

Summit Wireless Technologies, Inc.

Initiating Coverage with BUY and \$7.00 Target

Leading technology and relationships should drive strong growth as demand for wireless speakers grow. We believe expected ramp up in commercialization makes risks/rewards attractive.

Initiating with BUY: We are initiating coverage of Summit with a BUY rating. The company develops wireless audio semiconductors for home entertainment and professional audio markets that are used by consumer electronic OEMs for usage in their wireless speaker applications. The company also owns the WiSA Association, which develops and maintains a standardized method of quality and interoperability between wireless audio components.

A large market potential for wireless speakers: The wireless audio market is expected to grow from \$16.1 billion in 2016 to \$31.8 billion by 2023 according to Markets and Markets research firm. Summit's technologies and products addresses the main issues of complexity and cost that are hindering the growth of the home theater. Summit is the only company with the capabilities of transmitting high resolution, low latency, synchronized wireless audio capable of supporting up to 8 channels. We believe Summit can become a leader in what we expect to be a fast growing market for wireless speakers.

Major partnership with leading OEMs: Summit's wireless modules are used by a growing list of consumer electronics customers, including Axiim, Bang & Olufsen, Enclave Audio, Klipsch, LG and Onkyo/Pioneer. There are speakers and systems utilizing Summit's technology currently in the market with a price range of ~\$500 to over \$80,000, though we note that Summit's ASP for its products are only ~\$10.

Revenue just beginning: Summit's recent financial performance reflects its early stage in product commercialization for its audio chip module products. In its recent Q2 2018 report (which did not include the company's IPO which will be reflected in its Q3 report), the company reported revenue of \$0.4 million, compared to Q1 2018's \$0.3 million and \$0.2 million in Q2 2017.

But design wins and products growing: Customers using Summit's technology currently have 25-30 products in the market and is expected to nearly triple by the end of the year. Summit aims for its partners and retailers to provide high quality systems to consumers at a wide range of price points.

However, challenges exist: Summit operates in a highly competitive environment and competes against a wide range of other companies and technologies. In addition, the company's wireless speaker products are significantly more expensive than traditional wired speaker products, so it is heavily dependent on being able to drive consumer demand for its higher priced, but higher quality speakers.

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

Positive high risks versus rewards: We believe that the current valuation for Summit 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 Summit.

Current valuation attractive: We calculate a 12-month price target for shares of Summit to be \$7.00 based on a NPV analysis, representing significant upside from the current share price. We believe this valuation appropriately balances out the company's high risks with the company's high growth prospects and large upside opportunities.

Company Description

Based in San Jose, CA, Summit sells audio semiconductor chips, modules and license IP to enable the WiSA (Wireless Speaker and Audio) Association interoperability standards to deliver immersive wireless sound.

United States Technology

October 10, 2018

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Stock Data

Exchange:	NasdaqCivi
52-week Range:	\$3.56 – 5.00
Shares Outstanding (million):	15
Market cap (\$million):	\$64
EV (\$million):	\$57
Debt (\$million):	\$1
Cash (\$million):	\$8
Avg. Daily Trading Vol. (\$million):	~\$0.1
Float (million shares):	5
Short Interest (million shares):	~0
Dividend, annual (yield):	\$0 (NA%)

Revenues (US\$ million)

	2017A (Cur.)	2018E (Cur.)	<u>2019E</u> (Cur.)
Q1 Mar	0.5A	0.3A	0.6E
Q2 Jun	0.2A	0.4A	0.8E
Q3 Sep		0.5E	0.9E
Q4 Dec		<u>0.6E</u>	<u>1.1E</u>
Total	1.1A	1.8E	3.4E
EV/Revs	52x	32x	17x

Earnings per Share (pro forma)

	2017A	2018E	2019E
	(Cur.)	(Cur.)	(Cur.)
Q1 Mar	(9.58)A	(40.96)A	(0.12)E
Q2 Jun	(11.84)A	(59.84)A	(0.14)E
Q3 Sep		(0.16)E	(0.11)E
Q4 Dec		(0.13)E	(0.13)E
Total	(75.89)A	(4.53)E	(0.50)E
P/E	N/A	N/A	N/A

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 19.

COVERAGE INITIATION

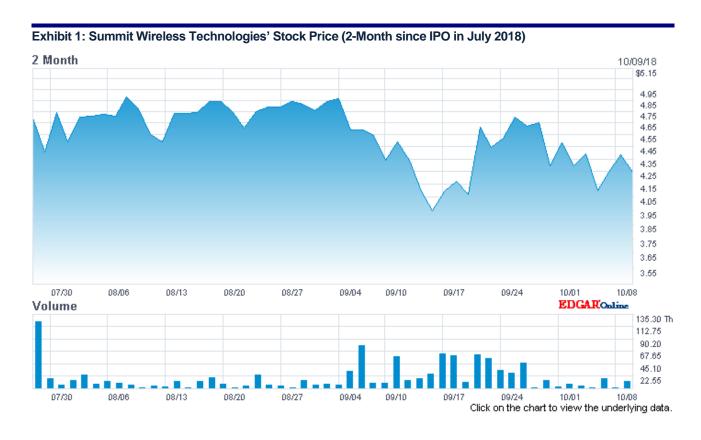
Rating: BUY

Ticker: WISA

Price: \$4.25

Target: \$7.00





Source: Nasdaq.com

INVESTMENT THESIS

We are initiating coverage of Summit Wireless Technologies with a BUY rating and a 12-month price target of \$7.00.

Based in San Jose, CA, Summit sells audio semiconductor chips, modules and license IP to enable the WiSA (Wireless Speaker and Audio) Association interoperability standards to deliver immersive wireless sound. The company develops wireless audio chips for home entertainment and professional audio markets that are used by consumer electronic OEMs for usage in their wireless speaker applications. The company also owns the WiSA Association, which is an association comprised of brands, manufacturers, and influencers within the consumer electronics industry, to develop and maintain a standardized method of quality and interoperability between wireless audio components.

