

PERASO

WIRELESS
UNLEASHED™

NASDAQ:PRSO

FEBRUARY 2024

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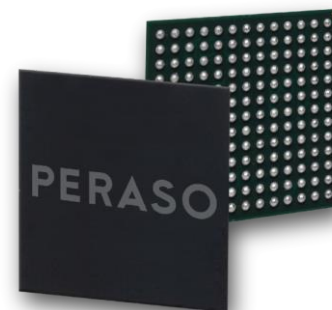
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Company Overview

- **12 years of pioneering experience** in mmWave RFIC, mmWave baseband IC, Module and Antenna design
- **Field Proven**, high-performance, **mmWave phased array** - Advanced **Beamforming**
- Fully integrated solutions; **mmWave antennas**, **RF phased array transceivers**, **software**, on-the-fly **calibration** and adaptable **beam steering**
- Capturing **design wins** in both existing and new mmWave hardware



Three Distinct Product Offerings

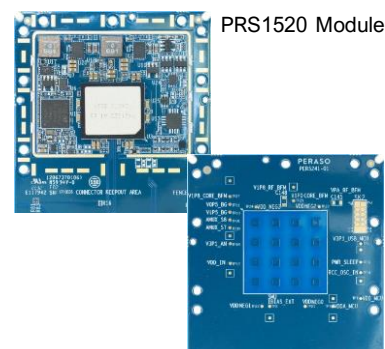
Fixed Wireless Access



Consumer Electronics / VR



5G Antenna Module



Ticker: **PRSO** (NASDAQ)
Headquarters: *San Jose, CA*
Employees: **48⁽¹⁾**
Patents: **163⁽²⁾**

(1) As of 12/31/2023; excludes employees in Canada that were placed on temporary lay off in November 2023

(2) As of 1/16/2024

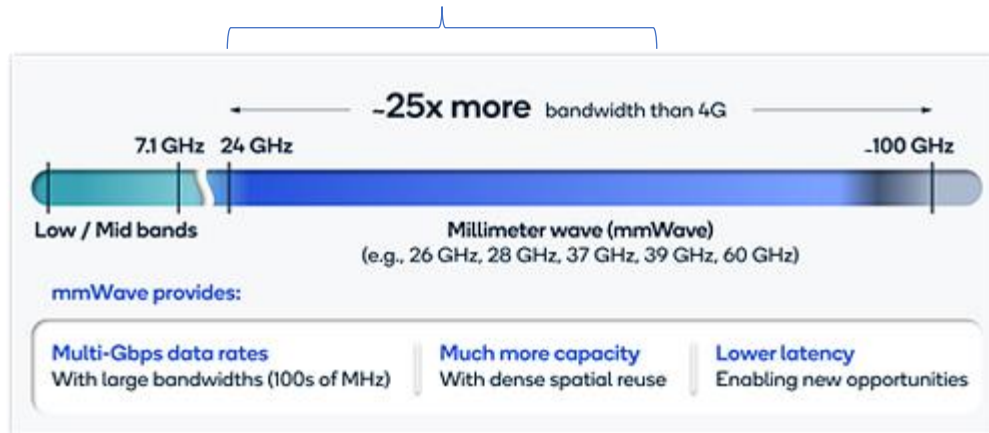
What is mmWave?

A very high frequency band, typically from 24GHz to 300Ghz

- mmWave can carry more data, transmit data much more quickly, has low latency (gaming) and manages congestion

Peraso's focus is on the 24GHz to 60GHz spectrum

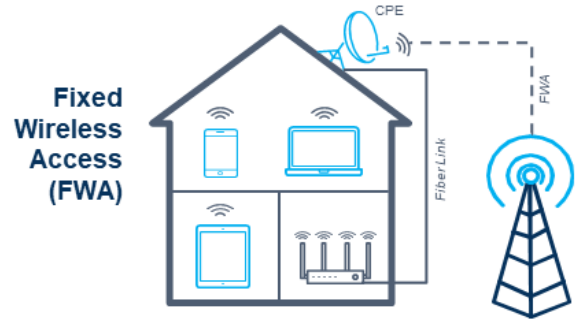
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High Band 5G

Fixed Wireless Access, Military and Consumer Electronics applications

Peraso's mmWave Solutions



Expand broadband availability in the U.S. FWA market. Address high density, low-income populations which are saturated and highly congested

