



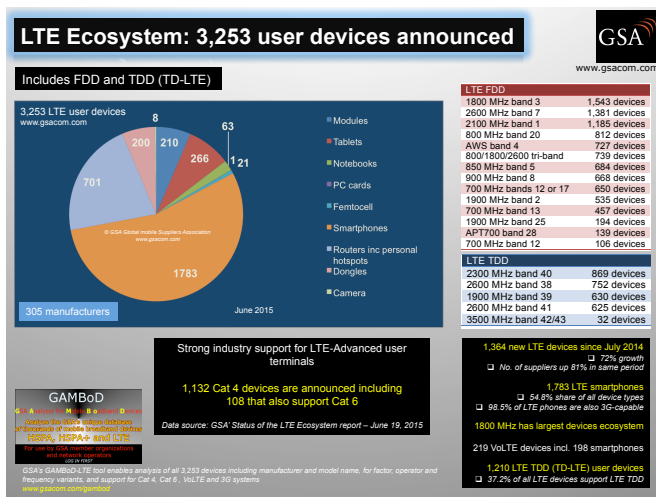
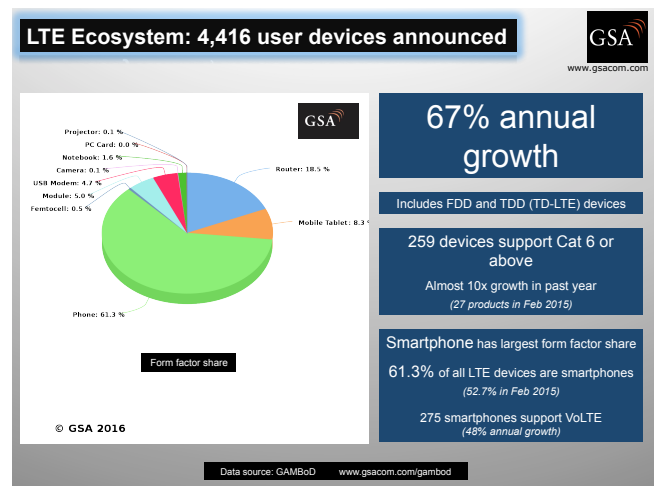
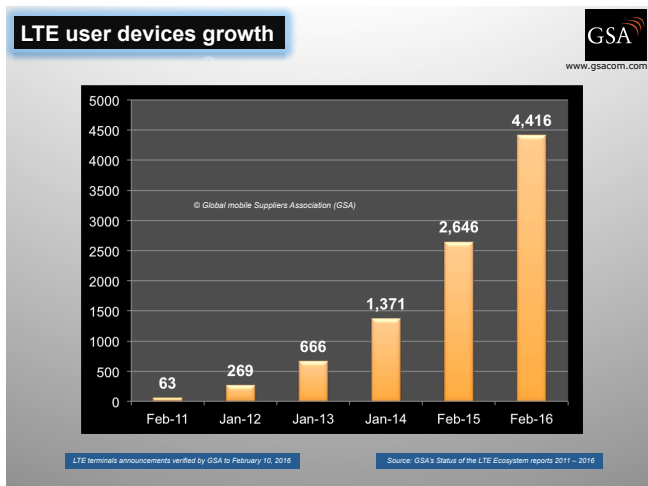
PRESS RELEASE

GSA confirms 4,416 LTE user devices, researches new bands

February 12, 2016: The latest update to the Status of the LTE Ecosystem report published this week by GSA (Global mobile Suppliers Association) confirms accelerating growth of the LTE ecosystem and expansion in the availability and performance of LTE-Advanced devices. The report covers LTE FDD and TDD (TD-LTE) devices. 4,416 LTE user devices, including frequency and operator variants, from 369 suppliers are verified by GSA as announced in the market. 1,770 devices have been added to GSA's LTE devices database (GAMBoD) since February 2015, confirming 67% annual growth. The number of LTE device suppliers grew 34% in the same period.

The scope of the research for the report was widened this time to include the device ecosystems for band 30 (2.3 GHz WCS spectrum) and band 21 (1.5 GHz). Terminals capable of supporting LTE Broadcast services enabled by eMBMS were also identified.