The wireless audio market is expected to grow from \$16.1 billion in 2016 to \$31.8 billion by 2023 according to a June 2017 report by Markets and Markets research firm. The primary growth segment for in home entertainment audio products have been Bluetooth stereo accessories which include single speakers, headsets, and more recently, "multi-room" stereo speakers that use a home's Wi-Fi network to stream audio throughout the house. There are three primary wireless platforms: WiSA, standard Wi-Fi, and Bluetooth. Summit's key opportunity with WiSA is in its ease of Installation, dissatisfaction with Bluetooth/Wi-Fi performance and quality, and that consumers want to enjoy improved audio on existing content.



Summit is the only company with the capabilities of transmitting high resolution, low latency, synchronized wireless audio that can support up to 8 channels. We believe Summit can become a leader in what we expect to be a fast growing market for wireless speakers.

Summit currently sells custom audio semiconductor chips and wireless modules to a growing list of consumer electronics customers, including Axiim, Bang & Olufsen, Enclave Audio, Klipsch, LG and Onkyo/Pioneer. There are speakers and systems utilizing Summit's technology currently in the market with a price range of ~\$500 to over \$80,000 (with the lowest priced system currently being the Enclave Audio CineHome HD 5.1 Wireless Audio Home Theater System for ~\$999 (or on sale for \$799)). Summit aims for its partners and retailers to provide high quality systems to consumers at a wide range of price points. We note that Summit's ASP for its products are only ~\$10. Customers using Summit's technology, currently have 25 – 30 product stock keeping units (SKUs) in the market and the company expects that number to nearly triple by December 31, 2018.

Summit's recent financial performance reflects its early stage in product commercialization for its audio chip and modules products. In its Q2 2018 report (which did not include the company's IPO which will be reflected in its Q3 report), the company reported revenue of \$0.4 million, compared to Q1 2018's \$0.3 million and \$0.2 million in Q2 2017. However, we believe that the company is expected to ramp up revenue quickly over the next several year.

Exhibit 2: Summit Investment Highlights



Source: Company reports.

The company has two main customers, its OEM/ODM partners who incorporate Summit's wireless technologies into their own wireless speaker products and their end customers (the consumers) who are the end users. Summit needs to both raise awareness and drive adoption of its products into consumer electronic products, as well as drive consumer demand to compel increased product availability. However, in the near term, the company's focus is driving adoption and product integration by OEM partners to increase



product availabilities. If Summit can make significant progress in growing revenue, then earnings will likely improve and grow significantly as well.

Exhibit 3: Summit Company Overview

Building Momentum With Tier 1 Brands

Recent Achievements

- Unveiled WiSA-Ready prototypes at CES
 - · LG, Xbox, Windows10
- · Began shipping Harman
- · Completed IPO raised \$12mm
- Listed on Nasdaq: WISA
- Announced new WiSA members
- · Appointed Michael Howse to Board

Upcoming Milestones

- Secure more design wins
- · Enter production with more SKUs
- · Engage Alpha IP customer
- File 4-6 more patents in 2018
- Ship WiSA-Ready Xbox products
- Announce 1st WiSA-Ready TV
- · Introduce more certified-WiSA brand speakers
- Announce WiSA-Embedded IP partnership

Source: Company reports.

Our investment thesis factors in a possible uncertain and volatile outlook for the ramp up in commercialization for its wireless chips and module systems. Sales execution, long sales/design cycles, slow consumer adoption, competing technologies, and a very competitive industry are all key challenges for Summit. However, these risks are offset by the very large potential upside opportunities from the expected large adoption from consumers for wireless speaker technologies. We believe that the current valuation for Summit 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 Summit.

We believe the current valuation is attractive.

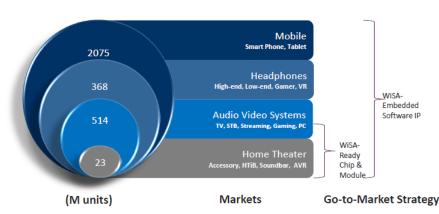
Our \$7.00 price target is based on a NPV analysis. Based on our expectations and assumptions, we calculate a 12-month price target for shares of Summit to be \$7.00, representing significant upside from the current share price. We believe this valuation appropriately balances out the company's high risks with the company's high growth prospects and large upside opportunities. We acknowledge that Summit is still at an early stage in its product commercialization and revenue generation is still minimal, but we believe key financial and product milestones and sales traction in the next year should be positive catalysts for the stock.



Exhibit 4: Summit's Market Opportunity

Total Available Market is Expansive

Evolving from Stereo to Immersive Sound



Atmos 5.1.2
747
368
830
184

Speakers in M Units
> 1B Speakers on Avg.

Source: Company reports.

INVESTMENT RISKS

Slow consumer adoption

Due to the significantly higher costs of wireless speakers with Summit's technology, the company is dependent upon consumers to be compelled and value the added benefits from improved and more convenient audio. Summit's wireless speakers compete against traditional wired speakers, speakers embedded in consumer electronics (mainly TVs but also include audio and mobile devices) and against other wireless speaker technologies. While the market potential is very large for speakers in general, the actual market for high quality wireless speakers like Summit's may be less than expected. If this is the case, this would likely slow revenue growth and consumer adoption for Summit's products.

Technology risks

The company uses its proprietary technology (based on WiSA standards) to transmit audio from a source to wireless speakers. There are currently two major competing technologies, Wi-Fi (managed by the Wi-Fi Alliance, a worldwide network of companies from multiple industries to drive the interoperability, adoption, and evolution of Wi-Fi globally) and Bluetooth (managed by the Bluetooth Special Interest Group (SIG), which has more than 30,000 member companies in the areas of telecommunication, computing, networking, and consumer electronics). While Summit's technology is better at transmitting high resolution, low latency, synchronized wireless audio capable of supporting up to 8 channels than competing technologies, there is always the risk of new technologies that are superior or have lower costs, or that there are difficulties supplanting the existing dominant/entrenched technologies Wi-Fi and Bluetooth.

High Level of Competition

Summit operates in a highly competitive environment and competes against a wide range of other companies and technologies in the wireless speaker market. Some of these competitors (which includes many major consumer electronics manufacturers) are much



larger or have greater resources or competing proprietary technology: which could result in lower projected revenue for Summit's products and higher costs, reduced margins, and lowered profitability for the company.

