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Changes		Previous	Current
Rating:		-	Buy
Fundamental T	rend:	-	Mixed
Price Target:		-	\$28.00
FY21E Rev M		-	\$0.4
FY22E Rev M		-	\$0.8
FY23E Rev M		-	\$10.6
FY21E EPS FY22E EPS		-	(\$0.50)
		-	(\$0.50)
FY23E EPS		-	(\$0.17)
Profile			
Price			\$24.50
52 Week Range	e	\$7.97 -	47.13
Avg Daily Vol (N	Л)		0.3
Shares Out M:			22.5
Market Cap (\$N	1)		\$551
Insiders Own			11%
Short Interest (	VI)		3.5
BV/sh			\$1.54
Est LT EPS Gro	owth		NA
Net Cash/sh			\$1.53
Debt (\$M)			\$0.0
Year Ends			Dec
Rev (M)	2021E	2022E	2023E
Mar	\$0.4A	\$0.2	\$0.3
June	0.0A	0.2	0.7
Sept	0.0	0.2	3.5
Dec	0.0	0.2	6.0
FY	\$0.4	\$0.8	\$10.6
EPS	2021E	2022E	2023E
Mar	(\$0.13)A	(\$0.12)	(\$0.13)
June	(0.13)A	(0.12)	(0.11)
Sept	(0.12)	(0.13)	(0.01)
Dec	(0.12)	(0.13)	0.08
FY	(\$0.50)	(\$0.50)	(\$0.17)
		- 1-	
FY EV/EPS FY EV/S	n/a	n/a	n/a
FTEV/S	n/a	n/a	n/a
Management			
	Scott Bibaud		
CFO	Frank Laurer	ICIO	

## September 27, 2021 Institutional Research

## Atomera Inc.

(ATOM - \$24.50)

BUY Price Target: \$28

View From The Road: We See ATOM Making Progress Toward Commercialization. Maintain BUY Rating, \$28 Price Target.

Atomera is a materials engineering company licensing its IP to the semiconductor industry.

## OUR CALL

We recently hosted ATOM's mgmt. team for a virtual NDR, and summarize the key questions and responses we heard from those meetings. We believe ATOM is making good progress getting the first customers through the funnel, but acknowledge that industry capacity constraints are not a favorable dynamic. We believe a lot of signs point to ATOM getting close to moving customers to Phase 4 and further in the next few quarters, and we have our speculations as to who and when (just ask us).

ATOM has the most leveraged earnings model we have seen, and it won't take much for this company to get to breakeven and better. With any broad success, we see the ATOM being a big winner for any small-cap portfolio. We are maintaining our Buy rating and \$28 price target.

#### **INVESTMENT HIGHLIGHTS**

- Notes from the road: We recently hosted investor meetings with ATOM's CEO/CFO, and have the following notes from those meetings.
- Capacity constraints limiting testing progress: ATOM says its customer engagements still have high capacity utilization, making it hard to get R&D wafer runs done. For some customers, testing MST is a priority, but timeframes may be somewhat elongated.
- **300mm epi tool qual progress ongoing:** ATOM indicated it is making progress qualifying its 300mm epi tool. The issue is the equipment surrounding the tool, not the tool itself ATOM said it is actually making use of the tool, albeit with limited uses. ATOM expressed confidence it would qualified soon, but didn't give an exact timeframe.
- Fabless customers a new direct target: ATOM announced in a blog that it had hired a PR firm for strategic marketing. The intent of this is to more directly target fabless semi makers. ATOM's strategy to date has been to target foundries and IDMs directly, but after the success it has seen with its unnamed RF fabless maker, it sees reasons to directly market to fabless customers. What do we take from this? This RF fabless maker may be progressing well, which we take as a good sign.
- **Perspective on how long it takes to bring new materials to semis:** ATOM was asked multiple times why it takes so long to get to production. ATOM said the type of work it is doing used to be done by industry consortiums, but those have disbanded. Since then, the deep advances have been done in academia and from tool makers.
- Thoughts on financials: Many investors asked how to think about opex into next year, and ATOM gave the impression that it will go up somewhat simply because of expenses related to the new 300mm epi tool. ATOM also indicated that while it has been conservative with opex to conserve cash, it won't hesitate to spend/hire if it accelerates early customers to market.



