development of our manufacturing facility may take longer than planned, including due to delays in obtaining federal and state regulatory approvals of our final construction plans or any changes that are required to be made to those plans. Any delays in our achieving full manufacturing capacity could adversely impact our results and growth plans.

Expand Our Space Products and Services Offerings

We are in the preliminary stages of developing our Space Services offering (which we previously referred to as "Satellite Services"), providing a modular configurable satellite buses for customers, leveraging both in-house and partner-provided subsystem components and in-house design and integration services, as well as operational support of satellites on orbit, to turn-key provision of entire constellations, offering "concept to constellation" in months instead of years. Specifically, our Space Services encompass all aspects of hosted satellite and constellation services, including hosting customer payloads onto our satellites, and delivering services, such as communication and other services, to customers from our space platform. These services are expected to allow customers to focus on developing innovative payloads rather than having to design or develop complete satellite buses or satellites or constellations, which we will provide, along with ancillary services that are likely to include telemetry, tracking and control ("TT&C"), communications, processing, as well as software development and maintenance.

On November 4, 2021, we filed an application with the Federal Communication Commission, under which we requested authority to launch and operate a non-geostationary orbit satellite system using V-band frequencies (the "Constellation") as we work to build out our Space Services offering to enable communications.

We also expect to launch our Spaceport Services offering, which may provide turn-key spaceports with the capability to launch Astra rockets or contracting launch services through these spaceports. We envision that our spaceports will require minimal on-site infrastructure, will leverage our highly automated launch operations and can be installed for an initial cost of between approximately \$10 million and \$20 million. We anticipate this offering will lead to important additional opportunities, such as providing launch services for customers, both government and commercial, interested in launching out of a specific locale. We expect to make significant investments in our Space Services and Spaceport Services programs. Although we believe that our financial resources, including the proceeds of the Business Combination and the related private placement, will be sufficient to meet our capital needs, our timeline and budgeted costs for these offerings are subject to substantial uncertainty, including due to compliance requirements of U.S. federal export control laws and applicable foreign and local regulations, the impact of political and economic conditions, and, particularly in the case of our anticipated Spaceport offering, the need to identify opportunities and negotiate long-term agreements with customers for these services, among other factors. Please see the section entitled "Risk Factors".

Acquisition of Apollo Fusion

On July 1, 2021, the Company completed its acquisition of Apollo Fusion, Inc. (“Apollo”), a designer and builder of thruster propulsion systems for satellite programs. The acquisition-date fair value of the consideration transferred totaled \$75.4 million, net of cash acquired, consisting of approximately 2,558,744 shares of the Company’s Class A common stock worth \$33.0 million which was determined based on the closing market price of the Company’s common stock on the acquisition date, \$19.9 million in cash and \$23.0 million of the fair value of contingent consideration. The contingent consideration arrangement requires the Company to pay up to \$75.0 million payable in \$15.0 million of cash and \$60.0 million of the Company’s Class A common stock, at a reference price per share equal to the then volume weighted average trading price over a five-day trading period prior to the business day prior to issuance, provided certain customer revenue-based milestones are achieved prior to December 31, 2023.

In addition, an additional \$10.0 million of cash (“Cash Payment”) and options to purchase shares of the Company’s Class A Common Stock, having a value of \$10.0 million (“Incentive Shares”), at a reference price per share equal to the then volume weighted average trading price over a five day trading period prior to the business day prior to issuance, will be issued or issuable to employees of Apollo that join Astra, subject to certain performance-based milestones and other vesting provisions. This consideration is accounted for as compensation expense over the requisite service period in the post-acquisition period as the cash payment and vesting of Incentive Shares is subject to continued employment with the company until the satisfaction of certain performance-based milestones and other vesting provisions. As of September 30, 2021, no Incentive Shares were granted to employees of Apollo that joined the Company subsequent to the acquisition as certain key terms and conditions of the Incentive Shares were not finalized. The Company assessed the probability of success of performance milestones related to the Cash Payment and determined that it is probable that certain milestones will be met. Therefore, the Company recognized \$1.4 million compensation costs which was included in research and development expense for the three months and nine months ended September 30, 2021 and \$1.4 million was accrued in accrued expenses and other current liabilities as of September 30, 2021.

Key Components of Results of Operations

We are an early-stage company and our historical results may not be indicative of our future results for reasons that may be difficult to anticipate. Accordingly, the drivers of our future financial results, as well as the components of such results, may not be comparable to our historical or future results of operations.

Revenues

We have not generated any revenue to date. Following the commercial launch of our services, we expect to generate a significant portion of our revenues in Launch Services from delivering payloads into orbit. We also expect to generate revenues by providing design and delivery of propulsion systems, Space Services and Spaceport Services to our customers. Over time, we expect Space Services to grow more quickly and to represent a significant portion of our revenues beyond 2025.

