

# SPECTRA7<sup>®</sup>

## Corporate Overview



TICKER: **SEV**  
TSX VENTURE EXCHANGE



TICKER: **SPVNF**  
OTCQB VENTURE MARKET

As of November 6, 2023



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## **CURRENCY**

All dollar amounts in this presentation are presented in US Dollars unless otherwise stated.

# Why Spectra7

## ▲ Highly differentiated solution in fast growing market

- High-growth hyperscale data center connectivity market where our segment addressable market exceeds \$1 billion by 2027\*
- Fills a critical connectivity gap with a unique, high-speed, low-power solution
- Significant operating cost and capex savings for customers

## ▲ Proven technology and first mover advantage

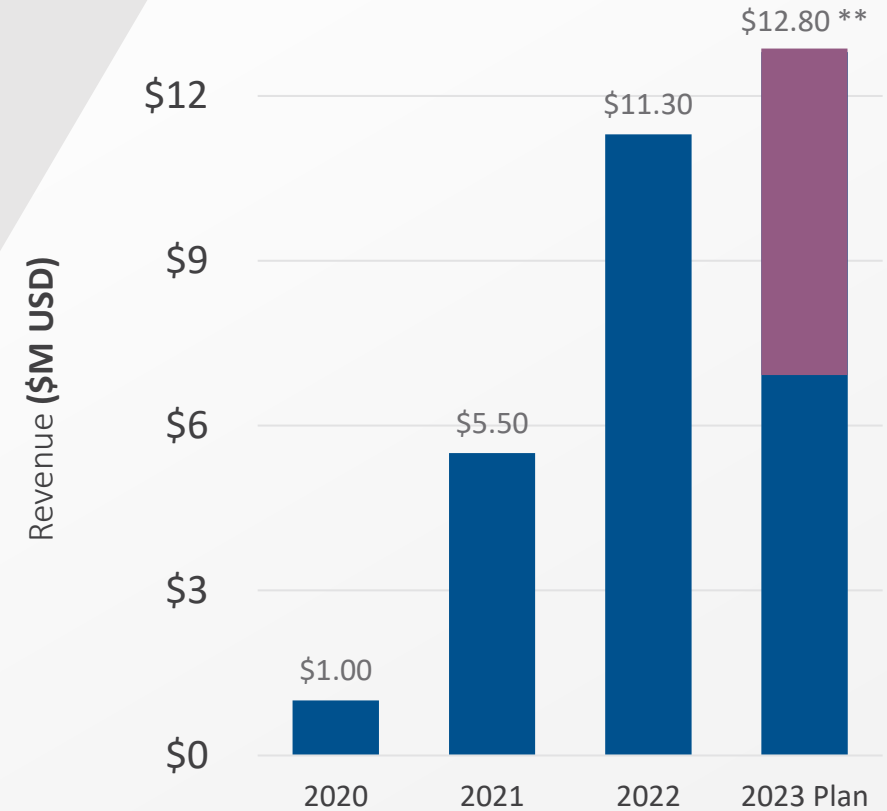
- 12 years in the industry with 55 U.S. issued patents
- AR/VR design-win in production for top global game console manufacturer
- Third generation Active Copper Cable technology with 2 years head start in the data center connectivity market

## ▲ Rapidly scaling revenue

- 2022 revenue \$11.3 million, doubled 2021 of \$5.5 million
- 2023 revenue target of \$12.8 million
- Highly scalable, lean operating platform

# SPECTRA7®

## Revenue Trend



YTD 2023 Revenue of \$9.6 million, a Spectra7 Record

\* Source: 650Group Active Copper Cable Report July 2023

\*\* Assumed midpoint of H2 2023 revenue guidance of \$6.0 and \$6.8 million

# Spectra7 at a Glance

## What We Do

Spectra7 Microsystems Inc. is the leader in high-performance analog semiconductor products for broadband connectivity markets

The Company headquarters is in San Jose, CA, with sales and operations support in Dongguan, China

