



# ICR-W403

4G LTE, WiFi ac/b/g/n 2T2R Gateway



The ICR-W403 is a high-performance industrial grade wireless gateway. combines IEEE802.11b/g/n/ac WLAN and 4G LTE cellular technologies to provide flexible wireless network connectivity. It is designed to offer the flexible connectivity over cellular and Wireless LAN for industrial applications. ICR-W403's Ethernet ports can allow up to 3 Ethernet devices link, provides dual SIM cards for failover redundancy to ensure uninterrupted connectivity. ICR-W403 with 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 connected in the most demanding environments, is ideal solution for Industrial Internet of Things (IIoT) and M2M (Machine-to-Machine) applications, such as remote control and monitoring, bus ticketing collection system, CCTV, SCADA, digital signage, kiosk and intelligent traffic systems.

## Features

- 4G LTE, GPS, IEEE 802.11b/g/n/ac WiFi, 2x SIM card, 3x GbE RJ45 LAN/WAN + 2x DI + 1x DO, 1x RS232 com port
- Supports multi-band connectivity with FDD 4G LTE/ TDD 4G LTE/ 3G WCDMA/2G GSM
- Supports concurrent dual band WiFi With 802.11n 2T2R (2.4GHz), and 802.11ac 2T2R (5GHz)
- Supports 4G LTE/ WiFi/ UTP port to configure WAN ports for failover redundant
- Supports GPS and GNSS for location tracking
- Built-in NAT/Port Forward/Routing/IPv6 are compatible with existing IP networks
- Build-in various VPN protocols for security, Firewall & IPS, ACL & Authentication by MAC/User to enhance access security
- IEEE 802.11 a/b/g/n/ac, 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

<b>Standard</b>	Cellular MobilComm standard: (Please see order information for optional band)	
	4G LTE: FDD-LTE, TDD-LTE	
<b>Interface</b>		3G: WCDMA
		2G: GSM/EDGE
		GPS: GNSS
	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
	WAN	1x 3G/4G LTE (Please see order information for detail optional mobil band)
		Built-in dual SIM card for network redundancy / failover/ roaming over/ back up
		IEEE802.11ac (5G Hz)
		1x GbE UTP (WAN or LAN configureable)
	LAN	Concurrent WiFi 2.4G/5G with IEEE802.11ac 2T2R (5GHz), and IEEE802.11b/g/n 2T2R (2.4GHz)
		3x 10/100/1000Base-T UTP port, port 1 could be WAN or LAN configureable
	COM port	1x RS232
	DI/DO	2x DI, 1x DO, 1x IGN (Ignition Sense for Vehicle)
	GPS	1x GNSS receiver
	Log Storage	1x USB 2.0
<b>Connector</b>		
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 socket		
1x USB 2.0 socket		
3 RJ45 for GbE LAN/WAN		
1x Removable Terminal block (Input power, 1x GN, 2x DI, 1x DO, RS232)		
<b>4G LTE data rate</b>		
Cat 4 , Maxium 150Mbps download, upload 50Mbps		
<b>Power Supply</b>		
12/24 VDC (9~36VDC)		
<b>Power consumption</b>		
<14W		
<b>LED</b>		
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)		
<b>Alarm message Handling</b>		
Events triggered by pre-defined, and notification sent by SMS, SNMP trap, or e-mail		
<b>Operation Temperature</b>		
-30~ 75°C		
<b>Housing</b>		
Rugged Metal, IP30 Protection, Fanless		
<b>Dimensions (D x W x H)</b>		
TBD		
<b>Weight</b>		
TBD		
<b>Installation</b>		
Wall mounting		
<b>MTBF</b>		
TBD (MIL-HDBK-217)		
<b>Warranty</b>		
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
Safety	EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A
	EN60950-1
	IEC 60068-2-27
	IEC 60068-2-32
	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	GNSS
Diagnostic	Packet Analyzer, Diagnostic tools
Power Control	Ignition Sense for delay OFF
MobilComm Connectivity	Two SIM for muti ISP failover/ back up Seamless
Multi WAN connections	4G LTE , 1xWiFi IEEE802.11ac 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, IEEE802.1X
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

