



WiSA Technologies, Inc.

Q3 weak. However, launch of WiSA E should provide strong growth prospects. Lowering P/T to \$2.00.

Q3 weak: WiSA recently (on November 15) reported its Q3 2023 (ending September) results. Revenue was \$0.8 million (-18% y-o-y), compared with our and consensus estimates of \$0.6 million. EPS was \$(0.97), compared with our estimate of \$(0.62) and consensus of \$(0.84). There was no Q3 guidance.

Demand issues: The company again (like in 2022 and most of 2023) had weak Q3 revenues (-18% y-o-y) as consumer demand for consumer electronics have slowed significantly (since early 2022).

Announces potential acquisition of Comhear: On May 15, WiSA announced that it has signed a non-binding letter of intent to acquire Comhear, Inc., a developer of AI-enabled adaptive audio technology. The transaction is expected to close in Q4 2023 and be accretive. Exact terms of the deal are being finalized and was originally expected to be done by Q3 and the deal to close in Q4. The company expects the combined company's 2024 revenue to be \$10 - 15 million.

No 2023 outlook: WiSA did not provide any update to its guidance. Its prior guidance was for 2023 revenue of \$2.3 – 2.9 million.

Adjusting 2023 estimates: We are maintaining our 2023 revenue estimates of \$2.6 million, but raising it for EPS to \$(2.16) from \$(3.00). Our estimates do not include any potential contributions from Comhear.

35 million soundbar opportunity: We believe consumers' interest in wireless immersive sound continues to grow thereby driving increased products by consumer electronic manufacturers. 35 million soundbar units are estimated to have shipped worldwide in 2020. Given WiSA technology superiority over soundbar, we believe WiSA should gain market share. If WiSA can get just a 5% market share, that would imply a \$25 million market opportunity for WiSA.

Products ramping up: Over 30 customers (brands) using WiSA's technology shipped products into the market in 2023 and this is expected to significantly increase over the next several years.

New focus on WiSA E: WiSA E development kits began shipping to strategic customers in July 2023, and its licensing plan for WiSA E software is to drive lower cost wireless interoperability between HDTVs, soundbars and speakers. In December, WiSA announced its first licensee of WiSA E software to a global TV brand with over 10 million HDTVs sold annually.

Early stage, but large sales opportunity: We acknowledge that WiSA is still at an early stage in its product commercialization and revenue generation is still low and volatile, but believe key financial and product milestones and sales and design wins in the next year should be positive catalysts for the stock.

Positive high risks versus rewards: We believe that the current valuation for WiSA has already factored in many of its risks (principally its ability to grow sales) but is under valuing its overall growth prospects and product portfolio, resulting in a positive risk versus reward scenario for an investment in WiSA.

Capital raise: WiSA had ~\$0 million in cash and \$1 million in debt at the end of Q3. In the current Q4, the company raised ~\$5 million in stock. We believe WiSA has enough cash into Q2 2024.

CFO to focus on Comhear: In July, George Oliva has assumed a newly created position as SVP Finance & Strategic Operations, which replaces his previous role as CFO to focus on the acquisition of Comhear, There is no new CFO.

Current valuation attractive: We are maintaining our BUY rating, but lowering our 12-month price target to \$2.00 from \$7.00, which is based on a NPV analysis. We believe this valuation appropriately balances out the company's high risks with its high growth prospects and large upside opportunities.

Company Description

Based in Beaverton, OR, WiSA Technologies (f.k.a. Summit Wireless Technologies) sells audio chips, modules, and license IP to enable WiSA Association interoperability standards to deliver immersive wireless sound.

United States
Technology

December 15, 2023

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COMPANY UPDATE

Rating: **BUY**

Ticker: WISA

Price: \$0.13

Target: \$2.00
(from \$7.00)

Stock Data

Exchange:	NasdaqCM
52-week Range:	\$0.11 – 23.00
Shares Outstanding (million):	18
Market cap (\$million):	\$2
EV (\$million):	\$(2)
Debt (\$million):	\$1
Cash (\$million):	\$5
Avg. Daily Trading Vol. (\$million):	\$1
Float (million shares):	18
Short Interest (million shares):	0.7
Dividend, annual (yield):	\$0 (NA%)

Revenues (US\$ million)

	<u>2023E</u> <u>(Cur.)</u>	<u>2023E</u> <u>(Old)</u>	<u>2024E</u> <u>(Cur.)</u>	<u>2024E</u> <u>(Old)</u>
Q1 Mar	0.5A		0.8E	
Q2 Jun	0.4A		0.7E	
Q3 Sep	0.8A	0.6E	1.7E	1.5E
Q4 Dec	<u>0.9E</u>	<u>1.1E</u>	<u>2.3E</u>	<u>3.0E</u>
Total	2.6E		5.5E	6.0E
EV/Revs	N/A		N/A	

Earnings per Share (pro forma)

	<u>2023E</u> <u>(Cur.)</u>	<u>2023E</u> <u>(Old)</u>	<u>2024E</u> <u>(Cur.)</u>	<u>2024E</u> <u>(Old)</u>
Q1 Mar	(0.53)A		(0.19)E	(0.52)E
Q2 Jun	(1.20)A		(0.17)E	(0.48)E
Q3 Sep	(0.97)A	(0.62)E	(0.23)E	(0.52)E
Q4 Dec	<u>(0.22)E</u>	<u>(0.63)E</u>	<u>(0.16)E</u>	<u>(0.52)E</u>
Total	(2.16)E	(3.00)E	(0.75)E	(2.03)E
P/E	N/A		N/A	

*Reflects a 1:100 reverse stock split in January 2023

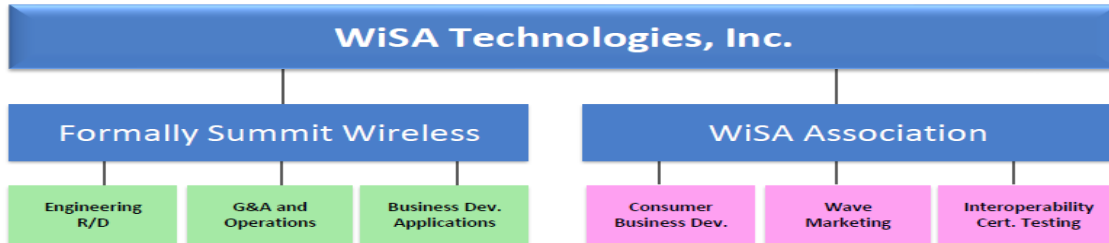
Important Disclosures

Ascendant Capital Markets LLC seeks to do business with companies covered by its research team. Consequently, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making an investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report, beginning on page 17.

Exhibit 1: WiSA Technologies, Inc. (f.k.a. Summit Wireless Technologies, Inc.) Overview

Summit Wireless and WiSA Association now under WiSA Technologies, Inc. umbrella



WiSA Association: Building a Standard



The WiSA Association has 70+ member brands implementing worldwide standards for high definition, multi-channel, low latency audio using our WiSA global interoperability standard



25+ Brands Shipping Summit Wireless' Technology



2021 Shipping Display Brands	2021 Shipping Soundbar & Speaker Brands
Strategic Partners	

Source: Company reports

Exhibit 2: WiSA Investment Highlights

Key Highlights

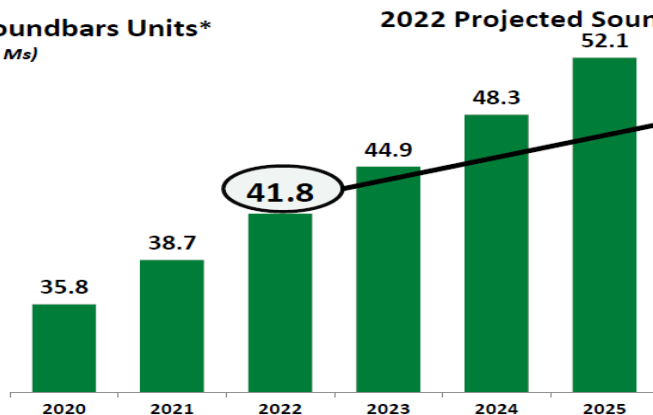
- 1 Strong IP position and significant patent coverage for immersive audio, with highly-differentiated multichannel wireless audio technology and existing implementations in premium audio brands
- 2 WiSA E market opportunity to unify market for wireless audio solutions for TVs and soundbars that is software based and interoperable
- 3 World-class premium technology ported to low-cost IoT chips to address mass market audio systems with software roadmap to address TAM of over 2 billion units
- 4 Establishment and management of the Wireless Speaker and Audio Association (WiSA, LLC) with interoperability specification, testing, and compliance standard
- 5 30+ brands have designed WiSA technologies into their products

Source: Company reports.

