Introduction

The purpose of the GSA 4G-5G FWA Forum is to educate the industry about the fixed wireless access (FWA) market. There are currently no agreed market definitions, there is a lack of market information and no consensus about the volume of FWA device shipments and FWA installed base globally.

The annual GSA FWA CPE market survey aims to address this issue. It was first conducted in 2021, and this report presents the findings of the 2025 survey, where data was collected from April to July 2025. A total of 17 vendors of customer-premises equipment (CPE) from the GSA 4G-5G FWA Forum answered the survey.

The results present the aggregate answers of those 17 CPE vendors. We estimate that this is a significant representation of the market for 3GPP-based 4G and 5G FWA devices. Please note that the sample sizes and participant companies differ slightly from year to year, so caution should be advised when drawing comparisons. Participants in the survey included: Asiatelco Technologies Co, Askey, AVM, BEC Technologies, Da Ta Technologies, Gemtek, GreenPacket, Huawei, Jaton Technology, MeiG Smart Technology, Nokia, Shenzhen Jointelli, SMAWave, Tozed Kangwei, Vantiva, WNC, YaoJin Technology.

The survey is intended to be repeated on an annual basis to create a baseline of data about the global 4G/5G FWA market. This paper presents a summary of selected survey findings.

Top 10 Highlights

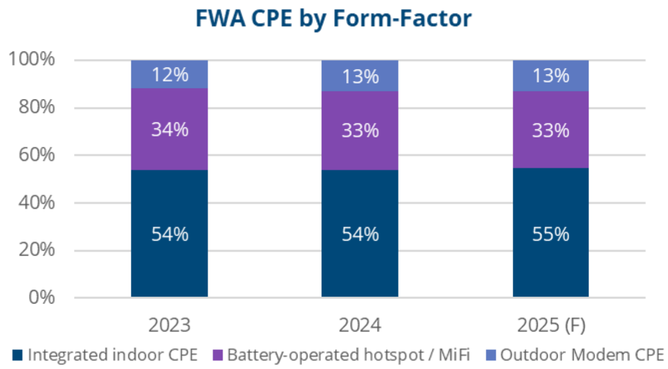
1) 2025 shipments are expected to grow 26% to reach 35.3 million units. Reported 2024 total CPE shipments were 28.0 million, a 22% increase compared to 2023.
2) 5G-enabled FWA shipments become mainstream, reaching 16.8 million in 2024. The growth of 5G FWA CPE shipments is expected to grow to 20.1 million, accounting for 57% of 2025 shipments and compared to 60% in 2024.
3) Asia Pacific accounts for 35% of the 2024 shipments, followed by Middle East & Africa at 30%. North America and India lead the share of 5G CPE shipments at 93% and 92% respectively.
4) The majority of FWA CPE shipments in 2024 were integrated indoor CPE (54%), followed by battery-operated hotspots (33%) and outdoor CPE (13%). 58% of the outdoor CPE were flexible self-install indoor/outdoor CPEs during 2024.
5) mmWave capable 5G CPE shipments reached 739 thousand in 2024 and it is expected to grow to over 1 million in 2025.
6) FWA supporting 5G standalone (SA) adoption stood at 95% of 5G CPE shipments in 2024. 5G SA-enabled CPE shipments expected to grow 11% to 17.7 million in 2025 compared to 16.0 million in 2024.
7) Majority of vendors believe that the main benefit of AI capabilities for 5G FWA CPE would lead to an improved 5G connectivity performance and experience.
8) There is sustained interest for 5G RedCap FWA, with 18% of respondents claiming that they already have such a product in their portfolio and a further 41% expecting to introduce a 5G RedCap-capable FWA product in 2025.
9) Over 50% of respondents either already have (29%) or plan to launch in 2025 (24%) FWA devices with 8RX support in their portfolio
10) 38% of respondents believe that price parity of 5G CPE will be achieved by 2027 in comparison with last year's survey where price parity was expected to be reached in 2026