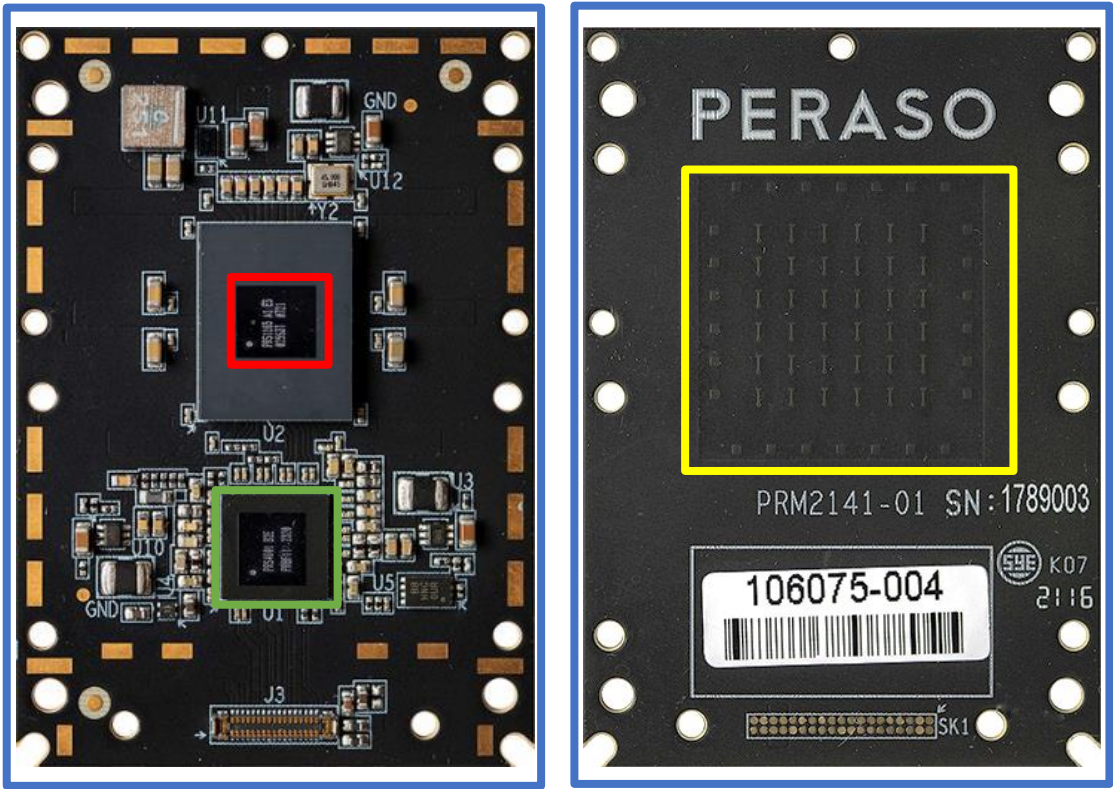


Provide high-speed, portable and “stealth” communication solutions for military applications



Provide high data rates, low latency and low congestion, which are critical for wireless VR and other wireless video applications, including gaming

Peraso's Complete 60GHz mmWave Solution with Integrated Antenna



System Design
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Software Stack
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mmWave Antenna
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mmWave RF Circuits
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mmWave Baseband
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PCB/BOM Design
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Production Test
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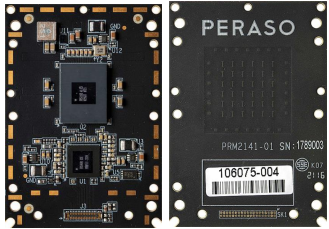
Vertical integration offers competitive cost structure, reduced time-to-market

Positioning to be Leading Supplier of mmWave Silicon



60 GHz (IEEE 802.11ad)

- In volume production with family of products for unlicensed FWA, VR and military applications



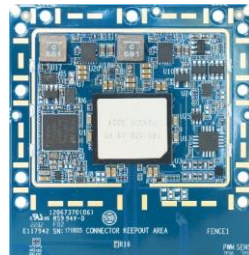
Peraso FWA Solution



Peraso Consumer Electronic Solution

5G mmWave (24-43 GHz)

- Samples available of highly integrated 5G beamformer for 5G CPE opportunities
- Leverage leadership momentum in WISP FWA to 5G FWA carrier market



Peraso 5G mmWave Antenna Module

WiFi 8 (IEEE 802.11bn)

- IEEE contemplating 60 GHz WiFi to support ultra-high data rates for AR/VR
- 'In-room' characteristic of 60 GHz reduces overlapping networks in MDUs

6G mmWave

- THz frequencies utilize common design principles required for mmWave

mmWave Fixed Wireless Access (FWA)

mmWave Fixed Wireless Access (“FWA”) Opportunity

60GHz mmWave to provide wireless broadband connectivity instead of cables

TODAY’S BROADBAND MARKET

- Remote and low-income regions are underserved by incumbent networks
- Expansion or upgrade of cable and fiber networks is disruptive and cost prohibitive
- Consumers dissatisfied with monopolistic service providers



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mmWave Technology Solution

- Ability to deploy new broadband service without trenching for cable or fiber
- Competes with incumbent wired infrastructure
- Addresses underserved regions with low-cost terminals and infrastructure

Wireless ISPs (WISPs) Experiencing High Growth

6.9M wireless ISP subscribers in U.S. at end 2020

- Expected to grow to 12.7M subscribers by 2025
- Source: *The 2021 Fixed-Wireless and Hybrid ISP Industry Report* by the Carmel Group

