

R2110 robustos

High Speed Smart LTE / LTE-A Router 4 Eth + 1 RS-232 + 1 RS-485 + Bluetooth



INTRODUCTION

The Robustel High Speed Smart LTE /LTE-A Router (R2110) is a rugged cellular router offering state-of-the-art mobile connectivity for internet of things applications.

R2110 is a powerful platform developed based on **RobustOS**, a Robustel self-developed and Linux-based operating system which is designed to be used in Robustel devices. The RobustOS includes basic networking features and protocols providing customers with excellent user experience.

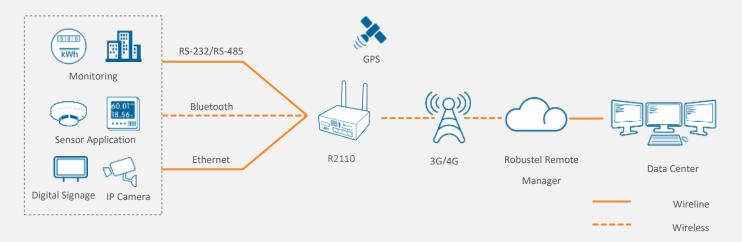
Meanwhile, RobustOS offers **Software Development Kit** (SDK) allows partners and customers to develop IoT applications by using C, Python or Java. It also provides various **Apps** to meet fragmented IoT market demands.

Robustel is a leading global industrial IoT/M2M hardware and solution provider. Since its establishment in 2010 in Guangzhou, Robustel has been focusing on designing and manufacturing industrial cellular routers, gateways, modems, cloud platforms and E2E solutions. In order to support global business in more than 100+ countries and regions, Robustel has set up local offices in Germany, Australia, the Netherlands, the UK, Japan and Hong Kong.

KEY FEATURES

- Supports WWAN, WAN, WLAN link backup and ICMP detection
- Supports cold backup , warm backup and load balancing
- RobustOS + SDK + App
- IPsec/OpenVPN/GRE
- Ignition sensing(optional)
- Management and maintenance via Web/CLI/SNMP/RCMS
- Robust industrial design desktop or wall mounting or DIN rail mounting)

APPLICATION EXAMPLE



SPECIFICATIONS

Cellular Interface

Number of antennas 2 (MAIN + AUX)

Connector SMA-K

SIM 2 (3 V & 1.8 V) Standard SIM;

UICC SIM (Optional)

Ethernet Interface

LAN port 3 x LAN (10/100/1000 Mbps)

WAN port Support 802.3at PD feature (optional) on ETH0

1 x WAN (10/100/1000 Mbps)

Magnet isolation 1 KV

protection

WiFi Interface

Number of antennas 2

Connector RP-SMA-K

Standards 802.11a/b/g/n/ac 2*2 MIMO, supports AP and

Client modes

Frequency bands 2.412 - 2.472 GHz (2.4 GHz ISM band)

5.15 - 5.825 GHz (5 GHz ISM band)

Security Open, WPA, WPA2, WEP
Encryption AES, TKIP, WEP64
Data speed 5G: Up to 867Mbps
2.4G: Up to 300Mbps

Bluetooth Interface (Optional)

Number of antennas 1

Connector RP-SMA-K

Standards BLE 5.0 Compatible with BLE 4.2, BLE 4.0

GPS(Optional)

Number of antennas 1 GNSS technology GPS

Connector SMA-K with 50 ohms impedance Tracking sensitivity GPS: greater than -148 dBm

Horizontal position GPS: 2.5 m

accuracy

Serial Interface

Number of ports 1 x RS-232 + 1 x RS-485 Connector 2 x 3-pin 3.5 mm female socket

ESD protection ±15 KV

Baud rate 300bps to 115200bps

DI/DO

Type 1x DI + 1 x DO, wet contact Connector 2 x 2-pin 3.5 mm female socket

Isolation 3.75KV DC

Absolute maximum VDC "V+" +30V DC (DI), +30V DC (DO)

Absolute maximum ADC 100 mA

Others

Reset button 1 x Tact Switch
SD 1 x Micro SD interface
Expansion 1 x USB2.0 Host; 5V/500mA

LED indicators 1 x RUN, 1 x Modem, 1 x USR, 1 x RSSI, 1 x NET,

1 x WIFI

Built-in Watchdog **Software** (Basic features of RobustOS)

Network protocols PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP,

HTTPs, DNS, ARP, NTP, SMTP, Telnet, SSH2,

DDNS, etc.

VPN tunnel IPsec, OpenVPN, GRE

Firewall DMZ, anti-DoS, Filtering (IP/Domain name/ MAC address), Port Mapping, Access Control

Management Web, CLI, SMS

Serial port Transparent, TCP Client/Server, UDP,

Modbus RTU to TCP

App Center (Available Apps for RobustOS)

Apps* L2TP, PPTP, DMVPN, RobustVPN, VRRP, QoS

SNMP, Language, RobustLink, Bluetooth,

Dynamic route,

*Request on demand. For more Apps please visit www.robustel.com.

Power Supply and Consumption

Connector 3-pin 3.5 mm female socket with lock Input voltage 9 to 36V DC (without Ignition sensing);

10 to 30V DC (with Ignition sensing)

Power consumption Idle: 500 mA@12 V

Data link: 1.3 A (peak) @12 V

Physical Characteristics

Ingress protection IP30

Housing & Weight Aluminum, 500 g

Dimension 125 x 99.5 x 48 mm (device only)
Installations Desktop, wall mount, DIN-Rail

Approvals

Environmental: RoHS, WEEE

Regulatory CE*, FCC*, RCM*, Telec*, E-Mark*

(*: In progress)

ORDERING INFORMATION

Model	R2110-4L	
Router Type	LTE Router	LTE-A Router
Air Interface	LTE/WCDMA/HSDPA/HSUPA/HSPA+/DC-HSPA+/TD-SCDMA	LTE-A /LTE /WCDMA/HSDPA/HSUPA/HSPA+/DC-HSPA+
	/ CDMA (CDMA 1X/EVDO)	/TD-SCDMA
Frequency Bands	AU: B1/B3/B5/B7/B8/B28, B40	APAC: B1/B3/B5/B7/B8/B18/B19/B21/B28/B38-B41
4G*	EU: B1/B3/B7/B8/B20/B28/B31, B38/B40	NA/EMEA: B1-B5/B7/B8/B12/B13/B20/B25/B26/B29/B30/B41
	US: B2/B4/B5/B13/B17/B25, B41	
	JP: B1/B3/B8/B9/B18/B19/B21/B28, B41	
	CN: B1/B3, B38/B39/B40/B41	
3G	WCDMA/HSDPA/HSUPA/HSPA+/DC-HSPA+:	WCDMA/HSDPA/HSUPA/HSPA+/DC-HSPA+:
	B1/B2/B5/B6/B8/B9/B19	B1-B6/B8/B9/B19
	TD-SCDMA: B34/B39	TD-SCDMA: B34/B39
	CDMA (CDMA 1X/EVDO): R0/A BC0/BC1/BC10	
2G	850/900/1800/1900 MHz	850/900/1800/1900 MHz
Operating Temperature	Normal operation: -20 to +55 °C	Normal operation: -20 to +55 °C
	Extended operation: -25 to +70 °C	Extended operation: -25 to +70 °C
Storage Temperature	-40 to +85 °C	-40 to +85 °C
Relative Humidity	5 to 95% RH	5 to 95% RH

^{*}For more information about frequency bands in different countries, please contact your Robustel sales representative.

