

TTM Technologies, Inc. Analyst and Investor Day

5/31/23



Inspiring Innovation

Analyst Day Agenda

- 10:00am – Tom Edman, CEO: Strategic Update, Vision, Overview of Day
- 10:15am – Doug Soder, Commercial Sector and Networking/Data Center Computing
Anthony Sandeen, Automotive, Medical, Industrial Instrumentation
- 11:00am – Cathie Gridley, Aerospace and Defense Sector
Rich Hines, Aerospace and Defense Engineering
- 11:45pm – Phil Titterton, Operations
- 12:05pm – Todd Schull, Finance
- 12:30pm – Q&A
- 1:00pm – Lunch
- 2:00pm – Site Tour
- 3:00pm – Analyst Day Concludes

Disclaimers

Forward-Looking Statements

This communication may contain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, including statements related to the future business outlook, events, and expected performance of TTM Technologies, Inc. (“TTM”, “we” or the “Company”). The words “anticipate,” “believe,” “plan,” “forecast,” “foresee,” “estimate,” “project,” “expect,” “seek,” “target,” “intend,” “goal” and other similar expressions, among others, generally identify “forward-looking statements,” which speak only as of the date the statements were made and are not guarantees of performance. Actual results may differ materially from these forward-looking statements. Such statements relate to a variety of matters, including but not limited to the operations of TTM’s businesses. These statements reflect the current beliefs, expectations and assumptions of the management of TTM, and we believe such statements to have a reasonable basis.

It is uncertain whether any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do, what impact they will have on the results of operations and financial condition of the Company. These forward-looking statements are based on assumptions that may not materialize, and involve certain risks and uncertainties, many of which are beyond our control, that could cause actual events or performance to differ materially from those indicated in such forward-looking statements. Factors, risks, trends, and uncertainties that could cause actual results to differ materially from those projected, anticipated, or implied in forward-looking statements include, but are not limited to potential changes in domestic or global economic conditions, demand for our products, market pressures on prices of our products, warranty claims, changes in product mix, contemplated significant capital expenditures and related financing requirements, our dependence upon a small number of customers, and other factors set forth in the Company’s most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q and in the Company’s other filings filed with the Securities and Exchange Commission (the “SEC”), including under the heading “Risk Factors”, and which are available at the SEC’s website at www.sec.gov.

TTM does not undertake any obligation to update any of these statements to reflect any new information, subsequent events or circumstances, or otherwise, except as may be required by law, even if experience or future changes make it clear that any projected results expressed in this communication or future communications to stockholders, press releases or Company statements will not be realized. In addition, the inclusion of any statement in this communication does not constitute an admission by us that the events or circumstances described in such statement are material.

Use of Non-GAAP Financial Measures

In addition to the financial statements presented in accordance with U.S. generally accepted accounting principles (“GAAP”), TTM uses certain non-GAAP financial measures, including EBITDA, Adjusted EBITDA, Non-GAAP Operating Income, Non-GAAP Net Income, Non-GAAP Operating Margin, Non-GAAP Gross Margin, Non-GAAP EPS and Adjusted Operating Cash Flow. We present non-GAAP financial information to enable investors to see TTM through the eyes of management and to provide better insight into our ongoing financial performance.

Disclaimers (cont.)

A material limitation associated with the use of the above non-GAAP financial measures is that they have no standardized measurement prescribed by GAAP and may not be comparable to similar non-GAAP financial measures used by other companies. We compensate for these limitations by providing full disclosure of each non-GAAP financial measure and reconciliation to the most directly comparable GAAP financial measure. However, the non-GAAP financial measures should not be considered in isolation from, or as a substitute for, financial information prepared in accordance with GAAP.

See Appendix for reconciliations of Adjusted EBITDA and Non-GAAP Operating Income to the most comparable GAAP metric.

Data Used in This Presentation

Due to rounding, numbers presented throughout this and other documents may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

Third Party Information

The information contained herein does not purport to be all inclusive. This presentation has been prepared by the Company and includes information from other sources believed by the Company to be reliable. No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of any of the opinions and conclusions set forth herein based on such information. This presentation may contain descriptions or summaries of certain documents and agreements, but such descriptions or summaries are qualified in their entirety by reference to the actual documents or agreements. Unless otherwise indicated, the information contained herein speaks only as of the date hereof and is subject to change, completion or amendment without notice.



Inspiring Innovation

Tom Edman

President and Chief Executive Officer

Leading Technology Solutions provider of Mission Systems, PCBs and Specialty Components

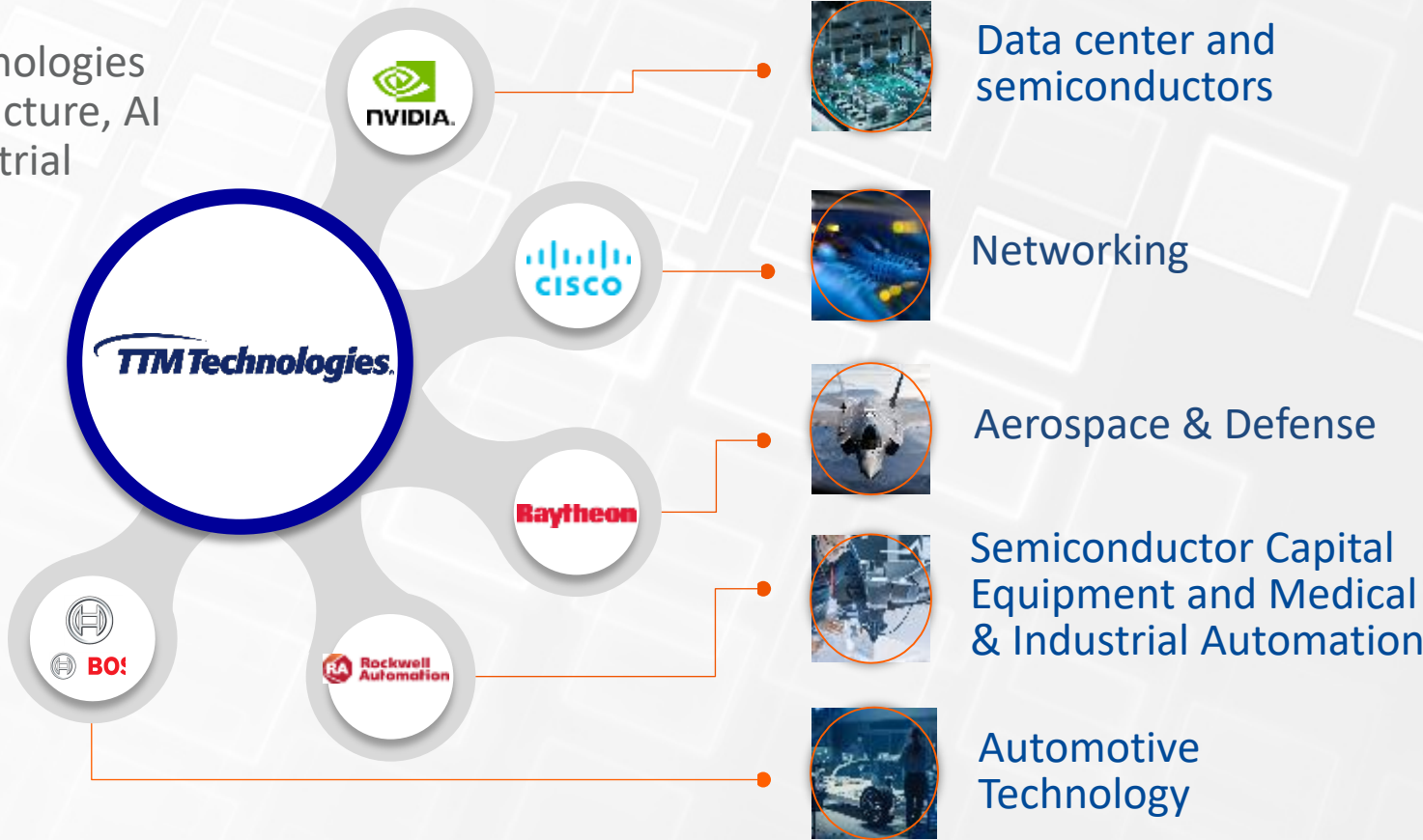
Technology-enabled end markets and customers

Critical supplier to today's fastest growing technologies such as advanced defense radar, cloud infrastructure, AI data centers, 5G, automobile technology, industrial automation and internet of things

Significant global footprint with 27 facilities and 17,800 employees¹

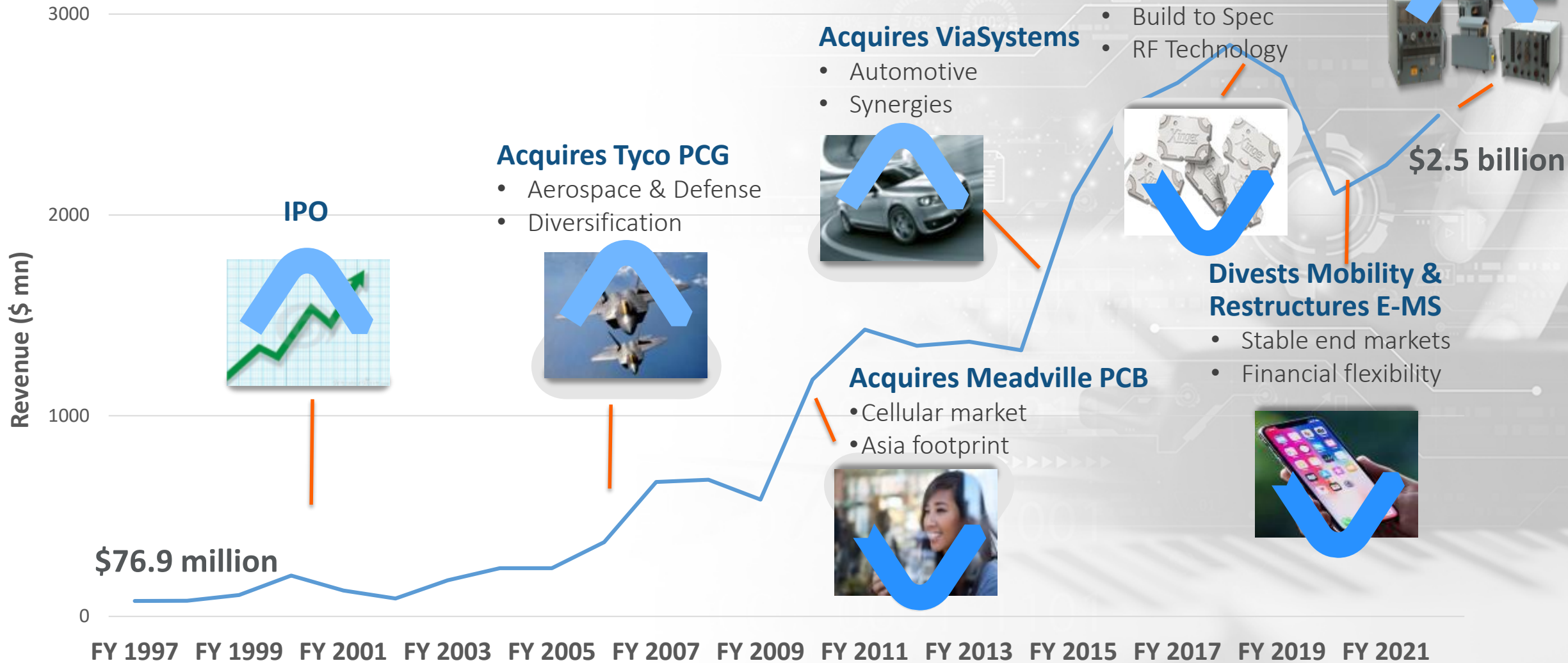
Scale:

\$2.5 billion FY22 revenue¹



¹ Includes approximately six months from the acquisition of Telephonics that closed 6/27/22.

History of TTM



Acquires Telephonics

- Aerospace and Defense
- Mission systems

Acquires Anaren

- Build to Spec
- RF Technology

Acquires ViaSystems

- Automotive
- Synergies

Acquires Tyco PCG

- Aerospace & Defense
- Diversification

IPO

Acquires Meadville PCB

- Cellular market
- Asia footprint

Divests Mobility & Restructures E-MS

- Stable end markets
- Financial flexibility

TTM Continues to Transform the Business by Implementing Its Core Strategy of Differentiation

Differentiating TTM

Transformation to better business model continues

The result

- Highly valued partner and satisfied customers
- Strong and diversified portfolio with leading technical capabilities across all markets
- Greater stability, less cyclicity and improved visibility

Investing in engineering/technology and new regions

- Engineered solutions with technical capabilities (Anaren, Telephonics) in stable and growing A&D end-market
- Footprint diversification (Penang, Malaysia)

Reducing exposure to cyclical consumer-oriented / commodity business

- Mobility divestiture
- E-M Solutions restructuring

Strategic Initiatives Update Since 2018 Analyst Day



ORGANIC GROWTH

Organic Revenue Growth: 2019-2022 CAGR 6.8%¹



ACQUISITIONS

M&A pivot towards long cycle markets, non consumer markets and differentiated products – A&D 40% of revenues

- Divestiture of Mobility Business
- Integration of Anaren, Purchase of Telephonics



DIFFERENTIATION

Manufacturing footprint optimization

- Shut Down of E-MS facilities
- Sale of Shanghai Back Plane Assembly (BPA) facilities
- Shut down of Anaheim, Santa Clara, and Hong Kong facilities
- Construction of Penang



FINANCIALS

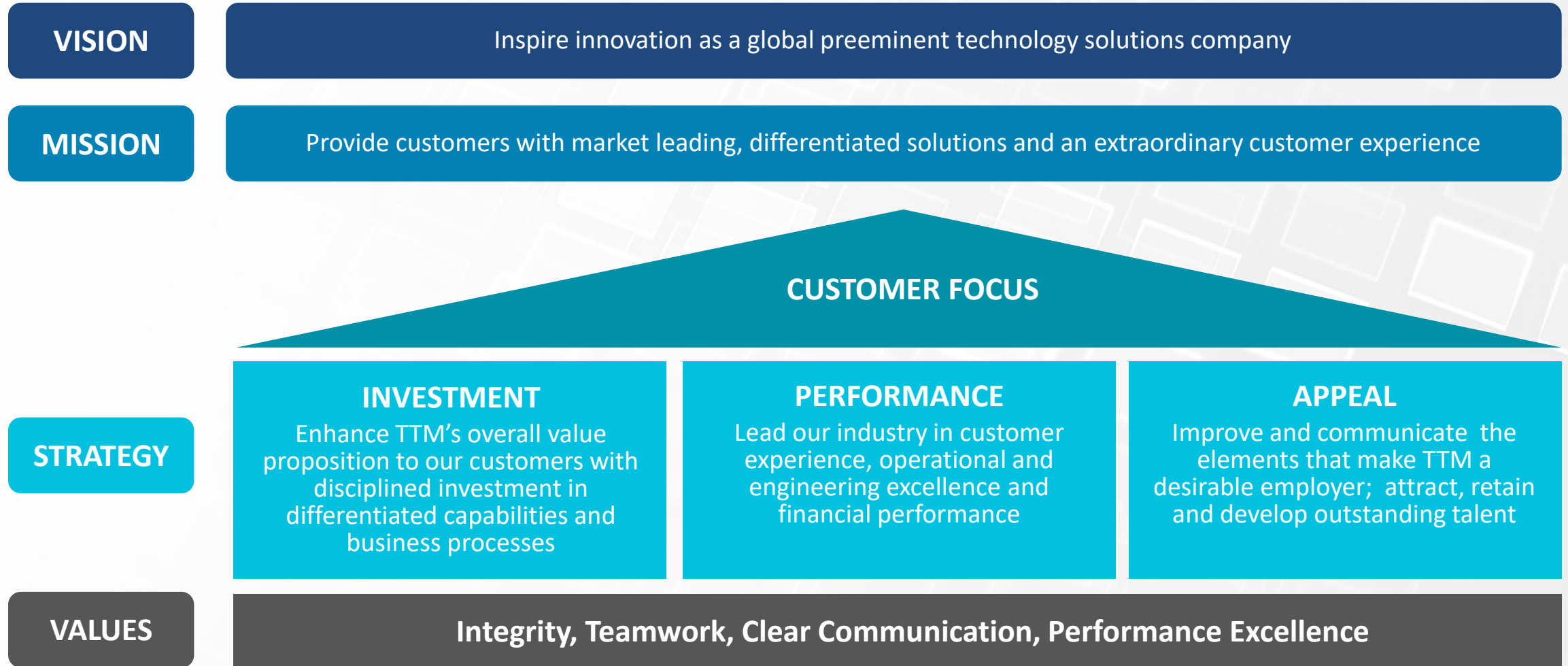
Operating cash flow average 11.0% of revenues 2019-2022

Reported operating margin change: 2019 to 2022 180bps increase to 9.4%²

¹For 2022, excludes Telephonics. For 2019, excludes Mobility, E-MS, and Shanghai BPA and includes Anaren

²Non-GAAP. See Appendix for reconciliation

TTM Strategic Foundation



2023: A Year of Transition Positioning for Future Strength

- **Commercial sector flexible response to demand situation to build share**
- **Respond to a Record Backlog in A&D**
 - Implement new A&D organization
 - Enhance Supply Chain Management in Integrated Electronics
 - Deliver on Telephonics Synergies
 - Successful facility consolidation
 - Incremental quarterly improvement
- **Penang Start-Up**

M&A Priorities

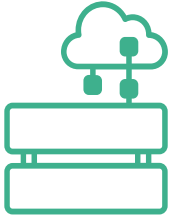
- **Driven by overall corporate strategy to**
 - improve differentiation
 - Add new product and technology capabilities
 - Increase exposure to A&D
- **Commercial**
 - Expand RF and Specialty Components position
 - Footprint diversification
- **Aerospace & Defense**
 - Engineered subsystems and systems focusing on RF/Microwave and Microelectronics technology

M&A

Committed to Sustainable Business Practices

- **Published first Corporate Social Responsibility Report in 2022**
- **Corporate Governance**
 - Sound Governance policy
 - Of our 9 Directors: 8 are independent, 3 are women, and 1 identifies as racially diverse
 - No material cybersecurity breach in the past three years/no charges related to a breach in the past five years
- **Environmental**
 - Environmental Policy provides foundation
 - Reduced water and energy usage and non-renewable waste over past 3 years
 - Commitment to alternative energy
- **Social**
 - Maintain a diverse/inclusive workforce and provide a safe/rewarding work place for all employees
 - Published diversity data and employment engagement survey participation data in 2023 Proxy
- **Third Party Scoring**
 - ISS Governance Quality Score rating of 2 with 1 being best and 10 being worst
 - Sustainalytics ESG rating “negligible risk” and no ESG controversies

Overview of the day



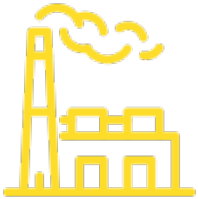
- **Commercial Sector (Doug Soder, Anthony Sandeen)**

- Above market growth by targeting the right sub-markets
- Differentiation through responsiveness, footprint, and process technology



- **Aerospace and Defense Sector (Cathie Gridley, Rich Hines)**

- Program alignment and acquisition revenue synergies drive above market organic growth
- Differentiation through responsiveness, footprint, and engineering excellence



- **Operations (Phil Titterton)**

- Investments and improvement plan in North America with focus on labor and supply chain
- Footprint consolidation and optimization
- Penang startup
- Supply Chain and labor management strategy



- **Finance (Todd Schull)**

- Financial Results and Targets
- Cash Flow Trends, Capital Structure, and Capital allocation

Key Messages for Analysts Day



ORGANIC GROWTH

Target fast growing sub-markets



ACQUISITIONS

Enable growth through SAM expansion and revenue synergies



DIFFERENTIATION

Greater focus on engineered products and process technology

Manufacturing footprint optimization



FINANCIALS

Consistent, solid cash flow generation and prudent balance sheet management

Margin expansion



Inspiring Innovation

Doug Soder

EVP, President Commercial Sector

Agenda

Commercial Sector Introduction

Data Center Computing & Networking Markets

Automotive and Medical/Industrial/
Instrumentation Markets



Inspiring Innovation

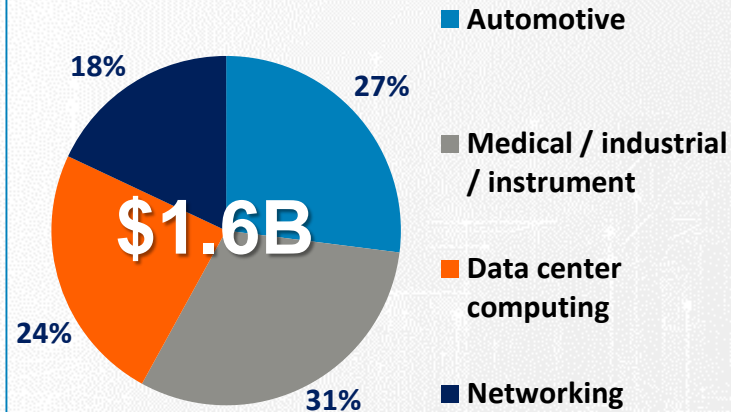
Commercial Sector
Doug Soder

Commercial Sector at a Glance

Mission

Industry leading provider of Advanced Technology PCB products, RF & Specialty components and differentiated technology solutions across targeted commercial markets

