



AmpliTech Group

Company Information 2025



NASDAQ: AMPG

Forward Looking Statements

Certain information in this presentation contains forward-looking statements which are subject to the safe harbors created under the Securities Act of 1933 and the Securities Exchange Act of 1934. These statements are based on current expectations, estimates, forecasts, and projections about the industries in which we operate and the beliefs and assumptions of our management. We use words such as “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “goal,” “intend,” “may,” “plan,” “project,” “seek,” “should,” “target,” “will,” “would,” variations of such words, and similar expressions to identify forward-looking statements. Forward-looking statements in this presentation include, but are not limited to, statements about our growth opportunities, our business markets, and our anticipated revenue and EBITDA results. Forward-looking statements could be affected by factors including, without limitation: the possibility that the expected synergies and benefits from recent acquisitions will not be fully realized, or will not be realized within the anticipated time periods; the risk that acquired businesses will not be integrated with AmpliTech Group, Inc. (“AmpliTech” or the “Company”), successfully; the possibility of disruption from recent acquisitions which could make more difficult to maintain business and operational relationships or retain key personnel; the nature and timing of receipt of, and AmpliTech’s performance on, new or existing orders that can cause significant fluctuations in net sales and operating results; the timing and funding of contracts; adjustments to gross profits on long-term contracts; risks associated with international sales; rapid technological change; evolving industry standards; new product announcements and enhancements; changing customer demands and or procurement strategies; changes in prevailing economic and political conditions, risks associated with legal proceedings, customer claims for indemnification and other similar matters; risks associated with the COVID-19 pandemic and related supply chain disruptions; supply costs and inflationary pressures; and other factors described in this and AmpliTech's other filings with the SEC. AmpliTech does not undertake any duty to update any forward-looking statements contained herein.

Use of Non-GAAP Financial Measures

This presentation includes Non-GAAP financial measures to supplement Amplitech’s consolidated financial statements presented on a GAAP basis. The Company’s definition of Adjusted EBITDA and our other Non-GAAP measures may differ from the definition of EBITDA or Adjusted EBITDA and other Non-GAAP measures used by other companies and therefore may not be comparable to similarly titled measures used by other companies. We believe these measures are appropriate to enhance an investor’s overall understanding of AmpliTech’s past financial performance and prospects for the future. However, the presentation of this additional information is not meant to be considered in isolation or as a substitute for measures of financial performance prepared in accordance with GAAP.

The Company has not quantitatively reconciled its fiscal 2022 Adjusted EBITDA target to the most directly comparable GAAP measure because items such as stock-based compensation, adjustments to the provision for income taxes, amortization of intangibles, and interest expense, which are specific items that impact these measures, have not yet occurred, are out of the Company’s control, or cannot be predicted. For example, quantification of stock-based compensation expense requires inputs such as the number of shares granted and market price that are not currently ascertainable. Accordingly, reconciliations to the Non-GAAP forward looking metrics are not available without unreasonable effort and such unavailable reconciling items could significantly impact the Company’s financial results.

AMPLITECH GROUP: US BASED DESIGN & MANUFACTURING



PROUDLY THE ONLY US BASED DESIGNER OF:

**5G ORAN 64T64R 5G CAT B MASSIVE MIMO RADIOS FOR CELL TOWERS
& MANUFACTURER OF THE LOWEST NOISE FIGURE KA, X AND C BAND LNB'S
& LOWEST NOISE FIGURE 4K CRYOGENIC AMPLIFIERS FOR QUANTUM
COMPUTERS.**



Nasdaq: AMPG

Amplitech Inc, designs, develops, and manufactures state-of-the-art radio frequency (RF) microwave components for global satellite communications, telecom (5G & IoT), space, defense, and quantum computing markets.

AmpliTech's Group MMIC Design Center, designs, develops and manufactures state-of-the-art signal-processing components for satellite and 5G communications networks, defense, space, and other commercial applications, allowing the Company to market its products to a wider base of customers requiring high technology in smaller packages.

Specialty Microwave designs and manufactures state-of-the-art precision SATCOM microwave components, RF subsystems, and specialized electronic assemblies for the military and commercial markets, flexible and rugged waveguides, waveguide adapters and more.

Spectrum Semiconductor Materials, founded in 1990 and headquartered in San Jose, CA Largest authorized distributor of IC Ceramic Packages and Lids. It offers multi sourced plastic "open cavity" package options and has on site product inventory ready for immediate shipment.

All packages comply with RoHS and REACH Directives. Certified to ISO 9001:2015 / AS9120B

AmpliTech Group's 5G Speed Services division provide complete Public and Private 5G network products, including ORAN compliant radio networks for telcos enabling the industry to access 'True G Speeds'. AGTGSS also provides P5G radios, External and Internal Customer Premise Equipment (CPE's), CU/DU Core Servers, ancillary equipment, planning, installation, maintenance and complete end to end P5G solutions.



COMPANY LEADERSHIP



Fawad Maqbool
Founder, Chairman, CEO&CTO

Over 38 years experience in the RF microwave industry, MSEE degree in Microwave Engineering, BSEE degree in Biomedical Engineering.



Louisa Sanfratello, CPA
CFO and Director

Over 30 years of experience as CPA and Controller for private and public companies.



Jorge Flores, MBA
COO

Over 37 years of experience in Operations Management and Program Management.