• **Could ATOM be a takeout candidate?** A few investors asked this question, to which ATOM gave their thoughts (and we will add some of our own). ATOM doesn't think it makes sense for a tool maker to acquire it, as it removes some segment of the market not served by that tool maker (although we believe AMAT has a high share). We do think an IP provide makes sense, and since SNPS has a good view of ATOM's technology from its position as the only TCAD tool in the market, we think that is a good bet. ATOM suggests it could get acquired by an IDM, but does limit the market somewhat. Ultimately, we don't think this happens until at least one customer ramps to volume with no issues.

## STOCK OPPORTUNITY

Given the early stage nature of ATOM, we assess the stock's potential using a probability-weighted scenario analysis based on the number of fabs ATOM could license to if it is able to convert its Phase 3/Phase 4 engagements into paying customers.

We outline three different scenarios based on the number of average-sized fabs that ultimately ramp to volume: base (7 fabs), upside (20) and moonshot (50) cases. Our revenue model assumes that an average-sized fab can produce 147K wafers/quarter (200mm equivalent), each of which has an ASP of \$1150, a 2% royalty rate and 60% max utilization of the fab. Our analysis assumes GM of 95% (likely to be higher than this), with opex scaling to some degree based on number of customers, some dilution in shares and a modest tax rate.

2024	Base	Upside	Moonshot	
Fabs	7	15	50	
Sales	49.9	115.9	272.5	
GM	95%	95%	95%	
Opex	18.6	26.2	31.4	
EBIT	28.9	83.9	227.4	
margin	58%	72%	83%	
Net income	26.0	71.5	182.0	
Shares OS	26	26	26	
EPS	1.00	2.75	7.00	
tax rate	10%	15%	20%	
Targets				Wtd Ave
EV/EPS	20	25	30	
Target	\$14	\$48	\$ 146	\$ 28
Weighting	75%	20%	5%	

Source: Craig-Hallum

Based on the above analysis, we arrive at a weighted-average price target of \$28 for shares of ATOM.



## RISKS

We believe an investment in Atomera involves the following risks:

- Unproven technology: While ATOM's engagement appears strong, until a single customer moves into full production, there is no proof that the technology is compelling enough for customers to take the risk.
- **Competition:** Atomera is competing in the broader power semiconductor market, including against internal development teams within companies that have "not invented here" mentality.
- **History of losses:** Atomera has yet to make a profit on a quarterly or annual basis, and until it creates sustainable revenues, it will continue to do so. ATOM may have to raise capital via equity raises, as it has done in the past, creating dilution risk for investors.
- **Royalty-based business model:** Atomera's business model makes them highly dependent on the rate of adoption of their technology by semiconductor manufacturers and designers. If demand for MST-enabled products declines, or if manufacturers and designers struggle to incorporate MST into their products, then Atomera will be adversely affected.
- Changing technologies: The semiconductor industry is characterized by rapidly changing technologies and industry standards, along with frequent new product introductions. If other technologies render Atomera's MST technology ineffective or obsolete, or if Atomera cannot develop new technologies to meet the semiconductor industry's changing needs, then Atomera could be negatively impacted.
- **Customer concentration:** Atomera finds it likely that their royaltybased revenues will be dependent on relatively few customers. If they lose any of those customers, their revenues could decrease significantly.

## **CRAIG-HALLUM ALPHA SELECT LIST**

The Alpha Select list is an actively researched collection of small, underfollowed public companies that we believe have the potential to become much larger. An "acorn" list of sorts, the Alpha Select List will typically consist of sub-\$500M market cap companies with attractive business models, above average growth trends, favorable macro/secular themes and management teams that we believe have the ability to take the business to the next level.