Exhibit 3: WiSA's Market Opportunity

Soundbars: Target Market of Discovery Technology

Soundbars Units*
(in Ms)



* Source: Infiniti Research September 2021

2022 Projected Soundbar SAM**

Audio Configuration	WiSADs
Soundbar units (Ms)	41.8
Market Share	5%
WiSA Systems (Ms)	2.1
Speakers per configuration	3
Transmitters per system	1
Modules (Ms)	8.4
Module ASP (\$ per unit)	\$3.00
Rev. Opportunity (Ms of \$)	\$25

** Management estimates: Factors include content availability, simplicity for the consumer, price, multiple brands

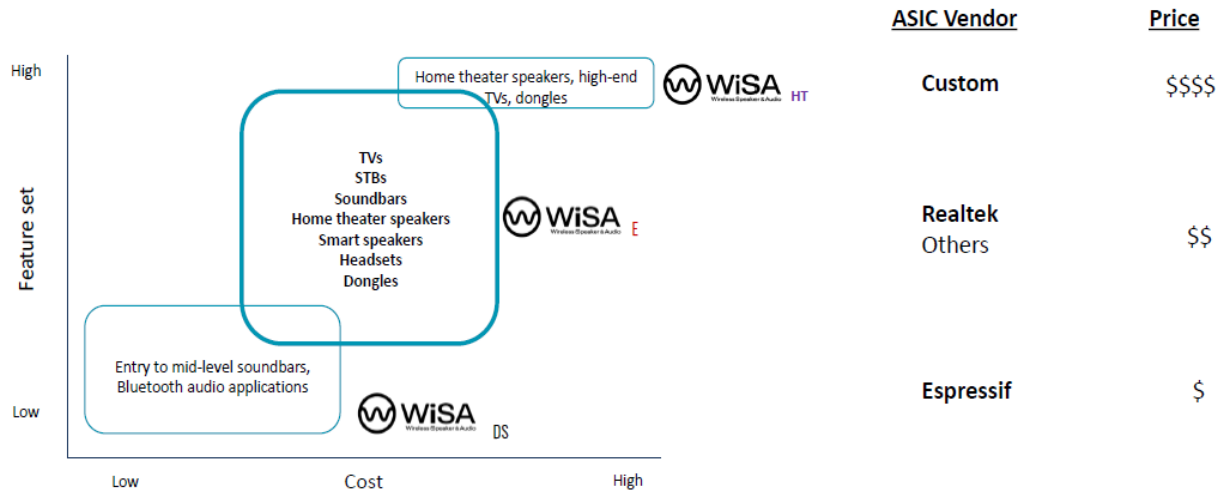
Source: Company reports.

Exhibit 4: WISA's Products

WISA Product Families W

WISA Technologies has a 10-year history of providing feature-rich wireless spatial technology for the premium market.

WISA Technologies' recent product and partnership announcements focus on bringing the same technical know-how to build and market wireless spatial technology for mass-market products.



Bringing Spatial Audio to the Mass Markets WISA

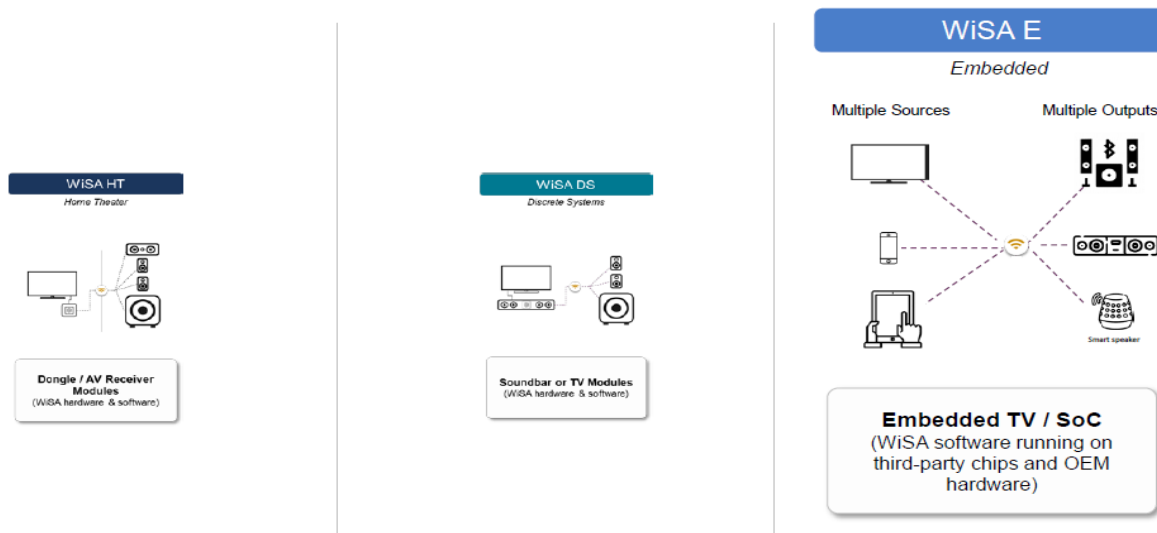
<p>WISA HT (Home Theater)</p> <ul style="list-style-type: none"> ▪ 5GHz with DFS support ▪ 8 channels ▪ Fix Ultra low latency (5ms) ▪ Tight speaker sync ▪ 24-bit audio ▪ Up to 96KHz sample rates 	<p>WISA E (DS Module)</p> <ul style="list-style-type: none"> ▪ Low-cost 2.4GHz IoT transceiver ▪ (4+Sub) audio channels ▪ Fixed transport latency (40ms) ▪ Tight speaker sync ▪ 16-bit audio ▪ 48KHz sample rate 	<p>WISA E (Enterprise Modules)</p> <ul style="list-style-type: none"> ▪ 5GHz IoT transceiver ▪ 8 audio channels ▪ Fixed transport latency (20ms) ▪ Tight speaker sync ▪ 24-bit audio ▪ 48KHz sample rate ▪ Initial launch was 7/15 	<p>WISA E (Embedded Software)</p> <ul style="list-style-type: none"> ▪ 5GHz IoT transceiver ▪ 8 audio channels ▪ Fixed transport latency (20ms) ▪ Tight speaker sync ▪ 24-bit audio ▪ 48KHz sample rate ▪ High volume Tx applications (> 1Mu/yr.)
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Custom ASIC		Software (RTOS, Linux)	
2015 – 2021	2022	2023	2024

Source: Company reports.

Exhibit 5: WiSA Audio E, HT, and DS

Multi-Faceted Spatial Audio Delivery Model



WiSA E Opportunity: The Economic Sizing



- WiSA E is designed for high volume customers needing intra-brand operability and inter-brand WiSA E Certified interoperability.
 - In comparison, Sonos works with their branded products only and not with TVs or other brands of audio.
 - WiSA E can be implemented on a TV for wireless audio transmission
- These 5 customers represent 50% market share based on Future Source's data with some customer input.
- Each of the customers that has received our development kits has an opportunity to ship 1 million – 3 million WiSA E products per year, which is a potential revenue of \$5M - \$15M per year per customer.

WiSA HT and DS



- WiSA HT will building the WiSA ecosystem for years to come.
 - New members and products will be announced in September at CEDIA.
 - New designs from Tier 1 brands are expected to launch at CES '24, in January.
- WiSA DS will launch its first soundbar under Platin Audio in October. This product is expected set new price/performance stands in the soundbar market by using WiSA DS.
 - Other designs and brands are scheduled to launch later this year.