**Tickers:** SEV (TSX-V), SPVNF (OTCQB)

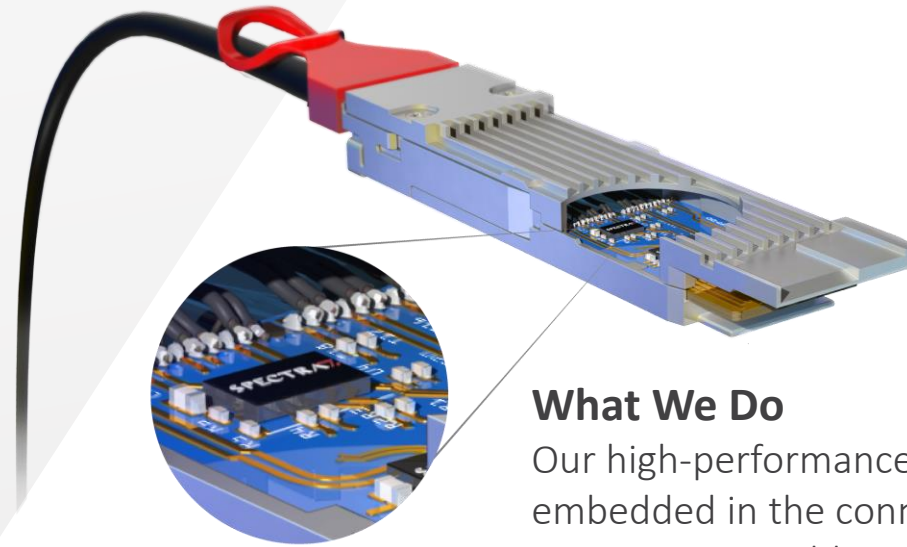
**Corporate HQ:** San Jose, CA

**Incorporated:** 2010

**Technology:** Backed by 55 patents



# SPECTRA7<sup>®</sup>



## What We Do

Our high-performance analog semiconductors are embedded in the connector of a copper cable, or an active copper cable, enabling it to be ultra-thin with high-speed connectivity

## Blue-Chip Partners

ACES

Amphenol

BizLink

BROADEX TECHNOLOGIES

FOXCONN<sup>®</sup>

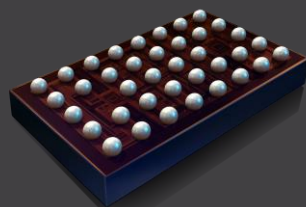
LUXSHARE ICT

molex<sup>®</sup>

Sumitomo Corporation

Tencent 腾讯

Voilex



- Spectra7 is the leader in the Active Copper Cable market
- Customers deploying our Active Copper Cable solutions benefit from both CapEx and OpEx savings

## Currently Serving



Consumer Connectivity



Augmented/Virtual Reality



Data Centers/AI Connectivity

**Significant growth in the near term will be driven by the data center connectivity market**

**Future Growth Fueled by:**



Automotive Market



Switching Systems



5G Infrastructure

# Virtual Reality Solutions

for Next-Generation 4K and 5K Headsets



# SPECTRA7<sup>®</sup>



## DreamWeVR™

Spectra7's new chips allow VR and AR devices to drive resolutions of 4K UHD and 5K with very low-latency over an ultra-thin all-in-one interconnect.



# Hyperscale Cloud Infrastructure

A Large and Growing Market

## “AI Infrastructure Investments Will Lift Data Center Capex to Over \$500 Billion by 2027”

- Dell’Oro, July. 2023

### NORTH AMERICA

Alphabet

Google



aws

Meta

Microsoft Azure



### Market Drivers

- ▼ Cloud Services
- ▼ Artificial Intelligence
- ▼ Deep Learning
- ▼ 5G Roll-out
- ▼ Big Data Growth
- ▼ Metaverse

### ASIA



Alibaba Group

Baidu 百度

ByteDance

Tencent 腾讯

# How Spectra7 will Benefit from Growth of AI

- AI Networks will be the first to adopt 112G PAM4 Signaling, necessitating Active Cables for ~50% of server connections. (DACs only reach 1.5m)
- AI Networks require 3X more bandwidth than traditional compute networks, driving capital spending on faster network infrastructure and interconnects.
- ACC technology (pioneered by Spectra7) is superior for AI Networks. Advantages include lowest power, lowest latency and lower cost.
- ACC technology is protocol agnostic and supports both Ethernet and InfiniBand.



