Fibocom FG101

LTE Cat 6/12 Module for IoT applications

Key Benefits

- High-performance LTE Cat 6/12 IoT module
- Compliant with 3GPP Release 12 standards, providing better 4G experience
- Support LTE-A/WCDMA multiple network standards
- · GNSS receiver available for applications requiring fast and accurate positioning in any environment
- Professional reference design and timely technical support to help customers on product development



| Rel | ease | 12 |
|-----|------|----|
| | | |

LTE Cat 6/12



LGA Package



Optimized power consumption

d ht

Digital Audio and VoLTE (Optional)

Fibocom FG101 is a LTE Cat6/12 module featuring 3GPP Release 12 capabilities. The module adopts LGA form factor measuring 37x39.5x2.8mm. FG101 can also support LTE-TDD, LTE-FDD and WCDMA fallback.

37mm

2.8mm

39.5mm

FG101 supports multi-constellation GNSS receiver (GPS/ Galileo/ GLONASS/ BeiDou), which provides high-performance positioning and navigation. Meanwhile, it supports a rich set of interfaces including USIM, USB 3.0/2.0, PCIe 2.0, PCM and UART, allowing much flexibility and ease of integration for customer's application. With multiple Internet protocols and industry-standard interfaces, FG101 can be used in a variety of cellular terminals such as CPE, Industrial router, IPC and ODU.

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USB3.0 /PCle

GNSS



Fibocom Enhanced AT Commands



Professional reference design, evaluation kits





Fibocom FG101 Series

| LTE Cat 6 | FG101-NA-20 | FG101-EAU-20 | FG101-EAU-30 | |
|--|---|--|--|--|
| Region | North America | Europe, Asia Pacific, Australia | Europe, Asia Pacific, Australia | |
| Basic Features | | בטוספר, אזומ דמכווור, אטגנומוומ | | |
| Package | LGA | | | |
| Dimension (mm) | 37x39.5x2.8 | | | |
| LTE FDD | B2/4/5/7/12/13/14/17/25/26/29/3 | ⁰ B1/3/5/7/8/18/19/20/28/32 | B1/3/5/7/8/18/19/20/28/32 | |
| | /66/71 | | | |
| | B41(194M)/46/48 | B38/40/41(120M) | B38/40/41(120M) | |
| WCDMA | B2/4/5 | B1/3/5/8 | B1/3/5/8 | |
| Antenna | 2+1(GNSS) | | | |
| Power Supply | 3.3v~4.4v, Typical 3.8V | | | |
| Operating Temp. | | -30°C - +75°C | | |
| AT Command | 3GPP TS 27.007 and 27.005, Proprietary | Y FIBOCOM AT Commands | | |
| Data Transmission | | | | |
| LTE(Mbps) | Max. 300 DL / Max. 50 UL | | | |
| WCDMA(Mbps) | Max. 42 DL / Max. 11 UL | | | |
| Enhanced Features | | | | |
| Voice | VoLTE | | | |
| SMS | SMS over IP(IMS) | | | |
| Audio | • | | | |
| DFOTA | • | | | |
| GNSS | GPS/GLONASS/Galileo/BeiDou | | | |
| Software Features | | | | |
| Driver | USB: Linux 2.6.38 and later/Windows7& RIL: Android7.x&8.x&9.x NDIS: Windows7&10 ECM: Linux 2.6.38 and later Gobinet: Linux 2.6.38 and later | 10/Android7.x&8.x&9.x | | |
| MBIM | Windows 10 and later/Linux 3.8 and late QMI WWAN: Linux 3.4 and later | er | | |
| QMI WWAN | Linux 3.4 and later | | | |
| Network Protocol | TCP/UDP/FTP/HTTP/HTTPS/PING/Lv | wM2M/SMS | | |
| nterfaces | | | | |
| JSB | USB3.0/2.0 | | | |
| PCIe | PCIe2.0 | | | |
| JART | • | | | |
| SPI | • | | | |
| GPIO | • | | | |
| 2C | • | | | |
| SDIO | • | | | |
| MIL | • | | | |
| PCM | • | | | |
| MIPI | NA | | | |
| | NA | | | |
| RGMII | | | | |
| | | | | |
| Certification Approvals | IC*/FCC*/RoHS*/HF* | CE/UKCA/RCM/Reach/RoHS/HF | RoHS/HF/Reach/CE*/UKCA*/RCM | |
| RGMII Certification Approvals Regulation Operator | | CE/UKCA/RCM/Reach/RoHS/HF | RoHS/HF/Reach/CE*/UKCA*/RCM DT*/VDF*/Telefonica*/Telstra* | |

