

Arm Cortex-A9 1.4 GHz IIoT gateway with built-in 4G LTE

- Armv7 Quad-core Cortex-A9 1.4 GHz CPU, 512MB RAM + 8GB eMMC Hardware platform
- Elastel Optimized Ubuntu 20.04 Firmware flexible configure and program
- Dual auto-sensing 10/100 Mbps Ethernet ports
- 1x Mini-PCIe slot for cellular module or Wi-Fi module
- 4x Isolated RS485 and RS232 for industrial data acquisition
- SD slot for storage expansion
- 35mm DIN-Rail and wall mount Supported
- Fanless design with full heatsink enclosure
- -40°C to +85°C Operating Temperature for harsh environment



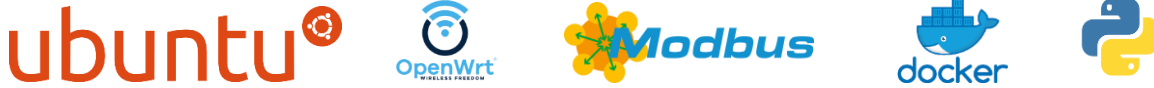
Introduction

The Elastel EG324 IoT Gateway provide a high-performance computing platform for embedded data acquisition and communication applications. It comes with 4 x RS485/232 serial ports and dual 10/100 Mbps Ethernet ports, as well as a Mini-PCIe socket to support 4G LTE/3G/2G/NB-IoT/Cat M1 cellular modules and Wi-Fi modules. These versatile capabilities let users efficiently adapt the EG324 to a variety of complex communications solutions.



The EG324 is built around an up to 1.4GHz processor with 512MB RAM and 8GB eMMC, this computing capability is widely applicable to a variety of industrial solutions.

With full industrial-grade design, guarantee this compact embedded computer reliably working on wide temperature, electromagnetic, lightning surge...harsh environment.



Leverage the Ubuntu OS power and flexibility, Elastel talented customers has configured and customized EG324 for their specific applications for data acquisition and processing at field sites as well as a useful communications platform for many other large-scale deployments.