Expenses

Research and Development Expense

Our research and development expenses consist primarily of internal and external expenses incurred in connection with our research activities and development programs. These expenses include, but are not limited to, development supplies, testing materials, personnel costs (including salaries and benefits), depreciation expense, overhead allocation, (consisting of various support and facility costs), stock-based compensation and consulting fees. Research and development costs are expensed as incurred.

We allocate research and development costs by function rather than by project, as a significant majority of our historical research and development spending was related to the initial development and testing of our underlying technology, including preparation for multiple test launches.

Our current primary research and development objectives focus on the development and finalization of our offerings. The successful development of these offerings involves many uncertainties, including:

- timing in finalizing launch and space systems design and specifications;
- successful completion of analyses and ground test programs to validate that new or changed designs perform as expected;
- successful completion of flight test programs, including flight safety tests;
- our ability to obtain additional applicable approvals, licenses or certifications from regulatory agencies, if required, and maintaining current approvals, licenses or certifications;
- performance of our manufacturing facilities despite risks that disrupt productions, such as natural disasters and hazardous materials;

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- performance of a limited number of suppliers for certain raw materials and components;
- performance of our third-party contractors that support our research and development activities;
- our ability to maintain rights from third parties for intellectual properties critical to research and development activities; and
- our ability to continue funding and maintain our current research and development activities.

A change in the outcome of any of these variables could delay the development of our rockets, which in turn could impact when we are able to commercialize our offerings.

As we are currently still in our final development and testing stage of our launch services, we have expensed all research and development costs associated with developing and building our launch services offering. We expect that our research and development expenses will increase in the short-term as we invest in improving and further reducing the costs of our launch system as well as developing and improving our Space Services offering.

Sales and Marketing Expense

Sales and marketing expenses consist of personnel and personnel-related expenses, including stock-based compensation for our business development team as well as advertising and marketing expenses. We expect to increase our sales and marketing activities in order to grow our customer base and increase market share. We also expect that our sales and marketing expenses will increase over time as we continue to hire additional personnel to scale the business. We did not begin incurring sales and marketing expenses until 2021.

General and Administrative Expense

General and administrative expenses consist primarily of personnel-related costs (including salaries, bonuses, benefits, and stock-based compensation expense) for personnel in executive, finance, accounting, corporate development and other administrative functions. General and administrative expenses also include legal fees, professional fees paid for accounting, auditing, consulting, tax, and investor relations services, insurance costs, and facility costs not otherwise included in research and development expenses and costs associated with compliance with the rules and regulations of the SEC and the stock exchange.

Income Tax (Benefit) Expense

Our income tax provision consists of an estimate for U.S. federal and state income taxes based on enacted rates, as adjusted for allowable credits, deductions, uncertain tax positions, changes in deferred tax assets and liabilities, and changes in the tax law. We maintain a valuation allowance against the full value of our U.S. and state net deferred tax assets because we believe the recoverability of the tax assets is not more likely than not.

Results of Operations

Comparison of the Three Months and Nine Months Ended September 30, 2021 and 2020

<i>(in thousands, except percentages)</i>	Three Months Ended		Period over		Nine Months Ended		Period over	
	September 30,	September 30,	period change		September 30,		period change	
	2021	2020	(\$)	(%)	2021	2020	(\$)	(%)
Operating expenses:								
Research and development	\$ 21,724	\$ 5,423	\$ 16,301	301%	44,159	20,955	\$ 23,204	111%
Sales and marketing	1,090	—	1,090	n.m.	2,229	—	2,229	n.m.
General and administrative	19,730	2,358	17,372	737	50,712	9,341	41,371	443
Total operating expenses	(42,544)	(7,781)	(34,763)	447	(97,100)	(30,296)	(66,804)	221
Loss from operations	(42,544)	(7,781)	(34,763)	447	(97,100)	(30,296)	(66,804)	221
Interest (expense) income, net	18	(1,312)	1,330	(101)	(1,194)	(3,564)	2,370	(66)
Other income, net	25,895	3,891	22,004	566	25,177	7,852	17,325	221
Loss on extinguishment of convertible notes	—	—	—	n.m.	(131,908)	—	(131,908)	n.m.
Loss on extinguishment of convertible notes attributable to related parties	—	—	—	n.m.	(1,875)	—	(1,875)	n.m.
Loss before taxes	(16,631)	(5,202)	(11,429)	220	(206,900)	(26,008)	(180,892)	696
Income tax (benefit) expense	(383)	—	(383)	n.m.	(383)	—	(383)	n.m.
Net loss	\$(16,248)	\$(5,202)	\$(11,046)	212%	\$(206,517)	\$(26,008)	\$(180,509)	694%

n.m. = not meaningful.