Alan Hadden, VP of Research, GSA, said: "With deployment of LTE-Advanced systems supporting Category 6 user devices (theoretical peak downlink up to 300 Mbps) the major industry trend, there is a good and expanding choice of user devices. 259 products support Category 6 or higher, including small cells, routers/gateways, MiFis, smartphones and tablets. 8 of those are Category 9 devices (450 Mbps) and 2 are Category 12 (600 Mbps)."



The smartphone form factor is the largest LTE device category.

2,706 smartphones including operator and frequency variants are announced, giving an improved 61.2% share of all LTE device types. 98% of LTE smartphones are multimode, capable of operating on at least one 3G technology in addition to LTE and almost 50% of LTE phones can operate on 42 Mbps DC-HSPA+ networks.

The LTE-connected tablet PC is another fast-growing category.



Spectrum bands

Research for this report and GAMBoD database specifically covers FDD bands 1,2,3,4,5,7,8,12,13,14,17,20,21,25,28,30,31 and TDD bands 38,39,40,41,42/43,44

1800 MHz (band 3) is the most popular spectrum for LTE, used in over 44% networks. 54% of LTE devices can operate in band 3 creating the largest ecosystem. 2,381 LTE1800 (band 3) terminals are announced of which 1,614 smartphones represents 68% of the total; 152 are Category 6 devices. The next most deployed bands are 2.6GHz (band 7): 1,381 products, and 2.1GHz (band 1): 1,185 products.

LTE-Advanced

2,159 devices support UE Category 4, (up to 150 Mbps downlink) or higher, i.e. 49% of all LTE devices, including 249 UE category 6 terminals (300 Mbps), 8 Category 9 (450 Mbps) and 2 Category 12 (600 Mbps). The first commercial chipsets for supporting Category 16 (up to 1 Gbps downlink speed) using LTE-Advanced Pro technology are anticipated this year.

APT700 (band 28)

260 APT700 devices are available, supporting growing traction for this near-global 700 MHz band.

LTE TDD (TD-LTE)

1,746 devices i.e. almost 40% of LTE devices support the LTE TDD (TD-LTE) mode. Bands 40 (2.3 GHz) and 38 (2.6 GHz) followed by bands 41 and 39 also having well established mature ecosystems. The 3.5 GHz ecosystem (bands 42, 43) is growing; 56 user terminals are available. Convergence is a strong theme and a growing trend with several devices supporting both TDD and FDD modes.

VoLTE

118 operators are investing in VoLTE enabling an HD voice experience for their LTE customers. 300 VoLTE-capable devices (including for carrier and frequency variants) including 275 smartphones are announced. VoLTE terminals are offered by all the leading vendors.

The **Status of the LTE Ecosystem report** published by GSA on February 11, 2016 and related graphics are available as a free download to registered site users via the link at <http://www.gsacom.com>

Details for all 4,416 LTE user devices identified for the report are available in the **GAMBoD** area of the GSA website (restricted access, see <http://www.gsacom.com/gambod>)

GSA reported last month in its **Evolution to LTE report** (January 25, 2016) that 480 LTE networks are commercially launched in 157 countries, and forecast there would be 550 commercial networks by end 2016. 163 operators are investing in LTE-Advanced networks of which 116 were commercially launched in 57 countries. 118 operators are investing in VoLTE in 56 countries including 46 operators with commercially launched VoLTE-HD voice service in 29 countries.

ABOUT GSA

GSA (Global mobile Suppliers Association) represents GSM/EDGE/WCDMA-HSPA/HSPA+, LTE/LTE-Advanced and future 5G suppliers. GSA brings together a global industry community of telecoms professionals through its website, reports, information papers and practical activities to inform, influence, educate, explain and promote the opportunities enabled by mobile broadband systems. The GSA website www.gsacom.com has gained over 70,000 registered users for knowledge gathering and information sharing of key facts, trends and analysis, and over 25,500 connections on our social network platforms: LinkedIn, Twitter and Facebook. Over 1 million GSA reports, presentations, information papers, maps, charts and other resources were downloaded from www.gsacom.com in under five years.

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