

Compact Industrial DTU modem with Cellular network

- Links Serial and Ethernet devices to a Cellular network
- Auto-sensing 10/100 Mbps Ethernet for LAN / WAN
- Built-in Mini-PCIe slot for cellular module
- Enhanced surge protection for Serial, Eth, and Power
- Web-based configuration using built-in Ethernet LAN
- SD slot for Offline port buffering and serial data log
- 35mm DIN-Rail and wall mount Supported
- Hardware Watchdog for auto recovery
- -40°C to +85°C Operating Temperature for harsh environment



Introduction

The Elastel EC212 is a compact industrial DTU modem for data acquisition, Modbus Gateway, and communication applications. It comes with 2 x RS485/232 serial ports and 1x 10/100 Mbps Ethernet port, as well as a built-in Mini PCIe socket to support 4G LTE/3G/2G/NB-IoT/Cat M1 cellular modules.



These versatile capabilities let users efficiently adapt the EC212 to kinds of serial and Ethernet devices, such as PLCs, meters, and sensors, to datacenter over cellular network. Or as a serial-to-Ethernet Modbus gateway, and expand to a variety of protocol gateway communications solutions.



With full industrial-grade design, built-in hardware watchdog, and Easy-to-use configuration web portal, and Linux based firmware, guarantee this ruggedized DTU reliably working on variety applications of industrial environment.

