

ICR-W403

4G LTE, GPS, IEEE 802.11ac/b/g/n 2T2R, 2x SIM, 3x GbE + DI/DO, RS232



- Multi-band connectivity with FDD 4G LTE/ TDD 4G LTE/ 3G WCDMA/2G GSM
- Concurrent dual band WiFi With 802.11n 2T2R (2.4GHz), and 802.11ac 2T2R (5GHz)
- 4G LTE/ WiFi/ UTP to configure WAN port for failover redundant
- GPS and GNSS for location tracking
- NAT/Port Forward/Routing/IPv6 are compatible with existing IP networks
- Various VPN protocols for security, Firewall & IPS, ACL & Authentication by MAC/User to enhance access security



The ICR-W403 is a high-performance industrial grade wireless router. It combines IEEE 802.11b/g/n/ac WLAN and 4G LTE cellular technologies to provide flexible wireless network connectivity for industrial applications. ICR-W403 provides 3 Ethernet ports and dual SIM cards for failover redundancy, to ensure uninterrupted connectivity. ICR-W403 has support for secure VPN communications, GPS, static and dynamic IP routing of RIP1/2 and OSPF, NAT, port forwarding, Firewall, built-in DI/DO and Serial port services. In addition, ICR-W403 uses the highest level of industrial grade design for connection in the most demanding environments, and is an ideal solution for Industrial Internet of Things (IIoT) and M2M (Machine-to-Machine) applications, such as remote control and monitoring, fleet management, bus ticketing collection systems, CCTV, SCADA, digital signage, KIOSK and intelligent traffic systems.

Features

- IEEE 802.11 ac/b/g/n, multiple SSID, captive portal for WiFi hotspot
- Web, CLI, SNMP, TR069, SMS for management and configuration
- Events triggered by pre-defined, and notification sent by SMS, SNMP trap, or e-mail
- Supports USB for log storage
- EN-60950-1, CE, FCC, Rail Traffic EN50121-4 certified
- Heavy industrial grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- Rugged metal, IP30 protection & Fanless design

Specifications

Standard	Cellular MobilComm standard: (Please see order information for optional band) 4G LTE: FDD-LTE, TDD-LTE 3G: WCDMA 2G: GSM/EDGE GNSS: GPS	Connector	2x 2.3dBi LTE Antenna and connector 2x 5dBi WiFi Antenna and connector 1x SMA Female connector for GPS antenna (Antenna optional) 2 SIM card sockets 1x USB 2.0 socket 3 RJ45 for GbE LAN/WAN 1x Removable Terminal block (Input power, 1x IGN, 2x DI, 1x DO, RS232)
	IEEE 802.3 10Base-T 10Mbit/s Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gbit Ethernet over twisted pair IEEE 802.1Q Virtual LANs (VLAN) IEEE 802.3x Flow control for Full Duplex IEEE 802.1p LAN Layer 2 QoS for Traffic Prioritization IEEE 802.1X Port based and MAC based Network Access Control, Authentication	4G LTE data rate	Cat 4, Maxium 150Mbps download, upload 50Mbps
WiFi Standard Interface	IEEE802.11ac, IEEE802.11b, IEEE802.11g, IEEE802.11n WAN 1x 3G/4G LTE (Please see order information for detail optional mobil band) Built-in dual SIM card slots for network redundancy / failover/ roaming over/ back up IEEE 802.11ac (5G Hz) 1x GbE UTP (WAN or LAN configurable) LAN Concurrent WiFi 2.4G/5G with IEEE 802.11ac 2T2R (5GHz), and IEEE 802.11b/g/n 2T2R (2.4GHz) 3x 10/100/1000Base-T UTP port, port 1 could be WAN or LAN configurable COM port 1x RS232 DI/DO 2x DI, 1x DO, 1x IGN (Ignition Sense for Vehicle) GNSS 1x GPS receiver Log Storage 1x USB 2.0	Power Supply	12/24VDC (9~36VDC)
		Power consumption	<14W
		LED	Power (Green), GPS (Green) 2.4G (Green), 5G (Green) SIM 1 (Green), SIM 2 (Green) LTE signal High (Green), LTE signal Low (Green) WAN/LAN LNK/ACT (Green)
		Alarm message Handling	Events triggered by pre-defined, and notification sent by SMS, SNMP trap, or e-mail
		Operation Temperature	-40~ 75°C
		Operating Humidity	5% to 95% (Non-condensing)
		Storage Temperature	-40 ~ 85°C
		Housing	Rugged Metal, IP30 Protection, Fanless
		Dimensions (D x W x H)	120 x 200 x 39.5 mm (Dx Wx H)
		Weight	975g
		Installation	Wall mounting
		MTBF	394,330 Hours (MIL-HDBK-217)
		Warranty	5 years

