



IA44-C



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

2x LAN/WAN 10/100
1x RS485



POWER

9-30 V DC Input



OPERATING SYSTEM

Open-WRT Linux

The IA44-C stands out as an industrial-grade cellular gateway meticulously designed to deliver reliable connectivity across a broad spectrum of IoT applications. Boasting dual SIM functionality, it ensures seamless operation with fallback support for 4th, 3rd, and 2nd generation cellular technologies, thus guaranteeing stable connectivity even in regions with fluctuating network coverage. Moreover, it offers Wi-Fi 4 capabilities and Ethernet WAN for failover between available WAN connections. With its versatile AP/STA/Guest mode configuration, the IA44-C provides flexible wireless connectivity options. Additionally, the gateway is equipped with 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. Security is a top priority for the IA44-C, which features a range of VPN solutions and routing protocols to safeguard data transmission and network integrity.

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

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	Sheet Metal Enclosure
Mounting	Din-rail mount (As an optional accessory)
Design	Fan less
Dimensions	115 x 35 x 95 mm (W x H x D)
Weight	410 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

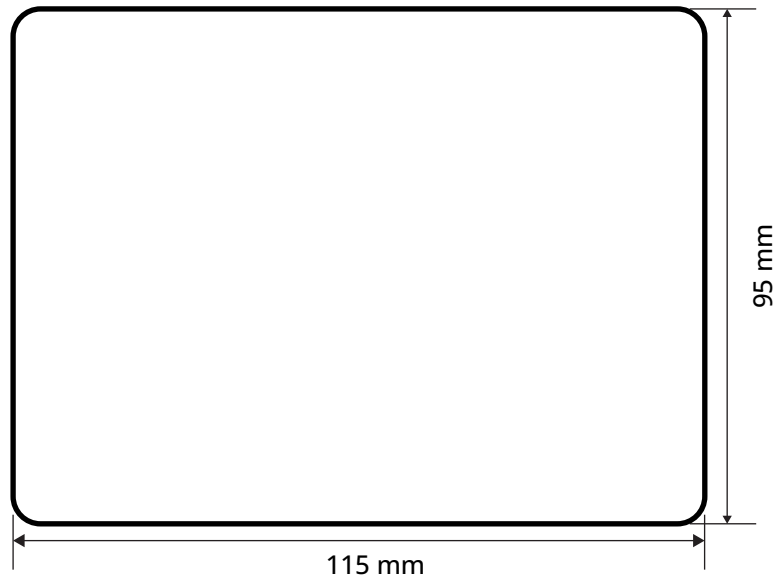
Regulatory	CE
Emission	CISPR 32 Class A (EN55032)
Immunity	
• ESD	IEC 61000-4-2:2008
• EFT	IEC 61000-4-4:2012
• Surge	IEC 61000-4-5:2014
• Radiated Immunity	IEC 61000-4-3
• Conducted Immunity	IEC 61000-4-6

Standard Packaging

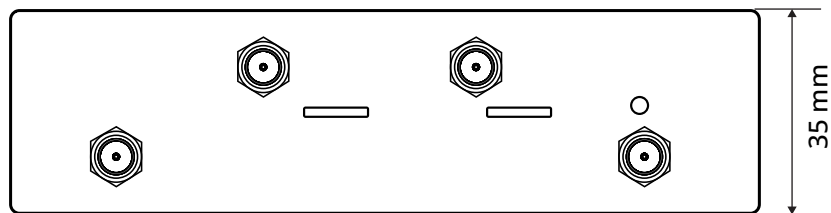
IA44-C Cellular Gateway with Sheet Metal Housing , 2x Cellular Rubber Duck Antennas,
2x Wi-Fi Rubber Duck Antennas, 1xRS485 TB, 0.5-meter Power Cord, 01-meter Ethernet cable.

Spatial Measurement:

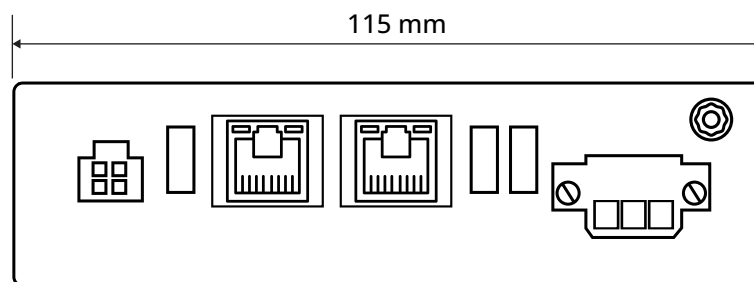
Top View



Rear View






Front View



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