

Shenzhen DEWEIMA Communication Equipment Co.,Ltd

SPECIFICATION SHEET FOR APPROVAL

CUSTOMER NAME	Shenzhen unique Scales Co.,Ltd
CUSTOMER P/N	CF553BLE (ES-CS20M)
PART NAME	BT Antenna
DWM NO.	/
APPROVAL REV.	DWM-V1.0

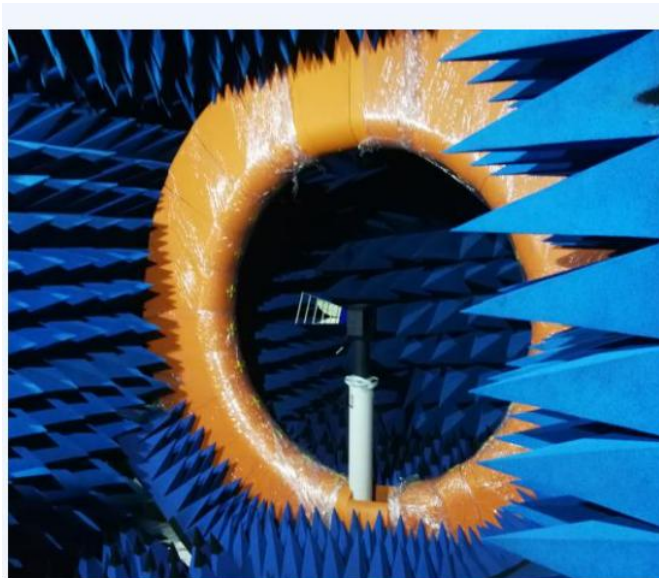
CONTRACTOR			DATE: 2024-09-20
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

CUSTOMER		DATE:
Approved By	Checked By	Prepared By

1. Product Application

Terminal of the antenna products can only be used for BT antenna.

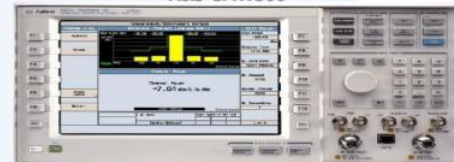
2. The test equipment



A 24-probe microwave chamber



R&S CMW500



Agilent E5515C



Agilent Technologies E5071B

3. BT Antenna description

3.1 BT Technology Parameters

BT Frequency Range: 2400MHz-2500MHz

BT antenna type: PCB Antenna

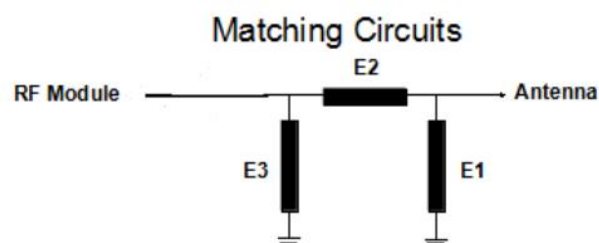
Model: NA

Manufacture: Jiangxi Xinmanda Circuit Co., Ltd

Operating Humidity: 85% R.H.MAX

Temperature Rating: 5°C ~ +40°C

3.2 BT matching circuit



Element	Value
E1(0402)	3.9nH
E2(0402)	1PF
E3(0402)	NC



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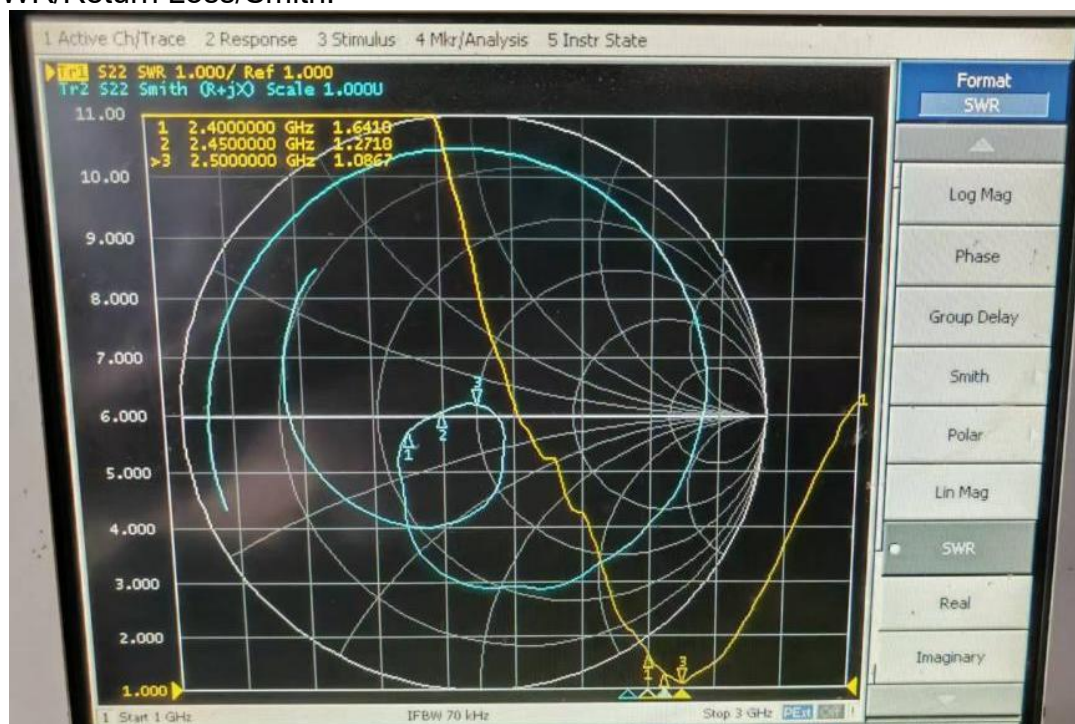
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3.3 BT antenna position



