

SINTX Technologies, Inc.

Q2 about inline. We believe biomedical and ceramic armor commercialization ramp in 2023 to be positive for stock. Lowering P/T to \$10.

Q2 about inline: SINTX recently (on August 8) reported its Q2 2023 (ending June) results. Revenue was \$0.5 million, compared with our and consensus estimates of \$0.6 million. Net loss was \$3.4 million or EPS of \$(0.78), compared with our estimates of \$(0.70) and consensus of \$(0.80). There was no Q2 guidance.

Operating expenses: Operating expenses were \$3.6 million (vs. \$4.0 million in Q1).

No guidance: Management again declined to provide forward guidance.

Lowering 2023 estimates: We are lowering our 2023 estimates for revenue to \$2.3 million, from \$3.0 million, and for EPS to \$(3.67) from \$(3.39).

Focused on silicon nitride commercialization: SINTX is focused on developing silicon nitride products for medical and non-medical products in collaboration with medical/non-medical products manufacturers. The company believes that silicon nitride has a superb combination of properties that make it ideally suited for many medical applications. The company is actively developing products with its OEM partners and have shipped prototype orders.

Enters ceramic armor market: In July 2021, SINTX acquired from B4C, LLC the equipment and technical processes required to make ballistic armor plates. The acquisition price was ~\$2.8 million. Separately, SINTX entered into a technology license agreement with Precision Ceramics USA Inc. to manufacture a ceramic composite for defense armor applications. SINTX announced in February 2023 that its new SINTX Armor facility in Utah is operational.

Large market potential: The company is aiming for wide commercial opportunities across medical and non-medical industries for silicon nitride. **Key catalysts expected in 2023:** SINTX's goal in 2023 is to reach key technology and sales milestones including: 1) support CTL and drive further adoption of silicon nitride spinal fusion devices 2) develop commercial opportunities outside of spine 3) apply its silicon nitride technology platform to other OEM opportunities 4) launch of SINTX Armor.

Acquisition of TA&T: In June 2022, the company acquired Technology Assessment and Transfer, Inc., increasing SINTX's capabilities in the aerospace, defense, and biomedical markets. TA&T is an advanced ceramics business that specializes in developing innovative materials for defense, biomedical, and industrial applications. The purchase price was \$760,000.

Cash balance: The company ended Q2 with \$9 million in cash and no debt. In Q1, the company raised \$12 million selling stock (2.2 million shares at \$5.60). We believe the company has enough cash until mid-2024.

Positive high risks versus rewards: While we expect numerous silicon nitride products to be announced over the next year, there is still a long road to successful product commercialization. However, we believe the ~billion dollars market potentials presents a high reward for the risks.

Current valuation attractive: Maintaining our BUY rating, but lowering our 12month price target to \$10 from \$15. This is 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 Salt Lake City, UT, SINTX Technologies is an OEM ceramics company that develops and commercializes silicon nitride for medical and non-medical applications.

United States Healthcare

August 9, 2023

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

Stock Data

NasdaqCM
\$1.11 - 58.00
4.4
\$6
\$(3)
\$0
\$9
\$0.2
4
~0
\$0 (NA%)

Revenues (US\$ million)

	<u>2023E</u> (Cur.)	<u>2023E</u> (Old)	<u>2024E</u> <u>(Cur.)</u>	<u>2024E</u> (Old)
Q1 Mar	0.5A		0.9E	1.0E
Q2 Jun	0.5A	0.6E	1.0E	1.2E
Q3 Sep	0.6E	0.8E	1.1E	1.3E
Q4 Dec	<u>0.7E</u>	<u>1.1E</u>	1.4E	<u>1.5E</u>
Total	2.3E	3.0E	4.4E	5.0E
EV/Revs	N/A		N/A	

Earnings per Share (pro forma)

	<u>2023E</u> (Cur.)	<u>2023E</u> (Old)	<u>2024E</u> <u>(Cur.)</u>	<u>2024E</u> (Old)
Q1 Mar	(1.74)A		(0.72)E	(0.67)E
Q2 Jun	(0.78)A	(0.70)E	(0.73)E	(0.68)E
Q3 Sep	(0.76)E	(0.68)E	(0.73)E	(0.69)E
Q4 Dec	<u>(0.75)E</u>	<u>(0.67)E</u>	<u>(0.70)E</u>	<u>(0.69)E</u>
Total	(3.67)E	(3.39)E	(2.88)E	(2.74)E
P/E	N/A		N/A	

*Reflects a 1:100 reverse stock split in December 2022.

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 14.

Rating: BUY

COMPANY

UPDATE

Ticker:	SINT	
Price:	\$1.28	
Target:	\$10	
(fro	m \$15)	



Exhibit 1: SINTX Investment Highlights

SUMMARY

PORTFOLIO & EXPERTISE

SINTX holds a broad portfolio of advanced ceramics materials, with application across technical, antipathogenic, and medical market sectors. SINTX has unmatched global expertise in the development and application of silicon nitride, the premium portfolio offering.

EVOLVING

SINTX has fundamentally transformed over the past two years from a specialty materials company into an OEM that can serve many different markets with various product offerings that span significant ranges of quality, value, and economics.

INVEST

Invest at the inflection point as SINTX begins a new trajectory immediately post two acquisitions which set up the organization for long-term success

Focus Markets



Biomedical

- Used in over 40,000 human spine implantations
- Expanding with composites and coatings



Antipathogenic

- Antibacterial, antifungal, and antiviral applications
- Applications to PPE, filters, surfaces, coatings, wound care, catheters, wound drains, incontinence, and fem care



Industrial/Armor

- Able to withstand extreme conditions
- Used in aerospace, bearings, and drilling
- Personnel, aerospace, and vehicle protection



Exhibit 2: SINTX's Silicon Nitride

SINTX Technologies Inc.

