

3G and LTE Terminals for Industrial M2M and IoT Applications

Broadening the scope of M2M applications with 3G and LTE terminals

Telic offers a broad range of industrial modems for UMTS and LTE networks which use communication modules from Telit or Gemalto. With these terminals, system integrators can address a range of specialized requirements which go beyond what is possible when only using GSM technology:

- Using the high-speed data rates of UMTS/LTE e.g. to enable streaming applications or fast software updates in Point-of-Sale terminals.
- Taking advantage of lower latencies for mission-critical applications, e.g. in the domain of smart grids.
- Using multiple technologies (GSM and UMTS or GSM and LTE) to improve the robustness of the M2M application, in case of dropped connections with one or the other technology.
- Using LTE terminals to ensure long-term investment protection of the M2M application.

All UMTS and LTE industrial modems from Telic provide a common set of industrial interfaces (RS232 and USB) for M2M applications. All terminals support also an ultra-low power consumption mode which is especially relevant for battery-operated applications.

Key Benefits

- Robust industrial-grade devices enable long-term multi-year operation.
- Easily swap 2G with 3G / LTE terminals when required by having a real migration path for these mobile network technologies.
- Use the programming capabilities of 3G and LTE terminals e.g. to facilitate a migration of any existing 2G installed base.

Key Features

- Communication modules from Telit or Gemalto.
- Dual band or penta band support for 3G (UMTS and HSPA/HSPA+).
- Industry's first LTE Cat-1 terminal with GSM fallback (based on Telit module).
- Industry standard RS232 and USB 2.0 interfaces on all products.
- Ultra-low power consumption mode for battery-powered applications.



Product Specification Overview of UMTS / LTE Terminals

Categories	Features	HT910 E	HT910 G	LT910 E	HT63 E
Description	Part Number	06301	06303	06307	06501
Wireless Features	Module	Telit UE910-EUD	Telit HE910-D	Telit LE910-EU1	Gemalto EHS5-E
	GSM/GPRS Frequency Bands	900 / 1800 MHz	850 / 900 / 1800 / 1900 MHz	900 / 1800 MHz	900 / 1800 MHz
	UMTS Frequency Bands	900 / 2100 MHz	3G Pentaband	-	900 / 2100 MHz
	HSPA DL	7.2 Mbit/s	21 Mbit/s	-	7.2 Mbit/s
	HSPA UL	5.7 Mbit/s	5.7 Mbit/s	-	5.7 Mbit/s
	LTE Frequency Bands	-	-	B1 (2100), B3 (1800), B7 (2600), B8 (900), B20 (800)	-
	LTE Category	-	-	Cat-1	-
	LTE DL	-	-	10 Mbps	-
LTE UL	-	-	5 Mbps	-	
Connectors	D-Sub (9-pin)	1x Female (RS232)	1x Female (RS232)	1x Female (RS232)	1x Female (RS232)
	USB	1x Mini-USB (USB 2.0)			
	RJ11	1x (Power + 1 Analogue Input)	1x (Power + 1 Analogue Input)	1x (Power + 1 Analogue Input)	1x (Power)
	FME	1x Male (Antenna)	1x Male (Antenna)	1x Male (Antenna)	1x Male (Antenna)
Hardware Features	SIM Card Holder	1x (1,8 / 3 Volt)			
	LEDs	1 GSM/UMTS + 2 Configurable	1 GSM/UMTS + 2 Configurable	1 GSM/LTE + 2 Configurable	1 GSM/UMTS + 2 Configurable
	Realtime Clock	With alarm functionality	With alarm functionality	With alarm functionality	With alarm functionality
	Type Approvals	CE	CE, FCC	CE	CE
Interfaces	Analog Inputs	1	1	1	-
	Digital Inputs	-	-	-	-
	Outputs	1 (Optional)	1 (Optional)	1 (Optional)	-
Software	AT Command Set	Hayes Compliant, TS 27.005, 27.007 and Telit custom AT	Hayes Compliant, TS 27.005, 27.007 and Telit custom AT	Hayes Compliant, TS 27.005, 27.007 and Telit custom AT	Hayes Compliant, TS 27.005, 27.007 and Gemalto custom AT
	Programming Language	Python	Python C APIs for Telit AppZone	C APIs for Telit AppZone	Java ME 3.2
	Firmware Update	FOTA	FOTA	FOTA	Serial / FOTA
	TCP/IP Stack	TCP, UDP, ICMP, HTTP, DNS, FTP, SSL, SMTP	TCP, UDP, ICMP, HTTP, DNS, FTP, SSL, SMTP	TCP, UDP, ICMP, HTTP, DNS, FTP, SSL, SMTP	TCP, UDP, ICMP, HTTP, DNS, FTP, SMTP, POP3, TLS
Electrical Characteristics	Voltage Range	5V - 32V	5V - 32V	5V - 32V	5V - 32V
	Power Cons. (Idle Mode)	~12 mA (*)	~14 mA (*)	~12 mA (*)	~7 mA (*)
	Power Cons. (Low Power Mode)	~1,8 mA (*)	~10 mA (*)	2 mA (*)	<1 mA (*)
Hardware Characteristics	Operating Temperature	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C	-40°C to +80°C
	Size	77x66x26 mm	77x66x26 mm	77x66x26 mm	77x66x26 mm
	Weight	91g	91g	91g	91g

(*) Measurement averaged (including peaks) over a minimum of 1 minute measurement intervall.

Accessories (exemplary)