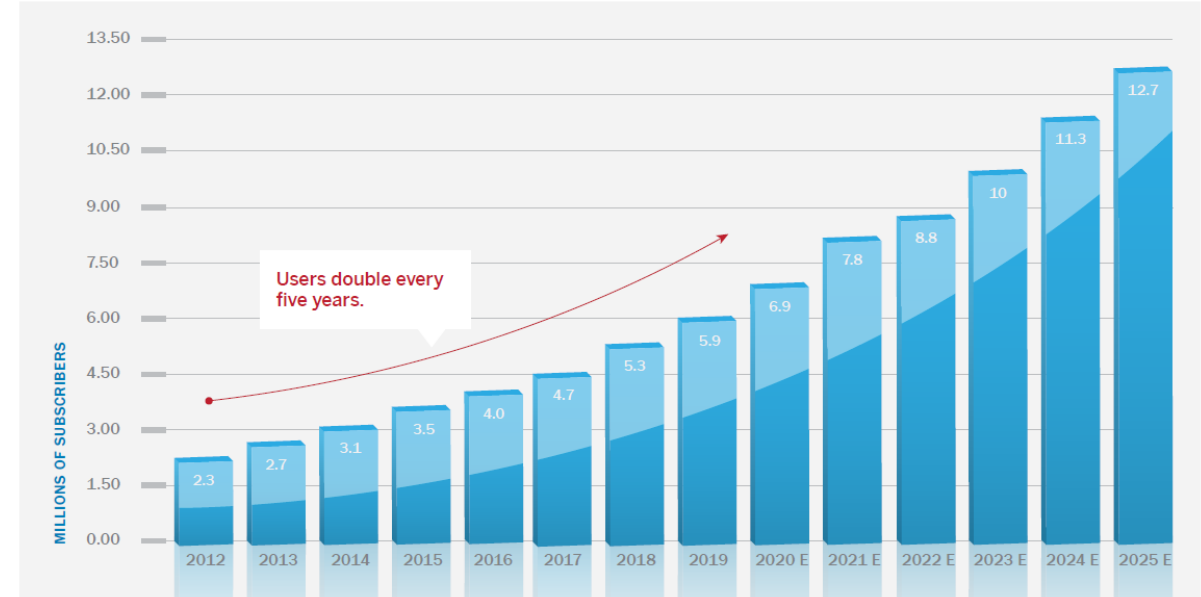
U.S. government providing significant support for universal broadband access

- BEAD: \$42B⁽¹⁾ to expand high-speed internet in all 50 states
- RDOF: \$20.4B⁽²⁾ allocated for build out of broadband networks for rural communities

(1) <https://broadbandusa.ntia.doc.gov/funding-programs/broadband-equity-access-and-deployment-bead-program>

(2) <https://www.fcc.gov/auction/904>

WISP Subscribers (U.S.)



(E) Estimated/Projected.
Source: The Carmel Group
Numbers and estimates by The Carmel Group are for U.S. operators serving residential subscribers and non-residential subs.
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WISP Ecosystem

MikroTik

Cambium Networks

CISCO

UBIQUITI
NETWORKS

STARRY
Airspan

COMMSCOPE®
RUCKUS®

Ruijie 锐捷
Networks

WeLink

Siklu

ARISTA

RADWIN

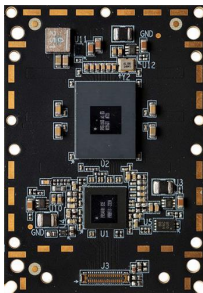
China
unicom 中国联通

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Established Leader in mmWave FWA Silicon

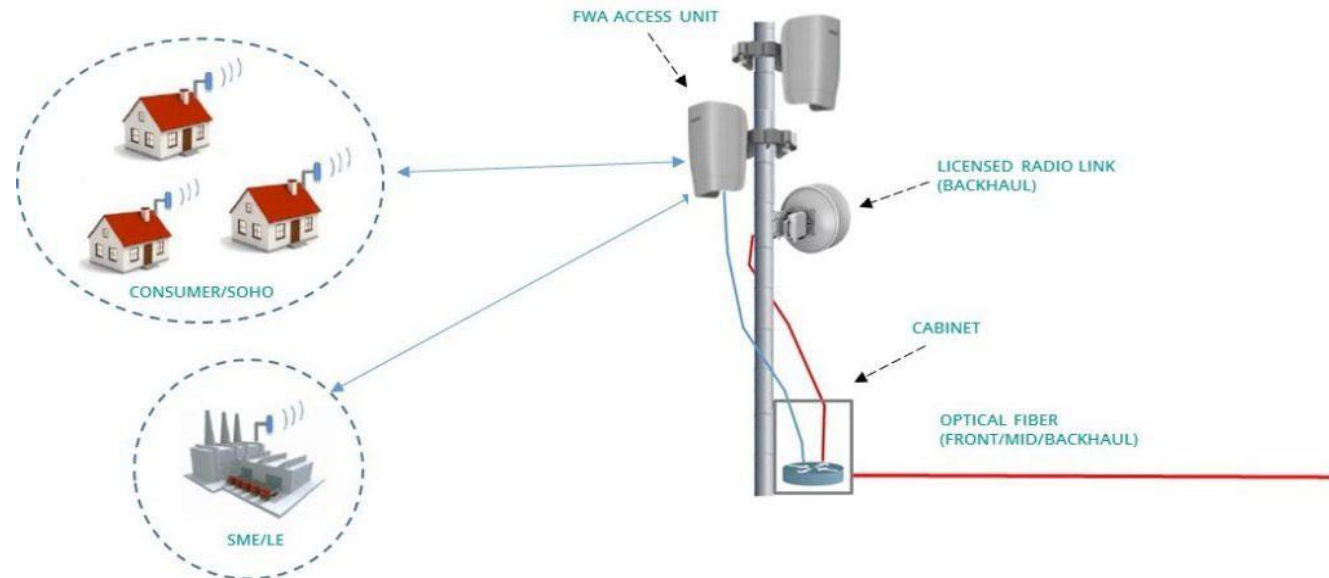
The PERSPECTUS antenna module product family for FWA solidified Peraso as a premier supplier of mmWave silicon to wireless internet service provider ecosystem

