



IA44-B



PROCESSOR

MediaTek MT7628 128MB
 DDR RAM, 32MB Flash



CELLULAR

Dual SIM 4G/3G/2G,
 External 5dBi antennas



Wi-Fi

2.4GHz, 300Mbps AP/Station,
 Internal 5dBi antennas



INTERFACES

1x LAN/WAN 10/100
 1x RS485



POWER

9-30 V DC Input



OPERATING SYSTEM

Open-WRT Linux

The IA44-B is an industrial-grade cellular gateway designed to provide reliable connectivity in demanding environments. Featuring dual SIM card slots, it enables seamless switching between networks for uninterrupted operation. Equipped with an LTE cellular module, the router supports fallback to 4th, 3rd, and 2nd generation cellular technologies, ensuring connectivity even in areas with varying network coverage. Additionally, it offers Wi-Fi 4 functionality with AP/STA/Guest mode configuration, allowing flexible wireless connectivity options. With a wired LAN interface, Additionally, its inclusion of 4GB eMMC for Modbus data storage further enhances its utility and capability like data logger. The IA44-B also incorporates an isolated RS485 serial input, expanding compatibility with various industrial devices and systems reliant on serial communication protocols, including demanding applications like Modbus to MQTT/HTTP/Azure MQTT/Azure HTTP publisher. IA44-B features a range of VPN solutions.

Accessories:



Rubber Duck LTE Antenna



Rubber Duck Wi-Fi Antenna



Power Cable



Metal Din Rail

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 & 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
Encryption	TKIP, AES
Technology	802.11 b/g/n with 20 MHz, 40 MHz
Authentication	WPA (PSK), WPA2 (PSK)
TX Power	Configurable
Wi-Fi Scheduler	Scheduled ON/OFF

Firewall & Networking

Routing	Static routing
Network Protocols	Network Protocols TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, PPP, SSH, DHCP, SNMP (Planned), TR069
Connecting Monitoring	Ping Reboot, Scheduled Periodic Reboot
Firewall features	Port forward, traffic rules, SNAT, Zone- Zone traffic control
DHCP	Static and Dynamic
Failover	Configurable Failover option for Cellular WAN, Wi-Fi WAN & Ethernet WAN
Authentication	Pre-shared key, X.509 certificates
Other	MAC binding, black/whitelisting
VPN	Open VPN, IPsec, GRE, L2TP, PPTP, GRE over IPsec, Zero Tier, Wire Gaurd
Open VPN	TUN/TAP (Planned)
IPsec	IKEv1, IKEv2, supports up to 4xVPN IPsec client Encryption: 3DES, AES128, AES192, AES256

Remote Management

NMS	Remote monitoring of SILBO Networking products
NMS VPN	Remote access of SILBO and non SILBO Networking products using NMS VPN

Gateway

Gateway Protocols	Modbus RTU, Modbus TCP,
Serial Mode	Transprent(Over IP), Modbus Gateway
Data sender	HTTP, MQTT, Azure MQTT
Internal Storage	4GB eMMC

Operating System

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

HARDWARE SPECIFICATIONS

Operating System

CPU	MediaTek MT7628
FLASH	32MB
RAM	128MB
LAN	2x 10/100 Mbps
Serial Interface	Isolated 1x RS485 (2 Wire)
SIM	2x Nano SIM
Reset	Pinhole Reset Button
Wi-Fi	802.11b/g/n
Antenna Interface	Cellular: 2x SMA Connector, Wi-Fi: 2x SMA connector
Enclosure	Industrial Aluminium Enclosure
Mounting	Din-rail mount (As an optional accessory)
Design	Fan less
Dimensions	110 x 44 x 94 mm (W x H x D)
Weight	280 gm
Power Supply	Optional PSU (12 Vdc)
Input Power	9-30 Vdc

Operational & Environmental

Storage Temperature	-30 ~ 70°C
Operating Temperature	-25 ~ 65°C
Humidity	10 ~ 90% (non-condensing)
Ingress Protection Rating	IP30