Research and Development

Research and development costs were \$21.7 million for the three months September 30, 2021, compared to \$5.4 million for the three months ended September 30, 2020. The \$16.3 million increase mainly reflected a \$9.8 million increase in personnel-related costs and recruiting expenses for personnel in research and development departments, a \$1.3 million increase in stock compensation expense, a \$1.7 million increase in research and development materials expense, a \$1.6 million increase in Technology licensed and software subscription licenses related expenses, a \$0.7 million increase in depreciation and amortization expense with the remainder due to changes in freight and other research and development related expenses.

Research and development costs were \$44.2 million for the nine months September 30, 2021, compared to \$21.0 million for the nine months ended September 30, 2020. The \$23.2 million increase mainly reflected a \$12.4 million increase in personnel-related costs and recruiting expenses for personnel in research and development departments, a \$4.4 million increase in stock compensation expense, a \$2.4 million increase in research and development materials expense, a \$1.8 million increase in Technology licensed and software subscription licenses related expenses and a \$1.0 million increase in depreciation and amortization expense with the remainder due to changes in freight and other research and development expenses.

Sales and Marketing

Sales and Marketing expenses were \$1.1 million for the three months ended September 30, 2021. There were no sales and marketing expenses in the three months ended September 30, 2020 as the Company was primarily focused on research and development activities.

Sales and Marketing expenses were \$2.2 million for the nine months ended September 30, 2021. There were no sales and marketing expenses in the nine months ended September 30, 2020 as the Company was primarily focused on research and development activities. The sales and marketing expenses primarily consists of personnel-related costs and consulting charges.

General and Administrative

General and administrative expenses were \$19.7 million for the three months ended September 30, 2021, compared to \$2.4 million for the three months ended September 30, 2020. The \$17.4 million increase was primarily due to a \$5.7 million increase in employee-related costs, a \$1.3 million increase in stock-based compensation expense, a \$3.1 million increase from transaction costs incurred and expensed by the Company in relation to the Apollo Merger, a \$1.5 million increase in third-party consulting and recruitment costs, a \$2.1 million increase in accounting and legal related expenses, a \$1.7 million increase in insurance related expenses with the remainder due to changes in facilities costs, software subscription fees and other general and administrative related expenses.

General and administrative expenses were \$50.7 million for the nine months ended September 30, 2021, compared to \$9.3 million for the nine months ended September 30, 2020. The \$41.4 million increase was primarily due to a \$15.4 million increase in stock-based compensation expense, a \$6.2 million increase from transaction costs incurred and expensed by the Company in relation to the business combination and Apollo Merger, a \$7.9 million increase in employee costs, a \$4.2 million increase in third-party consulting and recruitment costs, a \$3.1 million increase in accounting, audit and legal related fees, a \$1.8 million increase in insurance related expenses and a \$1.5 million increase in facility and rent, with the remainder due to changes in facilities costs, IT equipment fees, and software subscription fees.

Interest (Expense) Income, Net

There was no interest expense for the three months ended September 30, 2021, compared to \$1.3 million for the three months ended September 30, 2020. The \$1.3 million decrease in interest expense was primarily due to the settlement of convertible notes on January 28, 2021, therefore we incurred no interest expense related to convertible notes for three months ended September 30, 2021 while we incurred \$1.3 million interest expense related to convertible notes for three months ended September 30, 2020.

Interest expense, net was \$1.2 million for the nine months ended September 30, 2021, compared to \$3.6 million for the nine months ended September 30, 2020. The \$2.3 million decrease in interest expense was primarily due to the settlement of convertible notes on January 28, 2021, therefore we incurred \$0.5 million and \$3.5 million interest expense related to convertible notes for nine months ended September 30, 2021 and 2020, respectively, offset by an increase of \$0.6 million in interest expense related to Bridge Loan and SVB loan for nine months ended September 30, 2021.

Other Income, Net

Other income, net was \$25.9 million for the three months ended September 30, 2021, compared to \$3.9 million for the three months ended September 30, 2020. The \$22.0 million increase in other income was primarily due to a \$20.4 million in income from change in fair value of warrant liability, a \$4.9 million in income from a gain on forgiveness of PPP Note and a \$0.6 million in income from government research and development contracts for the three months ended September 30, 2021 offset by a \$2.6 million in income from a gain on the mark to market derivative liability related to convertible notes and a \$1.2 million in income from government research and development contracts for the three months ended September 30, 2020. The remaining \$0.1 million was due to other nonrecurring income for three months ended September 30, 2021.