Global Shipments

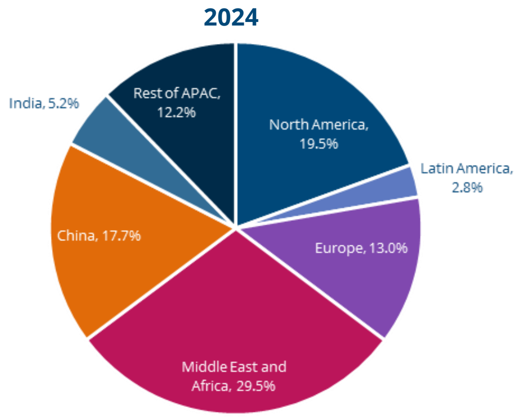
In 2024, total 4G/5G FWA CPE shipments were 28.0 million from a total of 17 companies, an increase of 22% from the reported figure of 23.0 million in 2023. Total FWA CPE shipments are expected to increase by a further 26% to 35.3 million in 2025. A significant proportion of respondents saw a double-digit increase in the growth of their shipments from last year.

Integrated indoor CPE makes up the most of FWA CPE shipments and has remained stable from last year, comprising 54% of total FWA CPE shipments in 2024. This is expected to grow slightly to 55% of total shipments for 2025. Battery-operated pocket routers made up 33% of total FWA CPE shipments in 2024 and this is also expected to remain stable in the coming year. Outdoor modems constitutes the remaining 13% of CPE shipments, having grown from 12% in 2023.

When looking at the regional breakdown, the whole Asia Pacific region represents 35% of shipments, followed by 30% from the Middle East and Africa and 20% from North America.



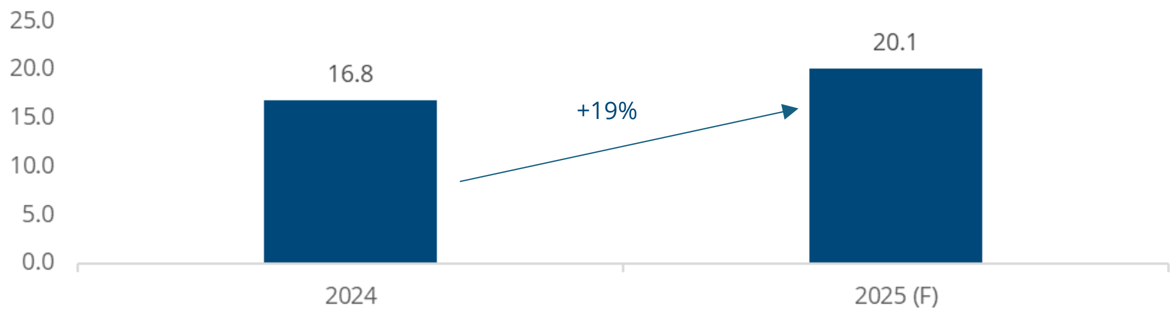
Shipment Evolution by Form Factor
Sample: 2025 FWA Survey, 17 respondents



2024 Shipments by Region
Sample: 2025 FWA survey, 17 respondents

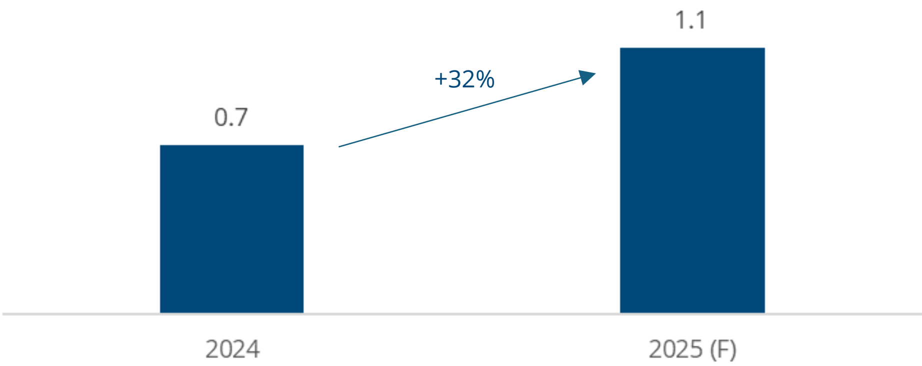
5G FWA Device Shipments

5G enabled shipments grew to 16.8 million in 2024, representing 60% of total FWA CPE shipments. In 2025, 5G FWA device shipments are forecasted to reach 20.1 million, comprising 57% of shipments.