3.4 BT VSWR/Return Loss/Smith:





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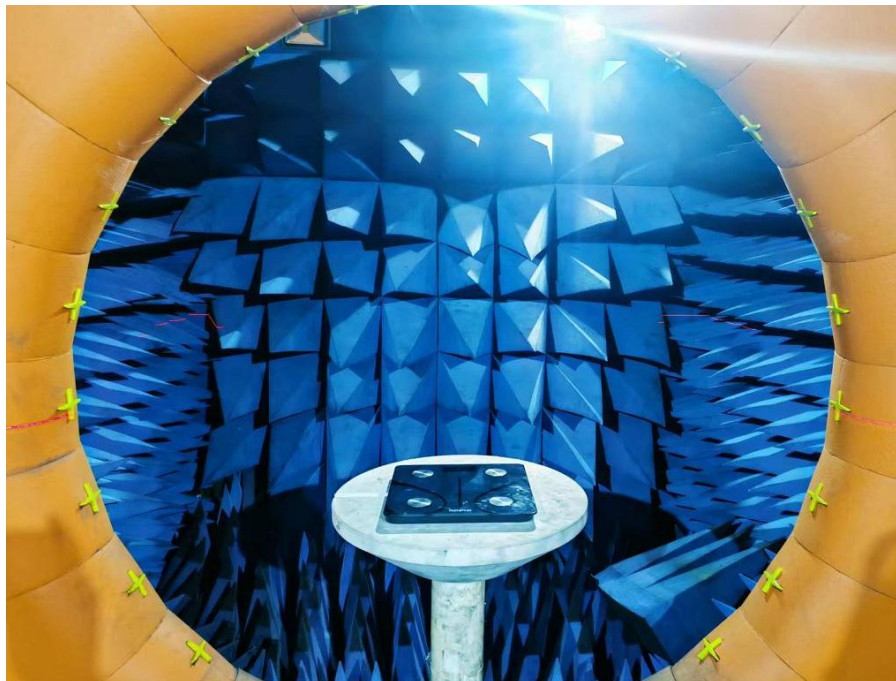
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3.5 BT Efficiency And Gain:



Gain&Efficiency 增益、效率				
Frequency 频率(MHz)	Gain 增益(dBi)	MinGain 最小增益	Efficiency 效率(dB)	Efficiency 效率(%)
2400.00	2.99	-16.19	-3.40	45.69
2410.00	2.93	-16.15	-3.34	46.36
2420.00	2.77	-17.23	-3.30	46.77
2430.00	2.54	-19.11	-3.51	44.53
2440.00	2.72	-19.11	-3.30	46.78
2450.00	2.68	-19.16	-3.26	47.23
2460.00	2.72	-19.44	-3.26	47.19
2470.00	2.86	-18.83	-3.22	47.67
2480.00	2.66	-18.31	-3.35	46.26
2490.00	2.70	-17.38	-3.43	45.36
2500.00	2.77	-16.27	-3.51	44.54



