



Five band LTE, 100 Mbps DL, 50 Mbps UL, mPCIe module based on Gemalto (Cinterion) PLS8-E module

GenAir mPCIe LTE module is a reliable smart solution for wireless connectivity nowadays and tomorrow. The module utilizes 4G LTE technology and is optimized for high bandwidth usage via mobile broadband.

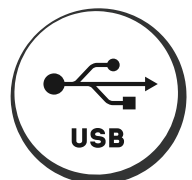
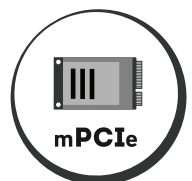
GenAir mPCIe LTE module is based on Gemalto (Cinterion) PLS8-E 4G module in a standard Mini PCI Express form factor. It is high-quality engineered LTE module, designed for industrial-grade M2M applications such as cellular routers, vehicle telematics & tracking, mobile payment systems, safety monitoring and industrial PDAs, and also other M2M applications such as security solutions, medical equipment etc.

Its small form factor with just 3.3 mm in height makes it perfect for integration in the size-challenging and complex M2M applications.

The module is designed to provide excellent and uninterrupted worldwide coverage even while roaming across various cellular networks. It supports multiple Operating Systems.

GenAir PLS8-E supports up to 100 Mbps downlink data rate, providing data service under European GSM/GPRS/EDGE/UMTS/HSPA+/LTE networks. The module also includes enhanced features like firmware upgrade over USB interface, SIM Tool Kit, and Gemalto's (Cinterion) enhanced AT command set.

All GenAir modules comply with the EU RoHS Directive and regional certification.



Features

General specifications

- LTE (UE Cat. 3): DL: max 100 Mbps, UL: max 50 Mbps, 2 x 2 DL MIMO
- DC-HSPA+ (UE CAT. 14, 24): DL: max 42 Mbps, HUPA UL: max 5.76 Mbps (Compressed mode supported)
- HSPA+ (UE DL Cat. 24 / UE UL Cat. 6), Dual carrier: DL: max 28.8 Mbps, UL: max 5.76 Mbps
- UMTS: PS data rate: DL: max 384 kbps, UL: max 384 kbps
- EDGE (Class 12 data rates): DL: max 237 kbps, UL: max 237 kbps
- GPRS (Class 12 data rates): DL: max 85.6 kbps, UL: max 85.6 kbps

Interfaces

- Antenna connectors: MAIN (GSM/UMTS/LTE main antenna) and AUX (UMTS/LTE Diversity/MIMO antenna)
- USB 2.0 High Speed (480 Mbit/s) and Full Speed (12Mbit/s) compliant
- UICC/SIM/USIM cards interface, 1.8V/3.0V

Technical specifications

RF characteristics

- LTE: Five band, 800 (Bd20) / 900 (Bd8) / 1800 (Bd3) / 2100 (Bd1) / 2600MHz (Bd7)
- UMTS/DC-HSPA+: Tri band, 900 (BdVIII) / 1800 (BdIII) / 2100MHz (BdI)
- GSM/GPRS/EDGE: Dual band, 900/1800MHz
- Output power (according to Release 99): from +24dBm (+1/-3dB) to +33dBm (± 2 dB) depending on the Network mode/class
- Output power (according to Release 8): +23dBm (± 2 dB)

Command set

- AT commands: Hayes, 3GPP TS 27.007 and 27.005, and proprietary Cinterion commands

Interfaces

- USB interface: USB 2.0 High Speed (480 Mbit/s), Full Speed (12 Mbit/s) compliant
- SIM card interface: UICC/SIM/USIM, 3V, 1.8V

Additional features

- Firmware update via USB
- SIM Tool Kit
- Cinterion enhanced AT commands

Approvals & Certifications

- CE
- RoHS

Operating Modes

- Normal Mode – GSM/GPRS/UMTS/HSPA/LTE Idle and Data modes
- Power Down Mode
- Airplane Mode

Power requirements

- Power supply: 3.3V \pm 9% (3.3V typical)

External pins

- RESET#, W_DISABLE# and LED_WWAN#

Environmental

- Temperature range: -30°C to +85°C
- Humidity: 10% - 90%

Dimensions and weight

- Dimensions: 30.0 x 51.0 x 3.3 mm
- Weight: approx. 10.5 g

Note: Please refer to the latest version of Hardware Guide about the specifications. Geneko reserves the right to make changes or improvements to any of the products without prior notice.

QMS
ISO 9001:2008

CE certified

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