Certification	
EMC	CE (EN55024, EN55032)
EMI	FCC Part 15 Subpart B Class A, CE EN55022 Class A
Railway Traffic	EN50121-4
Immunity for Heavy Industrial Environment	EN61000-6-2
Emission for Heavy Industrial Environment	EN61000-6-4

EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria B
	EN61000-4-3 (RS) Level 3, Criteria A
	EN61000-4-4 (Burst) Level 3, Criteria A
	EN61000-4-5 (Surge) Level 3, Criteria B
	EN61000-4-6 (CS) Level 3, Criteria A
	EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A
Safety	EN60950-1
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Software Specifications

Routing	Static routing, Dynamic routing, RIP1/RIP2, OSPF, BGP
Security	Firewall: SPI Firewall with Stealth Mode, IPS VPN Tunneling: IPSec, OpenVPN, PPTP, L2TP, GRE; Tunneling with Full Tunnel, Tunnel Failover VPN Scenario: Site to Site, Site to Host, Host to Site, Host to Host, Hub and Spoke, Dynamic VPN Port Forwarding: Virtual Server/ Computer, DMZ Host, Special AP & APG, VPN Pass-through Access control: Packet Filter, URL Blocking, MAC Filter, Content Filter, Application Filter Authentication: Captive Portal, MAC Authentication
VLAN	Port-based VLAN, Tag-based VLAN
QoS	Policy-based Bandwidth Control and Packet Flow Prioritization
Management	Web, CLI, Telnet, SNMP V3, TR069
IPV6	Dual Stack
Upgrade F/W	Support
Backup & Restore Configuration file	Support

Others	
System Time Information	NTP client
DHCP	Server and Client
Cellular toolkit	SIM PIN, USSD, Network Scan, SMS, Data Usage
Alarm message Handling	DI, DO, SMS, Syslog, SNMP Trap, Email Alert, Reboot
Location Tracking	GPS
Diagnostic	Packet Analyzer, Diagnostic tools
Power Control	Ignition Sense for delay OFF
MobilComm Connectivity	Two SIM for multi ISP failover/ back up Seamless
Multi WAN connections	4G LTE, 1xWiFi IEEE 802.11ac and 1x Ethernet WAN for failover/ back up Seamless
WiFi mode	AP Router, WDS, WDS Hybrid
WiFi Security	WEP, WPA, WPA2, WPA-PSK, WPA2-PSK, IEEE 802.1X
Virtual COM	TCP Client, TCP Server, UDP, RFC2217
Others DDNS, UPnP, QoS	
Remote management via Telnet, SSH v2, HTTPS	
Local management via Telnet, SSH v2, HTTP/HTTPS	
Syslog monitor	

