

**COMPANY** 

Rating: BUY

**WISA** 

\$6.05

(from \$300)

Ticker:

Price:

Target: \$30

**UPDATE** 

# WiSA Technologies, Inc.

Q4 weak. However, launch of WiSA E and major new deals should provide strong growth prospects. Lowering P/T to \$30.

**Q4 weak:** WiSA recently (on April 1) reported its Q4 2023 (ending December) results. Revenue was \$0.4 million (-54% y-o-y), compared with our and consensus estimates of \$0.8 - 0.9 million. EPS was \$(100.44), compared with our estimate of \$(33.12) and consensus of \$(72.00). There was no Q4 guidance.

Weak demand continue: The company again (like in 2022 and 2023) had weak Q4 revenues (-54% y-o-y) as consumer demand for consumer electronics have slowed significantly (since early 2022).

No 2024 outlook: WiSA did not provide any 2024 guidance.

**Adjusting 2024 estimates**: We are adjusting our 2024 estimates for revenue to \$4.0 million, from \$5.5 million, and for EPS to \$(6.46) from \$(112.27).

**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 2023, WiSA announced its first licensee of WiSA E software to a global TV brand with over 10 million HDTVs sold annually.

**5 recent WiSA E deals:** In April, the company announced the signing of a 5<sup>th</sup> WiSA E licensing agreement with a top-three consumer electronics leader. By licensing WiSA E software and embedding WiSA E's multichannel immersive audio functionality into their source devices, the licensee will eliminate the costly burden of additional hardware and will allow their end users to activate the embedded audio functionality by purchasing speakers designed to connect with the media device. The company's licensing revenue will include royalty payments on its transmitting (TX) software tied to a user's activation of WiSA's embedded immersive audio functionality.

**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 ~\$0 million in debt at the end of Q4. In the just completed Q1, the company raised ~\$12 million in stock. We believe WiSA has enough cash into 2025.

**Reverse stock split:** In April 2024, the company effected a 1:150 reverse stock split.

**Current valuation attractive:** We are maintaining our BUY rating, but lowering our 12-month price target to \$30 from \$300, 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 sells audio chips, modules, and license IP to enable WiSA Association interoperability standards to deliver immersive wireless sound.

United States Technology

April 24, 2024

Edward Woo, CFA (561) 327-9435 ewoo@ascendiant.com

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#### Stock Data

Exchange:	NasdaqCIVI
52-week Range:	\$1.50 - 402.0
Shares Outstanding (million):	1.7
Market cap (\$million):	\$10
EV (\$million):	\$10
Debt (\$million):	\$0
Cash (\$million):	\$0
Avg. Daily Trading Vol. (\$million):	\$1
Float (million shares):	1
Short Interest (million shares):	~0
Dividend, annual (yield):	\$0 (NA%)

#### Revenues (US\$ million)

	2024E	2024E	2025E	2025E
	(Cur.)	(Old)	(Cur.)	(Old)
Q1 Mar	0.6E	0.8E	0.9E	
Q2 Jun	0.6E	0.7E	1.0E	
Q3 Sep	1.7E	1.7E	2.6E	
Q4 Dec	1.1E	2.3E	1.6E	
Total	4.0E	5.5E	6.0E	
EV/Revs	2.5x		1.7x	

#### Earnings per Share (pro forma)

	2024E	2024E	2025E	2025E
	(Cur.)	(Old)	(Cur.)	(Old)
Q1 Mar	(1.55)E	(28.71)E	(1.76)E	
Q2 Jun	(1.67)E	(25.97)E	(1.62)E	
Q3 Sep	(1.84)E	(33.98)E	(1.95)E	
Q4 Dec	(1.41)E	(23.62)E	(1.15)E	
Total	(6.46)E	(112.27)E	(6.48)E	
P/E	N/A		N/A	

<sup>\*</sup>Reflects a 1:150 reverse stock split in April 2024

#### **Important Disclosures**

Ascendiant 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







### **Exhibit 2: WiSA Investment Highlights**

# Key Highlights

- Strong IP position and significant patent coverage for immersive audio, with highly-differentiated multichannel wireless audio technology and existing implementations in premium audio brands
- WiSA E market opportunity to unify market for wireless audio solutions for TVs and soundbars that is software based and interoperable
- 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
- 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** 

\* Source: Infiniti Research September 2021

#### Soundbars: Target Market of Discovery Technology 2022 Projected Soundbar SAM\*\* Soundbars Units\* 52.1 (in Ms) **Audio Configuration** WiSAps 48.3 Soundbar units (Ms) 41.8 44.9 **Market Share** 5% 41.8 WiSA Systems (Ms) 2.1 Speakers per configuration 3 38.7 Transmitters per system 1 35.8 Modules (Ms) 8.4 Module ASP (\$ per unit) \$3.00 Rev. Opportunity (Ms of \$) \$25 2020 2021 2022 2023 2024 2025

Source: Company reports.