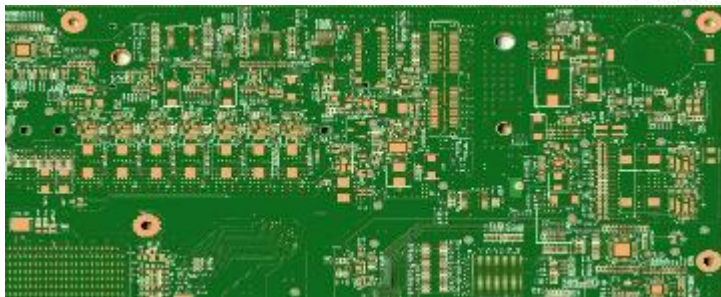
2022 Revenue by End Market



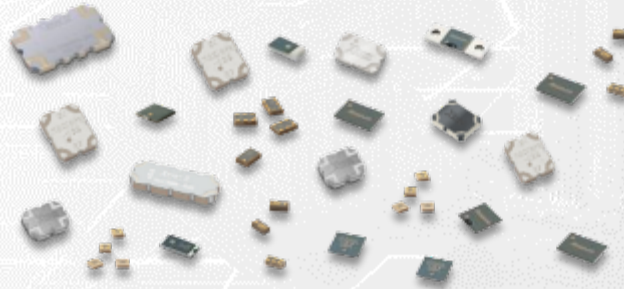
PCB SAM* by End Market

Automotive - \$6.4 Bn
 Medical / Industrial / Instrument - \$3.9Bn
 Data Center Computing - \$5.6Bn
 Networking - \$7.6Bn

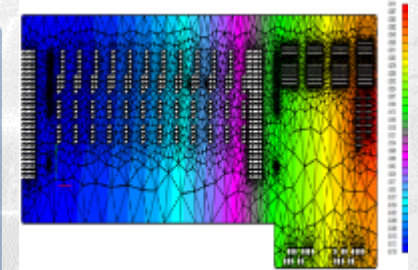
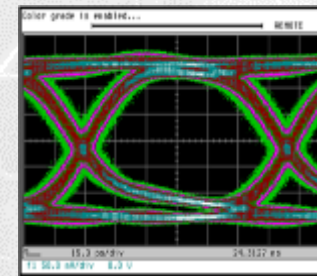
* Prismaark excluding substrate and commodity PCBs



Advanced Technology PCBs

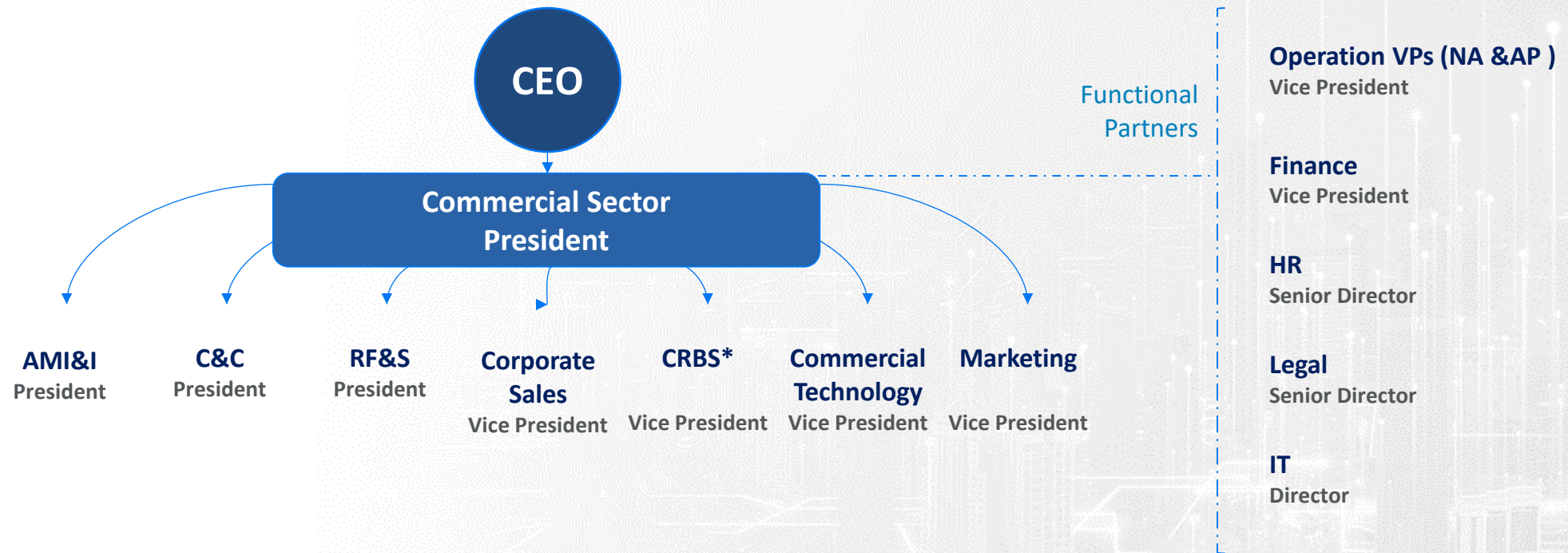


RF Specialty Components



Engineering Testing & Analytical Services

Commercial Sector Organization Chart



- **3 Business Units**
 - 2 End Market Focused BU's; 1 Specialty Products BU Supporting All End Markets
- **BU Support Teams**
 - Corporate Sales Force, Commercial Technology, Customer Relationship & Business Support & Marketing
- **Sector Partners**
 - Operations, Finance, HR, Legal and IT

*CRBS – Customer Relationship and Business Support

Commercial Sector Megatrends

Internet-Of-Everything (IOE) & Increasing electronic content across AMI&I Markets



IOE



Automotive
- EV, ADAS, V2X



Diagnostic Equipment & Robotics
Wearables & Implantables



Factory Automation



Hyperscalers



Cloud



ML



AI



LLM's



Generative AI

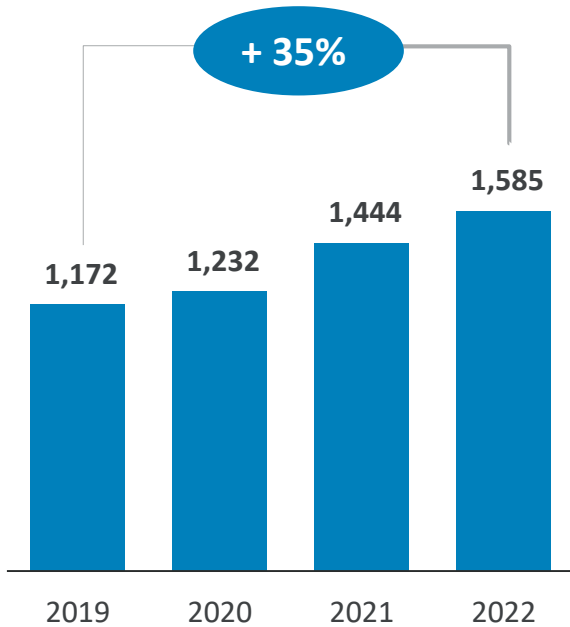
Explosive growth of data fuels requirements for increasing signal speeds & bandwidth plus rapid advancements in data management & computing

Notes:
V2X = Vehicle to Everything
ML = Machine Learning
LLM = Large Language Models

Focused Growth During Dynamic Market Conditions

Market Outperformance

TTM CS revenue, \$Mn



End markets include automotive, medical, industrial and instrumentation, data center computing, networking; excluding former Mobility, E-MS and BPA businesses

Navigating COVID-19 Challenges



3-year CAGR

10.6%

TTM Commercial Sector CAGR

VS

9.4%

Prismark adjusted CAGR based on end markets that TTM CS serves, excluding substrate and commodity boards





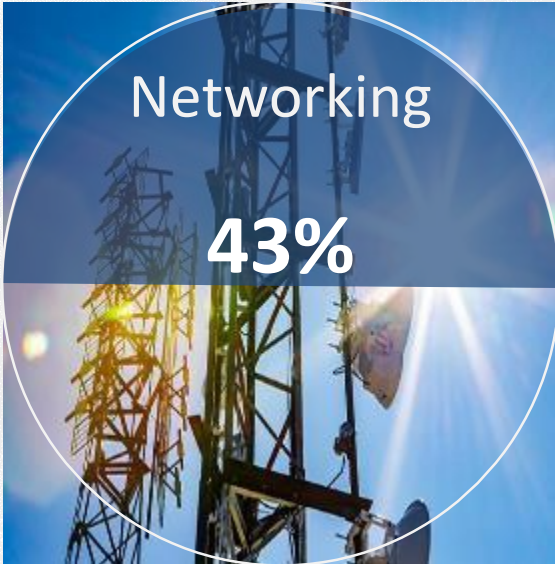
Inspiring Innovation

Data Center Computing and Networking

Doug Soder

Data Center Computing & Networking Business at a Glance

2022 Revenue: \$665M



Total Customers 395



Focus on High Growth Sub-Markets Providing For Tech Differentiation

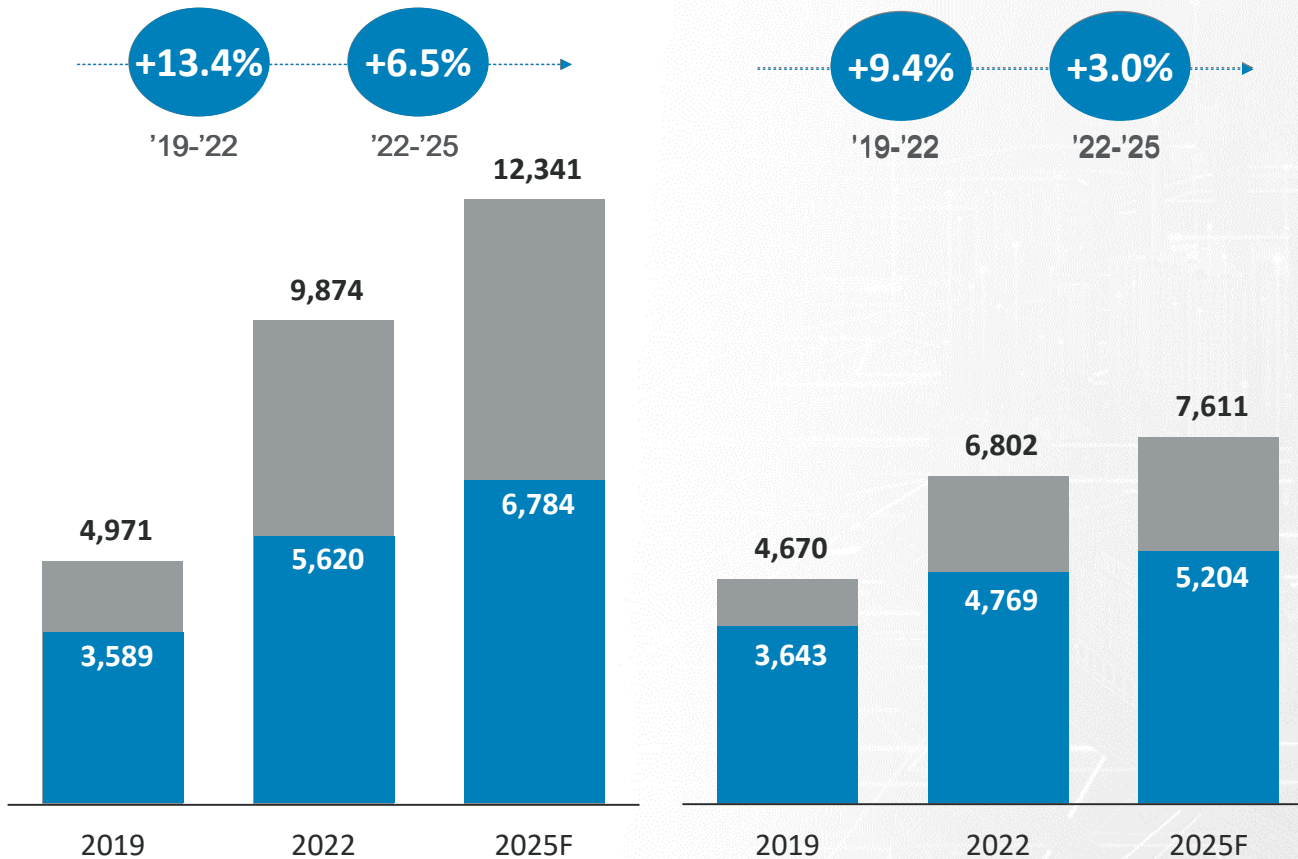
Data Center and Networking PCB
 TAM/SAM & CAGRs

\$Mn TAM \$Mn SAM*
 *excludes substrate and commodity PCBs

TTM Focus on
 Hyperscale & Cloud Data Centers

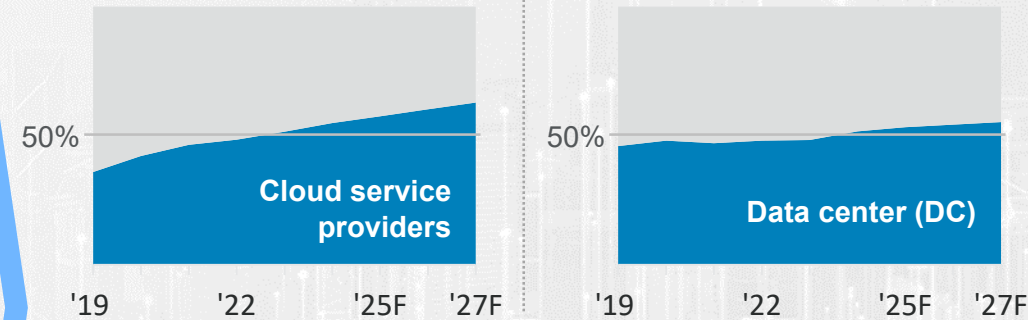
Server / storage – Data Center

Wired Infrastructure - Networking



CSP segment to surpass 50% share of server revenue in '23

DC segment to surpass 50% share of switch rev. in '24



Growth drivers

+10.5% CAGR 22-27
 Cloud computing spend

+11.8% CAGR 22-27
 Cloud server revenue

+20.5% CAGR 22-27
 AI hardware

+39.8% CAGR 22-27
 AI/ML networking

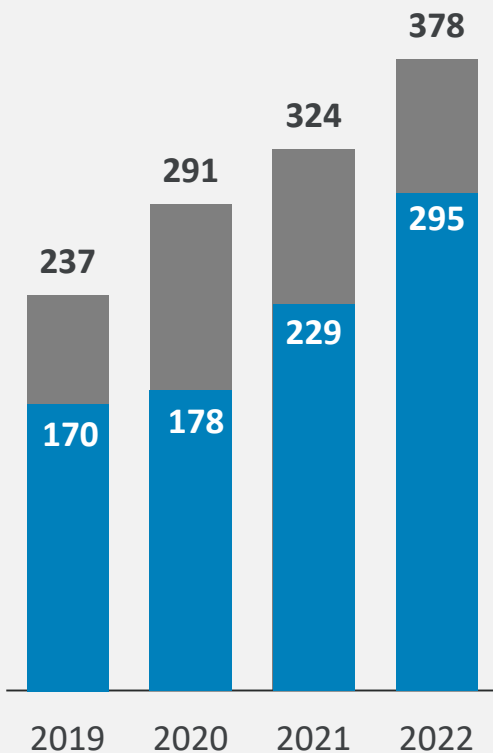
Source: Prismark

Sources: IDC, 650 Group

Data Center Outperformance / Targeted Networking Growth

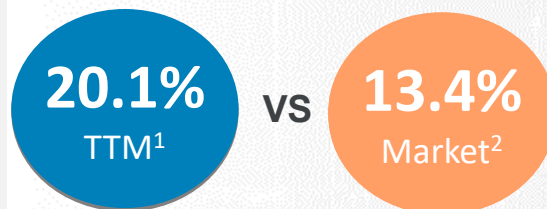
Data Center Computing

TTM revenue, \$Mn¹



- Focused DC Growth
- Adding DC customers

3-year CAGR



TTM market share change: '19 – '22

4.4% ▶ 5.3%

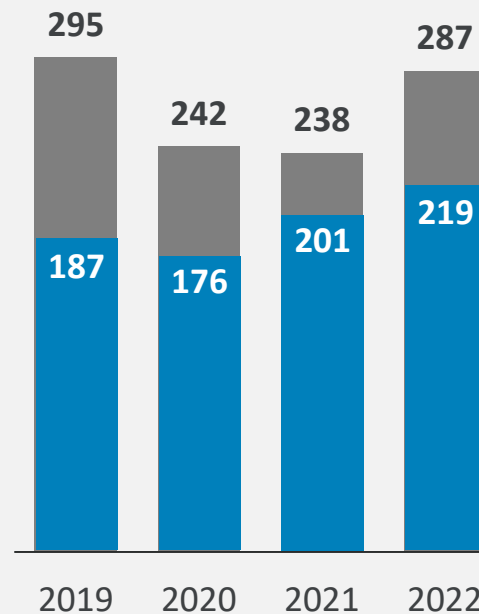
Data center, excluding other computing

¹Excludes Mobility, E-MS and BPA revenue

²Market data from Prismark, excluding substrate & commodity boards

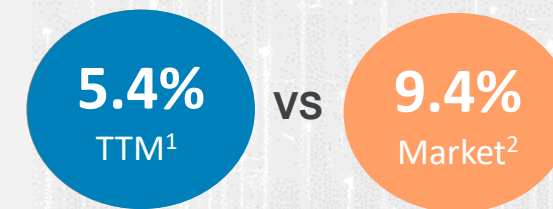
Networking

TTM revenue, \$Mn¹



- Selective customer & product engagements
- High Tech/ASP solutions

3-year CAGR



TTM market share change: '19 – '22

5.1% ▶ 4.6%

Networking, excluding communications

TTM Growth Strategies

1. Focus

- Target Fastest Growing Sub-Markets & Customers
- Target Customers with Advanced Tech Requirements

2. Expand customer base

- New Data Center OEMs and ODMs

3. Gain market share

- Networking – Growth Through Maintained Leadership Positions
- Data Center – Rapid Growth with Existing & New Customers
- Cross Selling

4. Strategic program wins

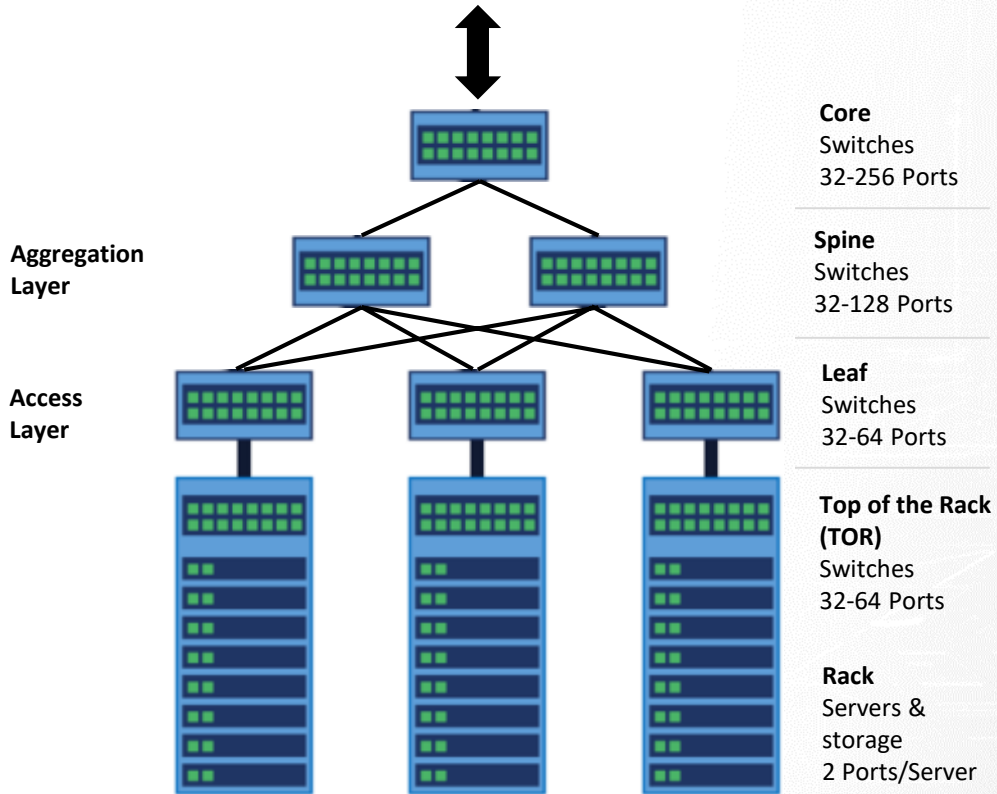
5. Execute TTM differentiation to deliver value-add solutions

