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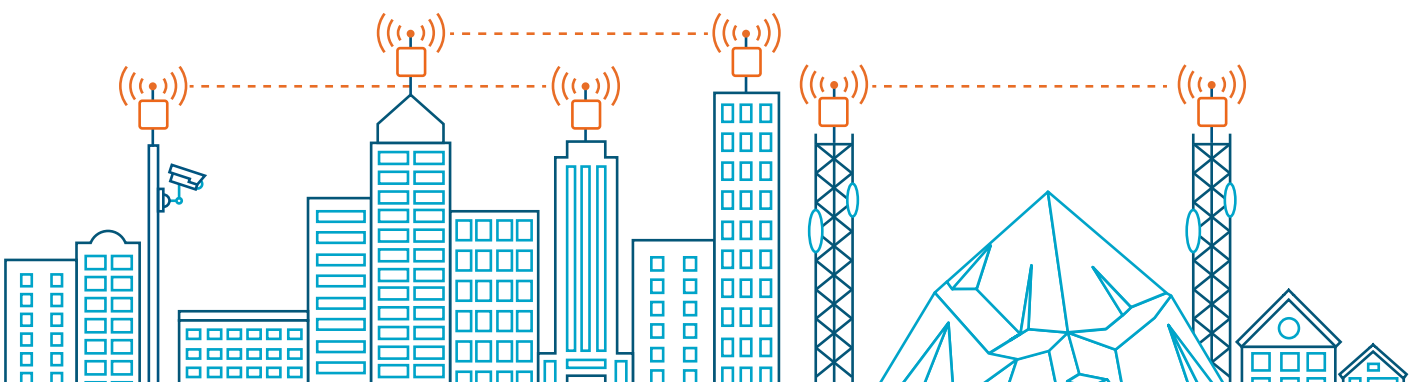
✔ **Ease of Installation**
Quick and ease of installation reduces field deployment costs and facilitate rapid service delivery.

✔ **Robustness**
Guaranteed and stable connectivity even in the most adverse weather conditions, including extreme temperature ranges from -40° 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<br>Connectorized: 2x N-type connectors for external dual-polarization antenna |
| **Maximal range** | Up to 40 km for 23 dBi antenna<br>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** | 1x GigabitEthernet 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, 802.1ad (DVLAN Q-in-Q)**, 802.1Q** |
| **Jumbo frame support** | Up to 9038 bytes |
| **Network timing** | IEEE 1588v2 transparent clock** |

| 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 |
| **Dust and water protection** | IP66, IP67 |
| **Wind load** | 160 km/h, operational; 200 km/h, survival |
| **Power supply** | IDU-CPE-G, IDU-CPE-G(24W), IDU-BS-G (60W), 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 |

\* Units supporting 50 and 56 MHz channel widths have the part number ending with "1".
   E.g. Q5-E/04701 for the unit supporting these channel widths and Q5-E/04700 that supports only up to 40 MHz.
\*\* Roadmap item

# 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<br>18x18 deg | 23 dBi<br>10x10 deg | 25 dBi<br>8x8 deg | 28 dBi<br>5x5 deg | 2 x N-type connectors |
| **SIZE AND WEIGHT** | 188 x 188 x 45 mm<br>1.3 kg | 305 x 305 x 66 mm<br>1.75 kg | 350x350x71.5 mm<br>2.3 kg | 600x600x68 mm<br>5.8 kg | 180 x 190 x 86 mm<br>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