Product Summary
MPCI-L2 series

Multi-mode LTE Cat 4 Mini PCIe modules with HSPA+ / 2G fallback

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Standard

Professional

Automotive

TOBY-L2 in MPCI form factor

- Powerful LTE modules in industry-standard Mini PCIe package
- Highest throughput of up to 150 Mbit/s with LTE Cat 4
- Variants for Americas, Europe, and APAC
- Deliver critical firmware updates over the air
- Industrial temperature range –40 °C to +85 °C
- MPCI-L201 switches automatically between AT&T and Verizon

30.0 × 51.0 × 3.7 mm

MPCI-L2

Product description

MPCI-L2 series modules support multi-band LTE-FDD, along with DC-HSPA+ and EGPRS.

With 3GPP Rel. 9 and LTE Cat 4, which provides data throughput up to 150 Mbit/s, the modules are ideal for both industrial and consumer applications requiring the highest data rates.

Typical applications are industrial computing, ruggedized terminals, video communication, wireless routers, alarm panels and surveillance, digital signage, and payment systems.

The temperature range of –40 °C to +85 °C guarantees operation in harsh environments, making the modules suitable for industrial applications.

The modules support DC-HSPA+ guaranteed connectivity, even in areas that do not yet have LTE coverage.

The industry standard Mini PCIe package enables easy integration onto an application board, and is also ideal for manufacturing of small series.

MPCI-L2 modules are manufactured in ISO/TS 16949 certified sites, with the highest production standards and the highest quality and reliability. Each module is fully tested and inspected during production.

The MPCI-L2 series comes in module variants for North America, Europe/ Asia/ Africa, APAC/ South America, and Japan.

USB drivers and RIL software for Android are free of charge.

	MPCI-L200	MPCI-L201	MPCI-L210	MPCI-L220	MPCI-L280
Grade					
Automotive					
Professional	•	•	•	•	•
Standard					
Regions					
	North America	North America	EU/ APAC	Japan	S. America/ APAC
Access Technology					
GSM/GPRS bands	Q		Q		Q
UMTS/HSPA [MHz]	850, 900, 1700, 1900, 2100	850, 1900	850, 900, 1900, 2100	850, 900, 2100	850, 900, 1900, 2100
LTE FDD bands	2, 4, 5, 7, 17	2, 4, 5, 13, 17	1, 3, 5, 7, 8, 20	1, 3, 5, 8, 19	1, 3, 5, 7, 8, 28
Data rate	Cat 4	Cat 4	Cat 4	Cat 4	Cat 4
Interfaces					
USB	1	1	1	1	1
Features					
Network indication	•	•	•	•	•
Antenna detection					
Embedded TCP/UDP	•	•	•	•	•
Embedded FTP/HTTP	•	•	•	•	•
Embedded TLS 1.2	•	•	•	•	•
FW update via serial	•	•	•	•	•
FOTA	•	•	•	•	•
Rx diversity	•	•	•	•	•
Dual stack IPv4/IPv6	•	•	•	•	•
MIMO 2x2	•	•	•	•	•

Q = Quad-band   Cat 4 = LTE Cat 4 (150 Mb/s download, 50 Mb/s upload)

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MPCI-L2 series

Features

LTE	Cat 4 (150 Mbit/s DL, 50 Mbit/s UL) 3GPP Release 9 FDD Bands: – MPCI-L200: 2, 4, 5, 7, 17 (N. America) – MPCI-L201: 2, 4, 5, 13, 17 (USA) – MPCI-L210: 1, 3, 5, 7, 8, 20 (EU/Asia/Africa) – MPCI-L220: 1, 3, 5, 8, 19 (Japan) – MPCI-L280: 1, 3, 5, 7, 8, 28 (APAC/S. America) All channel bandwidths: 1.4 - 20 MHz MIMO 2x2 Rx diversity
UMTS/DC-HSPA+	Bands (in MHz): – MPCI-L200: 850/900/AWS/1900/2100 – MPCI-L201: 850/1900 – MPCI-L210: 850/900/1900/2100 – MPCI-L220: 850/900/2100 – MPCI-L280: 850/900/1900/2100 42 Mbit/s downlink, 5.76 Mbit/s uplink
GSM	Bands (in MHz): – MPCI-L200: 850/900/1800/1900 – MPCI-L210: 850/900/1800/1900 – MPCI-L280: 850/900/1800/1900 GPRS & EDGE Class 12
SMS	MT/MO PDU / Text mode SMS over IMS and via SMS-C

Software features

Protocols	Dual stack IPv4 / IPv6 Embedded TCP/IP, UDP/IP HTTP/FTP/SSL (Secure Socket Layer)
Firmware upgrade	Via USB Via FOTA

Interfaces

RF (antenna)	2 UFL (50 Ω) Connectors (main and diversity)
Data	1 USB 2.0 (high-speed, 480 Mbit/s)
(U)SIM	Supports 1.8 V and 3 V, SIM toolkit

Package

52-pin PCI Express Full-Mini Card Type F2
30.0 x 51.0 x 3.7 mm, 9.7 g (components on top side only)

Electrical data

Power supply	DC 3.0 - 3.6 V
Consumption current	Connected mode LTE max power: 815 mA Idle mode: 1.8 mA

Environmental data, quality & reliability

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

Certifications and approvals

MPCI-L200	PTCRB, GCF, FCC, ISED (formerly known as IC), RED (formerly known as R&TTE), AT&T, Anatel (Brazil)
MPCI-L201	FCC, ISED (formerly known as IC)
MPCI-L210	PTCRB, GCF, FCC, ISED (formerly known as IC), RED (formerly known as R&TTE), NCC, KCC (Korea), Giteki (Japan), Softbank (Japan), RCM (Australia) Operator approvals
MPCI-L220	Giteki (Japan)
MPCI-L280	PTCRB, GCF, FCC, ISED (formerly known as IC), RED (formerly known as R&TTE), Anatel (Brazil), NCC (Taiwan), RCM (Australia)

Support products

RIL software	Available for Android
USB driver	Available for Embedded Windows 6.0, 7, 2013 and Windows 7, 8, 8.1, 10

Product variants

MPCI-L200	LTE Cat 4 modules for North America; 2G and 3G fallback; LTE bands 2, 4, 5, 7, 17
MPCI-L201	LTE Cat 4 modules for North America; 3G fallback; LTE bands 2, 4, 5, 13, 17
MPCI-L210	LTE Cat 4 modules for Europe and APAC; 2G and 3G fallback; LTE bands 1, 3, 5, 7, 8, 20
MPCI-L220	LTE Cat 4 modules for Japan; 3G fall-back; LTE bands 1, 3, 5, 8, 19
MPCI-L280	LTE Cat 4 modules for APAC and South America; 2G and 3G fallback; LTE bands 1, 3, 5, 7, 8, 28

Further information

For contact information, see www.u-blox.com/contact-us.

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