

Key Features



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Quanta 70 is a brand new addition to the Infinet Wireless Point-to-Point product portfolio, which delivers real throughput of up to 480 Mbps in the 125 MHz bandwidth, a packet performance is up to 930 000 pps. Quanta 70 family is based on the Infinet Wireless proprietary Octopus SDR hardware platform. Wireless device operates in frequency range 70.5-76 GHz, it has much lower utilization as compared to the 5 GHz license-exempt frequency bands, but offers much better propagation than 60 GHz (V-band). This spectrum is lightly licensed or sometimes even unlicensed in a number of countries and therefore enables the deployment of high-density networks in urban areas, with nearly zero interference.

Radio

- **Automatic Modulation Control (AMC)** – modulation control algorithm selects the most appropriate modulation-coding scheme in order to maximize the link performance.
- **Automatic Repeat Request (ARQ)** – a technology which enables packet re-transmission in case of previous unsuccessful delivery, allows to achieve reliable connectivity even in highly congested spectrum.
- **Automatic Transmit Power Control (ATPC)** – a technology which allows to limit the overall power system mode, which takes into account the antenna gain and losses in the RF cable.
- **Automatic range detection** - the guard interval optimal for the actual distance is automatically determined.

Networking

- VLAN support is an important tool which is used to isolate and filter traffic flows.
- Jumbo frames support - available Ethernet frame size is up to 9038 bytes.
- Due to QoS support, traffic prioritization is available in accordance with the 802.1p (8 queues), ensures that the most important data arrives with priority.

Distance

Quanta 70 has a link budget of up to 175 dB using model Q70-39 and up to 197 dB using model Q70-50. This allows to achieve reliable connectivity at up to 10 km in clear line-of-sight conditions using model Q70-39 and up to 20 km using model Q70-50. Supporting 40 non-overlapping frequency channels and built with an integrated antenna having a pencil-wide narrow beam, Quanta 70 has minimal or zero impact from external interference, allowing it to achieve much higher density of collocated wireless units when compared to lower frequency bands.

Environment

- Operating temperature range -40 ... +60 °C.
- Dust and water protection in compliance with IP66/IP67.
- Wind load up to 160 kph - operation, 200 kph - survival.
- Build-in lightning protection according to the standards:
 - 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);

Power

The device has following electrical parameters:

- Consumption is up to 15 W.
- Power options: 90-240 VAC~ @ 50/60 Hz, ±43..56 VDC.
- 802.3at support or Infinet Wireless proprietary passive PoE.
- AC/DC injector IDU-CPE-G(24W) is included to the packing list.