\*\* Management estimates: Factors include content availability,

simplicity for the consumer, price, multiple brands



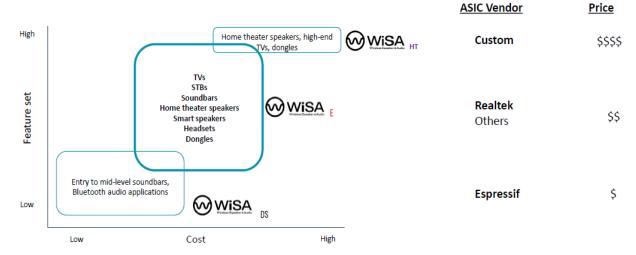
#### **Exhibit 4: WiSA's Products**

# **WiSA Product Families**



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 HT

- 5GHz with DFS support
- 8 channels
- Fix Ultra low latency (5ms)
- Tight speaker sync
- 24-bit audio
- Up to 96KHz sample rates

## WiSA E

(DS Module)

- Low-cost 2.4GHz IoT transceiver
- (4+Sub) audio channels
- Fixed transport latency (40ms)
- Tight speaker sync

2022

48KHz sample rate

#### WiSA E

(Enterprise Modules)

- 5GHz IoT transceiver
- 8 audio channels
- Fixed transport latency (20ms)
- Tight speaker sync
- 24-bit audio
- 48KHz sample rate Initial launch was 7/15

# Wisa E

(Embedded Software)

- 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.)

#### **Custom ASIC**

2015 - 2021





Software (RTOS, Linux)

2023



2024



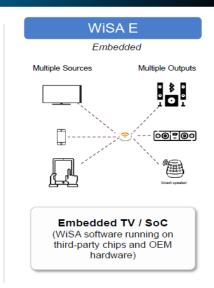
#### Exhibit 5: WiSA Audio E, HT, and DS

# Multi-Faceted Spatial Audio Delivery Model









### WiSA E Opportunity: The Economic Sizing

wise

- 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.



### **Exhibit 6: WiSA Future Roadmap**

## Beyond Premium Audio: Driving 2022 Growth SEMMIT OWISA

- 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

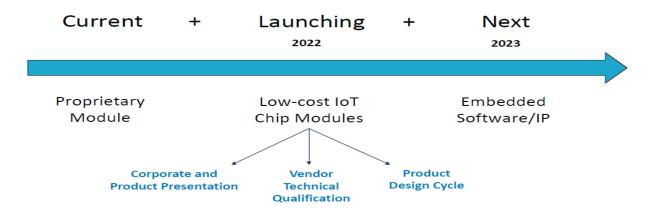


# Reaching Broader Consumer Markets with **Rapidly Dropping WiSA Transmission Costs**



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**





#### Exhibit 7: WiSA Business Model and Potential Revenue

# **Overview of Business**



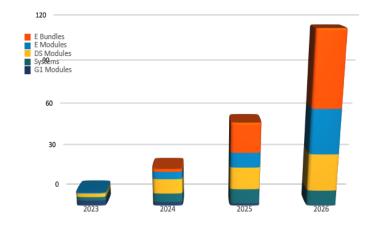
- WiSA E is a compelling technology advancement
  - · Strong interest in Beta testing and sampling
  - Still on track to release to production in Q3
- WiSA DS is being specified for design and building of SB
  - First production to start in Q3
  - First product in the US market will be Platin Audio's 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 WiSApowered offering to create an affordable yet impressive home cinema experienc

# Revenue Opportunity: 2023 - 2026





- 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

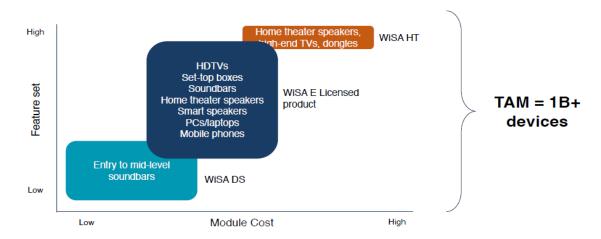
- · Continued growth in module sales
- Use of Projections and Illustrations: This page contains certain [financial forecasts] and illustrations. Neither [WISA's] independent auditors nor any other professional data from [Galactic Grant Control of the Cont