- Technology Innovation, Development and Production
- Coordinated Global Sales Force
- Global Footprint



Alignment with Customer Technology Roadmaps

Typical Data Center Architecture



DC-DC

Current
400G

Next gen.
800G

Spine-Core

Current
100/
400G

Next gen.
800G

Leaf-Spine

Current
100/
400G

Next gen.
800G

TOR-Leaf

Current
100/
400G

Next gen.
800G

Server-TOR

Current
100G

Next gen.
200G

Early Engagement,
Collaboration and Road-
Mapping for High Tech PCB
Solutions with High ASPs:

- Materials
- Higher Layer Counts
- Backdrilling & Plating
- Sequential Lamination and HDI
- Copper Technology
- Testing



Inspiring Innovation

Success Stories

Success Story:

Rapid Growth with Major Data Center & Networking Customer

Strategic Partnership Built Upon TTM's Diversified PCB Technology Offering, Focused Factory Support Model, R&D Collaboration and Execution Record in Support of Surging AI Data Center Related Growth

2019-2022 Revenue Growth

459% Growth
~\$150M 2022 Revenue

PCB Products

- ★ Advanced & High Technology Line Cards (Switches, GPU Cards)
- ★ Network Interface Cards (NIC)

Why We Win



Reputation and Strong Multi-level Relationships



Technology and R&D



Global Footprint



Responsiveness and Execution



Coordinated Global Sales & FAE Support

Success Story:

Steady Growth with Major Hyperscale Data Center Customer

Strategic Partnership Built Upon on TTM's Financial Strength & Reputation, Long-term Performance Record and Footprint Solutions to Solve Supply Chain Resiliency and IP Concerns

2019-2022 Revenue Growth

11% Growth
~\$70M 2022 Revenue

PCB Products

Advanced & High Technology Line Cards

- ★ Servers
- ★ Accelerator Cards
- ★ NIC Cards

Why We Win



Strong Multi-level Relationships



Malaysia / US / PRC Manufacturing Footprint



Surge Flexibility and Execution

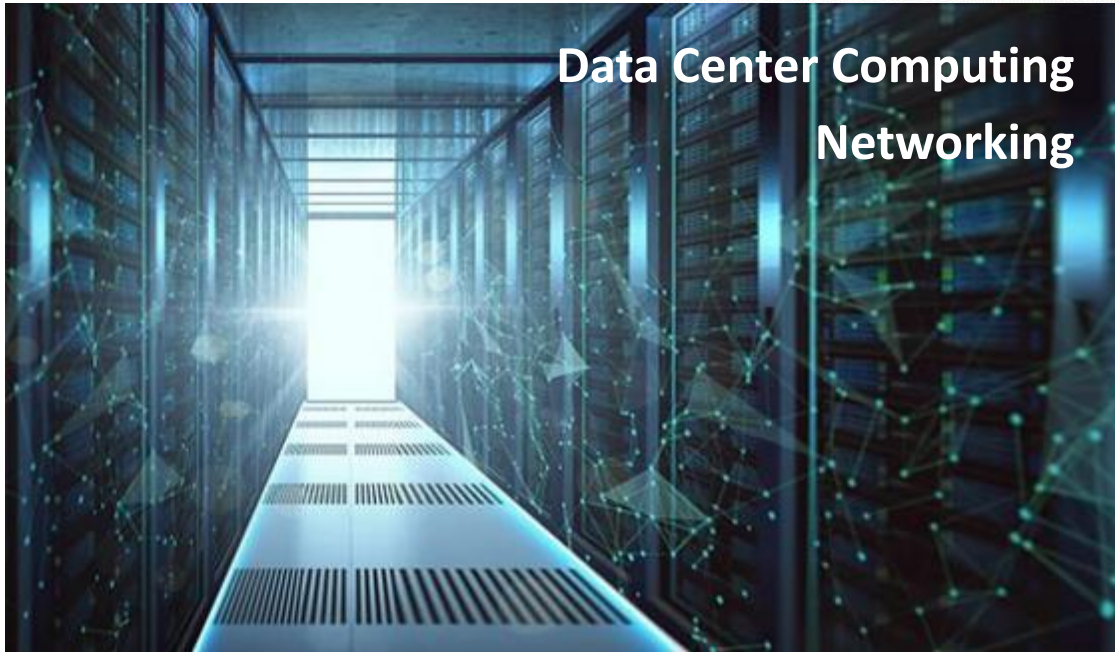


Advanced Technology Leadership



Global Account Management

TTM Positioned and Executing for Long Term Growth



- **Focus** – Targeting fast growing Sub-Markets and customers benefitting from CS Megatrends
- **Winning** – Growing faster than market
 - Executing TTM Growth Strategies
 - Leveraging TTM Differentiation

- **TTM Reputation**
- **Technology Solutions**
- **Coordinated Global Sales Model**
- **Global Footprint**



Inspiring Innovation

Anthony Sandeen

VP, President Automotive / Medical, Industrial, Instrumentation

Agenda

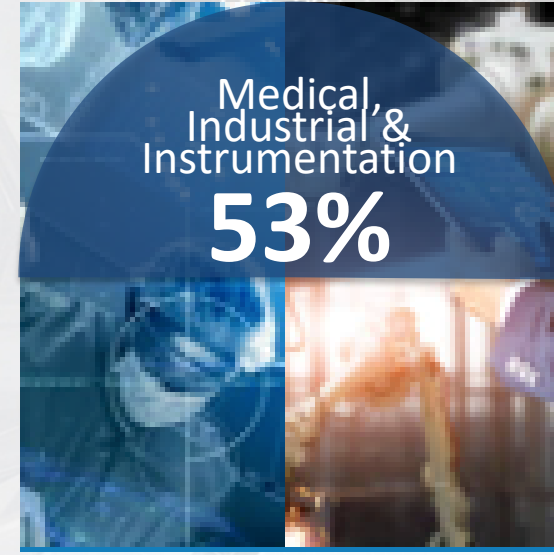
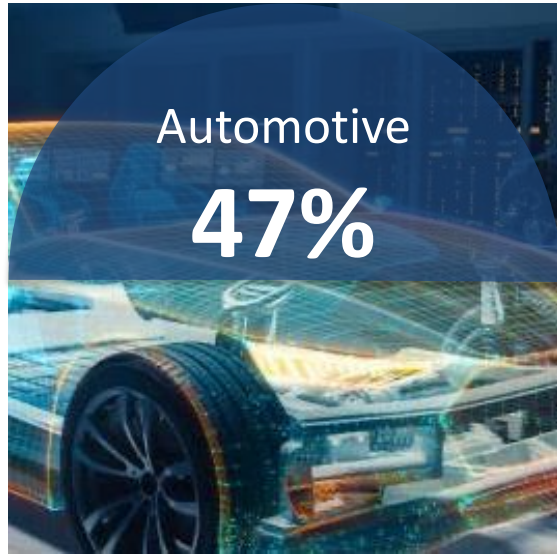
AMI&I Markets Overview

AMI&I Success Stories

AMI&I Growth Drivers

AMI&I at a Glance

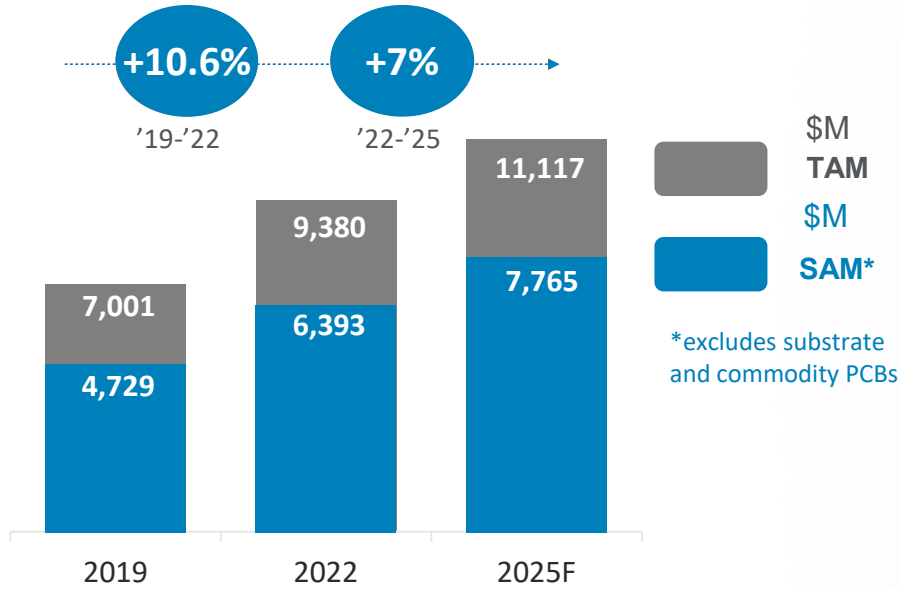
2022 Revenue: \$920M



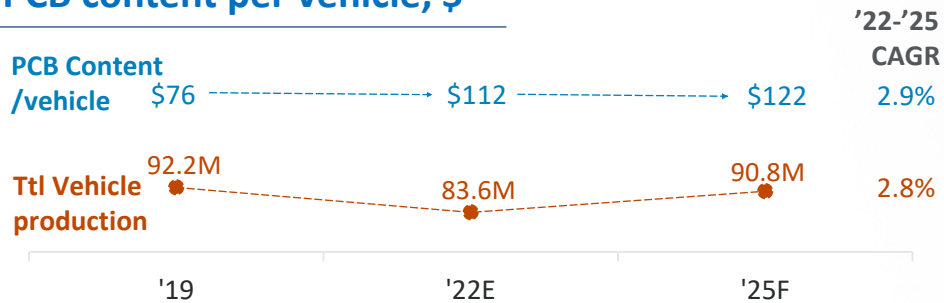
Remarks: The logos illustrated are solely for presentation purposes and internal use only

Focus on High Growth Sub-Markets - Automotive

Automotive PCB TAM/SAM and CAGRs

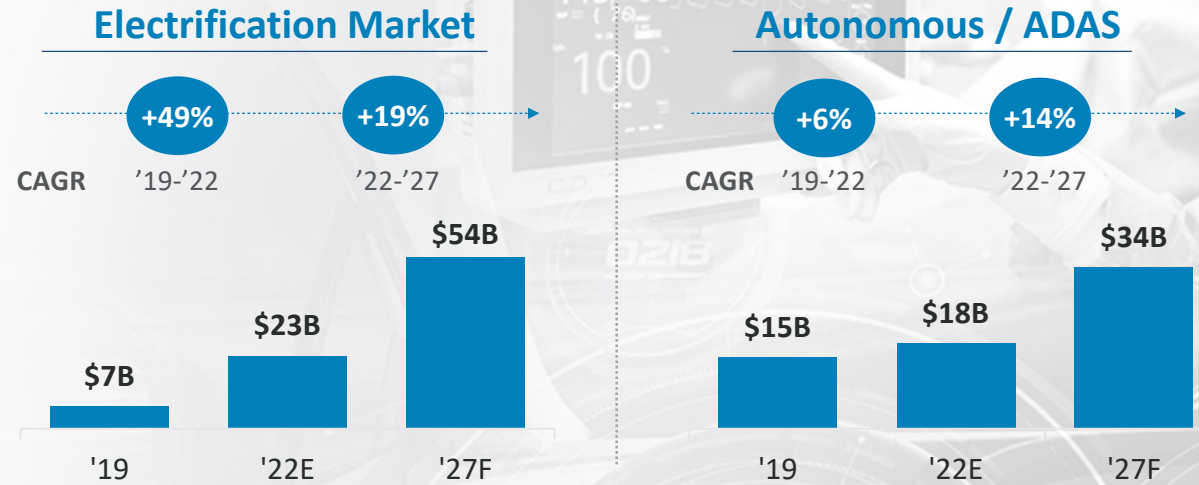


PCB content per vehicle, \$



Source: Prismark

TTM Focus on EV / ADAS



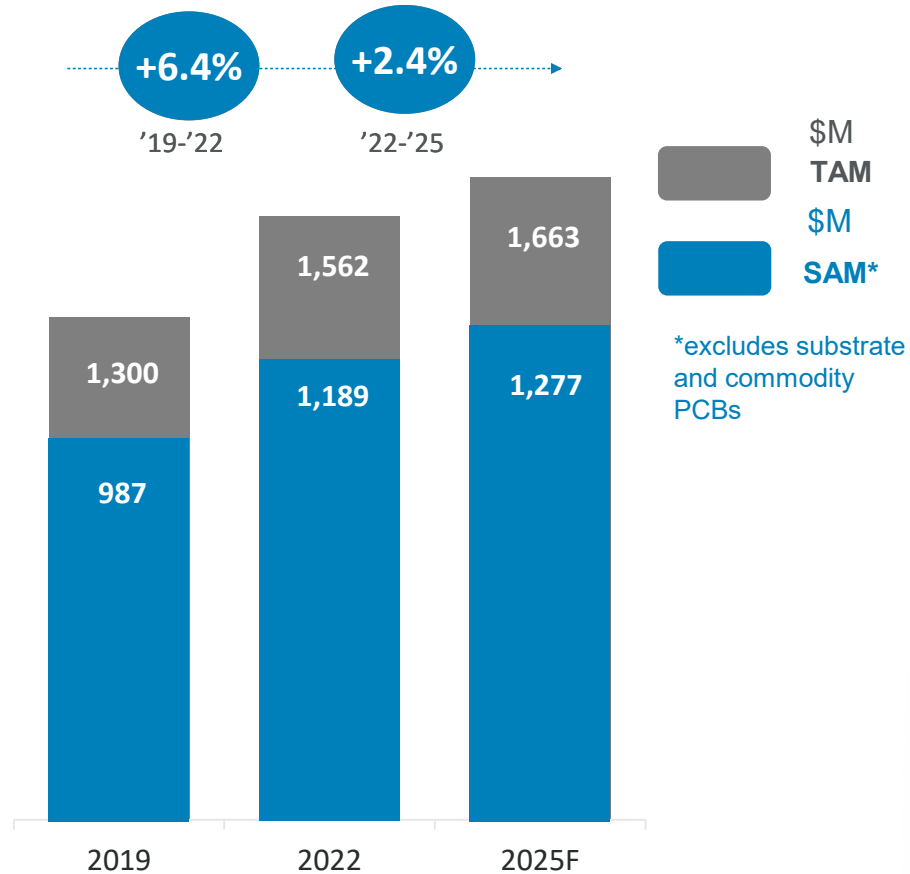
Growth drivers



Source: Deloitte, Prismark, ABI Research; CAGRs = Electronic Systems, not PCB

Focus on High Growth Sub-Markets – Medical

Medical PCB TAM/SAM and CAGRs



Source: Prismark

Sub-markets with Faster Growth and Higher Tech Requirements

+6.4% PCB CAGR 21-26
Medical Robotics

Faster growth with high end demands

+17.6% PCB CAGR 21-26
Continuous Glucose Monitoring

High growth market migrating from Type 1~2 Diabetes support

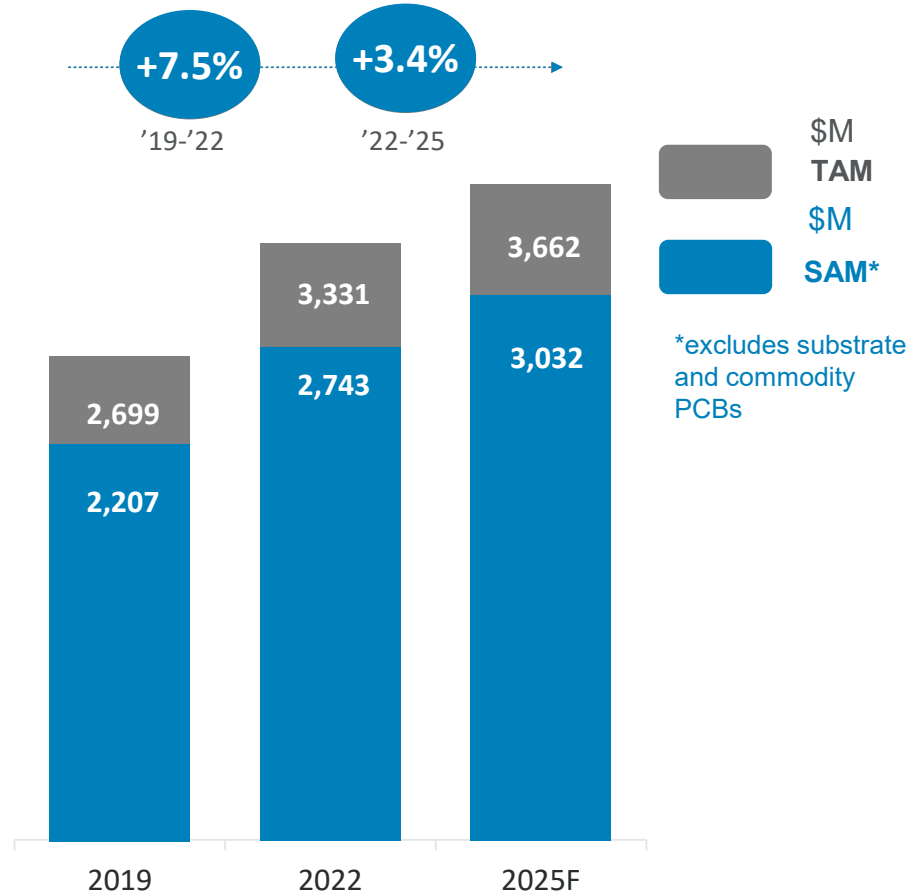
Other Favorable Markets

Medical Therapy/ Implantables +2.7% PCB CAGR 21-26	High reliability requirements Rigid PCBs, substrates, resistors
Patient Monitoring +2.7% PCB CAGR 21-26	IOT is rapidly driving innovation Product reliability is key
Medical Imaging +2.1% PCB CAGR 21-26	Need seamless Prototype to Production process Innovation continues rapidly

Source: Prismark, TTM Strat Plan

Focus on High Growth Sub-Markets – Industrial & Instrumentation

I&I PCB TAM/SAM and CAGRs



Source: Prismark

Sub-markets with Faster Growth and Higher Tech Requirements



- Electrical performance is essential
- TTM's footprint, seamless transition model and engineering bring value

Other Favorable Markets

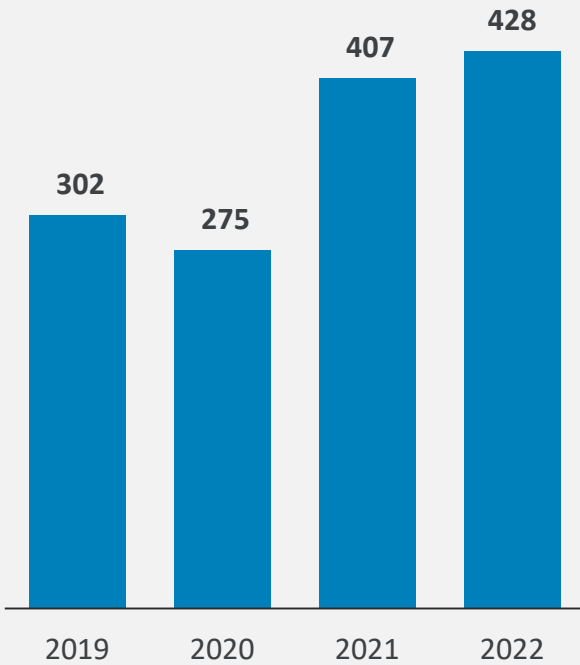
Semiconductor Process Equipment +9.3% PCB CAGR 21-26	Semiconductor plant build-outs will drive growth Signal performance is key and increasing interest in supply chain diversification
Test & Measurement +3.9% PCB CAGR 21-26	Electrical performance is essential TTM's footprint, seamless transition model and engineering bring value

Source: Prismark

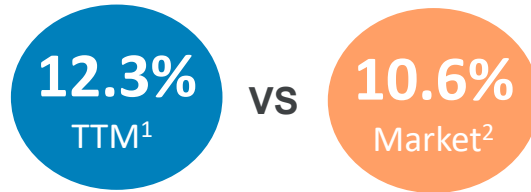
Outperformance Through Challenging Environment

