

Antenna specification

1. Antenna location drawing

See the following documents:

- 10-1_OperationalDescription_Antenna Drawing_APYHRO00332.pdf

2. Working principle of multiple antennas 2.1 Antenna Diversity:

None.

2.2 Power Mode: None.

1. Maximum antenna

gain WWAN antenna:

Band	Tx
GSM 850	-3.9 dBi
GSM 900 *	-2.6 dBi
GSM 1800 *	-2.6 dBi
GSM 1900	-1.2 dBi
B1 (WCDMA/LTE) *	-2.3 dBi
B2 (WCDMA/LTE)	-1.2 dBi
B3 (LTE) *	-2.6 dBi
B4 (WCDMA/LTE)	-3.1 dBi
B5 (WCDMA/LTE)	-3.9 dBi
B7 (LTE) *	-3.8 dBi
B8 (WCDMA/LTE) *	-2.6 dBi
B11 (LTE) *	-3.6 dBi
B12 (LTE)	-4.2 dBi
B13 (LTE)	-2.5 dBi
B17 (LTE)	-4.2 dBi
B18 (LTE) *	-4.1 dBi
B19 (LTE) *	-3.9 dBi
B20 (LTE) *	-3.6 dBi
B21 (LTE) *	-3.4 dBi
B28 (LTE)	-3.8 dBi
B38 (LTE)	-5.2 dBi
B39 (LTE) *	-1.4 dBi
B40 (LTE) *	-2.0 dBi
B41 (LTE)	-5.2 dBi
B42 (LTE) *	-0.1 dBi
B66(LTE)	-0.9 dBi

Band	Tx
n1 *	-2.3dBi
n3 *	-2.6 dBi
n5	-3.9 dBi
n7*	-3.8 dBi
n28 *	-3.8 dBi
n38	-8.4dBi
n40*	-2.0dBi
n41	-8.4 dBi
n66	-0.9 dBi
n77 *	-1.5 dBi
n78 *	0.3 dBi
n79 *	2.2 dBi
	dBi

* : Bands with this mark are do not operate in USA

WLAN antenna:

Band (MHz)	ANT4	ANT8
2412-2472	-3.7 dBi	-0.9 dBi
5150-5250	-1.9 dBi	-2.3 dBi
5250-5350	0.1 dBi	-0.7 dBi
5470-5725	-2.2 dBi	-1.9 dBi
5725-5850	-1.3 dBi	-3.3 dBi
5925-6425	-2.1 dBi	-3.0 dBi

Bluetooth antenna:

Band (MHz)	ANT4	ANT8
2402-2480	-3.7 dBi	-0.9 dBi

2. Maximum beamforming gain

Don' t use beamforming technology.

3. The state of antenna simultaneous transmission

See the following documents :

- 13-2_Simultaneous_Tx_Combination_List_APYHRO00332.pdf

Note : WiFi 2.4GHz and BT are time-division exclusive control, so they will not operate at the same time.

4.Type of antenna

All antenna: PIFA