**Exhibit 8: WiSA Product Roadmap and Opportunities** 

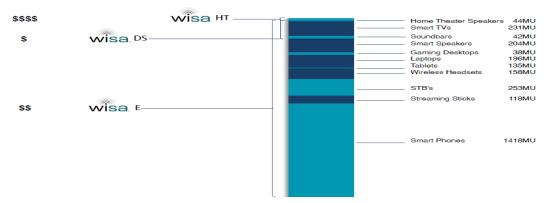
# Licensing Enables Broad Market Expansion



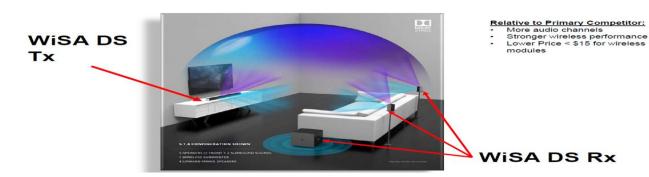


### WiSA DS and E Growth Opportunities





# WiSA DS - Customer Response





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

# **Financial Overview**



#### **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

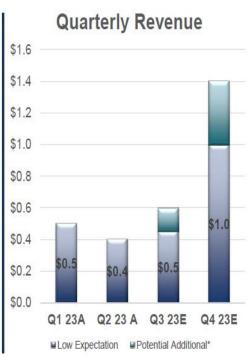
2024 cash operating expenses ~\$2M lower compared to 2023

#### Balance Sheet

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

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





\*Excludes Comhear



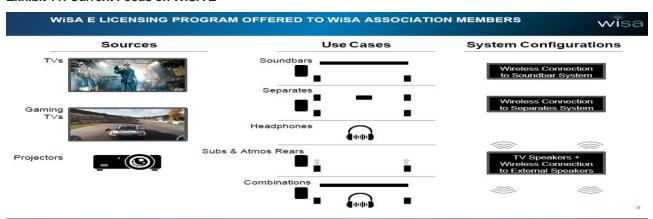
Exhibit 10: Q3 2023 and Recent Highlights (as of November 15, 2023)

## 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.



#### **Exhibit 11: 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 WISA E Embedded Materially impact 2024 Revenue Multiple Outputs Multiple Sources Expansion to other use cases at CES and in 2024 TV partner announcements 00 <del>-</del> 00 Speaker partner announcements Strategic partnering Embedded TV / SoC (WiSA software running on third-party chips and OEM hardware)



Exhibit 12: Recent WiSA E Licensing Deals

April 18, 2024



# WiSA Strikes Game-Changing Fifth WiSA E Licensing Deal with Global Consumer Electronics Leader

Licensing revenue will include royalty payments on transmitting (TX) software and engineering services; production targeted for the second half of 2024

BEAVERTON, Ore.-(BUSINESS WIRE)-- WiSA Technologies, Inc. (Nasdaq: WISA), a leading innovator in wireless audio technology for intelligent devices and next-generation home entertainment systems, announced today the signing of a WiSA E licensing agreement with a top-three consumer electronics leader in their category. By licensing WiSA E software and embedding WiSA E's multichannel immersive audio functionality into their source devices, the licensee will eliminate the costly burden of additional hardware and will allow their end users to activate the embedded audio functionality by purchasing speakers designed to connect with the media device. Consumer-based activation of WiSA's immersive audio opens a new avenue of revenue generation for the company.

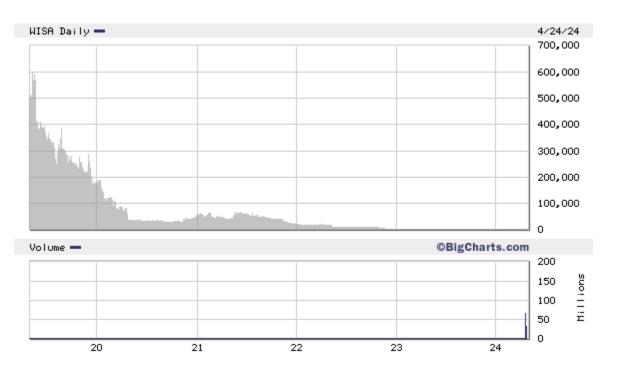
"This is a game changer in the industry," said Brett Moyer, CEO of WiSA Technologies. 
"WiSA E will be used by a major CE manufacturer to embed high-quality immersive audio functionality in their devices – functionality that can be activated by the consumer in their home. This is significant because this new model seeds the market with WiSA E and gives the consumer the ability to upgrade their home entertainment system at any time they choose. With this model, WiSA has a built-in aftermarket revenue stream with each activation of its software. This is exactly why WiSA Technologies chose to convert its award-winning hardware into a software model."