- Support of Point-to-Multipoint (PtMP) significantly increased Peraso's TAM (vs PtP)
- Meaningfully reduces customer time-to-market
- Up to 10x the range in point-to-point links



mmWave Fixed Wireless Access

Multi-gigabit, symmetrical, low latency broadband access in the 60GHz band



Current FWA Customers



- Have been sole source supplier for Ubiquiti's "Wave" products introduced in 2022
- 3 new Wave models introduced in 2023



- Sole source supplier for WeLink-designed equipment used to deliver WISP residential service since 2022
- WeLink is currently deployed in Las Vegas, Baltimore, Dallas, Henderson, Las Vegas, Los Angeles, New York City, Phoenix, Schuylkill Haven, Tucson, and Washington D.C.



- In June 2023, Peraso and Tachyon announced production readiness of Tachyon's TNA-30X family of Point-to-Point and Point-to-Multipoint solutions utilizing Peraso's mmWave Antenna Modules for 60GHz unlicensed Fixed Wireless Access (FWA) networks
- Target applications range from consumer electronics to carrier-class FWA
- Tachyon has supply arrangements with several WISPs and is sampling others across the US



- Chinese mobile carrier that utilizes Peraso technology for point-to-point 5G backhaul
- Announced relationship in press release in January 2022

Leveraging FWA Success to Dense Urban Environments

In September 2023, we announced our new mmWave module designed for dense urban areas

BROADBAND IN DENSE URBAN ENVIRONMENTS

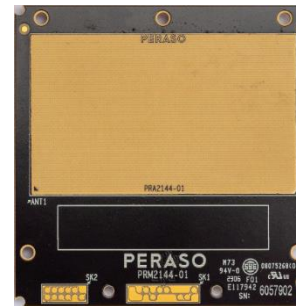
- User-base and pricing doesn't support installation cost of 5G infrastructure
- Severe Wi-Fi congestion
- Frequent power outages drive need for solar/battery powered solutions
- As of August 2023, World Economic Forum estimates over 1.1B people living in informal settlements



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mmWave Technology Solution

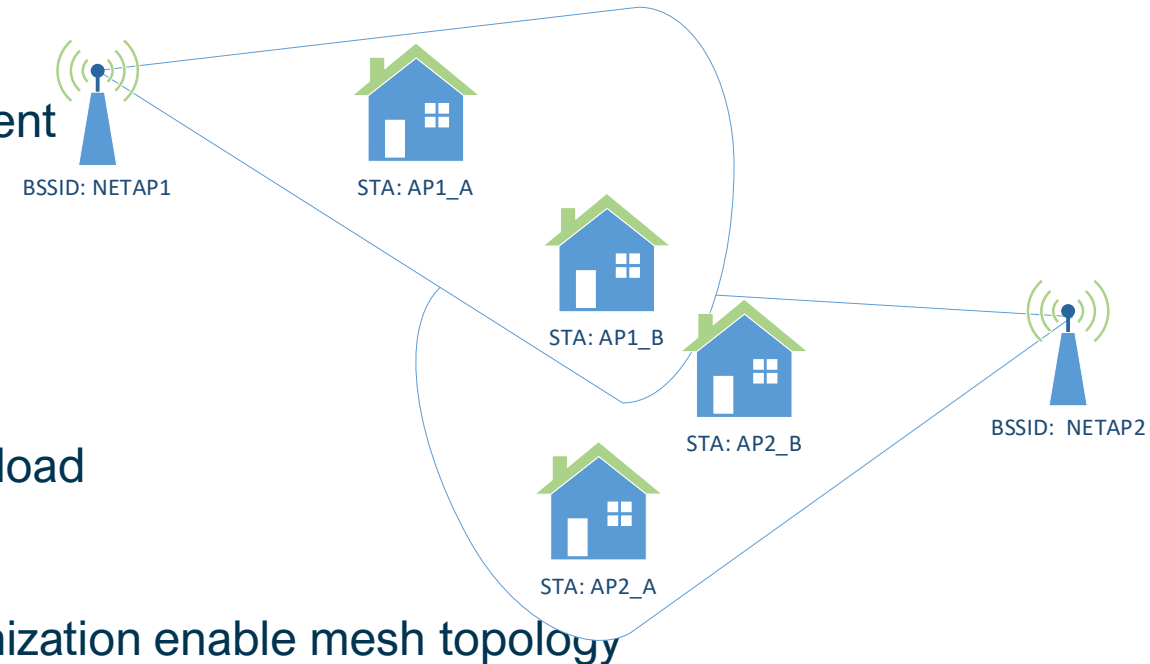
Peraso PRM2144X | PERSPECTUS series mmWave module



