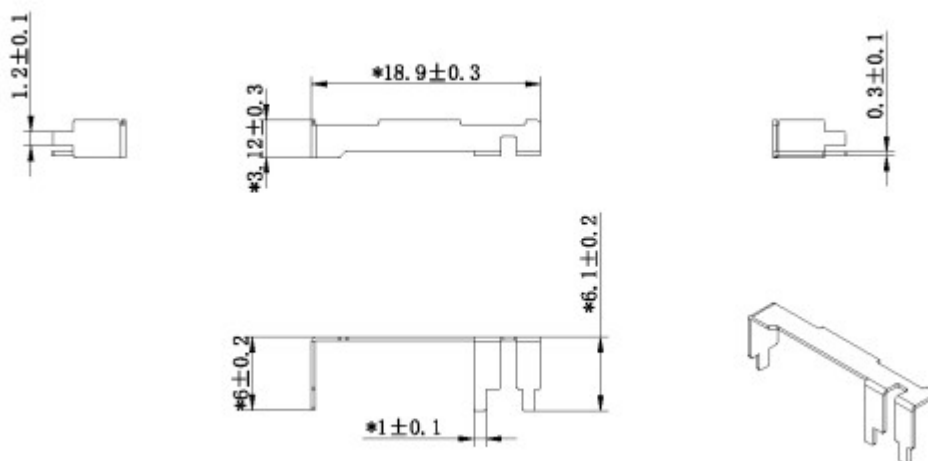


1. Antenna Information

Product Model	QMX
Antenna Model	QMX-Thread/BLE
Antenna Type	Internal Antenna
Manufacturer	Shenzhen Surbaner Technology CO.,LTD. Address: 2/F, Building B25, Hengfeng industrial city, Hezhou community, Xixiang Street, Baoan District, Shenzhen City.