Under the terms of the agreement, the Company's licensing revenue will include royalty payments on its transmitting (TX) software tied to a user's activation of WiSA's embedded immersive audio functionality. The activation model enables manufacturers to cost-effectively build audio-rich features which can generate aftermarket revenue from the sale of external speakers. Production devices as a result of this agreement are expected in the market in the second half of 2024.

WiSA E entails a full suite of audio features that define how audio should be experienced across HDTVs, soundbars, projectors, mobile devices, streaming media devices, and speakers. WiSA E is implementable across major SoC providers, including Realtek, Amlogic, Mediatek, and Novatek, enabling WiSA E functionality to be built into existing hardware platforms.



Exhibit 13: WiSA Technologies's (f.k.a. Summit Wireless Technologies, Inc.) Stock Price (5-Years)



<sup>\*</sup>Reflects a 1:150 reverse stock split in April 2024

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

Exhibit 14: Consensus Expectations (as of April 1, 2024)

	Revenue (mils)			EPS	
	<u>2023E</u>	<u>2024E</u>		<u>2023E</u>	2024E
Q1 Mar	\$0.5A	\$0.7E	Q1 Mar	\$(79.84)A	\$(28.50)E
Q2 Jun	\$0.4A		Q2 Jun	\$(180.18)A	
Q3 Sep	\$0.8A		Q3 Sep	\$(144.98)A	
Q4 Dec	\$0.8E		Q4 Dec	\$(72.00)E	
Total	\$2.5E	\$5.8E	Total	\$(433.50)E	\$(211.50)E

 $<sup>^*</sup>$ Quarterly estimates may not add to annual estimates due to variations in contributing estimates and rounding.

Source: Company report, LSEG, and Ascendiant Capital Markets estimates

<sup>\*</sup>Reflects a 1:150 reverse stock split in April 2024

WISA: WiSA Technologies, Inc.