Source: Company reports.

Exhibit 6: WiSA Future Roadmap

Beyond Premium Audio: Driving 2022 Growth



- **First Gen Technology** established WiSA as multi-channel wireless technology brand with a complete ecosystem of TVs/transmitters and speakers
- **Next Gen** extends WISA to all smart devices with massive TAM
- **Immersive Sound Expands to Wi-Fi enabled smart devices:**
 - Smart TVs
 - Smart Speakers
 - Smart Phones
 - Tablets
 - Gaming PCs and Consoles
 - IoT Devices
 - Headphones

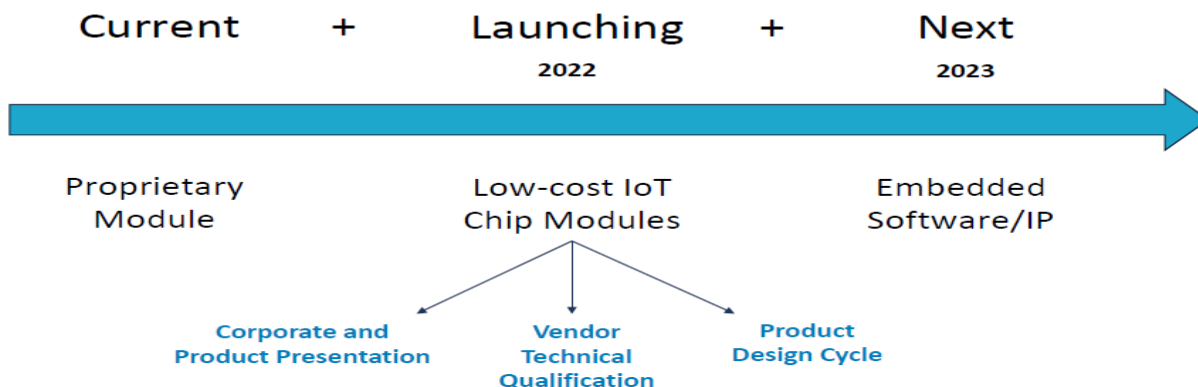


Reaching Broader Consumer Markets with Rapidly Dropping WiSA Transmission Costs



Product	Host Device	Retail MSRP	TV/Soundbar Integration Cost	Home Theater in a Box System
Axiim Q AV Reciever	All TVs/Set top Boxes	\$1,199		
Axiim Link	Xbox and WiSA Ready TV	\$229		\$999
WISA SoundSend - Drops cost of Xbox support	All TVs	\$179		\$899
WISA SoundSend USB* - Drops Dolby & HDMI royalties - Lowers tariffs	WiSA Ready TVs/Devices	\$99-\$119		\$799
WISA TX Module			\$13-\$16	
Next Generation Module	TVs, Soundbars, Projectors		80% Reduction	\$699-\$749

Moving Towards Lower Costs and Ubiquity



Source: Company reports.

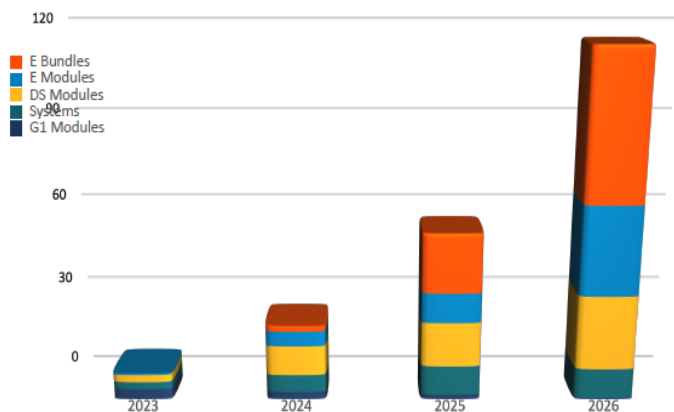
Exhibit 7: WiSA Business Model and Potential Revenue

Overview of Business



- WiSA E is a compelling technology advancement
 - Strong interest in Beta testing and sampling
 - Still on track to release to production in Q3
- WiSA DS is being specified for design and building of SB
 - First production to start in Q3
 - First product in the US market will be Platin Audio’s 5.1.4 soundbar
- WiSA Marketing driving immersive audio messaging using Dolby Atmos with WiSA Certified upfiring speakers
 - **Platin's updated Monaco 5.1.2 home theater system adds Dolby Atmos to its WiSA-powered offering to create an affordable yet impressive home cinema experienc**

Revenue Opportunity: 2023 - 2026



Currently in 2022

- Continued HT module and system sales based on design activity through 2023 and consumer acceptance of wireless speakers
- First revenue - DS module (soundbars)

2023 Revenue Drivers

- DS module revenue growth based on soundbar and TV designs
- First revenue – WISA E modules in Platin Speakers

2024 Revenue Drivers

- Growth of DS modules and E modules
- First revenue E license with RX modules + bundles

2025 Revenue Drivers

- Continued growth in DS and E modules
- Strong growth of E license + bundles

2026 Revenue Drivers

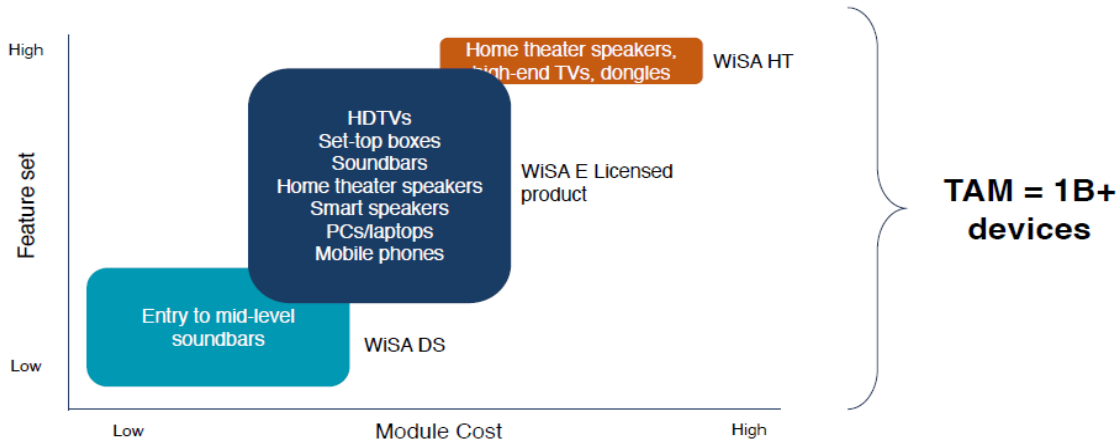
- Continued growth in module sales
- Continued strong growth of E license + bundles

Use of Projections and Illustrations: This page contains certain [financial forecasts] and illustrations. Neither [WISA's] independent auditors nor any other professionals have audited, reviewed, compiled or performed any procedures with respect to the

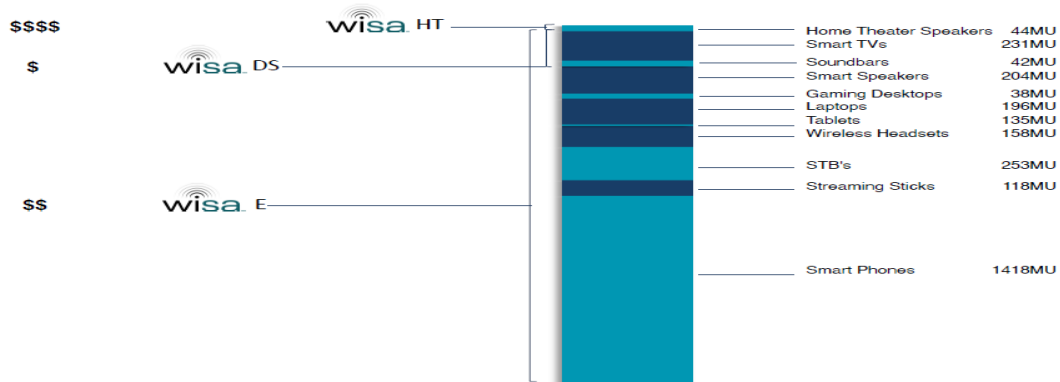
Source: Company reports.

