INFINET wireless

Quanta 5 NEW

Quanta 5 is a brand new record-breaking spectral efficiency 5 GHz Point-to-Point solution with an impressive performance of up to 650 Mbps in 56 MHz channel size and up to 460 Mbps in 40 MHz.

Quanta 5 offers a unique combination of high performance, affordability and ease of installation.

Up to 650 Mbps   **5 GHz**   **Up to 1,200,000 pps**

Octopus SDR Platform

Infinet's latest Octopus Software Defined Radio (SDR) platform has been designed using a state-of-the-art proprietary SDR technology specifically aimed at increasing link performance several-fold. Addressing challenges such as limited spectrum availability, growing interference and demands for yet more capacity, Quanta 5 combines the best features from Infinet's well-proven R5000 and XG families, as well as numerous cutting-edge wireless breakthroughs, to deliver unparalleled performance in all weather conditions.

Quanta 5 is based on the brand new Octopus SDR platform, making this family of PTP solutions fully future proof and allowing it to improve its PHY, MAC and upper layer features remotely via a simple firmware upgrade, including for units already deployed in the field.

Optimal balance of cost and quality

High capacity and reliability

Superior inter-ference mitigation

Top Facts

✔ **Exceptional Cost Efficiency**
The Quanta 5 solution offers significant cost savings when compared to other cabled and wireless solutions available in today's marketplace. It is the first product from Infinet Wireless designed primarily for the SOHO market and small service providers.

✔ **Optimal Performance in all Operational Conditions**
Quanta 5 supports 14 modulation-coding schemes, which makes it easily distinguishable from other solutions. Even when operating in high interference environments, Quanta 5 dynamically selects the most suitable MCS for each polarization, and ensures the delivery of all packets transmitted using an advanced ARQ algorithm.

✔ **Interference Mitigation**
Quanta 5 has a number of built-in interference mitigation techniques. The Instant DFS technology allows automatic frequency channel change in case of congestion or radar detection, all achieved with zero outage. Thanks to its support of H-FDD (also known as split-frequency mode), it identifies and selects uplink and downlink channels independently.

✔ **Ease of Installation**
Quick and ease of installation reduces field deployment costs and facilitate rapid service delivery.

✔ **Robustness**
Guaranteed and stable connectivity even in the most adverse weather conditions, including extreme temperature ranges from -55° to +60°C, thunderstorms and wind speeds of up to 160 km/h.

Application

Quanta 5 can be deployed in a diverse range of applications, from backhauling for Wi-Fi and small cell to CCTV and video-surveillance infrastructures. It can also provide Internet access to remote locations.
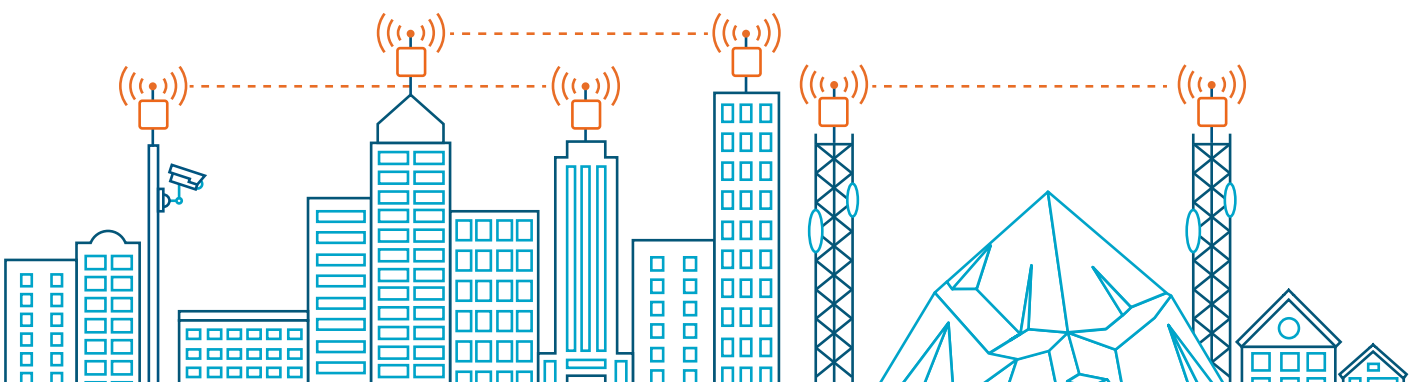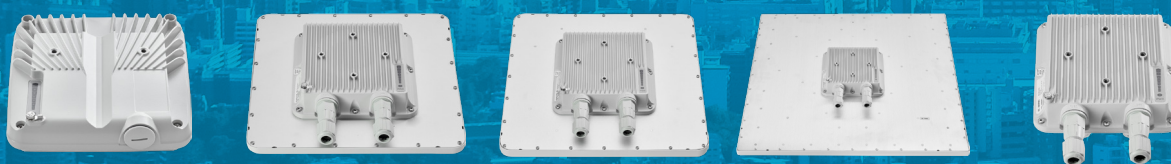
Technical Specifications