Other income, net was \$25.2 million for the nine months ended September 30, 2021, compared to \$7.9 million for the nine months ended September 30, 2020. The \$17.3 million increase in other income was primarily due to a \$20.4 million in income from change in fair value of warrant liability, a \$4.9 million in income from a gain on forgiveness of PPP Note and a \$0.6 million in income from government research and development contracts for the nine months ended September 30, 2021 offset by \$0.8 million due to a nonrecurring payment to one of our investors for the nine months ended September 30, 2021 and a \$5.4 million in income from a gain on the mark to market derivative liability related to convertible notes and a \$2.2 million in income from government's research and development contracts for the nine months ended September 30, 2020.

Loss on Extinguishment of Convertible Notes

There was no such loss for the three months ended September 30, 2021 and 2020.

Loss on extinguishment of convertible notes of \$131.9 million for the nine months ended September 30, 2021 was due to the settlement of convertible notes on January 28, 2021. There was no such loss for the nine months ended September 30, 2020.

Loss on Extinguishment of Convertible Notes Attributable to Related Parties

There was no such loss for the three months ended September 30, 2021 and 2020.

Loss on extinguishment of convertible notes attributable to related parties of \$1.9 million for the nine months ended September 30, 2021 was due to the settlement of convertible notes attributable to related parties on January 28, 2021. There was no such loss for the nine months ended September 30, 2020.

Income Tax (Benefit) Expense

We recorded an income tax benefit of \$0.4 million as the result of Apollo acquisition for the three months and nine months ended September 30, 2021. We did not incur income tax expense for the three months and nine months ended September 30, 2020.

Adjustment to redemption value on Convertible Preferred Stock

There was no adjustment to redemption value on Convertible Preferred Stock for the three months ended September 30, 2021 and 2020.

Adjustment to redemption value on Convertible Preferred Stock of \$1,011.7 million for the nine months ended September 30, 2021, was due to the remeasurement of Convertible Preferred Stock to its redemption value due to the likelihood of a redemption event becoming probable. There was no such adjustment for the nine months ended September 30, 2020.

Liquidity and Capital Resources

Liquidity

We measure liquidity in terms of our ability to fund the cash requirements of our research and development activities and our current business operations, including our capital expenditure needs, contractual obligations and other commitments. Our current liquidity needs relate to research and development activities, mainly in connection with the ongoing development of our rocket technology, lease obligations and capital expenditures, which primarily relate to the development of our manufacturing facility.

We had \$378.7 million in cash and cash equivalents as of September 30, 2021 (compared to \$10.6 million as of December 31, 2020). We had no debt as of September 30, 2021 (compared to \$71.1 million as of December 31, 2020, of which \$59.8 million represented outstanding principal on the Company's convertible notes). On January 28, 2021, we settled the outstanding convertible notes into convertible preferred shares as part of the Series C financing, from which we also received \$30.0 million in cash proceeds. In June 2021, we closed the Business Combination and private placement, from which we received \$463.6 million in net cash proceeds. We believe our operating cash flows, together with our cash on hand and the net proceeds from the Business Combination and the related private placement will be sufficient to meet our working capital and capital expenditure requirements for a period of at least twelve months from the date of these financial statements.

While we expect to begin generating positive cash flows from our operating activities in 2024 (based on our anticipated Launch Services offering only), we may need additional cash due to changing business conditions or other developments, including unanticipated regulatory developments and competitive pressures.

Summary Statement of Cash Flows for the Nine Months Ended September 30, 2021 and 2020

The following table sets forth the primary sources and uses of cash and cash equivalents for the periods presented below:

(in thousands)	Nine months ended September 30,		Period over Period Change	
	2021	2020	\$	%
Net cash used in operating activities	\$ (79,576)	\$ (24,896)	\$ (54,680)	220%
Net cash used in investing activities	(41,280)	(2,223)	(39,057)	1,757
Net cash provided by financing activities	488,897	21,850	467,047	2,138
Net increase (decrease) in cash and cash equivalents and restricted cash	\$ 368,041	\$ (5,269)	\$ 373,310	(7085)%

Cash Flows used in Operating Activities

For the nine months ended September 30, 2021, net cash used in operating activities was \$79.6 million. The primary factors affecting the Company's operating cash flows during this period were net loss of \$206.5 million and a non-cash gain of \$20.4 million due to change in fair value of warrant liability and \$4.9 million due to a gain on forgiveness of PPP Note, offset by non-cash charges including a non-cash loss on extinguishment of convertible notes of \$133.8 million, stock-based compensation expense of \$20.5 million, depreciation and amortization expense of \$3.9 million, and amortization of convertible note debt discounts of \$0.4 million. Changes in operating working capital items primarily reflect the increase in inventories of \$4.2 million, prepaid and other current assets of \$13.9 million, accounts payable of \$1.3 million, accrued expenses and other current liabilities of \$11.3 million and decrease in other non-current liabilities of \$0.2 million.