Exhibit 8: WiSA Product Roadmap and Opportunities

Licensing Enables Broad Market Expansion



WiSA DS and E Growth Opportunities



WiSA DS – Customer Response

WiSA DS Tx

5.1.4 CONFIGURATION SHOWN
 1 SPEAKERS (1 FRONT + 2 SURROUND SOURCES)
 2 WIRELESS SUBWOOFERS
 3 UPWARD-FIRING SPEAKERS

Relative to Primary Competitor:

- More audio channels
- Stronger wireless performance
- Lower Price < \$15 for wireless modules

WiSA DS Rx

Source: Company reports.

Exhibit 9: WiSA's Outlook (as of August 2023)

Financial Overview wisa

Revenue Growth

Expect sequential growth in revenue in each of the third and fourth quarters of 2023

Expense Reductions

Planned from non-engineering salary and other sales and marketing expenses

Cash operating expenses 2H 2023 ~\$0.5M less than 2H 2022

2024 cash operating expenses ~\$2M lower compared to 2023

Balance Sheet

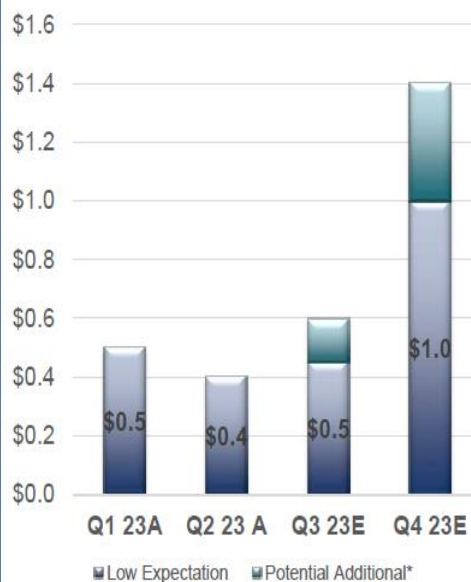
At June 30, 2023 -- \$2.0M cash

In July, received \$0.7M in gross proceeds from warrant exercise

Annual Revenue



Quarterly Revenue



*Excludes Comhear

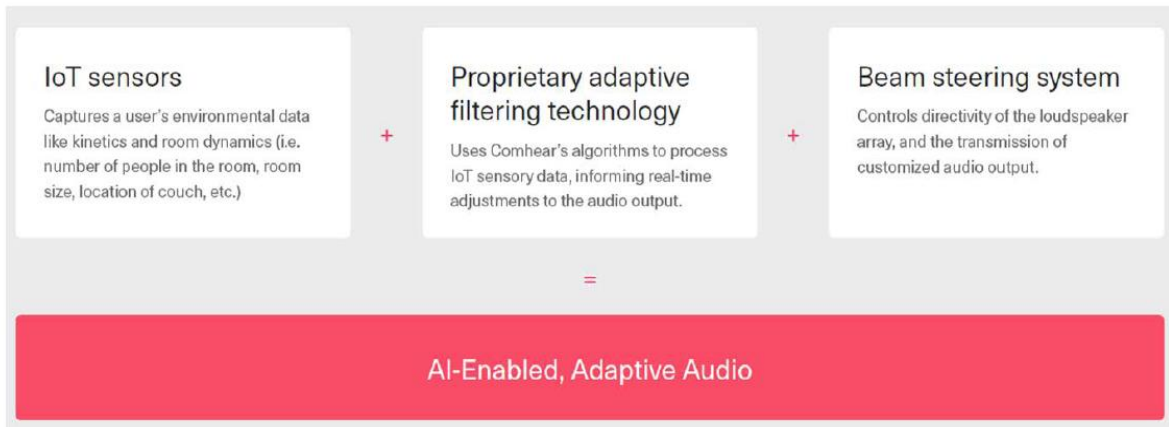
Source: Company reports.

Exhibit 10: Acquisition of Comhear (announced May 2023, expected to close in Q4 2023)

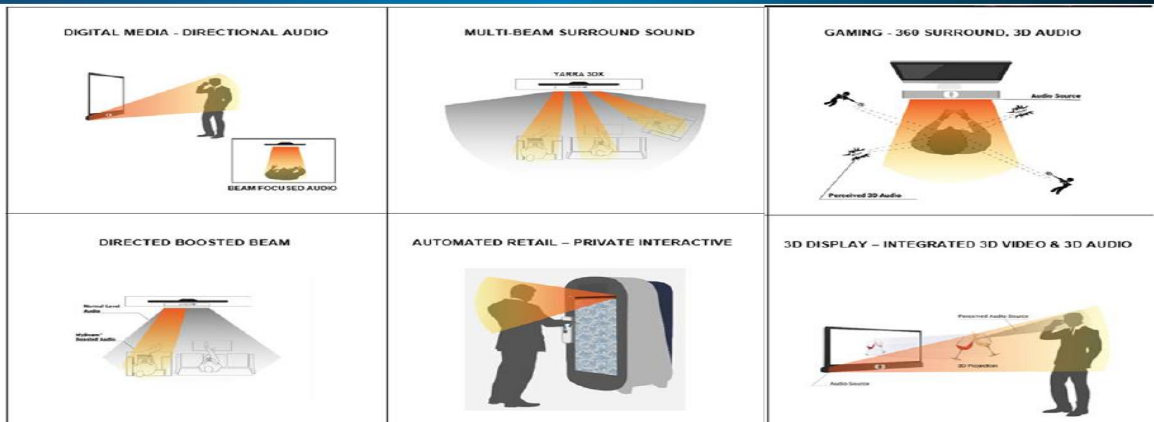


Technology

Comhear's AI-enabled adaptive audio technology is able to capture a user's environmental room dynamics (number of people, objects, movement) and using its proprietary adaptive filtering and beam steering system, process this data in real-time in order to make adjustments to the audio output.



MyBeam™ Powered SOLUTIONS



Source: Company reports.

Exhibit 11: Highlights of WiSA and Comhear Acquisition (announced May 2023, expected to close in Q4 2023)

Key Highlights of WiSA and Comhear combined

- 1 Strong IP position and significant patent coverage for immersive audio, with highly-differentiated multichannel wireless audio technology and existing implementations in premium audio brands
- 2 World-class premium technology ported to low-cost IoT chips to address mass market audio systems with software roadmap to address TAM of over 2 billion units
- 3 Establishment and management of the Wireless Speaker and Audio Association with interoperability specification, testing, and compliance standard
- 4 30+ brands have designed WiSA technologies into their products, with expanded opportunities from Comhear's products and target markets
- 5 Strong revenue growth from combined company for modules sales, audio systems sales, and licensing

Source: Company reports.