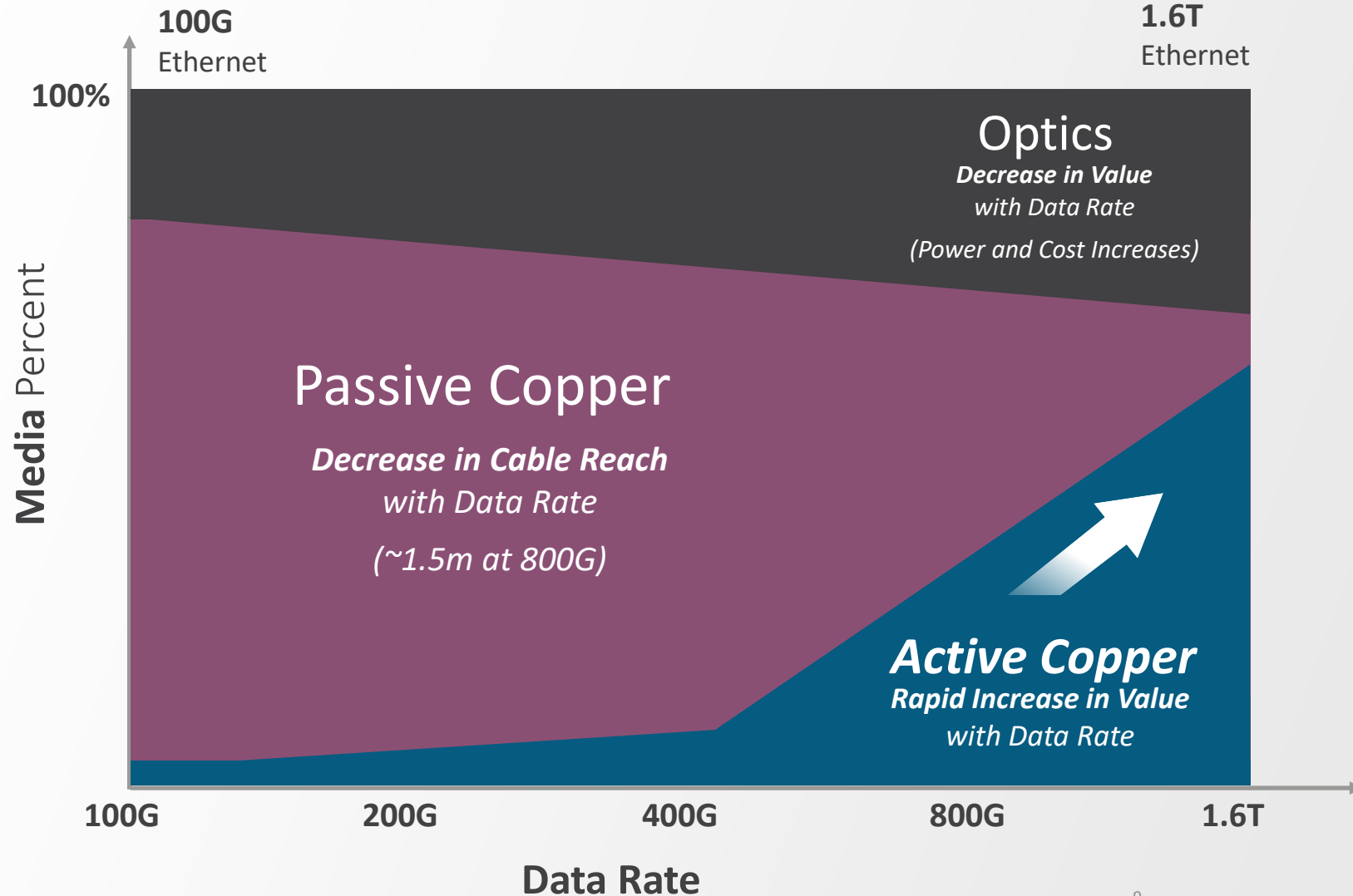
**“AI Will Be a Primary Driver for Active Copper Cables in the Data Center Over the Next 4 Years”**

**- 650Group July 2023**



# The Opportunity

Passive Copper Cables Cannot Meet Connectivity Requirements as Data Rates Increase in the Data Center



# Active Copper Cable Competitive Advantage

High Performing and Cost Efficient

## Passive Copper Cable

- Lengths up to 3 meters<sup>1</sup>
- Lowest cost
- Lowest power consumption
- Plug and Play