Concentrated Product Line and Customer Base

The company's main product is chip modules for usage by consumer electronic OEMs in their wireless speaker applications. In Q1 2018, sales to Guo Guang Electric Co., a Chinese OEM/ODM that builds product for large consumer electronic companies, was 67% of its revenue while Bang and Olufsen was 27%. If Summit were to experience difficulties with either of its large customers, then it would likely have a material negative impact on its business and financials as there may not be any meaningful offsets. In addition, as Summit is still in its early stage of product commercialization (with revenue still minimal), revenue and growth outlooks are much more unpredictable and volatile.

Economic Uncertainty

Consumer electronics demand tend to be highly correlated with economic activity and income levels due to their discretionary nature. Major deterioration in economic conditions tends to result in an overall decline in consumer spending. This was demonstrated during the 2008 and 2009 Great Recession and global economic slowdown. While consumer spending levels and economic conditions have recovered and improved significantly since, the global macroeconomic environment can change any time. Economic weakness may have a negative impact on Summit, its business partners, and customers.

Capital Markets Risks

While we estimate that Summit should have enough cash to fund its operations through 2019, we note that its business is capital intensive due to inventory requirements to build its chip modules. If business were to grow significantly, the company would likely need to raise additional capital. While the company has historically been able to raise capital to fund operations, there is always a risk that it may not be able to do so in the future. We note that technology companies' valuations tend to fluctuate widely (particularly micro caps like Summit), and there is always the chance that market interests and valuations for companies in this industry decline significantly. The relatively short trading history in Summit (being a public company only since July 2018) may also make capital raising more difficult and expensive.

VALUATION

We are initiating coverage of Summit with a BUY rating and a 12-month price target of \$7.00, which is based on a NPV analysis. Because the company is still early in its product commercialization, it currently generates minimal revenues and significant losses so traditional valuation metrics are not useful. We believe a more accurate valuation should take into consideration the potential value of its future product sales. We do acknowledge that this valuation is complex and requires a large number of forward assumptions that we have to estimate that may be imprecise and may vary significantly from actual results. This is particularly so for a company like Summit which is currently generating minimal revenue.

However, we believe our assumptions are fair and provide a reasonable basis for our valuation analysis. Our analysis considers future estimated revenue from each of its major products (based on estimated future sales and profitability and discounted this back to a current value). We apply a high discount rate to capture the uncertainties associated generally with early stage companies. We then added up the values, and allocated the value based on current share count. Based on our NPV analysis, we arrived at our 12-month price target of \$7.00, which we believe appropriately balances out the company's risks with its high growth prospects.

Although Summit's share price since its IPO in July 2018 has been weak (~-15%, its IPO price was \$5.00 and current share price is \$4.25), we expect valuations for Summit to improve as revenue grows, profitability improves, and visibility into cash flow generation becomes clearer, resulting in significant upside to the current share price.



Exhibit 5: Company Valuation (DCF)

Value Drivers	Estima	ated NPV
Annual Estimated Long Term Net Income	\$	25
Discount Rate	22	2.0%
Total Value	\$	114
Plus Current Net Cash	\$	(9)
Current Value for existing shareholders	\$	105
Shares Outstanding (mils)		15
Estimated Value per share	\$	6.98

Source: Ascendiant Capital Markets estimates

COMPANY

Based in San Jose, CA, Summit Wireless Technologies sells audio semiconductor chips, modules and license IP to enable the WiSA (Wireless Speaker and Audio) Association interoperability standards to deliver immersive wireless sound. The company develops wireless audio chips for home entertainment and professional audio markets that are used by consumer electronic OEMs for usage in their wireless speaker applications. The company also owns the WiSA (Wireless Speaker and Audio) Association, which is an association comprised of brands, manufacturers, and influencers within the consumer electronics industry, to develop and maintain a standardized method of quality and interoperability between wireless audio components.

The company was founded as Summit Semiconductor in 2010, and just recently in September, changed its name to Summit Wireless Technologies. The company's corporate headquarters is in San Jose, CA but has major operations in Beaverton, OR. In July 2018, the company had its IPO (with the company selling ~2.4 million shares for ~\$12 million (\$5/share)). As of July 2018, the company had 49 employees.



Exhibit 6: Summit Wireless Overview

Summit Wireless Delivers Immersive Sound

A leading provider of immersive, wireless, multi-channel sound technology for intelligent devices and next generation home entertainment systems.



Source: Company reports.

MANAGEMENT TEAM

Brett Moyer, age 60, President, Chief Executive Officer and Chairman. Mr. Moyer is a founder and has served as President and CEO since August 2010. From August 2002 to July 2010, Mr. Moyer served as president and CEO of Focus Enhancements, a developer and marketer of proprietary video technology. From 1986 to 1997, Mr. Moyer worked at Zenith Electronics, a consumer electronic company. Mr. Moyer has also served on the board of directors of Alliant International University, a private university, HotChalk, a developer of software for the educational market, and NeoMagic, a developer of semiconductor chips and software for multimedia applications for handheld devices. Mr. Moyer received a Bachelor of Arts in Economics from Beloit College in Wisconsin and a Master's of Business Administration with a concentration in finance and accounting from Thunderbird School of Global Management.

Gary Williams, age 51, Chief Financial Officer, Secretary and VP of Finance. Mr. Williams has served as Secretary, VP of Finance and CFO since the company's founding in August 2010. In addition, Mr. Williams served as the CFO of Quantum3D, Inc., a training and simulation technology company, from November 2012 to September 2016. Prior to Summit, Mr. Williams served as secretary, VP of finance and CFO of Focus Enhancements, a developer and marketer of proprietary video technology, from January 2001 to July 2010, when the videography and semiconductor businesses of the company were purchased by VITEC Multimedia and by Summit. Mr. Williams also worked at Videonics, Western Micro Technology, and in public accounting for Coopers & Lybrand. Mr. Williams is a Certified Public Accountant, inactive, and received a Bachelor's Degree in Business Administration, with an emphasis in Accounting, from San Diego State University.



PRODUCTS

Summit develops wireless audio semiconductors for home entertainment and professional audio markets that are used by consumer electronic OEMs for usage in their wireless speaker applications. Summit's technologies and products addresses the main issues of complexity and cost that are hindering the growth of the home theater. Consumers want to experience theater quality surround sound from the comfort of their homes, but existing wired home theater systems often require expensive audio-visual (AV) receivers and lots of speaker wires to connect the system.