Application

Figure 1 : Application of Wireless Transmission in Logistics Center

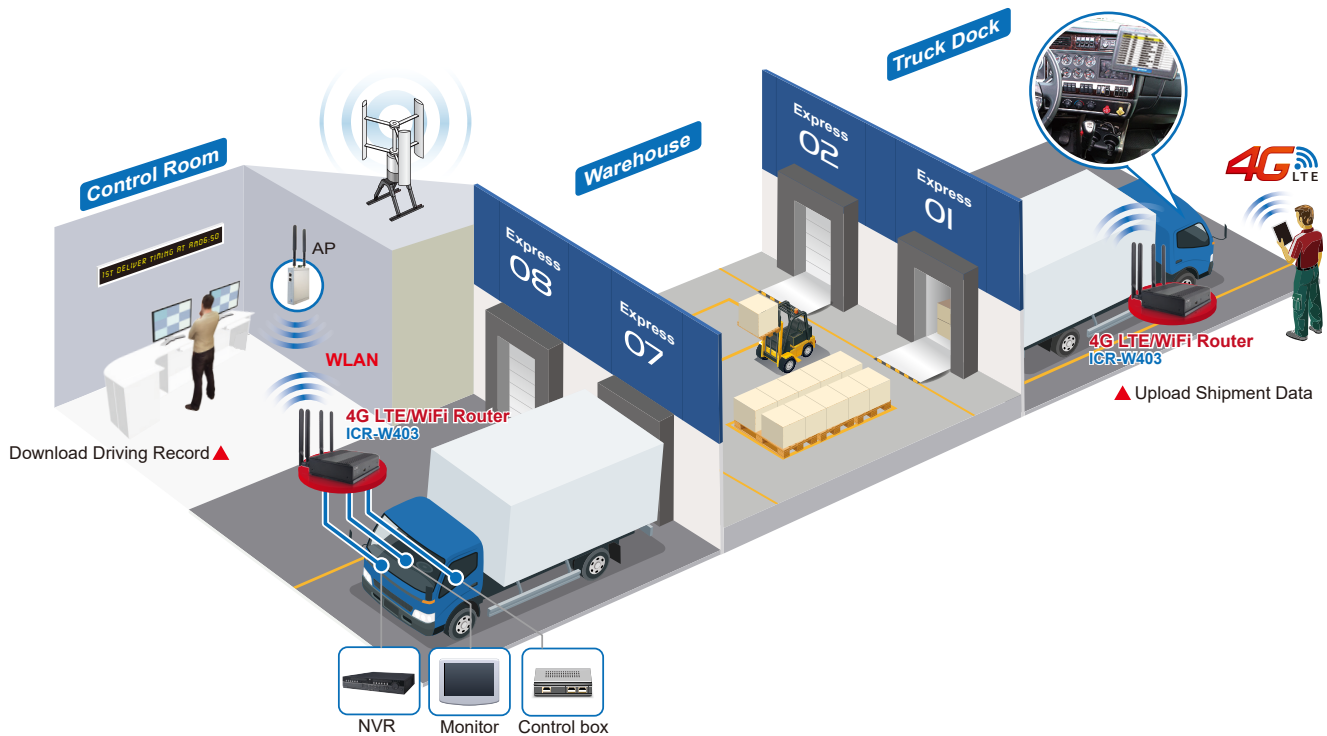