Experienced Board of Advisors



Aamir Sultan is a strategic leader specializing in Artificial Intelligence, Machine Learning and Big Data transformation and ecosystem development. He brings 20 plus years of experience in scaling and implementing AIML and IOT ventures, most recently as an implementation head at Suffolk County New York, where he is implementing a complete end to end solution for taking the Comptroller's office data and applications to the cloud for digitizing and modernizing the technology stack improvements include but not limited to efficiency, automation, and cyber security.



Ruth Sklar is founder and president of RSA Executive Search, a 30 +year boutique search firm specializing in consulting and key executive placement services for public and private entrepreneurial organizations. A graduate of Pratt Institute, former educator and Advertising/Marketing Executive, Ruth has served as a member of YPO, and Board Advisor to Vistage, an international CEO and President leadership organization. Currently she serves as an Advisor to the Board of Amplitech Group.

CUSTOMERS AND PARTNERSHIPS



RAPIDLY EXPANDING TARGET MARKETS

Wireless Power Transmission, Satcom, Space Products¹

Projected to reach US\$35.2 billion by 2030, a 10-year CAGR of 21%

North America accounts for \$2.0 billion in 2020, estimated to reach \$11.8 billion by 2030, a CAGR of 21%.



Standard & Custom LNA's,
LNB's, MMICS, Waveguides, RF
Controllers

Public and Private 5G Business & Consumer

2.69B Market in 2024. The 5G services market size is projected to surpass US\$36B by 2030, CAGR of 54%.



Std & Custom LNA's
Custom MMIC's, 5G radio
Products, CPE's, WiFi 6, 7

Defense and IT Security³

Market valued at \$185 billion in 2021 and is expected to grow at a 12% CAGR from 2023 to 2030.



AMPG Encryption
Technology – FPGA -
ASIC

Quantum Computing/ Blockchain⁴

Quantum computing will contribute \$1 trillion in value creation by 2035. Quantum computing vendors expected to generate \$50 billion in revenue by 2035.



Cryogenic LNA's

1. <https://www.alliedmarketresearch.com/wireless-power-transmission-market>

2. <https://www.grandviewresearch.com/industry-analysis/private-5g-network-market>

3. <https://www.grandviewresearch.com/industry-analysis/cyber-security-market>

4. <https://thequantuminsider.com/2024/09/13/the-quantum-insider-projects-1-trillion-in-economic-impact-from-quantum-computing-by-2035>

OUR LNA's, MMIC's AND 5G RADIO NETWORKS AND 5G PRODUCTS ARE KEY TO THE 5G ECOSYSTEM



Existing Products LNA/LNB's

Satellite links

Multiple satellite links feed small cell and ground station networks for cloud data access



Thousands of LEO/MEO satellite constellations being launched

Existing Products 5G

5G RAN/ORAN Radios

Globally, the 5G radio market is expected to reach US\$253B by 2034, with a CAGR of 25.8%.¹



Hundreds of MIMO antennas

Small Cell Nodes

U.S currently has over 452,000 cell nodes deployed.² Globally, deployment is expected to reach 13M by 2027³ and projected Market Size of US\$52.7B by 2030⁴



Small/Micro-cells allow extensive network coverage

Future MMIC Products

Mobile devices

Over 7.3 billion mobile phones expected to be in use by 2024, 75 billion connected devices expected by 2025



Smartphones, laptops, tablets, PDAs, wearables

1. SCOOP.MARKET.US
2. WIA.org
3. ABIRESEARCH.com
4. FORTUNEBUSINESSINSIGHT.com
5. Security Today, 2020

THE PROBLEM



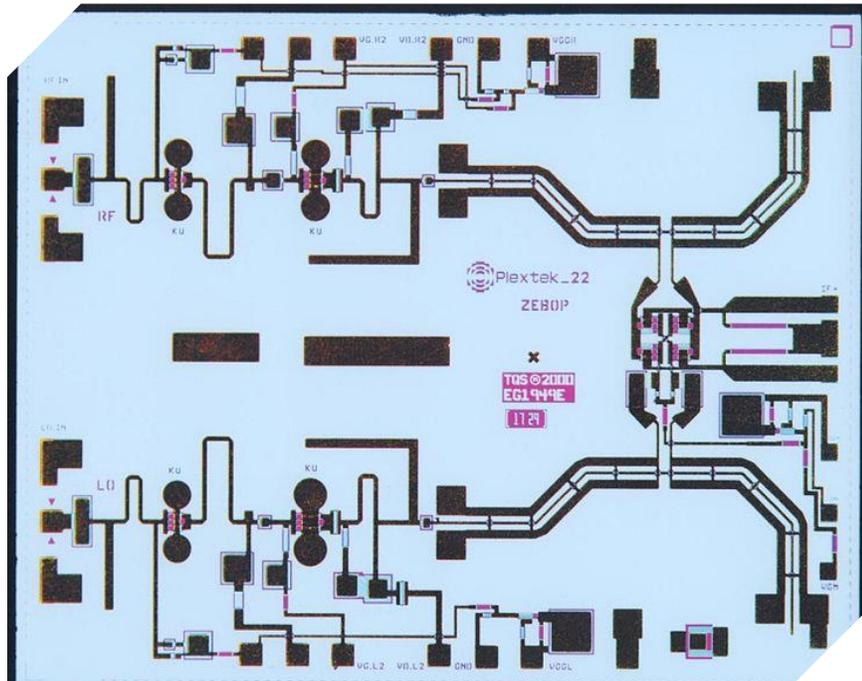
1. Check Point Research, 2022

Increased Demand for Higher Speed & Secure Networks

Growing Number of Cyber Attacks¹

- Crowded wireless frequency spectrum and older tower infrastructure
- Signal distortion (PIM), speed limitations and limited range in wireless base stations, cell towers, Wi-Fi hot spots, and many wireless communication systems
- Different architectures for different networks (CDMA, LTE, GSM, UMTS) make it difficult to expand universal coverage for 4G and 5G systems
- Billions of data records compromised
- Crypto-currency exchanges, social media, corporate and government servers HACKED and ransomware is prevalent
- Software-only protection hasn't worked for the past 35 years