Automotive

TTM revenue, \$M¹



3-year CAGR



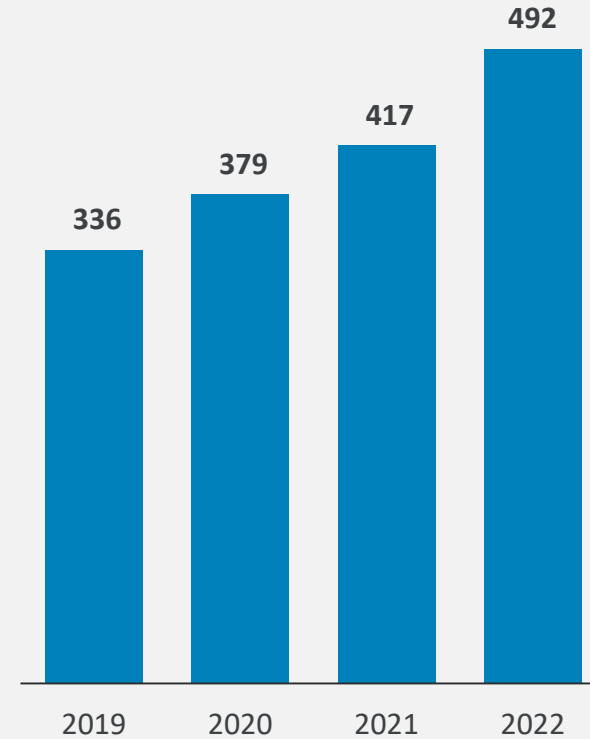
TTM market share change: '19 – '22

6.4% 6.7%

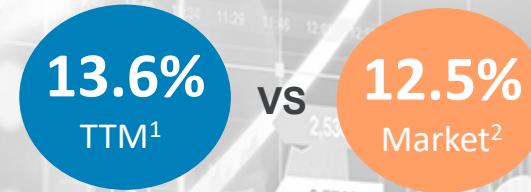
- Focused Sub Markets, ADAS / Electrification
- New/Future Program Wins

MI&I

TTM revenue, \$M¹



3-year CAGR



TTM market share change: '19 – '22

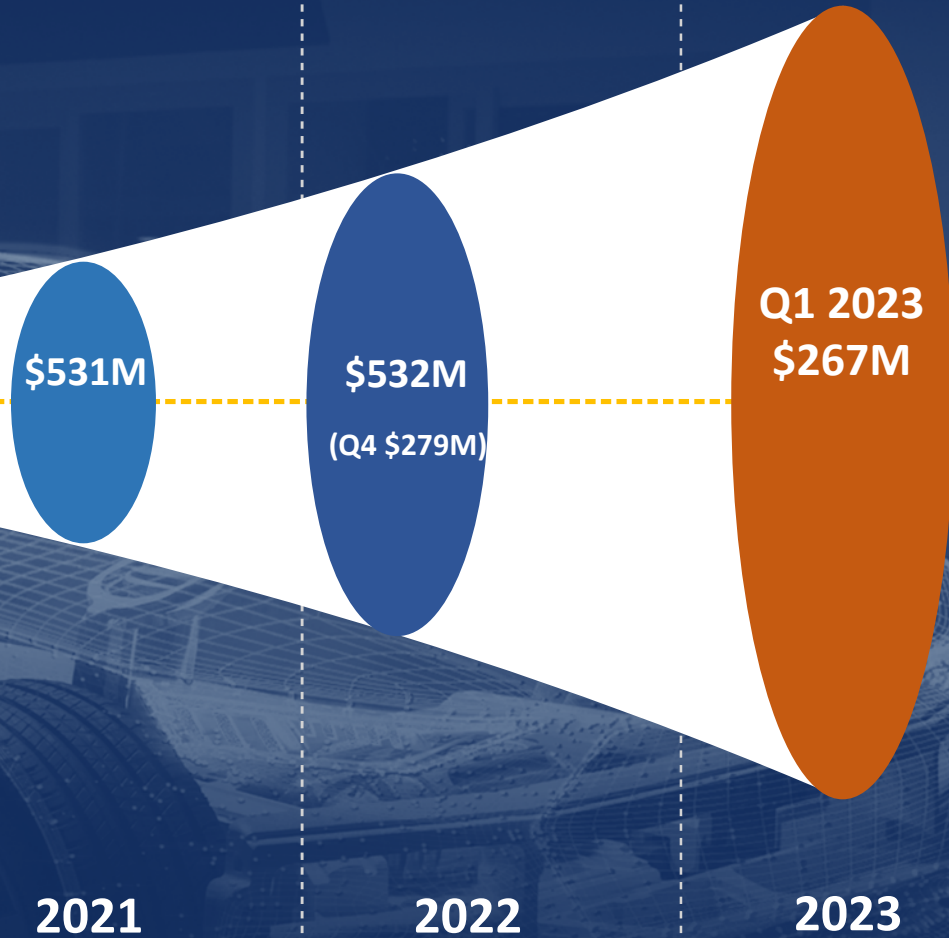
11.2% 12.4%

- Addressable High Mix Low Volume Opportunities
- Refined Sub Market Growth

*Notes: ¹Excludes Mobility BU, E-MS and BPA revenue; ²Market data from Prismark, excluding substrate and commodity boards

Automotive Strategic Wins

AUTO PROGRAM WINS
Average per quarter
\$135M



Success Story:

Rapid Growth with Major Medical Customer

- Early Involvement Drove Specification & Design
- TTM Footprint Enables NPI and Seamless AP Transfer for Mass Production
- Fast Growth Market

Growth Opportunity

PCB Products

4 TTM Qualified Sites
40M Units Year 1
160M Units Year 3

★ 4 Layer HDI with Laser Direct Imaging
★ Ultra Thin Profile / Tight Tolerances

Why We Win



Reputation and Financial Strength



NPI Development Across Multiple Sites



Seamless Transition Across Global Footprint

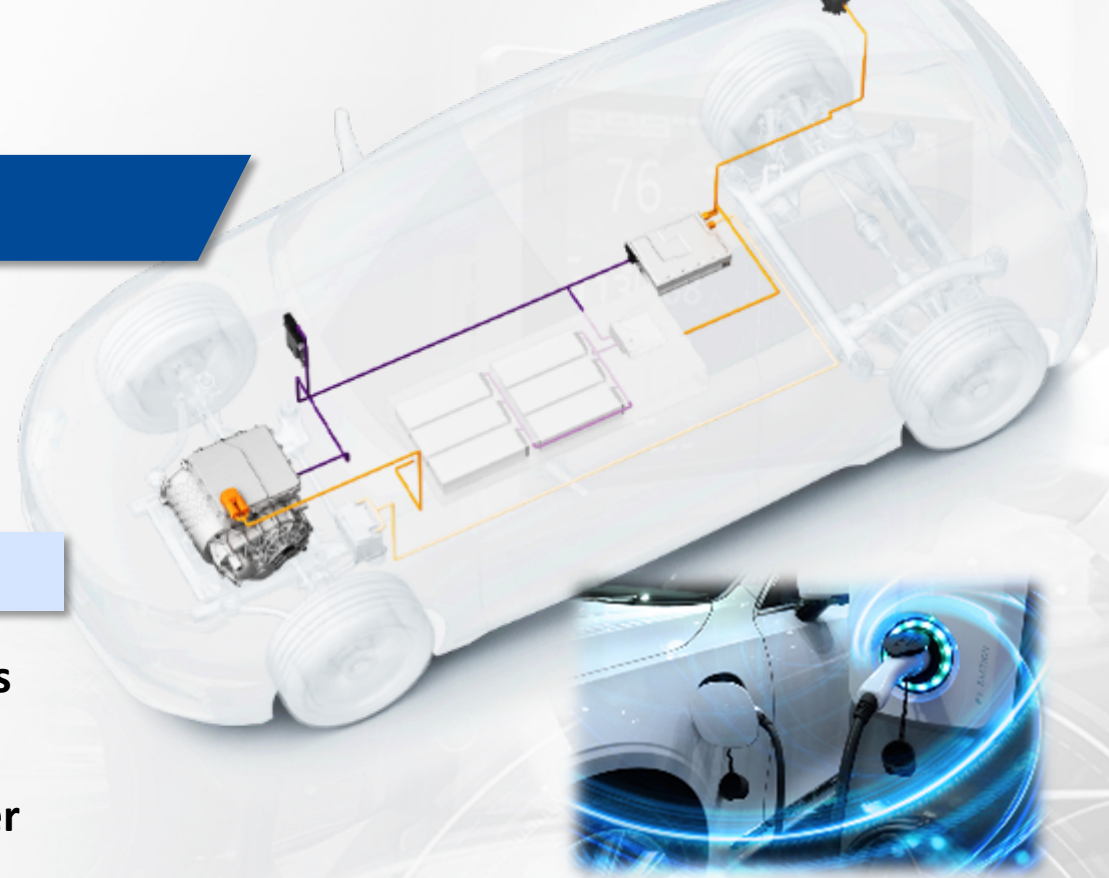


Execution of Consecutive Huge Ramps

Success Story:

Total solution for Major Electric Vehicle OEM

- ADAS, Connected Car, Power Chassis & Energy Storage
- Platform Wins Across Light Vehicle + Fleet + Infrastructure
- Vehicle + Charging



Business Opportunity \$

\$350 Content Value

5-7 Years of Production

\$150M Lifetime Revenue

PCB Products

★ 15+ multi-layer PCBs across Car & Infrastructure

★ High Voltage, Heavy Copper

Why We Win



Strong Reputation on Auto Applications & Materials



Early Involvement – Optimal Design & Materials



Collaborative Global FAE & Sales Support



Seamless Transition Across Global Footprint

AMI&I Growth Strategies



1. Focus

- High Growth Sub Markets, Customers & Applications
- Electrification & Autonomous Auto; High-Mix, Low-Volume Medical / Industrial / Instrumentation

2. Expand Customer Base

- More with Existing Customers + Selected New
- Penetrate EMEA and Asia
- Further Define / Refine Submarket Customer Acquisitions

3. Expand Customer Engagement With Differentiated Offerings

- Global Sales Force & Field Application Engineers
- Focused Customer Offerings;
 - Faster Quick-Turn-Around (QTA)
 - mmWave PCB
 - Auto RF –Radar / ADAS
 - Heavy Copper – Electric Vehicles

4. Invest For Growth

- TTM Penang Start of Production 2024
- Investing in Technology & Upgrading Capabilities across Existing Asset Base
- Enhanced Customer Relationship Management Tools (CRM)



Inspiring Innovation

Cathie Gridley

EVP & President, Aerospace & Defense Sector

TTM Aerospace & Defense Sector

Video



Agenda

A&D Sector Overview

Strategic Focus for Growth

Differentiation Through Engineering



A&D at a Glance

- ~ \$1 billion in revenue
- North America Manufacturing Footprint
- Design-to-Spec, Highly Engineered Products
- Tier 4 PCBs through Tier 1 Mission Systems
- Spanning Defense, Space, Commercial Aviation
- Aligned to Customer Missions



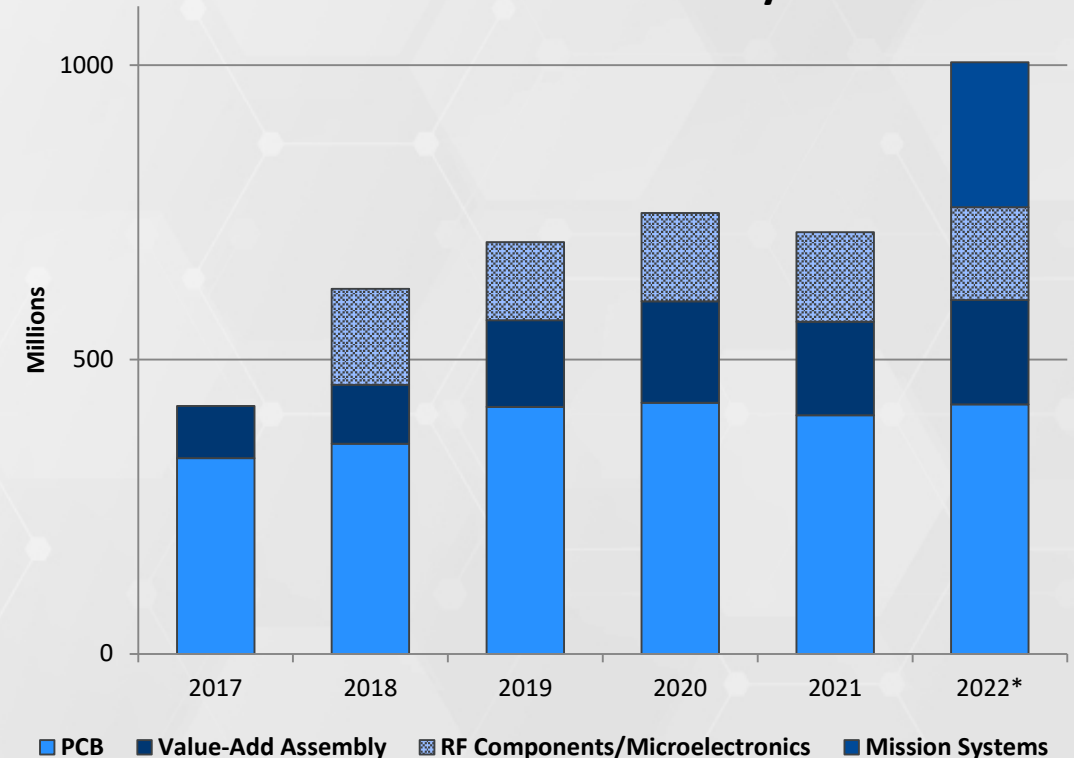
Our Vision

To be a reliable, indispensable, & trusted partner providing world-class customer experience, solutions, and value to the A&D industry

Our Journey

- 1998-2018 building the N.A. leader in PCBs
- 2018 acquisition of Anaren launches A&D vertical strategy, design-to-spec engineering
- 2019-2021 strategic hiring of senior leaders
- 2022 acquisition of Telephonics brings Tier 1 product, systems engineering & integration
- A&D sales more than doubled since 2017
- Significant expansion of addressable market through increased product scope

Estimated A&D Revenues by Product



Non-PCB portfolio now >50% of A&D revenues

Increasing engineering content and technical differentiation drives value proposition

2022 Highlights

- Revenues grew over 19%
- Record bookings for back-to-back years
- Year-end A&D program backlog of ~\$1.4B
- Acquisition & integration of Telephonics
- Addressing industry supply chain and labor challenges
- Detailed operational and margin improvement plans
- Creation of Sector organization, positioned for future



Portfolio Spans the Value Chain

Subassemblies & Subsystems

- Integrated Microwave Assemblies (IMAs)
- Microwave Networks & Beamformers

Mission Systems

- Communications Systems
- Surveillance Systems
- Radar Systems

Microelectronics, Components




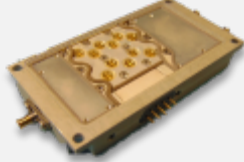
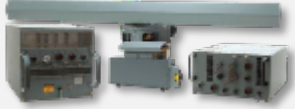
- Custom-designed semiconductors
- Radiation-hardened power modules
- Hybrid multi-chip modules (MCM)

PCBs & Interconnect

- High-density build-up (HDBU) substrates
- High-density Interconnect (HDI) PCBs
- Rigid/Flex PCBs

Highly-engineered products with differentiation at each tier

Growth Opportunity By Product Segment

					
Segment	PCBs/Substrates	VA-Assemblies	Microelectronics	RF-Microwave	Mission Systems
2022 SAM	\$3B	\$1B	\$5B	\$16B	\$11B
2022-26 CAGR	2.9%	5.8%	7.0%	6.5%	2.2%
Market Penetration	High	Moderate	Low	Low	Low
Growth Expectation	With market	With market	Outgrow market	Outgrow market	Outgrow market
Strategy	Differentiated Manufacturing	Expand capability areas	Expand capability areas	Expand capability areas	Refresh product & technology portfolio

Source: Prismark, PCB only

Sources: Janes GPS, Teal Space Report, Commercial Aviation OEM Guidance, internal modeling. CAGRs reflect budget-level growth in DoD. OEM/Supply Chain growth lags budget.

Product portfolio provides diverse growth opportunities

Well-Aligned to Industry Trends & Growth Drivers

- Expanding Defense Budgets for U.S. and Major Allies, the New Space Race
- National Defense Strategy, Great Power Competition
- Proliferation of Sensors, Fully Networked “Battlespace of Things”
- RF/MW enabled systems, AESA radars, Communications, EW
- Industrial Policy / Re-shoring
- Commercial Aviation recovery
- Franchise Program ramps



Program Portfolio Positioned for Growth

- **Top Strategic OEM Customers**
 - Raytheon, Lockheed Martin & Sikorsky, Northrop Grumman, L3Harris, Boeing
- **Top Direct Government Customers**
 - US Army, US Navy, US Air Force, International Ministries of Defence
- **Future Expansion**
 - Commercial Space OEMs



We support key franchise programs driving growth for every major OEM

Focused on Growth at Both Top & Bottom Lines

Deliver Sales Growth Above Market

- Target organic growth > 5%
- Capture growth synergies from acquisitions
- Continue evolution of the portfolio
- Increase market share of newly penetrated segments



Deliver Margin Improvement

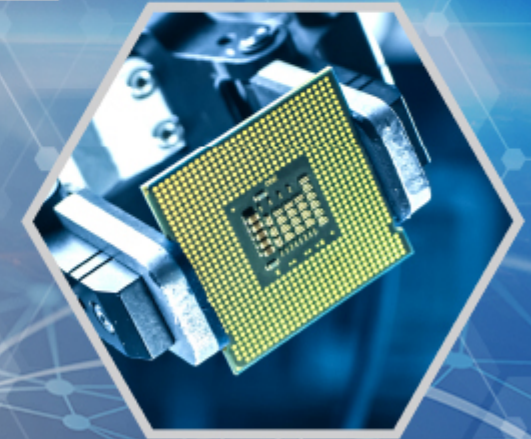
- Realize acquisition cost synergies
 - Execute operational improvement plans
 - Increase design engineering content
- Manufacture the “impossible”

Growing earnings even faster than revenue

Differentiation Through Engineering

Rich Hines

VP, Engineering

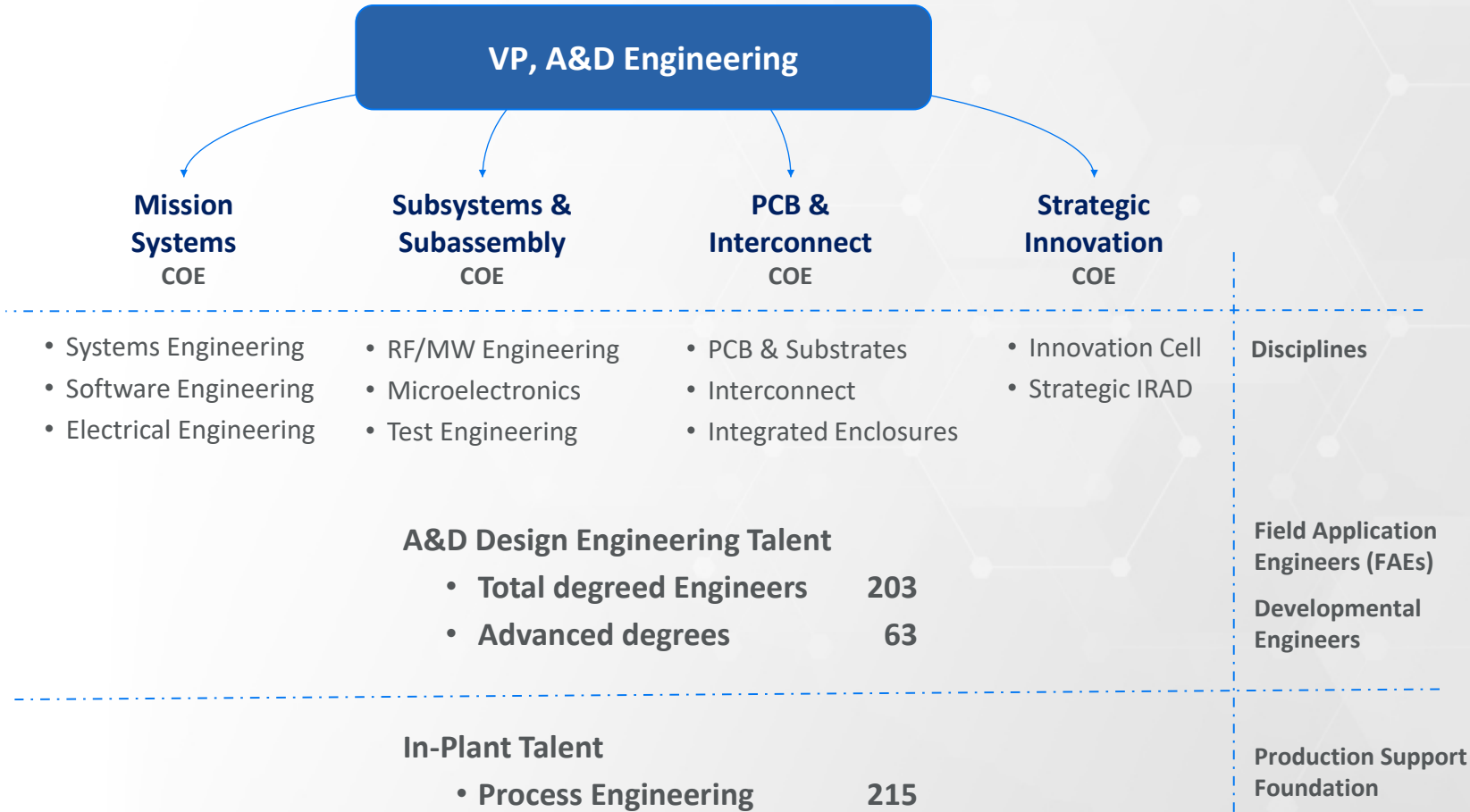


Technology-Driven Differentiation

- New platform selection success demonstrates TTM differentiation
- Telephonics acquisition results in an immediate tier 1 presence
- Vertical integration enhances competitive positioning and growth synergies
- Innovation cell to transform emerging technologies into differentiated solutions