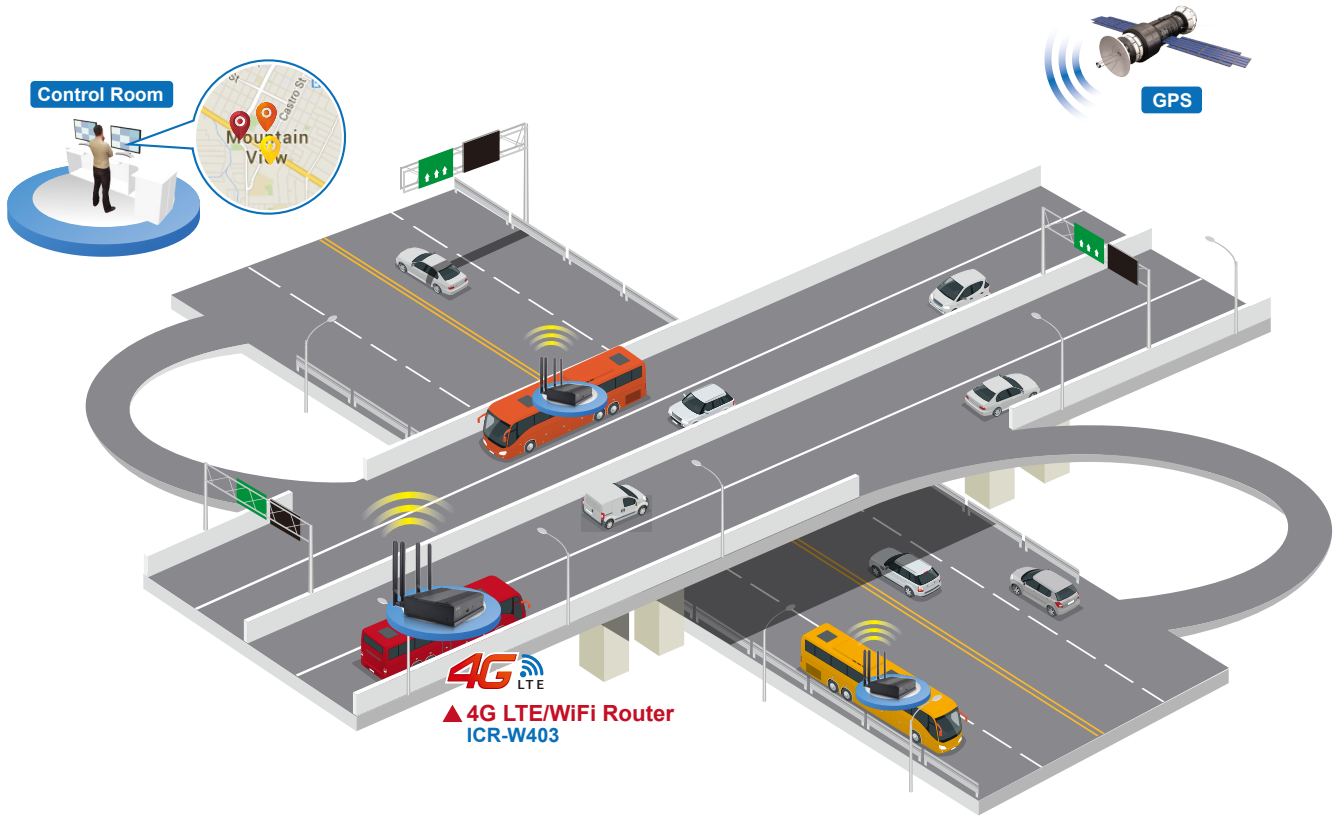
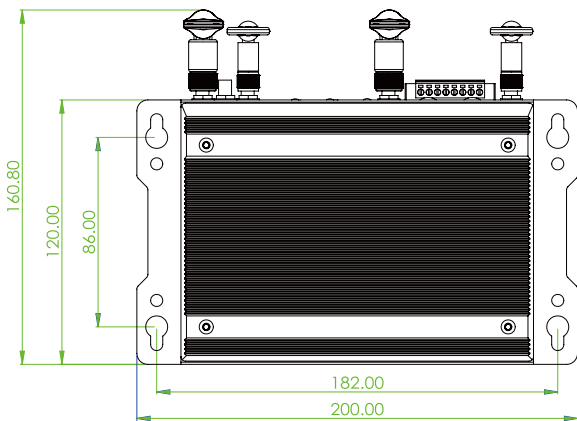


