

# INDUSTRIAL 4G LTE ROUTER

## FOR POWER METER CONNECTIVITY

The IR302 is a cost-effective, compact, industrial 4G LTE router for flexible IoT connectivity. It's equipped with two Ethernet ports, dual SIM holders, and a Wi-Fi interface. It provides easy, flexible, and secure connectivity to our meters in nearly any situation.

The IR302 is small and lightweight; it comes with a variety of mounting options (DIN rail and Panel) and can even be powered directly from the PS12HD, PS24HD, or the PS48HD's 12V output. It's compatible with all major cellular SIMs (AT&T, Verizon, T-Mobile, Bell, Free Mobile, O2, and many more) so finding the right cell carrier is easy.



## APPLICATIONS:

### • Wi-Fi Adapter

Installations where a physical network connection to the meter is difficult or impossible, the IR302 can add Wi-Fi capabilities to any DENT meter.

### • Remote Site Location

Connecting to a network or RTU can be impossible for remote loads such as EV charging stations or remote solar installations. The IR302, with cellular connectivity and a DENTCloud-enabled meter, makes data instantly accessible on the network.

### • High-Security Areas (Closed Networks)

For high-security networks, using the IR302 can create a layer of isolation between Dent meters and devices on the local network. This setup ensures that our meters can access the internet and cloud services while remaining inaccessible to local network devices.

### • Essential Connection (Fail-Over)

When reliability is a must, the IR302 can be set up to fail-over to cellular networks when the local network is unreliable. This ensures there are no gaps in data.

### • VPN Access

The IR302 supports various VPN protocols (including OpenVPN), allowing remote meter administration using ViewPoint software from any location. This secures flexible access for managing meters remotely.

## SPECIFICATIONS:

- **Power**  
100-120mA@12V (Working)  
190mA@12V (Peak)
- **Ethernet**  
(2) 10/100Mbps fast Ethernet ports  
LAN/WAN port 1.5KV isolation
- **Cellular**  
Dual drawer-type SIM slots. 2FF SIM
- **Wi-Fi**  
IEEE 802.11 b/g/n, 150Mbps
- **Antennas (included)**  
(2) 3G/4G: SMA  
(1) Wi-Fi: RP-SMA
- **Dimensions**  
90x90x25mm
- **Weight**  
240g
- **Housing**  
Metal (IP30)
- **Operating Temp**  
-20C to 70C
- **Certificates**  
CE, FCC, PTCRB



# Product Specifications

InRouter 302 Hardware Specifications	
Hardware Platform	
CPU	580MHz
RAM	128MB DDR2
FLASH	32MB SPI
Interfaces	
Ethernet Port	2*10/100Mbps RJ45, WAN/LAN switchable
Power Supply	DC 9-36V, over-current protection, anti-reverse connection, 2PIN industrial terminal
I/O(Optional)	Support 2*I/O(DI or DO can be configured)
Serial port (Optional)	1*RS232
Reset	Pinhole reset button
SIM Card	Drawer-type SIM card slot, support dual SIM
Antenna Connector	4G: 1* SMA; Wi-Fi: 1* RP-SMA Note: North America models: 2* 4G antenna connectors
Wi-Fi	
Radio Frequency	2.4GHz
Max Transmission Bandwidth	150Mbps
Transfer Protocol	802.11 b/g/n
Transmit Power	802.11b:16dBm +/-2dBm(11Mbps) 802.11g:16dBm +/-2dBm(54Mbps) 802.11n@2.4GHz:16dBm +/-2dBm(HT20 MCS7) 802.11n@2.4GHz:16dBm +/-2dBm(HT40 MCS7)
Transmission Distance	50 meters by line of sight (Actual transmission distance depends on environment of the site.)
Power Rate	
Standby Power	80mA-90mA@12V
Working Power	100mA-120mA@12V
Peak Power	190mA@12V
Mechanical Features	
Installation	Panel mounting; Rail mounting
Dimensions & Weight	90*90*25 (mm) & 259g
IP	IP30
Environment	
Working Temp.	-20° C to 70° C
Storage Temp.	-40° C to 85° C
Humidity	5% to 95% (non-condensing)
Physical Specs	
Shockproof	IEC60068-2-27
Vibration Resistance	IEC60068-2-6
Free Fall	IEC60068-2-32
EMC	
Static	EN61000-4-2,level 2
Radiation Electric Field	EN61000-4-3,level 2
Pulsed Electric Field	EN61000-4-4,level 2
Surge	EN61000-4-5,level 2
Conducted Disturbance Immunity	EN61000-4-6,level 2
Shock Wave Resistance	EN61000-4-12,level 2
Power Frequency Magnetic Field Resistance	EN61000-4-8, horizontal / vertical 400A/m (>level 2)
Certification	
Certification	CE, CB, UKCA, E-MARK, FCC, IC, PTCRB, AT&T, Verizon, T-Mobile, RCM, CCC, EAC&FAC, UL, ANATEL, MIC&JATE, IEC 62443

InRouter 302 Software Specifications	
Network Connection	
Network Access	APN, VPDN
Access Authentication	CHAP/PAP
Network Type	GSM/GPRS/EDGE, UMTS/HSPA+/EVDO/TD-SCDMA, TDD LTE/FDD LTE (Please refer to the Ordering Guide for frequencies)
LAN protocol	ARP, Ethernet
WAN protocol	Static IP, DHCP, PPPoE
Network Protocol	
IP Application	IPv4, Ping, Trace, DHCP Server, DHCP Relay, DHCP Client, DNS relay, DDNS, Telnet, IP Passthrough
IP Routing	Static routing
NAT	Supports network address translation
Security	
Network Security	Stateful Packet Inspection (SPI), DoS attack defense; Multicast filter/Ping probe packet, Access Control List (ACL); Content URL filter, port mapping, virtual IP mapping, IP-MAC binding
Data Security	Supports PPTP, L2TP, GRE, IPSEC VPN (IKEv1, IKEv2), OPENVPN, WireGuard , ZeroTier Supports CA digital certificate
Reliability	
Hot Backup	VRRP hot backup
Link Detection	Sends heartbeat packets to detect, auto redials when disconnected
Dual SIM Failover	Supports dual SIM failover
Embedded Watchdog	Device runs self-detection, auto recovers from malfunctions
WLAN (Optional)	
Protocol	IEEE 802.11b/g/n
Security	Open system, shared key, WPA/WPA2 certification WEP/TKIP/AES encryption
Transmission Distance	50 meters by line of sight (Actual transmission distance depends on environment of the site.)
Intelligence	
Integrated DTU Functions	TCP, UDP transparent transmission mode, TCP Server mode Supports conversion of Modbus RTU to Modbus TCP bridge Supports AT command
Network Management	
QoS Management	Bandwidth limit, IP speed limit
Configuration	Telnet, web, ssh and console
Update	Web, Device Manager
Log	Local system log, remote log, and serial export of log. Power down saving of important logs.
SMS Functions	Status query, restart
Dial-on-demand	Dial-on-demand, data / SMS activation
Network management	Supports InHand Device Manager, batch management Add the user experience plan to access The InHand Networks cloud platform to enjoy efficient and convenient services
SNMP	SNMP v1/v2c/v3 , supports SNMP TRAP
Traffic Management	Supports data traffic threshold, traffic statistics and traffic alarm
Alarm	System restart alarm, LAN port online/offline alarm, data traffic alarm, SIM card failure alarm, etc.
Maintenance Tools	Ping, route tracking, network speed test
Status Query	System status, modem status, network connection status, and routing status

Note: The functions marked with \* are not available yet.