

5G DEVICES
EXECUTIVE SUMMARY

OCTOBER 2020





Executive Summary

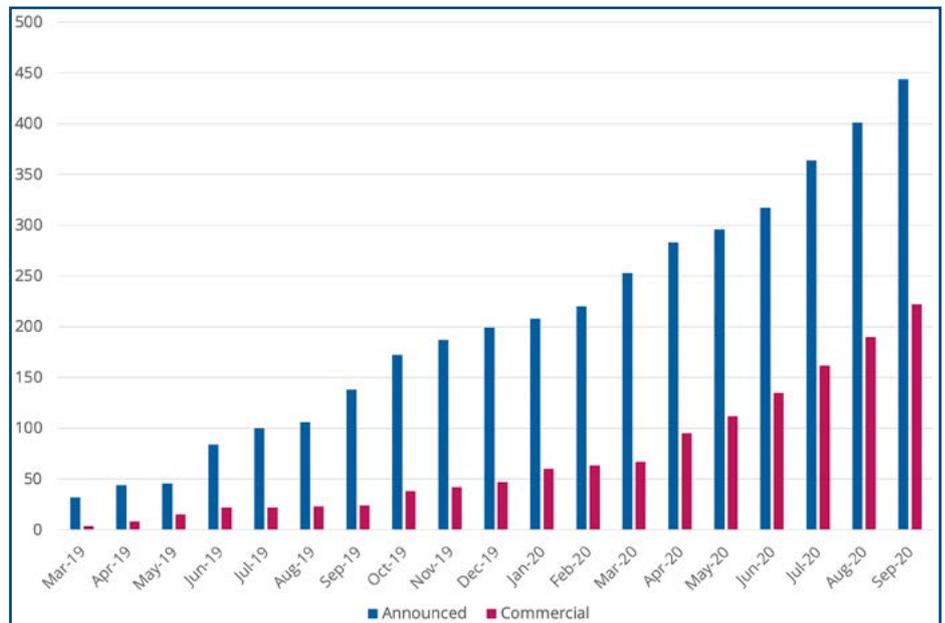
Key facts

Last month, the number of announced 5G devices surpassed 400 devices for the first time and this figure has continued to grow rapidly, standing at 444 announced 5G devices by the end of September 2020. Once again, this is accompanied by a continued rise in the number of 5G devices that are commercially available. By end-September 2020, 222 5G devices were understood to be commercially available, representing half of all announced 5G devices for the first time. It is also the first time that the number of commercially available 5G devices has exceeded 200; in fact, the number of commercially available 5G devices has almost doubled since end-May 2020.

By end September 2020, GSA had identified:

- twenty announced form factors (phones, head-mounted displays, hotspots, indoor CPE, outdoor CPE, laptops/notebooks, modules, snap-on dongles/adapters, industrial grade CPE/routers/gateways/modems, in-vehicle routers/modems/hotspots, drones, robots, tablets, TVs, cameras, USB modems, a switch, a vehicle OBU, a vending machine and an encoder).
- ninety-six vendors who had announced available or forthcoming 5G devices.
- four hundred and forty-four announced devices (including regional variants, and phones that can be upgraded using a separate adapter, but excluding operator-branded devices that are essentially rebadged versions of other phones), including 222 that are understood to be commercially available:
 - two hundred phones (up 19 from August), at least 148 of which are now commercially available (up 10 in a month). Includes three phones that are upgraded to offer 5G using an adapter.
 - one hundred and eighteen CPE devices (indoor and outdoor, including two Verizon-spec compliant devices not meeting 3GPP 5G standards, and enterprise and vehicle grade CPE/routers/gateways), at least 41 of which are commercially available.
 - sixty-four modules, at least 11 of which are commercially available.

Figure 1: Growth of announced 5G devices (announced and commercially available)