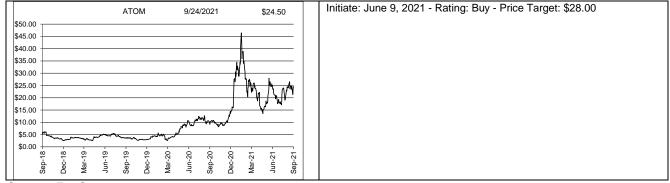
Atomera Inc (ATOM)				FY2021					FY2022					FY2023			
Income Statement (Pro Forma)	2019	2020	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	Mar-23	Jun-23	Sep-23	Dec-23	2023
FY ends 12/31			1QA	2QA	3QE	4QE		1QE	2QE	3QE	4QE		1QE	2QE	3QE	4QE	
(\$ in millions, except per share data)																	
Revenue	0.5	0.1	0.4	-	-	-	0.4	0.2	0.2	0.2	0.2	0.8	0.3	0.7	3.5	6.0	10.6
Cost of Revenue	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5
Gross Profit	0.3	0.0	0.4	0.0	0.0	0.0	0.4	0.2	0.2	0.2	0.2	0.8	0.3	0.7	3.4	5.7	10.1
R&D	7.7	7.3	2.0	1.9	2.1	2.1	8.1	2.2	2.2	2.3	2.3	8.9	2.3	2.3	2.4	2.4	9.3
SG&A	6.2	4.6	1.3	1.0	1.5	1.5	5.2	1.6	1.7	1.8	1.9	6.9	1.9	1.9	2.0	2.1	7.9
Total Opex	13.9	11.9	3.3	2.9	2.8	2.8	11.7	3.0	3.1	3.2	3.4	12.6	3.4	3.4	3.6	3.6	14.0
Operating Income	(13.6)	(11.9)	(2.9)	(2.9)	(2.8)	(2.8)	(11.3)	(2.8)	(2.9)	(3.0)	(3.2)	(11.8)	(3.1)	(2.7)	(0.2)	2.1	(3.9)
Interest income/(expense)	0.3	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2
Other income/(loss)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income Before Taxes	(13.3)	(11.7)	(2.9)	(2.9)	(2.7)	(2.7)	(11.2)	(2.7)	(2.8)	(3.0)	(3.1)	(11.6)	(3.1)	(2.7)	(0.1)	2.2	(3.7)
Taxes (Benefit)	(0.2)	(0.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.1)	(0.1)	(0.0)	0.2	0.0
Net Income	(13.1)	(11.7)	(2.9)	(2.9)	(2.7)	(2.7)	(11.2)	(2.7)	(2.8)	(3.0)	(3.1)	(11.6)	(3.0)	(2.6)	(0.1)	2.0	(3.7)
EPS Diluted	(0.83)	(0.63)	(0.13)	(0.13)	(0.12)	(0.12)	(0.50)	(0.12)	(0.12)	(0.13)	(0.13)	(0.50)	(0.13)	(0.11)	(0.01)	0.08	(0.17)
Operating EPS	(0.85)	(0.63)	(0.13)	(0.13)	(0.12)	(0.12)	(0.50)	(0.12)	(0.12)	(0.13)	(0.14)	(0.51)	(0.13)	(0.11)	(0.01)	0.07	(0.18)
Diluted Shares	15.8	18.7	22.1	22.5	22.6	22.7	22.5	22.8	22.9	23.1	23.2	23.0	23.3	23.4	23.5	26.6	24.2
Margin Analysis (Pro Forma)																	
Gross margins	52.5%	79.0%	n/m	n/m	n/m	n/m	n/m	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
R&D	n/m	66.4%	38.9%	87.9%													
SG&A	n/m																
Operating margin	n/m																
Pretax margin	n/m																
Net margin	n/m																
Growth, Q/Q																	
Revenue			n/a	-100%	n/a	n/a		n/a	0%	0%	0%		50%	134%	405%	71%	
EPS			-10%	-2%	-7%	1%		-2%	3%	5%	5%		-4%	-15%	-95%	-1597%	
Growth, Y/Y																	
Revenue	117%	-88%	545%	n/a	n/a	n/a	545%	-50%	n/a	n/a	n/a	100%	50%	250%	1670%	2922%	1223%
EPS	-19%	-25%	-24%	-24%	-16%	-17%	-20%	-10%	-5%	7%	11%	1%	9%	-10%	-96%	-157%	-67%



