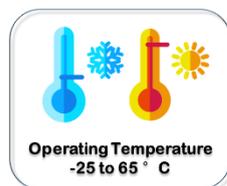


Industrial Raspberry Pi with Rich I/O for IIoT Applications

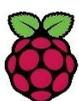
- Powered by high-performance Raspberry Pi CM5 (Quad-core Cortex-A76 @ 2.4GHz)
- Supports global 4G LTE / 3G / 2G / NB-IoT, with optional GPS and LoRa connectivity
- 2x Gigabit Ethernet ports with configurable WAN/LAN
- Rich industrial-grade interfaces including RS485, RS232, DI/DO, USB
- Rugged fanless design with full aluminum heatsink enclosure
- Supports 35mm DIN-rail and wall mounting
- -25°C to +65°C wide Operating Temperature
- Fully compatible with Raspberry Pi OS for rapid IIoT development



The Elastel EG510 is an industrial Raspberry Pi designed for IIoT applications. Powered by high-performance **Raspberry Pi CM5** and an industrial-grade carrier board, it offers comprehensive I/O interfaces including RS485, RS232, DI, DO, along with 4G LTE / 3G / 2G / NB-IoT, 2.4GHz/5GHz Wi-Fi, LoRa, and Gigabit Ethernet connectivity. Its rugged fanless aluminum enclosure ensures reliable operation in harsh environments.



Built on Raspberry Pi OS, the EG510 provides an open and flexible platform for easy development and integration. Pre-installed with [ElastPro](#) OT-to-IT software, it enables ready-to-use data acquisition, protocol conversion, edge processing, and secure cloud connectivity, making it ideal for automation control, edge computing, remote monitoring, and cloud-connected IIoT solutions.



