



R2100 4G LTE Industrial Router





Yinghua R2100 series 4G LTE industrial router is a rugged enterprise-grade IoT device based on OpenWRT system. With Ethernet ports and Extended Range WiFi, it provides more connectivity options and flexibility for those looking to get the most out of their high-speed internet experience. It is using Industrial Grade equipment design standards, passed CE,FCC and EMC test, stable and reliable, widely used in Smart Energy, Agriculture, Traffic, Finance and other IoT projects.

MEET THE R2100 4G LTE INDUSTRIAL ROUTER

- I: Support AUTO and customized APN settings to work with different ISP SIM card.
- II: Dedicated hardware and software watchdog are designed to support system running reliable.
- III: VPN Firewall offers connectivity, security and remote access to both local and remote clients.
- IV: Full support for IPV4 and IPV6 network technology.
- V: Detects a network problem and redial automatically , ensuring the customer's SLAs are upheld.
- VI: Free service to monitor, configure and control all terminals via Cloud.
- VII: Offers Python programmable embedded environment for secondary development
- VIII: 9-36V DC power supply, Low-voltage, over current, over voltage, anti-reverse protection
- IX: IEEE 802.11b/g/n WIFI, Access Point (AP), Up to 30 simultaneous connections

SPECIFICATIONS

MOBILE

Mobile module	4G (LTE) – Cat 4 up to 150 Mbps downlink, 50Mbps uplink 4G (LTE) – Cat 1 up to 10 Mbps downlink, 5Mbps uplink
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Status	Signal strength (RSSI), Attached network, IMSI, ICCID
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APN	Auto APN, Customized APN
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WIRELESS

Wireless mode	IEEE 802.11b/g/n, Access Point (AP)
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WiFi security	WPA2-PSK, WEP, WPA-EAP, WPA-PSK; AES-CCMP, TKIP, Auto Cipher modes, client separation
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SSID	SSID stealth mode and access control based on MAC address
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WiFi users	Up to 30 simultaneous connections
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PHYSICAL INTERFACE



WAN	1 x WAN port (can be configured to LAN) 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX
LAN	1 x LAN port, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX
Serial	1 x RS232/RS485 DB9 port (2-Tx, 3-Rx, 5-GND)
SIM	1 Standard SIM card slot, 1.8 V/3 V, external SIM holder
Antenna	1 x SMA for LTE, 2 x SMA for WiFi antenna connectors
LED	1 x Connection, 3 x Signal strength, 2 x Ethernet, 1 x Power, 1 x SIM, 1 x VPN, 1 x System
Reset	Reboot / Factory reset button

NETWORK

Routing	Static routing, Dynamic routing
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, PPP, PPPoE, DHCP, Telnet client
Connection monitoring	Ping Reboot, Periodic Reboot, LCP and ICMP for link inspection

Firewall	Port forwarding
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DHCP	Static and dynamic IP allocation
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QoS	Traffic priority queuing by source/destination, service, protocol or port
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DDNS	Supported >25 service providers, others can be configured manually
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Network backup	Mobile and Wired, each of which can be used as backup, using automatic failover
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SECURITY

Attack prevention	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention)
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VLAN	Port and tag based VLAN separation
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WEB filter	Blacklist for blocking out unwanted websites, whitelist for specifying allowed sites only
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Access control	Flexible access control of TCP, UDP, ICMP packets, MAC address filter
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VPN



OpenVPN	Multiple clients can be running simultaneously, 10 encryption methods
OpenVPN Encryption	DES-CBC, RC2-CBC, DES-EDE-CBC, DES-EDE3-CBC, DESX-CBC, BF-CBC, RC2-40-CBC, CAST5-CBC, RC2-64-CBC, AES-128-CBC, AES-192-CBC, AES-256-CBC
GRE	GRE tunnel
WireGuard	Curve25519, ChaCha20, Poly1305, BLAKE2, SipHash24
PPTP, L2TP	Client/Server services can run simultaneously

SERIAL TRANSMISSION

TCP/UDP SERVER

Parameters	Port, Baud rate, Parity, Data bits, Stop bits, Flow control
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TCP/UDP CLIENT

Parameters	Port, Baud rate, Parity, Data bits, Stop bits, Flow control, Heartbeat
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Data center	Supported 4 server run simultaneously
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MONITORING & MANAGEMENT

