SILBO™
An Invendis Product

GRD44B-5R

PROCESSOR
MediaTek MT7628
128MB DDR RAM, 32MB Flash

CELLULAR
4G/3G/2G with Dual
SIM, External 5DBi antenna

Wi-Fi
2.4GHz, 300Mbps AP,
Station, External 5dBi antennas

INTERFACE
1x WAN 10/100, 4x LAN 10/100
1x RS485

POWER
9-30V DC Jack

OPERATING SYSTEM
Open-WRT Linux

The GRD44B-5R, a pinnacle of versatility in networking, is a robust 5 Port Dual SIM Cellular router with WiFi capabilities. It accommodates multiple SIM cards for seamless traversal across cellular networks, boasting a 4G modem with speeds up to 150 Mbps over 4G LTE. Its Multi WAN feature ensures uninterrupted access through automatic failover between WAN sources. With 5 Fast Ethernet ports, it integrates smoothly with LAN infrastructure for swift local network communication. Serial ports enhance its digital landscape presence. Additionally, it supports Modbus RTU, Modbus TCP, Transparent (Over IP), Modbus Gateway, HTTP, MQTT, and Azure MQTT protocols, expanding its connectivity options. This device excels in rapid and efficient data transmission, fostering a 24x7 online presence with reliability and adaptability.

Accessories:

Rubber Duck LTE Antenna   Rubber Duck Wi-Fi Antenna   Power Cable   Metal DIN Rail

STAY CONNECTED

SOFTWARE SPECIFICATIONS

Cellular

Cellular Module	4G (LTE) - Cat 4 up to 150 Mbps, 3G - up to 42 Mbps, 2G - up to 236.8 Kbps
Status	Single strength (RSSI), SINR, RSRP, RSRQ
Band Management	Auto/User configurable Band Lock & Operator Lock
APN	Configurable, Auto APN (Planned)
Modem configuration mode	Single SIM, Dual SIM
SIM switching	Signal strength, ICMP echo, Data limit based
Bridge	Direct connection (bridge) between mobile ISP and device on LAN (Planned)
PDP Type	IPv4, IPv6, Dual stack
Passthrough	Router assigns its mobile WAN IP address to another device on LAN (Planned)

Wi-Fi

Wi-Fi Mode	Access Point, Station, Guest Wi-Fi, Repeater
Encryption	TKIP, AES
Technology	802.11 b/g/n/ac with 20 MHz, 40 MHz
Authentication	WPA (PSK), WPA2 (PSK)
TX Power	Configurable
Wi-Fi Schedular	Scheduled ON/OFF

Firewall & Networking

Routing	Static routing
Network Protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, SCP, PPP, SSH, DHCP, SNMP, TR069
Connecting Monitoring	Ping Reboot, Scheduled Periodic Reboot
NTP	NTP Client
Firewall features	Port forward, traffic rules, SNAT, Zone- Zone traffic control
DHCP	Static and Dynamic
Failover	Configurable Failover option for Cellular WAN, Wired, and Wi-Fi WAN
Authentication	Pre-shared key, X.509 certificates
VLAN	Port based VLAN, Tag based VLAN 802.1ad
Other	MAC binding, black/whitelisting
VPN	Open VPN, IPsec, GRE, L2TP, PPTP, GRE over IPsec
Open VPN	TUN/TAP
IPsec	IKEv1, IKEv2, supports up to 4xVPN IPsec clients. Encryption: DES, 3DES, AES128, AES192, AES256
PPTP, L2TP	WAN with PPTP/L2TP configuration for secure broadband connection

Remote Management

NMS	Remote monitoring of SILBO Networking products
NMS VPN	Remote access of SILBO and non-SILBO Networking Devices

Gateway

Gateway Protocols	Modbus RTU, Modbus TCP,
Serial Mode	Transprent(Over IP), Modbus Gateway
Data sender	HTTP, MQTT, Azure MQTT

Operating System

Operating System	Open-WRT based Linux OS
Supported Languages	Shell scripting, C, C++
Development tools	SDK package with built environment provided (Optional)

STAY CONNECTED

HARDWARE SPECIFICATIONS

Operating System

CPU	MediaTek MT7628
FLASH	32MB
RAM	128MB
WAN	1x 10/100
LAN	4x 10/100
Serial Interface	1x RS485
SIM	2x Nano SIM (1x Active & 1x Passive)
Reset	Pinhole Reset Button
Wi-Fi	802.11b/g/n/ac
RTC	Built-in RTC for Time synchronization
Antenna	Cellular: 2x SMA Connector, Wi-Fi: 2x SMA connector
Enclosure	Sheet Metal Enclosure
Mounting	DIN-rail mount (Optional)
Design	Fanless
Dimensions	123.2 x 28 x 120.6mm (W x H x D)
Weight	370 gm
Power	9-30V
Power Connecter	DC Jack

Operational & Environmental

Storage Temperature	-30 ~ 70°C
Operating Temperature	-20 ~ 60°C
Humidity	10 ~ 90% (non-condensing)
Ingress Protection Rating	IP30

Regulatory and Approvals

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Regulatory	CE
Emission	CISPR 32 Class A (EN55032)
Immunity	
• ESD	IEC 61000-4-2:2008
• EFT	IEC 61000-4-4:2012
• Surge	IEC 61000-4-5:2014
• Radiated Immunity	IEC 61000-4-3
• Conducted Immunity	IEC 61000-4-6

