



Shenzhen DEWEIMA Communication Equipment Co.,Ltd

SPECIFICATION SHEET FOR APPROVAL

CUSTOMER NAME	Shenzhen unique Scales Co.,Ltd
CUSTOMER P/N	CF655BLE (VFS445)
PART NAME	BT Antenna
DWM NO.	
APPROVAL REV.	DWM-V1.0

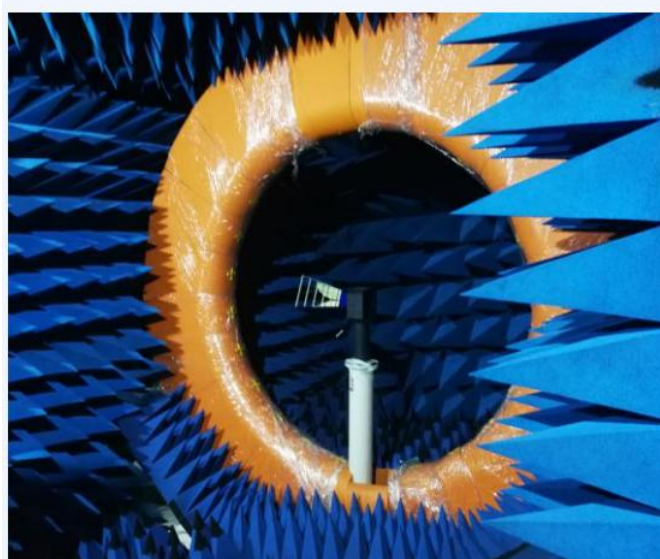
CONTRACTOR			DATE: 2025-03-03
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

CUSTOMER		DATE:
Approved By	Checked By	Prepared By

1. Product Application

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

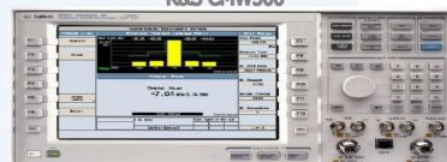
2. The test equipment



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

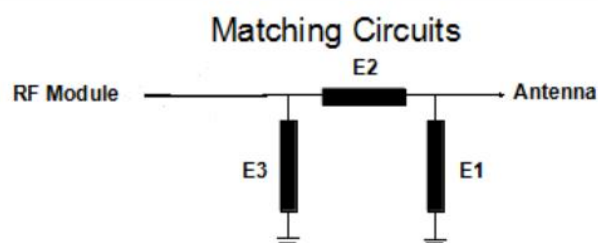
Model: NA

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)	1.0PF
E2(0402)	0 Ω
E3(0402)	NC