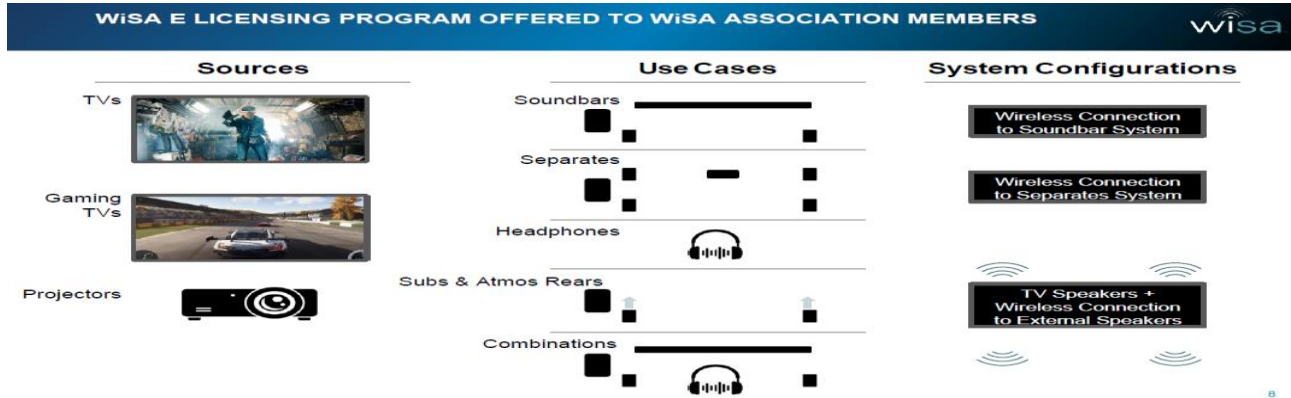
Exhibit 12: Q3 2023 and Recent Highlights

Q3 2023 and Recent Highlights

- Launched two new tools for WiSA Technologies' customers to streamline the development and manufacturing of WiSA E and WiSA DS implementations.
- Started shipping WiSA E development kits to key tier 1 HDTV and audio customers in major markets, including Korea, Japan, United States and China.
- Platin Audio announced its Milan 5.1.4 Dolby Atmos Soundbar System and debuted it at this year's CEDIA Expo September 7-9.
- Buchardt Audio's Anniversary 10 Active Wireless Speakers earned WiSA Home Theater (HT) Interoperability Certification.
- WiSA Association unveiled the first WiSA DS soundbar and showcased an array of newly certified member products at CEDIA Expo 2023.
- Optoma's UHZ50, UHZ50+, and UHZ45 UHD projectors received WiSA SoundSend Certification.
- Added 3-channel output capabilities to WiSA E receiver module, lowering the cost of Atmos-based soundbars and minimizing the number of speakers required for true immersive audio.
- Offered a free license to WiSA E software to all WiSA Association display (HDTV and projector) members.

Source: Company reports.

Exhibit 13: Current Focus on WiSA E



Why WiSA E on TVs

High performance wireless audio that:

- Has zero cost to the TVs bill of material
- Has high audio channel count to support Dolby Atmos and Atmos Music
- Has interoperability between brands
- Has speaker companies committed to the WiSA ecosystem
- Can be ported to multiple SoCs within each brand

Lower cost to consumers while improving the audio experience

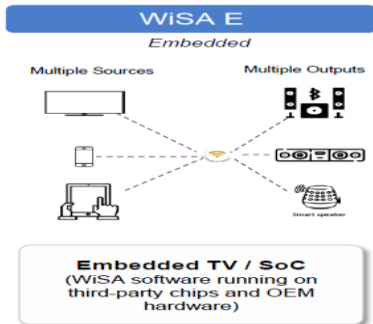
WiSA E Launch

WiSA E launch is dramatically faster than the original HT launch. Stats from the first 90 days:

- 60+ meetings/presentations/demos across 30+ companies
- 13 Display brands (TVs and Projectors)
- 7 display brands reviewing licensing agreement, expect more
- 85 development boards have been shipped to customers

WiSA will be demonstrating embedded WiSA E on tier one TV at CES

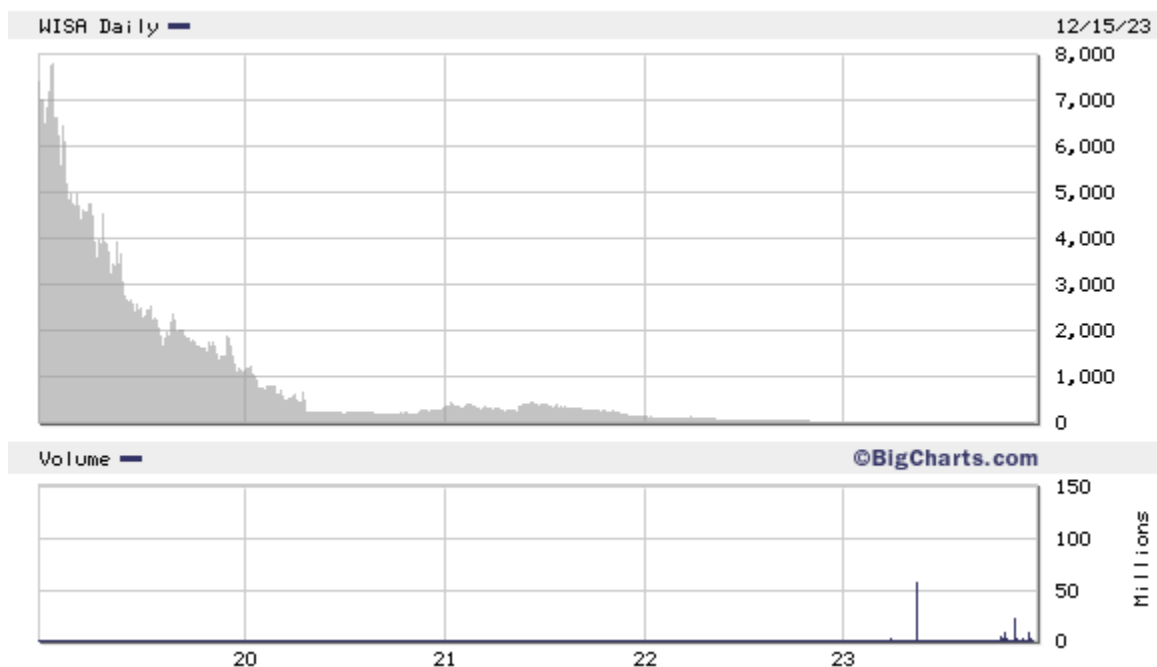
Forward to the Future



- Materially impact 2024 Revenue
- Expansion to other use cases at CES and in 2024
- TV partner announcements
- Speaker partner announcements
- Strategic partnering

Source: Company reports.

Exhibit 14: WiSA Technologies's (f.k.a. Summit Wireless Technologies, Inc.) Stock Price (5-Years)



*Reflects a 1:100 reverse stock split in January 2023

Source: <https://bigcharts.marketwatch.com/>

Exhibit 15: Consensus Expectations (as of November 15, 2023)

	Revenue (mils)			EPS	
	2023E	2024E		2023E	2024E
Q1 Mar	\$0.5A		Q1 Mar	\$(0.53)A	
Q2 Jun	\$0.4A		Q2 Jun	\$(1.20)A	
Q3 Sep	\$0.6E		Q3 Sep	\$(0.84)E	
Q4 Dec	\$1.2E		Q4 Dec	\$(0.81)E	
Total	\$2.6E	\$8.0E	Total	\$(3.54)E	\$(2.68)E

*Quarterly estimates may not add to annual estimates due to variations in contributing estimates and rounding.

*Reflects a 1:100 reverse stock split in January 2023

Source: Company report, Refinitiv, and Ascendant Capital Markets estimates

FINANCIAL MODEL

WISA Technologies, Inc. (f.k.a. Summit Wireless Technologies, Inc.)

