

# Global mobile Suppliers Association

Rural Coverage



# About GSA

- Representing the global mobile ecosystem since 1998
- Industry developments
  - Free industry reports
- Extensive research feeding into unique industry database
  - GAMBoD
  - Member & Associate benefit
- GSA Spectrum Group
- GSA 4G-5G FWA Forum



# 5G Vision



## VISION

Wirelessly connect almost all 7 billion people globally to new and exciting services through 100 billion devices and things, by 2030



## HOW

Spectrum from the low-band, mid-band and high-band frequency ranges helps realize the Vision



## GOAL

Large contiguous amounts of harmonized spectrum, with suitable regulatory conditions. Such as

- Low bands 600/700 MHz
- Mid bands 2.3, 2.6, 3.3-4.2, 4.4-5GHz
- High bands 24.25-29.5/37-43.5 GHz

Licensed in 2020-21 to the benefit of many regions and citizens

# 5G Standards



Release 15 complete (2017-2018)

Release 16 development (2018-2020)

Enhancements, Unlicensed, URLLC+ & IoT+, V2X, etc.

Release 17 planning (2019-2021)

Enhancements to support verticals, coverage improvements, NTN, etc.

**3GPP 5G specs complete – work underway on enhancements**

# 5G Spectrum for Coverage, Capacity and Ultra Experience

e.g. 24.25 – 29.5, 37.0-43.5 GHz etc

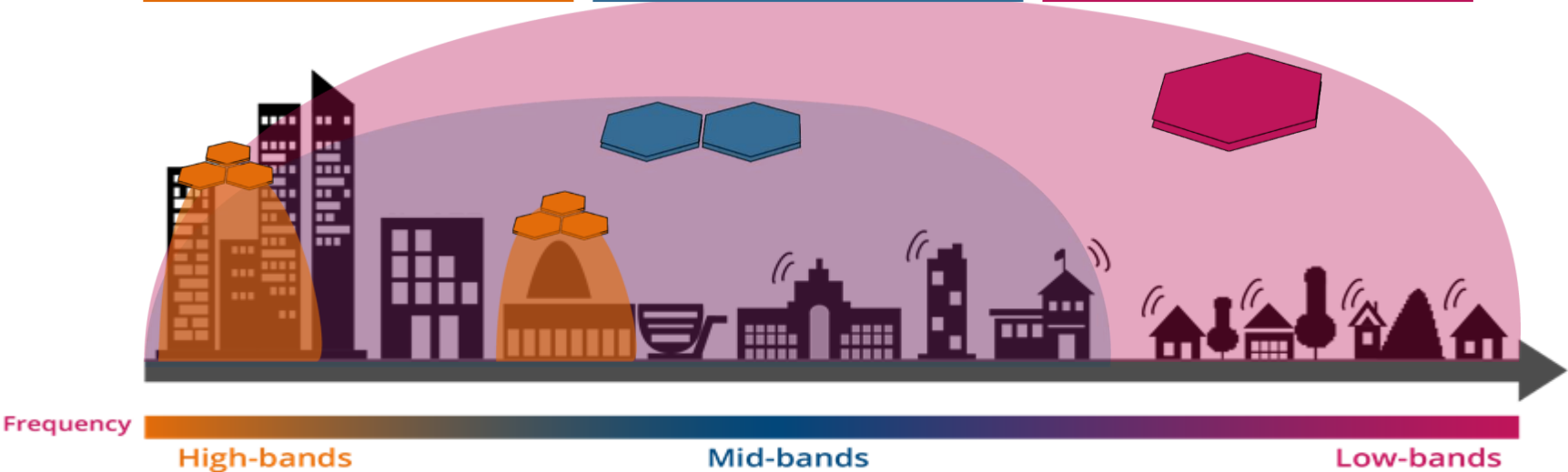
High & Mid-bands  
Ultra Experience Layer  
Approx. 1000 MHz per network

