

# ICR-W401

4G LTE, WiFi IEEE 802.11 b/g/n 2T2R, RS232 Com port and DI/DO Gateway

**NEW**



- Multi-band connectivity with FDD LTE/ TDD LTE/ WCDMA/ GSM/ LTE Cat 4
- IEEE 802.11b/g/n WiFi 2T2R
- Enhance security and encryption for authentication and transmission
- -40 ~ +75°C for use in harsh environments
- Compact



CTC Union's ICR-W401 is a compact, lightweight and cost-effective Industrial grade 4G LTE gateway that has 1 LAN plus 1 WAN Fast Ethernet connection and supports uplink to 2G/3G/4G mobile data networks. Built for harsh environments, the gateway is equipped with a single RS232 serial port and a DI/DO interface. The ICR-W401 is simple to configure through its embedded Web user interface and can be deployed where the collection of real-time data transmissions is required for Industrial IoT and M2M (machine-to-machine) applications. The ICR-W401's WiFi is compliant with IEEE 802.11b/g/n wireless connectivity. The gateway features VPN Tunneling with Firewall and management capability via TR069 and SNMP. The ICR-W401 provides a highly secure authentication, encryption and management to protect your data between public and private networks and simplify your complicated solutions for smart city and industrial networking.

## Features

- Highly reliable and secure for mission-critical cellular communications
- Compact and lightweight design with 1 LAN and 1 WAN Ethernet interfaces
- Supports multi-band connectivity with FDD LTE/ TDD LTE/ WCDMA/ GSM/ LTE Cat 4
- Provides IEEE 802.11b/g/n WiFi 2T2R
- Micro SIM connector, RS232 serial 3-wire port and DI/DO interfaces
- LED indicators for connection and data transmission status
- Industrial temperature rated from -40 ~ +75°C for use in harsh environments
- IPv6/IPv4 dual stack and all applications are IPv6 ready
- Support serial communication protocols for rich connectivity
- Enhance security and encryption for authentication and transmission

## Specifications

|                                  |  |                               |  |
|----------------------------------|--|-------------------------------|--|
| <b>Standard</b>                  | IEEE 802.3 10Base-T 10Mbit/s Ethernet<br>IEEE 802.3u 100Base-TX Fast Ethernet<br>IEEE 802.1Q Virtual LANs (VLAN)<br>IEEE 802.3x Flow control for Full Duplex<br>IEEE 802.1p LAN Layer 2 QoS for Traffic Prioritization<br>IEEE 802.1X Port based and MAC based Network Access Control, Authentication  | <b>Dimensions (W x H x D)</b> | 30x 92 x 75 mm   |
| <b>LTE Interface</b>             | Cellular MobilComm standard: (Please see order information for optional area and band)<br>4G LTE: FDD-LTE, TDD-LTE<br>3G: WCDMA<br>2G: GSM/EDGE<br>GNSS: GPS<br>LTE Data rate: Cat 4<br>1 x micro SIM Connector (push-push type)   | <b>Weight</b>                 | 400g   |
| <b>WiFi Interface (ICR-W401)</b> | IEEE 802.11b/g/n WiFi Standards<br>Support AP or Station mode<br>2 x RP-SMA for WiFi Antenna   | <b>Installation</b>           | DIN Rail mounting, or wall mounting (optional)   |
| <b>Hardware Interface</b>        | 1 x Micro SIM Connector (push-push type)<br>1 x LAN 10/100 Mbps Ethernet port<br>1 x WAN 10/100 Mbps Ethernet port<br>Reset Button for device reset<br>1x RS232 for serial Com port or console configuration (TXD/RXD/GND)<br>1 x DI (Non-Isolated), 1 x DO (Non-Isolated)<br>2 x SMA connectors for detachable LTE Antenna<br>2 x RP-SMA for WiFi Antenna<br>1 x GPS detachable Antenna | <b>LED Display</b>            | 1 x Power LED<br>2 x Ethernet LED for each port (LAN/WAN)<br>1x LTE LED<br>1 x Function LED (User define by Web)   |
| <b>Housing</b>                   | Rugged metal, Fanless, IP30 protection   | <b>Power Supply</b>           | Power Consumption 7 Watt(Max)<br>Power Input 8 ~ 36VDC   |
|                                  |  | <b>Operating Temperature</b>  | -40 ~ 75°C   |
|                                  |  | <b>Storage Temperature</b>    | -40 ~ 85°C   |
|                                  |  | <b>Operating Humidity</b>     | 10 ~ 95% (non-condensing)  |
|                                  |  | <b>MTBF</b>                   | 271,952 Hours (MIL-HDBK-217)   |
|                                  |  | <b>Warranty</b>               | 5 Years  |
|                                  |  | <b>Certification</b>          | <b>EMC</b> CE (EN55032 + EN55024)<br><b>EMI</b> FCC part 15 subpart B class A, CE (EN55032)<br><b>Shock</b> IEC 60068-2-27<br><b>Freefall</b> IEC 60068-2-32<br><b>Vibration</b> IEC 60068-2-6 |