## **FINANCIAL MODEL**

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

WISA Technologies, I						nc.)														
Income Statement (\$ mils)	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	Mar-25		Sep-25	Dec-25	2025
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1E	Q2E	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
Total Revenue	0.6	0.9	0.9	0.9	3.4	0.5	0.4	0.8	0.4	2.1	0.6	0.6	1.7	1.1	4.0	0.9	1.0	2.6	1.6	6.0
Cost of Revenues	0.5	0.8	0.8	0.9	3.0	<u>1.7</u>	0.6	2.4	0.8	<u>5.5</u>	0.4	0.5	1.2	0.7	2.9	0.7	0.7	1.9	1.1	4.3
Gross Profit	0.1	0.2	0.1	0.0	0.4	(1.3)	(0.2)	(1.7)	(0.3)	(3.5)	0.2	0.2	0.5	0.3	1.1	0.2	0.3	0.7	0.5	1.7
Research and development	1.5	1.9	1.9	1.8 2.0	7.1 6.1	1.9	1.9	1.8	1.8	7.5	0.9	1.0	1.7	0.5	4.1 3.5	0.9	1.0	1.3	0.8	3.9 4.2
Sales and marketing General and administrative	1.3	1.3 1.1	1.5 1.4	1.5	5.2	1.3 1.4	1.1 1.5	1.4 1.4	1.4 1.1	5.2 5.4	0.9	0.6 1.3	0.9	1.1	3.5 4.1	1.1	1.0 1.0	1.3 1.3	0.8	4.2
Restructuring and other	1.1	1.1	1.4	1.5	0.0	1.4	1.5	1.4	1.1	0.0	0.5	1.3	0.9	1.1	0.0	1.1	1.0	1.3	0.6	0.0
Total operating expenses	4.0	4.3	4.9	5.3	18.4	4.5	4.5	4.7	4.3	18.0	2.6	2.9	3.5	2.7	11.6	3.1	2.9	3.9	2.4	12.2
Operating income (loss)	(3.9)	(4.1)	(4.7)	(5.3)	(18.0)	(5.8)	(4.7)	(6.3)	(4.6)	(21.5)	(2.5)	(2.7)	(3.0)	(2.4)	(10.5)	(2.8)	(2.6)	(3.2)	(1.9)	(10.6)
Interest income (expense)	(0.0)		(0.2)	(0.7)	(0.9)	(0.7)	(0.0)	(0.1)	(0.1)	(0.9)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other income (expense)	(0.0)	(0.0)	0.3	2.5	2.8	5.6	(0.6)	0.3	(8.0)	(2.7)	(0.1)	(0.1)	(0.1)	0.0	(0.3)	(0.1)	(0.1)	(0.1)	0.0	(0.3
Income before income taxes	(3.9)	(4.1)	(4.6)		(16.1)	(0.9)	(5.3)	(6.1)	(12.7)	(25.1)	(2.6)	(2.8)	(3.1)	(2.4)	(10.8)	(2.9)	(2.7)	(3.3)	(1.9)	(10.9)
Income taxes		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 income (loss)	(3.9)	(4.1)	(4.6)	(3.5)	(16.2)	(0.9)	(5.3)	(6.1)	(12.7)	(25.1)	(2.6)	(2.8)	(3.1)	(2.4)	(10.8)	(2.9)	(2.7)	(3.3)	(1.9)	(10.9)
Nonrecurring/noncash adjustme					0.0					0.0					0.0					0.0
Net income (pro forma)	(3.9)	(4.1)	(4.6)	(3.5)	(16.2)	(0.9)	(5.3)	(6.1)	(12.7)	(25.1)	(2.6)	(2.8)	(3.1)	(2.4)	(10.8)	(2.9)	(2.7)	(3.3)	(1.9)	(10.9)
EBITDA																				
Shares, Basic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Shares, Diluted	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
EPS Basic (Pro forma)	(\$3,949.05)	(\$4,101.62)	(\$4,627.26)	(\$1,586.36)	(\$12,433.28)	(\$79.84)	(\$180.18)	(\$144.98)	(\$100.44)	(\$476.31)	(\$1.55)	(\$1.67)	(\$1.84)	(\$1.41)	(\$6.46)	(\$1.76)	(\$1.62)	(\$1.95)	(\$1.15)	(\$6.48)
EPS Diluted (Pro forma)	(\$3,949.05)	(\$4,101.62)	(\$4,627.26)	(\$1,586.36)	(\$12,433.28)	(\$79.84)	(\$180.18)	(\$144.98)	(\$100.44)	(\$476.31)	(\$1.55)	(\$1.67)	(\$1.84)	(\$1.41)	(\$6.46)	(\$1.76)	(\$1.62)	(\$1.95)	(\$1.15)	(\$6.48)
Margins																				
Gross margin	11.0%	19.9%	13.9%	1.6%	11.7%	-267.2%	-47.3%	-217.0%	-79.5%	-166.0%	26.0%	27.0%	28.0%	30.0%	28.1%	26.0%	27.0%	28.0%	30.0%	28.1%
Research and development	271.6%	199.0%	206.9%		212.3%	403.6%	454.8%	239.0%	426.7%	357.9%	150.0%	150.0%	100.0%	50.0%	101.9%		100.0%	50.0%	50.0%	65.2%
Sales and marketing	229.7%	140.2%	164.2%	215.6%	182.5%	275.9%	256.2%	182.6%	331.0%	248.5%	150.0%	100.0%	50.0%	100.0%	85.8%	125.0%	100.0%	50.0%	50.0%	68.89
General and administrative	198.9%	114.4%	149.4%	168.9%	153.2%	290.4%	345.9%	185.7%	263.6%	257.7%	150.0%	200.0%	50.0%	100.0%	101.6%	125.0%	100.0%	50.0%	50.0%	68.89
Operating margin	-689.2%	-433.7%	-506.7%	-577.7%	-536.2%	-1237.1%	-1104.2%	-824.3%	-1100.7%	-1030.1%	-424.0%	-423.0%	-172.0%	-220.0%	-261.2%	-324.0%	-273.0%	-122.0%	-120.0%	-174.89
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	-689.8%	-434.2%	-496.2%	-381.0%	-480.0%	-196.4%	-1253.2%	-794.7%	-3029.3%	-1204.1%	-441.1%	-438.7%	-177.8%	-220.0%	-268.7%	-335.4%	-283.5%	-125.9%	-120.0%	-179.8%
Y/Y % change																				
Total Revenue	-51%	-40%	-48%		-49%	-17%	-55%	-18%	-54%	-38%	25%	50%	125%	155%	93%	50%	50%	50%	50%	50%
Gross margin	-79%	-59%	-74%		-79%	-2121%	-207%	-1384%	-2327%	-975%	-112%	-186%	-129%	-196%	-133%	50%	50%	50%	50%	50%
Research and development	31%	44%	47%		36%	23%	3%	-5%	0%	4%	-54%	-51%	-6%	-70%	-45%	0%	0%	-25%	50%	-4%
Sales and marketing	49%	36%	51%		49%	0%	-18%	-9%	-30%	-16%	-32%	-41%	-38%	-23%	-33%	25%	50%	50%	-25%	209
General and administrative	16%	10%	30%		28%	21%	36%	2%	-28%	4%	-35%	-13%	-39%	-3%	-24%	25%	-25%	50%	-25%	29
Operating income (loss)	43%	46%	63%		57%	49%	14%	34%	-13%	19%	-57%	-43%	-53%	-49%	-51%	15%	-3%	6%	-18%	0%
Net income (loss)	18%	-11%	126%		24%	-76%	30%	31%	265%	55% -96%	181%	-47%	-50%	-81%	-57% -99%	14%	-3%	6%	-18%	0%
EPS Diluted (Pro forma)	-21%	-35%	108%	-48%	-21%	-98%	-96%	-97%	-94%	-96%	-98%	-99%	-99%	-99%	-99%	14%	-3%	6%	-18%	0%

Source: Company reports and Ascendiant Capital Markets estimates.

