



TXWIRELESS™



Powered by
AWS IoT ExpressLink



Datasheet

EMU1000

Part No:
EMU1000

Description:

Instant connectivity multi radio platform.

Ordering Information:

EMU1000W – EDGE Multi 1000 [LTE CAT 1.bis Global module] with AWS IoT Expresslink software.

EMU1000B – EDGE Multi 1000 [LTE CAT M Global module] AWS IoT Expresslink software.

Features:

- Compact secure IoT device architecture, Data-as-a-Service, and connectivity all in a single pre-certified, high-performance package.
- Supports AWS Expresslink interfacing.
- Multi radio – Cellular / Wi-Fi / Bluetooth BLE5
- Cellular LTE Cat1.bis/2G (Optional CatM/NB)

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Introduction

The TxWireless™ EMU1000, the world's first multi radio hardware device, powered by AWS IoT ExpressLink software. This compact multi-radio device with various options of cellular, Wi-Fi 802.11b/g/n, and Bluetooth low energy in a small form factor board. It features dual-core 32-bit LX7 processor, optimized firmware/RTOS, and validated applications libraries. The EMU1000 RF design has been optimized to ensure the highest possible signal integrity for cellular communications.

The TxWireless EMU1000 offers the ultimate degree of flexibility and scalability while saving costs and time-to-market for OEMs and enterprises. Developed by industry experts and with proven commercial solutions across health care, industrial, and transportation segments. The IoT design and manufacturing process can become as simple as activating a SIM card. The solution is also supported by powered by AWS IoT ExpressLink software and cloud management platform that provides a scalable end-to-end solution for easy control and management of connected devices.

Key Benefits



Reduce Costs

Save costs on design and manufacturing of a connectivity project.



Accelerate Your Project

Cut your development time by up to 80% by leveraging validated hardware and device software building blocks.



Reduce Complexity

No networking experience is required to get the device up and running.



Ready Out Of The Box

Allow users to focus on other tasks and not worry about complex global connectivity.



Connect The Unconnected

Quickly and effortlessly add connectivity to your device.



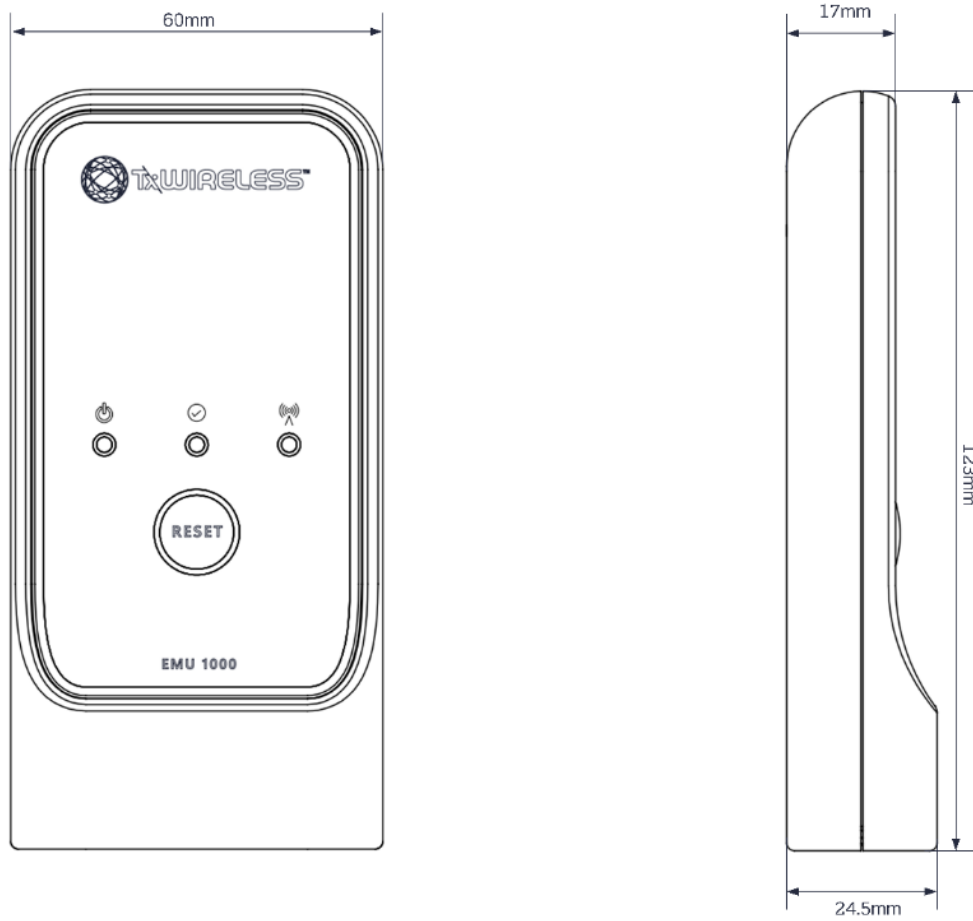
Upgrade Existing Systems

Ideal for product retrofits and upgrades to cellular communications.