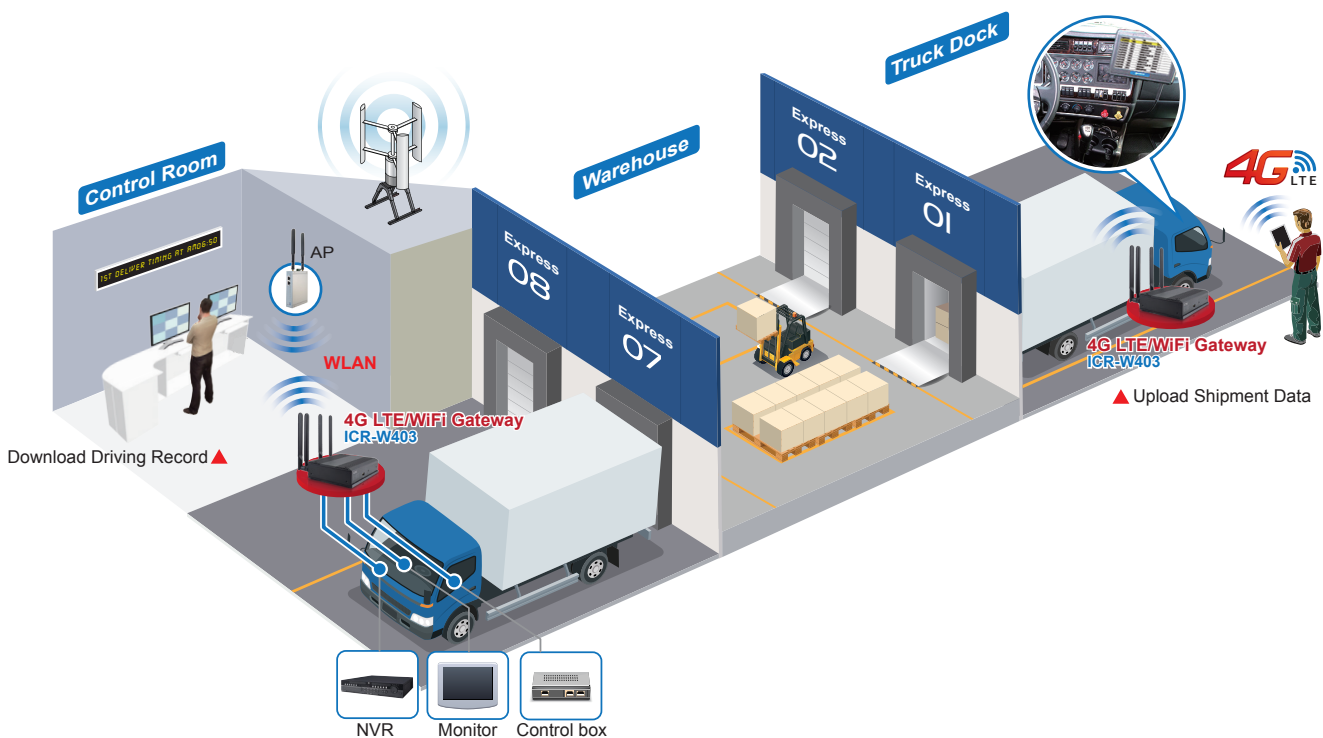


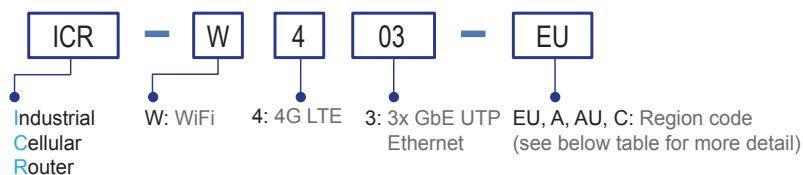
Figure 2 : Application of Vehicle Location Tracking System



## Ordering Information

Model Name	WAN		WAN/LAN		Local Port		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	IEEE802.11ac/b/g/n (LAN) or IEEE802.11ac (WAN)	2x(LAN) +1x (LAN or WAN)	2xDI, 1xDO	1	V	V	V	V
ICR-W403-A	see Region code table A	1x GNSS	IEEE802.11ac/b/g/n (LAN) or IEEE802.11ac (WAN)	2x(LAN) +1x (LAN or WAN)	2xDI, 1xDO	1	V	V	V	V
ICR-W403-AU	see Region code table AU	1x GNSS	IEEE802.11ac/b/g/n (LAN) or IEEE802.11ac (WAN)	2x(LAN) +1x (LAN or WAN)	2xDI, 1xDO	1	V	V	V	V
ICR-W403-C	see Region code table C	1x GNSS	IEEE802.11ac/b/g/n (LAN) or IEEE802.11ac (WAN)	2x(LAN) +1x (LAN or WAN)	2xDI, 1xDO	1	V	V	V	V

### Model Naming Rule



## MobilComm region Code Optional

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
C	B1(2100), B3(1800)	B38(2600), B39 (1900), B40(2300), B41(2500)	B1(2100), B2(1900), B5(850), B8(900)	B2(1900), B3(1800), B5(850), B8(900)	Yes	China

## Optional Accessories

### Antenna accessories

ANT-GPS-01	Antennas for GNSS
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