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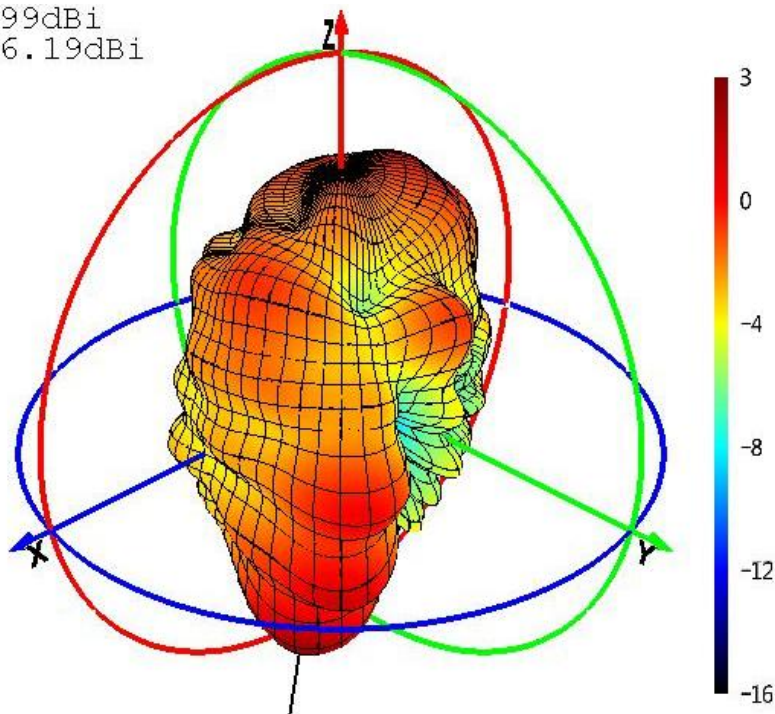
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3.6. BT 3D Pattern