e.g. 2.3, 2.6, 3.3-4.2, 4.4-5 GHz etc

Mid-bands  
Capacity-Coverage Layer  
Approx. 100 MHz per network

e.g. 600, 700, 800 MHz etc

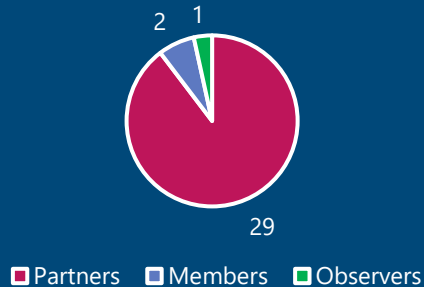
Mid & Low-bands  
Basic Coverage Layer



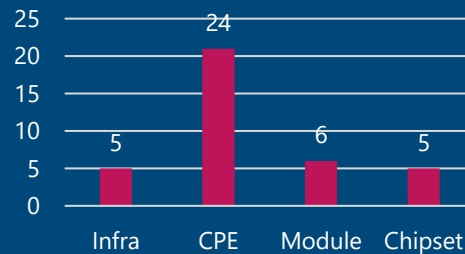
# GSA 4G/5G FWA Forum 32 Members



### Membership Types



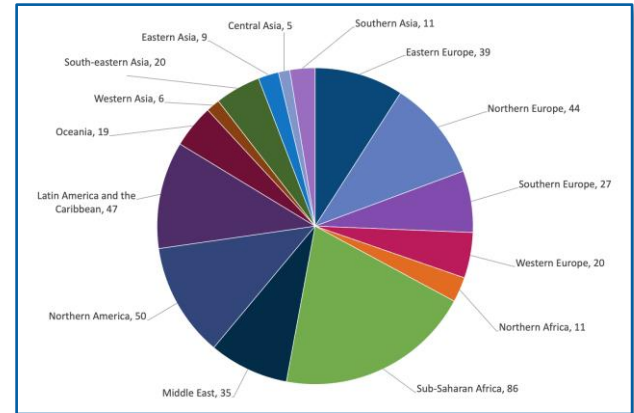
### FWA Ecosystem Involvement



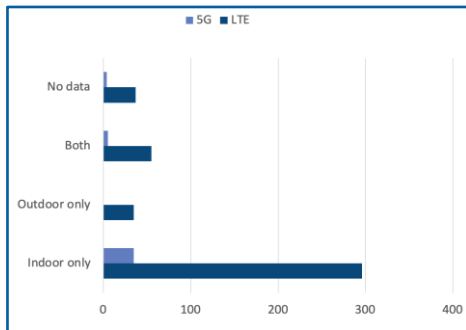
# 3GPP FWA Networks Globally

- FWA Networks are a large 4G-5G market segment
  - Close to 600 FWA networks
  - More than 165 countries
  - FWA Ecosystem growing
- Rural FWA also an ideal use case with long range broadband connectivity to homes, enterprises, schools, doctors, etc.
- GSA forms new 4G and 5G Fixed Wireless Access Forum – Nov '20

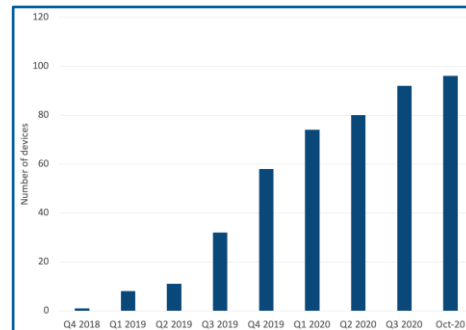
FWA Networks By Regions



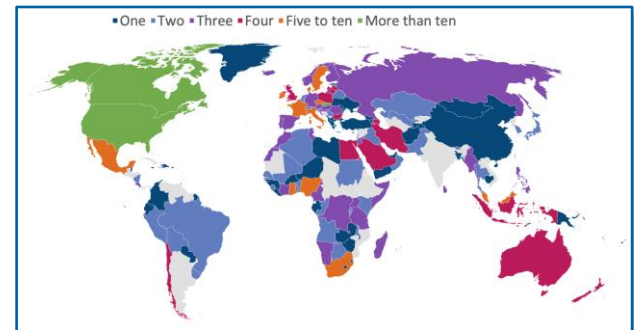
Types of FWA CPE offered by operators



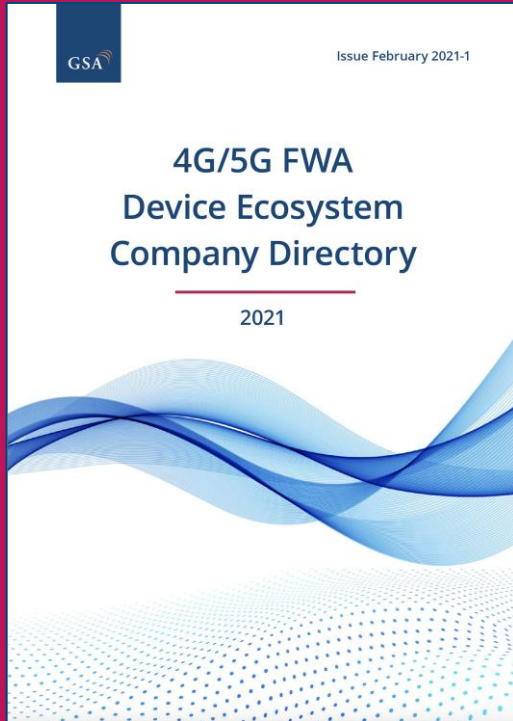
Growth of 5G Indoor & Outdoor FWA devices