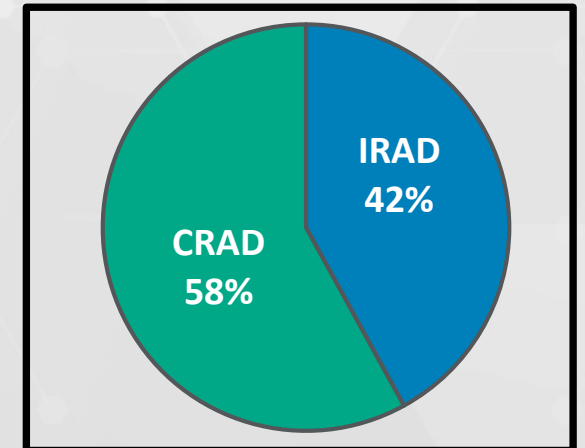
Engineering Capabilities Organized to Deliver Solutions



Strategic Innovation Target Zone



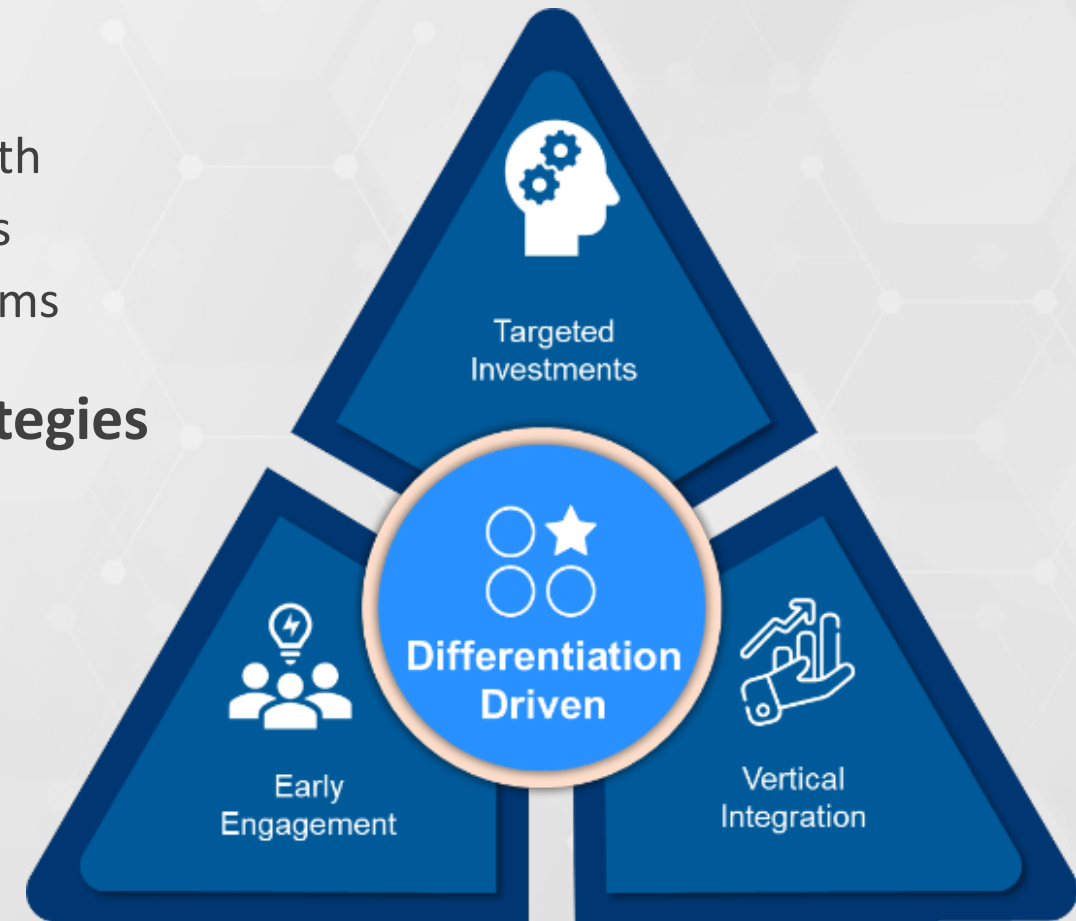
2022 Total R&D



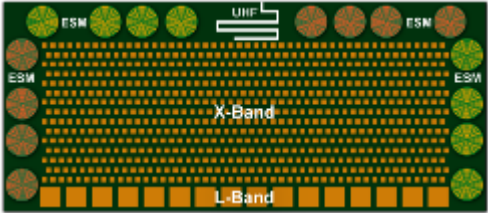

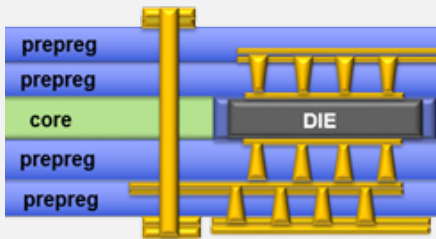
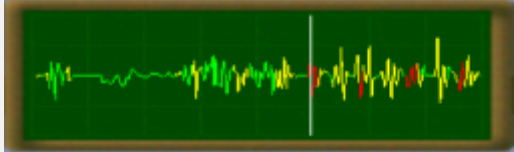
*IRAD – Independent Research & Development
 *CRAD – Contract Research & Development

Technology Development Aligned to Strategy

- **Top-down strategy process**
 - Sector & Business Unit priorities for portfolio growth
 - Segment strategies for key mission & product areas
 - Informed by Program & Business Development teams
- **Technology Roadmaps support segment strategies**
 - Define required technology investments
 - Manage R&D through established Product Lifecycle Management (PLCM) process
- **Innovation Cell delivers new capabilities**



Emerging Technologies Driving Key Investments

Trend	Integrated vs. Federated Sensing	“RF to Bits”	Advanced Packaging	Digital Transformation
Target Investment	<ul style="list-style-type: none"> • Systems On Chip • Multi Signal Front End 	<ul style="list-style-type: none"> • Substrates • RF Digitization 	<ul style="list-style-type: none"> • 2.5/3DPackaging • Embedded Components 	<ul style="list-style-type: none"> • AI and ML • MBSE and Digital Twin
TTM Applications				

Early Stage Investments In Emerging Technologies Ensures Continued Solution Differentiation

Case Study: Early Engagement, PCB/Interconnect Solutions

Program: U.S. Navy SSBN Columbia Class

(Sub Surface Ballistic Missile Nuclear powered)



SSBN-826/827



Proof of Concept Units

- 33 physical designs across two (2) cabinet variations

Gap Identified

- Maintenance & reliability issues

Design Enhancements

- 53 physical designs across five (5) cabinet variations



Final Product

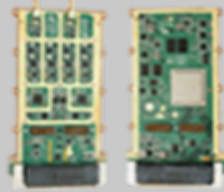
- Deployment for production boats

Advanced engineering capabilities improve on customer designs

Case Study – Vertical Integration

Mission Systems COE (Long Island)

Telephonics legacy



Processor & Receiver CCAs

- Latest generation TTM CCAs
- Direct RF sampling
- 12 Channel 3U VPX Receiver

Subsystems/Subassembly COE (Syracuse)

Anaren legacy

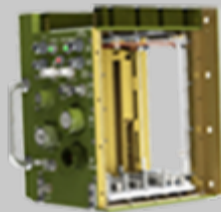


High Power Amplifier

- 2.8KW High Power Amplifier
- Innovative air cooled design

PCB/Interconnect COE (Stafford Springs)

TTM legacy



Fully integrated chassis

- Enclosure
- Backplane
- Interconnect CCA



Next-generation IFF (Identification Friend or Foe)

Vertical integration across the value chain provides differentiation & pricing flexibility

Wrap Up

- Growing top and bottom lines
- Executing defined margin improvement plan
- Realizing both growth and cost synergies
- Differentiating with engineering capabilities
- Investing for both organic and in-organic growth
- Yielding value creation and ROI



**Create
Enduring
Value**

**Execute
with
Excellence**

**Grow
the
Franchise**



Inspiring Innovation

Thank You



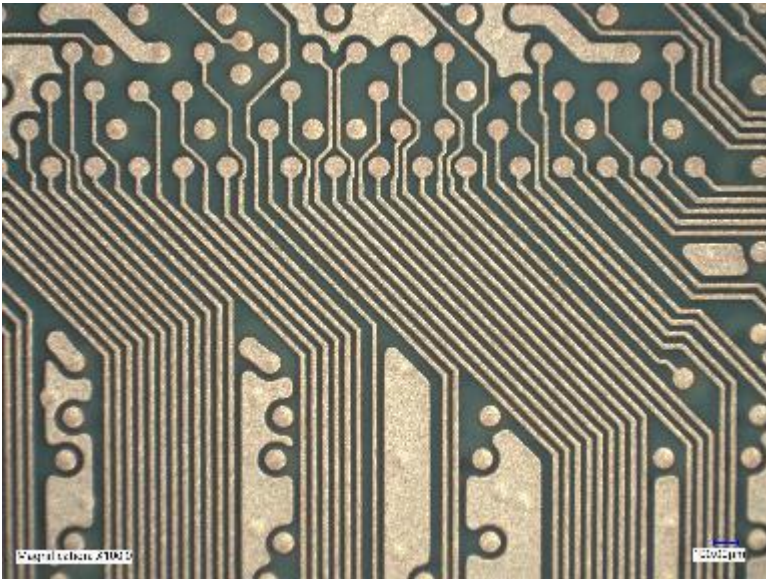
Inspiring Innovation

Phil Titterton

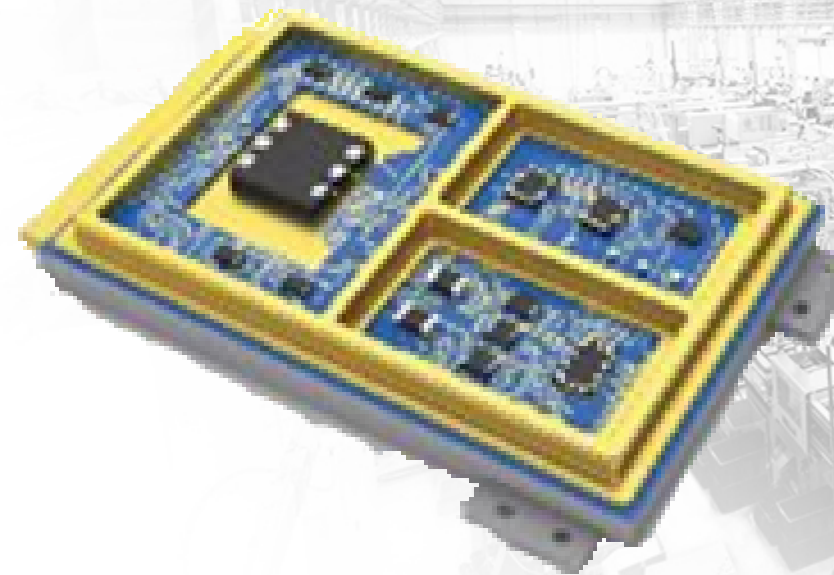
EVP, Chief Operating Officer

Operations Vision

- Operations vision is to provide unprecedented customer satisfaction by manufacturing reliable products with differentiated technologies at reasonable costs and appropriate lead-times



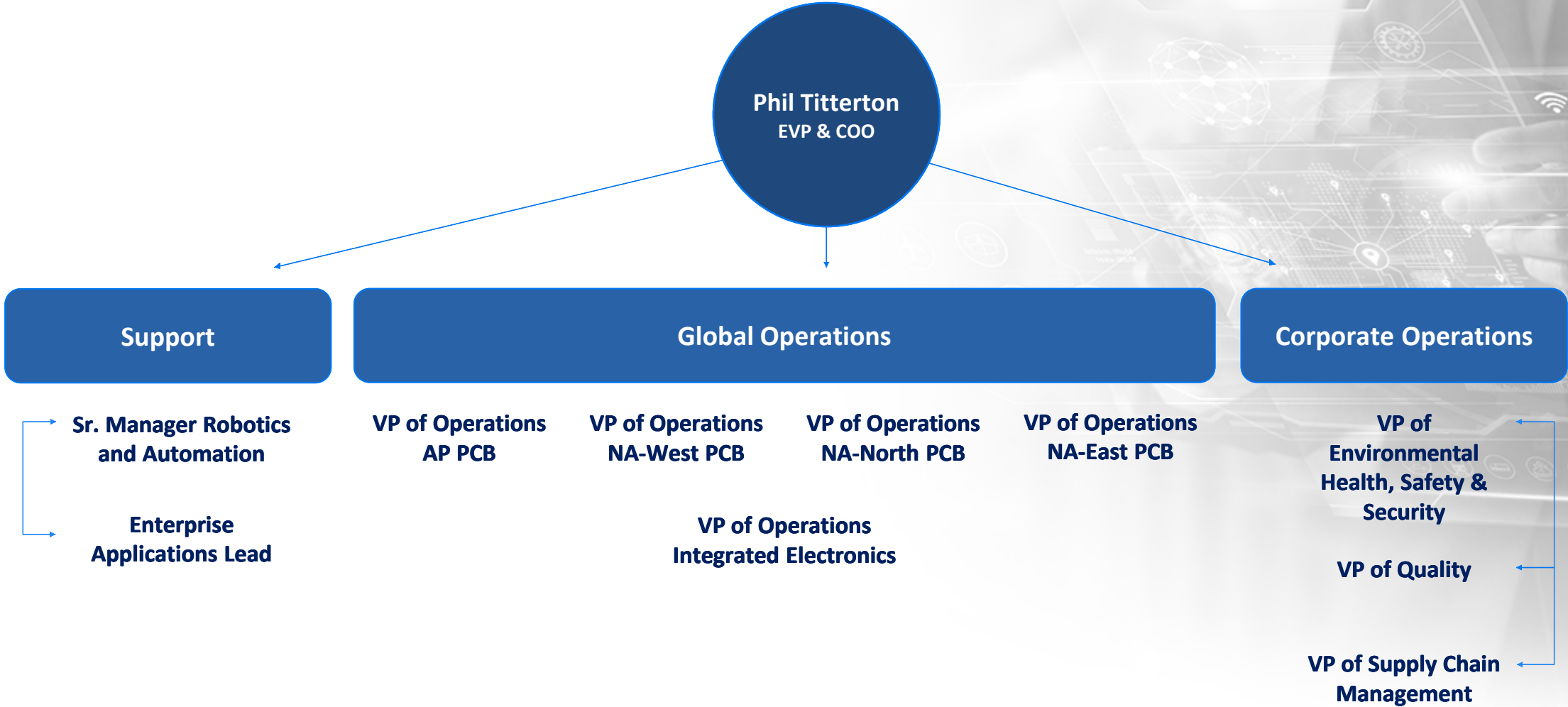
18um line & space substrate technology



Microelectronics packaging technology

To be a responsive, differentiated, and the technical supplier to our end markets

Operations-Global



2020-2022 Accomplishments

- China Operations performed at record levels
- Capital spend was 4% of revenue globally during Covid-19
 - 13 Automated Plating Lines were installed
 - 73,000 sqft of manufacturing space was added to support our Integrated Electronics growth objectives
- Significant advancements in our microelectronics, substrate, and advanced PCB differentiated technologies
- Customer returns at records low levels

Return Material Authorization %	Y2021	Y2022	Q1 2023
Global	0.91%	0.66%	0.53%

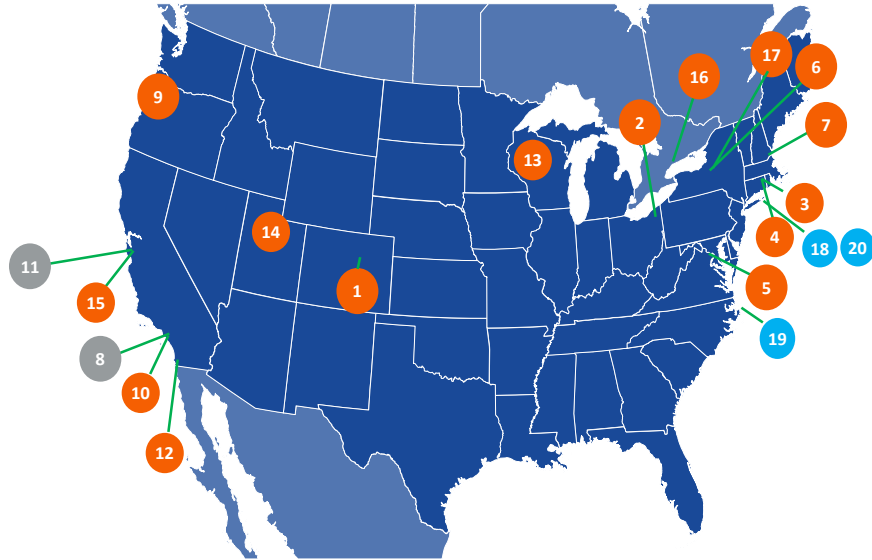


Next Gen Automated Continuous Copper Plating Line

TTM updated many factories and processes during the Covid-19 pandemic

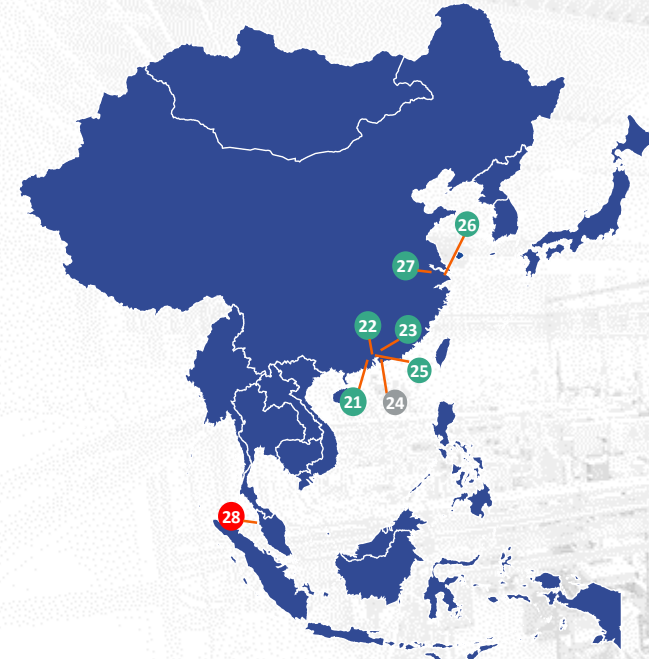
Global Footprint

(Effective on Apr 1, 2023)



NA Operations

- | | | |
|-------------------------|----------------------------------|-------------------------------------|
| 1 Denver – DEN | 8 Anaheim – ANA ¹ | 15 San Jose – SJ |
| 2 North Jackson – NJ | 9 Forest Grove – FG | 16 Toronto – TOR |
| 3 Stafford – ST | 10 Santa Ana – SA | 17 Syracuse – SYR-W |
| 4 Stafford Springs – SS | 11 Santa Clara – SC ¹ | 18 Huntington – HTN ² |
| 5 Sterling – STE | 12 San Diego – SD | 19 Elizabeth City – EC ² |
| 6 Syracuse – SYR | 13 Chippewa Falls – CF | 20 Farmingdale – FRM ² |
| 7 Salem – SAL | 14 Logan – LG | |