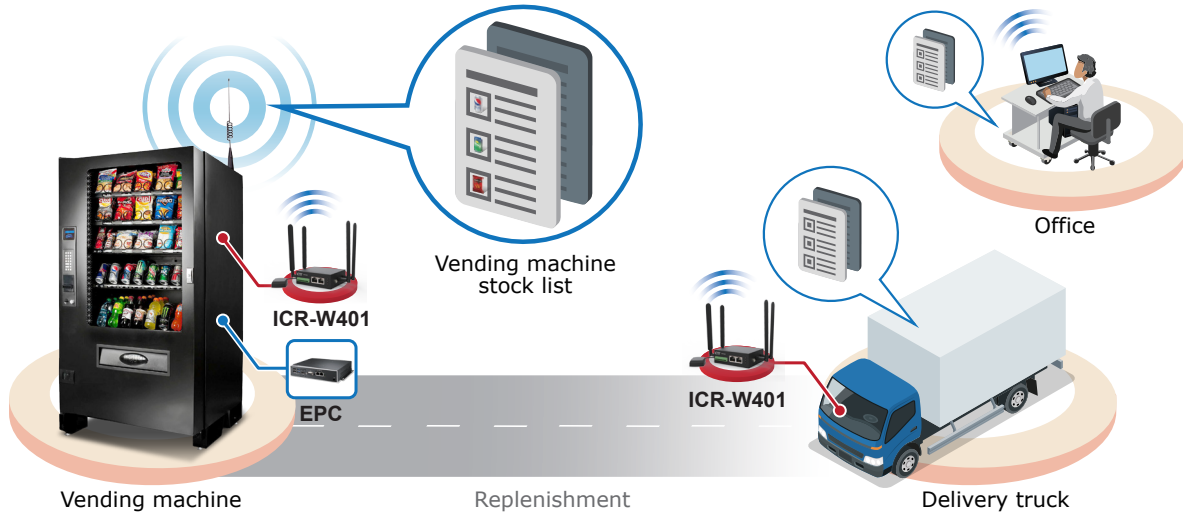
## Software Specifications

|                          |  |
|--------------------------|--|
| <b>Network Protocols</b> | IPv4, IPv6, IPv4/IPv6 dual stack, DHCP server and client, PPPoE, Static IP, SNTP, GPS sync time, DNS Proxy, VRRP, OSPF, Message Queue Telemetry Transport (MQTT Broker), BGP |
| <b>Routing/Firewall</b>  | NAT, Virtual Server, DMZ, MAC Filter, URL Filter, IP Filter, VLAN, Static Routing, RIP 1, RIP 2  |
| <b>VPN</b>               | OpenVPN, IPSec (3DES, AES128, AES196, AES256, MD5, SHA-1, SHA256), GRE, PPTP, L2TP   |

|                   |  |
|-------------------|--|
| <b>Others</b>     | DDNS, QoS, UPnP  |
| <b>Alarm</b>      | DI, DO, SMS, VPN/WAN Disconnect, SNMP Trap, Email, TR069   |
| <b>Management</b> | Web GUI for remote and local management, CLI Syslog monitor<br>SNMP, TR069<br>Remote management via SSH v2, HTTPS<br>Local management via Telnet, SSH v2, HTTP/HTTPS |

## Application

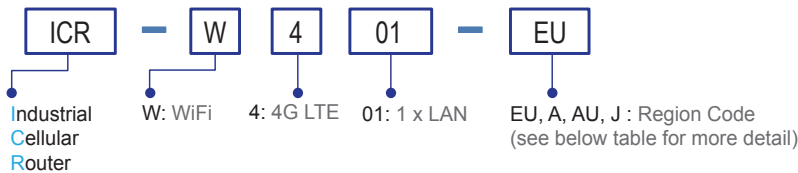
The vending machine logistics system application



## Ordering Information

| Model Name  | Managed | WAN  |                  | Local port               |                  |       |       | Certification |     |                            |
|-------------|---------|--|------------------|--------------------------|------------------|-------|-------|---------------|-----|----------------------------|
|             |         | "Cellular Mobil Band (2 Sim for Redundancy)" | "10/100 Base-TX" | "WiFi IEEE 802.11 b/g/n" | "10/100 Base-TX" | RS232 | DI/DO | CE            | FCC | Shock, Freefall, Vibration |
| ICR-W401-EU | V       | see Region code table EU                     | 1                | 1                        | 1                | 1     | 1     | V             | V   | V                          |
| ICR-W401-A  | V       | see Region code table A                      | 1                | 1                        | 1                | 1     | 1     | V             | V   | V                          |
| ICR-W401-AU | V       | see Region code table AU                     | 1                | 1                        | 1                | 1     | 1     | V             | V   | V                          |
| ICR-W401-J  | V       | see Region code table J                      | 1                | 1                        | 1                | 1     | 1     | V             | V   | V                          |

### Model Naming Rule



## MobilComm Region Code Options

| Region Code | 4G LTE   |                                 | 3G                                   | 2G                                   | Region  |
|-------------|--|---------------------------------|--------------------------------------|--------------------------------------|---|
|             | FDD LTE  | TDD LTE                         | WCDMA                                | GSM / EDGE                           |   |
| EU          | B1(2100), B3(1800), B5(850), B7(2600), B8(900), B20(800)                     | B38(2600), B40(2300), B41(2500) | B1(2100), B5(850), B8(900)           | B3(1800), B8(900)                    | Europe, Africa, Middle East, Korea, Thailand, India |
| A           | B2(1900), B4(1700), B12(700)   |                                 | B2(1900), B4(1700), B5(850)          |                                      | 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) | 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) |                                      | Japan   |

## Optional Accessories

### Antenna accessories

|             |  |
|-------------|--|
| ANT-BASE-01 | Antennas Base with Magnetic, SMF (Male) connector, 1 meter extension |
|-------------|--|

### Wall mount kit accessories

|           |  |
|-----------|--|
| IND-WMK03 | Wall Mount kit for Industrial product (Compact, 150x 30mm) |
|-----------|--|

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