SINTX Technologies is a leading manufacturer of silicon nitride.

Silicon nitride...

- · Is favorable to human cells and promotes bone fusion
- · Discourages bacterial adhesion on its surface
- Inactivates viruses—including the SARS-CoV-2 virus

SINTX has investigated silicon nitride heavily, with over 130 peer-reviewed scientific papers and presentations.

STX-100

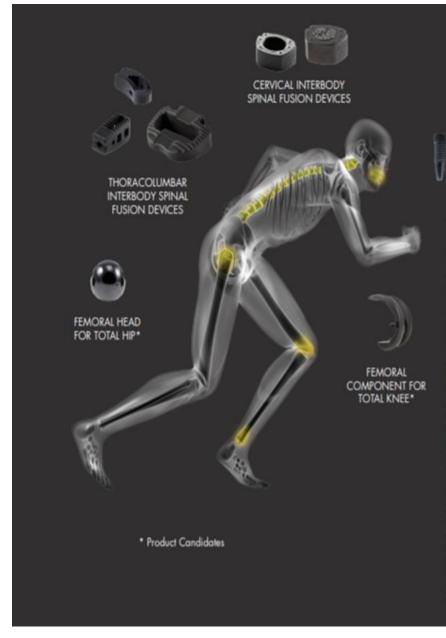
STX-100 silicon nitride has the best combination of mechanical, thermal, and electrical properties of any technical ceramic. Utilized when durability, thermal stability, exceptional strength, and wear resistance are required.







Exhibit 3: SINTX's Product Market Opportunity



DENTAL IMPLANT*

THE IDEAL BIOMATERIAL

Strength and fracture toughness: Interlocking anisotropic grains deflect and bridge cracks.

Wear resistance: High hardness, strength, and fracture toughness prevent wear.

Material phase stability: No spontaneous phase transformation or associated weakening.

Hydrophilicity: Tunable through modification of surface topography and chemistry, from <10° up to ~70°.

Osseointegration: Nanostructured topography combined with complex surface chemistry optimal for cell adhesion and bone growth.

Favorable imaging: Semi-radiolucent density appears bone-like in X-rays and low magnetic susceptibility eliminates distortion in CT and MRI scans.

Bacterial resistance: Surface chemistry, nanotexture, and charge inhibit biofilm formation.



🔍 SINTX

Exhibit 4: SINTX Armor

ARMOR

There is an ever-increasing demand for lightweight, comfortable ceramic armor with advanced protection against armor piercing rounds. SINTX's ARMOR ceramics offer advanced hardness and extreme light weight.

Transparent ceramic ARMOR provides superior ballistic protection at less than half the weight and thickness over traditional glass laminates.









ARMOR

TRANSPARENT

CERAMICS





SINTX Armor – New in 2021

SINTX has entered the ceramic armor market through the purchase of assets and technology from B4C, LLC and a technology partnership with Precision Ceramics USA. SINTX will develop and manufacture highperformance ceramic armor plates for personnel, aircraft, and armored vehicles.

- BoroShock: A 100% Boron Carbide material for ultimate lightweight performance in ballistic applications.
- DuraShock: A composite material made of Boron Carbide and Silicon Carbide – licensed from Precision Ceramics USA - for exceptional multihit performance against ballistic threats.

SINTX TECHNOLOGIES ANNOUNCES ITS NEW UTAH ARMOR FACILITY IS FULLY OPERATIONAL

FEBRUARY 14, 2023 9:00AM EST

Download as PDF

Facility will produce high-performance ceramic armor products for personnel, aircraft, and vehicles

SALT LAKE CITY--(BUSINESS WIRE)-- SINTX Technologies, Inc. (www.sintx.com) (NASDAQ: SINT; "SINTX" or the "Company"), an original equipment manufacturer of advanced ceramics, announced today that equipment installation along with key renovations and upgrades to its SINTX Armor facility in Salt Lake City are now complete. This milestone is the result of an intensive effort by the SINTX team to upgrade the facility's infrastructure and install armor manufacturing equipment that was acquired from Ohio-based B4C LLC.



Exhibit 5: Silicon Nitride Antipathogenic, Biomedical, and Industrial Catalysts for Growth

BIOMEDICAL

METAL COATINGS

Ceramic coatings for metal orthopedic and dental surgical implants and replacements. These coatings are targeted at overcoming the clinical limitations of metallic implants.

REGULATORY CLEARANCES FOR SPINAL IMPLANTS

Pursuing FDA clearance for SN-PEEK spinal fusion devices in the U.S. and similar clearances in OUS markets.

DENTAL

Working with dental implant companies to potentially supply novel silicon nitride and zirconia-based dental implants.

ANTIPATHOGENIC

AP FACE MASKS AND MASK FILTERS Developing civil use antipathogenic face protection.

AUTOMOTIVE CABIN AIR FILTERS Working with an automotive company on cabin air filters to reduce bacteria and virus.

TECHNICAL CERAMICS

COMMERCIAL JETS

Working with two major companies on commercial jet ignition systems – silicon nitride is enabling.

RF ANTENNAS

Working with several companies on RF antennas applications due to the excellent dielectric properties of silicon nitride.

ARMOR

The SLC ARMOR plant will start up in the 1^{st} quarter 2023 with strong interest from potential customers.

GOVERNMENT CONTRACTS & GRANTS

NAVAL RESEARCH LABORATORY

Ultra hard materials for armor applications that supports power protection and war fighter protection in military generators and vehicles.