FWA Networks Globally



# 4G-5G FWA Devices Ecosystem Catalogue



## Most popular download since launch

### inseego

**Company Profile**

Inseego Corp. is an industry leader in smart device to cloud solutions that extend the 5G network edge, enabling broader 5G coverage, multi-gigabit data speeds, low latency, and strong security to deliver highly-reliable internet access. Our innovative mobile broadband and fixed-wireless access (FWA) solutions incorporate the most advanced technologies including 5G, 4G, LTE, Wi-Fi, and other into a wide range of products that provide robust connectivity indoors, outdoors and in the harshest industrial environments. Designed and developed in the USA, Inseego products and SaaS solutions build on the company's patented technologies to provide the highest quality wireless connectivity for service providers, enterprises, and government entities worldwide.

**Company Information**

Website: [www.inseego.com](http://www.inseego.com)  
 Employee: [greg.frost@inseego.com](mailto:greg.frost@inseego.com)  
 Sales Channel: Direct to Consumer/Enterprise, Direct to Carrier, Resellers/Distributors

HQ Location: San Diego, USA  
 Sales Office Locations: North America, Europe, Asia Pacific, Middle East  
 Additional 5GPP Devices in Portfolio: Industrial IoT, USB Dongles, Consumer IoT, Vehicular CPE

**Product Profiles**

<p><b>Indoor Sub 6 GHz CPE (FR1)</b></p>  <p>5G Inseego Wavemaker FS2000</p>  <p>5G Inseego Wavemaker FX2000</p>	<p><b>Outdoor Sub 6 GHz CPE (FR1)</b></p>  <p>5G Inseego Wavemaker FW2000</p>	<p><b>Outdoor mmWave CPE (FR2)</b></p>  <p>5G Inseego Wavemaker FW2010</p>	<p><b>Battery Operated Hotspot</b></p>  <p>5G MFI M2000 Series</p>  <p>4G MFI B100</p>
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### JATON TEC

**Company Profile**




Jaton Technology Limited, founded in 2012, is a high-tech and innovation corporation, main manufacturer and supplier of telecommunication equipment. We have been professional in Fixed Wireless Broadband (FWB) terminal for 5 years, especially in 5G NR and 4G LTE. As the CPE, we have Fixed Wireless Access (FWA) Private Network solutions, such as 5G NR and 4G LTE. We would like to provide the products and customized solutions to all people Jaton has deployed FWA service on over 40 networks in more than 25 countries. We will closely follow the international market trends and hope to cooperate with more and more customers for mutual development and benefits.

**Company Information**

Website: [www.jatontec.com](http://www.jatontec.com)  
 Employee: [sales@jatontec.com](mailto:sales@jatontec.com)  
 Sales Channel: Direct to Consumer/Enterprise, Direct to Carrier, Resellers/Distributors

HQ Location: Shenzhen City, China  
 Sales Office Locations: North America, Latin America, Europe, Africa, China, Asia Pacific, Middle East  
 Additional 5GPP Devices in Portfolio: Vehicular CPE

**Product Profiles**

<p><b>Indoor Sub 6 GHz CPE (FR1)</b></p>  <p>JT800V 5G WiFi CPE</p>  <p>JT800V 4G CAT12 WiFi CPE</p>  <p>JT800V 4G CAT7 WiFi CPE</p>	<p><b>Indoor mmWave CPE (FR2)</b></p>  <p>JT900V 5G WiFi &amp; WiRIS CPE</p>	<p><b>Outdoor Sub 6 GHz CPE (FR1)</b></p>  <p>JT800D 5G High Gain CPE</p>  <p>JT6300V 4G CAT7 High Gain CPE</p>  <p>JT800D 4G CAT12 High Gain CPE</p>	<p><b>Outdoor mmWave CPE (FR2)</b></p>  <p>JT800D 5G High Gain CPE</p>
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The Industry Voice of the Global  
Mobile Ecosystem

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