- Specifically designed for dense urban areas
- 128 element, integrated, phased array antenna
- Low-cost implementation, high-power efficiency

Peraso's Integrated HW/SW Platform focused on Dense Urban Network Environment

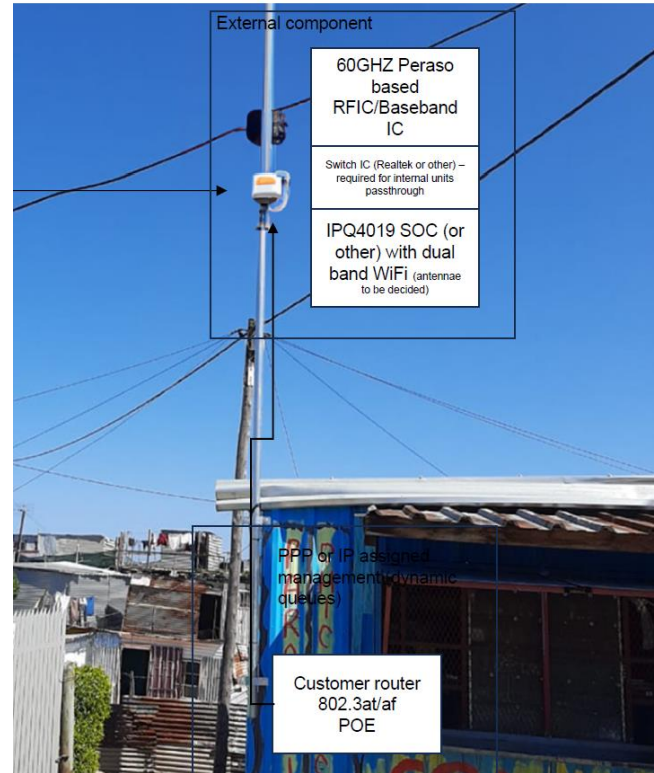
- Network Isolation allows coexistence of overlapping networks
 - Firmware recognizes and rejects neighboring network traffic interference
 - Received signal level and time-based detection
- Efficient Airtime Management
 - Round-robin flow guarantees timely service to each client
 - AP control of contention windows and Tx opportunities minimizes contention
 - Buffer size management ensures no network hogs
- Adaptive load balancing throughout network
 - Shift users between network segments as required by load
- Mesh node building blocks
 - Packet forwarding, Dynamic VIF, and network synchronization enable mesh topology



Cost Effective Solution for Wide Broadband Access

Significant unmet demand for Internet service in low-income areas

- Hardware incorporates 60GHz backhaul and Wi-Fi hotspot in one unit
- Easy install and remote management
- Power over ethernet with battery backup



Military and V/R

60 GHz Wireless Solution for Defense Market

Peraso mmWave solutions ideally suited for tactical, standalone military applications

CHALLENGES IN MILITARY ENVIRONMENT

- Interception, detection and jamming of communications
- Equipment mobility and energy efficiency
- Reliability and high-speed communications



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mmWave Technology Solution

- Fast, easy set-up
- Gigabit capable speeds to all platforms
- Last mile and On-the-Move communications
- Small, lightweight and power efficient
- Inherently Stealthy protocol
- Low probability of Interception (LPI)/Low Probability of Detection (LPD)/Anti-jamming(AJ)
- Open Standards
- Unlicensed or Unused Bands



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VR Wireless Connectivity Opportunity

mmWave is an ideal technology to support wireless VR headsets

- High data rate (3 Gbps), low latency (< 5ms), low interference
- High speed USB cable is a 'showstopper'

Latest ABI Research report predicts ~6M VR headsets in 2025

- Translates to 2025 TAM of ~\$180M⁽¹⁾ for Peraso
- Source: ABI Research - *Virtual Reality Data Devices Verticals and Value Chain* – 1Q 2022



Prediction of use of VR in a broad variety of markets, including gaming, real estate, healthcare, transportation, etc.

(1) TAM calculated as potential 6 million VR headsets (per ABI Research) with potential for one Peraso module at an estimated sales price of \$30 to be used in each headset