Product Specification

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BT Antenna

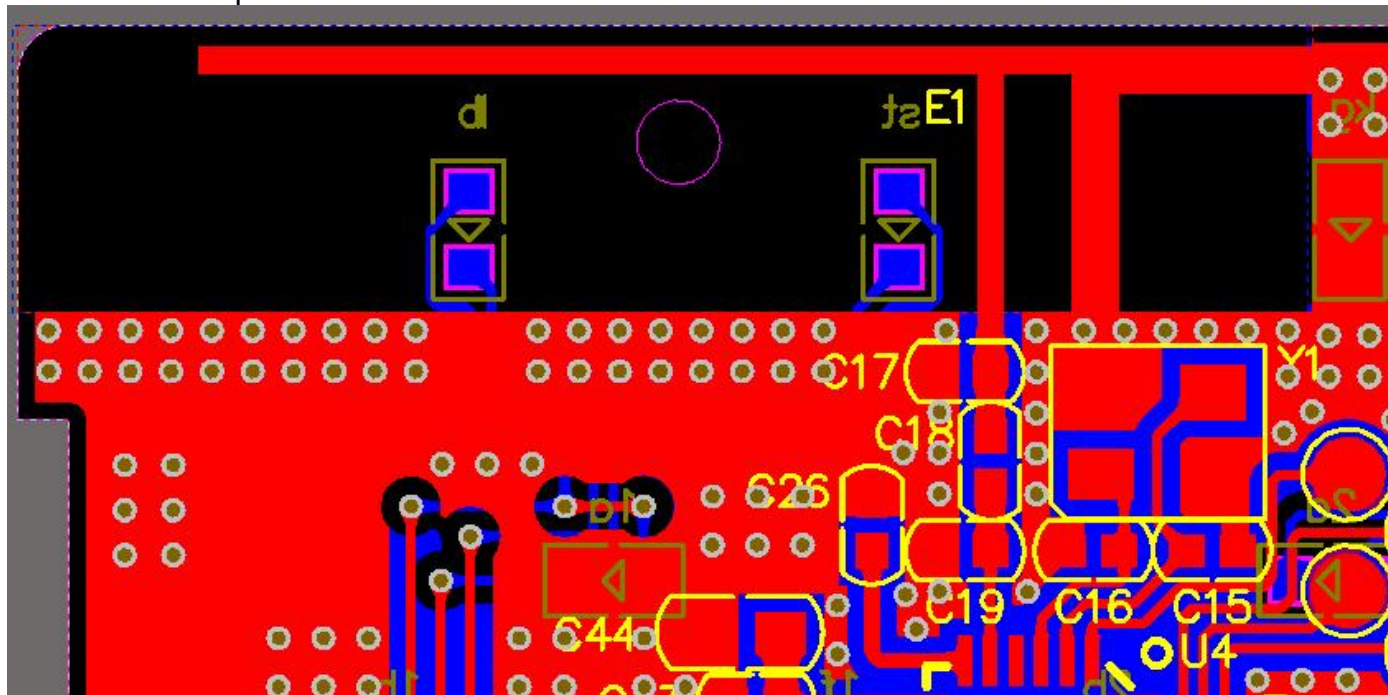
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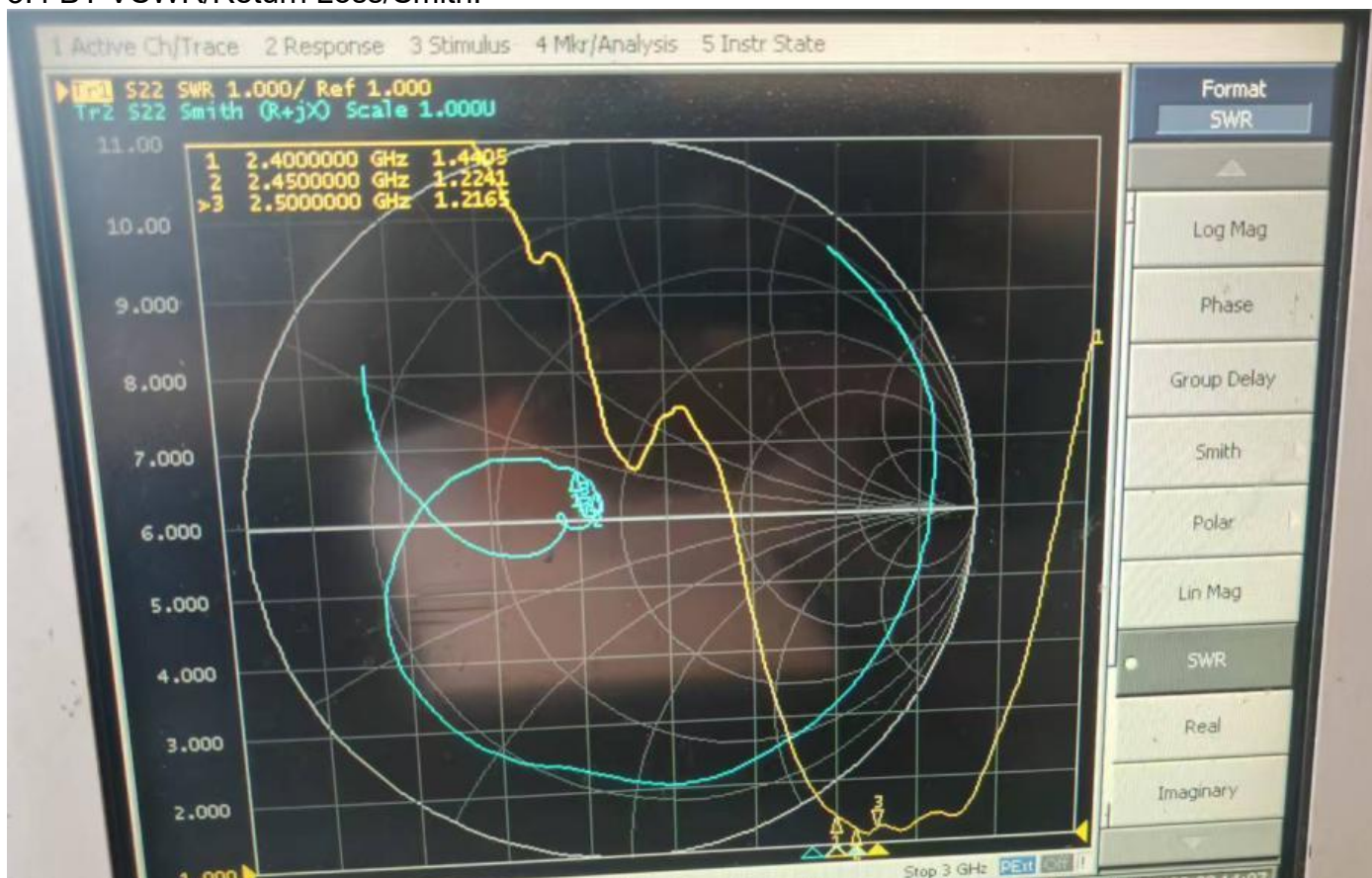
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3.3 BT antenna position