Standard Packaging

GRD44B-5R Cellular Gateway with Industrial Aluminium Housing , 2x Cellular Rubber Duck Antennas,

4x Wi-Fi Rubber Duck Antennas, 1x RS485 TB, 0.5-meter Power Cord, 01-meter Ethernet cable.
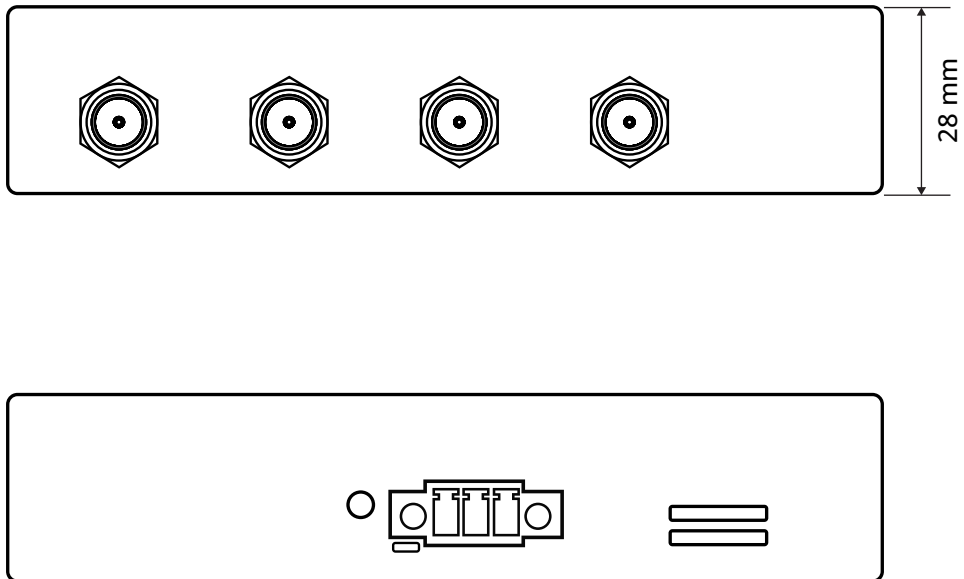
Spatial Measurement:

Front View
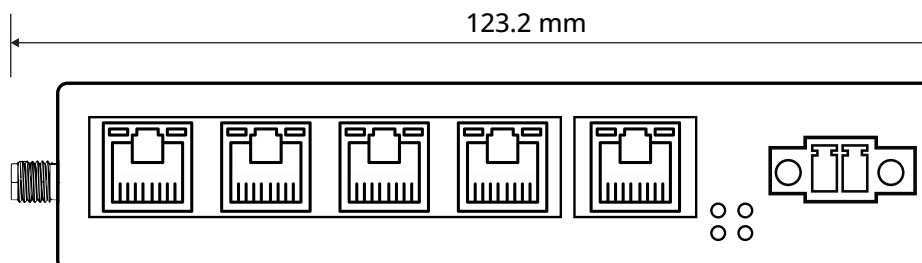
123.2 mm

Top View

120.6 mm

123.2 mm

Side View

28 mm
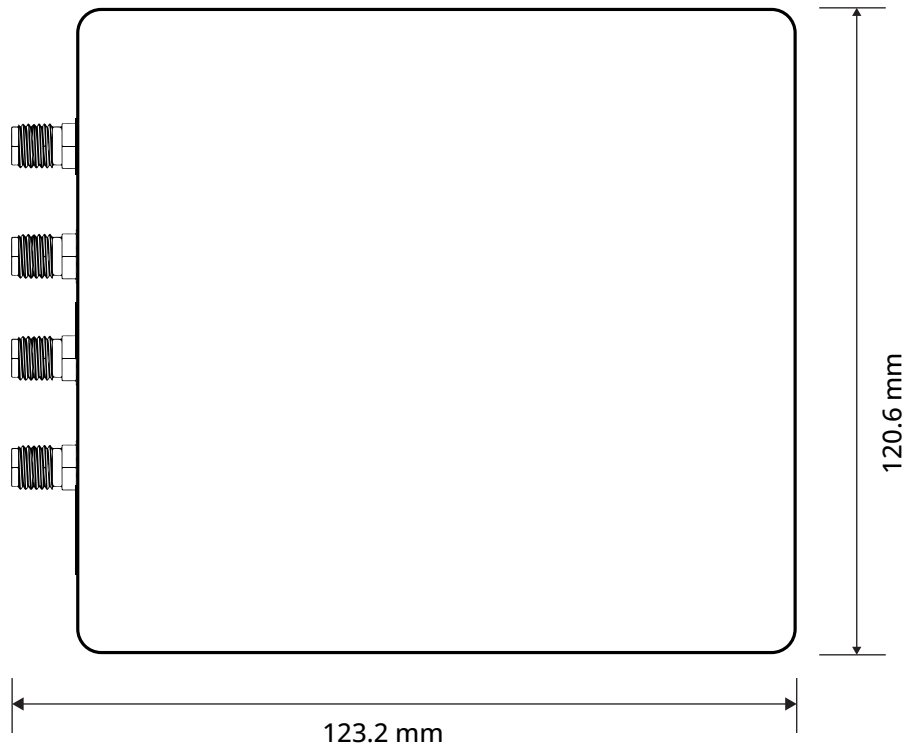
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