HIGH EFFICIENCY HEAT EXCHANGERS Developed for high performance military equipment by the Office of Naval Research and Commercial HVAC systems for the Department of Energy.

MISSLE DEFENSE AGENCY

Extended life coatings for electrochemical machining tools.

SINTX

ABLATION TIPS Quoting two global medical device companies for a significant volume of 3D printed bioceramic surgical ablation tips.

FOOT AND ANKLE Leveraging success in spine market to attract interest from global leaders in this specialty area.

WOUND CARE Evaluating antipathogenic wound dressings (bandages, surgical care) for reduced bacteria growth.

MEDICAL TUBING COATINGS Developing coatings for catheters and medical tubing aimed at reducing infections.

WELDING COMPONENTS In production: components for high-speed welding with an international OEM for automotive applications.

CRITICAL APPLICATIONS Engaged with many companies in evaluations of our materials in critical applications such as energy and defense

FUTURE GOVERNMENT CONTRACTS Leverage 40 years and \$40+M in contracts and technical experience for future opportunities and innovations that can address market needs.

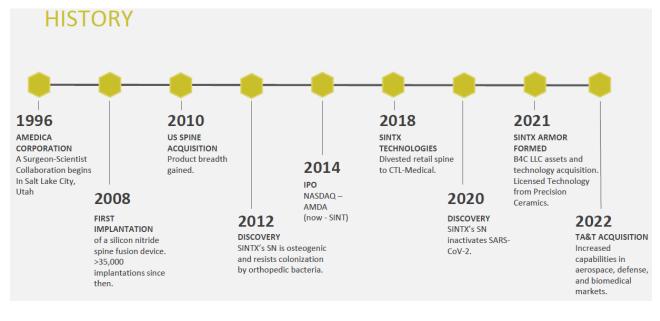
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY CMC combustor for high heat temps.

GRANTS

In the last year, awarded three phase 1 grants from NIH totaling \$900K for 3D printed composite devices: spine implants, craniomaxillofacial implants, and trauma plates.



Exhibit 6: SINTX Timeline



Source: Company report.

Exhibit 7: SINTX Planned 2023 Goals





Exhibit 8: SINTX Enters Ceramic Armor Market (July 2021)



SINTX ENTERS CERAMIC ARMOR MARKET THROUGH PURCHASE OF ASSETS FROM B4C, LLC AND TECHNOLOGY LICENSE FROM PRECISION CERAMICS USA INC.

JULY 22, 2021 9:00AM EDT

🗋 Download as PDF

SALT LAKE CITY, UT, July 22, 2021 (GLOBE NEWSWIRE) -- SINTX Technologies, Inc. (NASDAQ: SINT) ("SINTX" or the "Company") (www.sintx.com), an original equipment manufacturer (OEM) of silicon nitride ceramic for medical and non-medical applications, announced today that it has entered an asset purchase agreement with B4C, LLC of Dayton, Ohio, to acquire the equipment and technical processes required to make ballistic armor plates. Separately, SINTX also entered into a technology license agreement with Precision Ceramics USA Inc. (precision-ceramics.com) to manufacture a ceramic composite for defense armor applications.

Ceramic materials are an integral part of modern armor systems because of their light weight and resistance to high velocity projectiles. Governments worldwide are investing in novel ceramic armor solutions to protect law enforcement and military personnel as well as vehicles, aircraft, and ships against high-intensity threats. B4C, LLC is a specialty producer of Boron Carbide, a ceramic material used in the manufacture of protective body armor plates. Precision Ceramics USA Inc. is an international expert in technical ceramic component solutions.

Through its newly-created and wholly-owned subsidiary called SINTX Armor, the Company plans to utilize a twopronged strategy. The assets acquired from B4C will be used to manufacture and market pure Boron Carbide - the highest strength ceramic armor available. These are designed to protect soldiers against hardened, high-velocity projectiles, against which other materials are not as effective. Additionally, SINTX will jointly develop and manufacture a special, lower cost composite of Boron Carbide and Silicon Carbide, under an exclusive license from Precision Ceramics USA Inc. The composite material is targeted at the law enforcement and civilian armor markets.



Exhibit 9: SINTX Acquisition of Technology Assessment and Transfer, Inc. (in July 2022)

July 6, 2022



SINTX Technologies Acquires Technology Assessment and Transfer, Inc.

The Acquisition Broadens Opportunities for SINTX in Aerospace, Defense, and Biomedical Markets

SALT LAKE CITY--(BUSINESS WIRE)-- SINTX Technologies, Inc. (www.sintx.com) (NASDAQ: SINT) ("SINTX" or the "Company"), an original equipment manufacturer of advanced ceramics, announced the acquisition of Technology Assessment and Transfer, Inc. (TA&T; https://www.techassess.com/), significantly increasing SINTX's capabilities in the aerospace, defense, and biomedical markets.

"We are excited to acquire TA&T and take another step towards diversifying and strengthening SINTX," said Dr. Sonny Bal, President and CEO of SINTX. "TA&T will expand our use of advanced manufacturing technologies and introduce new ceramic material platforms to the SINTX portfolio. We expect the acquisition to bring immediate revenue to SINTX via TA&T's well-established relationships with commercial partners and the U.S. government."

TA&T, based in Maryland, is a nearly 40-year-old advanced ceramics business that specializes in developing and commercializing a broad array of innovative materials for defense, biomedical, and industrial applications. The company's technologies and products include 3D printing of ceramic medical devices and heat exchangers, chemical vapor infiltration and deposition of complex fiber-reinforced ceramic-matrix composites, and hot pressing of transparent armor and other technical ceramics. TA&T has a long track record of successfully winning research contracts and grants from the U.S. government and commercializing its innovative technologies.