Appearance



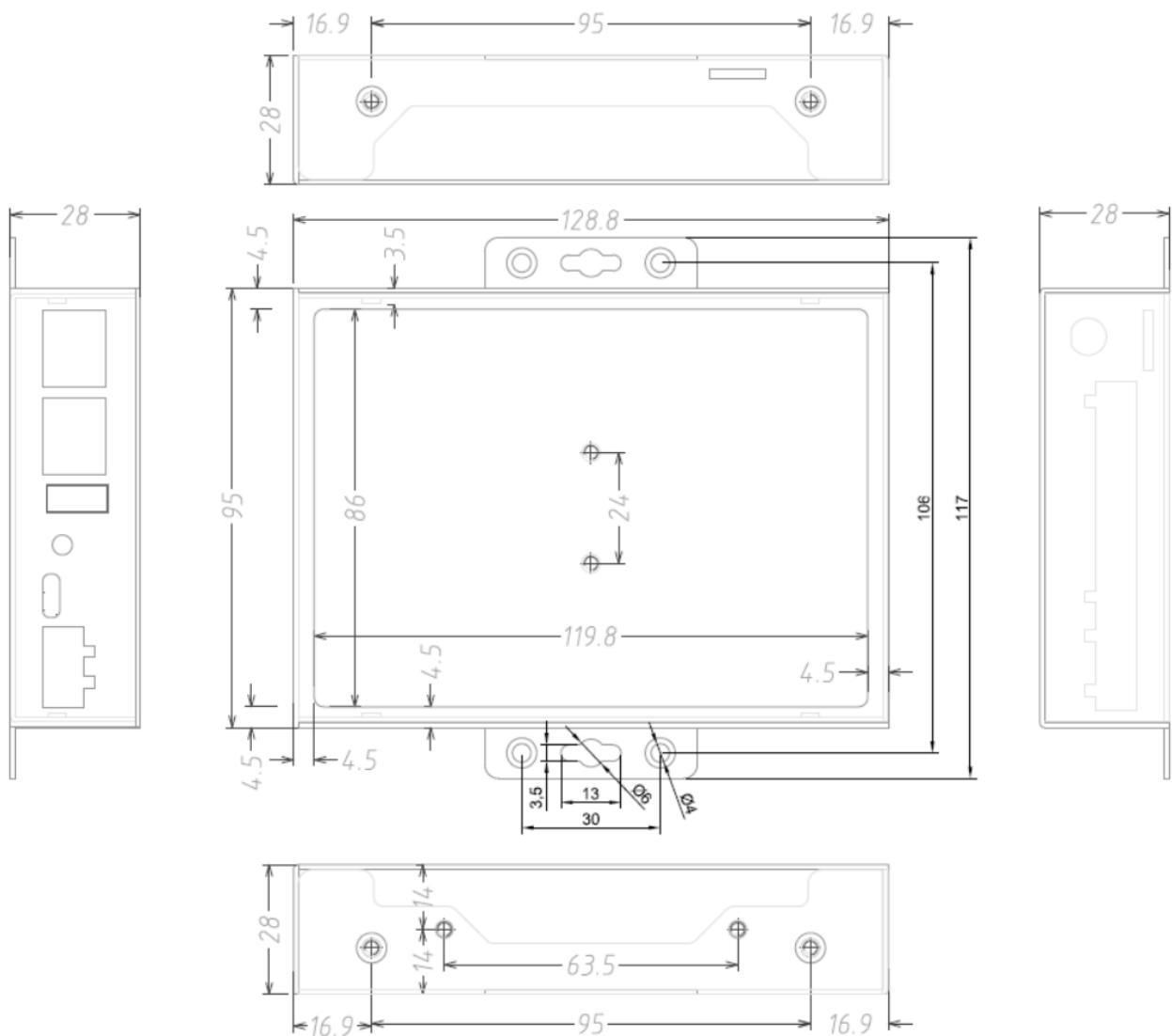
Specifications

System	
CPU	Armv7 Quad-core Cortex-A9 1.4 GHz
Pre-installed OS	Optimized Ubuntu core 20.04, easy Configurable and Programmable
DRAM	512MB DDR3 (1GB optional)
Storage Pre-installed	8 GB eMMC
Storage Slot	SD slots x 1
Serial Interface	
Serial Ports	2 x RS485 + 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	2 x Auto-sensing 10/100 Mbps ports (RJ45 connector) , 1x WAN, 1xLAN or 2xLAN 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	Micro SIM (12mm*15mm)
Cellular Antenna Connector	SMA
Band Options	<p>US model: 4G LTE FDD@ B2/B4/B12/B13; 3G WCDMA@ B2/B4/B5;</p> <p>EU model: 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>AU model: 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, type-A connector
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 ~ 48 VDC, 12 ~ 30 VAC
Power Consumption	Working Mode: 6 W Max Consumption: <10 W
Protection	Overvoltage & Reverse polarity 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, WAN x1, COM<x> trans x 8 (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 (real-time clock)
Automatic Reboot Trigger	External WDT (watchdog timer)
Physical Characteristics	
Dimensions	128.8mm×117mm×28mm (L×W×H)
Housing	Metal
Installation	DIN-rail mounting Wall mounting
Weight	470 g (1.04 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 EG324 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)
Software Features	
Operating System	Optimized Ubuntu 20.04
Prebuilt Environment	Node-Red, Python, C/C++, Docker
Prebuilt OT-to-IT protocols	Modbus RTU / ASCII / TCP, M-Bus, EtherNet/IP, PROFINET, BACnet MSTP, PLCs data acquisition (Siemens S7, Allen-Bradley, Mitsubishi...) Modbus TCP, MQTT, HTTP, TCP, UDP, OPC-UA, BACnet IP
Warranty	
Warranty Period	1 years

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.