AMPLITECH'S SOLUTIONS



MMICs + CRYOGENIC COOLING + MIXED-SIGNAL CHIPSET + ANTI-HACKABLE LEVEL 6 NSA PROTOCOL CYBER PROTECTION AND SECURITY



- *MIXED SIGNAL* MMIC (Monolithic Microwave Integrated Circuit) Chipset. Transferring our connectorized LNA solutions via AmpliTech Inc, into MMICs via AGMDC.
- Above solutions offered in customer selected semiconductor packages via Spectrum Semiconductors.
- Latest Low Noise Amplifier (LNA) and LNB Technology to receive and amplify weak signals
- Cryogenically cooled assembly for enhanced coverage and reduced distortion for base stations and towers
- Cryogenic Amplifier assemblies are located at the antenna on the tower for retrofit, regardless of types of architecture (CDMA, GSM, etc.)
- 5G ORAN Radio networks which include AmpliTech's Low Noise MMIC Chips!
- Retrofittable solution for ALL types of communication systems
- Digital hardware quad-core processor and software to detect and eliminate cyber threats via SN2N solution.
- *UNIQUE ONE-CHIP Solution provides ANTI-HACKABLE interface in any cellphone, computer, server, router, PDA, etc.*

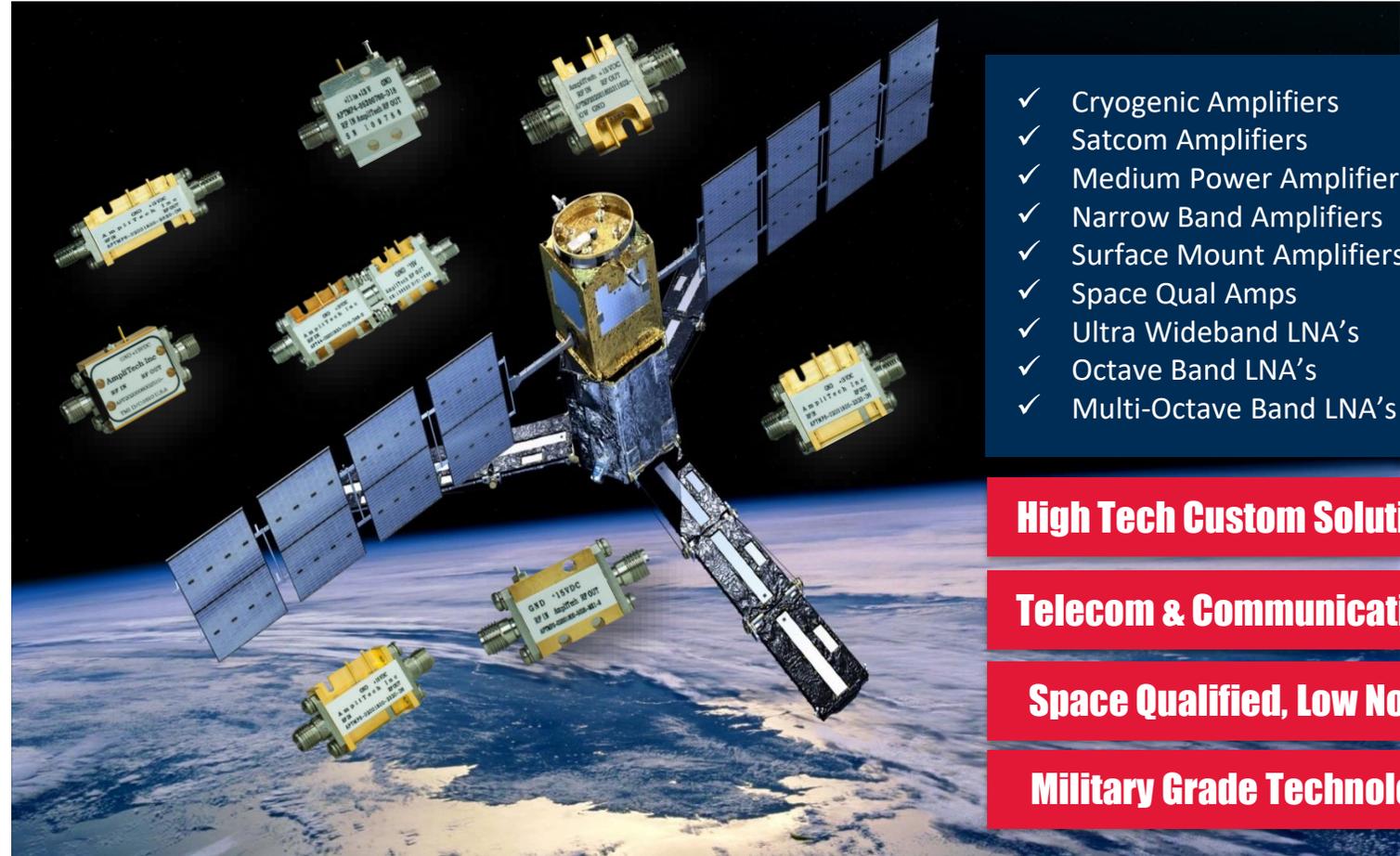
AMPLITECH INC DIVISION



AmpliTech Group, Inc. designs, develops, and manufactures state-of-the-art radio frequency (RF) microwave components for:

- Global Satellite Communications
- Telecom (5G & IoT)
- Space
- Defense
- Quantum Computing

LNA's are in 99% of all communication systems



- ✓ Cryogenic Amplifiers
- ✓ Satcom Amplifiers
- ✓ Medium Power Amplifiers
- ✓ Narrow Band Amplifiers
- ✓ Surface Mount Amplifiers
- ✓ Space Qual Amps
- ✓ Ultra Wideband LNA's
- ✓ Octave Band LNA's
- ✓ Multi-Octave Band LNA's

High Tech Custom Solutions

Telecom & Communications

Space Qualified, Low Noise

Military Grade Technology

AMPLITECH INC DIVISION



COAXIAL LNA'S ARE ABOUT 1.5" BY .75"



MMIC'S LNA'S ARE FROM AROUND 1 mm² to 10 mm²!

AmpliTech Inc Division is at the forefront of cryogenic technology used on Quantum Computing
Proprietary Low Noise Figure Technology working at sub-zero temperatures!

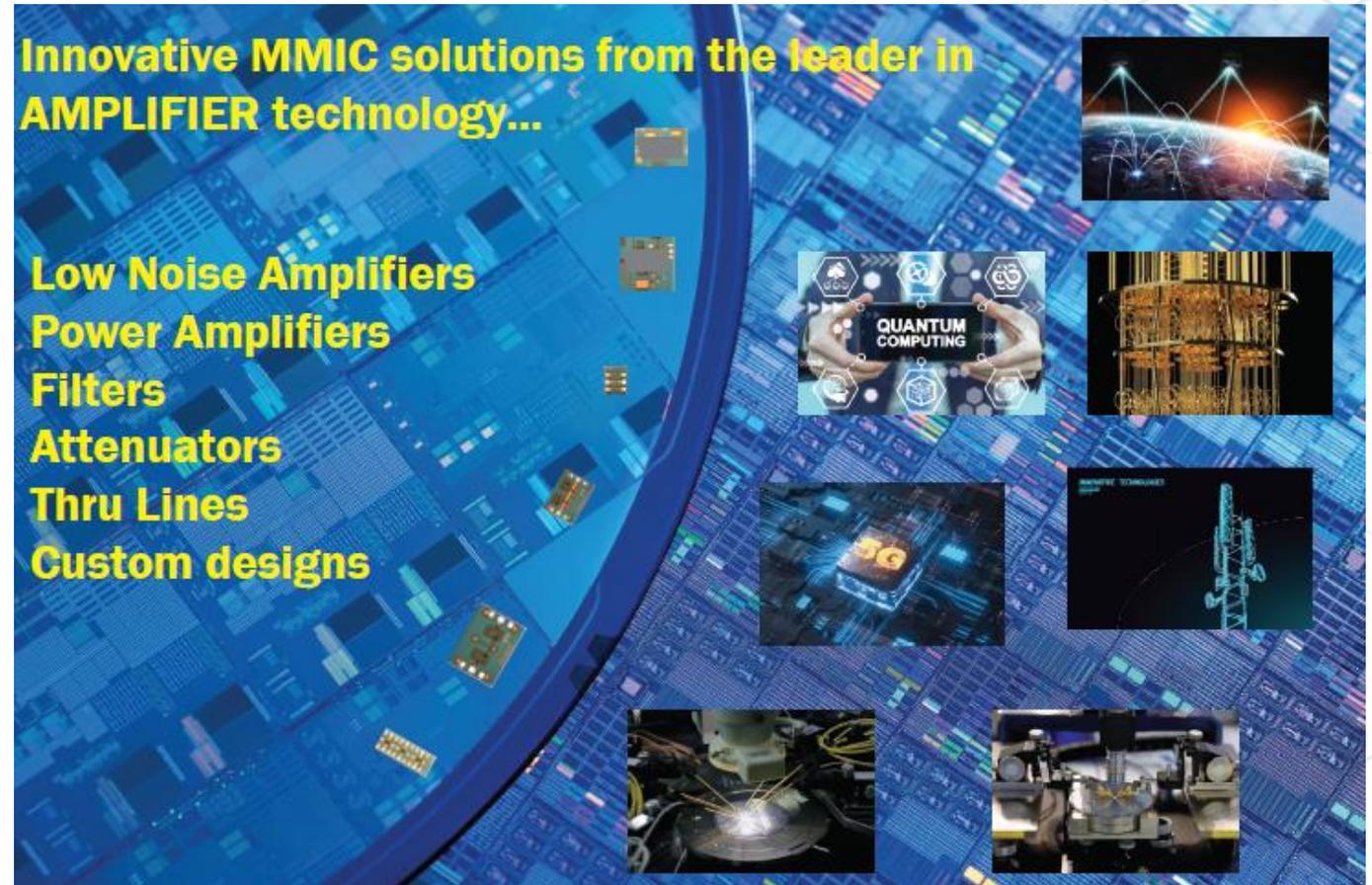
MMIC DESIGN CENTER DIVISION



The **MMIC Design Center** designs, develops and manufactures state-of-the-art signal-processing components for satellite and 5G communications networks, defense, space, and other commercial applications, allowing the Company to market its products to a wide base of customers requiring high technology in smaller packages. Grow strategy includes complementing the front end MMIC design with Back End Manufacturing capabilities.