Summit's wireless technology addresses these problems by transmitting wireless audio to each speaker at Blu-ray quality with an emphasis on ease of setup. Summit technology is also able to stream up to eight separate wireless audio channels with low latency, removing lip-sync issues between the audio and video sources. Summit is currently developing proprietary software to enable smart devices, that have Wi-Fi and video media, to deliver surround sound audio. As of July 2018, Summit had eight issued and two pending U.S. patents covering its technology.

Exhibit 7: TV Home Entertainment Sound

Paradigm Shift: TVs Left Sound Behind

TV attach rate to external audio reached 25%-35% and increasing

Bigger Thinner Higher Res Higher Def



Great video, but
POOR or NO SOUND

Paradigm Shift: Consumers Seek Simplicity Complete Set-Up in Less than 30 Minutes



Source: Company reports.

The wireless audio market is expected to grow from \$16.1 billion in 2016 to \$31.8 billion by 2023 according to a June 2017 report by Markets and Markets research firm. The primary growth segments for in home entertainment audio products have been Bluetooth stereo accessories which include single speakers, headsets, and more recently, "multi-room" stereo speakers that use a home's Wi-



Fi network to stream audio throughout the house. There are three primary wireless platforms: WiSA, standard Wi-Fi, and Bluetooth. Summit's key opportunity is in its ease of installation, dissatisfaction with Bluetooth/Wi-Fi performance and quality, and that consumers want to enjoy improved audio on existing content.

Summit is the only company with the capabilities of transmitting high resolution, low latency, synchronized wireless audio capable of supporting up to 8 channels of uncompressed audio directly to the speakers in 24-bit and up to 96 kHz sample rates. This means that a consumer can experience audio exactly as it was mastered in the studio. Summit's technology supports surround sound systems up to 7.1 or 5.1.2 for Dolby ATMOS configurations. WiSA's latency is a fixed latency less than 10ms (milliseconds), while Wi-Fi and Bluetooth have a variable latency greater than 50ms. In a multi-speaker environment, speaker synchronization is important for keeping each speaker on the same audio sound bit. WiSA keeps speakers synchronized within 5 microseconds. Wi-Fi and Bluetooth are greater than 50 microseconds. Finally, channel count is critical for multi-channel content. WiSA supports 8 channels, Bluetooth supports up to two, and standard Wi-Fi supports up to 4 channels.

Exhibit 8: WiSA Sound Technology

Audio Only Audio & Video Immersive Sound Wifi Personal Biuttotti 1 Speaker S Speakers S Speakers S Speakers

Source: Company reports.

Summit has designed wireless modules that provide high performance wireless audio for its OEM/ODM customers to build into their products like a speaker, TV, or dongle. By designing and selling these modules, Summit can reduce its customer's design expense, accelerate their time-to-market cycle, and reduce the cost of each module. Summit offers both a "TX" module (WiSA hub to transmit audio to speakers) to transmit the audio from a host device like a media hub, TV or dongle to WiSA-enabled speakers, and an "RX" model (placed into each speaker to receive audio) for speakers, that receives the wireless audio signal and processes it for audio play.



Summit currently sells custom audio semiconductor chips and wireless modules to a growing list of consumer electronics customers, including Axiim, Bang & Olufsen, Enclave Audio, Klipsch, LG and Onkyo/Pioneer. There are speakers and systems (HTIB – home theatre in a box) utilizing Summit's technology currently in the market with a price range of ~\$500 to over \$80,000 (with the lowest priced system currently being the Enclave Audio CineHome HD 5.1 Wireless Audio Home Theater System for ~\$999 (or on sale for \$799)). Summit aims for its partners and retailers to provide high quality systems to consumers at a wide range of price points. We note that Summit's ASP for its products are only ~\$10. Further, multi-channel systems can be easily expanded, allowing a consumer to start with a basic 2.0 (stereo) or sound-bar system and expand over time. Customers using Summit's technology, currently have 25 – 30 product stock keeping units (SKUs) in the market and the company expect that number to nearly triple by December 31, 2018.

Exhibit 9: Summit's Wireless Speaker Products

Evolution Increasing Scale & Margin Traditional WiSA WiSA-Ready WiSA-embedded Host TV HDMI WIFI A/V Receiver WiSA Hub HDMI WiSA USB Dongle WIFI WISA Decoder Power Amp Installation TIME \$\$\$\$ Speakers ≤ 8 ≤8 Wired Wireless Wireless Wireless Speakers

Source: Company reports.

As part of the effort to grow the wireless multichannel home audio segment, Summit was a founding member of the WiSA (Wireless Speaker and Audio) Association, an association dedicated to providing industry leadership and consumer choice through interoperability testing between brands. The WiSA Association creates, maintains and manages specifications for wireless speakers interoperability and also creates, maintains and manages testing criteria and specifications for all products to be listed, marketed and sold. For products with a WiSA certification, it is an industrywide "stamp of approval" certifying that a product is interoperable with other WiSA-certified products and has passed several high-performance tests ensuring low levels of latency and tight channel synchronization.

There are currently over 30 brands participating in the WiSA Association. Products certified and marked with a WiSA Association logo have been tested to interoperate. This preserves consumer choice by enabling consumers to choose different wireless transmitting products across different brands where audio is decoded with speakers that have the WiSA Association logo displayed.

Currently, WiSA-certified products are required to use Summit modules in order to meet the standards set by the WiSA Association.



Exhibit 10: WiSA Membership

WISA Expanding Membership

Supporting interoperability standard, creating the ecosystem around Summit's technology with consumer electronics brands, ODMs and consumers: 30+ brands including











BANG & OLUFSEN





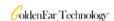
























Source: Company reports.

Summit currently sells its modules primarily to companies that sell their electronics in relatively small quantities (and priced high for high end/quality consumers). As larger consumer electronics companies begin to sell new Summit enabled products (through increased design wins), the company expects that orders for its modules will increase proportionally. With larger orders, Summit believe that it can leverage economies of scale and lower its costs and ASPs, driving even greater adoption by OEM and their consumers as overall costs decrease.