Income Statement (\$ mils)	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	Mar-24	Jun-24	Sep-24	Dec-24	2024
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
Total Revenue	1.2	1.6	1.8	2.0	6.5	0.6	0.9	0.9	0.9	3.4	0.5	0.4	0.8	0.9	2.6	0.8	0.7	1.7	2.3	5.5
Cost of Revenues	0.9	1.1	1.3	1.4	4.7	0.5	0.8	0.8	0.9	3.0	1.7	0.6	2.4	0.9	5.7	0.6	0.5	1.2	1.6	4.0
Gross Profit	0.3	0.5	0.5	0.6	1.9	0.1	0.2	0.1	0.0	0.4	(1.3)	(0.2)	(1.7)	0.0	(3.1)	0.2	0.2	0.5	0.7	1.6
Research and development	1.2	1.3	1.3	1.4	5.2	1.5	1.9	1.9	1.8	7.1	1.9	1.9	1.8	1.8	7.5	1.2	1.1	1.7	1.2	5.1
Sales and marketing	0.9	1.0	1.0	1.3	4.1	1.3	1.3	1.5	2.0	6.1	1.3	1.1	1.4	1.4	5.2	1.2	0.7	1.0	1.2	4.0
General and administrative	1.0	1.0	1.1	1.0	4.0	1.1	1.1	1.4	1.5	5.2	1.4	1.5	1.4	0.7	5.0	1.2	1.4	1.7	1.2	5.5
Restructuring and other					0.0					0.0					0.0					0.0
Total operating expenses	3.0	3.3	3.4	3.7	13.4	4.0	4.3	4.9	5.3	18.4	4.5	4.5	4.7	3.9	17.6	3.5	3.2	4.4	3.5	14.6
Operating income (loss)	(2.7)	(2.8)	(2.9)	(3.1)	(11.5)	(3.9)	(4.1)	(4.7)	(5.3)	(18.0)	(5.8)	(4.7)	(6.3)	(3.9)	(20.7)	(3.3)	(3.0)	(3.9)	(2.8)	(13.0)
Interest income (expense)	(0.0)	(0.0)	(0.0)	0.0	(0.0)	(0.0)	(0.0)	(0.2)	(0.7)	(0.9)	(0.7)	(0.0)	(0.1)	(0.0)	(0.8)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)
Other income (expense)	(0.6)	(1.8)	0.9	(0.0)	(1.5)	(0.0)	(0.0)	0.3	2.5	2.8	5.6	(0.6)	0.3	0.0	5.3	(0.1)	(0.1)	(0.1)	0.0	(0.3)
Income before income taxes	(3.3)	(4.6)	(2.1)	(3.1)	(13.0)	(3.9)	(4.1)	(4.6)	(3.5)	(16.1)	(0.9)	(5.3)	(6.1)	(3.9)	(16.3)	(3.4)	(3.1)	(4.0)	(2.8)	(13.3)
Income taxes		0.0			0.0		0.0			0.0		0.0			0.0	0.0	0.0	0.0	0.0	0.0
Net income (loss)	(3.3)	(4.6)	(2.1)	(3.1)	(13.0)	(3.9)	(4.1)	(4.6)	(3.5)	(16.2)	(0.9)	(5.3)	(6.1)	(3.9)	(16.3)	(3.4)	(3.1)	(4.0)	(2.8)	(13.3)
Nonrecurring/noncash adjustments					0.0					0.0					0.0					0.0
Net income (pro forma)	(3.3)	(4.6)	(2.1)	(3.1)	(13.0)	(3.9)	(4.1)	(4.6)	(3.5)	(16.2)	(0.9)	(5.3)	(6.1)	(3.9)	(16.3)	(3.4)	(3.1)	(4.0)	(2.8)	(13.3)
EBITDA																				
Shares, Basic	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.2	1.7	4.4	6.3	17.7	7.5	17.8	17.8	17.9	17.9	17.8
Shares, Diluted	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.2	1.7	4.4	6.3	17.7	7.5	17.8	17.8	17.9	17.9	17.8
EPS Basic (Pro forma)	(\$33.19)	(\$42.39)	(\$14.81)	(\$20.46)	(\$105.20)	(\$26.33)	(\$27.34)	(\$30.85)	(\$10.58)	(\$82.89)	(\$0.53)	(\$1.20)	(\$0.97)	(\$0.22)	(\$2.16)	(\$0.19)	(\$0.17)	(\$0.23)	(\$0.16)	(\$0.75)
EPS Diluted (Pro forma)	(\$33.19)	(\$42.39)	(\$14.81)	(\$20.46)	(\$105.20)	(\$26.33)	(\$27.34)	(\$30.85)	(\$10.58)	(\$82.89)	(\$0.53)	(\$1.20)	(\$0.97)	(\$0.22)	(\$2.16)	(\$0.19)	(\$0.17)	(\$0.23)	(\$0.16)	(\$0.75)
Margins																				
Gross margin	25.6%	29.0%	28.0%	30.2%	28.5%	11.0%	19.9%	13.9%	1.6%	11.7%	-267.2%	-47.3%	-217.0%	5.0%	-119.3%	26.0%	27.0%	28.0%	30.0%	28.4%
Research and development	101.7%	82.5%	73.2%	71.8%	80.0%	271.6%	199.0%	206.9%	194.9%	212.3%	403.6%	454.8%	239.0%	200.0%	290.7%	150.0%	150.0%	100.0%	50.0%	92.2%
Sales and marketing	75.8%	61.7%	56.5%	62.7%	63.0%	229.7%	140.2%	164.2%	215.6%	182.5%	275.9%	256.2%	182.6%	150.0%	200.1%	150.0%	100.0%	55.0%	50.0%	71.9%
General and administrative	84.0%	62.5%	59.8%	49.0%	61.4%	198.9%	114.4%	149.4%	168.9%	153.2%	290.4%	345.9%	185.7%	80.0%	193.6%	150.0%	200.0%	100.0%	50.0%	98.6%
Operating margin	-235.9%	-177.7%	-161.5%	-153.2%	-176.0%	-689.2%	-433.7%	-506.7%	-577.7%	-536.2%	-1237.1%	-1104.2%	-824.3%	-425.0%	-803.7%	-424.0%	-423.0%	-227.0%	-120.0%	-234.2%
Tax rate, GAAP	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%	0.0%	0.0%	0.0%
Net margin	-287.3%	-291.2%	-114.1%	-153.5%	-199.4%	-689.8%	-434.2%	-496.2%	-381.0%	-480.0%	-196.4%	-1253.2%	-794.7%	-426.7%	-630.7%	-439.0%	-439.5%	-233.7%	-120.7%	-240.8%
Y/Y % change																				
Total Revenue	181%	354%	198%	93%	172%	-51%	-40%	-48%	-54%	-49%	-17%	-55%	-18%	0%	-23%	65%	65%	125%	155%	115%
Gross margin	368%	3725%	387%	144%	337%	-79%	-59%	-74%	-98%	-79%	-2121%	-207%	-1384%	205%	-879%	-116%	-194%	-129%	1430%	-151%
Research and development	3%	44%	7%	11%	15%	31%	44%	47%	24%	36%	23%	3%	-5%	3%	5%	-39%	-46%	-6%	-36%	-32%
Sales and marketing	25%	91%	22%	35%	39%	49%	36%	51%	58%	49%	0%	-18%	-9%	-30%	-16%	-10%	-36%	-32%	-15%	-23%
General and administrative	9%	63%	7%	-41%	-4%	16%	10%	30%	58%	28%	21%	36%	2%	-53%	-3%	-15%	-5%	21%	59%	9%
Operating income (loss)	2%	40%	-2%	-16%	2%	43%	46%	63%	73%	57%	49%	14%	34%	-26%	15%	-43%	-37%	-38%	-28%	-37%
Net income (loss)	23%	30%	-32%	-16%	1%	18%	-11%	126%	14%	24%	-76%	30%	31%	12%	1%	269%	-42%	-34%	-28%	-18%
EPS Diluted (Pro forma)	-85%	-53%	-62%	-55%	-57%	-21%	-35%	108%	-48%	-21%	-98%	-96%	-97%	-98%	-97%	-64%	-86%	-77%	-29%	-65%

Source: Company reports and Ascendant Capital Markets estimates.

*Reflects a 1-for-100 Reverse Stock Split in January 2023

WISA Technologies, Inc. (f.k.a. Summit Wireless Technologies, Inc.)