For the nine months ended September 30, 2020, net cash used in operating activities was \$24.9 million, which was comprised of net loss of \$26.0 million and a non-cash gain on mark to market derivatives of \$5.4 million, offset by non-cash charges including stock-based compensation expense of \$0.6 million, depreciation expense of \$2.5 million, and amortization of convertible note debt discounts of \$2.7 million. Changes in operating working capital items primarily reflect the increase in accrued expenses and other current liabilities of \$1.6 million and decreases in accounts payable of \$0.7 million.

Cash Flows used in Investing Activities

For the nine months ended September 30, 2021, net cash used in investing activities was \$41.3 million, which was comprised mainly of cash paid as purchase price consideration in the acquisition of Apollo Fusion, Inc., net of cash acquired of \$19.4 million, acquisition of an indefinite-lived intangible trademark asset of \$3.2 million and purchases of property, plant and equipment of \$18.7 million.

For the nine months ended September 30, 2020, net cash used in investing activities was \$2.2 million, which was comprised mainly of purchases of tooling equipment, manufacturing equipment and furniture and fixtures of \$1.0 million and leasehold improvements of \$1.2 million.

Cash Flows from Financing Activities

For the nine months ended September 30, 2021, net cash provided by financing activities amounted to \$488.9 million and consisted primarily of proceeds from the Business Combination and private offering, net of transaction costs, of \$463.6 million, proceeds from the issuance of Series C of \$30.0 million and borrowings of \$10.0 million, proceeds from the issuance of stock under equity plans of \$1.8 million, offset by repayments on borrowings of \$16.4 million.

For the nine months ended September 30, 2020, net cash provided by financing activities amounted to \$21.9 million and consisted primarily of proceeds from the issuance of convertible notes of \$17.9 million and borrowings of \$5.4 million, partially offset by repayments on borrowings of \$1.4 million.

Commitments and Contractual Obligations

We are a party to operating leases primarily for land and buildings (e.g., office buildings, manufacturing and testing facilities and spaceport) and certain equipment (e.g., copiers) under non-cancellable operating leases. The following table summarizes our lease commitments as of September 30, 2021:

<u>Year Ending December 31</u>	<u>Minimum Lease Commitment</u> (in thousands)
2021 (excluding the nine months ended September 30, 2021)	\$ 458
2022	1,761
2023	1,655
2024	1,655
2025	1,655
Thereafter	4,481
Total future undiscounted minimum lease payments	\$ 11,665
Less: Imputed Interest	(2,486)
Total reported lease liability	\$ 9,179

On May 25, 2021, the Company entered a contract with a supplier to purchase components. The Company is obligated to purchase \$22.5 million of components over 60 months. The Company may terminate the supply agreement by paying 50% of the remaining purchase commitment at any point during the contract term. No purchases were made under the contract for the three months ended September 30, 2021. For the nine months ended September 30, 2021, the Company made total purchases of \$0.4 million.

Apart from the aforementioned leases and purchase commitments, we do not have any other material contractual obligations, commitments or contingent obligations.

Off-Balance Sheet Arrangements

As of September 30, 2021, we did not have any off-balance sheet arrangements, as defined in the rules and regulations of SEC Regulation S-K, such as the use of unconsolidated subsidiaries, structured finance, special purpose entities or variable interest entities.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP. Preparation of the financial statements requires our management to make a number of judgments, estimates and assumptions relating to the reported amount of expenses, assets and liabilities and the disclosure of contingent assets and liabilities. We consider an accounting judgment, estimate or assumption to be critical when (1) the estimate or assumption is complex in nature or requires a high degree of judgment and (2) the use of different judgments, estimates and assumptions could have a material impact on our consolidated financial statements. Our significant accounting policies are described in Note 2 to our consolidated financial statements included elsewhere in this quarterly report on Form 10-Q. Our critical accounting policies are described below.

Research and Development

We conduct research and development activities to develop existing and future technologies that advance our space platform offerings towards commercialization. Research and development activities include basic research, applied research, concept formulation studies, design, development, and related test program activities. Costs incurred for developing our spaceflight system and flight profiles primarily include equipment, material, and labor hours used for development and testing. Costs incurred for performing ground tests and test flights primarily include rocket or spacecraft components, propellants and other consumables, shipping and transport costs, and payroll and benefits for employees and ground crew. Research and development costs also include rent, maintenance, and depreciation of facilities and equipment and other allocated overhead expenses. We expense all research and development costs as incurred.