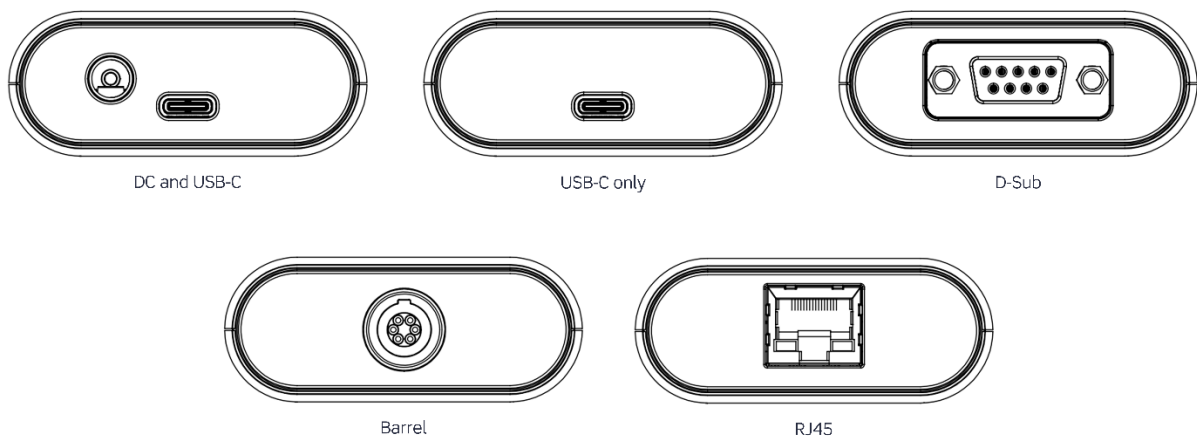
Specifications

Model Name	EMU1000
System	
Processor	Dual-core 32-bit LX7 processor
RAM	8 MB
Flash	16 MB
Firmware O/S	RTOS Applications Libraries & AWS ExpressLink
Security	Analog Devices Onboard MAXQ1065
Radios	
Cellular	Global Cat1.bis or Global LPWAN (CatM/NB-IoT/2G)
Bluetooth	BLE 5.1
Wi-Fi	2.4 GHz (802.11 b/g/n)
Physical	
Operating Temperature	-20°C (-4°F) to +60°C (140°F)
Dimensions	123mm x 60mm x 24.5mm
Weight	107g
Power	5V DC, Current 1A- 3A (CatM 1A & Cat1.bis 3A peak current)
Connector types	DC & USB-C, USB-C only, D-Sub, Barrel, and RJ45

Mechanical Specifications



Connector types available with the EMU1000



Pinout Table for D-Sub connector		
Pin	Function	Note
1	Aux R _{XD}	Debug UART receive line
2	T _{XD}	ExpressLink Data output line
3	R _{XD}	ExpressLink Data input line
4	RST	ExpressLink Reset pin
5	GND	Ground
6	Aux T _{XD}	Debug UART transmit line
7	WAKE	Expresslink WAKE input
8	EVENT	Expresslink EVENT output
9	V _{CC}	Device Power Input (5V DC)

Pinout Table for Barrel connector (Pinout can be customized)		
Pin	Function	Note
1	R _{XD}	ExpressLink Data input line
2	T _{XD}	ExpressLink Data output line
3	RST	ExpressLink Reset pin
4	EVENT	Expresslink EVENT output
5	WAKE	Expresslink WAKE input
6	Aux R _{XD}	Debug UART receive line
7	Aux T _{XD}	Debug UART transmit line
8	AIN0/DIN0	Digital Input 2
9	OPTO In+	Analog Input 1 (0V – 36V)
10	OPTO In-	Ground
11	OPTO Out	Digital Input 1
12	OPTO Out Ref	Digital Input 2
13	GND	Ground
14	V _{CC}	Device Power Input (5V DC)

Regional Support and International Engineering

Let's make something great together

We are trusted by over 5000+ clients.
Join them by using our services and grow your business.

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