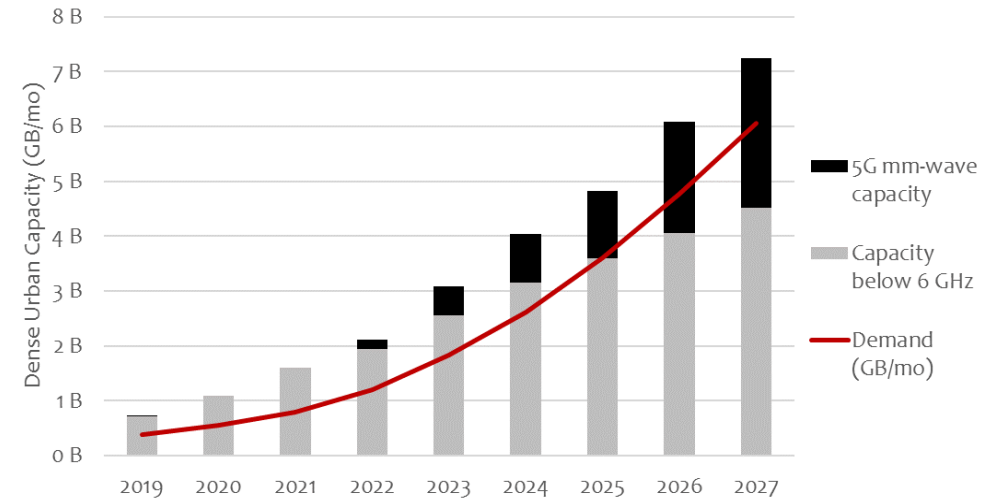
5G

5G Wireless Demand Outpacing Network Capacity



- Wireless network demand is growing exponentially; video a primary driver
- Current cellular networks are quickly saturated – mmWave is future of wireless networks
- Early 6G research utilizing mmWave and terahertz frequencies

Demand Capacity for Data in U.S. Networks



Source: Mobile Experts: 5G Business Case April 2023

mmWave is Global Solution

- Per the *Ericsson Mobility Report*, as of November 2023, approximately 80% of mobile service providers have FWA offering and 121 service providers offer FWA services over 5G, representing 50% of all FWA service providers
- Per Mobile Experts Inc.'s report, *5G Millimeter Wave 2023*, 5G mmWave deployments include: **Verizon, T-Mobile, AT&T, NTT DoCoMo, KDDI, Softbank, Rakuten Mobile**
- Peraso understanding is that major China carriers have commenced formal collaboration to advance mmWave solutions in Chinese telecom market

FWA Capturing +90% of Subscriber Net Adds in U.S. ⁽¹⁾

FWA emerging battleground for broadband providers

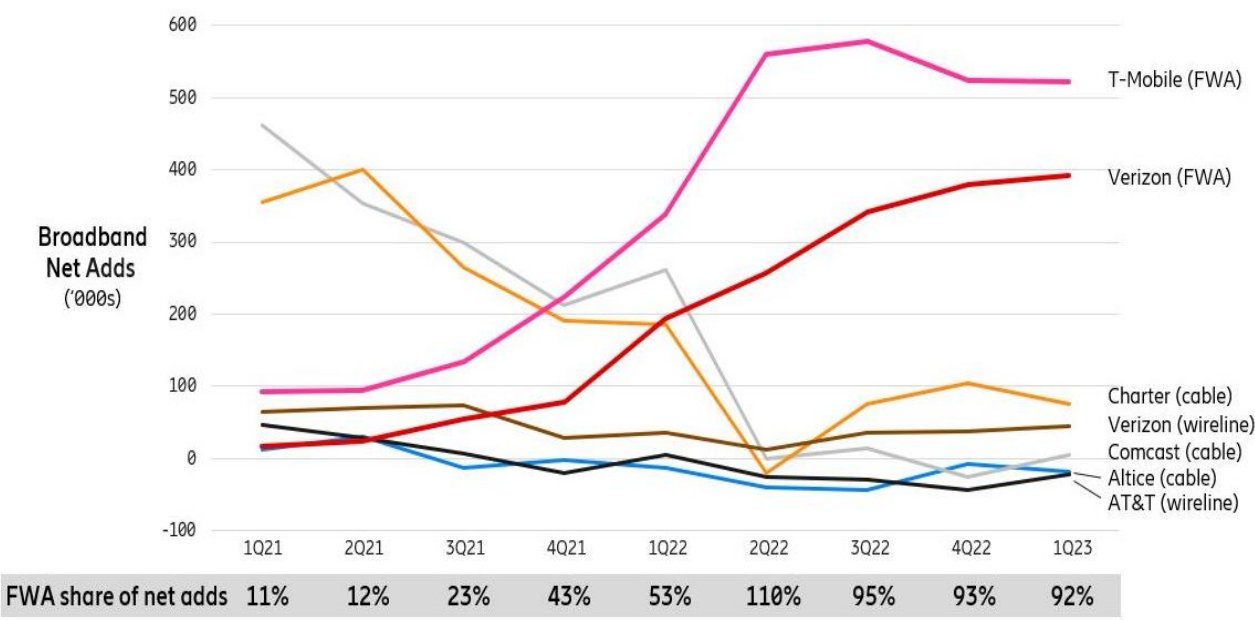
- C-band + mmWave = potential to exceed gigabit connectivity
- mmWave provides upload capacity for ‘work at home’ environment

Market Potential

- T-Mobile’s 5G Home Internet available to > 50M homes
- Verizon’s 5G FWA service available to ~40M homes
- Source: FierceWireless

(1) Light Reading.