Appearance



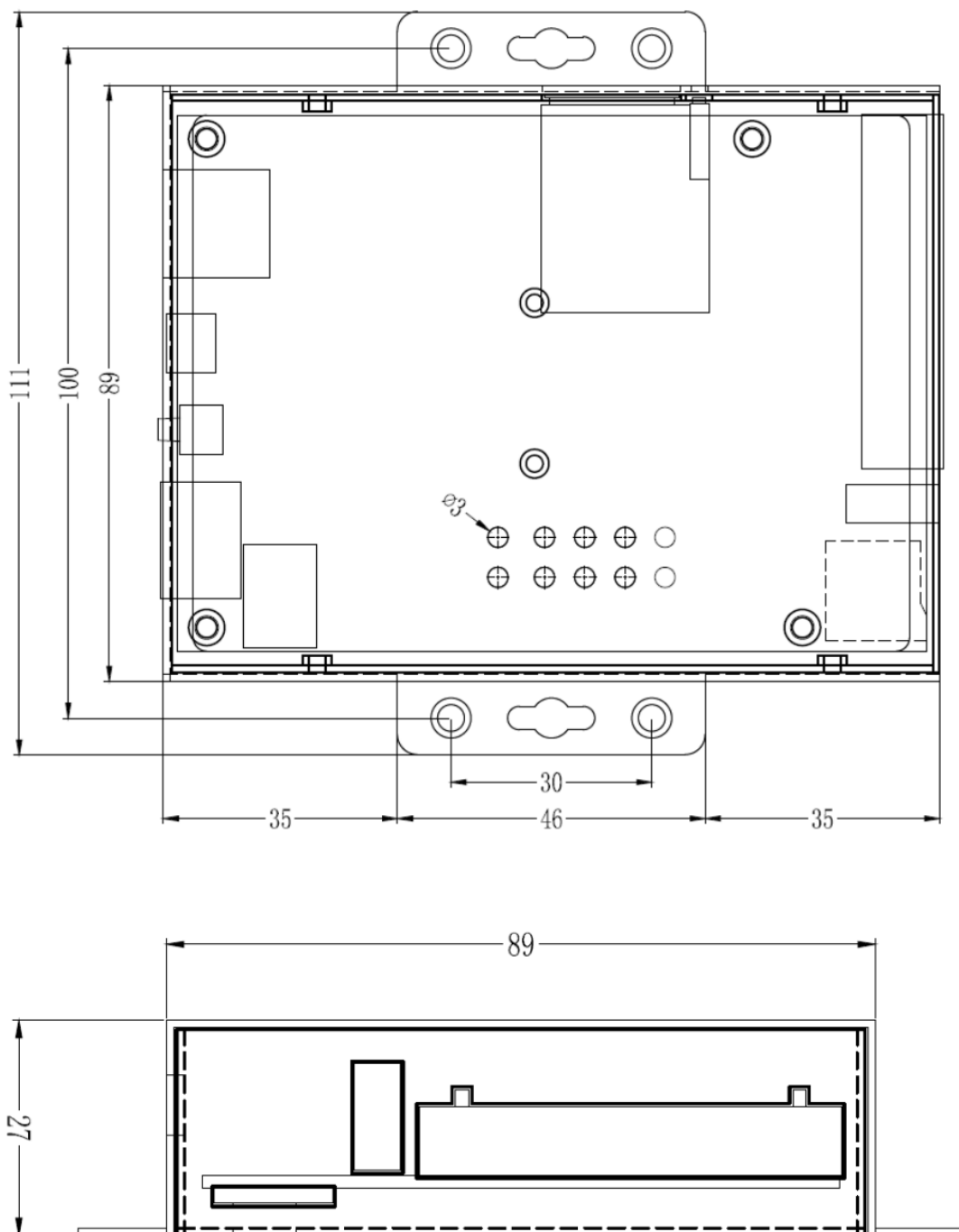
Specifications

System	
CPU	ARM9 @ 300MHz
Pre-installed OS	Optimized Linux 3.10.107, with pre-installed WebUI
DRAM	64MB DDR2
Storage	128MB SLC Nand Flash
Storage Slot	SD slots x 1 up to 64GB
Serial Interface	
Serial Ports	2 x RS-232/485
Baudrate	300 bps to 921.6 kbps
Data Bits	5, 6, 7, 8
Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 1.5, 2
Protection	Surge 4KV ESD ±15kV IEC61000-4-2 Air Discharge ESD ±15kV Human Body Model
Ethernet Interface	
Ethernet Ports	1 x Auto-sensing 10/100 Mbps Ethernet for LAN/WAN configurable
Protection	Surge 2KV ESD ±15kV IEC61000-4-2 Air Discharge ESD ±15kV Human Body Model
Cellular Interface	
Cellular module Slots	1 x mPCIe slot for Cellular module
Number of SIMs	1
SIM Format	Mini SIM (25mm*15mm)
Cellular Antenna Connector	SMA
Band Options	<p>NA Area: 4G LTE FDD@ B2/B4/B12/B13; 3G WCDMA@ B2/B4/B5; Carrier Approval: Verizon, AT&T</p> <p>EMEA/APAC Area: 4G LTE FDD@ B1/B3/B7/B8/B20/B28A; 4G LTE TDD@ B38/B40/B41; 3G WCDMA@ B1/B8; 2G GSM@ B3/B8;</p> <p>ANZ/LATAM Area: 4G LTE FDD@ B1/B2/B3/B4/B5/B7/B8/B28; 4G LTE TDD@ B40; 3G WCDMA@ B1/B2/B5/B8; 2G GSM@ B2/B3/B5/B8;</p> <p>Other options please contact Elastel representative.</p>

USB Host	
USB 2.0	1 x USB 2.0, for external peripheral devices
Power output	5V@500mA
Protection	Output Over Load protection ESD ±8kV IEC61000-4-2 Air Discharge ESD ±6kV Human Body Model
Other Interface	
Console Port	1 x UART type-C connector
Buttons	1x button for Reset and Upgrade
Power Parameters	
Standard Power	DC 12V/1.5A
Input Voltage	9 ~ 36 VDC, 9 ~ 24 VAC
Power Consumption	Working Mode: 5 W Peak Power: <10 W
Protection	Overvoltage & polarity reverse protection Surge 4KV ESD ±15kV IEC61000-4-2 Air Discharge ESD ±15kV Human Body Model
Indicators	
LED Indicators	Power x 1, System (programmable) x1, Cellular WAN x1, ETH x1, COM<x> trans x 4 (TX + RX)
Cellular LED status	Searching network: Slow flashing (200ms ON/1800ms OFF) Idle Status: Slow flashing (1800ms ON/200ms OFF) Transmission: Fast flashing (125ms ON/125ms OFF)
Buzzer	Built-in buzzer x 1, for Warning alarm (Programmable)
Reliability	
Alert Tools	External RTC with Backup button battery
Automatic Reboot Trigger	External WDT (watchdog timer)
Physical Characteristics	
Dimensions	116mm×111mm×27mm (L×W×H)
Housing	IP30 Metal
Installation	DIN-rail mounting Wall mounting
Weight	370 g (0.82 lb)
Environmental Limits	
Ambient Relative Humidity	5 to 95% (non-condensing)
Operating Temperature	-40 to 85°C (-40 to 185°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Package Contents	
Device	1 x EC212 IoT Gateway with Terminal Block preinstalled
Antenna	Mag-mount Cellular Antenna (SMA Male, 1 meter, 12dBi)

Installation Kit	1 x DIN-rail kit
Power Adapter	DC 12V/1.5A (optional)
Warranty	
Warranty Period	1 year

Dimensions



About Elastel

Elastel Technology Ltd is a global leading design and manufacturing company providing industrial-quality wireless solution for IoT and M2M. Founded in 2018, Elastel leverages its independent research and development and innovation to pursue its core mission: “Streamline IoT communication development, shorten and simplify the process of system implementation”

The company’s high-quality industrial Computer & Gateway hardware and software service enhance the IoT communication efficiency and competitive advantages of its customers all over the world.

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Technical Support

Send email to Elastel Support center (support@elastel.com) for firmware upgrade, product documents, FAQ, technical support and more.