Stock-Based Compensation

We recognize compensation expense for time-based restricted stock units (“RSUs”) using the straight-line amortization method based on the fair value of RSUs on the date of grant. The fair value of RSUs is the closing market price of Astra common stock on the date of grant. We recognize compensation expense for time-based stock options and employee stock purchase plan rights under the 2021 Employee Stock Purchase Plan, based on the estimated grant-date fair value determined using the Black-Scholes valuation model with a straight-line amortization method. We determine the fair value of stock options, which is impacted by the following assumptions:

- Expected Term — We use the midpoint between the vesting term and the original contractual term (contractual period to exercise). If the option contains graded vesting, then the vesting term is based on the vesting pattern.
- Expected Volatility — The volatility is based on a benchmark of comparable companies.
- Expected Dividend Yield — The dividend rate used is zero as we have never paid any cash dividends on common stock and do not anticipate doing so in the foreseeable future.

- Risk-Free Interest Rate — The interest rates used are based on the implied yield available on U.S. Treasury zero-coupon issues with an equivalent remaining term equal to the expected life of the award.

Certain equity awards include service, market and performance conditions (“Performance-based awards”). The fair value of Performance-based awards is estimated on the date of grant using the Monte Carlo simulation technique. Compensation expense for Performance-based awards is amortized based upon a graded vesting method over the requisite service period.

We reverse previously recognized costs for unvested options in the period that forfeitures occur.

Income Taxes

We follow the asset and liability method of accounting for income taxes under ASC 740, Income Taxes. Deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between consolidated financial statement carrying amounts and the tax basis of assets and liabilities and net operating loss and tax credit carryforwards. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

We determine whether it is more likely than not that a tax position will be sustained upon examination. If it is not more likely than not that a position will be sustained, no amount of benefit attributable to the position is recognized. The tax benefit to be recognized for any tax position that meets the more likely than not recognition threshold is calculated as the largest amount that is more than 50% likely of being realized upon resolution of the contingency. Changes in recognition or measurement are reflected in the period in which judgment occurs.

Our policy is to include interest and penalties related to the underpayment of income taxes as a component of the provision for income taxes. To date, there have been no interest or penalties recorded in relation to unrecognized tax benefits.

Derivative Instruments

We recognize all derivative instruments as either assets or liabilities in the balance sheet at their respective fair values. We evaluate our debt and equity issuances to determine if those contracts or embedded components of those contracts qualify as derivatives requiring separate recognition in our financial statements. The result of this accounting treatment is that the fair value of the embedded derivative is revalued as of each reporting date and recorded as a liability, and the change in fair value during the reporting period is recorded in other income (expense), net in the Condensed Consolidated Statements of Operations. In circumstances where the embedded conversion option in a convertible instrument is required to be bifurcated and there are also other embedded derivative instruments in the convertible instrument that are required to be bifurcated, the bifurcated derivative instruments are accounted for as a single, compound derivative instrument. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is reassessed at the end of each reporting period. Derivative instrument liabilities are classified in the Condensed Consolidated Balance Sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument is expected within twelve months of the balance sheet date. When a derivative instrument is sold, terminated, exercised or expires, the gain or loss is recorded in the Condensed Consolidated Statements of Operations.

Public and Private Placement Warrants

The Company accounts for Public Warrants and Private Placement Warrants as liability-classified instruments based on an assessment of the warrant’s specific terms and applicable authoritative guidance in FASB ASC 480, Distinguishing Liabilities from Equity (“ASC 480”) and ASC 815, Derivatives and Hedging (“ASC 815”). Specifically, the exercise of the Public and Private Placement Warrants may be settled in cash upon the occurrence of a tender offer or exchange that involves 50% or more of the Company’s Class A stockholders. Because not all of the Company’s stockholders need to participate in such tender offer or exchange to trigger the potential cash settlement and the Company does not control the occurrence of such an event, the Company concluded that the Public Warrants and Private Placement Warrants do not meet the conditions to be classified in equity. Since the Public and Private Placement Warrants meet the definition of a derivative under ASC 815, the Company recorded these warrants as liabilities on the balance sheet at fair value upon the closing of the Business Combination, with subsequent changes in their respective fair values recognized in the consolidated statement of operations at each reporting date.

Revenue Recognition

Astra adopted the requirements of the new revenue recognition standard, known as ASC 606, effective January 1, 2020, utilizing the modified retrospective method. Revenue for Launch Services is recognized at a point in time when the Company has delivered the promised services to customers.

At contract inception, an assessment of the goods and services promised in the contracts with customers is expected to be performed and a performance obligation is identified for each distinct promise to transfer to the customer a good or service (or bundle of goods or services). To identify the performance obligations, the Company considers all the goods or services promised in the contract regardless of whether they are explicitly stated or are implied by customary business practices.