WEB UI	HTTP, status, configuration, FW update, troubleshoot, event log, system log, kernel log
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TR069	TR069
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IOT PLATFORMS

Cloud of Things	Allows monitoring Network info, Availability
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Configure	Configure parameters, Update firmware
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SYSTEM CHARACTERISTICS

CPU	Mediatek MIPS 24Kc 580 MHz
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RAM	64 MB, DDR2
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FLASH storage	16 MB, SPI Flash
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FIRMWARE / CONFIGURATION



WEB UI	Update FW from file, check FW on cloud, configuration backup and restore
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Keep settings	Update FW without losing current configuration
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POWER

Connector	1 industrial DC power socket
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Input voltage range	9 – 36 VDC, reverse polarity protection, surge protection
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Power consumption	< 5 W Max
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PHYSICAL SPECIFICATION

Casing material	Metal housing. DIN rail mounting option
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Dimensions (W x H x D)	97*112*24mm
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Weight	280 g
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OPERATING ENVIRONMENT



Operating temperature	-40 °C to 75 °C
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Operating humidity	10% to 90% non-condensing
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Ingress Protection Rating	IP30
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REGULATORY & TYPE APPROVALS

Regulatory	CE, FCC, CCC
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EMI IMMUNITY

Standards	Draft EN 301 489-1 V2.2.0, Draft EN 301 489-17 V3.2.0, Draft EN 301 489-52 V1.1.0 FCC 47 CFR Part 15B (2017), ANSI C63.4 (2014)
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ESD	EN61000-4-2:2009
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RS	EN 61000-4-3:2006 + A1:2008 + A2:2010
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EFT	EN 61000-4-4:2012
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Surge immunity (AC	EN 61000-4-5:2006
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Power Line)

Surge immunity (Ethernet ports)	EN 61000-4-5:2014, clause 7.1 of ITU-T K21
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CS	EN 61000-4-6:2009
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DIP	EN 61000-4-11:2004
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RF

Standards	EN 300 328 V2.1.1, EN 301 511 V12.5.1, EN 301 908-1 V11.1.1, EN 301 908-2 V11.1.1, EN 301 908-13 V11.1.1 FCC 47 CFR Part 15C (2017), FCC 47 CFR Part 2 (2017), FCC 47 CFR Part 22H (2017), FCC 47 CFR Part 24E (2017), FCC 47 CFR Part 27C (2017) RSS-Gen Issue 4 (2014), RSS-247 Issue 2 (2017), RSS-132 Issue 3 (2013), RSS-133 Issue 6 (2013), RSS-139 Issue 3, RSS-130 Issue 1 AS/CA S042.1:2018, AS/ACIF S042.3:2005, AS/CA S042.4:2018, AS/NZS 4268:2017
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PRODUCTS

Model	Region	LTE CAT4 (-C4)	LTE CAT1 (-C1)
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R2100A	AT&T/ Verizon/ T-mobile, Canada	LTE-FDD: B2/B4/B5/B12/B13/B14/B66/B71; WCDMA: B2/B4/B5	No
R2100C	China mainland	LTE-FDD: B1; LTE-TDD: B38/B40/B41;	No
R2100E	EMEA/Korea/Thailand/India	LTE-FDD: B1/B3/B7/B8/B20/B28A LTE-TDD: B38/B40/B41; WCDMA: B1/B8 ; GSM: B3/B8	LTE-FDD: B1/B3/B5/B7/B8/B20 WCDMA: B1/B5/B8; GSM: B3/B8
R2100AU	Latin America/ANZ, Australia	LTE-FDD: B1/B2 /B3/B4/B5/B7/B8/B28; LTE-TDD: B40 WCDMA: B1/B2/B5/B8; GSM: B2/B3/B5/B8	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B28; LTE-FDD: B40 WCDMA: B1/B2/B5/B8; GSM: B2/B3/B5/B8
R2100J	Japan	LTE-FDD: B1/B3/B8/B18/B19/B26; LTE-TDD: B41; WCDMA: B1/B6/B8/B19	No
R2100G	Global	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/ B19/B20/B25/B26/B28 LTE TDD: B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19	No

STANDARD PACKAGE



R2100 Series 4G LTE Industrial Router Datasheet

				
R2100 4G Router	12W PSU	Ethernet cable, 1m	1 LTE antenna, 1.5m cable	2 WiFi antenna

Note: The PSU can be customized