![Robustel logo]
Distributed by:
TEXIM EUROPE
www.texim-europe.com

R2000 Ent robustOS

Industrial Dual Module Cellular VPN Router with Voice
5 Eth + 1 Voice/RS-232/RS-485 + 1 USB Host

INTRODUTION

The Robustel Industrial Dual Module Cellular VPN Router with Voice (R2000 Ent) provides fast and reliable Internet connectivity, enhanced voice capabilities – making it perfect for the freedom to respond to and manage any device, anytime and anywhere.
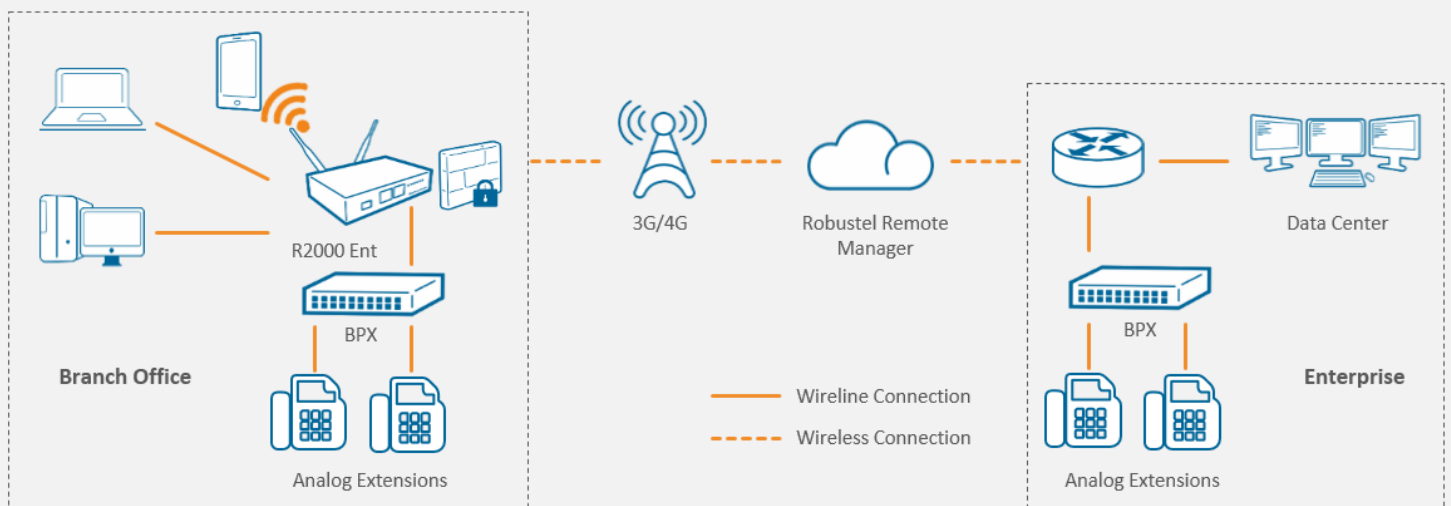
R2000 Ent is a powerful router developed from **RobustOS**, a Robustel self-developed and Linux-based operating system which designed to be used in Robustel hardware routers. The RobustOS includes basic networking features and protocols providing users with a custom experience. Meanwhile, Robustel offers a **Software Development Kit** (SDK) to partners and customers to allow additional customization by using C or Python or Java, also provides rich **APPs** to satisfy fragmented IoT market.

Robustel is a leading global industrial IoT/M2M hardware and solution provider. Since its establishment in 2010 in Guangzhou, China, Robustel was focused on 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 branches and offices in Germany, Netherlands, Australia, Japan and Hong Kong.

KEY FEATURES

> Voice call/RS-232/RS-485 (choose one only) shared across an RJ-11 port

> Voice function allows to make telephone calls over the cellular network using a standard landline telephone

*Whether or not voice call and data transmission can be used simultaneously depends on your ISP network

> Embedded dual module supporting two SIM cards online simultaneously

> Supports Cellular WAN, Ethernet WAN, Wi-Fi link backup and ICMP detection

> WAN port supporting PD feature – compatible with 802.3at.

> RobustOS + SDK + App

> IPsec/OpenVPN/GRE/L2TP/PPTP/DMVPN Support

> Management and upgrading via Web/CLI/SNMP/ RobustLink Cloud

> Robust industrial design (9 to 36V DC, desktop or wall mounting or DIN rail mounting)

APPLICATION EXAMPLES

Branch Office
R2000 Ent
BPX
Analog Extensions

3G/4G
Robustel Remote Manager

Data Center
BPX
Analog Extensions
Enterprise

Wireline Connection
Wireless Connection

DISTRIBUTED BY TEXIM EUROPE

SPECIFICATIONS

Cellular Interface

Number of ports	4 (MAIN1 + AUX1 + MAIN2 + AUX2)
Connector	SMA, female
SIM	2 (3 V & 1.8 V)
Standards	GSM/GPRS/EDGE/UMTS/WCDMA/HSPA+/ DC-HSPA+/FDD LTE/TDD LTE

Ethernet Interface

Number of ports	4 x LAN + 1 x WAN (10/100 Mbps)
WAN port	Supports 802.3 at PD feature (optional)
Magnet isolation protection	4 KV