Innovative MMIC solutions from the leader in AMPLIFIER technology...

- Low Noise Amplifiers**
- Power Amplifiers**
- Filters**
- Attenuators**
- Thru Lines**
- Custom designs**



MMIC DESIGN CENTER DIVISION

Design Services

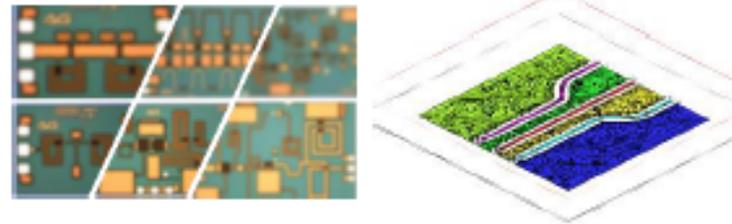
AGMDC offers full RF design, verification, and modeling for custom MMICs, RF modules, packages, and boards in addition to selling a variety of off-the-shelf MMICs.

- Located in Allen, TX at the [Watters Creek Tech Park](#) in the very heart of the Dallas Telecom Corridor with diverse RF infrastructure nearby.
- MMIC design team experienced in military and commercial product development and applications.
- Offers test and measurement services for both fixtured and wafer probe.
- Maintains relationships with multiple foundries to provide customers III-V Gallium Arsenide (GaAs) and Gallium Nitride (GaN) technologies.

Design Capabilities

AGMDC has a variety of resources to ensure quick and successful RF and MMIC designs including:

- Linear and Nonlinear Circuit Simulation
- Full 3D Planar and Finite Element EM and Thermal Simulation Capability
- Test Equipment for S-Parameter, Noise, and Power Measurements up to 50 GHz
- MMIC and RF Board Layout
- Board and Package Assembly resources



MMIC DESIGN CENTER DIVISION

MMIC Foundries

AGMDC works with several partner foundries with access to advanced MMIC materials and production manufacturing processes



Off the Shelf Parts

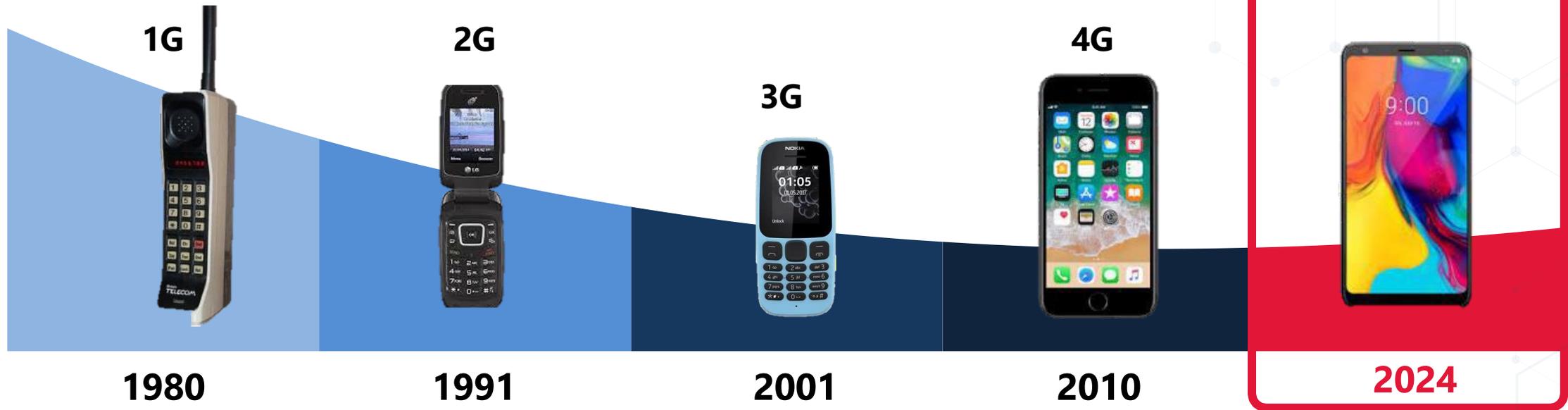
AGMDC creates off-the-shelf bare die and packaged parts focusing on the lowest noise figure and power dissipation parts possible for the following functions. Custom Designs can also be created per customer needs:

- LNAs
- Gain Blocks
- Drivers
- MPAs
- Attenuators
- MMIC Filters
- Switches
- TFN Transitions



AGMDC
An AmpliTech Group Company

EVOLUTION OF WIRELESS MOBILE TECHNOLOGY



- Analog architecture
- Only voice calls available
- 2.4 Kbps
- Low frequency (800 MHz to 2 GHz)

- Digital architecture (GSM, CDMA)
- More capacity
- Improved voice calls
- 64 Kbps
- Low frequency

- Digital architecture
- Voice and data
- Internet access
- Text and multimedia
- 2 Mbps
- MIMO
- Higher freq (2-5 GHz)

- Enhanced data
- LTE
- Mobile broadband internet
- Streaming video
- 100 Mbps
- 4-5 GHz frequency

- **NR (New Radio) mm Wave High Frequency (28 GHz) Small Cells with Multiple MIMO**
- **Mm wave signal is lossy. Requires many small cells**
- **10 Gbps data rates**
- **Requires Cloud due to high speed and data capacity**

AMPLITECH 5G SPEED SERVICES DIVISION



AMPLITECH

5G

TRUE G SPEEDS

The AmpliTech 5G True G Speeds division was founded to provide complete 5G system integration and ORAN compliant O-RU's for telcos, enabling the industry to access 'True G Speeds'.

