

# MPCI-L100

## LTE module

Standard Professional Automotive

CELLULAR

### Highlights

- Single-mode LTE modem in standard Mini PCIe form factor
- LTE Cat. 3, 100 Mb/s download, 50 MB/s upload
- Easy migration from u-blox W-CDMA, CDMA, GSM modules
- Dual-band support for the Verizon network (North America)
- Industrial temperature range: -40 to +85°C
- Manufactured in ISO/TS 16949 certified production sites



MPCI-L100:  
30.0 x 51.0 x 3.7 mm

### Product description

The MPCI-L100 single-mode LTE module in the standard Mini PCIe form factor is easy to integrate in compact designs. The MPCI-L100 supports both Verizon LTE bands. As a single-mode LTE module, it offers cost advantages compared to multi-mode (LTE/3G/2G) modules, and is optimized for applications using only LTE networks.

The MPCI-L100 module is dedicated to data transfer, supporting a high-speed USB 2.0 interface. With LTE category 3 data rates of 100 Mb/s (downlink) and 50 Mb/s (uplink), the module is ideal for applications requiring the highest data-rates and high-speed internet access. It is the perfect choice for fixed-wireless terminals, mobile routers and gateways, and applications requiring video streaming. It is also optimally suited for (M2M) applications, such as remote access to video cameras, digital signage, telehealth, security and surveillance systems.

The MPCI-L100 can operate in a temperature range of -40 to +85°C, making it well suited to devices intended for outdoor operation and harsh environments.

The Mini PCIe package enables easy plug and play and manufacturing flexibility in dealing with multiple end product SKUs. The MPCI-L100 module is software and interface compatible with the u-blox TOBY-L100 module. This allows customers to take maximum advantage of their hardware and software investments, and provides very short time-to-market. The module is fully certified for the Verizon network. USB drivers and RIL software for Android are available free of charge.

MPCI-L100 modules are manufactured in ISO/TS 16949 certified sites. Each module is tested and inspected during production.

### Product selector

Model	Region	Access Technology	GNSS	Interfaces	Audio	Features	Grade
		3GPP Release Baseline LTE FDD Category LTE Bands MIMO	GNSS receiver	UART USB 2.0 RMII / RGMII SDIO (Master/Slave) GPIO	Analog audio Digital audio	Antenna Supervisor Jamming Detection Embedded TCP/UDP Embedded HTTP, FTP, SSL AssistNow software CellLocate® FOTA FW update via USB	Standard Professional Automotive
<b>MPCI-L100</b>	N. America (Verizon)	9 3 4, 13 2x2		1		•	<b>Professional</b>

## Features

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LTE	Cat. 3 50 Mb/s UL, 100 Mb/s DL FDD Bands 4, 13 3GPP Release 9 FDD channel bandwidth 1.4 - 20 MHz MIMO 2x2 Rx diversity
SMS	SMS via embedded IMS <sup>1</sup>
Network	Status Indication via LED
Firmware upgrade	Via USB

<sup>1</sup> IP Multimedia Subsystem

## Electrical data

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Power supply	3.3 V ± 9%
Power consumption	
Idle (power saving)	3.9 mA
Transmitting	930 mA (Band 4) 850 mA (Band 13)

## Interfaces

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Serial	1 USB 2.0 (high-speed, 480 Mb/s)
(U)SIM	1 4-wire interface, Supports 1.8 V and 3 V, SIM toolkit

## Package

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52-pin PCI Express Mini Card, 30 x 51 x 3.7 mm  
(components on top side only)

## Environmental data, quality & reliability

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Operating temperature -40 to +85°C (extended range)  
RoHS compliant (lead-free)  
REACH compliant  
Manufactured in ISO/TS 16949 certified production sites

## Certifications and approvals

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FCC, Verizon  
See the u-blox website for latest approvals.

## Support products

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EVK-L10M	Evaluation kit for MPC1-L100
RIL software	Available for Android
USB driver	Available for Windows Vista, 7, and 8

## Product variants

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MPC1-L100	LTE Cat. 3; Bands 4, 13 (Verizon)
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## Further information

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For more product details and ordering information, see the product data sheet.