Raspberry Pi OS

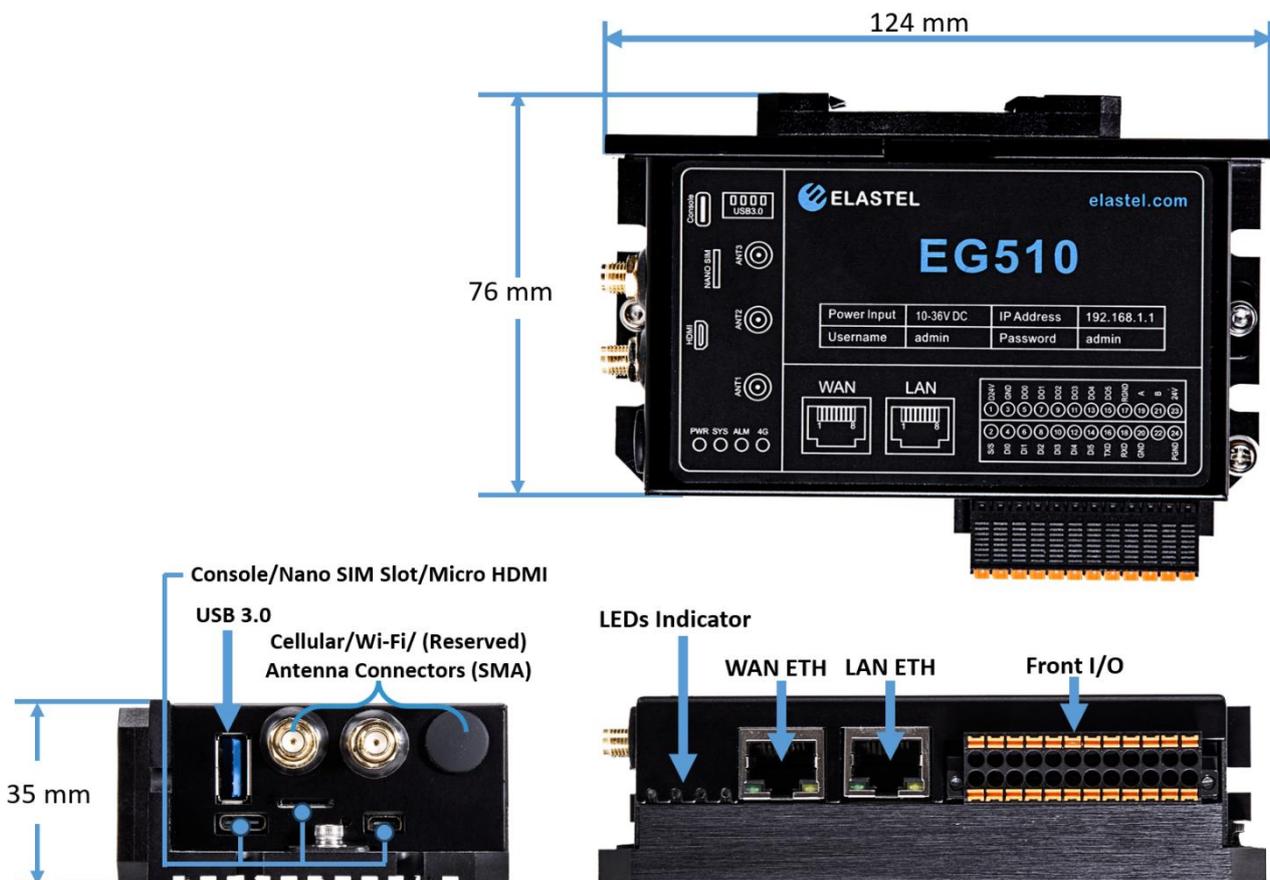


Specifications

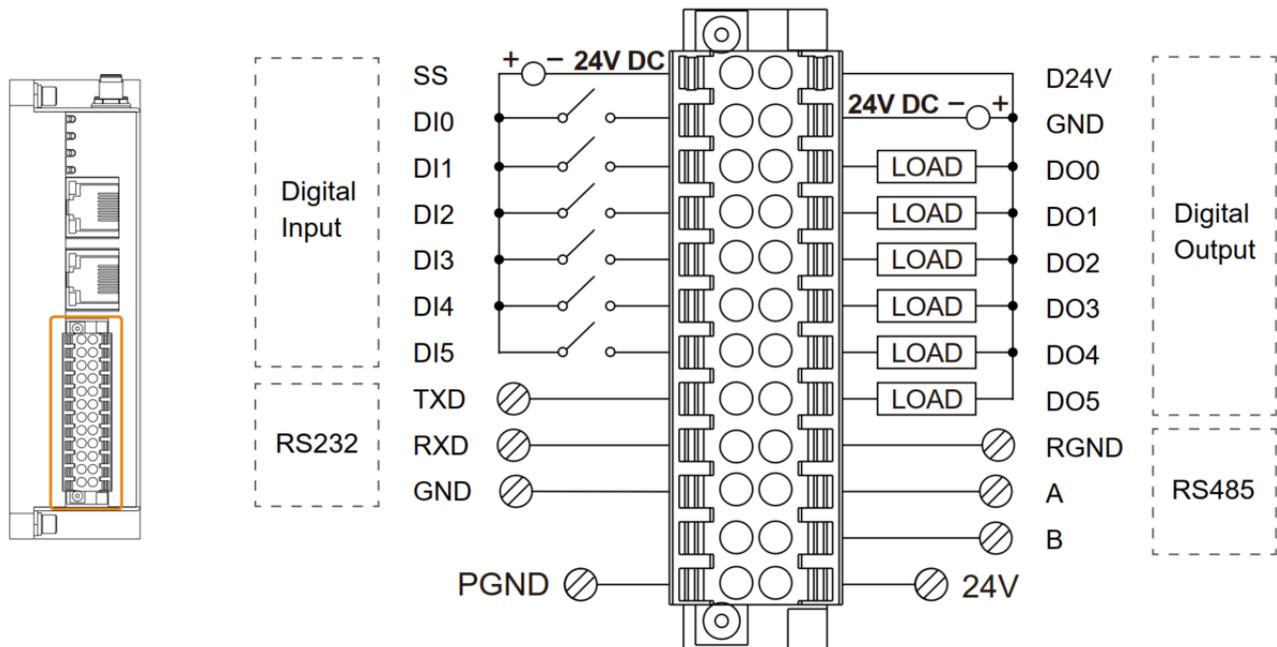
Hardware platform	
CPU	Raspberry Pi CM5 (Broadcom BCM2711, Quad-core Cortex-A76 @2.4GHz)
Memory	4GB (2GB/4GB/8GB/16GB optional) SDRAM
FLASH	32GB (16GB/32GB/64GB optional) eMMC
Network & Interfaces	
Ethernet	2x Gigabit Ethernet, (1-WAN 1-LAN Configurable)
Cellular (optional)	Global 4G LTE/3G/2G/NB-IoT/CAT-M1 cellular module by M.2 socket
Wi-Fi (optional)	2.4 GHz/5.0 GHz IEEE 802.11 b/g/n/ac + Bluetooth 5.0
GPS (optional)	Cellular Module built-in supported
SIM	1.8 V/3 V; drawer-type Nano card holder × 1
	15KV ESD Protection
Antenna	3x SMA Female connectors for Cellular/Wi-Fi/LoRa/GPS
Industrial Serial Port	RS-232 x 1, RS-485 x 1;
	RS-232: TXD, RXD, GND; RS-485: A, B, GND; ESD protection: 15KV
I/O	6-channel digital input DI
	6-channel digital/pulse output DO
USB	1x USB 3.0 for peripherals,
	1x USB-C for Console
HDMI	1x Micro HDMI 2.0a, (Up to 4kp60 video & audio output)
M.2	1 x M.2 socket with 3042 card support for cellular/Lora module
Power	
Power supply	Wide Range Voltages 10~36V DC, (Recommended 24V/1A)
Power Terminal	Unpluggable industrial terminal connection
Power consumption	Less than 10 W (system)
Real-time clock (RTC)	Embedded RTC
Mechanical features	
Protection	IP30
Housing	Aluminum Heatsink
Cooling	Fanless cooling
Dimensions (cm)	124mm x 76mm x 35mm
Installation	DIN-rail, wall mounting
Ambient temperature and humidity	
Operating temperature	-25 ~ 65°C (industrial grade)
Storage temperature	-40 ~ 85°C
Ambient humidity	5 ~ 95% (non-condensing)
Others	
LED Indicator	1-POWER, 1-SYSTEM, 1-ALARM,1-NETWORK
Watchdog	Standalone Watchdog timer
Certification	CE, FCC (TBD)
Warranty	Standard 12 Months

