

Fortress® LTE USB Stick Modem

Connectivity with Certainty



State of the art patented baseband processor

High performance throughput

Low power consumption

Custom multi-band design

Over the air software upgradeable

Overview:

The Fortress LTE USB Stick Modem features a state-of-the-art, patented baseband processor with a high degree of programmability, high performance and ultra-low power consumption. The modem supports all 3GPP defined LTE bandwidths and duplex modes and delivers maximum category 3 data rates of 102 Mbps downlink and 50 Mbps uplink in a pair of 20MHz FDD channels.

The modem is packaged in a small USB stick form factor with built-in MIMO antennas that have been optimized to provide superior cell-edge performance as well as high MIMO throughputs under good signal conditions. It draws power directly from the USB port of the PC for a truly high performance mobile wireless device. A range of accessories such as external antennas and a desktop stand are offered to further enhance performance for nomadic and fixed wireless access.

User authentication and security is accomplished by standard 3GPP USIM authentication. Software upgrades to future LTE releases are downloaded over-the-air to the modem via the connection manager on a PC.

Applications

The LTE USB Stick Modem connects to the USB port of a PC for mobile broadband access. Alternatively, it can be connected to a compatible residential Wi-Fi router for Internet sharing at home.

About General Dynamics Fortress LTE

Ideal for specialized private wireless deployments, Fortress LTE delivers an end-to-end solution providing 'always on' high speed network access to vital information including voice, video, data, text and chat using any 3GPP compliant LTE enabled device. Fortress LTE solutions are frequency agile, customizable for specific applications and designed for harsh, permanent or temporary deployments where network access may not be available. Fortress LTE is a cost-effective, single vendor end-to-end solution consisting of:

- 4G Core Network
- Radio Access Network (Base Station)
- User Equipment (UE)

Specifications

- **Operating Frequency**
 - 700 MHz to 2700 MHz
(Single- and multi-band designs, model specific)
- **Channel bandwidth**
 - 5MHz, 10MHz and 20MHz
- **Duplex mode**
 - Frequency Division Duplex (FDD), Time Division Duplex (TDD)
- **UE Category**
 - Category 3 UE
- **Transmit power**
 - +23 dBm ± 2 dB
- **Radio performance**
 - 3GPP TS 36.101 compliant
- **LTE PHY layer maximum data rates**
 - 36.7Mbps/12.6Mbps in a 5MHz FDD channel
 - 73.4Mbps/25.5Mbps in a 10MHz FDD channel
 - 102.0Mbps/50.8Mbps in a 20MHz FDD channel
(Actual throughput depends on channel bandwidth and radio coverage.)
- **Standards compliance**
 - 3GPP R8 LTE compliant
 - 3GPP R9 LTE compliant via future software upgrade
- **Radio configuration**
 - 1 Transmit / 2 Receive
- **Power requirements**
 - 5VDC at 500mA
- **Power consumption**
 - 2.5 Watts maximum
- **Dimensions**
 - 94.7mm L x 32.0mm W x 12.4mm H
- **Weight**
 - 34g
- **Antenna**
 - Integral MIMO antennas
 - Two connectors for optional external antennas
- **Host interface**
 - USB 2.0, USB Type A plug on modem
- **Authentication**
 - USIM slot
- **Connection manager**
 - Windows and Mac OS X versions
 - CD-less installation from USB stick
 - Client for OTA software upgrade
 - Diagnostics utility
 - Custom operator branding (optional)
- **Driver**
 - Windows XP/Vista/7 32-bit and 64-bit versions, WHQL
 - Mac OS 10.4 or higher
 - Linux Kernel 2.6.32 or higher
- **Operating temperature**
 - -20 to +40°C (-4 to +104°F) ambient
- **Storage temperature**
 - -20 to +65°C (-4 to +149°F) ambient
- **Humidity**
 - 5 to 95% condensing
- **Optional accessories**
 - USB desktop stand, laptop clip, external MIMO antennas
- **Interoperability**
 - Tested with multiple infrastructure vendors
- **Regulatory Approvals**
 - Radio & Safety approvals
 - FCC radio approval
 - UL safety approval
 - ROHS compliant

Model Numbers

USB-14-AL-03-US	Band Class 14 LTE USB Stick Modem (US version)
USB-12-AL-03-US	Band Class 12 LTE USB Stick Modem (US version)

GENERAL DYNAMICS

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