# iW7XR  **Industrial Wi-Fi 7 Dual-band Gateway/AP/Bridge/Client**

## Product Overview

iW7XR series are leading edge Wi-Fi 7 dual-band Mesh Gateway/AP/Bridge/Client which provides not only high speed low latency wireless connection up to 6.3 Gbps, but also two 10G Ethernet SFP+ as reliable backbone with MRP rapid fail-over.  Besides Wi-Fi 7, iW7XR series are uniquely equipped with IEEE802.11ah Wi-Fi HaLow which works at 900MHz RF band with less interference and long distance transmission up to 3KM.
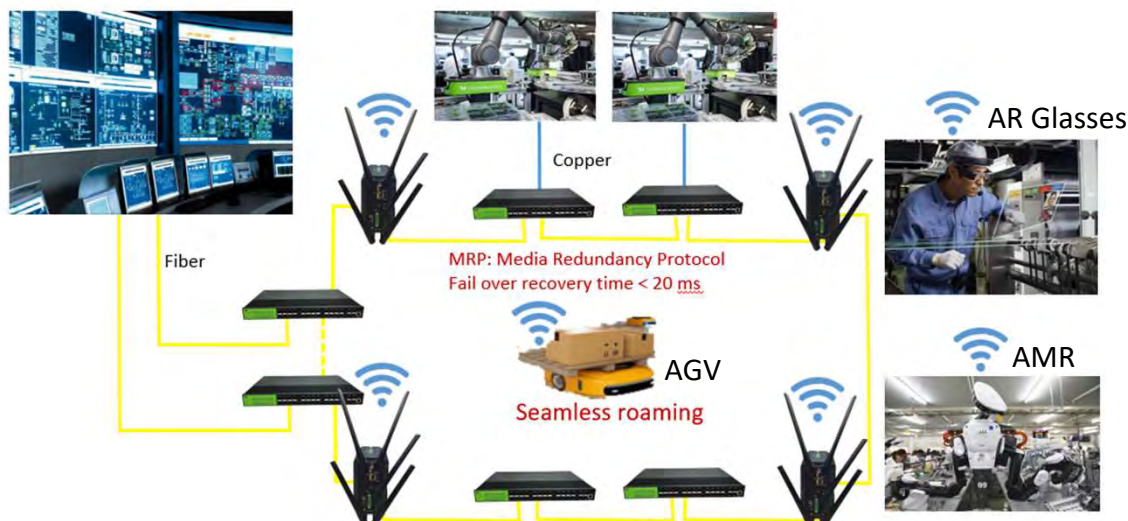
## Key Feature

- **Wide temperature operation: -40~+75℃**
- **Seamless roaming based on IEEE standard**
- **High speed wireless connection up to 8.7 Gbps**
    - Wi-Fi 2.4GHz 2x2 up to 573.52 Mbps
    - Wi-Fi 5GHz 4x4 up to 5.76 Gbps
    - 11ah 900MHz 1x1 up to 32 Mbps
- **10G Ethernet high speed backbone with MRP protection**
- **RS485 to Modbus TCP gateway**
- **EasyMesh R4 support**
- **Multi-link operation**
- **Multi-AP operation**
- **Low latency less than 5 ms**
- **Up to 512 clients**
- **DL/UL OFDMA: 16 users per 2x2 radio**

## Applications

High bandwidth, low latency, full mesh coverage for AR glass, AGV and humanoid robot used in factories.

## Technical Specifications

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|---|---|
| WLAN Standards | 2.4 GHz: 802.11be with 1024 QAM support, 20/40 MHz<br>5 GHz: 802.11be with 1024 QAM support, 20/40/80/160 MHz<br>900 MHz: 802.11ah with 64 QAM support, 1/2/4/8 MHz |
| **Wireless Security** | WEP encryption (64-bit and 128-bit)<br>WPA/WPA2/WPA3-Enterprise (IEEE 802.1X/RADIUS, TKIP, AES) |
| **Transmission Rate** | 2.4 GHz: up to 573.52 Mbps<br>5 GHz: up to 5.76 Gbps<br>900 MHz: up to 32 Mbps |
| **WLAN Operation Mode** | Gateway, AP, bridge, Client, Client-Gateway |
| **Antenna** | Wi-Fi: RP-SMA female, 2400 –2500 MHz, 1.45 dBi, Omni-directional<br>5150-7125 MHz, 3.89 dBi, Omni-directional<br>11ah: SMA, 863-928 MHz, 0.8 dBi Omni-directional |
| **Ethernet Interface** | 2-port 1G/2.5G/10G SFP+ |
| **Form Factor** | DIN-rail mount/Wall-mount aluminum rugged case |
| **Antenna** | Omni-antenna |
| **Antenna Connectors** | 4 RP-SMA female for Wi-Fi<br>1 SMA female for 11ah |
| **Management Features** | IPv4/IPv6, DHCP Server/Client, DNS, HTTP,<br>LLDP, SMTP, SNMPv1/v2c/v3, Syslog, Telnet, SSH, VLAN |
| **Gateway Features** | Static Route, NAT/NAPT, RIPv2/ng, OSPFv2/v3 |
| **Security** | HTTPS/SSL<br>RADIUS<br>IEEE 802.1x authentication<br>Certificate Management |
| **Console Port** | RS-232 by 8-pin RJ45 |
| **Storage Port** | USB Type C |
| **Serial Port** | RS-485 on terminal block |
| **Digital Input** | Wet Contact: -30 to +3V for State 0/ +13 to +30V for State 1<br>Max input current: 8mA |
| **Relay Output** | Dry Contact, max current: 1 A @ 24 VDC |
| **Housing** | Aluminum |
| **Ingress Protection** | IP30 |
| **Installation** | DIN-rail mounting<br>Wall mounting (with optional kit) |
| **Power Input** | 9.6 to 60 VDC |
| **Operating Temperature** | -40 to 75°C (-40 to 167°F) |
| **Storage Temperature** | -40 to 85°C (-40 to 185°F) |
| **Ambient Relative Humidity** | 5 to 95% (non-condensing) |