Balance Sheet (\$ mils)	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4E	Q1E	Q2E	Q3E	Q4E
Assets																
Cash and cash equivalents	9.7	10.3	16.1	13.1	9.1	4.8	2.6	2.9	5.3	2.0	0.2	2.8	0.3	(2.2)	(6.4)	(9.0)
Short term investments												0.0	0.0	0.0	0.0	0.0
Accounts receivable, net	0.1	0.4	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.4	0.7	0.6	0.5	1.3	1.8
Inventory	3.3	3.6	4.0	4.8	6.2	6.2	7.3	7.1	5.7	5.5	3.2	1.3	0.9	0.8	1.9	2.5
Deferred income taxes												0.0	0.0	0.0	0.0	0.0
Prepaid expenses and other	1.4	1.4	1.5	1.1	1.0	0.5	1.0	0.9	1.1	0.6	0.9	0.5	0.4	0.4	0.9	1.2
Total current assets	14.6	15.7	21.7	19.2	16.5	11.8	11.2	11.1	12.3	8.2	4.8	5.3	2.1	(0.6)	(2.3)	(3.6)
Long term securities/investments												0.0	0.0	0.0	0.0	0.0
Property and equipment, net	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Intangibles, net												0.0	0.0	0.0	0.0	0.0
Deferred income tax												0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.1	0.1	0.7	0.7	0.0	0.0	0.0	0.0	0.0
Total assets	14.8	15.9	21.9	19.4	17.0	12.2	11.6	11.5	12.6	8.9	5.5	5.4	2.3	(0.4)	(2.2)	(3.4)
Liabilities and stockholders' equity																
Accounts payable	1.1	0.7	0.8	1.5	2.1	1.2	2.6	2.0	2.2	0.9	2.0	0.7	0.6	0.5	1.3	1.8
Accrued expenses	1.8	2.7	2.0	1.4	1.7	1.5	1.2	1.6	1.1	1.0	1.2	0.9	0.8	0.7	1.7	2.3
Accrued interest												0.0	0.0	0.0	0.0	0.0
Deferred revenue												0.0	0.0	0.0	0.0	0.0
Deferred income tax												0.0	0.0	0.0	0.0	0.0
Other												0.0	0.0	0.0	0.0	0.0
Short term debt	0.3	0.8			3.8	2.7	3.9	3.7	3.2	1.9	3.8	2.2	2.0	1.9	3.7	4.7
Total current liabilities	3.2	4.2	2.9	3.0	3.8	2.7	3.9	3.7	3.2	1.9	3.8	2.2	2.0	1.9	3.7	4.7
Deferred income taxes												0.0	0.0	0.0	0.0	0.0
Warrant liabilities	0.4	0.0	0.0	0.0	0.2	0.0	1.0	9.3	1.1	0.5	0.2	0.2	0.2	0.2	0.2	0.2
Other long term liabilities	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0		0.7	0.6	0.6	0.6	0.6	0.6	0.6
Long term debt	0.6						1.3	0.5	0.5			0.0	0.0	0.0	0.0	0.0
Total other liabilities	1.0	0.1	0.1	0.0	0.2	0.1	2.4	9.8	1.6	1.2	0.9	0.9	0.9	0.9	0.9	0.9
Preferred stock	0.6											0.0	0.0	0.0	0.0	0.0
Common stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	1.6	2.1	2.6
Additional paid-in capital	213.6	218.7	228.1	228.6	229.1	229.6	230.2	226.3	237.0	240.4	241.6	241.6	241.6	241.6	241.6	241.6
Retained earnings	(203.7)	(207.1)	(209.1)	(212.2)	(216.1)	(220.2)	(224.8)	(228.3)	(229.2)	(234.6)	(240.7)	(244.6)	(248.0)	(251.1)	(255.1)	(257.9)
Treasury stock												0.0	0.0	0.0	0.0	0.0
Accumulated other comprehensive income												0.0	0.0	0.0	0.0	0.0
Other												4.8	4.8	4.8	4.8	4.8
Total stockholders' equity	10.5	11.6	19.0	16.4	13.0	9.4	5.4	(2.0)	7.8	5.9	0.9	2.3	(0.6)	(3.1)	(6.7)	(9.0)
Total stockholders' equity and liabil	14.8	15.9	21.9	19.4	17.0	12.2	11.6	11.5	12.6	8.9	5.5	5.4	2.3	(0.4)	(2.2)	(3.4)

Balance Sheet Drivers

	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24
	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4E	Q1E	Q2E	Q3E	Q4E
Prepaid as % of total rev	123%	90%	82%	54%	173%	55%	110%	97%	227%	134%	122%	50%	50%	50%	50%	50%
Accounts payable as % of total rev	99%	42%	46%	77%	371%	125%	280%	223%	465%	220%	255%	75%	75%	75%	75%	75%
Inventories as % of cost of rev	384%	318%	304%	342%	1236%	824%	903%	785%	334%	875%	130%	150%	150%	150%	150%	150%
Accrued expenses as % of total rev	153%	168%	113%	71%	305%	160%	132%	178%	227%	229%	157%	100%	100%	100%	100%	100%
Activity Ratios																
A/R Days Sales Outstanding	11	24	10	10	39	24	23	27	43	21	51	70	70	70	70	70
Inventory Turnover	1.0x	1.3x	1.3x	1.2x	0.3x	0.5x	0.4x	0.5x	1.2x	0.5x	3.1x	2.7x	2.7x	2.7x	2.7x	2.7x
A/P Days Payable	119	54	57	100	375	141	293	204	114	135	72	71	91	92	94	96
Book & Cash Value (per share)																
Book Value per Share (diluted)	\$105.58	\$107.10	\$136.49	\$109.18	\$87.57	\$62.46	\$35.51	-\$6.05	\$4.49	\$1.32	\$0.14	\$0.13	-\$0.03	-\$0.18	-\$0.37	-\$0.50
Cash per Share (diluted)	\$97.26	\$94.76	\$115.45	\$87.39	\$61.10	\$31.70	\$17.54	\$8.78	\$3.04	\$0.45	\$0.03	\$0.16	\$0.02	-\$0.12	-\$0.36	-\$0.50
Net cash per Share (diluted)	\$88.78	\$86.96	\$115.45	\$87.39	\$61.10	\$31.70	\$9.07	\$7.39	\$2.77	\$0.45	-\$0.07	\$0.12	-\$0.02	-\$0.16	-\$0.39	-\$0.54

Source: Company reports and Ascendant Capital Markets estimates

WISA Technologies, Inc. (f.k.a. Summit Wireless Technologies, Inc.)