The transaction price will be defined as the amount of consideration in a contract to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, which is a fixed price stated in the contract. When a contract involves multiple launches, the Company accounts for each launch as a separate performance obligation, because the customer can benefit from each launch on its own or with other readily available resources and the launch is separately identifiable. The transaction price is allocated to each performance obligation on an estimated relative standalone selling price basis. The Company's process to estimate standalone selling prices involves management's judgment and considers multiple factors such as prices charged for similar goods and services and the Company's ongoing pricing strategy and policies.

Changes in judgments with respect to these assumptions and estimates could impact the timing or amount of revenue recognition.

Emerging Growth Company Accounting Election

Section 102(b)(1) of the Jumpstart Our Business Startups Act of 2012 ("JOBS Act") exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies are required to comply with the new or revised financial accounting standards. The JOBS Act provides that a company can elect not to take advantage of the extended transition period and comply with the requirements that apply to non-emerging growth companies, and any such election to not take advantage of the extended transition period is irrevocable. We are an "emerging growth company" as defined in Section 2(a) of the Securities Act of 1933, as amended, and has elected to take advantage of the benefits of this extended transition period and expect to remain an emerging growth company at least through the end of 2021, thereby having the benefit of the extended transition period. This may make it difficult to compare our financial results with the financial results of other public companies that are either not emerging growth companies or emerging growth companies that have chosen not to take advantage of the extended transition period.

Astra will remain an emerging growth company under the JOBS Act until the earliest of (a) August 7, 2025, the fifth anniversary of our IPO, (b) the last date of Astra's fiscal year in which it has total annual gross revenue of at least \$1.07 billion, (c) the date on which Astra is deemed to be a "large accelerated filer" under the rules of the SEC or (d) the date on which Astra has issued more than \$1.0 billion in non-convertible debt securities during the previous three years.

Recent Accounting Pronouncements

See Note 4 to our condensed consolidated financial statements included elsewhere in this quarterly report on Form 10-Q for more information about recently adopted accounting pronouncements and recently issued accounting pronouncements not yet adopted, including the timing of their adoption, and our assessment, to the extent we have made one yet, of their potential impact on our financial condition and our results of operations.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We have not, to date, been exposed to material market risks given our early stage of operations. As we expand our commercial operations, we expect to be exposed to foreign currency exchange rate and commodity price risks, particularly related to rocket propellants, helium, and aluminum, among others, and potentially other market risks, including those related to interest rates or valuation of financial instruments, among others.

Interest Rate Risk

There was no material interest rate risk for the nine months ended September 30, 2021 and the year ended December 31, 2020. We do not have any interest-bearing instruments as of the period end.

Inflation Risk

We do not believe that inflation has had a material effect on our business, results of operations or financial condition. Nonetheless, if our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs. Our inability or failure to do so could harm our business, results of operations or financial condition.

Foreign Currency Risk

There was no material foreign currency risk for the nine months ended September 30, 2021 and the year ended December 31, 2020. Our activities to date have been limited and were conducted in the United States.

Item 4. Controls and Procedures.

Limitations on effectiveness of controls and procedures

We maintain disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) that are designed to ensure that information required to be disclosed in our reports under the Exchange Act is recorded,

processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer, who serves as our principal executive officer, and Chief Financial Officer, who serves as our principal financial officer, as appropriate, to allow for timely decisions regarding required disclosures. In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints, and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of disclosure controls and procedures

Our management, with the participation of our principal executive officer and principal financial officer, evaluated, as of the end of the period covered by this quarterly report on Form 10-Q, the effectiveness of our disclosure controls and procedures (as that term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were not effective as of September 30, 2021 due to the material weaknesses in our internal control over financial reporting described below.

Material Weaknesses and Remediation Plan

As previously reported in Part I, Item 4 of our quarterly report on Form 10-Q/A for the period ended June 30, 2021, we concluded that the Company did not maintain effective internal control over financial reporting as of June 30, 2021, due to a material weakness of ineffective controls over accounting for complex transactions and instruments. The material weakness related to the classification of Public and Private Placement Warrants, issued in connection with Holicity's initial public offering, as components of equity instead of as derivative liabilities. As the Public and Private Placement Warrants met the definition of a derivative as contemplated in ASC 815, the Public and Private Placement Warrants should have been recorded as derivative liabilities on the balance sheet and measured at fair value at inception and at each reporting date in accordance with ASC 820, "Fair Value Measurement", with changes in fair value recognized in the statement of operations in the period of change.

Inclusive of the previously reported material weakness above, we identified four material weaknesses in our internal control over financial reporting including the material weakness identified in connection with the restatement of our quarterly financial statements for the period ended June 30, 2021. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. Specifically, material weaknesses identified are:

- We did not design and maintain effective controls over segregation of duties and related conflicts with respect to our information technology systems, including administrative access to our financially relevant information technology systems.
- We did not design and maintain effective controls over formalizing our accounting policies and procedures.
- We did not design and maintain effective controls over preparing and recording journal entries within our accounting systems related thereto.
- We did not maintain effective controls over accounting for complex transactions and instruments, including, the inaccurate application of conversion accounting related to our convertible instruments in connection with the restatement of our financial statements for the period ended June 30, 2021 as set forth in our Form 10-Q/A (Amendment No. 1) filed with the SEC on October 22, 2021.

