Unlicensed Band Radio

P2P, P2MP

ion4I2_CPE

IO Enterprise/ Carrier Grade point-to-point solution is optimally designed to support low to medium capacity enterprise applications in the unlicensed 5 GHz spectrum for short to long range links. Integrated Dish Antenna ensures lesser space needed on an already crowded cell tower.

Variant

- **ion4I2_CPE:** 5 GHz 300 Mbps CPE with Integrated 23 dBi Flat Panel Antenna

Features

Quality of Service (QoS)

Prioritize the internet traffic in case of wireless congestion. Configure your type of traffic such as background, best effort, video, and voice with four different priority levels (low, medium, high, and highest) respectively.

ATPC

ion4In_CPE supports ATPC that not only helps to reduce network interference but also minimizes the stress on the power amplifiers in turn reducing power consumption and improving life of equipment.

Redundant Link Switching

Supports 1+1 deployments with switching time <100 ms for mission critical applications.

High Capacity TDMA radio

IO's UBRs utilize TDMA access supporting aggregated throughput upto 300 Mbps making these suitable for enterprise & carrier deployments.

Management VLAN

Keep your management traffic on a separate VLAN ID. Unauthorized users cannot make changes to your network or monitor the network traffic.

MIMO and OFDM

Built on advanced MIMO and OFDM technologies, the UBR provides a high-capacity link at channel bandwidth of 40MHz and supports 10, 20, 40 MHz bandwidths.

Highlights

- Small form factor integrated 23 dBi Flat Panel Antenna

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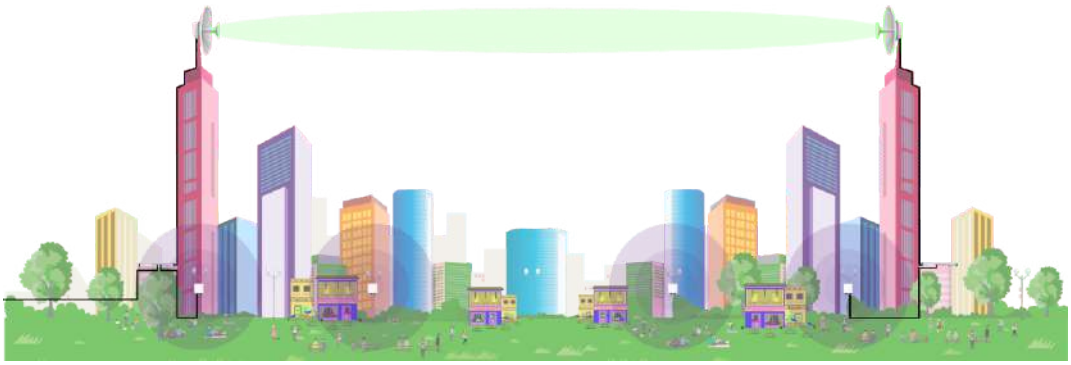
P2MP Link

In a P2MP wireless network, a single base station can serve upto 16 CPEs in the network.

P2P Link

2 CPEs can form a 300 Mbps P2P link



Data Protection

The UBR device has full end-to-end WPA, WPA2 and 128-bit AES PSK with hardware acceleration protection and ensures that the information and resources of the industry are protected from attacks and threats. This includes three core concepts of security: confidentiality, integrity, and availability.

Remote Management

Powerful and intuitive multi-site management via EMS (Element Management System), eliminating the cost and complexity of traditional on-site wireless controllers.

IP67

Able to withstand extreme weather elements and harsh environmental conditions without compromising on the performance. They are IP67 certified to protect against water and dust contaminants, ingress.

Supports Advanced 5G Features

Supports 5G advanced features of ultra-high-speed, high bandwidth, low latency, and improvement in the reliability of wireless communications, which is essential to address massive-scale and highly-diverse future industrial networks.

Applications

- Low to medium capacity enterprise applications like public safety agencies
- Critical infrastructure (for example, electricity distribution grids and power plants)

WIRELESS

Access Technology	TDMA
Radio Mode	2x2 MIMO & TDMA upto 256 QAM
Radio Frequency Band	5 GHz (with extended 5 GHz channel support, country-specific restrictions apply)
Peak Throughput	Up to 300 Mbps aggregate UL/DL throughput
Max Transmit Power	27 dBm for 5 GHz (will depend on country-specific guidelines)
Channel Size	10/20/40/80 MHz
Modulation Schemes	Supports upto 256 QAM
Processor	Qualcomm IPQ4019 SOC
RF Power	Automatic transmit power control (ATPC) for enhanced adaptability to the changing environment
Power	PoE
Max Power Consumption	<15 W (max..)
Interface	1 X 10/100/1000BASE-T Ethernet
Antenna	Integrated high performance antenna
Receiver Sensitivity	-84 dBm @ 80 MHz -87 dBm @ 40 MHZ -90 dBm @ 20 MHZ

SECURITY & FEATURES

Security	WPA, WPA2 and 128-bit AES PSK with hardware acceleration
High Level Features	Supports dying gasp feature (optional **WAN Protocols:** Static IPv4/v6, DHCP client v4/v6 **Management:** Standalone (via GUI or through appliance-based EMS or cloud-based **Smart Spectrum Management:** Active scan; monitors/logs ongoing RF interference across channels (no service impact; Dynamic auto-optimization of channel and bandwidth used, Adjustable upstream/downstream bandwidth ratio **QoS:** 802.11e WMM **Two-Way Active Measurement Protocol (TWAMP):** Enables measurement of round-trip network performance of links In-Built temperature sensor (Optional)

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PHYSICAL & ENVIRONMENTAL

Enclosure	UV protected PC top and bottom body
Dimensions	305 X 305 X 125 mm
Weight	1.1 kg
Mounting	Pole mounting Turning Angle: 140° H & 60° V Weight: 185 grams
Operating Temperature	-15° C to 55° C
Operating Humidity	5 to 95% (non-condensing)
Operating Altitude	As per QM333 (3050 meter/10000 feet)
Wind Sustainability	150 km/hour (sustained winds)
Certifications	FCC Class A, CE, RoHS 3.0
Outdoor Ingress Protection Rating	IP67

SAFETY & OTHER COMPLIANCES

- Safety Protection as per IEC 60950 and IEC 60215
- Electrostatic Discharge Immunity as per IEC 61000-4-2, Contact L2 and Air Discharge, L3 Level
- DC Surge Immunity as per IEC 61000-4-5, Level 2 (power port + signal port)
- Electrical Fast Transient/Burst Immunity as per IEC 61000-4-4, Level 2
- Radiated susceptibility as per IEC 61000-4-3 Level 2
- Conducted Susceptibility as per IEC 61000-4-6, Level2
- Bump and vibration as per QM333
- Radiated Emission as per CISPR 22 Class A
- Conducted Emission as per CISPR 22 Class A (power port+signal port)
- Voltage Variation: AC- as per IEC 61000-4-11 and DC- as per IEC 61000-4-29

Ordering Information

MODEL NUMBER	PRODUCT DESCRIPTION
ion4I2_CPE	IO 5 GHz 300 Mbps CPE with Integrated 23 dBi Flat Panel Antenna