Figure 2 : Application of Vehicle Location Tracking System

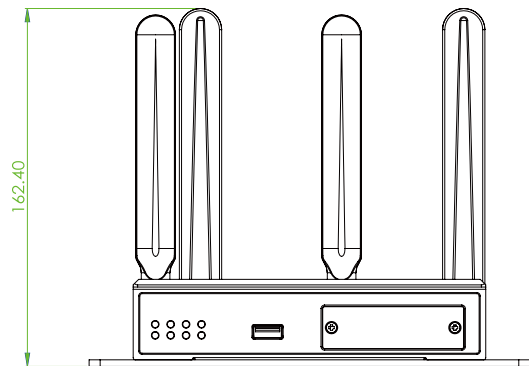


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2
4G LTE Router ICR-W403

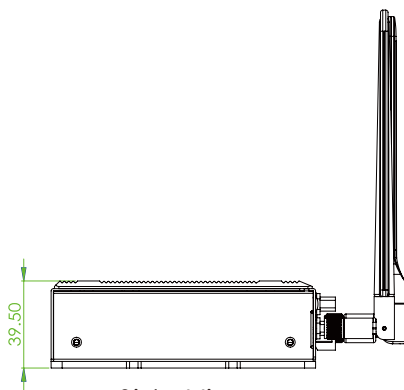
Dimensions



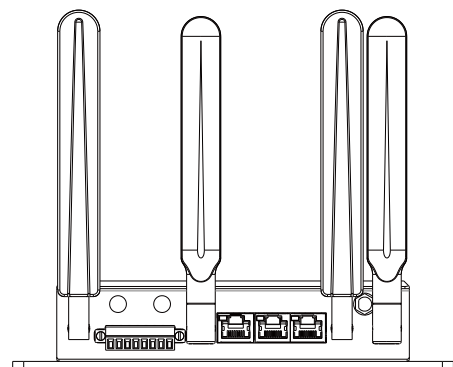
Top View



Front View



Side View

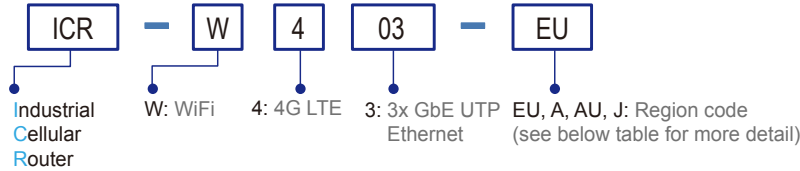


Rear View

Ordering Information

Model Name	WAN		WAN/LAN		LAN		Certification			
	Cellular Mobil Band (2 Sim for Redundant)	GPS (Ant. Optional)	WiFi	UTP 10/100/1000Base-T	DI, DO	RS232	Safety EN60950-1	RailWay EN50121-4	EN61000-6-2 EN61000-6-4	CE, FCC
ICR-W403-EU	see Region code table EU	1x GNSS	IEEE 802.11ac/b/g/n (LAN) or IEEE 802.11ac (WAN)	2x(LAN) +1x (LAN or WAN)	2xDI, 1xDO	1	V	V	V	V
ICR-W403-A	see Region code table A	1x GNSS	IEEE 802.11ac/b/g/n (LAN) or IEEE 802.11ac (WAN)	2x(LAN) +1x (LAN or WAN)	2xDI, 1xDO	1	V	V	V	V
ICR-W403-AU	see Region code table AU	1x GNSS	IEEE 802.11ac/b/g/n (LAN) or IEEE 802.11ac (WAN)	2x(LAN) +1x (LAN or WAN)	2xDI, 1xDO	1	V	V	V	V
ICR-W403-J	see Region code table J	1x GNSS	IEEE 802.11ac/b/g/n (LAN) or IEEE 802.11ac (WAN)	2x(LAN) +1x (LAN or WAN)	2xDI, 1xDO	1	V	V	V	V

Model Naming Rule



MobilComm Region Code Options

Region Code	4G LTE		3G	2G	GNSS	Region
	FDD LTE	TDD LTE	WCDMA	GSM / EDGE		
EU	B1(2100), B3(1800), B7(2600), B8(900), B20(800)		B1(2100), B8(900)	B3(1800), B8(900)	Yes	Europe, Africa, Middle East, Korea, Thailand, India
A	B2(1900), B4(1700), B12(700)		B2(1900), B4(1700), B5(850)		Yes	USA (AT&T, T-Mobile)
AU	B1(2100), B2(1900), B3(1800), B4(1700), B5(850), B7(2600), B8(900), B28(700)	B40(2300)	B1(2100), B2(1900), B5(850), B8(900)	B2(1900), B3(1800), B5(850), B8(900)	Yes	ANZ, South America, Taiwan
J	B1(2100), B3(1800), B8(900), B18(850), B19(850), B26(850)	B41(2500)	B1(2100), B6(850), B8(900), B19(850)		Yes	China

Optional Accessories

Antenna accessories

ANT-GPS-01	Antennas for GNSS
ANT-BASE-01	Antennas Base with Magnetic, SMA (Male) connector, 1.5meter for 4G LTE extension



ANT-GPS-01



ANT-BASE-01