Exhibit 11: Summit Market Drivers

Market Driver: More WISA Brand Members

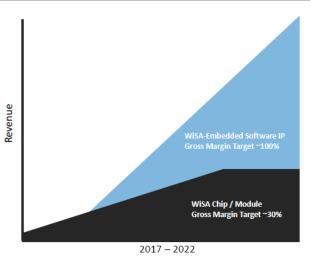
- WiSA membership growing
 - Harman
 - Microsoft's Xbox Division
 - · Goldenear, Primare, Almando, Electrocompaniet
 - · Sound United
 - Eastech
- Membership Requirements:
 - · Products must be compliance tested
 - WiSA logo must be included on products, spec. sheets, packaging, marketing material
 - Participation in WiSA marketing opportunities to Retailers and the industry optional
 - · Participation of advisory Board optional
- Membership growth leads to design wins



Market Driver: Extending IP to Broader Markets

WiSA-Embedded Software / IP Licensing Strategy

- Licensing core IP for low-latency, tight speaker synchronization and high fidelity to smart devices:
 - · Speakers, including voice-activated
 - TVs, especially speakerless
 - Phones
 - Tablets
 - Game consoles
 - PCs
- WiSA™-ready program is first step
- WiSA™-embedded ultimate goal
- Nominal cost for large Tier 1 implementations



Source: Company reports.



FINANCIALS

Summit's fiscal year ends on December 31. We expect its next earnings report (for Q3 2018) to be in mid-November. As the company's currently minimal revenue is expected to grow significantly over the next two years, we do not expect any seasonality in its revenues near term.

Exhibit 12: Summit's Historical Financials

FYE Dec 31				
(in millions except EPS)	2016A	2017A	2018E	2019E
Total Revenue	1.3	1.1	1.8	3.4
Growth % (y/y)		-13%	58%	91%
Gross Profit	(0.3)	(0.2)	(0.1)	0.4
Gross Margin	-21%	-14%	-8%	13%
Operating income (loss)	(8.5)	(6.8)	(10.0)	(8.7)
Net income	(9.7)	(25.6)	(37.5)	(8.8)
EPS	\$ (7.36)	\$(75.89)	\$ (4.53)	\$ (0.50)

Source: Company reports and Ascendiant Capital Markets estimates.

Recent Results (fiscal Q2 ending June 2018)

On July 26, 2018, the company completed its IPO raising ~\$12 million (selling 2.4 million shares at \$5.00 per share). Upon the closing of the IPO, ~\$20 million of debt was converted into ~10 million common shares and all preferred stock were converted into ~3 million common shares.

Summit's recent financial performance reflects its early stage in product commercialization for its audio chip module products. In its Q2 2018 report filed on September 14, 2018 (which did not include the company's IPO which will be reflected in its Q3 report), the company reported revenue of \$0.4 million, compared to Q1 2018's \$0.3 million and \$0.2 million in Q2 2017.

Q2 revenue growth was from higher module sales. Operating expenses were \$1.9 million, up from \$1.6 million from last year, mainly reflecting higher expenses to grow its business. Operating loss was \$1.9 million, compared with a loss of \$1.7 million last year. Net loss was \$19 million, compared with net loss of \$4 million in Q2 2017 mainly due to high interest and warrant liabilities expenses of \$18 million. EPS was \$(59.84), compared with EPS of \$(11.84) in Q2 2017.

The company has not provided specific forward guidance, but did provide a general financial plan for the next year in its IPO prospectus (as of July 27, 2018) for gross margin of \$2.0 - 2.3 million and operating expenses for research and development of \$3.0 - 3.7 million, sales and marketing of \$2.0 - 2.3 million, and general and administrative of \$1.5 - 2.0 million.



We have taken a more conservative outlook given the early stage of the company as our revenue estimate for 2018 is \$1.8 million, and for 2019 is \$3.4 million. We believe there are significant upside potential to our revenue estimates if the company can gain significant traction in new orders for its products over the next year.

The company's near term strategy is to continue to ramp up its product commercialization by developing its sales staff, increase consumer awareness and demand for its products and technologies, increase WiSA membership and adoption, developing partnerships to design OEM products utilizing its audio modules and technologies, introducing new products, and expanding its markets.

We believe that the biggest potential variable in our financial model is the ability of the company to ramp up commercialization of its products. In the near term, much of this will depend on its partnership with WiSA members to incorporate its products into their OEM products. We acknowledge that while the markets for wireless speakers are large, sales execution for an early stage company like Summit is always difficult to predict. However, we believe that the near term and longer term outlook is positive for Summit given the large and growing market for wireless speakers.

If Summit can make significant progress in growing revenue, then earnings will likely improve and grow significantly as well. While we acknowledge that the company's current financials are still reflective of its startup phase (minimal revenue and large losses), if the company can grow revenue significantly near term, it is likely its share price and valuation will increase significantly.

The company's balance sheet had ~\$0.4 million in cash and \$20 million debt as of June 2018. After its IPO, we estimate the company has \$8 million in cash and no debt. We believe the company has enough cash to fund its operations for the near term (through 2019).

Danas Chana Daine (40/0/40)

Exhibit 13: Summit's Key Financial Metrics

Recent Share Price (10/9/18) 52-Weeks Share Price (Low - High)	\$ 4.25 \$3.56 - 5.00
Shares Outstanding	15 million
Market Capitalization	\$64 million
Enterprise Value	\$57 million
Estimated Net Cash (9/30/18)	\$8 million
Estimated Debt (9/30/18)	\$1 million
2017A Revenue	\$1 million
2017A EPS	\$ (75.89)
2018E Revenue	\$2 million
2018E EPS	\$ (4.53)

Source: Company reports and Ascendiant Capital Markets estimates.



FINANCIAL MODEL

Summit Wireless Technologies, Inc.