Atomera Inc (ATOM)				FY2021					FY2022					FY2023			
Balance Sheet	2019	2020	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	Mar-23	Jun-23	Sep-23	Dec-23	2023
FY ends 12/31			1QA	2QA	3QE	4QE		1QE	2QE	3QE	4QE		1QE	2QE	3QE	4QE	
(\$ in millions, except per share data)																	
ASSETS																	
Cash and short-term investments	14.9	37.9	36.7	34.3	31.9	29.7	29.7	27.4	25.1	22.7	20.1	20.1	17.6	15.1	13.1	13.4	13.4
Account receivables, net	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.5	2.8	4.7	4.7
Inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current assets	0.1	0.1	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Total current assets	15.0	38.1	37.6	35.0	32.6	30.4	30.4	28.2	25.9	23.5	21.0	21.0	18.4	16.3	16.5	18.8	18.8
Net PPE	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Operating lease right-of-use assets	0.2	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Long-term investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other assets, net	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total assets	15.2	39.4	39.3	36.7	34.2	32.0	32.0	29.8	27.6	25.2	22.6	22.6	20.1	18.0	18.1	20.5	20.5
LIABILITIES																	
Account payable	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Accrued liabilities	1.0	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Other	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Short term debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total current liabilities	1.5	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	-																
Long-term liabilities	0.0	0.6	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Long-term debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total liabilities	1.5	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
						-	-		-			-				-	-
Total shareholders' equity	13.8	37.3	37.2	34.7	32.2	30.0	30.0	27.8	25.6	23.1	20.6	20.6	18.1	15.9	16.1	18.5	18.5
		01.0	07.2	01.1	02.2	00.0	0010	21.0	20.0	20.1	20.0	20.0	10.1	10.0	10.1	10.0	1010
Total liabilities & equity	15.2	39.4	39.3	36.7	34.2	32.0	32.0	29.8	27.6	25.2	22.6	22.6	20.1	18.0	18.1	20.5	20.5
									-	-							
Operating Activity																	
Day sales outstanding	22	-	15	na	70	70	na	70	70	70	70	70	70	70	70	70	70
Inventory turns	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inventory days	-	-	-	-	-	_	-	-	-	-	_	-	-	-	-	_	-
Payable period	n/a	n/a	n/a	n/a	35	35	35	35	35	35	35	35	35	35	35	35	35
Cash conversion cycle	n/a	n/a	n/a	n/a	35	35	n/a	35	35	35	35	35	35	35	35	35	35
Book value per share	0.87	1.99	1.68	1.54	1.43	1.32	1.34	1.22	1.11	1.00	0.89	0.90	0.78	0.68	0.69	0.69	0.76
Cash per share	0.94	2.02	1.66	1.54	1.40	1.32	1.34	1.22	1.09	0.98	0.87	0.88	0.75	0.64	0.56	0.00	0.56
	0.34	2.02	1.00	1.00	1.71	1.51	1.52	1.20	1.09	0.30	0.07	0.00	0.75	0.04	0.00	0.00	0.00



## **REQUIRED DISCLOSURES**



#### Source: FactSet

#### Ratings definitions:

**Buy** rated stocks generally have twelve month price targets that are more than 20% above the current price. Hold rated stocks generally have twelve month price targets near the current price. Sell rated stocks generally have no price target and we would sell the stock.

#### Fundamental trend definitions:

**Improving** means growth rates of key business metrics are generally accelerating. **Stable** means growth rates of key business metrics are generally steady. **Mixed** means growth rates of some key business metrics are positive but others are negative. **Declining** means growth rates of key business metrics are generally decelerating.

#### Ratings Distribution (6/30/2021)

	% Of Companies	% With Investment
Rating	Covered	Banking Relationships
Buy	84%	32%
Hold	15%	13%
Sell	1%	33%
Total	100%	29%

# Information about valuation methods and risks can be found in the "STOCK OPPORTUNITY" and "RISKS" sections, respectively, of this report.

CHLM makes a market in this security.

CHLM has received investment banking revenue from the subject company in the last 12 months. CHLM expects to receive or intends to seek compensation for investment banking services from the subject company in the next three months.

Analysts receive no direct compensation in connection with the firm's investment banking business. Analysts may be eligible for bonus compensation based on the overall profitability of the firm, which takes into account revenues from all of the firm's business, including investment banking.

## **OTHER DISCLOSURES**

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