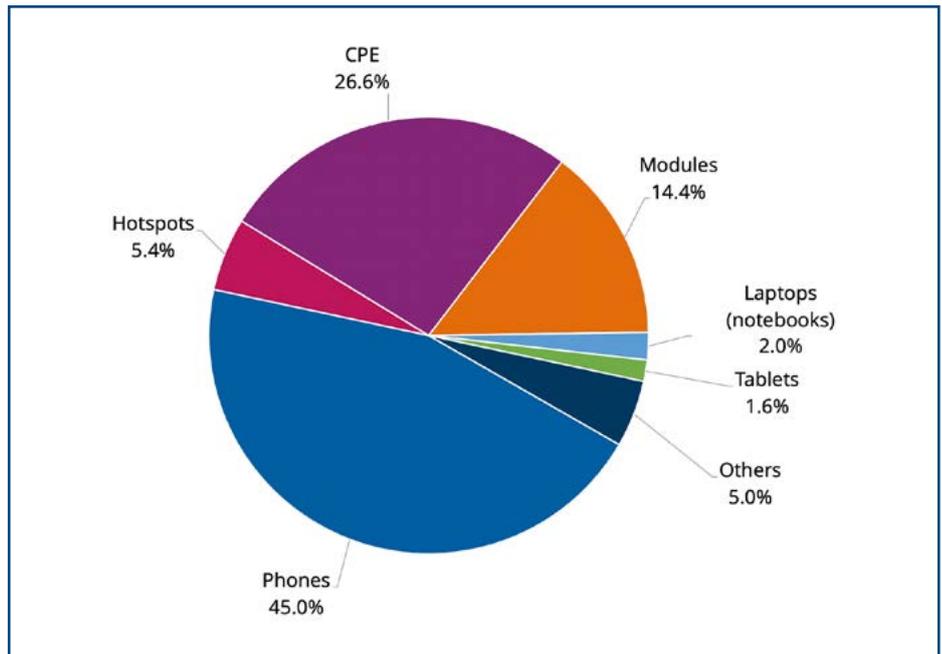
- twenty-four hotspots (including regional variants), at least 13 of which are commercially available.
- nine laptops (notebooks), at least one of which is commercially available.
- seven tablets, at least five of which are commercially available.
- twenty-two other devices (including drones, head-mounted displays, robots, snap-on dongles/adapters, a switch, TVs, USB terminals/dongles/modems, cameras, a vehicle OBU, a vending machine and an encoder).

Not all devices are available immediately and specification details remain limited for some devices.





Figure 2: Announced 5G devices, by form factor

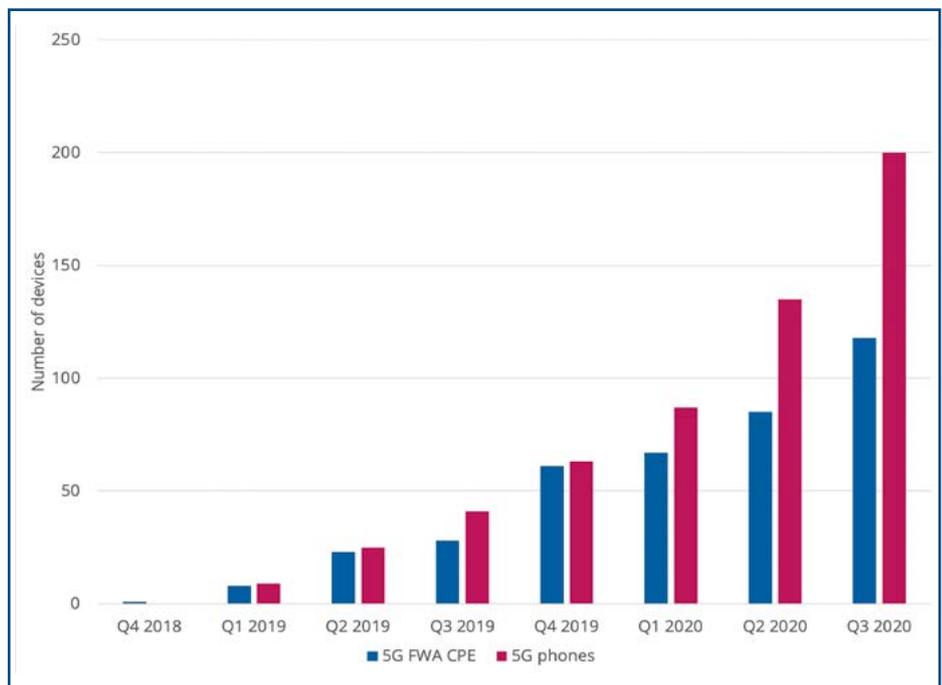


Growth of 5G phones and FWA CPE

The most prevalent 5G devices are phones and FWA CPE. The number of announced devices in each of these categories has grown strongly during 2020. In fact, the number of announced 5G phones has reached 200 for the first time. This represents an increase of almost 50% since the end of June 2020, while the number of announced FWA CPE is up by over a third in the same period.

Thirty-three vendors have now produced or announced plans to produce 5G phones. Meanwhile, 57 vendors have now launched or announced plans to launch their own 5G CPE devices (indoor, outdoor or enterprise grade CPE/routers/gateways).