Evolution of 5G-enabled FWA device shipments, millions
Sample: 2025 FWA Survey, 17 respondents

During 2024, 16.0 million FWA device shipments were 5G standalone activated/enabled and this is anticipated to increase by 11% to 17.7 million in 2025.



Evolution of 5G FWA Millimetre-wave capable shipments, millions
Sample: 2025 FWA Survey, 17 respondents

5G millimetre-wave capable FWA devices have experienced significant growth and now stand at 739 thousand units in 2024. By 2025, 5G millimetre-wave capable shipments are expected to grow by 47% to 1.1 million units.

From the 17 respondents in this year's survey, 41% of vendors already have 5G millimetre-wave capable FWA products and 18% of vendors have plans to introduce such devices in the coming years.

Device Form Factors and Capability Trends

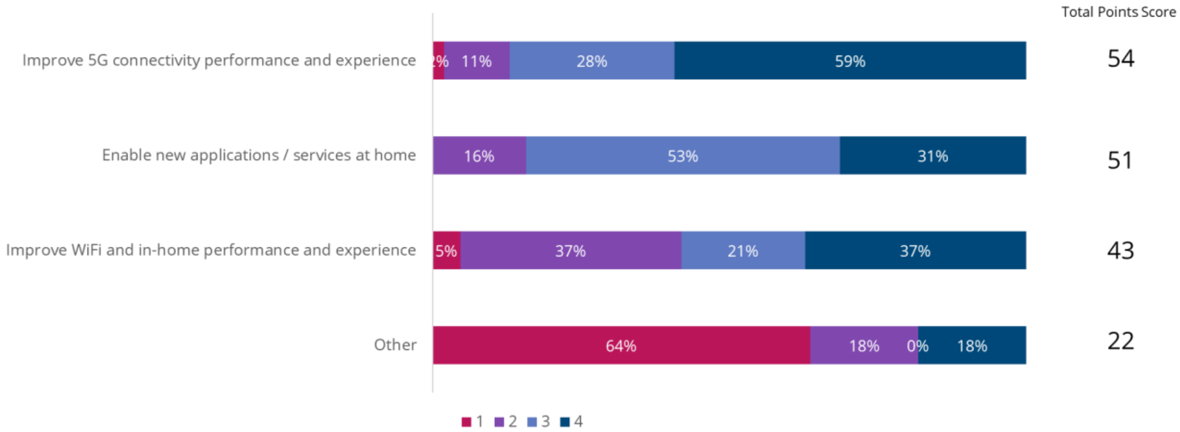
Looking at future device form factor trends, there is growing interest for hybrid fiber/DSL FWA CPEs. Stable trend for self-installation apps, with >80% seeing a growing interest. Diminished consensus for Flexible Indoor/Outdoor CPE and window-mounted CPEs, although majority expect these form factors to grow.

Similarly, the survey respondents were asked about their plans for 5G RedCap-capable devices and 41% of respondents declared that they had plans to introduce 5G RedCap-capable FWA products in the coming year. Interestingly, 18% of respondents claimed that they already have such products in their portfolio, which shows the growing interest in using 5G RedCap for FWA.

Furthermore, respondents were asked about 3GPP Upper 6GHz capable 5G FWA devices and when they had plans to introduce such devices into their portfolio. Out of this year's 17 respondents, 6% stated that they will have such a device in 2025 while 18% and 24% plan to introduce U-6GHz device respectively in 2026 and in 2027 (or later). However, over half (53%) of respondents stated that they had no plans to introduce a 5G FWA device capable of 3GPP Upper 6GHz.

A new question added to this survey examined the need for 5G FWA CPE to have additional AI capabilities that were integrated into the device and whether vendors were looking to add such a device into their portfolio. 12% of participants stated that they already have such a product but an overwhelming majority (76%) claim that they have plans to introduce a 5G CPE FWA device with integrated AI capabilities in later years.