### LIMITATIONS

- ▼ *Limited to 2 meters at higher data rates*
- ▼ *Bulky*
- ▼ *Difficult to route*
- ▼ *Blocks air-flow*

## Active Copper Cable

- Lengths up to 7 meters<sup>1</sup>
- Lower cost than active optical cables
- Lower power consumption
- Thin, light and flexible
- High quality data transmission
- Plug and Play



<sup>1</sup> for 56G PAM4 applications

## Substitute Products

### Active Optical Cables

- Up to kilometers in length
- High quality data transmission

### Active Electrical Cables

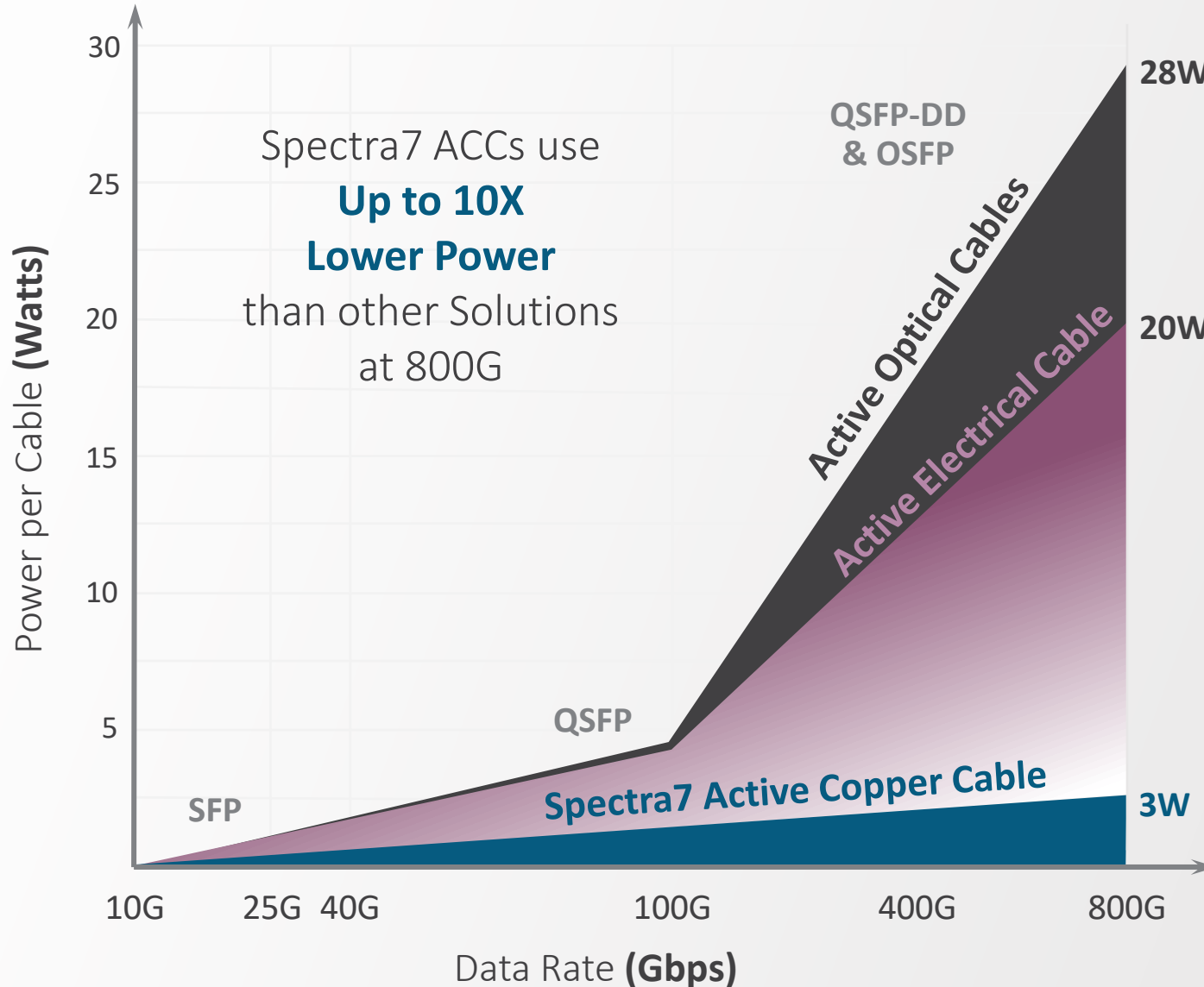
- Up to 10 meters<sup>1</sup> in length
- High quality data transmission