\*Reflects a 1-for-100 Reverse Stock Split in January 2023 \*Reflects a 1-for-150 Reverse Stock Split in April 2024



WiSA Technologies, Inc. (f	f.k.a. Summit Wireless	Technologies, Inc.)
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Balance Sheet (\$ mils)	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24	Mar-25	Jun-25	Sep-25	Dec-25
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1E	Q2E	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Access																
Assets														(o =)	(4.5)	(= 0
Cash and cash equivalents	9.1	4.8	2.6	2.9	5.3	2.0	0.2	0.4	10.0	7.8	4.6	3.8	1.5	(0.7)	(4.5)	(5.3
Short term investments									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts receivable, net	0.2	0.3	0.2	0.3	0.2	0.1	0.4	0.3	0.5	0.5	1.3	0.8	0.7	0.7	2.0	1.2
Inventory	6.2	6.2	7.3	7.1	5.7	5.5	3.2	2.7	0.7	0.7	1.9	1.1	1.0	1.0	2.8	1.7
Deferred income taxes									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prepaid expenses and other	1.0	0.5	1.0	0.9	<u>1.1</u>	0.6	0.9	0.6	0.3	0.3	0.9	0.5	0.4	0.5	1.3	0.8
Total current assets	16.5	11.8	11.2	11.1	12.3	8.2	4.8	4.1	11.4	9.3	8.7	6.3	3.6	1.5	1.6	(1.5
Long term securities/investments									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property and equipment, net	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3
Intangibles, net									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred income tax									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.2	0.2	0.2	0.1	0.1	0.7	0.7	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
Total assets	17.0	12.2	11.6	11.5	12.6	8.9	5.5	4.8	12.2	10.0	9.4	6.5	3.8	1.7	1.9	(1.2
Liabilities and stockholders' equity																
Accounts payable	2.1	1.2	2.6	2.0	2.2	0.9	2.0	2.3	0.4	0.5	1.3	0.8	0.7	0.7	1.9	1.2
Accrued expenses	1.7	1.5	1.2	1.6	1.1	1.0	1.2	1.3	0.6	0.6	1.7	1.1	0.9	1.0	2.6	1.6
Accrued interest	1.7	1.0		1.0		1.0		1.0	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
Deferred income tax									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Short term debt							0.0		0.0	0.0	0.0	0.0	0.0		0.0	
Total current liabilities	3.8	2.7	3.9	3.7	3.2	1.9	0.6 <b>3.8</b>	3.6	1.0	1.1	3.0	1.9	1.5	<u>0.0</u> 1.7	4.5	0.0 2.8
Total current liabilities	3.0	2.1	3.9	3.7	3.2	1.9	3.0	3.0	1.0	1.1	3.0	1.9	1.5	1.7	4.5	2.0
Deferred income taxes									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Warrant liabilities	0.2	0.0	1.0	9.3	1.1	0.5	0.2	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Other long term liabilities	0.0	0.1	0.1	0.0		0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Long term debt			1.3	0.5	0.5				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total other liabilities	0.2	0.1	2.4	9.8	1.6	1.2	0.9	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Preferred stock								0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Common stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	1.7	2.2	2.8	3.4	3.9	4.5
Additional paid-in capital	229.1	229.6	230.2	226.3	237.0	240.4	241.6	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9
Retained earnings	(216.1)	(220.2)	(224.8)	(228.3)	(229.2)			(247.0)	(249.6)	(252.4)	(255.5)	(257.9)	(260.8)	(263.5)	(266.8)	(268.7
Treasury stock	, , ,	/	/	,/	/	/	/	` -/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accumulated other comprehensive in	come								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other									12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Total stockholders' equity	13.0	9.4	5.4	(2.0)	7.8	5.9	0.9	(4.9)	5.1	2.8	0.3	(1.5)	(3.9)	(6.0)	(8.7)	(10.1
Total stockholders' equity and liabil	17.0	12.2	11.6	11.5	12.6	8.9	5.5	4.8	12.2	10.0	9.4	6.5	3.8	1.7	1.9	(1.2