Summit Wireless Tec Income Statement (\$ mils)	2016	Mar-17		Sep-17 Dec-17	2017	Mar-18	Jun-18	Sep-18	Dec-18	2018	Mar-19	Jun-19	Sep-19	Dec-19	2019
Fiscal Year End: December 31	FY-A	Q1A	Q2A	Sep-17 Dec-17	FY-A	Q1A	Q2A	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
riscal fear Eliu. Decelliber 31	FI-A	QIA	QZA		F1-A	QIA	QZA	Q3E	Q4E	FI-E	QIE	Q2E	Q3E	Q4E	FI-E
Total Revenue	1.273	0.461	0.244		1.113	0.282	0.380	0.500	0.600	1.762	0.564	0.760	0.900	1.140	3.363
Cost of Revenues	1.534	0.416	0.368		1.272	0.398	0.433	0.495	0.570	<u>1.897</u>	0.519	0.668	0.765	0.969	2.921
Gross Profit	(0.261)	0.044	(0.124)		(0.159)	(0.117)	(0.053)	0.005	0.030	(0.135)	0.045	0.091	0.135	0.171	0.442
Research and development	5.219	0.965	0.910		3.665	1.605	0.993	1.000	1.050	4.648	0.930	1.101	0.900	1.140	4.071
Sales and marketing	2.049	0.495	0.389		1.589	0.912	0.469	0.625	0.660	2.666	0.620	0.760	0.720	0.741	2.841
General and administrative	0.968	0.295	0.292		1.429	1.231	0.418	0.500	0.450	2.599	0.507	0.608	0.540	0.570	2.225
Restructuring and other										0.000					0.000
Total operating expenses	8.236	1.755	1.591		6.683	3.748	1.880	2.125	2.160	9.913	2.057	2.469	2.160	2.451	9.137
Operating income (loss)	(8.497)	(1.711)	(1.715)		(6.842)	(3.864)	(1.934)	(2.120)	(2.130)	(10.048)	(2.012)	(2.378)	(2.025)	(2.280)	(8.695
Interest income (expense)	(1.864)	(1.489)	(2.374)		(14.696)	(8.738)	(10.593)	(0.498)	(0.022)	(19.850)	(0.022)	(0.022)	(0.022)	(0.023)	(0.089
Other income (expense)	0.662	(0.068)	0.045		(4.109)	(0.704)	<u>(6.931)</u>			(7.635)					0.000
Income before income taxes	(9.699)	(3.267)	(4.043)		(25.647)	(13.306)	(19.457)	(2.618)	(2.152)	(37.533)	(2.034)	(2.400)	(2.047)	(2.303)	(8.784
Income taxes	0.009	0.003			0.006	0.002		0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
Net income (loss)	(9.708)	(3.270)	(4.043)		(25.652)	(13.308)	(19.457)	(2.618)	(2.152)	(37.535)	(2.034)	(2.400)	(2.047)	(2.303)	(8.784
Nonrecurring/noncash adjustme	ents									0.000					0.000
Net income (pro forma)		(3.270)	(4.043)		(25.652)	(13.308)	(19.457)	(2.618)	(2.152)	(37.535)	(2.034)	(2.400)	(2.047)	(2.303)	(8.784
EBITDA															
Shares, Basic	1.319	0.341	0.341		0.338	0.325	0.325	16.000	16.500	8.288	17.000	17.500	18.000	18.200	17.675
Shares, Diluted	1.319	0.341	0.341		0.338	0.325	0.325	16.000	16.500	8.288	17.000	17.500	18.000	18.200	17.675
EPS Basic (Pro forma)	(\$7.36)	(\$9.58)	(\$11.84)		(\$75.89)	(\$40.96)	(\$59.84)	(\$0.16)	(\$0.13)	(\$4.53)	(\$0.12)	(\$0.14)	(\$0.11)	(\$0.13)	(\$0.50
EPS Diluted (Pro forma)	(\$7.36)	(\$9.58)	(\$11.84)		(\$75.89)	(\$40.96)	(\$59.84)	(\$0.16)	(\$0.13)	(\$4.53)	(\$0.12)	(\$0.14)	(\$0.11)	(\$0.13)	(\$0.50
Margins															
Gross margin	-20.5%				-14.3%	-41.4%	-14.1%	1.0%	5.0%	-7.7%	8.0%	12.0%	15.0%	15.0%	13.19
Research and development	409.9%				329.3%	569.5%	261.4%	200.0%	175.0%	263.8%	165.0%	145.0%	100.0%	100.0%	121.19
Sales and marketing	161.0%				142.8%	323.7%	123.6%	125.0%	110.0%	151.4%	110.0%	100.0%	80.0%	65.0%	84.59
General and administrative	76.0%				128.4%	436.7%	110.1%	100.0%	75.0%	147.5%	90.0%	80.0%	60.0%	50.0%	66.29
Operating margin	-667.4%				-614.8%	-1371.3%	-509.1%			-570.4%		-313.0%			-258.59
Tax rate, GAAP	-0.1%				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.09
Net margin	-762.6%				-2305.3%	-4722.7%	-5122.7%	-523.5%	-358.6%	-2130.7%	-360.9%	-315.9%	-227.5%	-202.0%	-261.29
Y/Y % change					4007	2027	55%			F00/	100%	100%	80%	000/	044
Total Revenue					-13%	-39%				58%	,			90%	919
Gross margin					-39% -30%	-363%	-57% 9%			-15% 27%	-139% -42%	-271%	2600% -10%	470% 9%	-4289 -129
Research and development					-30% -22%	66% 84%	9% 21%			68%	-42% -32%	11% 62%	-10% 15%	9% 12%	-129
Sales and marketing					-22% 48%	84% 317%	43%			68% 82%	-32% -59%	62% 45%	15% 8%	12% 27%	-149
General and administrative					-19%	317% 126%	43% 13%			82% 47%	-59% -48%	45% 23%	-4%	27% 7%	-149
Operating income (loss) Net income (loss)					164%	307%	381%			47% 46%	-48% -85%	-88%	-4% -22%	7% 7%	-779
EPS Diluted (Pro forma)					931%	328%	405%			-94%	-100%	-100%	-22%	-3%	-899
Li o bilatea (i io ioiilia)					331/0	J20 /6	700/0			-34/0	-100/0	- 100/0	-50 /0	-5 /6	-09

Source: Company reports and Ascendiant Capital Markets estimates.



Summit Wireless Technologies, Inc.