Additionally, each of these material weaknesses could result in a misstatement of account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

We have begun the process of, and are focused on, designing and implementing effective internal control measures to improve our internal control over financial reporting and remediate the material weaknesses. Our efforts include a number of actions:

- We are actively recruiting additional personnel, in addition to engaging and utilizing third party consultants and specialists to supplement our internal resources and segregate key functions within our business processes, where appropriate.
- We also continue to take actions to improve our IT general controls, segregation of duties controls, period-end financial reporting controls, and journal entry controls.
- We are in the process of formally documenting accounting policies and procedures complying with applicable financial reporting standards.

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- We are implementing comprehensive controls over the preparation and review of journal entries, establishing additional controls to verify transactions are properly classified in the financial statements and program change management controls to ensure that IT program and data changes affecting financial IT applications and underlying accounting records are identified, tested, authorized and implemented appropriately.
- While we have processes to identify and evaluate the appropriate accounting technical pronouncements and other literature for all significant or unusual transactions, we are in the process of enhancing these processes to better evaluate, research and understand the nuances of the accounting standards for complex transactions and instruments. We plan to provide internal resources with enhanced access to accounting literature and research materials while increasing communication with third-party professionals with whom we consult regarding the application of accounting standards over complex transactions and instruments.

While these actions and planned actions are subject to ongoing management evaluation and will require validation and testing of the design and operating effectiveness of internal controls over a sustained period, we are committed to continuous improvement and will continue to diligently review our internal control over financial reporting.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as that term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended September 30, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

There are no material litigation, arbitration or governmental proceedings currently pending or to Astra’s knowledge, threatened against us or any members of Astra’s management team in their capacity as such. See Part I, Item 1 “Financial Statements (Unaudited) — Note 11 — Commitments and Contingencies.”

Item 1A. Risk Factors.

There have been no material changes from the risk factors previously disclosed in the Company’s Quarterly Report (Amendment No. 1) on Form 10-Q/A for the period ended June 30, 2021, filed with the SEC on October 22, 2021, and investors are encouraged to review these risk factors prior to making an investment in the Company. As mentioned earlier in this 10-Q, we now refer to our “Satellite Services” business line as “Space Services.” Thus, wherever in our Risk Factors we refer to Satellite Services, we mean our Space Services business line.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None

Item 3. Defaults Upon Senior Securities.

None

Item 4. Mine Safety Disclosures.

None

Item 5. Other Information.

None

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Item 6. Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
10.1+	First Amendment to Employment Agreement of Chris Kemp dated September 1, 2021 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on September 7, 2021).
10.2+	First Amendment to Employment Agreement of Adam London dated September 1, 2021 (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K, filed with the SEC on September 7, 2021).
10.3+	First Amendment to Employment Agreement of Kelyn Brannon dated September 1, 2021 (incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K, filed with the SEC on September 7, 2021).
10.4+	First Amendment to Employment Agreement of Martin Attiq dated September 1, 2021 (incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K, filed with the SEC on September 7, 2021).
10.5+	Employment Agreement of Benjamin Lyon dated September 1, 2021 (incorporated by reference to Exhibit 10.5 of the Company's Current Report on Form 8-K, filed with the SEC on September 7, 2021).
10.6+	Form of Performance Stock Option Award Agreement (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on September 22, 2021).
31.1*	Certification of Chief Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith.

** Furnished herewith.

+ Indicates a management contract or compensatory plan, contract or arrangement in which directors or executive officers participate.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Astra Space, Inc.

Date: November 15, 2021

By: /s/ Chris C. Kemp

Chris C. Kemp
Chief Executive Officer

Date: November 15, 2021

By: /s/ Kelyn J. Brannon

Kelyn J. Brannon
Chief Financial Officer, Principal Financial Officer and Principal
Accounting Officer

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Chris Kemp, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Astra Space, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 15, 2021

By: /s/ Chris C. Kemp
Chris C. Kemp
Chief Executive Officer

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Kelyn Brannon, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Astra Space, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 15, 2021

By: /s/ Kelyn J. Brannon
Kelyn J. Brannon
Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Astra Space, Inc. (the “Company”) on Form 10-Q for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: November 15, 2021

By: /s/ Chris C. Kemp
Chris C. Kemp
Chief Executive Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Astra Space, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: November 15, 2021

By: /s/ Kelyn J. Brannon

Kelyn J. Brannon
Chief Financial Officer