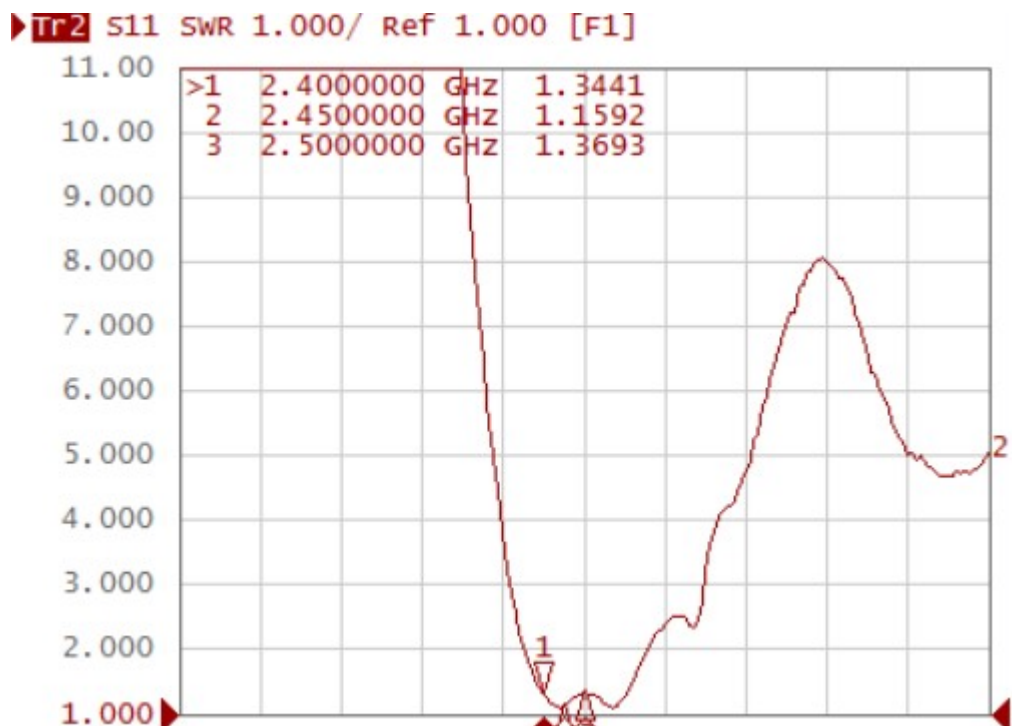
2. Antenna Picture



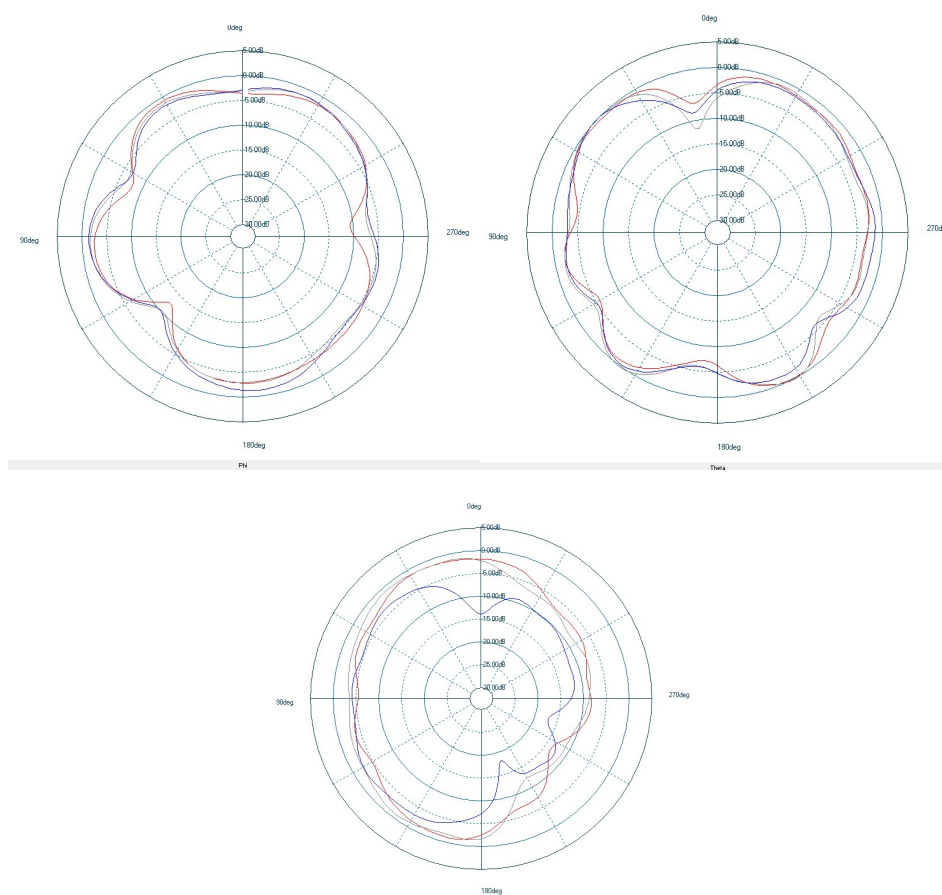
3. Electrical Specification

Frequency Range	Thread: 2400 - 2500 MHz
Bandwidth	Thread/BLE : 100 MHz
Input Impedence	50 Ω
S11	≤ -10 dB
Peak Gain	0 dBi

4. Antenna S11



5. Radiation Pattern



6. Test Results

Frequency ID	Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
1	2400	-0.82	-3.58	43.84
2	2410	-0.71	-3.69	42.8
3	2420	-0.54	-3.95	40.26
4	2430	-0.14	-3.53	44.36
5	2440	-0.19	-3.87	41
6	2450	0	-3.82	41.51
7	2460	-0.09	-3.78	41.9
8	2470	-0.21	-3.79	41.78
9	2480	-0.15	-3.47	45
10	2490	-0.66	-3.87	41.02
11	2500	-0.95	-3.71	42.53