Figure 3: Number of announced 5G phones and 5G FWA CPE devices





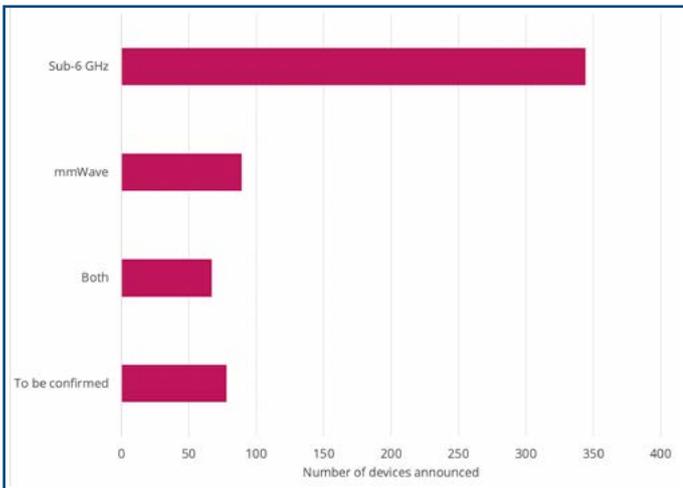
Spectrum band support of 5G devices

Availability of information about spectrum support is improving as a greater number of devices become commercially available. GSA has identified some spectrum support information for over 82% of all announced devices: 77.5% of all announced 5G devices are identified as supporting sub-6 GHz spectrum bands, while 20.0% are understood to support mmWave spectrum. 15.1% of all announced devices are known to support both mmWave and sub-6 GHz spectrum bands.

Forty-two of the commercially available devices (18.9% of them) are understood to support services operating in mmWave spectrum, but 90.1% of the commercially available devices are known to support sub-6 GHz spectrum. In fact, the number of commercially available devices known to be operating in sub-6 GHz spectrum has reached 200 for the first time.

The bands known to be most supported by all announced 5G devices are n78, n41, n79, n1, n77 and n3. At the end of September, the numbers of announced devices known to support Bands n78 and n41 have passed the 200 mark for the first time. There are now 232 announced devices with support for Band n78 and 206 devices with support for Band n41. Meanwhile the numbers of announced devices identified as supporting Bands n3, n77, n1, and n79 have continued to rise rapidly and now stand at 138, 153, 159, and 161 devices respectively.

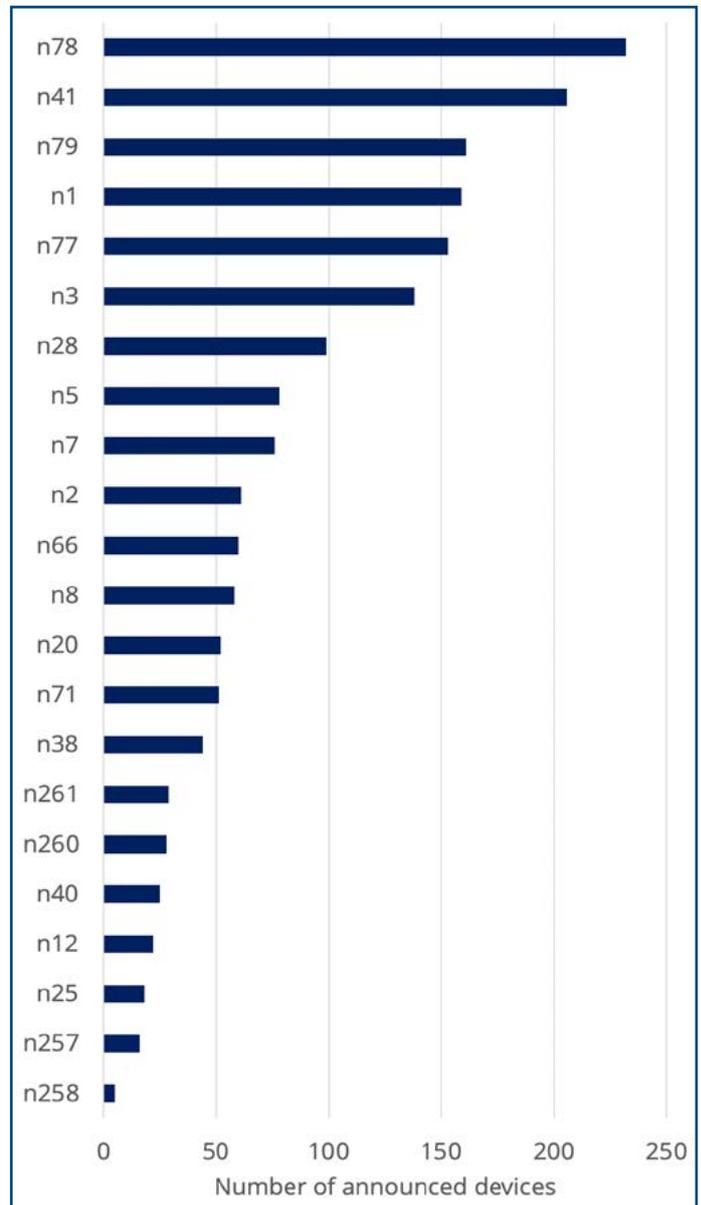
Figure 4: Announced devices with known spectrum support, by broad category (data not available for all devices)



A full list of 5G Devices is available in the Member and Associate version of this report.

To gain access to all GSA devices and other data as a GSA Member or Associate please email admin@gsacom.com

Figure 5: Announced devices with known spectrum support, by specific band, for bands supported by five devices or more (data not available for all devices)



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