Regulatory and Approvals

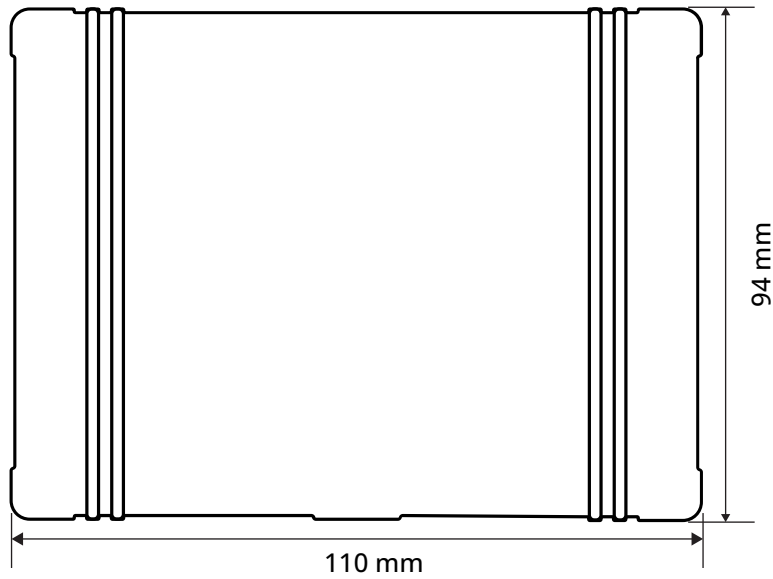
Regulatory	CE
Emission	CISPR 32 Class A (EN55032)
Immunity	
• ESD	IEC 61000-4-2:2008
• EFT	IEC 61000-4-4:2012
• Surge	IEC 61000-4-5:2014
• Radiated Immunity	IEC 61000-4-3
• Conducted Immunity	IEC 61000-4-6

Standard Packaging

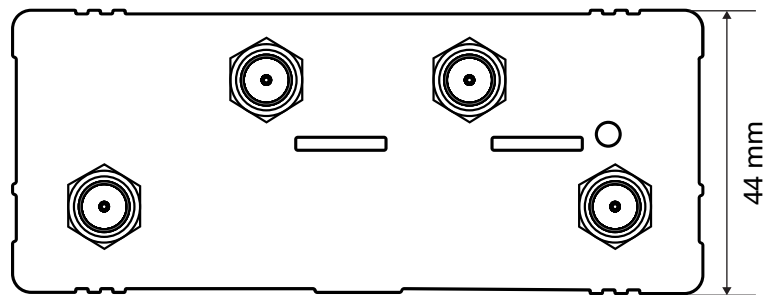
IA44-B Cellular Gateway with Industrial Aluminium Housing , 2x Cellular Rubber Duck Antennas, 2x Wi-Fi Rubber Duck Antennas, 1x RS485 TB, 0.5-meter Power Cord, 01-meter Ethernet cable.

Spatial Measurement:

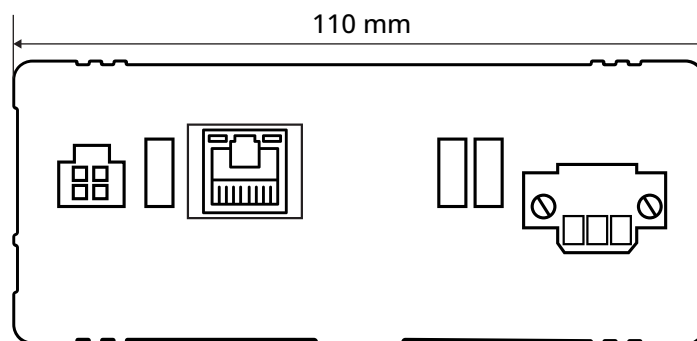
Top View



Rear View






Front View



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