2400MHz

MAX: 2.99dBi

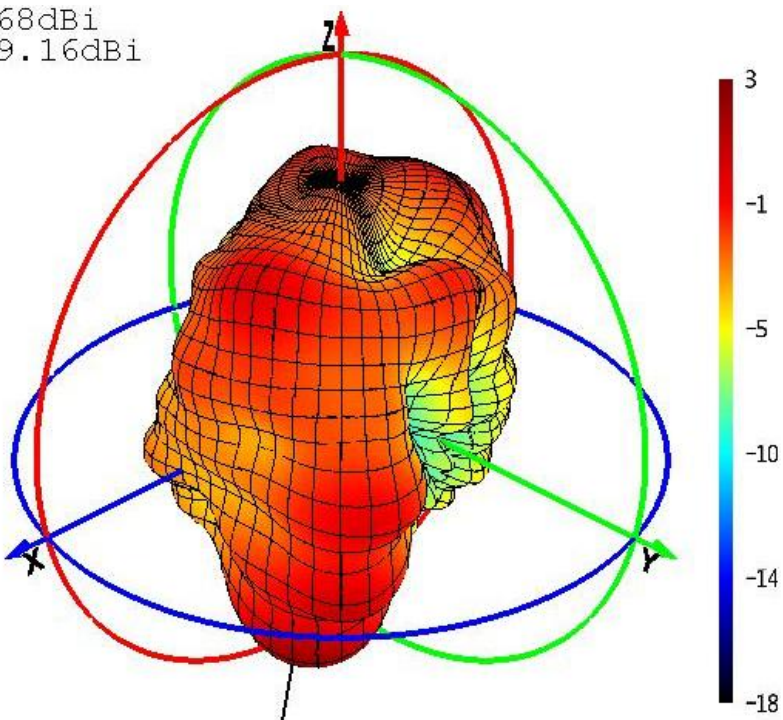
MIN: -16.19dBi



2450MHz

MAX: 2.68dBi

MIN: -19.16dBi





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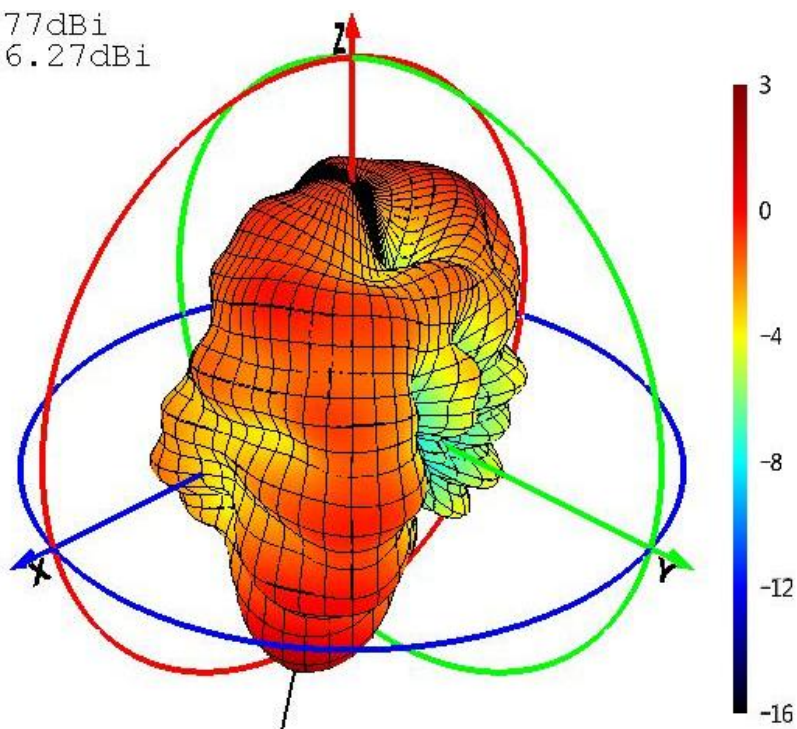
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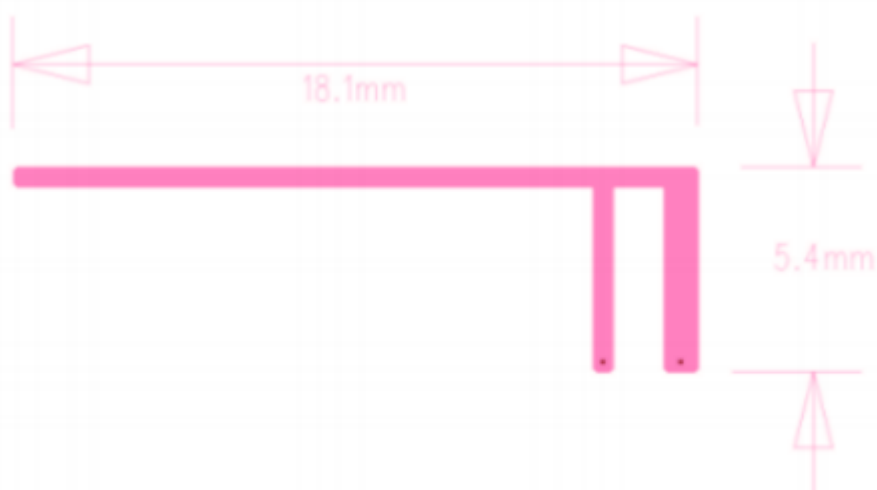
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2500MHz

MAX: 2.77dBi
MIN: -16.27dBi

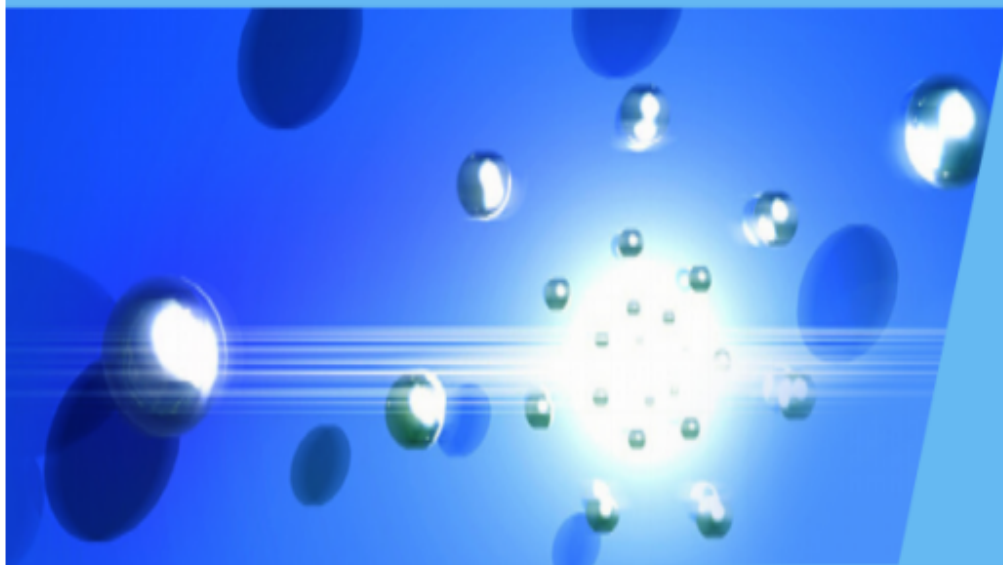


3.7 BT Engineering drawings:



PCB on-board antenna

Professional RF R&D institutions



Thank You !

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