Asia Operations

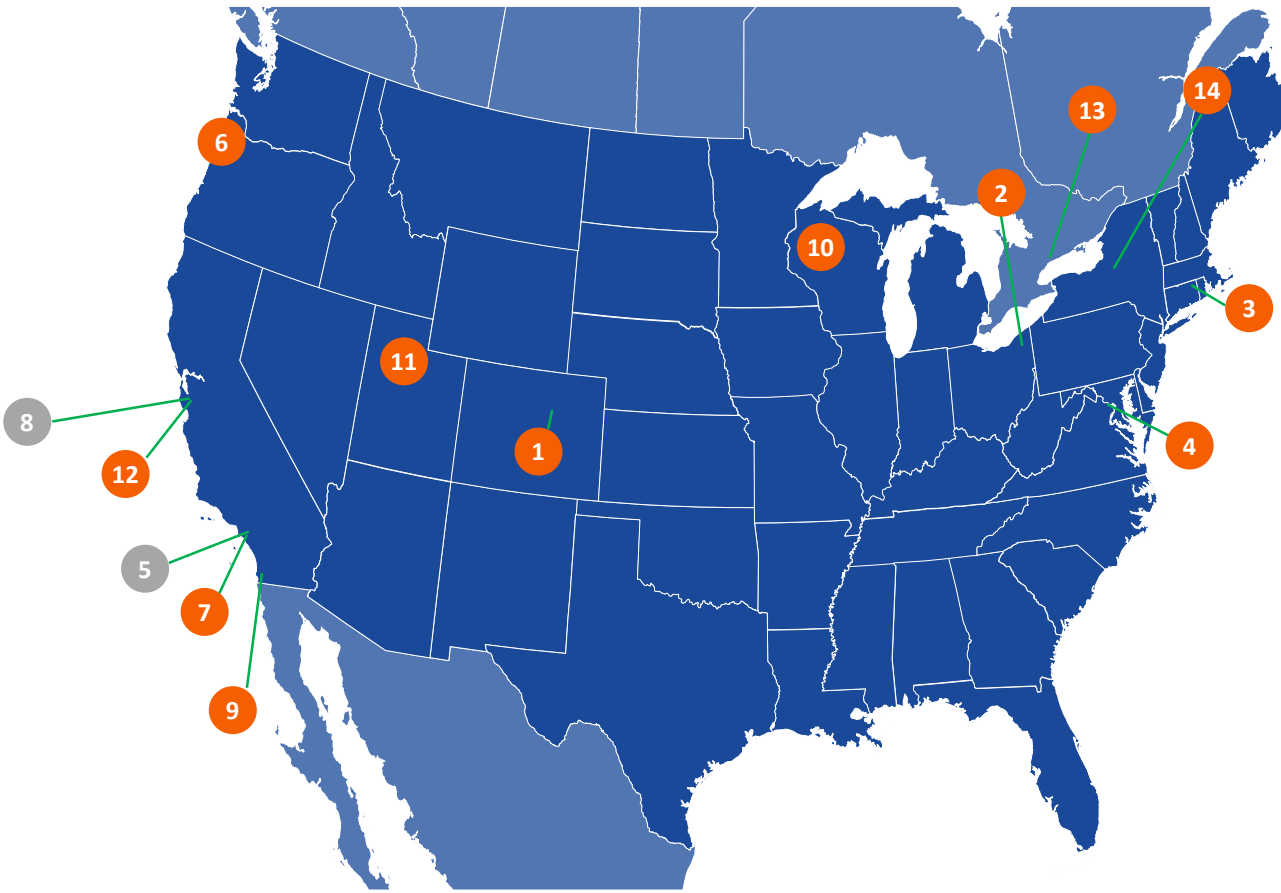
- | | |
|----------------------------------|------------------------------|
| 21 Zhongshan – ZS | 25 Dongguan – DMC |
| 22 Guangzhou – GZ | 26 Suzhou – SUZ |
| 23 Huiyang – HY | 27 Penang – PNG ³ |
| 24 Hong Kong – OPCM ¹ | |

¹Announced Facilities to be Closed

²Telephonics Facilities

³Pilot production planned to start in 2nd half of 2023

Global Footprint – North America PCB Sites



NA Operations

- 1 Denver – DEN
- 2 North Jackson – NJ
- 3 Stafford – ST
- 4 Sterling – STE
- 5 Anaheim – ANA²
- 6 Forest Grove – FG
- 7 Santa Ana – SA
- 8 Santa Clara – SC²
- 9 San Diego – SD
- 10 Chippewa Falls – CF
- 11 Logan – LG
- 12 San Jose – SJ
- 13 Toronto – TOR
- 14 Syracuse – SYR-W

Key

- NA Sites
- ²Announced Facilities to be Closed

North America PCB Site – TTM Forest Grove (FG)

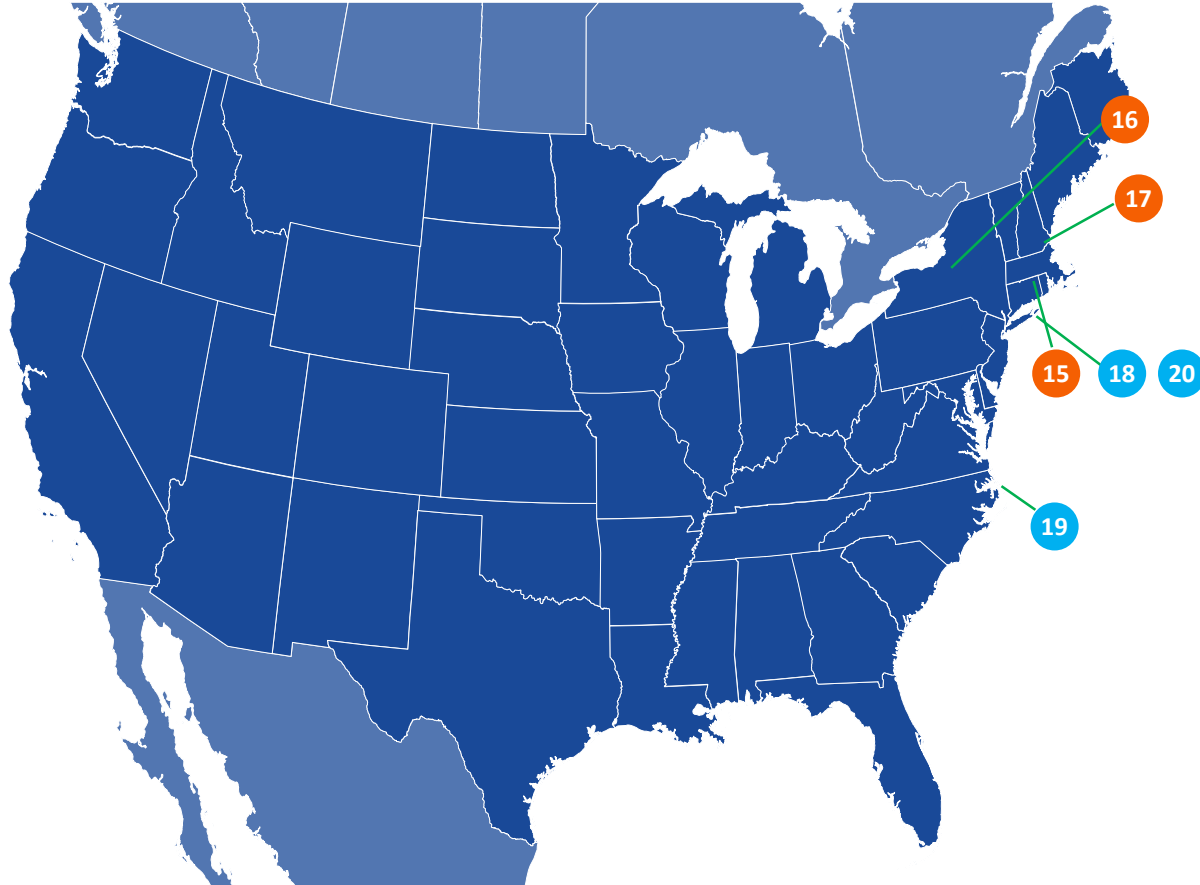
The Forest Grove facility is a leader in advanced high-technology HDI PCB's.

Product Focus	Mid Volume Advanced Technology PCB's for defense requirements
Facility Size	206,000 sq. ft.
Employees	559 with 26 engineers
Quick Turn Offering	Yes
Capabilities	High layer count, Advanced materials, High Density Interconnect (HDI) solutions, Reliability Lab, Broad range of surface finish requirements



Key Approvals / Qualifications: ITAR, AS9100D, ISO 9001: 2015; ISO 14001:2015; NADCAP AC7119, UL796, MIL-PRF-31032, MIL-PRF-55100

Global Footprint – North America Integrated Electronics Sites



NA Operations

- 15 Stafford Springs – SS
- 16 Syracuse – SYR
- 17 Salem – SAL
- 18 Huntington – HTN³
- 19 Elizabeth City – EC³
- 20 Farmingdale – FRM³

Key

- NA Sites
- ³Telephonics Facilities

North America Integrated Electronics Site – Syracuse A&D (SYR A&D)

The Syracuse facility is a full-service design, fabrication, and testing of leading-edge RF solutions and integrated assemblies for Aerospace & Defense and Space applications.

Product Focus

Microwave
Microelectronics
Build to Spec
Design to Spec & Catalog
Radiation hardened modules
Switching, linear, and isolated voltage regulators
Motor controls
Custom Multi Chip Modules (MCMs)
RF Modules

Facility Size

160,000 sq. ft.

Employees

516 with 110 engineers

Capability

Integrated complex RF subsystems solutions,
Wideband converters, Receiver products,
Complex phased arrays, Passive & Active
beamforming networks, RF distribution and
control, UHF to Ka-Band, Dividers, Isolator,
Circulators, Custom hybrids microelectronics,
Analog & RF, Radiation Hardened Components,
Power products



Key Approvals / Qualifications: AS9100D, ISO9001, MIL-PRF-38534 (DLA), IPC610, J-Standard

Global Footprint – Asia Pacific PCB Sites



Asia Operations

- 21 Zhongshan - ZS
- 22 Guangzhou - GZ
- 23 Huiyang - HY
- 24 Dongguan - DMC
- 25 Suzhou - SUZ
- 26 Penang – PNG¹

Key

- AP Sites
- ¹Pilot production planned to start in 2nd half of 2023

Asia Pacific PCB Site – Guangzhou (GZ)

The Guangzhou facility is a leader in large format backplane and high layer count line cards, and Radar/RF board.

Product Focus

Medium to High Volume High Commercial Technology PCBs

Facility Size

2,500,000 sq ft

Employees

2,763 with 233 engineers

Back Office

AP Shared service center
Commercial Global Technology Center

Capabilities

High layer count up to 64 layers, HDI, Radar PCB (77GHz+), LIDAR PCB, Large Format Backplane, Oversize Linecard, Broad range of materials



Key Approvals / Qualifications: ISO9001, TL9000-H, ISO / TS 16949 & ISO14001 Certified, ISO/IEC 17025, Bellcore Compliance, OHSAS

North America PCB Sites – Key Milestones

- **Performance Based Metrics Improvement tied to compensation**
 - Yield, on time delivery, past due, returns
- **Consolidate Anaheim and Santa Clara into existing operations**
 - Completed: Announcement, customer directed orders, employee retention
 - Anaheim and Santa Clara to conclude operations by end of the 2023
- **Grow new product areas such as substrates from \$4M to \$20M**
- **Achieve Past Due improvement by**
 - Common shop floor production system
 - Multi-site qualifications for plant loading



North America Integrated Electronics – Key Milestones for Improvement

- **Performance Based Metric Improvement tied to compensation**
 - Past Due, On-time Delivery, Quality, Purchase Price Variance (PPV)
- **Enhance Integrated Electronics (IE) Supply Chain**
 - Hired leader and created dedicated organization
 - Internal sourcing of PCBs by Sept'23
 - Focus on consistent sequential performance improvement
 - Key metrics include supplier On-time Delivery, MRP Volatility, Revenue Impact due to supplier performance
- **Telephonics Synergies**



Asia Pacific PCB Sites – Key Milestones to Manage Demand Softness and Strengthen Capabilities

- Consolidate OPCM (Hong Kong) into existing operations by May'23
- Cost controls such as mandatory PTO, limited overtime, extended shutdowns
- Achieve advanced leadership position in Commercial PCB Data Center and Computing technology for higher 112Gbps & 224Gbps data speeds
- Leverage Asia Pacific and Global Best Practice Sharing
- Successful Penang, Malaysia Start-up



Penang, Malaysia Start-up Timeline

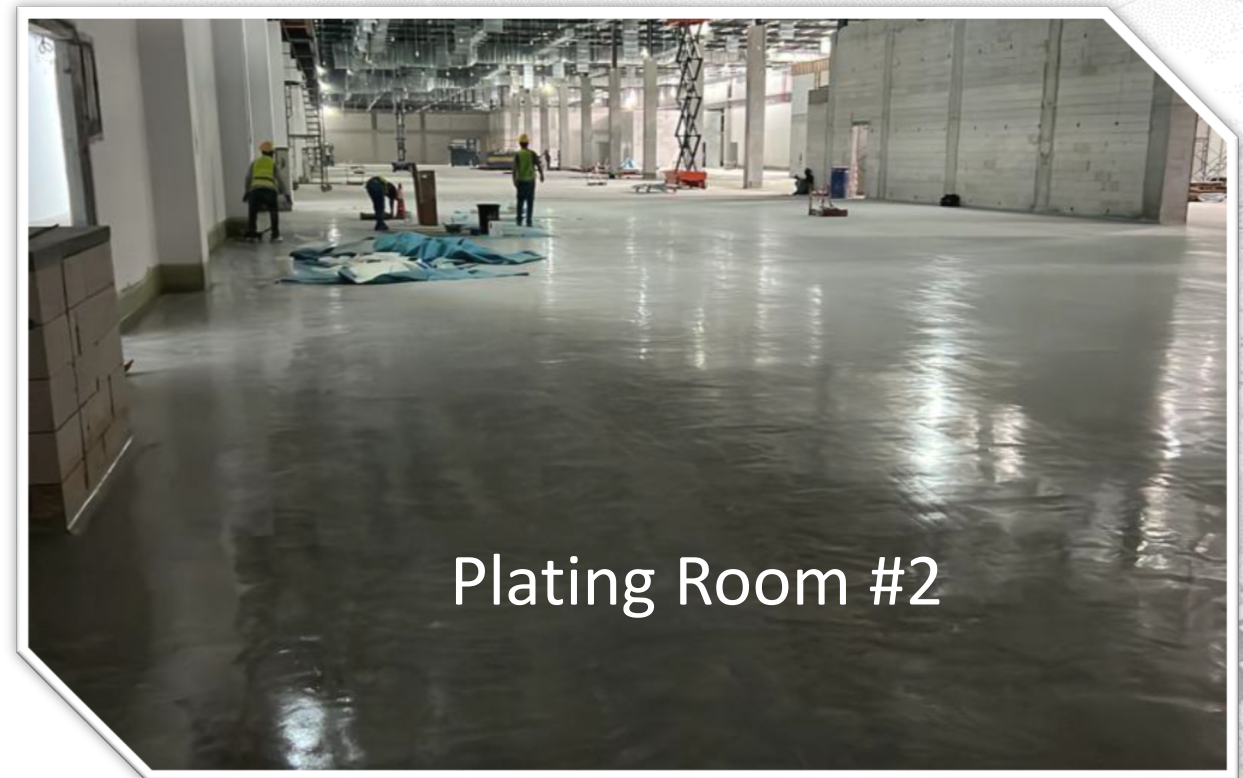
- TTM announces expansion into South East Asia February'22
- Customer contracts in place March'22
- Ground breaking ceremony in April'22
- Equipment installation in August'23
- Customer Qualifications in January'24
- Full production capacity in January'25



We are on schedule to start-up the largest PCB factory in South East Asia this fall

Penang, Malaysia Start-up Capabilities

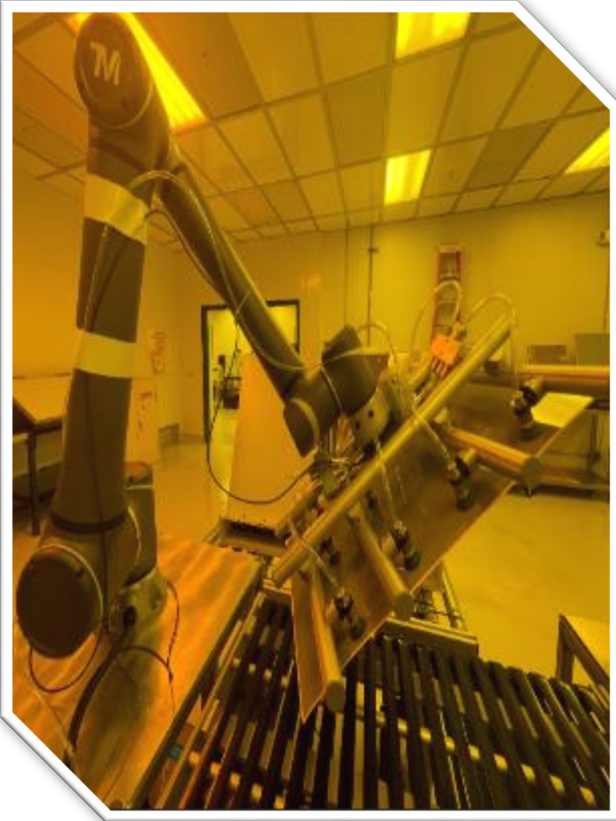
- **Factory Specifications**
 - 800,000 square feet
 - Factory automation with Industry 4.0
 - Productivity 150% > China factories
 - Will employ 1,000 people
 - Most sustainable factory in TTM
 - Largest rooftop solar installation in Malaysia
- **25% expansion capacity available to service customer demand**



We are on schedule to start-up the largest PCB factory in South East Asia this fall

Factory Automation

Robots feeding Automated Guided Vehicles (AGVs)



AGVs transferring work



Robots feeding bigger robots



Environmental, Health, Safety & Security Strategy

- **Driving Environmental metrics, including:**
 - Safety
 - Green House Gas Emissions
 - Renewable Energy
 - Water use and water recycle
 - Hazardous waste and waste reduction
- **Process Elimination focus**
- **In-source Waste Water Treatment Design & Manufacture**
- **Zero Liquid Discharge Factories**



TTM globally has 25+ initiatives driving climate change improvements

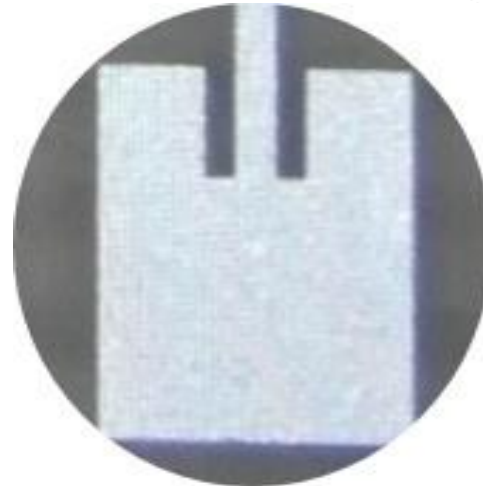
Conclusion

Operations Strategy is built on Four Key Principles

1. Quality and reliability of our product is best-in-class
2. Processes will be developed with investment to support customer enabling technology
3. Technical resources are our foundation
4. Leverage Best Practice and Needs Help sharing globally for rapid resolution



Reliability Tester –
Unique TTM Property



77GHz Technology –
Unique TTM Processing



50 Malaysia Engineering Trainees
across 3 TTM AP sites

To be a responsive, differentiated, and the technical supplier to our end markets



Inspiring Innovation

Todd Schull
Chief Financial Officer

Agenda

Financial results & targets and plans for improvement

Cash flow trends, capital structure and capital allocation strategy



Inspiring Innovation

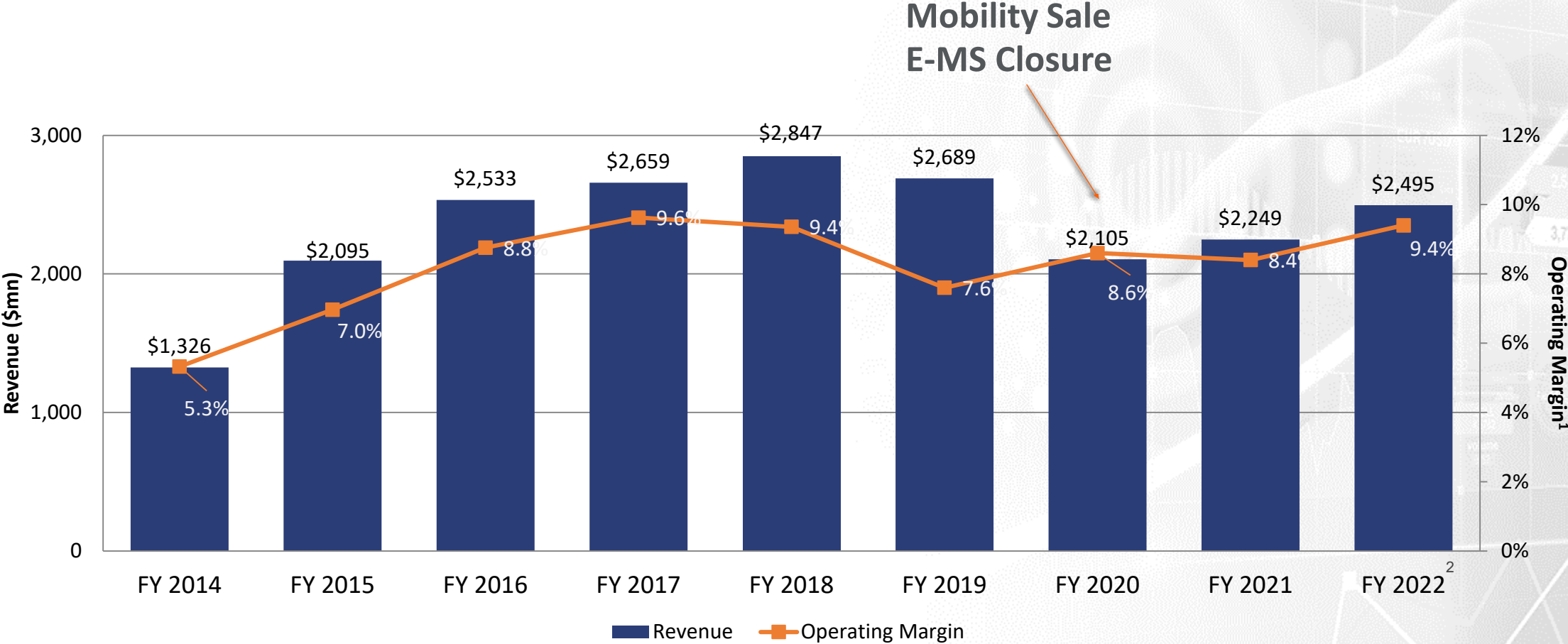
Financial results & targets and plans for improvement