AGTSS provides

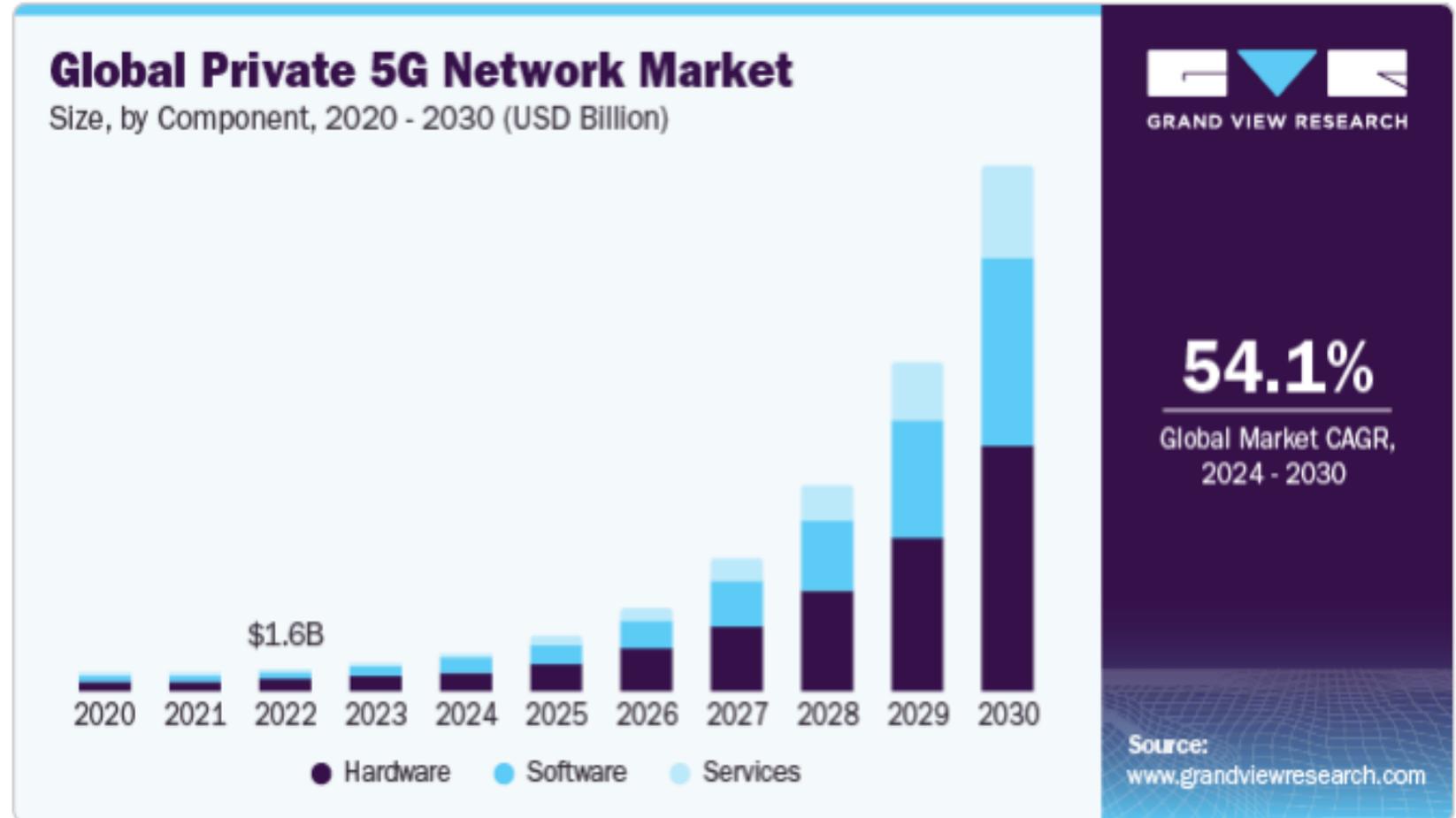
- Public and Private ORAN 5G products
- Full 5G End to End Solutions
- Cloud Services
- Integration Services