As an example of TA&T's innovation, ceramic heater bodies developed, designed, and manufactured by TA&T are a part of the Sample Analysis on Mars (SAM) instrument suite on board the Curiosity Rover (<u>https://mars.nasa.gov/msl/home/</u>). These oven heater bodies were manufactured by TA&T using Ceramic Stereolithography, a form of 3D printing and additive manufacturing, and can withstand the extreme temperatures of more than 1,500°F that are required to heat soil samples on Mars in hopes of detecting signs of life. TA&T was selected by NASA to make these parts because of the prohibitive cost of traditional manufacturing techniques.

"Technology Assessment and Transfer is excited about the opportunity that the SINTX acquisition provides for product growth in commercial, aerospace, and medical applications," said Dr. Larry Fehrenbacher, Co-Founder and President of TA&T. "The blend of federally-funded innovative technologies and SINTX's business acumen is a compelling synergistic formula for future success."



Exhibit 10: SINTX Technologies, Inc. Stock Price (5-year)

*Reflects a 1:100 reverse stock split in December 2022.

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

Exhibit 11: Consensus Expectations (as of August 8, 2023)

	Revenue (mil)			EPS	
	<u>2023E</u>	<u>2024E</u>		<u>2023E</u>	<u>2024E</u>
Q1 Mar	\$0.5A		Q1 Mar	\$(1.74)A	
Q2 Jun	\$0.6E		Q2 Jun	\$(0.80)E	
Q3 Sep	\$0.7E		Q3 Sep	\$(0.69)E	
Q4 Dec			Q4 Dec		
Total	\$2.7E	\$3.9E	Total	\$(2.92)E	\$(2.44)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 December 2022.