New Financial Model and Targets

Metric	CY2022	Target
Organic Revenue growth	5.4%	4-6%
Non-GAAP Operating Margin ¹	9.4%	11-13%
Adjusted EBITDA Margin ¹	13.8%	15-17%
Capex	3.9% of Revenues	4-5% of Revenue
Cash Flow from Operations	10.9% of revenues	> 10% of Revenue
Return on Invested Capital	10.5%	13-15%

¹See Appendix for reconciliation

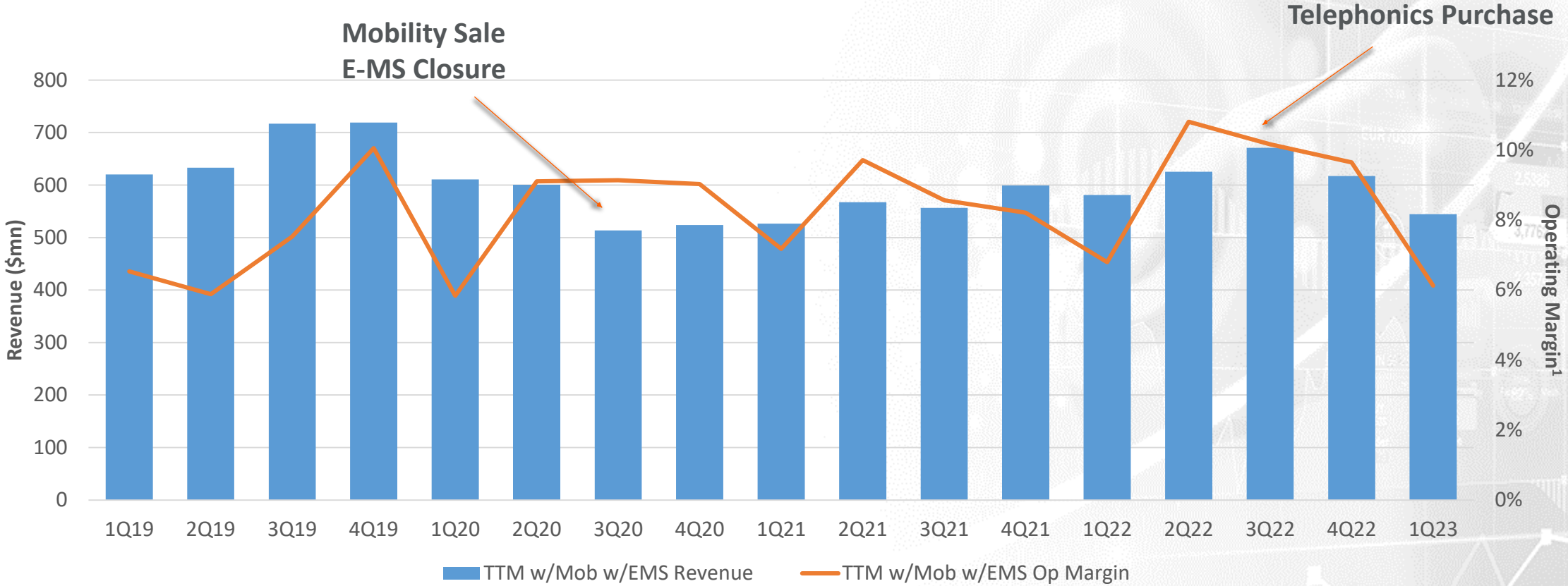
Historical TTM Reported Annual Revenue and Operating Margins



¹Operating margin is reported non-GAAP. See Appendix for reconciliation

²Includes approximately six months of Telephonics which closed 6/27/22

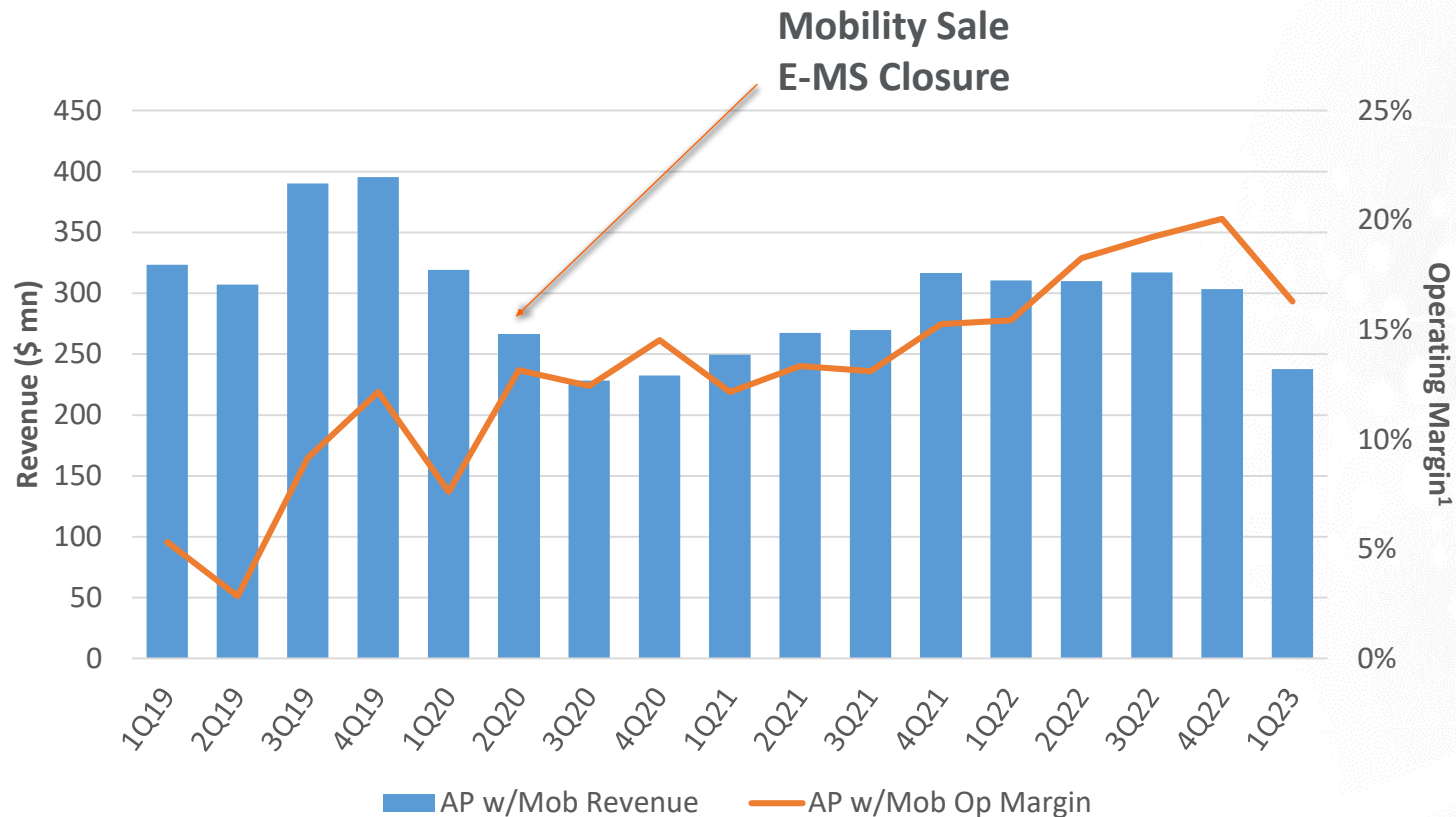
TTM Quarterly Reported Revenue and Operating Margins



Divesting Mobility and closing E-MS improved operating margins despite reducing revenues;

¹Operating margin is reported non-GAAP. See Appendix for reconciliation

Asia Pacific (AP) Quarterly Revenue and Operating Margins



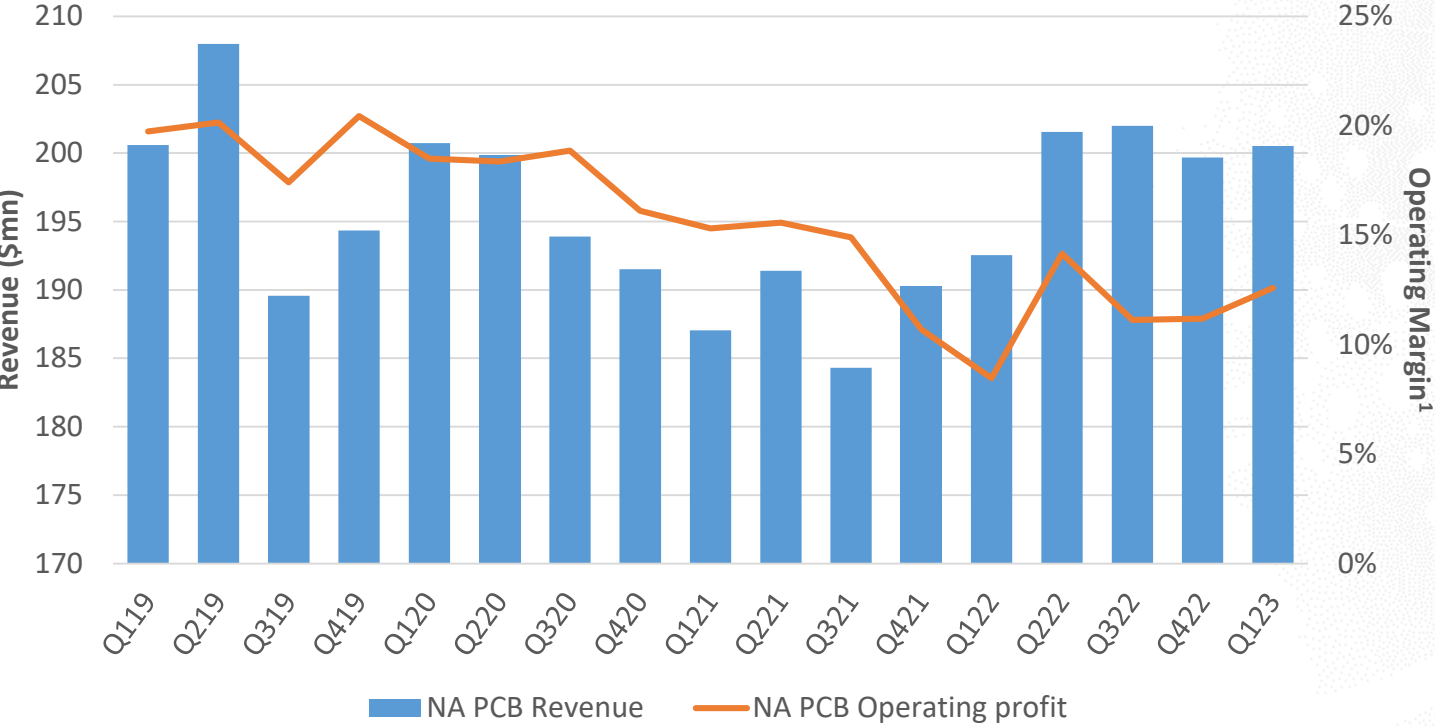
Operating Margin Improvement Plan

- Short term
 - Cost controls such as headcount and workday reductions
 - Sell Shanghai Back Plane Assembly
 - Close Hong Kong Facility
- Longer term: Recovery of commercial markets
- Goal : 17%

Strong revenue growth and margin expansion in AP over the past three years driven by commercial sector

¹Operating margin reported non-GAAP. See Appendix for reconciliation

North America PCB Quarterly Revenue and Operating Margins



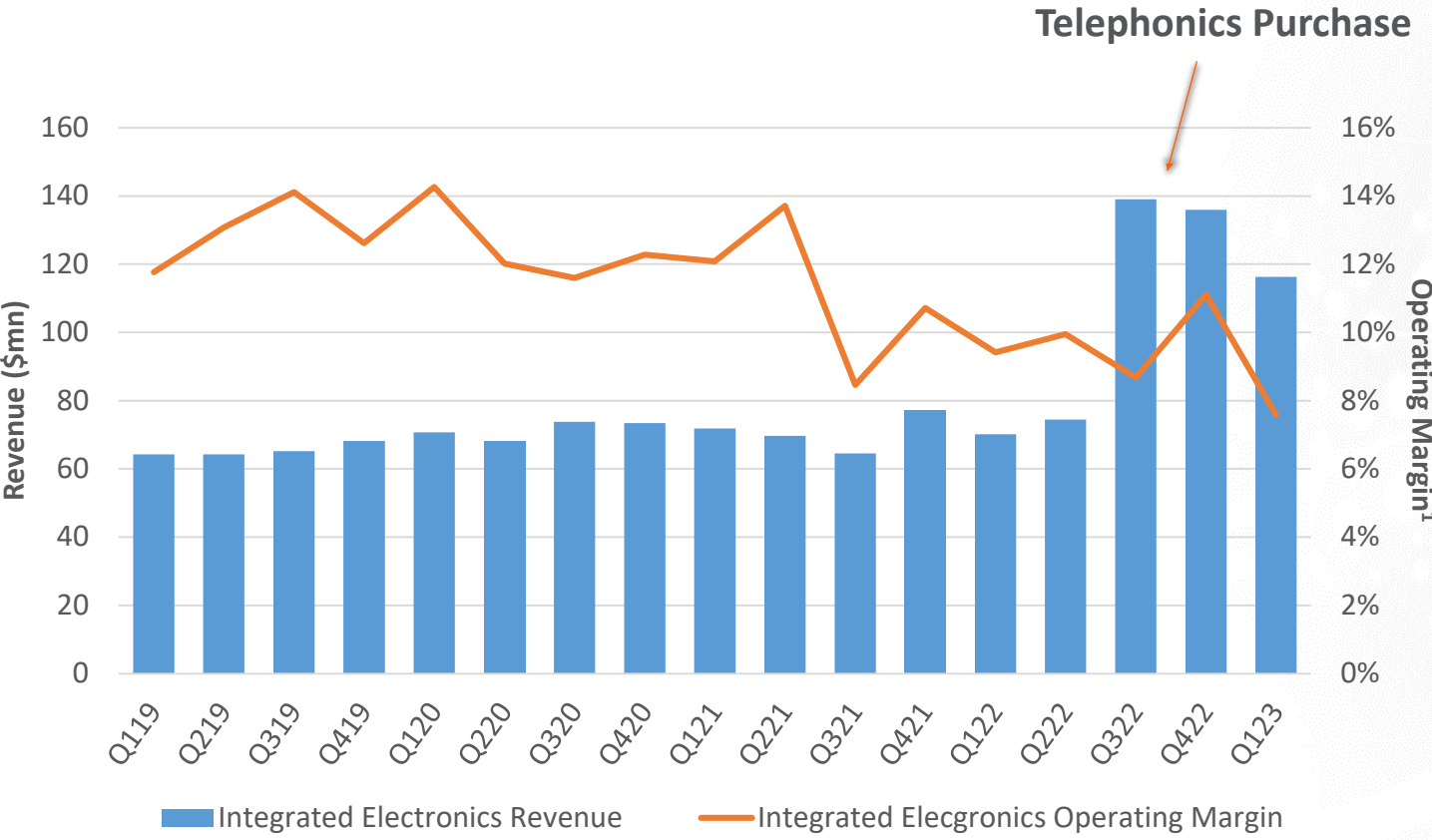
Operating Margin Improvement Plan

- Short term:
 - Close Anaheim and Santa Clara facilities
 - Mandatory PTO
- Longer Term:
 - Recovery in commercial markets
 - Higher productivity with automation
 - Cost recoveries
- Goal: 18%

Labor availability and cost had impacted revenue growth and margins – price increases starting to flow through P&L

¹Operating margin is reported non-GAAP. See Appendix for reconciliation

Integrated Electronics (IE) Quarterly Revenue & Operating Margins



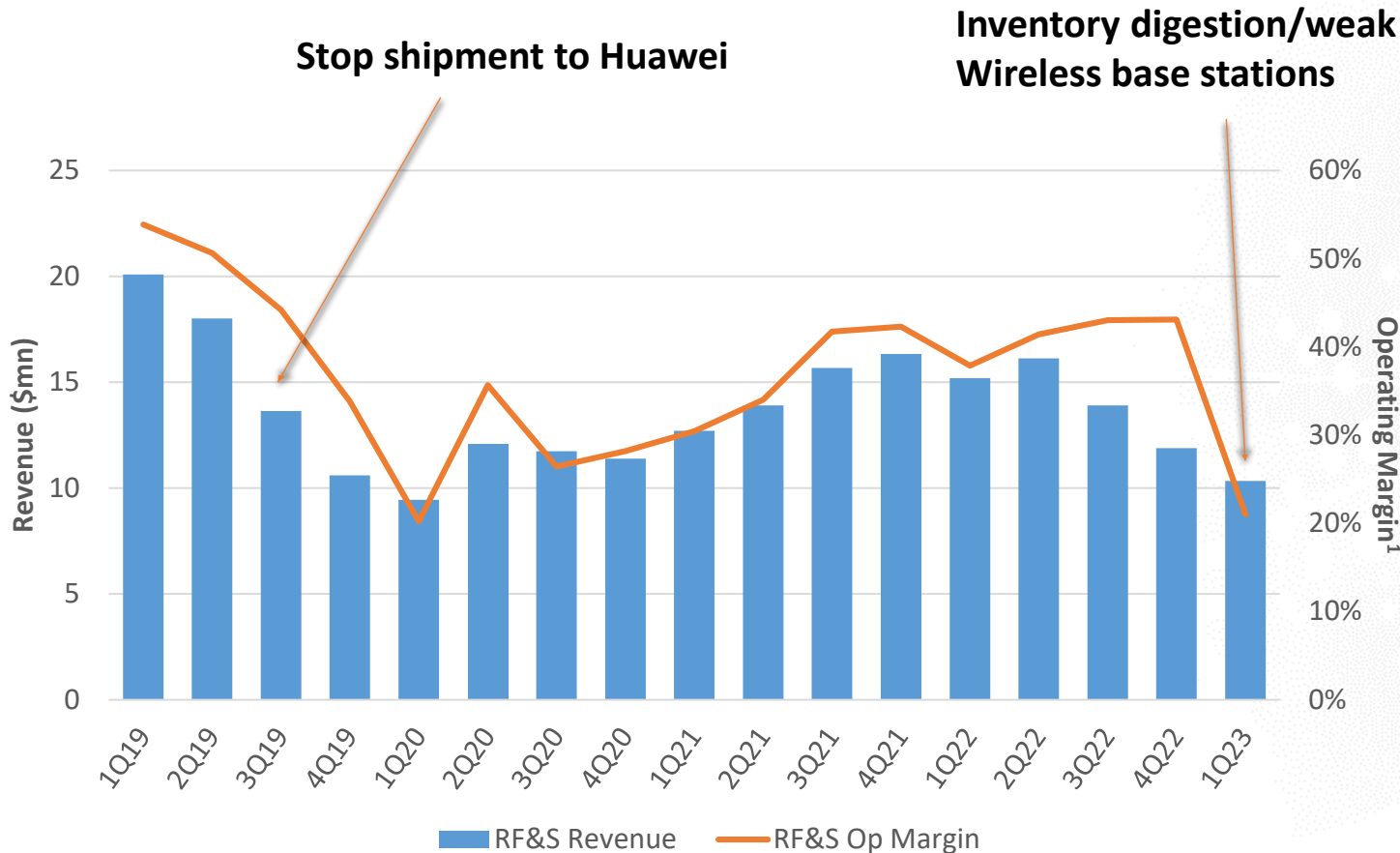
Operating Margin Improvement Plan

- Short term
 - Cost controls such as mandatory PTO
 - Revenue fall through
- Longer term
 - Telephonics synergies
 - Supply chain improvement
 - Cost recoveries
- Goal: 15%

Supply challenges impacting revenue growth and margins for Integrated Electronics