#### Balance Sheet Drivers

Dalance Sheet Drivers																
	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24	Mar-25	Jun-25	Sep-25	Dec-25
	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1E	Q2E	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Prepaid as % of total rev	173%	55%	110%	97%	227%	134%	122%	153%	50%	50%	50%	50%	50%	50%	50%	50%
Accounts payable as % of total rev	371%	125%	280%	223%	465%	220%	255%	552%	75%	75%	75%	75%	75%	75%	75%	75%
Inventories as % of cost of rev	1236%	824%	903%	785%	334%	875%	130%	363%	150%	150%	150%	150%	150%	150%	150%	150%
Accrued expenses as % of total rev	305%	160%	132%	178%	227%	229%	157%	314%	100%	100%	100%	100%	100%	100%	100%	100%
Activity Ratios																
A/R Days Sales Outstanding	39	24	23	27	43	21	51	63	70	70	70	70	70	70	70	70
Inventory Turnover	0.3x	0.5x	0.4x	0.5x	1.2x	0.5x	3.1x	1.1x	2.7x	2.7x	2.7x	2.7x	2.7x	2.7x	2.7x	2.7x
A/P Days Payable	375	141	293	204	114	135	72	277	91	92	94	96	91	92	94	96
Book & Cash Value (per share)																
Book Value per Share (diluted)	######	######	######	######	######	######	\$21.00	-\$38.76	\$3.03	\$1.69	\$0.19	-\$0.89	-\$2.31	-\$3.60	-\$5.21	-\$6.03
Cash per Share (diluted)	######	######	######	######	######	\$67.90	\$5.03	\$3.24	\$5.99	\$4.65	\$2.74	\$2.30	\$0.88	-\$0.43	-\$2.69	-\$3.14
Net cash per Share (diluted)	######	######	######	######	######	\$67.90	-\$9.89	\$3.24	\$5.99	\$4.65	\$2.74	\$2.30	\$0.88	-\$0.43	-\$2.69	-\$3.14

Source: Company reports and Ascendiant Capital Markets estimates



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

Cash Flow Statement (\$ mils)	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	Mar-25	Jun-25	Sep-25	Dec-25	2025
iscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1E	Q2E	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
Cash flow from operating activ	ities																			
Net income	(3.9)	(4.1)	(4.6)	(3.5)	(16.2)	(0.9)	(5.3)	(6.1)	(6.4)	(18.7)	(2.6)	(2.8)	(3.1)	(2.4)	(10.8)	(2.9)	(2.7)	(3.3)	(1.9)	(10.9
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.
Amortization					0.0					0.0					0.0					0.0
Debt related amortization exper	nse		0.2	0.7	0.9	0.7	0.0	0.0	0.1	0.9					0.0					0.0
Stock comp	0.5	0.5	0.5	0.5	2.0	0.5	0.5	0.5	0.6	2.1	0.6	0.6	0.6	0.6	2.2	0.6	0.6	0.6	0.6	2.:
Deferred rent					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	0.0	0.0	0.
Provision for bad debts					0.0					0.0					0.0					0.
Reserves					0.0					0.0					0.0					0.
Change in fair value of warrant	liability		(0.3)	(2.5)	(2.8)	(5.6)	(0.2)	(0.3)	1.6	(4.5)					0.0					0.
Writedowns and impairments					0.0		8.0			0.8					0.0					0.
Other gains/losses					0.0					0.0					0.0					0.
Other					0.0					0.0					0.0					0.
Changes in operating assets and	liabilities:																			
Accounts receivable	(0.0)	(0.0)	0.0	(0.0)	(0.1)	0.0	0.1	(0.3)	0.1	(0.0)	(0.2)	(0.0)	(8.0)	0.5	(0.5)	0.1	(0.1)	(1.3)	0.8	(0.4
Inventory	(1.4)	(0.0)	(1.0)	0.2	(2.3)	1.3	0.3	2.3	0.4	4.3	2.1	(0.0)	(1.2)	0.7	1.6	0.1	(0.1)	(1.8)	1.1	(0.
Prepaid expenses & other curre	0.1	0.5	(0.5)	0.1	0.2	(0.3)	0.5	(0.4)	0.3	0.2	0.3	(0.0)	(0.5)	0.3	0.1	0.1	(0.0)	(8.0)	0.5	(0.
Income tax					0.0					0.0					0.0					0.0
Other assets		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0
Accounts payable	0.6	(0.6)	1.1	(0.6)	0.5	0.1	(1.2)	1.0	0.4	0.3	(1.9)	0.0	8.0	(0.5)	(1.5)	(0.1)	0.1	1.2	(0.7)	0.4
Accrued expenses	0.2	(0.6)	0.1	0.4	0.1	(0.6)	0.0	0.2	0.1	(0.2)	(0.7)	0.1	1.1	(0.7)	(0.2)	(0.2)	0.1	1.6	(1.0)	0.
Accrued interest					0.0					0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Other liabilities	(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	0.0	0.0	0.0	0.0	0.0
Net cash (used in) provided by	(4.0)	(4.3)	(4.6)	(4.6)	(17.5)	(4.6)	(4.5)	(3.0)	(2.7)	(14.8)	(2.3)	(2.2)	(3.2)	(0.7)	(8.4)	(2.3)	(2.2)	(3.7)	(0.7)	(8.9
Cash flow from investing activi	ties																			
Purchases of property and equi	(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)	(0.1)	(0.0)	(0.1)	(0.1)	(0.3
Purchases of short-term investr					0.0					0.0	` ′				0.0	` '				0.
Acquisitions					0.0					0.0					0.0					0.
Other .					0.0					0.0					0.0					0.0
Net cash used in investing acti	(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)	(0.1)	(0.0)	(0.1)	(0.1)	(0.
Cash flow from financing activi	ties																			
Issuance of debt			2.5	(0.0)	2.5				0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Repayment of debt	(0.0)	(0.0)	(0.0)	(1.5)	(1.5)	(0.0)	(1.7)	(0.0)	(0.7)	(2.4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Issuance of stock	(0.0)	(0.0)	(0.0)	6.4	6.4	7.0	1.0	(0.0)	(4.0)	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Repurchase of common stock				0.4	0.0	7.0	1.0		(4.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from stock option exe	ercises				0.0	0.0	1.9	1.2	7.1	10.2					0.0					0.0
Other	, 0,000				0.0	0.0	1.0			0.0	12.0				12.0					0.0
Dividends and distributions					0.0					0.0	12.0				0.0					0.0
Cash provided by (used in) fina	(0.0)	(0.0)	2.5	4.9	7.3	7.0	1.3	1.2	2.9	12.4	12.0	0.0	0.0	0.0	12.0	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	1 (4.0)	(4.3)	(2.1)	0.3	(10.2)	2.4	(3.3)	(1.8)	0.2	(2.5)	9.6	(2.2)	(3.2)	(0.7)	3.4	(2.4)	(2.2)	(3.8)	(0.8)	(9.
Beginning cash and equivalent		9.1	4.8	2.6	13.1	2.9	5.3	2.0	0.2	2.9	0.4	10.0	7.8	4.6	0.4	3.8	1.5	(0.7)	(4.5)	3.
Ending cash and equivalents	9.1	4.8	2.6	2.9	2.9	5.3	2.0	0.2	0.4	0.4	10.0	7.8	4.6	3.8	3.8	1.5	(0.7)	(4.5)	(5.3)	(5.