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



FINANCIAL MODEL

SINTX 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	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
	~	4271	4071	~		~		20/1	~		2		402				~	402	<u> </u>	
Total Revenue	0.1	0.1	0.2	0.2	0.6	0.1	0.2	0.4	0.8	1.6	0.5	0.5	0.6	0.7	2.3	0.9	1.0	1.1	1.4	4.4
Cost of Revenues	0.1	0.1	0.2	<u>0.1</u>	0.4	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	0.0	0.3	0.1	0.3	0.5	0.5	1.4	0.6	0.7	0.7	0.9	2.9
Gross Profit	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.3	0.7	1.3	0.4	0.2	0.2	0.2	0.9	0.3	0.4	0.4	0.5	1.5
Research and development	1.6	1.2	1.6	1.5	5.9	1.7	1.5	1.5	1.8	6.5	2.2	2.1	2.0	2.0	8.3	2.0	2.0	2.0	2.0	8.0
Sales and marketing	0.3	0.3	0.3	0.3	1.3	0.4	0.3	0.3	0.3	1.3	0.3	0.3	0.4	0.4	0.3 1.4	0.4	0.4	0.4	0.4	1.6
General and administrative	1.0	0.9	0.9	0.8	3.6	0.4	1.0	1.1	1.1	4.0	1.2	1.2	1.1	1.1	4.5	1.2	1.2	1.2	1.2	4.8
Grant and contract expenses	1.0	0.5	0.5	0.0	0.0	0.0	0.2	0.2	0.4	0.9	0.3	1.2			0.3	1.2	1.2	1.2	1.2	0.0
Restructuring and other					0.0	0.0	0.2	0.2	0.4	0.0	0.0				0.0					0.0
Total operating expenses	2.9	2.4	2.9	2.6	10.8	2.9	3.0	3.1	3.6	12.6	4.0	3.6	3.5	3.5	14.6	3.6	3.6	3.6	3.6	14.4
Operating income (loss)	(2.8)	(2.4)	(2.8)	(2.6)	(10.6)	(2.9)	(2.8)	(2.8)	(2.9)	(11.3)	(3.6)	(3.5)	(3.4)	(3.3)	(13.7)	(3.3)	(3.3)	(3.2)	(3.1)	(12.9)
Interest income (expense)	0.0	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)	0.1	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Other income (expense)	0.2	0.1	0.5	<u>1.0</u>	<u>1.7</u>	0.0	0.3	0.1	(5.5)	<u>(5.2)</u>	3.2	0.9	<u>0.0</u>	<u>0.0</u>	4.2	<u>0.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.1
Income before income taxes	(2.6)	(2.2)	(2.3)	(1.6)	(8.8)	(2.8)	(2.5)	(2.7)	(8.4)	(16.5)	(0.3)	(2.5)	(3.4)	(3.3)	(9.5)	(3.2)	(3.3)	(3.2)	(3.1)	(12.8)
Income taxes					0.0					0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income (loss)	(2.6)	(2.2)	(2.3)	(1.6)	(8.8)	(2.8)	(2.5)	(2.7)	(8.4)	(16.5)	(0.3)	(2.5)	(3.4)	(3.3)	(9.5)	(3.2)	(3.3)	(3.2)	(3.1)	(12.8)
Nonrecurring/noncash adjustme		(0.0)	<u>(0.5)</u>	(4.0)	<u>(0.5)</u>	(0.0)	(0.5)	(0.7)	(0, 1)	0.0	<u>(4.1)</u>	<u>(1.0)</u>	(0.1)	(0.0)	<u>(5.1)</u>	(0.0)	(0.0)	(0,0)	(0.4)	0.0
Net income (pro forma)	(2.6)	(2.2)	(2.8)	(1.6)	(9.3)	(2.8)	(2.5)	(2.7)	(8.4)	(16.5)	(4.4)	(3.4)	(3.4)	(3.3)	(14.6)	(3.2)	(3.3)	(3.2)	(3.1)	(12.8)
EBITDA																				
Shares, Basic	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	2.6	4.4	4.4	4.4	4.0	4.4	4.4	4.4	4.4	4.4
Shares, Diluted	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.3	2.6	4.4	4.4	4.4	4.0	4.4	4.4	4.4	4.4	4.4
EPS Basic (pro forma)	(\$10.67)	(\$8.91)	(\$11.43)	(\$6.48)	(\$37.48)	(\$11.51)	(\$10.16)	(\$11.02)	(\$18.28)	(\$54.67)	(\$1.74)	(\$0.78)	(\$0.76)	(\$0.75)	(\$3.67)	(\$0.72)	(\$0.73)	(\$0.73)	(\$0.70)	(\$2.88)
EPS Diluted (pro forma)	(\$10.67)	(\$8.91)	(\$11.26)	(\$6.20)	(\$36.92)	(\$11.51)	(\$10.02)	(\$10.86)	(\$18.28)	(\$51.96)	(\$1.74)	(\$0.78)	(\$0.76)	(\$0.75)	(\$3.67)	(\$0.72)	(\$0.73)	(\$0.73)	(\$0.70)	(\$2.88)
Margins																				
Gross margin	40%	28%	21%	24%	26%	38%	73%	79%	96%	83%	78%	31%	25%	25%	39%	35%	35%	35%	35%	35%
Research and development	1579%	1192%	671%	899%	971%	1281%	615%	358%	235%	413%	408%	423%	333%	306%	363%	222%	200%	182%	143%	182%
Sales and marketing	283%	326%	141%	203%	213%	305%	141%	68%	41%	86%	58%	61%	67%	61%	62%	44%	40%	36%	29%	36%
General and administrative	990%	850%	390%	492%	595%	664%	414%	251%	140%	256%	217%	230%	183%	168%	197%	133%	120%	109%	86%	109%
Operating margin	-2813%	-2340%	-1182%	-1570%	-1752%	-2233%	-1160%	-656%	-376%	-726%	-660%	-682%	-558%	-511%	-596%	-365%	-325%	-292%	-222%	-292%
Tax rate, GAAP	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Net margin	-2607%	-2177%	-980%	-970%	-1448%	-2205%	-1047%	-639%	-1098%	-1056%	-54%	-488%	-559%	-511%	-412%	-354%	-325%	-292%	-222%	-290%
Y/Y % change																				
Total Revenue	-51%	-50%	262%	41%	2%	28%	138%	78%	364%	158%	318%	112%	41%	-15%	47%	67%	97%	83%	114%	91%
Gross margin	-2%	-32%	277%	67%	32%	23%	521%	588%	1740%	725%	759%	-8%	-55%	-78%	-31%	-25%	119%	157%	200%	72%
Research and development	60%	13%	12%	13%	22%	4%	23%	-5%	21%	10%	33%	46%	31%	11%	29%	-9%	-7%	0%	0%	-4%
Sales and marketing	109%	151%	86%	44%	89%	38%	3%	-14%	-7%	4%	-21%	-9%	37%	28%	6%	29%	30%	0%	0%	13%
General and administrative	31%	4%	13%	14%	15%	-14%	16%	15%	32%	11%	37%	18%	3%	3%	14%	3%	3%	9%	9%	6%
Operating income (loss)	53%	19%	16%	16%	25%	1%	18%	-1%	11%	7%	24%	24%	20%	16%	21%	-8%	-6%	-4%	-7%	-6%
Net income (loss)	-68%	-48%	-7%	-8%	-47%	8%	14%	16%	426%	88%	-90%	-1%	23%	-60%	-43%	988%	31%	-4%	-7%	35%
EPS Diluted (pro forma)	-91%	-75%	2%	-12%	-64%	8%	12%	-4%	195%	41%	-85%	-92%	-93%	-96%	-93%	-59%	-6%	-4%	-7%	-22%
Source: Company reports and A	scendiant	Canital I	Aarkets es	stimates					Reflects	a 1:100 i	everse s	tock snl	it in Deci	ember 2	022					

Source: Company reports and Ascendiant Capital Markets estimates.