Performance	
Throughput	Up to 650 Mbps, net aggregate
Packet performance	Up to 1,200,000 packets per second
Latency	Up to 1.7 ms for the air frame 1 ms, depends on air frame value

Radio Technology	
Modulation	SC-FDE
Modulation coding schemes	14 MCS – from QPSK to QAM256
Frequency range	4900 – 6000 MHz
Channel width	3.5, 5, 7, 10, 14, 15, 20, 28, 30, 40, 50, 56 MHz
Center frequency adjustment step	1 MHz
Transmit power	Up to 27 dBm
Receiver sensitivity	Down to -101 dBm
Duplex scheme	TDD, H-FDD
MIMO 2x2	Supported
Antenna	Integrated dual polarization flat panel 18, 23, 25 or 28 dBi Connectorized: 2x N-type connectors for external dual-polarization antenna
Maximal range	Up to 40 km for 23 dBi antenna More than 200 km for high gain external antenna

Air Protocol	
Air frame	Configurable from 1 to 10 ms
Uplink/Downlink ratio	Configurable from 50:50 to 92:8, in any direction
Automatic modulation control	Supported
Automatic ranging	Supported
Interference Mitigation	Instant DFS

Wired Interfaces	
Ethernet	Combo: 1x Gigabit Ethernet port (RJ45), 1x SFP Q5-18: 1x Gigabit Ethernet port (RJ45)
PoE	802.3at or Infinet Wireless proprietary passive PoE

Qos And Network Protocols	
QoS	8 queues
Prioritization	Supported
Packet classification	802.1p
Network protocols	VLAN
Jumbo frame support	Up to 9038 bytes

Management And Installation	
LED indication	Power status, link status and RSSI indication
Management protocols	HTTP, HTTPS, SSH, SNMP, Telnet
Web GUI tools	Antenna alignment tool, Spectrum analyzer

Physical	
Operating temperature range	From -40ºC to +60ºC, can be extended to -55ºC … +60ºC
Dust and water protection	IP66, IP67
Wind load	160 km/h, operational; 200 km/h, survival
Power supply	IDU-CPE-G(24W), IDU-CPE-G (56W), IDU-LA-G(V.01), AUX-ODU-INJ-G
Power consumption	Up to 15 W

Compliance	
Safety	EN/IEC 62368-1:2014/A11:2017, UL 62368-1:2014, EN 62311:2008
Radio	EN 301 893 v.2.1.1, EN 302 502 v.2.1.1, FCC part 15.407
EMC	ETSI EN 301 489-1 v.2.1.1, ETSI EN 301 489-17 v.3.1.1, FCC Part 15 Class B
RoHS3	EN IEC 63000:2018
Lightning protection	IEC 61000-4-2: +/-4kV (contact discharge), +/-8kV (air discharge); IEC 61000-4-4: +/-0.5kV; IEC 61000-4-5: +/-1kV (line-to-ground), +/-0.5kV (line-to-line)

Model Configuration

	Q5-18	Q5-23	Q5-25	Q5-28	Q5-E
FREQUENCY RANGE	4900 – 6000 MHz	4900 – 6000 MHz	4900 – 6000 MHz	4900 – 6000 MHz	4900 – 6000 MHz
ANTENNA	18 dBi 18x18 deg	23 dBi 10x10 deg	25 dBi 8x8 deg	28 dBi 5x5 deg	2 x N-type connectors
SIZE AND WEIGHT	188 x 188 x 45 mm 1.3 kg	305 x 305 x 66 mm 1.75 kg	350x350x71.5 mm 2.3 kg	600x600x68 mm 5.8 kg	180 x 190 x 86 mm 1.2 kg

Scan it for more information

Infinet Wireless provides its customers with carrier-grade wireless solutions through a global network of highly qualified channel partners