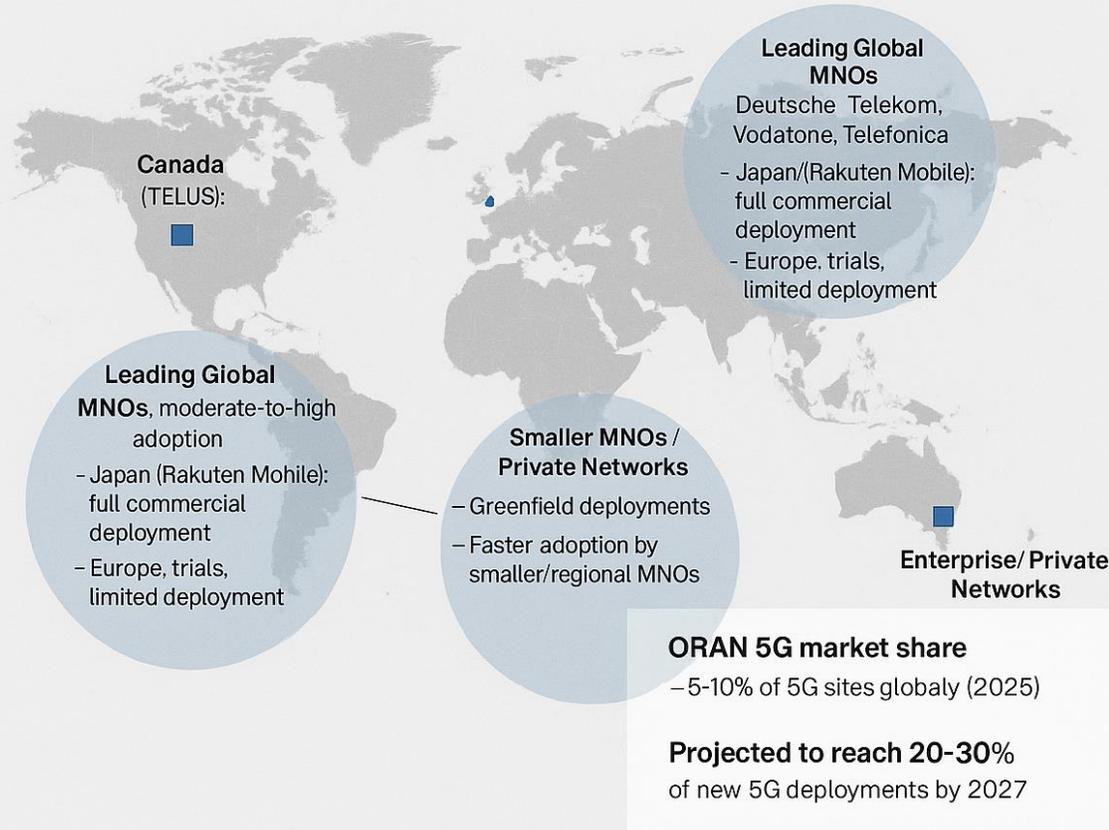
These fully designed in house 5G ORAN radios are made with our own 5G MMIC chips, enabling our radios to achieve higher area coverages without compromising signal speed!

Private 5G Networks Market Size & Trends

The global private 5G network market size was estimated at US\$20B in 2023. The compound annual growth rate (CAGR) is 54.1% from 2024 to 2030. Private 5G networks offer businesses and governments dedicated, secure and high-performance connectivity. This allows connection to more devices, improve automation, and deliver better customer experiences. These benefits are driving the adoption of private 5G networks in various industries.



ORAN 5G RADIO NETWORKS ADOPTION & GROWTH

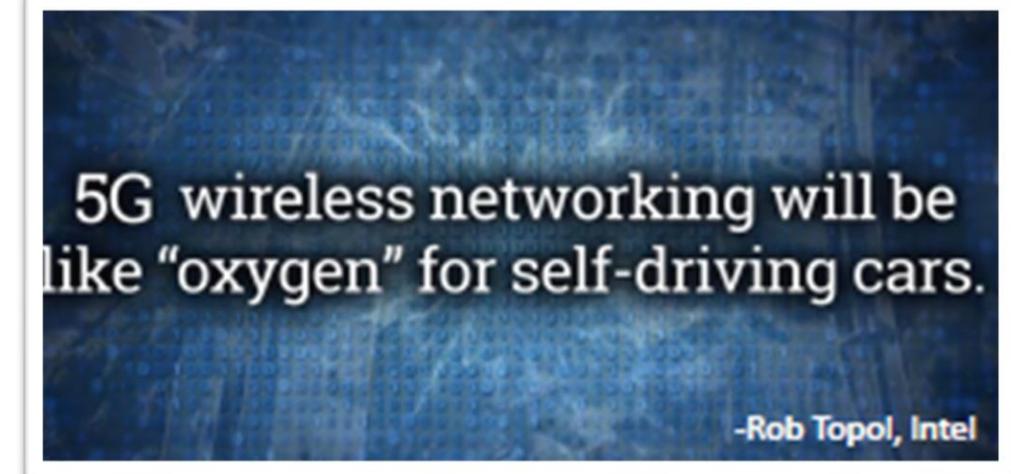


- **Rapid growth:** The Open RAN (O-RAN) market, including 5G radio units, is forecast to grow at a Compound Annual Growth Rate (CAGR) between 19.5% and 34.1% over the next few years. This rapid expansion is set to drive significant revenue increases in 2026 and 2027.
- **2026:** Dell'Oro Group, a trusted source for market information, anticipates that Open RAN revenues will make up about 15% of the total Radio Access Network (RAN) market by 2026.
- **2027:** Dell'Oro Group also projects that the European Open RAN market alone will surpass \$1 billion by 2027.
- **Long-term projections:** Market research from Grand View Research estimates the global O-RAN market will reach \$20.41 billion by 2030, growing at a CAGR of 25.6% from 2025.

TRUE 5 G = 1GB/SEC



- AmpliTech 5G ORAN MIMO CAT B 64T64R at Northeastern University for IOT.
- Each radio requires 1 FEM per element.
- AmpliTech 5G radios will have our Proprietary Low Noise Amplifier Technology, enabling high rate of speed data transfer! 192 AmpliTech own Front End Elements per radio!



AGTGSS 5G CAPABILITIES OVERVIEW



Low/Mid Power O-RU



All-in-one Small Cell



mmWave FWA 5G CPE



Single Band O-RU



Dual Band O-RU



8T8R Macro O-RU



Massive MIMO



Integration to Custom DU Servers



Integration to Antennas

HARDWARE & MECHANICAL

- Hardware:
 - Silicon (AMD-Xilinx, Qualcomm, NXP, Intel, Analog Devices)
- Mechanical:
 - ID design of Outdoor unit
 - Thermal Analysis
 - Cavity design for High power RF
- RF Design:
 - RF Design & Validation

SOFTWARE

- L1, L2 & L3 Design
- RTL Development & Verification
- L2/L3 stack integration and validation

5G IPs

- For Radio Units, Distributed Units and Test & Measurement Devices
- Fronthaul
 - Low Phy
 - High Phy
 - Fronthaul, Low Phy, High Phy & LDPC Offload Solutions

TESTING SERVICES

- Fronthaul Conformance Testing
- Radio Conformance Testing
- Interoperability Testing
- Environmental and Reliability Testing
- Certification support

NETWORK IN A BOX SOLUTION

5G Network in a Box (NIB) is a custom bundled, private 5G solution that comes preconfigured, assembled and set up for usage. It is designed as a ready-to-use single portable device that contains all software and hardware components required to deploy a pop-up network on the go for identified end-users such as first responders, military and marines.