### LIMITATIONS

- ▼ *Highest cost*
- ▼ *Highest power consumption*
- ▼ *Higher latency*
- ▼ *Requires host configuration (not plug and play)*

# Spectra7 GaugeChanger™ Active Copper Cable Solution

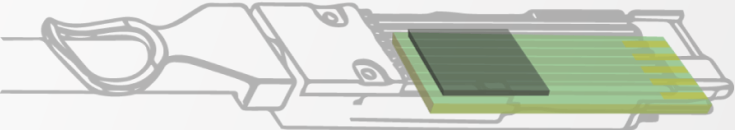

Dramatically Improves Power Consumption



Up to 10X Lower Power

# Spectra7 GaugeChanger™

Comparison of Active Copper Solutions at 800G<sup>1</sup>

	Active Electrical Cable	Active Copper Cable
Application to 4 meters	Yes	Yes
Application to >4 meters	Yes	No
Power (Watts per cable)	<i>~20 Watts</i>	<b>3 Watts</b>
Latency	<i>~250ns (w/ RS FEC)</i>	<b>&lt;1ns</b>
CapEx Cost	<i>High Cost (2x)</i>	<b>Low Cost (1x)</b>
	 <p><b>DSP (Digital Signal Processor) Enabled AEC</b></p> <p><b>Up to 7x the Power Needed</b></p>	 <p><b>SPECTRA7®</b></p> <p><b>Analog Redriver Enabled Active Copper Cable</b></p>