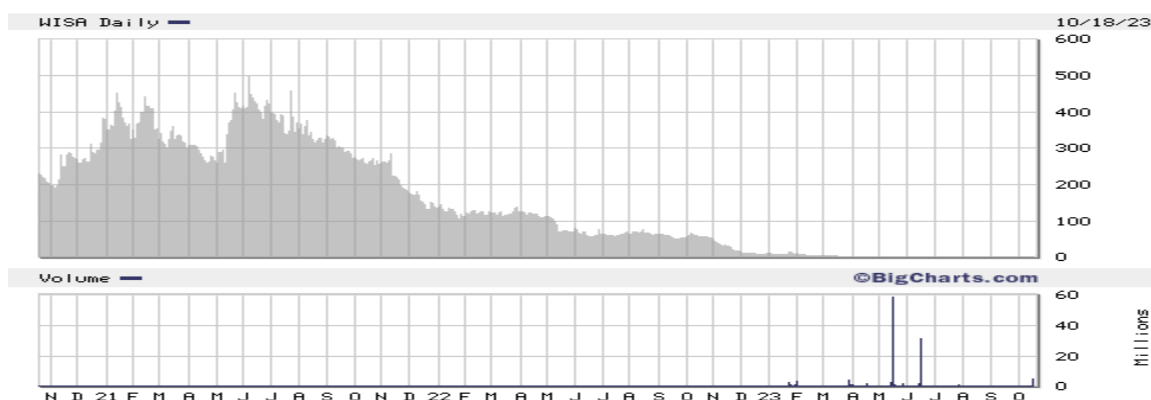
Cash Flow Statement (\$ mils)	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	Mar-23	Jun-23	Sep-23	Dec-23	2023	Mar-24	Jun-24	Sep-24	Dec-24	2024	
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E	
Cash flow from operating activities																					
Net income	(3.3)	(3.4)	(2.1)	(3.1)	(11.8)	(3.9)	(4.1)	(4.6)	(3.5)	(16.2)	(0.9)	(5.3)	(6.1)	(3.9)	(16.3)	(3.4)	(3.1)	(4.0)	(2.8)	(13.3)	
Depreciation	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	
Amortization					0.0					0.0					0.0					0.0	
Debt related amortization expense					0.0			0.2	0.7	0.9	0.7	0.0	0.0		0.8					0.0	
Stock comp	0.3	0.4	0.3	0.5	1.4	0.5	0.5	0.5	0.5	2.0	0.5	0.5	0.5	0.5	2.0	0.5	0.5	0.5	0.5	2.1	
Deferred rent					0.0					0.0					0.0					0.0	
Deferred income taxes					0.0					0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Provision for bad debts					0.0					0.0					0.0	0.0	0.0	0.0	0.0	0.0	
Reserves					0.0					0.0					0.0					0.0	
Change in fair value of warrant I	0.6	0.6		0.0	1.1			(0.3)	(2.5)	(2.8)	(5.6)	(0.2)	(0.3)		(6.1)					0.0	
Writedowns and impairments					0.0					0.0		0.8			0.8					0.0	
Other gains/losses			(0.9)		(0.9)					0.0					0.0					0.0	
Other					0.0					0.0					0.0					0.0	
Changes in operating assets and liabilities:																					
Accounts receivable	(0.1)	(0.3)	0.2	(0.0)	(0.1)	(0.0)	(0.0)	0.0	(0.0)	(0.1)	0.0	0.1	(0.3)	(0.3)	(0.4)	0.1	0.1	(0.8)	(0.5)	(1.1)	
Inventory	(0.6)	(0.3)	(0.4)	(0.8)	(2.1)	(1.4)	(0.0)	(1.0)	0.2	(2.3)	1.3	0.3	2.3	1.9	5.8	0.4	0.1	(1.1)	(0.6)	(1.1)	
Prepaid expenses & other curre	(0.5)	(0.0)	(0.1)	0.4	(0.2)	0.1	0.5	(0.5)	0.1	0.2	(0.3)	0.5	(0.4)	0.5	0.3	0.1	0.0	(0.5)	(0.3)	(0.7)	
Income tax					0.0					0.0					0.0					0.0	
Other assets					0.0		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	
Accounts payable	0.5	(0.5)	0.2	0.7	0.9	0.6	(0.6)	1.1	(0.6)	0.5	0.1	(1.2)	1.0	(1.3)	(1.4)	(0.1)	(0.1)	0.8	0.5	1.1	
Accrued expenses	0.4	0.9	(0.6)	(0.6)	0.0	0.2	(0.6)	0.1	0.4	0.1	(0.6)	0.0	0.2	(0.3)	(0.6)	(0.1)	(0.1)	1.0	0.6	1.4	
Accrued interest					0.0					0.0					0.0	0.0	0.0	0.0	0.0	0.0	
Deferred revenue					0.0					0.0					0.0	0.0	0.0	0.0	0.0	0.0	
Other liabilities					0.0	(0.0)	(0.1)	(0.0)	(0.0)	(0.1)	(0.0)		(0.0)	0.0	(0.1)	0.0	0.0	0.0	0.0	0.0	
Net cash (used in) provided by	(2.8)	(2.6)	(3.2)	(2.9)	(11.5)	(4.0)	(4.3)	(4.6)	(4.6)	(17.5)	(4.6)	(4.5)	(3.0)	(2.2)	(14.3)	(2.5)	(2.5)	(4.1)	(2.6)	(11.7)	
Cash flow from investing activities																					
Purchases of property and equi	(0.0)	(0.0)	(0.1)	(0.0)	(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.0)	(0.0)	(0.1)	(0.0)	(0.1)	
Purchases of short-term investments					0.0					0.0					0.0					0.0	
Acquisitions					0.0					0.0					0.0					0.0	
Other					0.0					0.0					0.0					0.0	
Net cash used in investing activ	(0.0)	(0.0)	(0.1)	(0.0)	(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.0)	(0.0)	(0.1)	(0.0)	(0.1)	
Cash flow from financing activities																					
Issuance of debt					0.0			2.5	(0.0)	2.5				0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Repayment of debt	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(1.5)	(1.5)	(0.0)	(1.7)	(0.0)		(1.7)					0.0	
Issuance of stock			9.0	0.0	9.0				6.4	6.4	7.0	1.0		0.0	8.0	0.0	0.0	0.0	0.0	0.0	
Repurchase of common stock					0.0					0.0					0.0					0.0	
Proceeds from stock option exe	5.1	3.2	0.0		8.3					0.0	0.0	1.9	1.2		3.1					0.0	
Other					0.0					0.0				4.8	4.8					0.0	
Dividends and distributions					0.0					0.0					0.0					0.0	
Cash provided by (used in) fina	5.1	3.2	9.1	(0.0)	17.3	(0.0)	(0.0)	2.5	4.9	7.3	7.0	1.3	1.2	4.8	14.3	0.0	0.0	0.0	0.0	0.0	
Effect of exchange rate on cash					0.0					0.0					0.0					0.0	
Net increase (decrease) in cash	2.3	0.6	5.8	(3.0)	5.7	(4.0)	(4.3)	(2.1)	0.3	(10.2)	2.4	(3.3)	(1.8)	2.6	(0.1)	(2.5)	(2.5)	(4.2)	(2.6)	(11.8)	
Beginning cash and equivalents	7.4	9.7	10.3	16.1	7.4	13.1	9.1	4.8	2.6	13.1	2.9	5.3	2.0	0.2	2.9	2.8	0.3	(2.2)	(6.4)	2.8	
Ending cash and equivalents	9.7	10.3	16.1	13.1	13.1	9.1	4.8	2.6	2.9	2.9	5.3	2.0	0.2	2.8	2.8	0.3	(2.2)	(6.4)	(9.0)	(9.0)	

Source: Company reports and Ascendant Capital Markets estimates

ANALYST CERTIFICATION

Each analyst hereby certifies that the views expressed in this report reflect the analyst's personal views about the subject securities or issuers. Each analyst also certifies that no part of the analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. The analyst who prepared this report is compensated based upon the overall profitability of Ascendant Capital Markets, LLC, which may, from time to time, include the provision of investment banking, financial advisory and consulting services. Compensation for research is based on effectiveness in generating new ideas for clients, performance of recommendations, accuracy of earnings estimates, and service to clients.

WiSA Technologies, Inc. (f.k.a. Summit Wireless Technologies, Inc.)



Source: <https://bigcharts.marketwatch.com/>

Report	Report Date	Rating	Price Target
1	10/10/2018	Buy	14,000
2	11/20/2018	Buy	13,500
3	1/26/2019	Buy	12,500
4	3/31/2019	Buy	10,000
5	6/3/2019	Buy	8,000
6	8/15/2019	Buy	6,000
7	11/16/2019	Buy	4,000
8	3/26/2020	Buy	3,000
9	5/28/2020	Buy	1,500
10	8/18/2020	Buy	1,100
11	11/11/2020	Buy	1,200
12	3/18/2021	Buy	1,300
13	5/13/2021	Buy	1,400
14	8/17/2021	Buy	1,500
15	11/20/2021	Buy	1,200
16	3/16/2022	Buy	1,000
17	5/18/2022	Buy	500
18	8/22/2022	Buy	450
19	12/14/2022	Buy	175
20	3/28/2023	Buy	20
21	5/19/2023	Buy	10
22	8/24/2023	Buy	7

- Ascendant Capital Markets, LLC has not received compensation for advisory or investment banking services from the company in the past 12 months.

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Ascendant Capital Markets, LLC Rating System

BUY: We expect the stock to provide a total return of 15% or more within a 12-month period.

HOLD: We expect the stock to provide a total return of negative 15% to positive 15% within a 12-month period.

SELL: We expect the stock to have a negative total return of more than 15% within a 12-month period.

Total return is defined as price appreciation plus dividend yield.

Ascendant Capital Markets, LLC Distribution of Investment Ratings (as of October 13, 2023)

Rating	Count	Percent	Investment Banking Services Past 12 months	
			Count	Percent
Buy	51	98%	19	37%
Hold	0	0%	0	0%
Sell	1	2%	0	0%
Total	52	100%	19	37%

Other Important Disclosures

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