R1520 Global

A Global Single SKU IoT Gateway

INTRODUCTION

The R1520 Global router is Robustel's latest addition to the popular R1520 series. The Global variant has been designed for companies that want a simple one size fits all for global 4G deployments. Traditionally, 4G routers have had to be supplied on a 'per region' basis due to cost and certification issues but the R1520 Global changes all that with global 4G (LTE) frequency and a massive investment by Robustel in Global certifications.

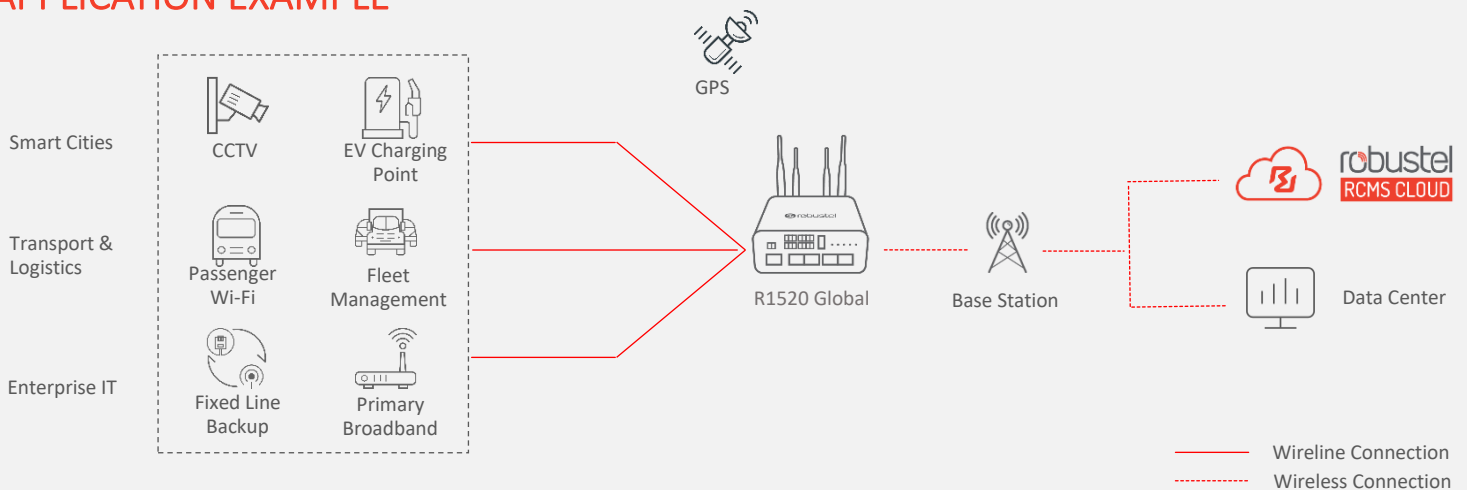Certifications include but are not limited to:
FCC/PTCRB - USA
IC - Canada
CCC - China
IMDA – Singapore
NBTC – Thailand
KCC – Korea
CE - Europe
ICASA - South Africa
RCM – Australia & New Zealand
TRA - United Arab Emirates
Various carrier certifications pending + more…

To fully understand the challenges and complexities of Global 4G deployments, please download Robustel's extensive white-paper "Managing and Overcoming the challenges presented by Global 4G/LTE IoT Deployments" -- available here:
https://www.robustel.com/white-paper/managing-and-overcoming-the-challenges-presented-by-global-4g-lte-iot-deployments/

KEY FEATURES

➢ Global 4G frequency coverage for all continents

➢ Huge investment in Global certifications for all major countries

➢ Free Cloud Management platform for easy global monitoring

➢ 802.3at compliant POE interface for simple powering

➢ E-mark certification for in vehicle use

➢ Unique "Smart Roaming" capability for enhanced roaming SIM management

➢ Support Dual SIMs & WIFI/Ethernet as WAN

➢ RobustVPN – hosted service providing a "fixed IP" router

➢ Wireguard/IPsec/OpenVPN/DMVPN supported

APPLICATION EXAMPLE

SPECIFICATIONS

Cellular Interface

Number of antennas	2
Connector	SMA-K
SIM	2 Mini SIMs (2FF)