Features

- 5G Standalone – all in one
- Throughput: 1 Gbps
- Range: upto 5 Kms
- Active User Per Cell: 64
- Low Power Consumption
- Battery Powered
- Plug n Play



Backpack



Trolley Bag



Vehicle Mounted

Benefits

- Guaranteed QoS
- Portable
- High Speed
- Low Latency
- High Mobility
- Enhanced Security
- On Demand Services



Surveillance Camera



Bodyworn Camera



Drone



Vehicles ADAS



Military grade UEs



Helmets



AGVs



IoT Sensors



First Responder

(Public protection and Disaster Relief)



Defense

(Military Tactical Communication)



Marines

(Naval Communications)

WHY INVEST IN AMPLITECH?

— OUR KEY DIFFERENTIATORS

- **Organization Fully Structured & Ready**
All Divisions Are Set, Business Development & Brand Awareness At An All Time High!
- **Legacy and Innovative Products**
Existing Manufacturing Facilities, Distribution Channels in Place
- **Key Relationships Established**
Customers, Suppliers, Contract Manufacturer's, Distributors
- **US Based Nasdaq Market Company**
- **Full Management Service, Installations and Maintenance**
- **Advanced Test Labs**
(FH Conformance, RCT, IOT, Environmental Testing)
- **One stop shop for all 5G ORAN Products**
(Low/mid RUs, Single/dual band RUs, FWA CPE, Small Cell, Custom DU)

STRONG ENGINEERING SKILLSET

RTL Design

- RTL Coding
- HLS Coding
- IP Design
- Architecture Design
- Timing Closure
- Design Validation

RTL Verification

- IP Validation
- Functional Simulation
- Gate Level Simulation
- Coverage Report
- OVM/UVM Expertise

Hardware

- Circuit Designers
- PCB Layout
- Mechanical Design
- Thermal Designer
- SI & PI
- Antenna, High Power RF Design

Software

- Embedded Software
- L1/L2/L3 Expertise
- BSP
- Linux Kernel
- Device Drivers
- Software develop for SoC

DSP

- MATLAB Design
- L1 block Modeling
- 3GPP Specification Expert
- Signal conditioning/processing
- Filter Design

KEY ACCOMPLISHMENTS (PAST 2 YEARS)

● Major 5G LOI's & Orders

- Secured a \$40 million Letter of Intent (LOI) with a North American Tier 1 MNO for 5G ORAN radios.
- Secured a \$78 million Letter of Intent (LOI) with a major global ORAN 5G organization.
- Received initial \$9M funding orders on the \$40 Million LOI and ~\$3M in follow-on orders as part of that LOI (July 2025).
- Announced additional ~\$5M in follow-on orders, including ~\$3M beyond the \$40M LOI commitments (July 2025)
- Bookings exceeded \$7M company-wide in July 2025 alone.
- Received initial funding orders of ~\$2.5M on the \$78 Million LOI

● Financial Growth

- Reported Q2 2025 unaudited revenue of nearly \$11M, with 75% from 5G ORAN products.
- Revenue growth strategy focused on top-line expansion through large orders, with profitability planned as volumes stabilize.

● Product & Technology Milestones

- FCC certification of new ORAN 5G radios.
- Expansion of AGTGSS 5G ORAN product suite, including MIMO radios, CPE, WiFi6/7, and AI-driven IoT solutions.
- AGMDC LNA MMICs integrated into AMPG radios, packaged by Spectrum Semiconductor.
- Highlighted role of cryogenic LNAs in quantum computing, showcasing growing applications in AI and supercomputing.

KEY ACCOMPLISHMENTS (PAST 2 YEARS)

● Strategic Positioning & Market Expansion

- Positioned as the only U.S.-based end-to-end 5G ORAN supplier, reducing dependency on foreign vendors.
- Benefiting from government broadband initiatives, USTDA programs, and CHIPS Act funding, expected to scale each division.
- Growing demand from MNOs replacing legacy foreign-sourced equipment with U.S.-made secure 5G networks.

● Capital Markets Recognition

- Added to four Russell indexes (Russell 3000E, 3000E Growth, Microcap, and Microcap Growth) as of June 2025.

● Corporate Infrastructure & Strategy

- Filed replacement shelf registration for future flexibility, emphasizing no plans to raise dilutive capital until valuation supports shareholder interests.
- Secured strategic partnerships and initiated joint ventures to provide complete end-to-end 5G network solutions.

● Customer & Market Adoption

- Multiple large customer engagements, including Telus in Canada and an Asian MNO LOI.
- Strong growth in private 5G demand for secure enterprise and government networks.

Thank You!

Company Data

Ticker (Nasdaq)	AMPG
Company Founded	2002
Company Into Nasdaq	2021
Divisions	5
Total Employees	52
Common Shares Outstanding	20M
Insider Ownership	15%