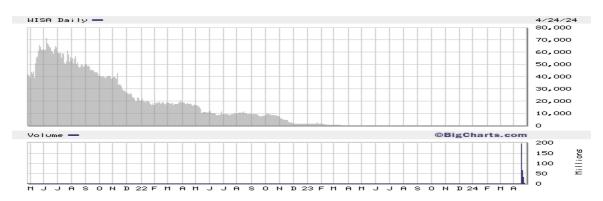
Source: Company reports and Ascendiant Capital Markets estimates



### **ANALYST CERTIFICATION**

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



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

	Report Date		Price
Report	Date	Rating	Target
1	10/10/2018	Buy	2,100,000
2	11/20/2018	Buy	2,025,000
3	1/26/2019	Buy	1,875,000
4	3/31/2019	Buy	1,500,000
5	6/3/2019	Buy	1,200,000
6	8/15/2019	Buy	900,000
7	11/16/2019	Buy	600,000
8	3/26/2020	Buy	450,000
9	5/28/2020	Buy	225,000
10	8/18/2020	Buy	165,000
11	11/11/2020	Buy	180,000
12	3/18/2021	Buy	195,000
13	5/13/2021	Buy	210,000
14	8/17/2021	Buy	225,000
15	11/20/2021	Buy	180,000
16	3/16/2022	Buy	150,000
17	5/18/2022	Buy	75,000
18	8/22/2022	Buy	67,500
19	12/14/2022	Buy	26,250
20	3/28/2023	Buy	3,000
21	5/19/2023	Buy	1,500
22	8/24/2023	Buy	1,050
23	12/15/2023	Buy	300

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WISA: WiSA Technologies, Inc.



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Investment Banking Services

			Past 1	.2 months
Rating	Count	Percent	Count	Percent
Buy	55	98%	18	33%
Hold	0	0%	0	0%
Sell	1	2%	0	0%
Total	56	100%	18	32%

WISA: WiSA Technologies, Inc.



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