WLAN Interface

Number of ports	2 (WiFi1 + WiFi2)
Connector	RP-SMA, male
Standards	802.11 b/g/n, supporting AP and Client mode
Frequency bands	2.412 - 2.484 GHz (2.4 GHz ISM band)
Security	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP
Data speed	2*2 MIMO, up to 300 Mbps

Voice Interface

Number of ports	1 x Voice call
Connector	RJ-11
Standards	ITU Q.512 (SLIC)
	ITU K.20 (overcurrent and overvoltage protection)
Subscriber line interface circuit (SLIC)	Ring voltage: 40 to 90 Vpk configurable
	Ring frequency: 20 to 25 Hz
	Ring waveform: sine wave
	Maximum ringer load: 5 ringer equivalence numbers (RENs)
	On-hook voltage (tip/ring): -46 to -56V
	Off-hook current: 18 to 20 mA
	Terminating impedance: configurable

Device Interface (Optional)

Serial port	1 x RS-232/RS-485 with an RJ-11 port
USB host	1 x 480 USB 2.0 port up to 480 Mbps

Others

Reset button	1 x RST
LED indicators	1 x RUN, 1 x NET1, 1 x NET2, 1 x RSSI1, 1 x RSSI2, 1 x USR
	5 x LINK of Ethernet interface, including ETH1, ETH2, ETH3, ETH4 and WAN

Software

Basic features of RobustOS

Network protocols	PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, DMZ, HTTP, HTTPs, DNS, ARP, SNTP, Telnet, VLAN, SSH2, etc.
VPN tunnel	IPsec, OpenVPN, GRE
Firewall	SPI, anti-DoS, Filter, Access Control
Management	Web, CLI, SMS
Serial port	Transparent, TCP server/client, UDP, Modbus RTU

Apps of RobustOS

App center	L2TP, PPTP, DMVPN, RobustVPN, DDNS, VRRP, QoS, Captive Portal, WLAN Multi AP, SNMP, Language, RobustLink

Request on demand, for more APPs please visit www.robustel.com.

Power Supply and Consumption

Connector	3.5 mm terminal block
	Input voltage 9 to 36V DC
Power consumption	Idle: 350 mA@12 V
	Data link: 500 mA (peak) @12 V
PD feature	WAN port support
	Input voltage 48 to 57V DC

Physical Characteristics

Ingress protection	IP30
Housing & Weight	Metal, 750 g
Dimensions	193 x 113 x 32 mm
Installations	Desktop or wall mounting or DIN rail mounting

ORDERING INFORMATION

Model	R2000-E4L1	R2000-E4L2
Module Number	Single module (Mini PCIe)	Dual module (Mini PCIe)
Antenna Number	2	4
Air Interface	2G: GSM/GPRS/EDGE	2G: GSM/GPRS/EDGE
	3G: UMTS/DC-HSPA+/HSPA+/HSPA	3G: UMTS/DC-HSPA+/HSPA+/HSPA
	4G:FDD/TDD	4G: FDD/TDD
Frequency Bands 4G	FDD LTE: B1/2/3/4/5/7/8/13/17/18/19/20/21/25/ 28/31	FDD LTE: B1/2/3/4/5/7/8/13/17/18/19/20/21/25/ 28/31
	TDD LTE: B38/39/40/41	TDD LTE: B38/39/40/41
3G	850/900/1900/2100 MHz	850/900/1900/2100 MHz
2G	850/900/1800/1900 MHz	850/900/1800/1900 MHz
Operating Environment	-20 to 65°C/5 to 95% RH	-20 to 65°C/5 to 95% RH

For more information about 4G frequency bands in different countries, please contact your Robustel sales representative.

robustel

DISTRIBUTED BY TEXIM EUROPE

Contact details

The Netherlands

Elektrostraat 17
NL-7483 PG Haaksbergen

T: +31 (0)53 573 33 33
F: +31 (0)53 573 33 30
E: nl@texim-europe.com

Belgium

Zuiderlaan 14 bus 10
B-1731 Zellik

T: +32 (0)2 462 01 00
F: +32 (0)2 462 01 25
E: belgium@texim-europe.com

UK & Ireland

St. Mary's House, Church Lane
Carlton Le Moorland
Lincoln LN5 9HS

T: +44 (0)1522 789 555
F: +44 (0)845 299 22 26
E: uk@texim-europe.com

Germany North

Bahnhofstrasse 92
D-25451 Quickborn

T: +49 (0)4106 627 07-0
F: +49 (0)4106 627 07-20
E: germany@texim-europe.com

Germany South

Martin-Kollar-Strasse 9
D-81829 München

T: +49 (0)89 436 086-0
F: +49 (0)89 436 086-19
E: germany@texim-europe.com

Austria

Warwitzstrasse 9
A-5020 Salzburg

T: +43 (0)662 216 026
F: +43 (0)662 216 026-66
E: austria@texim-europe.com

Nordic region

Sdr. Jagtvej 12
DK-2970 Hørsholm

T: +45 88 20 26 30
F: +45 88 20 26 39
E: nordic@texim-europe.com

General information

info@texim-europe.com
www.texim-europe.com