Balance Sheet (\$ mils)	Dec-16	Mar-17 Jun-17 Sep-17		Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
iscal Year End: December 31	Q4A		Q4A	Q1A	Q2A	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Assets											
Cash and cash equivalents	0.092		0.249	0.075	0.425	8.257	6.565	4.673	2.978	1.508	0.090
Short term investments	0.032		0.243	0.073	0.423	0.000	0.000	0.000	0.000	0.000	0.000
Accounts receivable, net	0.007		0.055	0.013	0.007	0.389	0.467	0.438	0.591	0.700	0.887
Inventory	0.586		0.693	0.734	0.816	0.743	0.467	0.438	1.003	1.148	1.454
Deferred income taxes	0.500		0.033	0.734	0.010	0.000	0.000	0.000	0.000	0.000	0.000
Prepaid expenses and other	0.102		0.203	0.443	0.610	0.250	0.300	0.282	0.380	0.450	0.570
Total current assets	0.787		1.200	1.265	1.858	9.639	8.187	6.171	4.951	3.806	3.001
Total current assets	0.767		1.200	1.203	1.050	9.039	0.107	0.171	4.951	3.000	3.00
Long term securities/investments						0.000	0.000	0.000	0.000	0.000	0.000
Property and equipment, net	0.058		0.065	0.073	0.082	0.082	0.082	0.082	0.082	0.082	0.082
Intangibles, net			0.094	0.086	0.078	0.078	0.078	0.078	0.078	0.078	0.078
Deferred income tax						0.000	0.000	0.000	0.000	0.000	0.000
Other	0.098		0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.000
Total assets	0.943		1.457	1.522	2.115	9.896	8.444	6.428	5.208	4.063	3.160
Liabilities and stockholders' equity											
Accounts payable	1.035		1.332	1.608	2.027	2.000	2.400	2.254	3.039	3.600	4.560
Accrued expenses	2.091		0.715	0.993	0.775	0.500	0.600	0.564	0.760	0.900	1.140
Accrued expenses Accrued interest	0.363		1.867	3.276	6.994	6.994	6.994	6.994	6.994	6.994	6.994
Deferred revenue	0.303		1.007	3.270	0.994	0.000	0.000	0.000	0.000	0.000	0.000
Deferred income tax						0.000	0.000	0.000	0.000	0.000	0.000
Other						0.000	0.000	0.000	0.000	0.000	0.000
	2.055		E 044	11 015	10.010						
Short term debt	3.855 7.344		5.241	11.945 17.823	19.910	0.910	0.910	0.910	0.910	0.910	0.910 13.604
Total current liabilities	7.344		9.156	17.023	29.706	10.404	10.904	10.722	11.702	12.404	13.004
Deferred income taxes						0.000	0.000	0.000	0.000	0.000	0.000
Warrant liabilities	1.619		22.060	23.886	31.126	31.126	31.126	31.126	31.126	31.126	31.126
Other long term liabilities						0.000	0.000	0.000	0.000	0.000	0.000
Long term debt						0.000	0.000	0.000	0.000	0.000	0.000
Total other liabilities	1.619		22.060	23.886	31.126	31.126	31.126	31.126	31.126	31.126	31.126
Preferred stock	64.735		64.735	64.735	64.735	64.735	64.735	64.735	64.735	64.735	64.735
Common stock	9.913		0.000	0.000	0.000	0.200	0.400	0.600	0.800	1.000	1.200
Additional paid-in capital	2.2.0		13.832	16.713	17.641	17.641	17.641	17.641	17.641	17.641	17.641
Retained earnings	(82.631)				(141.049)					(152.299)	
Treasury stock	(32.331)		(. 50.200)	(.2552)	()	0.000	0.000	0.000	0.000	0.000	0.000
Accumulated other comprehensive i	n: (0.037)		(0.042)	(0.042)	(0.043)	(0.043)	(0.043)	(0.043)	(0.043)	(0.043)	(0.043
Other	(0.001)		(0.0-72)	(0.0-12)	(0.040)	29.500	29.500	29.500	29.500	29.500	29.500
Total stockholders' equity	(8.021)		(29.758)	(40.187)	(58.716)	(31.634)	(33.585)	(35.419)	(37.619)	(39.467)	(41.569
Total stockholders' equity and liab	ili 0.943		1,457	1.522	2.115	9.896	8.444	6.428	5.208	4.063	3.160

Balance Sheet Drivers

Balance Sheet Drivers											
	Dec-16	Mar-17 Jun-17 Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
	Q4A		Q4A		Q2A	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Prepaid as % of total rev	8%		18%	157%	161%	50%	50%	50%	50%	50%	50%
Accounts payable as % of total rev	81%		120%	571%	534%	400%	400%	400%	400%	400%	400%
Inventories as % of cost of rev	38%		54%	184%	188%	150%	150%	150%	150%	150%	150%
Accrued expenses as % of total rev	164%		64%	352%	204%	100%	100%	100%	100%	100%	100%
Activity Ratios											
A/R Days Sales Outstanding	1		4	4	2	70	70	70	70	70	70
Inventory Turnover	8.7x		6.4x	2.2x	2.1x	2.7x	2.7x	2.7x	2.7x	2.7x	2.7x
A/P Days Payable	73	S	108	363	421	364	379	391	409	424	424
Book & Cash Value (per share)											
Book Value per Share (diluted)	-\$6.08		-\$88.04	-\$123.68	-\$180.58	-\$1.98	-\$2.04	-\$2.08	-\$2.15	-\$2.19	-\$2.28
Cash per Share (diluted)	\$0.07	1	\$0.74	\$0.23	\$1.31	\$0.52	\$0.40	\$0.27	\$0.17	\$0.08	\$0.00
Net cash per Share (diluted)	-\$2.85	;	-\$14.77	-\$36.53	-\$59.93	\$0.46	\$0.34	\$0.22	\$0.12	\$0.03	-\$0.05

Source: Company reports and Ascendiant Capital Markets estimates



Summit Wireless Technologies, Inc.