Reflects a 1:100 reverse stock split in December 2022



SINTX 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	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Assets																
Cash and cash equivalents	23.5	22.2	17.2	14.3	10.9	7.7	4.8	6.2	12.6	9.3	7.8	4.6	1.3	(1.5)	(4.2)	(6.4)
Short term investments											0.0	0.0	0.0	0.0	0.0	0.0
Accounts receivable, net	0.1	0.0	0.2	0.1	0.1	0.3	0.2	0.3	0.5	0.4	0.6	0.7	0.9	1.0	1.1	1.4
Inventory	0.1	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.3	0.3	0.4	0.4	0.5	0.6
Deferred income taxes											0.0	0.0	0.0	0.0	0.0	0.0
Short-term note receivable	1.3										0.0	0.0	0.0	0.0	0.0	0.0
Prepaid expenses and other	<u>0.8</u>	0.7	0.4	0.4	<u>0.7</u>	0.9	0.7	0.4	<u>0.8</u>	0.7	0.8	0.9	1.3	1.4	1.5	2.0
Total current assets	25.8	23.2	18.1	15.0	12.0	9.2	6.0	7.2	14.3	11.1	9.5	6.5	3.8	1.3	(1.0)	(2.4)
Property and equipment, net	0.6	1.0	3.8	4.0	4.2	5.1	5.5	5.7	5.8	5.7	5.9	6.0	7.2	7.2	7.1	7.4
Intangibles, net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	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
Long-term note receivable											0.0	0.0	0.0	0.0	0.0	0.0
Long-term inventory and other	<u>2.3</u>	<u>2.1</u>	2.9	<u>2.8</u>	<u>2.7</u>	<u>3.2</u>	3.0	<u>2.8</u>	<u>2.3</u>							
Total assets	28.7	26.4	24.9	21.8	18.9	17.5	14.6	15.8	22.7	19.1	17.8	14.9	13.4	10.9	8.4	7.4
Liabilities and stockholders' equity																
Accounts payable	0.4	0.2	0.2	0.2	0.5	0.4	0.3	0.4	0.5	0.5	1.1	1.2	1.6	1.8	1.9	2.5
Accrued expenses	1.1	1.3	1.6	1.2	0.8	1.6	1.6	1.6	1.5	1.5	2.9	3.2	4.4	4.9	5.4	6.8
Derivative liabilities	1.3	1.3	0.8	0.3	0.3	0.2	0.1	5.1	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Deferred revenue											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
Other	0.4	0.4	0.5	0.5	0.5	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Short term debt	<u>0.0</u>	<u>0.0</u>	<u>0.1</u>		<u>0.5</u>	<u>0.1</u>	<u>0.2</u>	<u>0.2</u>	<u>0.1</u>							
Total current liabilities	3.2	3.2	3.2	2.2	2.7	3.0	2.9	8.1	5.1	3.9	5.9	6.3	7.9	8.6	9.2	11.2
Deferred income taxes											0.0	0.0	0.0	0.0	0.0	0.0
Warrant liabilities											0.0	0.0	0.0	0.0	0.0	0.0
Other long term liabilities	1.4	1.3	2.0	1.9	1.8	2.0	1.8	1.6	1.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Long term debt	0.5	0.5	0.5			0.5	0.5	0.4	0.0	0.0	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total other liabilities	1.9	1.7	2.5	1.9	1.8	2.5	2.3	2.0	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Preferred stock																
Common stock	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.5
Additional paid-in capital	267.1	267.2	267.3	267.4	267.5	267.6	267.7	268.2	278.7	279.0	279.0	279.0	279.0	279.0	279.0	279.0
Retained earnings	(243.7)	(245.9)	(248.3)	(249.9)	(253.3)	(255.8)	(258.5)	(262.5)	(262.7)	(265.2)	(268.6)	(271.9)	(275.1)	(278.3)	(281.6)	(284.7)
Accumulated other comprehensive in	come															
Other											0.0	0.0	0.0	0.0	0.0	0.0
Total stockholders' equity	23.6	21.5	19.2	17.7	14.5	12.0	9.4	5.7	15.9	13.8	10.5	7.3	4.1	1.0	(2.2)	(5.2)
Total stockholders' equity and liabili	28.7	26.4	24.9	21.8	18.9	17.5	14.6	15.8	22.7	19.1	17.8	14.9	13.4	10.9	8.4	7.4

Balance Sheet Drivers

Dalance 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	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Prepaid as % of total rev	790%	645%	160%	212%	559%	361%	167%	46%	150%	136%	140%	140%	140%	140%	140%	140%
Accounts payable as % of total rev	393%	152%	71%	132%	380%	155%	68%	57%	90%	99%	177%	177%	177%	177%	177%	177%
Inventories as % of cost of rev	177%	485%	210%	242%	374%	524%	366%	947%	329%	200%	64%	64%	64%	64%	64%	64%
Accrued expenses as % of total rev	1075%	1256%	672%	697%	646%	647%	365%	211%	279%	297%	487%	487%	487%	487%	487%	487%
Activity Ratios																
A/R Days Sales Outstanding	60	26	69	56	74	101	49	39	78	68	93	93	93	93	93	93
Inventory Turnover	2.3x	0.8x	1.9x	1.7x	1.1x	0.8x	1.1x	0.4x	1.2x	2.0x	6.3x	6.3x	6.3x	6.3x	6.3x	6.3x
A/P Days Payable	586	190	80	156	551	507	292	1302	371	130	212	212	245	245	245	245
Book & Cash Value (per share)																
Book Value per Share (diluted)	95.66	87.00	76.75	68.71	58.48	48.04	37.53	12.40	6.23	3.11	2.37	1.64	0.93	0.22	(0.49)	(1.18)
Cash per Share (diluted)	95.15	89.82	68.54	55.32	43.96	30.89	19.05	13.58	4.94	2.10	1.75	1.04	0.29	(0.35)	(0.94)	(1.44)
Net cash per Share (diluted)	93.06	87.76	66.51	55.32	41.84	28.31	16.53	12.43	4.88	2.08	1.72	1.01	0.27	(0.37)	(0.97)	(1.46)

