

## Hardware Platform



Successfully pass the free certification exam at IW Academy and become an Infinet Certified Engineer.

[To the certification exam](#)

### Octopus SDR

Infinet's latest SDR platform has been designed based on a Software-Defined Radio technology aimed at increasing link performance several-fold. Quanta 5 / Quanta 6 addressing challenges such as limited spectrum availability, growing interference challenges and demands for yet more capacity. Due to Octopus SDR platform Quanta 5 / Quanta 6 allow to bring new PHY, MAC and upper layer features via a firmware upgrade even for the units operating in the field.

### Wireless device

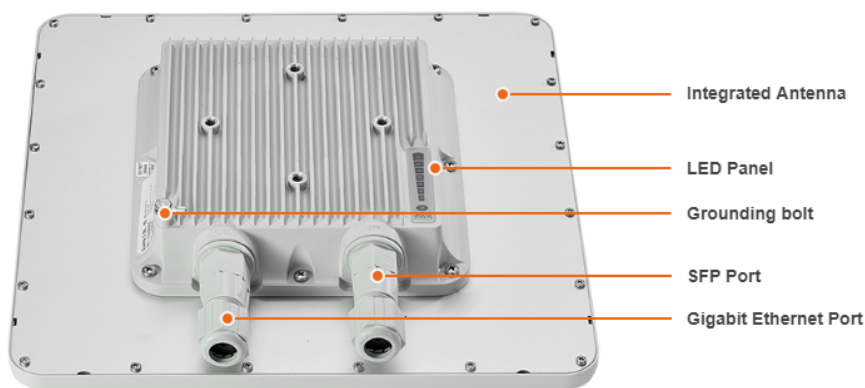
An integrated wireless device contains the radio and networking electronics. Implemented in a robust all-weather metal enclosure, this equipment can be used to create point-to-point wireless links at distances in excess of 200 km (depending on country regulations, antenna types, interference, terrain, climate zones, etc.). There are several possible version of Quanta 5 / Quanta 6 solution enclosures:

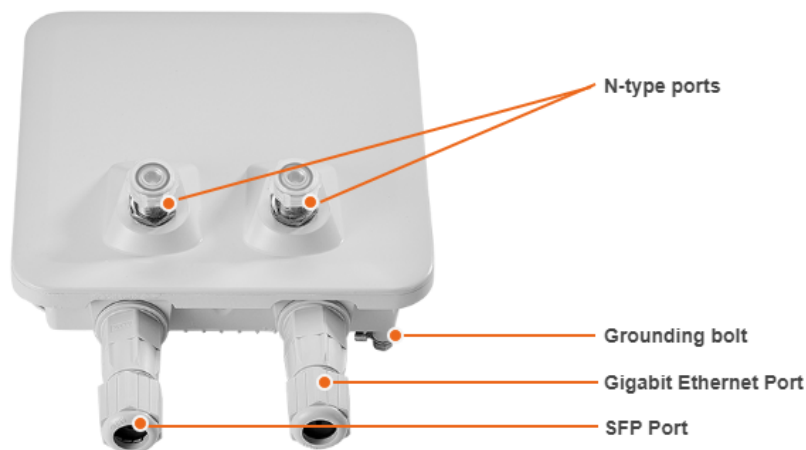
#### Quanta 5

- with integrated antenna 28 dBi;
- with integrated antenna 25 dBi;
- with integrated antenna 23 dBi;
- with integrated antenna 18 dBi;
- with two N-type ports for an external antenna.

#### Quanta 6

- with integrated antenna 28 dBi;
- with integrated antenna 25 dBi;
- with integrated antenna 18 dBi;
- with two N-type ports for an external antenna.






Grounding bolt

For grounding the ODU to the supporting structure.


Interfaces

 **NOTE**

Units with combo port, Ethernet and SFP, have the part number ending with “2”, e.g. Q5-E/08602. If the part number ends with a “0” or “1”, the device has only a Gigabit Ethernet port.

Devices with an integrated 18 dBi antenna only have a Gigabit Ethernet port.

Interface	Description
Gigabit Ethernet	RJ45 socket for connecting to power supply and data transmission. The network connection to the wireless device is made via a 1000BaseT (Gigabit) Ethernet connection. Power is provided to the device over the 1000BaseT Ethernet connection using a standard IEEE 802.3at passive PoE power supply.
SFP	External optical Gigabit port for plugging of the optical SFP transceiver module.

 **NOTE**

Only one port can be used for data transmission at a time. Please note, the SFP port has priority in case both ports are enabled.

LED Panel

The "POWER" indicator has three possible colors:

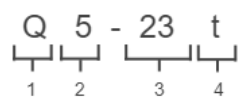
- Red light - the device is connected to the electricity mains,
- Yellow light - a wired connection with a speed of 10/100 Mbps
- Green light - a wired connection with a speed of 1000 Mbps.

Other indicators are used to perform coarse antenna alignment. The more indicators are on, the better wireless connection is established. The blinking indicator means an intermediate state.



Part number description

Quanta 5 / Quanta 6 part number has the following structure



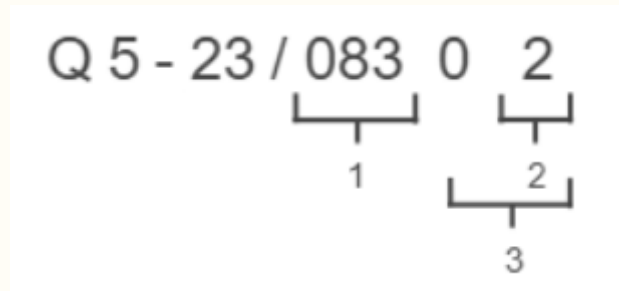
Structure items are described below

Item	Description
1	Product family name: <ul style="list-style-type: none"><li>• Q - Quanta.</li></ul>
2	Frequency range: <ul style="list-style-type: none"><li>• 5 - device in the range of 5 GHz.</li><li>• 6 - device in the range of 6 GHz.</li></ul>
3	Antenna gain: <ul style="list-style-type: none"><li>• 18 - integrated antenna with 18 dBi gain, GigabitEthernet port;</li><li>• 23 - integrated antenna with 23 dBi gain, Combo port GigabitEthernet/SFP;</li><li>• 25 - integrated antenna with 25 dBi gain, Combo port GigabitEthernet/SFP;</li><li>• 28 - integrated antenna with 28 dBi gain, Combo port GigabitEthernet/SFP;</li><li>• E - devices for an external antenna connection, Combo port GigabitEthernet/SFP.</li></ul>
4	Additional options: <ul style="list-style-type: none"><li>• t - extended temperature range: -55 ... +60 °C.</li></ul>



## NOTE

Previously, device part numbers contained decimal number with the following structure:



1. Hardware version.

2. Options:

- **0** - models with GigabitEthernet port and supporting 40 MHz channel width;
- **1** - models with GigabitEthernet port and supporting 50 and 56 MHz channel widths;
- **2** - models with Combo port GigabitEthernet/SFP and supporting 50 and 56 MHz channel widths.

3. Firmware version:

- **00, 01** - firmware version [1855](#) for Quanta 5;
- **02, 11** - firmware version [1855-02](#) for Quanta 5.
- **01, 02, 11** - firmware version [1861](#) for Quanta 6.