FWA ‘Net Adds’ by Top Broadband Providers in U.S. ⁽²⁾



Source: Public information shared in company reports

(2) Source: LinkedIn post by John Yazzle, head of FWA at LM Ericsson

Global Carriers Utilizing mmWave Technology



Leveraging FWA Success to Target 5G Market

Believe mmWave will be utilized to address 5G network congestion

- U.S. carriers will saturate capacity of networks using existing spectrum by 2025⁽¹⁾

Introduced world's most highly integrated 5G mmWave beamformer

- Support for frequency band from 24 GHz – 43 GHz
- Dual-stream MIMO support with two 16-channel beamforming arrays (32 total channels)

Dual-band architecture positioned for 5G end-devices

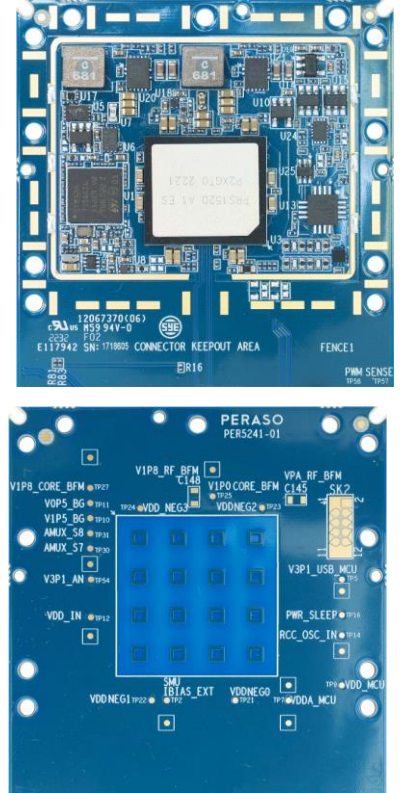
- Total volume of approximately 2M mmWave-enabled CPE units by 2026⁽¹⁾

Peraso and pSemi announced new collaboration on RF solution for 5G mmWave FWA customer premises equipment (CPE)

- Incorporates PRS1520 beamformer RFIC and pSemi up-down converter
- Dramatically reduces the number of components and cost of RF module
- Promotes faster time to market for more rapid deployment

Cultivating new and existing engagement opportunities

- Targeting: major OEMs, 5G baseband providers, frequency converter applications



Peraso dual-band, fully integrated 5G beamformer for FWA (front and back)

(1) Mobile Experts Inc. report, 5G Millimeter Wave | April 2023



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FINANCIALS & CAP TABLE

Estimated Preliminary Financial Results

- Non-cancelable purchase orders of ~\$14.0 million for end-of-life memory IC products.⁽¹⁾
- Shipments of memory IC products expected through at least December 2024.

Estimated Preliminary Financial Results as of and for the Year Ended December 31, 2023⁽²⁾

YE 2023 Revenue	\$13.6M - \$13.8M
Cash and Equivalents	\$1.6M

Pro-forma Cash Position Following Public Offering Closed in February 2024

Cash and Equivalents	\$5.0M⁽³⁾
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(1) Certain customers have paid deposits upon purchase order placement. ~\$10.3M to be shipped during 2024 and early 2025, with potential for additional orders.

(2) Peraso is in the process of finalizing its consolidated financial results for the three months and year ended December 31, 2023, and, therefore, the actual results for these periods are not yet available and have not been audited. These are select estimated preliminary financials results for the three months and year ended December 31, 2023, that are subject to change pending finalization.

(3) Pro-forma cash and equivalents balance includes ~\$3.4M net proceeds from public offering of common stock and warrants closed on February 8, 2024.

Non-GAAP Actual and Model

\$ in millions	Peraso ⁽¹⁾			Model ⁽²⁾	
	FY 2021	FY 2022	YTD Sept 30, 2023	Medium-Term	Long-Term
				2 - 3 years	3+ years
Revenue	\$5.7	\$14.9	\$11.9	50%+ Growth	30%+ Growth
Gross Margin % ⁽³⁾	42.4%	49.7%	50.3%	50%	55%+
Operating Inc (Loss) ⁽³⁾	(\$9.9)	(\$14.6)	(\$6.4)	5% - 20%	20%+
Net Loss ⁽³⁾	(\$12.8)	(\$14.7)	(\$6.1)		
Cash Flow	Cash Burn	Cash Burn	Cash Burn	Cash Generating	Cash Generating

Notes:

- (1) Reflects Peraso Technologies operating results for 2021; 2021 includes results of MoSys, Inc. for period Dec 17-31, 2021; 2022+ reflects combined company
- (2) Represents forward-looking, financial objectives and does not constitute estimates of future performance, financial or otherwise. There is no assurance that Peraso will ever achieve any of these objectives and Peraso undertakes no obligation to update. See note on slide 2 regarding forward looking statements and reference to risk factors in Peraso's SEC filings
- (3) Non-GAAP measures - exclude stock-based compensation expense, amortization of intangibles, impairment of goodwill, business combination transaction costs, change in FV of warrant liability; see reconciliations for specific amounts excluded