Participants were also asked about the main benefits that would come with introducing 5G FWA CPE that had AI capabilities and to rank them in order of most to least important. Using a weighted average, most participants declared that improving 5G connectivity, performance and experience was the most important, with 54 total points being given to this category while the ability to enable new applications/services at home was following very closely with 51 points. Improving Wi-Fi and in-home performance and experience came a little bit behind these two with 43 total points. ‘Other’ came last with only 22 points being given.

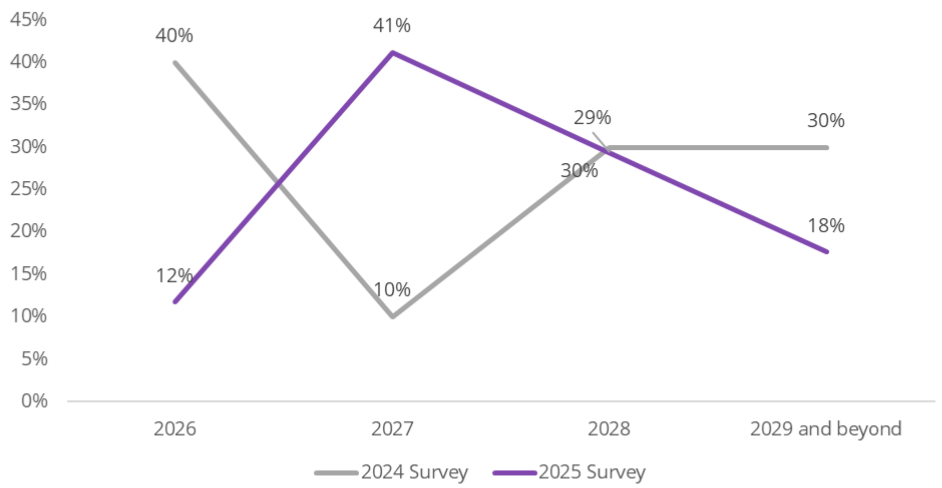


What would be the main benefits of introducing 5G FWA CPE with AI capabilities? Please rank the following answers by level of importance to the FWA CPE industry?
Sample: 2025 FWA survey, 17 respondents

Survey respondents were also asked about module and chipset strategies. 65% said that their current module is from more than one third party, an increase from 47% last year. Looking forward to 2025, modules that are sourced from more than one third party are expected to grow to 76%, becoming the most dominant module strategy.

Moving onto chipset strategies, last year 80% of respondents stated that it was sourced from more than one chipset vendor. In this year’s survey, 94% are sourcing their chipsets from more than one vendor, and it is expected to remain high at 88% in 2025.

Previous surveys have highlighted the fact that respondents expect price parity of 5G CPE to 4G CPE in 2026. However, this current survey highlighted that the most common expectation when it might reach price parity has shifted further back to 2027.



When do you think 5G FWA CPE will reach the price levels of 4G FWA CPE today?
Sample: 2024 FWA survey, 30 respondents; 2025 FWA survey, 17 respondents

Summary Tables

Sample: 2025 FWA CPE Survey, 17 respondents

	YoY Growth %	
	2024	2025 (forecast)
Integrated indoor	25%	32%
Outdoor modem	33%	31%
Battery-operated hotspot / MiFi	19%	30%

Breakdown of shipments by technology	Shipments (M)		Year-on-year growth
	2024	2025 (F)	2025 (F)
Total device shipments	28.0	35.3	26%
4G-only shipments	10.8	15.3	41%
5G shipments*	16.8	20.1	19%
5G share of shipments	60%	57%	-

*4G and 5G devices, including FWA CPE and battery-powered pocket routers.

About this Survey

The full report providing additional analysis of questions asked is only available to GSA 4G/5G FWA Forum members. Companies wishing to join the GSA 4G/5G FWA Forum please contact Joe Barrett at admin@gsacom.com. This is the fifth-edition GSA 4G/5G FWA Forum device ecosystem survey and the next iteration of this survey will be undertaken in 2026.

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