¹Operating margin is reported non-GAAP. See Appendix for reconciliation

RF&S Quarterly Revenue and Operating Margins



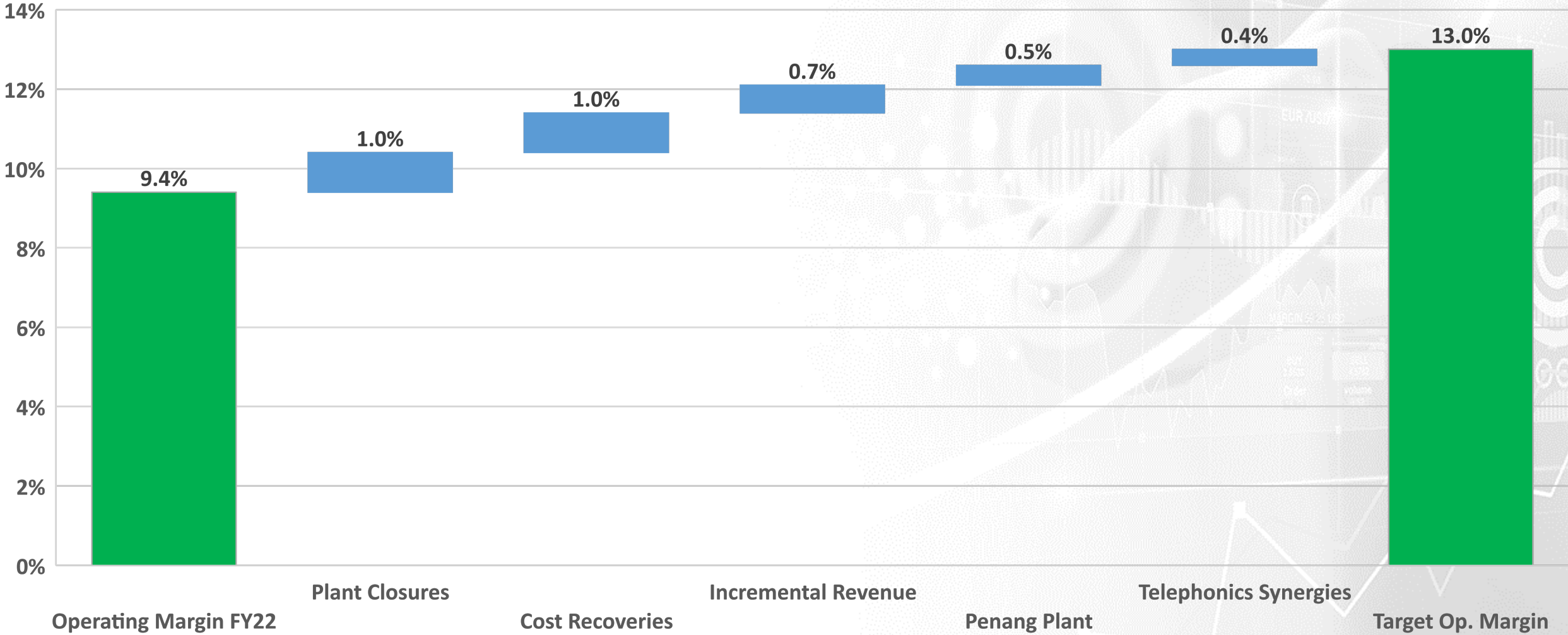
Operating Margin Improvement Plan

- Short term cost controls
 - Workday reductions
 - Restructuring actions
 - Mandatory PTO
- Longer term
 - Recovery of 5G rollout
 - End market expansion
 - New product growth
- Goal: 40% OI

RF&S challenged by weak demand and excess inventory at customers

¹Operating margin is reported non-GAAP. See Appendix for reconciliation

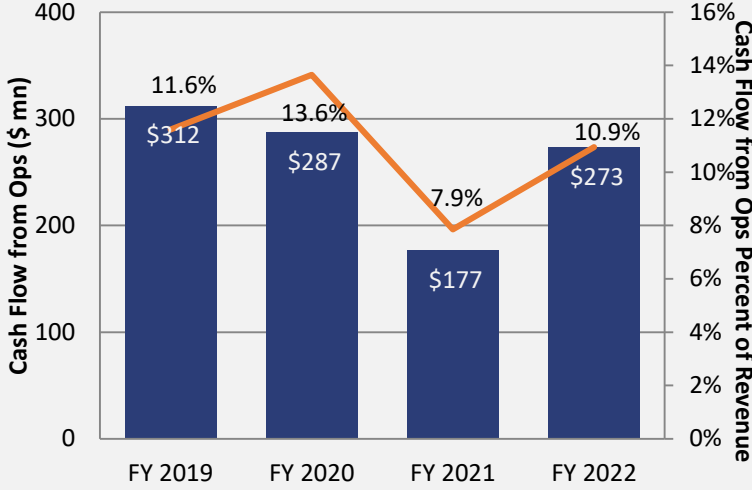
Operating Margin Improvement Bridge



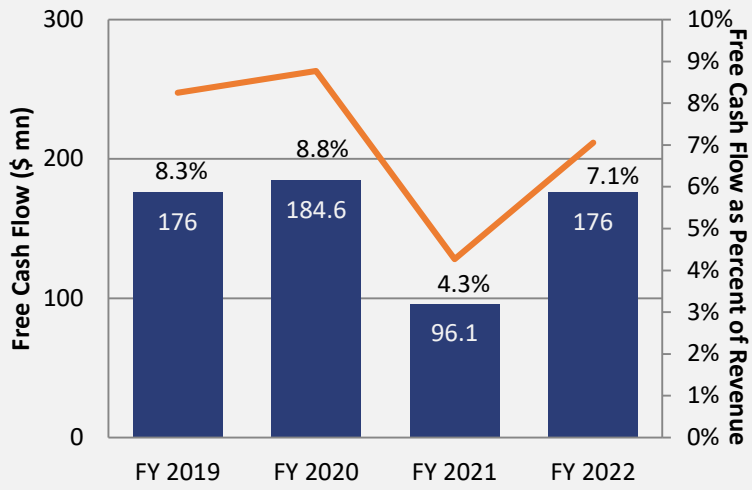
Cash Flow Trends, Capital Structure and Capital Allocation Strategy

Strong Cash Flow Enables Flexible Capital Allocation Options

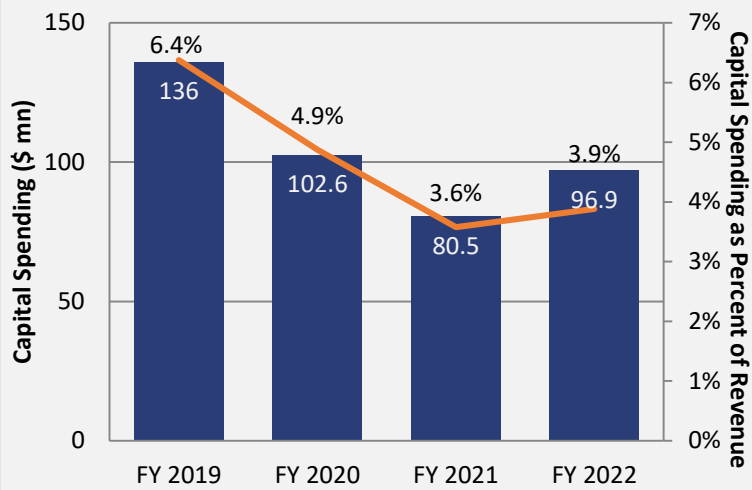
Cash Flows from Ops



Free Cash Flow



Capex



Capital Structure

- **Net debt leverage is 1.4x⁴**
 - our target range is 1.5 – 2.0x
- **Current covenants cap our leverage at 4.25x**
- **1-month SOFR increased by 0.74% YTD to ~5.1%**
- **Initiated swap in April 2023 for \$250M, effectively fixing ~70% of Term Loan B rate at 6.25%**

Capitalization Pro-Forma Refinancing									
(\$ million)	Ratings (MDY/S&P/Fitch)	Coupon ⁶	Price ⁷	Yield ⁷	4/3/2023	xEBITDA	Adjustments ⁸	ProForma	xEBITDA
Cash & cash equivalents					\$418		-\$13	\$405	
US ABL due 6/3/2024	NR/NR	L+125			\$0			\$0	
New US ABL due 2028	NR/NR	S+135-160							
Asia ABL due 6/4/2024	NR/NR	L+140			\$30			\$30	
Term Loan B due 9/28/2024	Ba1/ BB+ / BB+	L+250	99.875	7.60%	\$356		-\$356	\$0	
New Term Loan B due 2030 ¹	Ba1/ BB+ / BB+	S+275					\$350	\$350	
Finance Leases					\$14			\$14	
Total secured debt					\$400			\$394	1.2x
Total net secured debt					\$0			\$0	0.0x
Senior Notes due 10/1/2029	Ba3/ BB- / BB	4.00%	85.591	7.08%	\$500			\$500	
Total debt					\$900			\$894	2.6x
Total net debt					\$482			\$489	1.4x
Market capitalization ²					\$1,364			\$1,364	
Total enterprise value ³					\$1,846	5.4x		\$1,853	5.4x
EBITDA ⁴					\$340			\$340	
Additional debt capacity ⁵					\$967			\$960	

¹We anticipate 1% p.a. TLB repayment

² Market capitalization: outstanding shares of 102.6 million at closing price of \$13.29 on 5/22/23

³ Total enterprise value: net debt plus market capitalization

⁴ EBITDA presented on LTM basis, including synergies from Telephonics

⁵ Permitted Indebtedness allows maximum of 4.25x leverage on net debt basis

⁶ 1-month SOFR = 5.098% ; 1-Mo LIBOR = 5.127%

⁷ As of 5/22/23

⁸ Pro Forma for refinancing of ABL and TLB

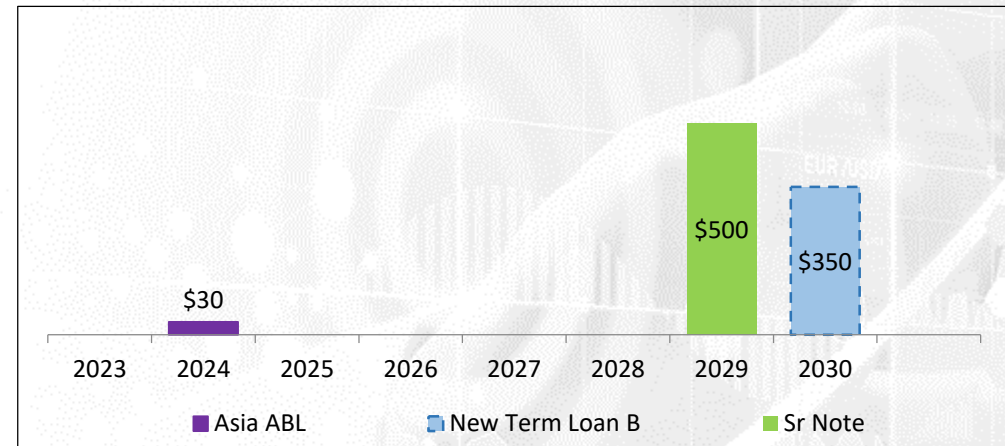
Liquidity & Debt

US liquidity			
(\$ million)	4/3/2023	Adj ¹	PF
Cash & cash equivalents	\$174	(\$13)	\$161
(-) Capital lease			(\$14)
Borrowing base	\$150		
(-) Borrowed amount	0		
(-) Letter of credit	(6)		
ABL revolver availability	\$144		\$144
Total US liquidity	\$303		\$290

Foreign liquidity			
(\$ million)	4/3/2023		
Cash & cash equivalents	\$244		\$244
Borrowing base	\$150		
(-) Borrowed amount	(30)		
(-) Letter of credit	(5)		
ABL revolver availability	\$115		\$115
Total foreign liquidity	\$359		\$359
Total overall liquidity	\$662		\$649

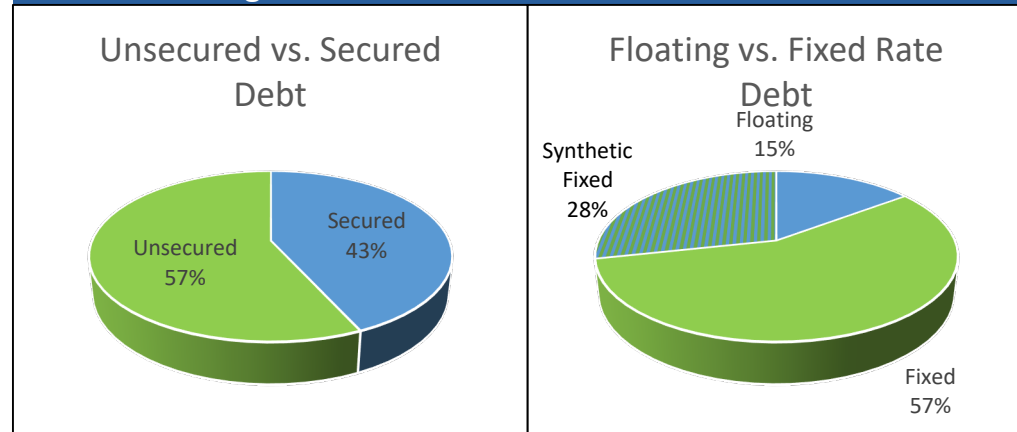
(1) ProForma for debt refinance

Debt Maturity Profile Pro-forma refinancing



New US ABL also matures in May 2028

Debt Borrowing Mix



Capital Allocation Strategy



- **Invest in differentiation**

- New product and technology development
- Leading edge equipment
- Strategic acquisitions to strengthen product/technology portfolio



- **Repay debt until <2x net debt/EBITDA**

- \$50 million repayment of Term Loan B in January 2023
- Net debt/EBITDA was 1.4x at the end of Q1 2023
- Refinanced Term Loan B and US ABL in May 2023



- **Return of capital to shareholders**

- Completed entire \$100 million stock buyback in FY 2022
- Authorized new \$100 million buyback on May 3rd 2023
- Future returns dependent on timing of M&A

Conclusions

- Plan in place to improve operating margins
- Strong cash flow generation results in solid balance sheet
- Capital allocation balances investing in business with return of capital to shareholders



Inspiring Innovation

Q&A



Inspiring Innovation

Appendix

Non-GAAP Operating Margin Reconciliations (TTM Consolidated)

(\$K)	2014	2015	2016	2017	2018	2019	2020	2021	2022
GAAP revenue	1,325,717	2,095,488	2,533,359	2,658,592	2,847,261	2,689,308	2,105,322	2,248,740	2,495,046
Revenue from discontinued operations									
Non-GAAP revenue	1,325,717	2,095,488	2,533,359	2,658,592	2,847,261	2,689,308	2,105,322	2,248,740	2,495,046
Non-GAAP operating income reconciliation ⁴ :									
GAAP operating income	46,539	61,342	173,453	212,760	159,085	120,121	28,092	125,991	210,408
Operating income (loss) from discontinued operations									
Add back items:									
Amortization of definite-lived intangibles	8,387	18,888	24,252	23,634	63,026	53,296	44,373	41,389	42,631
Accelerated depreciation	-	-	-	-	-	-	6,751	-	124
Stock-based compensation	7,800	9,661	11,090	18,290	20,681	16,816	16,073	17,711	19,525
Gain on sale of assets	-	(2,504)	(1,472)	(2,348)	-	(66)	(97)	(421)	(55,979)
Inventory markup	-	16,220	-	-	4,900	-	-	-	327
Unrealized (gain) loss on commodity hedge	-	-	-	-	-	-	-	(297)	1,785
Restructuring, acquisition-related and other charges	7,881	42,389	14,569	3,556	18,797	13,883	86,237	5,350	16,066
Non-GAAP operating income	70,607	145,996	221,892	255,892	266,489	204,050	181,429	189,723	234,887
Non-GAAP operating margin	5.3%	7.0%	8.8%	9.6%	9.4%	7.6%	8.6%	8.4%	9.4%

Note: Numbers presented may not add up precisely to totals provided due to rounding.

Non-GAAP Operating Margin Reconciliations (TTM Consolidated)

	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23
	620,200	633,038	716,817	719,253	497,646	570,298	513,576	523,802	526,432	567,383	556,784	598,141	581,260	625,550	671,080	617,156	544,437
		-	-	-	113,174	30,777	-	-	-	-	-	-	-	-	-	-	-
	620,200	633,038	716,817	719,253	610,820	601,075	513,576	523,802	526,432	567,383	556,784	598,141	581,260	625,550	671,080	617,156	544,437
GAAP operating (loss) income	17,490	16,844	36,361	49,426	16,182	22,996	(40,252)	29,166	19,800	40,888	32,235	33,068	25,868	37,202	49,778	97,560	(3,468)
Operating income (loss) from discontinued operations	-	-	-	-	1,441	976	-	-	-	-	-	-	-	-	-	-	-
Add back items:																	
Amortization of definite-lived intangibles	18,005	12,447	11,355	11,489	11,620	11,079	11,510	10,973	10,905	10,425	9,658	10,401	9,658	9,658	11,657	11,658	27,772
Accelerated depreciation	-	-	-	-	-	2,754	2,940	1,057	-	-	-	-	-	105	19	-	1,276
Stock-based compensation	3,926	3,602	4,662	4,626	4,835	2,647	4,479	4,112	4,209	3,350	4,944	5,208	4,234	4,427	5,470	5,394	5,240
Gain on sale of assets	-	-	-	(66)	-	-	-	(97)	(410)	(11)	-	-	-	-	-	(55,979)	(173)
Inventory markup	-	-	-	-	-	-	-	-	-	-	-	-	-	-	248	79	163
Unrealized (gain) loss on commodity hedge	-	-	-	-	-	-	-	-	-	(99)	164	(362)	(1,403)	5,210	385	(2,407)	(2,128)
Restructuring, acquisition-related and other charges	1,103	4,351	1,573	6,856	1,596	14,273	68,270	2,098	3,285	566	699	800	1,138	11,012	655	3,261	4,668
Non-GAAP operating income	40,524	37,244	53,951	72,331	35,674	54,725	46,947	47,309	37,789	55,119	47,700	49,115	39,495	67,614	68,212	59,566	33,350
Non-GAAP operating margin	6.5%	5.9%	7.5%	10.1%	5.8%	9.1%	9.1%	9.0%	7.2%	9.7%	8.6%	8.2%	6.8%	10.8%	10.2%	9.7%	6.1%

Note: Numbers presented may not add up precisely to totals provided due to rounding.

Non-GAAP Reconciliations (TTM Consolidated)

\$mm (except where noted)	2019	2019*	2020*	2021*	2022*	LTM Q1 2023*
GAAP Gross Profit	\$401.7	\$377.2	\$359.0	\$372.0	\$458.0	\$453.2
Add back item:						
Inventory markup	-	-	-	-	0.3	0.5
Stock-based compensation	3.2	3.1	3.9	4.7	5.8	6.2
Accelerated Depreciation	-	-	5.8	-	0.1	1.3
Amortization of intangibles	4.8	4.8	5.5	5.6	5.5	9.9
Other infrequent items	-	-	-	(0.0)	1.8	1.1
Non-GAAP Gross Profit	\$409.7	\$385.1	\$374.3	\$382.3	\$471.6	\$472.3
GAAP Operating Income	120.1	109.6	28.1	126.0	210.4	181.1
Add back items:						
Amortization of intangibles	53.3	50.6	44.4	41.4	42.6	60.7
Accelerated Depreciation	-	0.0	6.8	-	0.1	1.4
Stock-based compensation	16.8	16.8	16.1	17.7	19.5	20.5
Impairment, restructuring, and acquisition-related charges	13.9	12.3	86.2	5.4	16.1	19.6
Inventory markup	-	-	-	-	0.3	0.5
Other infrequent items	-	(0.1)	(0.1)	(0.7)	(54.2)	(55.1)
Non-GAAP Operating Income	\$204.1	\$189.3	\$181.4	\$189.7	\$234.9	\$228.8
GAAP TTM Technologies Net Income (Loss)	41.3	31.9	(16.4)	54.4	94.6	71.5
Add back items:						
Amortization of intangibles	53.3	50.6	44.4	41.4	42.6	60.7
Accelerated Depreciation	-	0.0	6.8	-	0.1	1.4
Stock-based compensation	16.8	16.8	16.1	17.7	19.5	20.5
Non-cash interest expense	14.3	14.3	17.5	2.1	2.2	2.4
Impairment, restructuring, acquisition-related, and loss on extinguishment of debt	13.9	12.3	86.2	20.6	16.1	19.6
Inventory markup	-	-	-	-	0.3	0.5
Other infrequent items	(3.7)	(3.7)	(0.8)	(5.5)	(55.1)	(56.4)
Income tax effects	(15.3)	(15.0)	(37.0)	7.4	60.9	54.4
Non-GAAP TTM Technologies Net Income	\$120.5	\$107.1	\$116.7	\$138.0	\$181.2	\$174.6
Non-GAAP EPS (\$ per diluted share)	\$1.13	\$1.01	\$1.10	\$1.28	\$1.74	\$1.68
GAAP Net Income (Loss)	41.3	31.9	(16.4)	54.4	94.6	71.5
Add back items:						
Income tax provision	4.9	2.4	(29.9)	15.6	88.3	81.1
Interest expense	83.2	82.1	73.2	45.5	45.5	46.9
Amortization of intangibles	53.3	50.6	44.4	41.4	42.6	60.7
Depreciation expense	166.6	93.4	99.6	85.9	91.3	95.1
Stock-based compensation	16.8	16.8	16.1	17.7	19.5	20.5
Other infrequent items	(3.7)	(3.7)	(0.8)	(5.5)	(55.1)	(56.4)
Inventory markup	-	-	-	-	0.3	0.5
Impairment, restructuring, acquisition-related, and loss on extinguishment of debt	13.9	12.3	86.2	20.6	16.1	19.6
Adjusted EBITDA	\$376.2	\$285.7	\$272.3	\$275.6	\$343.1	\$339.6

* Pro forma excluding Mobility