Non-GAAP Quarterly Income Statements

(\$ in millions)	Q3'2022	Q2'2023	Q3'2023	2022	YTD Sept 30, 2023
Product	3.1	2.2	4.3	14.2	11.4
License and other	0.2	0.2	0.2	0.7	0.5
Total Revenue	\$ 3.3	\$ 2.4	\$ 4.5	\$ 14.9	\$ 11.9
COGS	1.6	1.3	1.9	7.5	5.9
Gross profit	1.7	1.1	2.6	7.4	6.0
Gross margin %	50.2%	45.9%	58.0%	49.7%	50.3%
Operating expense					
R&D	3.7	2.9	2.7	16.5	8.7
SG&A	2.6	1.2	1.3	8.1	4.1
Gain on license & asset sale	(2.6)	-	-	(2.6)	(0.4)
Total operating expense	3.7	4.1	4.0	22.0	12.4
Operating loss	(2.0)	(3.0)	(1.4)	(14.6)	(6.4)
Other income/(expense), net	-	-	0.3	(0.1)	0.3
Net Loss	\$ (2.0)	\$ (3.0)	\$ (1.1)	\$ (14.7)	\$ (6.1)

Non-GAAP to GAAP Reconciliation

(\$ in millions)	Q3'2022	Q2'2023	Q3'2023	2021	2022	YTD Sept 30, 2023
Non-GAAP operating loss	\$ (2.0)	\$ (3.0)	\$ (1.4)	\$ (9.9)	\$ (14.6)	\$ (6.4)
Adjustments:						
Stock-based compensation	(1.4)	(1.3)	(1.3)	(4.5)	(5.7)	(3.9)
Business combination transaction costs	-	-	-	(1.6)	-	-
Amortization of intangibles	(0.6)	(0.7)	(0.9)	(0.1)	(2.1)	(2.1)
Impairment of goodwill	-	-	-	-	(9.9)	-
GAAP operating loss	\$ (4.0)	\$ (5.0)	\$ (3.6)	\$ (16.1)	\$ (32.3)	\$ (12.4)
Non-GAAP net loss	\$ (2.0)	\$ (3.0)	\$ (1.1)	\$ (12.8)	\$ (14.7)	\$ (6.1)
Adjustments:						
Stock-based compensation	(1.4)	(1.3)	(1.3)	(4.5)	(5.7)	(3.9)
Business combination transaction costs	-	-	-	(1.6)	-	-
Amortization of intangibles	(0.6)	(0.7)	(0.9)	(0.1)	(2.1)	(2.1)
Impairment of goodwill	-	-	-	-	(9.9)	-
Change in fair value of warrant liabilities	-	0.9	2.6	8.1	-	4.2
GAAP net loss	\$ (4.0)	\$ (4.1)	\$ (0.7)	\$ (10.9)	\$ (32.4)	\$ (7.9)

Non-GAAP to GAAP Gross Profit Reconciliation

(\$ in millions)	Q3'2022	GM%	Q2'2023	GM%	Q3'2023	GM%	2022	GM%	YTD Sept 30, 2023	GM%
GAAP gross profit	\$ 1.3	39.3%	\$ 0.6	25.3%	\$ 2.0	45.4%	\$ 5.9	40.1%	\$ 4.6	38.4%
Adjustments:										
Amortization of intangibles	0.4	10.9%	0.5	20.6%	0.5	12.6%	1.5	9.6%	1.4	11.9%
Non-GAAP gross profit	\$ 1.7	50.2%	\$ 1.1	45.9%	\$ 2.5	58.0%	\$ 7.4	49.7%	\$ 6.0	50.3%

Pro-forma Capitalization as of February 9, 2024

Securities⁽¹⁾	Common Equivalents <i>in Thousands, except per share amounts</i>
Common Stock Outstanding⁽²⁾	1,299
Pre-funded Warrants (Exercise Price: \$0.001)	1,425
Warrants (Weighted Avg Exercise Price: \$2.25) – expire August 2024	3,975
Warrants (Weighted Avg Exercise Price: \$2.25)	4,114
Warrants (Weighted Avg Exercise Price: \$32.56)	242
Options (Weighted Avg Exercise Price: \$127.00)	35
RSUs	15
Fully Diluted	11,105

(1) Pro-forma capitalization reflects public offering of common stock and warrants closed on February 8, 2024.

(2) Includes: i) 95 exchangeable shares with the same rights as common stock, which exchangeable shares were issued by Canadian subsidiary to certain Canadian stockholders in connection with the December 2021 business combination between Peraso and MoSys and ii) ~46 shares subject to escrow and earn-out (achievement of \$342.80 share price by December 2024).

SUMMARY

- Increase in 5G wireless demand has strained the existing wireless spectrum
- Leader in mmWave technology with a clear and defensible competitive advantage
- Pure play investment opportunity in the mmWave semiconductor space



Peraso Inc.

Delivering High-Speed Wireless

THANK YOU

Peraso Contact:

Jim Sullivan

Chief Financial Officer

P: 408-418-7582

E: jsullivan@perasoinc.com

Investor Relations Contact:

Shelton Group

Leanne K. Sievers | Brett Perry

P: 949-224-3874 | 214-272-0070

E: sheltonir@sheltongroup.com