R5010

High Speed 5G Router

1 x Ethernet + 1 x USB

INTRODUCTION

The R5010 is Robustel's new 5G capable router supporting global 5G, 4G and 3G bands. The R5010 leverages our tried and tested high performance **RobustOS 5** – an Operating System developed in-house by Robustel that has passed extensive 3rd party penetration testing.
R5010 is compatible with 3GPP Release 16 and targeted at the following applications:

Primary Broadband – Cellular network operators can now provide unlimited 5G tariffs at very reasonable prices. For many, a chance to cut the cables and use a wireless internet connection can be technically or commercially favorable.

SD-WAN – whilst many appliances have cellular options built-in, the R5010 can offer a very low-cost way to add a 5G backup route & by virtue of being able to located externally to the appliance, is more likely to get a good 5G signal!
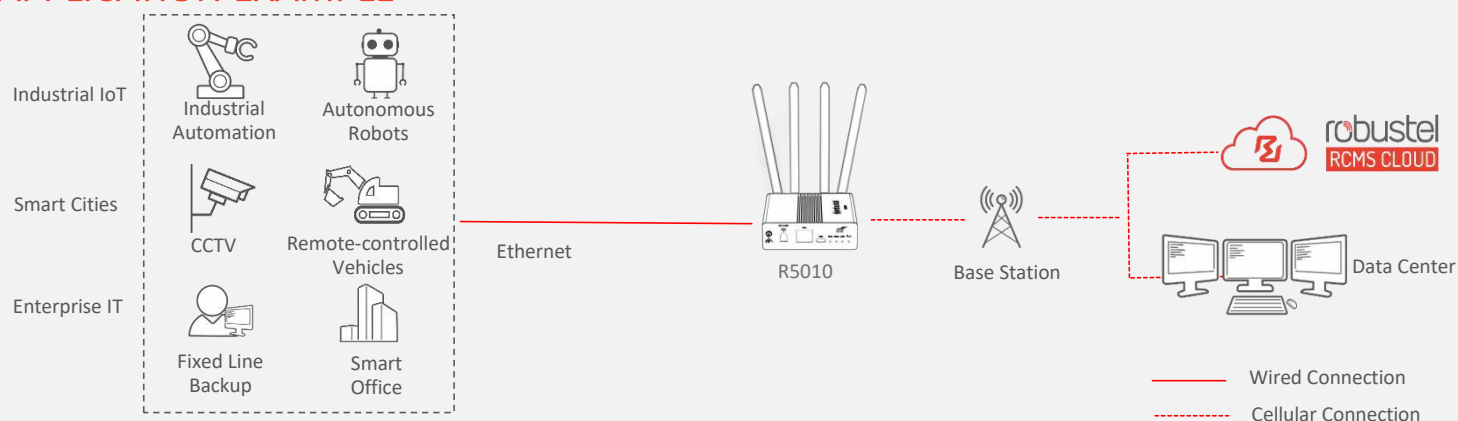
RCMS is Robustel's free router monitoring service that is fully compatible with the R5010. It is an extremely polished piece of software hosted on MS Azure & available as a privately hosted instance. You can try Robustel's free router management platform by signing up here: https://rcms-cloud.robustel.net

KEY FEATURES

- Low cost industrial 5G Router
- Global 5G/4G/3G cellular connections
- Cutting-edge 5G 3GPP Release 16 cellular interface
- 1 x 1000Mbps Ethernet port
- PoE-PD, compatible with IEEE 802.at standard
- USB modem mode supported
- Fully programmable Operating System with a well-documented SDK
- Multiple VPN options available including DMVPN, IPsec, L2TP + more…
- Free cloud management platform - RCMS
- Robust metal enclosure with small footprint – DIN-rail + wall mount options

APPLICATION EXAMPLE

SPECIFICATIONS

Cellular Interface

Number of antennas	4 (ANT0 + ANT1 + ANT2 + ANT3)
Connector	SMA-K
SIM	2 x Mini SIM (2FF)

Ethernet Interface

Number of ports	1 x 10/100/1000 Mbps, LAN
Isolation protection	1 KV
LAN port	Support 802.3at PD feature on ETH

Others

Reset button	1 x RST
LED indicators	1 x RUN, 1 x Modem, 1 x USR, 1 x RSSI,
USB	1 x USB 3.1 (Type C) for Power Supply, Network Supply and Debug
Watchdog	External

Regulatory and Type Approvals

Environmental	RoHS2.0
Physical Features	IEC 60068-2-6 (Sinusoidal Vibration)
	IEC 60068-2-64 (Random Vibration)
	IEC 60068-2-27 (Mechanical Shock)
EMI	EN 55032 Conducted Emission Class B
	EN 55032 Radiated Emission Class B
EMC	EN 61000-3-2 (Harmonic Current)
	EN 61000-3-3 (Voltage Flicker)
	EN 61000-4-2 (ESD) Contact Level 3, Air Level 3
	EN 61000-4-3 (RS) Level 2
	EN 61000-4-4 (EFT) Power Ports Level 2
	Signal Ports Level 2
	EN 61000-4-5 (Surge)
	Line to line Level 2, Line to ground Level2
	EN 61000-4-6 (CS) Level 2
	EN 61000-4-11 (Dips) Class 2

Software (Basic features of RobustOS)

Network protocols	PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP, HTTPs, DNS, ARP, NTP, SMTP, Telnet, VLAN, SSH2, DDNS, etc.
VPN tunnel	IPsec, OpenVPN, GRE
Firewall	DMZ, anti-DoS, Filtering (IP/Domain name/ MAC address), Port Mapping, Access Control
Remote management	Web, CLI, SMS
Others	Data Guard, etc.

SDK

Supported programming languages	C, C++
Flash available for SDK	110MB
RAM available for SDK	45MB

App Center (Available Apps for RobustOS)

Apps*	L2TP, PPTP, DMVPN, VRRP, QoS, SNMP, Language, RCMS, Data Guard

*Upon request. For more Apps please visit www.robustel.com.

Power Supply and Consumption

Connector	4-pin Micro-Fit socket
Input voltage	9 ~ 60 VDC
	5V/3A by USB Type C Port
PoE-PD Voltage	Possibility to power up through ETH
	44 ~ 57 VDC
Power consumption	Idle: 1.5w
	Data link: 15w

Physical Characteristics

Ingress protection	IP30
Housing & Weight	Aluminum, 276 g
Dimension	100*94*30 mm
Installations	DIN rail mounting, desktop or wall mounting
Operating temperature	-40 ~ +70°C
Storage temperature	-40 ~ +85°C
Relative humidity	5 ~ 95%RH

ORDERING INFORMATION

Model	PN	Frequency Bands*	Country/Region	Certification (*Planned)
R5010-A-5G-A28EU	B113001	**5G**: NR SA/NSA: n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/ n75/n76/n77/n78 **4G**: LTE FDD: B1/B3/B5/B7/B8/B20/B28/B32 LTE TDD: B38/B40/B41/B42/B43 **3G**: WCDMA: B1/B5/B8	EMEA ANZ	CE*, UKCA*, CB*, RCM*

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