* = planning /under development • = support



| LTE Cat 12 | FG101-NA-00 | FG101-EAU-00 | | |
|-------------------------|--|--|--|--|
| Region | North America | Europe, Asia Pacific, Australia | | |
| Basic Features | | | | |
| Package | LGA | | | |
| Dimension (mm) | 37x39.5x2.8 | | | |
| LTE FDD | B2/4/5/7/12/13/14/17/25/26/29/30/66/71 | B1/3/5/7/8/18/19/20/28/32 | | |
| LTE TDD | B41(194M)/46/48 | B38/40/41(120M)/42/43/48 | | |
| WCDMA | B2/4/5 | B1/3/5/6/8/19 | | |
| Antenna | 4+1(GNSS) | | | |
| Power Supply | 3.4v~4.3v, Typical 3.8V | | | |
| Operating Temp. | -30°C - +75°C | -30°C - +75°C | | |
| AT Command | 3GPP TS 27.007 and 27.005, Proprietary FIBOCOM | AT Commands | | |
| Data Transmission | | | | |
| LTE(Mbps) | Max. 600Mbps(DL)/Max.150Mbps(UL) | Max. 600Mbps(DL)/Max.150Mbps(UL) | | |
| WCDMA(Mbps) | Max.42 Mbps(DL)/Max.5.76Mbps(UL) | Max.42 Mbps(DL)/Max.5.76Mbps(UL) | | |
| Enhanced Features | | | | |
| Voice | Volte | VoLTE | | |
| SMS | SMS over IP(IMS) | SMS over IP(IMS) | | |
| Audio | • | | | |
| DFOTA | • | | | |
| GNSS | GPS/GLONASS/Galileo/BeiDou | | | |
| Software Features | | | | |
| Driver | USB: Linux 2.6.38 and later/Windows7&10/Android7 RIL: Android7.x&8.x&9.x NDIS: Windows7&10 ECM: Linux 2.6.38 and later Gobinet: Linux 2.6.38 and later | NDIS: Windows7&10 ECM: Linux 2.6.38 and later | | |
| MBIM | Windows 10 and later/Linux 3.8 and later QMI WWAN: Linux 3.4 and later | | | |
| QMI WWAN | Linux 3.4 and later | · · · · · · · · · · · · · · · · · · · | | |
| Network Protocol | TCP/UDP/FTP/HTTP/HTTPS/PING/LwM2M/SMS | | | |
| Interfaces | | | | |
| USB | USB3.0/2.0 | | | |
| PCle | PCIe2.0 | PCle2.0 | | |
| UART | • | • | | |
| SPI | • | | | |
| GPIO | • | | | |
| 12C | • | • | | |
| SDIO | • | • | | |
| UIM | • | | | |
| PCM | • | | | |
| MIPI | NA | NA | | |
| RGMII | NA | | | |
| Certification Approvals | | | | |
| Regulation | FCC*/IC*/TSCA*/RoHS*/HF* | CE/UKCA/Reach/RoHS/HF/RCM | | |
| Operator | ATT*/VZW*/TMO* | DT*/VDF*/Telefonica*/Telstra* | | |
| Industry | GCF*/PTCRB* | GCF | | |
| | | | | |

* = planning /under development • = support

