

ODG X-6 Antenna Description

X-6 has two antennas installed. One is working at ISM 2.4 GHz band for the operation of WIFI 802.11 b/g/n. Another is working at GPS L1 for the operation of GPS satellite signal receiving.

Both antennas are made of FPC material. They are adhered on the surface of the plastic frame and concealed behind a shielding, and thus are not visible.

WIFI antenna is Omni-directional. Polarization is quasi-linear. The antenna is connected to the circuit board through a section of micro-coax cable of 87 mm.

GPS antenna is also Omni-directional. Polarization is quasi-linear. The antenna is connected to the circuit board through a section of micro-coax cable of 30 mm.

GPS antenna size is 45.7x5.7mm. The thickness is 0.15mm.

WIFI antenna size is 36.8x5.3mm. The thickness is 0.15mm.

Bluetooth is sharing with the same WIFI antenna since the BT and WIFI are multiplexed in radio sharing and has a same frequency band.

WIFI antenna also has a 5 GHz operation frequency band. But it is not used since X-6 WIFI does not support the band of 5 GHz.

Both WIFI and GPS antenna are equipped with a MHF III plug connector (or a compatible W.FL connector) which matches the MHF III receptacle connector on the circuit board.

WIFI and GPS antennas are embedded antenna. Therefore, their performance should be characterized with whole the X-6. Any alone antenna testing cannot give the expected performance in the operation frequency band.