Software Features	
OS	Raspberry Pi OS
Configuration	WebUI, GUI, Local CLI, Remote Configuration (optional)
Upgrade operation	Local USB upgrade and remote upgrade (optional)
OT-to-IT Applications	Modbus RTU/ASCII/TCP Master/Slave, BACnet MSTP/IP, IEC104, DNP3, OPC UA, EtherNet/IP, PLC protocols, MQTT, Sparkplug B... Data Collect and Convert powered by ElastPro
Secondary Development	Docker, Node-Red, Codesys, Ignition, Python, C, C++, C#, Go, Java, JavaScript...

Dimensions & Interfaces



Front I/O



About Elastel

Elastel is a technology-driven company delivering Industrial IoT (IIoT) products and services worldwide. With over 10 years of industry experience, we provide open, high-performance, and reliable IIoT devices, including Industrial Raspberry Pi, ARM-based IIoT gateways, and industrial cellular routers. Along with software solutions such as “ElastPro” for efficient data collection and communication, and the “ThingsWing” SaaS platform for secure remote access and device management.

Our high-quality hardware and software solutions help customers worldwide improve IoT communication efficiency and strengthen their competitive advantage.

Copyright

Copyright © 2026 ELASTEL (XIAMEN) TECHNOLOGIES CO., LTD.

Copyright © 2026 Elastel (Xiamen) Technologies CO., LTD. All rights reserved. No parts of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, photocopying, recording, or otherwise, for any purpose, without the express written permission of Elastel (Xiamen) Technologies CO., LTD.

Technical Support

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