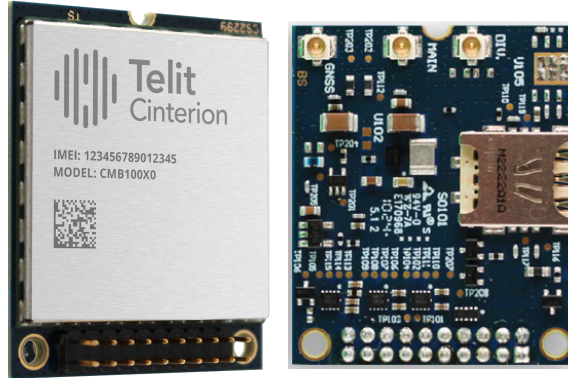# CMB100X0 Series

LTE Cat 4, Cat 1 bis and Cat M1

Product Description

The CMB100 series is Telit Cinterion's first generation of LTE modules certified for end devices. These modules provide the ability to add reliable LTE connectivity to products while reducing:

- Development costs
- Certification costs
- LTE product development risks
- Respins and recertifications for radio changes
- Time to market

Key Features

- Standard mini berg connector with 20 mm pitch
- Best-in-class 3GPP Release (Rel) 10 platform
- Easy to integrate with peripherals and actuators using USB 2.0 HS, UART and user-definable GPIOs
- Wide power supply support range (1.8 V* to 5.5 V)
- Battery-friendly 1.8 V GPIO
- GPIO level translation for 3.3 V system
- Ideal platform for IoT applications, mobile data and ultracompact computing devices with extended operating temperature range
- Internet-friendly with integrated TCP/IP and UDP/IP stacks
- Firmware over-the-air (FOTA) updates
- FCC/IC and RED certified and device certified with major carriers
- 2G and 3G fallback and GNSS for accurate location services

Family Concept

One mechanical and electrical form factor supports Telit Cinterion's present and future LTE and 5G technologies. Designers looking to add LTE capabilities to commercial and industrial devices benefit from the uniform form factor.The CMB100 eliminates the complexities and challenges of radio frequency (RF) design. Developers don't need a deep understanding of RF principles and specifications.

IoT Connectivity Ready

The CMB100 family supports Telit Cinterion's extensive value-added services suite:

Centralized device management

- Zero-touch onboarding
- Remote provisioning and configuration
- Monitoring and troubleshooting
- FOTA updates for modules and devices

Edge logic

- Define and build edge device logic
- Optimize behavior and resource usage
- Set control logic remotely
- Simplify edge life cycle management

Embedded security

- Embedded security at manufacture
- Encrypted device-to-cloud communications

Connectivity and SIM management

- Simplified service profile and self-care subscription design and management
- Real-time diagnostics and controls for SIM and data plan monitoring and management

Enterprise integration

- Integrates with third-party business systems
- Delivers data to enterprise applications

AVAILABLE FOR

Worldwide

CMB100X0 Series

	CMBX100A0-WW CAT 4	CMBX100A0-WW CAT 1 BIS	CMBX100C0-WW CAT M1
Market	Worldwide	Worldwide	Worldwide
4G FDD	B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B18, B19, B20, B25, B26, B28	B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B66, B34, B38, B39, B40, B41	B1, B2, B3, B4, B5, B8, B8_US*, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B71, B85, B86*
HSPA+1	B1, B2, B4, B5, B6, B8, B19	-	-
2G	B2, B3, B5, B8	-	B2, B3, B5, B8
NB IoT	-	-	B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B2S, B26, B28, B66, B71, B8S

planned

Product Features

- CMB100X0 FDD Cat 1/Cat M1, 3GPP Rel 10 compliant
- CMB100X0 Cat 4, 3GPP Rel10 compliant
- Rx diversity and MIMO DL 2 x 2
- Single Rx option
- VoLTE support
- SMS over IMS
- Built-in UDP/TCP/FTP/SMTP stack
- IPv4/IPv6 stack
- Control via AT commands according to 3GPP TS 27.005, 27.007 and Telit Cinterion custom AT commands
- SIM application Tool Kit 3GPP TS 51.014
- OMA-DM Telit Cinterion software management
- Simultaneous support of GPS, GLONASS, BeiDou, Galileo and QZSS

Hardware and Electrical Specifications

- Dimensions 36 x 30 x 5.5 mm (considering the berg, the height is 8.55 mm)
- 20-pin THT interface
- 10 I/O ports (@ 1.8 V), including multifunctional I/Os
- USB 2.0 HS/HSIC
- UART
- PCM
- 1.8 V/3V SIM interface
- RF pad, RX diversity and MIMO pad
- Industrial temperature range:
  -40°C to +85°C[1]
- Compliant with REACH and RoHS
- Output power
  - Class 3 (0.2 W, 23 dBm) @ LTE
- Supply voltage range:
  - Nominal: 3.8 V dc
  - Range: 1.8-5.5 V dc, 1.8-2.5 V dc with limitations[2]

Data

LTE Cat 1/Cat M1

- Uplink up to 5 Mbps
- Downlink up to 10 Mbps

Cat 4

- Uplink up to 50 Mbps
- Downlink up to 150 Mbps

DC-HSPA+ 42 Mbps

- supported on variants with 3G fallback

Approvals

- FCC/IC (North America)
- RED/GCF (Europe)
- PTCRB
- Verizon
- AT&T

[1]End product integration of the CMB100 may impact the overall operating temperature range.

[2]2G Operating voltage range limited to 2.5 V dc to 5.5 V dc.

QUESTIONS? VISIT WWW.TELIT.COM/CONTACT-US

Like Us on Facebook   Follow Us on LinkedIn   Follow Us on X   Subscribe to Our Channel