Summit Wireless Techr															P
Cash Flow Statement (\$ mils)			Jun-17 Sep-17	Dec-17	2017	Mar-18	Jun-18	Sep-18		2018			Sep-19		2019
Fiscal Year End: December 31	FY-A	Q1A	Q2A		FY-A	Q1A	Q2A	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
															1
Cash flow from operating activi	1														1
Net income	(9.708)		(4.043)		(25.652)		(19.457)		(2.152)	(37.535)			(2.047)		(8.784)
Depreciation	0.146	0.025	0.017		0.060	0.010	0.009	0.100	0.100	0.219	0.100	0.100	0.100	0.100	0.400
Amortization					0.006	0.008	0.008			0.017					0.000
Debt related amortization exper		0.808	1.783		11.159	7.321	6.870			14.191					0.000
Stock comp	0.616					2.156	0.065	0.200	0.200	2.621	0.200	0.200	0.200	0.200	0.800
Deferred rent										0.000					0.000
Deferred income taxes								0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Provision for bad debts										0.000					0.000
Reserves										0.000					0.000
Change in fair value of warrant	(0.568)	0.064	(0.047)		4.731	0.705	6.930			7.635					0.000
Writedowns and impairments					/					0.000					0.000
Other gains/losses					(0.622)					0.000					0.000
Other										0.000					0.000
Changes in operating assets and	1	1													
Accounts receivable	0.031		(0.057)		(0.048)	0.042	0.006		(0.078)	(0.412)			(0.109)		(0.420)
Inventory	(0.087)	(0.078)			(0.385)	(0.041)	(0.082)		(0.113)	(0.162)			(0.145)		(0.599)
Prepaid expenses & other curre	0.030	(0.047)	(0.104)		(0.102)	(0.239)	(0.167)	0.360	(0.050)	(0.097)	0.018	(0.098)	(0.070)	(0.120)	(0.270)
Income tax										0.000					0.000
Other assets								0.000	0.000	0.000	0.000	0.000	0.000	0.098	0.098
Accounts payable	0.194	(0.095)			0.295	0.275	0.468	(0.027)		1.116	(0.146)		0.561	0.960	2.160
Accrued expenses	1.199		(0.741)		(1.376)	0.278	(0.218)		0.100	(0.115)	(0.036)		0.140	0.240	0.540
Accrued interest	0.490	0.681	0.582		1.546	1.414	3.723	0.000	0.000	5.137	0.000	0.000	0.000	0.000	0.000
Deferred revenue								0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other liabilities								0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net cash (used in) provided by	(6.445)	(2.253)	(2.450)		(10.388)	(1.379)	(1.845)	(2.568)	(1.592)	(7.383)	(1.792)	(1.595)	(1.370)	(1.318)	(6.075)
	<u> </u>														ĺ
Cash flow from investing activity															
Purchases of property and equi	•		(0.002)		(0.066)	(0.019)	(0.018)	(0.100)	(0.100)	(0.236)	(0.100)	(0.100)	(0.100)	(0.100)	(0.400)
Purchases of short-term investr	nents									0.000					0.000
Acquisitions					(0.100)					0.000					0.000
<u>Other</u>										0.000					0.000
Net cash used in investing active	0.000	0.000	(0.002)		(0.166)	(0.019)	(0.018)	(0.100)	(0.100)	(0.236)	(0.100)	(0.100)	(0.100)	(0.100)	(0.400)
															ĺ
Cash flow from financing activity															ĺ
Issuance of debt	5.097		2.308		15.808	1.224	2.213	(19.000)	0.000	-	0.000	0.000	0.000	0.000	0.000
Repayment of debt	(0.306)	(0.013)	(0.055)		(5.068)					0.000					0.000
Issuance of stock	1.721							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Repurchase of common stock					(0.025)					0.000					0.000
Proceeds from stock option exe	rcises									0.000					0.000
Other								29.500		29.500					0.000
<u>Dividends and distributions</u>										0.000					0.000
Cash provided by (used in) fina	6.512	2.439	2.253		10.716	1.224	2.213	10.500	0.000	13.937	0.000	0.000	0.000	0.000	0.000
Effect of exchange rate on cash	(0.001)	(0.004)	(0.002)		(0.004)	(0.001)	(0.000)			(0.001)					0.000
Lifect of exchange rate off Cash	(0.001)	(0.001)	(0.002)		(0.004)	(0.001)	(0.000)			(0.001)					0.000
Net increase (decrease) in cash			(0.200)		0.157	(0.174)	0.350		(1.692)	6.316	` '	• •	(1.470)	` '	(6.475)
Beginning cash and equivalents			0.278		0.092	0.249	0.075	0.425	8.257	0.249	6.565	4.673	2.978	1.508	6.565
Ending cash and equivalents	0.092	0.278	0.078		0.249	0.075	0.425	8.257	6.565	6.565	4.673	2.978	1.508	0.090	0.090

Source: Company reports and Ascendiant Capital Markets estimates



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Summit Wireless Technologies, Inc.

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Ascendiant 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.

Ascendiant Capital Markets, LLC Rating System

Prior to January 31, 2014, ASCM used the following rating system:

Strong Buy: We expect the stock to provide a total return of 30% or more within a 12-month period.

Buy: We expect the stock to provide a total return of between 10% and 30% within a 12-month period.

Neutral: We expect the stock to provide a total return of between minus 10% and plus 10% within a 12-month period.

Sell: We expect the stock to provide a total return of minus 10% or worse within a 12-month period.

Speculative Buy: This rating is reserved for companies we believe have tremendous potential, but whose stocks are illiquid or

whose equity market capitalizations are very small, often in the definition of a nano cap (below \$50 million in market cap). In general, for stocks ranked in this category, we expect the stock to provide a total return of 50% or more within a 12-month period. However, because of the illiquid nature of the stock's trading and/or the nano

cap nature of the investment, we caution that these investments may not be suitable for all parties.

Total return is defined as price appreciation plus dividend yield.

Ascendiant Capital Markets, LLC Distribution of Investment Ratings (as of July 13, 2018)

Investment Banking Services Past 12 months

Rating	Count	Percent	Count	Percent
Buy	39	95%	2	5%
Hold	2	5%	0	0%
Sell	0	0%	0	0%
Total	41	100%	2	5%

Other Important Disclosures

Our analysts use various valuation methodologies including discounted cash flow, price/earnings (P/E), enterprise value/EBITDAS, and P/E to growth rate, among others. Risks to our price targets include failure to achieve financial results, product risk, regulatory risk, general market conditions, and the risk of a change in economic conditions.

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