<sup>1</sup> for 112G PAM4 applications

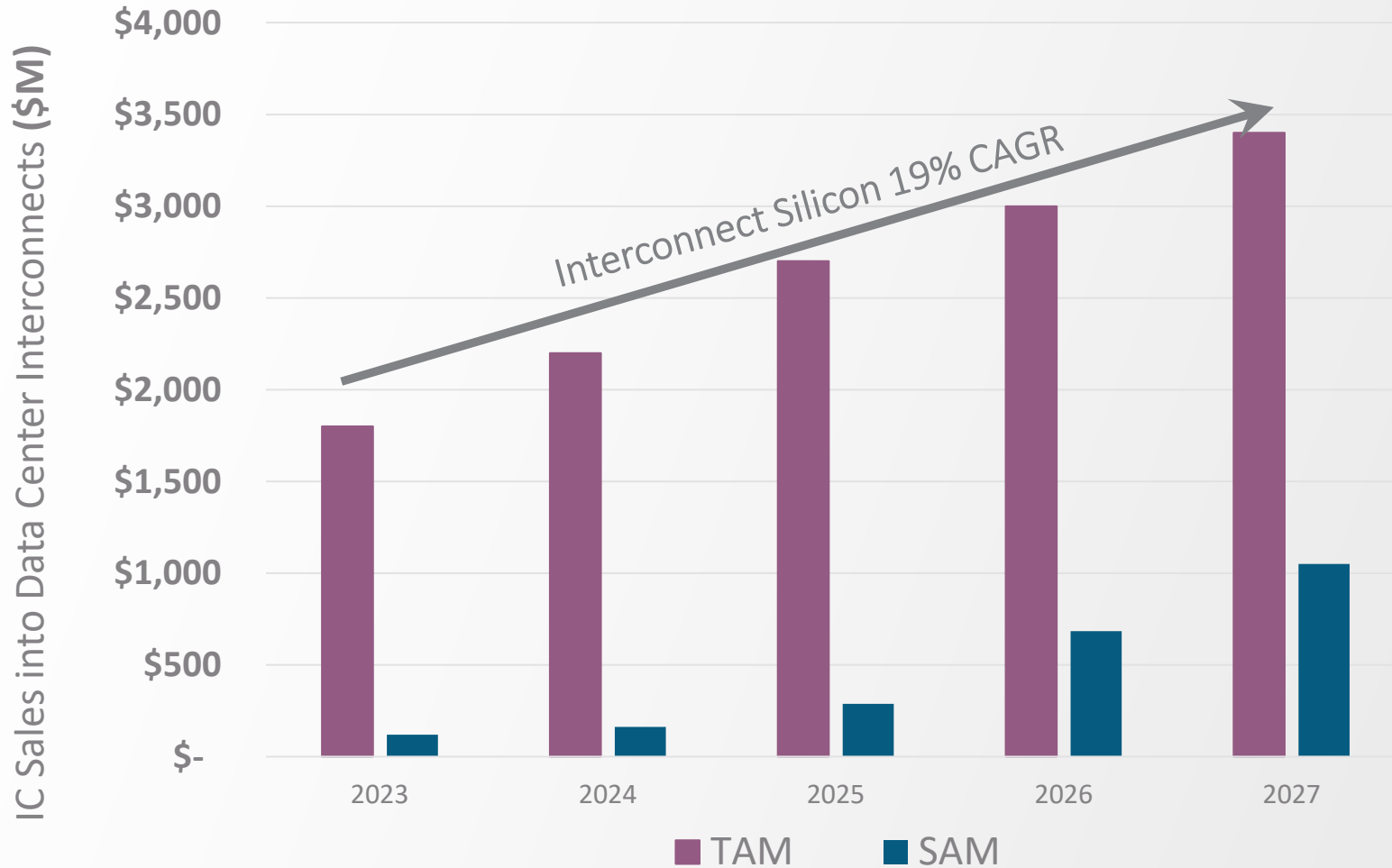
# Power Savings at 800Gbps Add Up

- Spectra7 can save over 544W per Switch with GaugeChanger™ Technology vs. DSP AEC
- For Hyperscale Data Center with 100k servers, this can add up to 3.4 Megawatts!
- Translates to Electrical savings of up to **\$17M per year**

	AEC	ACC	Savings
Cable	20W	3W	17W
Switch	640W	96W	544W
Data Center	4MW	0.6MW	3.4MW

Source: [www.datacenterknowledge.com](http://www.datacenterknowledge.com) (assumed annual cost of \$5,000 per KW)

# Data Center ACC Market Opportunity



**Active Copper  
Cable Market  
\$1B SAM in 2027  
>70% CAGR**

Source: 650Group Active Copper Cable Report June 2023; Company management estimates TAM based on Lightcounting silicon chipsets for Ethernet optical transceivers and active cable alternatives Q2 2022

# Long-term Operating Model

## ▲ Large, high-growth end markets

- Even minimal market penetration enables Spectra7 to achieve significant revenue growth

## ▲ Attractive current and long-term gross margins

## ▲ Significant operating leverage

- Current OpEx run-rate supports significant growth

## ▲ Capital light business model

- Outsourced manufacturing
- Nominal capex

### Spectra7 Target Operating Model

**Revenue Growth:**  
>60% 4-year  
CAGR

**Gross Margin:**  
60-65%

**EBITDA Margin\*:**  
25-30%

*\*EBITDA or earnings before interest, tax, depreciation, and amortization is a non-IFRS Measure. EBITDA excludes share-based compensation, amortization, depreciation, interest, and tax expenses.*

# Key Financial Highlights

SPECTRA7®



TICKER: **SEV**  
TSX VENTURE EXCHANGE



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OTCQB VENTURE MARKET

Share Price <sup>1</sup>	\$ 0.55 CAD
Market Capitalization	\$ 16.0M USD <sup>2</sup>
TTM Revenue (9/30/2023)	\$ 12.6M USD
TTM Gross Margin (6/30/2023)	59%
Insider Ownership	~12.6% <sup>3</sup>
Convertible Debt <sup>2,4</sup>	\$ 8.6M USD

**Common shares issued 39.8M**

<sup>1</sup> As of 11/6/2023

<sup>2</sup> Based on CAD to USD exchange rate of 1.3708

<sup>3</sup> Insiders participated in capital raises and invested a total of \$2.6M from 2021 to 2023

<sup>4</sup> \$6.5M matures December 31, 2024, Interest at 14%, Conversion price of \$1.02 CAD, and \$2.1M matures September 13, 2025, Interest at 9%, Conversion price of \$0.65 CAD



The logo for Spectra7, featuring the word "SPECTRA" in white uppercase letters, followed by a stylized "A" and a "7" in orange, with a registered trademark symbol (®) to the right.

SPECTRA7®

**Thank You**

**Please contact**  
IR@Spectra7.com for more information