Ethernet Interface

Number of ports	5 x 10/100 Mbps, 5 LAN by default, can be configured as 1 WAN + 4 LAN
WAN port	Support 802.3af & 802.3at PD feature on ETH0 (optional)
Magnet isolation protection	1.5 KV

Wi-Fi Interface

Number of antennas	2
Connector	RP-SMA-K
Standards	802.11 b/g/n, supports AP and Client modes
Frequency bands	2.4 GHz
Security	WEP, WPA, WPA2
Encryption	64/128 AES, TKIP
Data speed	2 x 2 MIMO, 300 Mbps

DI/DO

Type	1 x DI + 1 x DO, wet contact
Isolation	3 KV
Socket form	2 x 3-pin 3.5 mm female socket
Level	3 ~ 30 V DC = HIGH, 0 ~ 1 V DC = LOW
Absolute maximum V DC	30 V DC (DI/DO)
Absolute maximum A DC	10 mA (DI/DO)

Analog Input

Type	1 x AI (can be configured as voltage type or current type)
Voltage input range	0 ~ 24 VDC
Current input range	4 ~ 20 mA (current-type input requires external resistance, and finally measured by voltage)
Socket form	2 x 3-pin 3.5 mm female socket
Signal definition	AI, AGND

Serial Port

Type	1 x RS232 + 1 x RS485 serial port
Socket form	2 x 4-pin 3.5 mm female socket
Signal definition	RS232: RXD, TXD, SGND, RTS, CTS RS485: Data+ (A), Data- (B), Ground (GND)

Other Interfaces

1 x GPS interface (Optional, depending on the cellular module)
1 x 480Mbps High-speed USB 2.0 interface (Type A, 5V, 500mA)

Others

Reset button	1 x RST
LED indicators	1 x RUN, 1 x MDM, 1 x USR, 1 x RSSI, 1 x Wi-Fi
Built-in	Watchdog, RTC

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-DDoS, Filtering (IP/Domain name/ MAC address), Port Mapping, Access Control
Remote Management	Web, CLI, SMS

App Center (Available Apps for RobustOS)

Apps*	L2TP, PPTP, DMVPN, VRRP, QoS, Captive Portal, WLAN Multi AP, SNMP, Language, RCMS

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

SDK

Supported programming language	C, C++
Flash available for SDK	4 MB
RAM available for SDK	64 MB

Power Supply and Consumption

Connector	2-pin 3.5 mm socket with lock
Input Voltage	9 ~ 36 VDC
PoE-PD Voltage	Possibility to power up through ETH0 40 ~ 57 VDC
Power consumption	Idle: 250 mA@12 V Data link: 890 mA (peak) @12 V

Physical Characteristics

Ingress protection	IP30
Housing & Weight	Plastic, 250 g
Dimensions	105 x 90 x 46 mm
Installations	Desktop, wall mounting and 35 mm DIN rail mounting
Operating temperature	-25 ~ +70 °C
Storage temperature	-40 ~ +85 °C
Relative humidity	5 ~ 95% RH

Regulatory and Type Approvals

Environmental	RoHS2.0, WEEE
EMC	
EMI	EN 55032: 2012/AC: 2013 (CE & RE) Class B
EMS	IEC 61000-4-2 (ESD) Contact Level 2
	IEC 61000-4-3 (RS) Level 2
	IEC 61000-4-4 (EFT) Level 2
	IEC 61000-4-5 (Surge) Level 2
	IEC 61000-4-6 (CS) Level 2
	IEC 61000-4-11 (DIP) Level 2

ORDERING INFORMATION

Model	PN	POE-PD	Frequency Bands	Certification (* In progress)
R1520-4L Global	B056701	√	**4G**: LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13B18/B19/ B20/B25/B26/B28	E-Mark, RCM, CE, UKCA, FCC, IC, PTCRB, AT&T, Verizon, ICASA, TDRA, NTC, IMDA, NBTC, SIRIM, MTC, EAC*, Anatel, Rogers, CRC, SUBTEL, Enacom, URSEC, KCC, NOM, POSTEL
	B056711	-	LTE TDD: B38/B39/B40/B41 **3G**: WCDMA: B1/B2/B4/B5/B6/B8/B19 **2G**: GSM: 850/900/1800/1900MHz	

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

* Please note that some certifications are held by local partners only due to import regulations - please check with Tech Support or the local regulatory authorities before shipping products into an overseas project.