Source: Company reports and Ascendiant Capital Markets estimates



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	202
iscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY
Cash flow from operating activi	tion																			
Net income	(2.6)	(2.2)	(2.3)	(1.6)	(8.8)	(2.8)	(2.5)	(2.7)	(4.0)	(12.0)	(0.3)	(2.5)	(3.4)	(3.3)	(9.4)	(3.2)	(3.3)	(3.2)	(3.1)	(12
Depreciation	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.2	0.8	0.2	0.2	0.2	0.2	
Amortization	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.5	0.2	0.2	0.2	0.2	0.8	0.2	0.2	0.2	0.2	
Debt related amortization exper		(0.0)	0.1	0.1	(0.1)	0.1	0.1	0.2	0.2	0.0	0.2	0.2			0.4					
Stock comp	0.0	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	
Bad debt expense	0.0	0.1	0.1	0.1	0.0	0.1	0.1	(0.0)	(0.0)	(0.0)	(0.0)	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	
Inventory reserve								(0.0)	(0.0)	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	0.0	
Change in fair value of warrant	0.2	0.0	(0.5)	(0.5)	(0.7)	(0.0)	(0,1)	(0,1)	1.3	1.1	(3.9)	(1.0)			(4.9)					
Writedowns and impairments	0.2	0.0	(0.0)	(0.0)	0.0	(0.0)	(0.1)	(0.1)		0.0	(0.0)	()			0.0					
Other gains/losses	(0.4)	(0,1)	0.0	(0.5)	(1.0)		(0.0)	0.0		0.0					0.0					
Other	()	()		()	0.0		()			0.0					0.0					
Changes in operating assets and	iabilities																			
Accounts receivable	(0.0)	0.0	(0.2)	0.1	(0.1)	(0.0)	0.0	0.0	(0.1)	(0.0)	(0.1)	0.1	(0.2)	(0.1)	(0.3)	(0.3)	(0.1)	(0.1)	(0.3)	0
Inventory	(0.0)	(0.2)	0.1	0.1	(0.1)	(0.0)	(0.2)	0.0	0.0	(0.1)	0.1	(0.3)	0.4	(0.0)	0.2	(0.1)	(0.0)	(0.0)	(0.1)	i i
Prepaid expenses & other curre	(0.6)	0.1	0.2	0.0	(0.1)	(0.4)	(0.1)	0.2	0.4	0.0	(0.5)	0.1	(0.1)	(0.1)	(0.6)	(0.3)	(0.1)	(0.1)	(0.4)	(
Income tax					0.0					0.0					0.0					
Other assets					0.0					0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Accounts payable	0.4	(0.1)	0.1	(0.2)	0.3	(0.1)	0.1	(0.1)	0.2	0.2	(0.1)	(0.0)	0.6	0.1	0.5	0.4	0.2	0.2	0.5	
Accrued expenses	(0.0)	0.0	0.0	0.0	0.0	(0.1)	(0.1)	(0.2)	0.3	(0.1)	(0.2)	(0.2)	1.4	0.3	1.3	1.2	0.5	0.5	1.5	:
Deferred revenue					0.0					0.0					0.0					
Other liabilities	<u>(0.1)</u>	<u>(0.1)</u>	<u>(0.1)</u>	<u>(0.1)</u>	<u>(0.4)</u>	0.0	<u>(0.0)</u>	<u>(0.0)</u>	<u>(0.6)</u>	<u>(0.6)</u>	<u>(0.3)</u>	<u>(0.0)</u>	0.0	0.0	<u>(0.4)</u>	0.0	0.0	0.0	0.0	
Net cash (used in) provided by	(3.0)	(2.3)	(2.4)	(2.4)	(10.1)	(3.2)	(2.5)	(2.5)	(2.1)	(10.3)	(4.9)	(3.2)	(1.1)	(2.9)	(12.0)	(1.9)	(2.6)	(2.5)	(1.7)	(8
Cash flow from investing activit	ioc																			
Purchases of property and equi		(0.4)	(2.6)	(0.5)	(3.7)	(0.2)	(0,4)	(0.5)	(0.3)	(1.4)	(0.2)	(0,1)	(0.5)	(0.3)	(1.1)	(1.4)	(0.2)	(0,1)	(0.5)	6
Purchases of short-term investr		1.9	(2.0)	(0.0)	1.9	(0.2)	(0.4)	(0.0)	(0.0)	0.0	(0.2)	(0.1)	(0.0)	(0.0)	0.0	(1.4)	(0.2)	(0.1)	(0.0)	
Acquisitions	ionito	1.0			0.0		0.3			0.3					0.0					
Other	0.6	(0.5)			0.1		0.0	0.0		0.0					0.0					
Net cash used in investing activ		1.1	(2.6)	(0.5)	(1.7)	(0.2)	(0.1)	(0.5)	(0.3)	(1.1)	(0.2)	(0.1)	(0.5)	(0.3)		(1.4)	(0.2)	(0.1)	(0.5)	1 -
Cash flow from financing activi	ties																			
Issuance of debt	0.5			(0.0)	0.5				3.8	3.8	4.8		0.0	0.0	4.8	0.0	0.0	0.0	0.0	
Repayment of debt		(0.0)		0.0	0.0		(0.5)			(0.5)	(0.0)				(0.0)					
Issuance of stock			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	0.2				0.2					0.0	6.7				6.7					
Other					0.0					0.0					0.0					0
Dividends and distributions					<u>0.0</u>					<u>0.0</u>					<u>0.0</u>					1
Cash provided by (used in) fina	0.7	(0.0)	0.0	0.0	0.7	0.0	(0.5)	0.0	3.8	3.3	11.5	0.0	0.0	0.0	11.5	0.0	0.0	0.0	0.0	'
Effect of exchange rate on cash					0.0					0.0					0.0					
Net increase (decrease) in cash	(1.9)	(1.3)	(5.0)	(2.9)	(11.1)	(3.4)	(3.1)	(3.0)	1.5	(8.0)	6.4	(3.3)	(1.6)	(3.1)	(1.6)	(3.3)	(2.8)	(2.6)	(2.2)	(1
Beginning cash and equivalents		23.5	22.2	17.2	25.4	14.3	10.9	7.7	4.8	14.3	6.2	12.6	9.3	7.8	6.2	4.6	1.3	(1.5)	(4.2)	1
Ending cash and equivalents	23.5	22.2	17.2	14.3	14.3	10.9	7.7	4.8	6.2	6.2	12.6	9.3	7.8	4.6	4.6	1.3	(1.5)	(4.2)	(6.4)	(

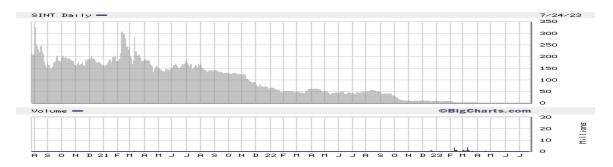
Source: Company reports and Ascendiant Capital Markets estimates



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 Ascendiant 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.

SINTX Technologies, Inc.



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

	Report Date		Price
Report	Date	Rating	Target
1	9/11/2019	Buy	300.00
2	11/15/2019	Buy	325.00
3	4/4/2020	Buy	250.00
4	5/16/2020	Buy	225.00
5	8/21/2020	Buy	400.00
6	11/21/2020	Buy	425.00
7	3/31/2021	Buy	450.00
8	5/21/2021	Buy	475.00
9	8/25/2021	Buy	450.00
10	11/16/2021	Buy	350.00
11	4/13/2022	Buy	325.00
12	6/1/2022	Buy	275.00
13	8/16/2022	Buy	250.00
14	11/18/2022	Buy	200.00
15	4/4/2023	Buy	40.00
16	5/30/2023	Buy	15.00

• Ascendiant Capital Markets, LLC has received compensation for advisory or investment banking services from the company in the past 12 months.

IMPORTANT DISCLOSURES

This report has been distributed by Ascendiant Capital Markets, LLC and is for the sole use of our clients. This report is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. This report contains information from various sources, including United States government publications, The Wall Street Journal and other periodicals, Yahoo! Finance and other sources, and is for informational purposes only and is not a recommendation to trade in the securities of the companies mentioned within the report. We seek to update our research and recommendations as appropriate, but the large majority of reports are published at irregular intervals as we consider appropriate and, in some cases, as constrained by industry regulations.

We may have a business relationship with companies covered in this report. Ascendiant Capital Markets, LLC may make a market in the securities of the subject company. We and our affiliates, officers, directors, and employees will from time to time have long or



short positions in, act as principal in, and buy or sell, the securities or derivatives (including options and warrants) thereof of covered companies referred to in this report. This report is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any information in this report is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of the investments referred to in this report may fluctuate.

Following are some general risks that can adversely impact future operational and financial performance and share price valuation: (1) industry fundamentals with respect to legislation, mandates, incentives, customer demand, or product pricing; (2) issues relating to competing companies or products; (3) unforeseen developments with respect to management, financial condition or accounting policies or practices; or (4) external factors that affect the interest rates, currency, the economy or major segments of the economy. Past performance is not a guide to future performance, future returns are not guaranteed, and loss of original capital may occur. Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Our report is disseminated primarily electronically, and, in some cases, in printed form. The information contained in this report is not incorporated into the contents of our website and should be read independently thereof. Copyright Ascendiant Capital Markets, LLC. No part of this material may be copied, photocopied or duplicated by any means or redistributed without the prior written consent of Ascendiant Capital Markets, LLC.

Risks & Considerations

Risks to attainment of our share price target include balance sheet/liquidity risks, failure of product candidates to demonstrate safety and efficacy in clinical trials/studies, failure to gain/maintain regulatory approvals, ability to commercialize product, failure to obtain suitable reimbursement, competition, changing macroeconomic factors, investor sentiment for investing in biotech/medtech stocks, and changes in consumer or government priorities for healthcare.

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 Distribution of Investment Ratings (as of July 14, 2023)

				Banking Services 2 months
Rating	Count	Percent	Count	Percent
Buy	51	98%	16	31%
Hold	0	0%	0	0%
Sell	1	2%	0	0%
Total	52	100%	16	31%





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.

Dissemination of Research

Ascendiant Capital Markets, LLC research is distributed electronically via the Thomson Reuters platforms, Bloomberg, Capital IQ and FactSet. Please contact your investment advisor or institutional salesperson for more information.

General Disclaimer

The information and opinions in this report were prepared by Ascendiant Capital Markets, LLC. This information is not intended to be used as the primary basis of investment decisions and because of individual client objectives it should not be construed as advice designed to meet the particular investment needs of any investor. This material is for information purposes only and is not an offer or solicitation with respect to the purchase or sale of any security. The reader should assume that Ascendiant Capital Markets, LLC may have a conflict of interest and should not rely solely on this report in evaluating whether or not to buy or sell securities of issuers discussed herein. The opinions, estimates, and projections contained in this report are those of Ascendiant Capital Markets, LLC as of the date of this report and are subject to change without notice. Ascendiant Capital Markets, LLC endeavors to ensure that the contents have been compiled or derived from sources that we believe are reliable and contain information and opinions that are accurate and complete. However, Ascendiant Capital Markets, LLC makes no representation or warranty, express or implied, in respect thereof, takes no responsibility for any errors and omissions contained herein, and accepts no liability whatsoever for any loss arising from any use of, or reliance on, this report or its contents. Information may be available to Ascendiant Capital Markets, LLC, or its affiliates that is not reflected in this report. This report is not to be construed as an offer or solicitation to buy or sell any security.

Additional Disclosures

Ascendiant Capital Markets, LLC is a broker-dealer registered with the United States Securities and Exchange Commission (SEC) and a member of the FINRA and SIPC. Ascendiant Capital Markets, LLC is not a Registered Investment Advisor nor is it an investment advisor registered with the Securities and Exchange Commission or with the securities regulators of any state, and at the present time is not eligible to file for federal registration.