3.4 BT VSWR/Return Loss/Smith:





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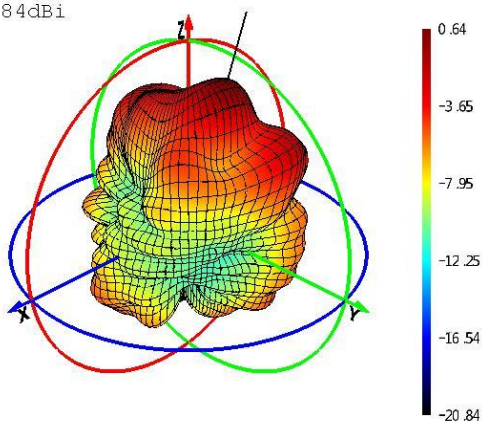
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3.5 BT Efficiency And Gain:

Gain&Efficiency 增益、效率				
Frequency 频率(MHz)	Gain 增益(dBi)	MinGain 最小增益(dBi)	Efficiency 效率(dB)	Efficiency 效率(%)
2400.00	0.64	-20.84	-4.94	32.06
2410.00	0.36	-22.45	-4.76	33.42
2420.00	0.16	-24.58	-4.73	33.65
2430.00	-0.50	-25.73	-4.67	34.12
2440.00	-0.21	-23.16	-4.46	35.85
2450.00	-0.08	-21.40	-4.41	36.24
2460.00	0.69	-20.03	-4.18	38.21
2470.00	1.06	-20.84	-4.06	39.24
2480.00	0.95	-22.91	-4.10	38.91
2490.00	1.28	-23.46	-3.87	41.06
2500.00	1.11	-23.97	-4.09	39.04

3.6. BT 3D Pattern 2400MHz

MAX: 0.64dBi
MIN: -20.84dBi





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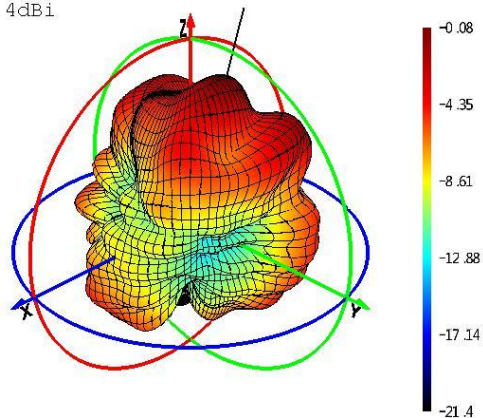
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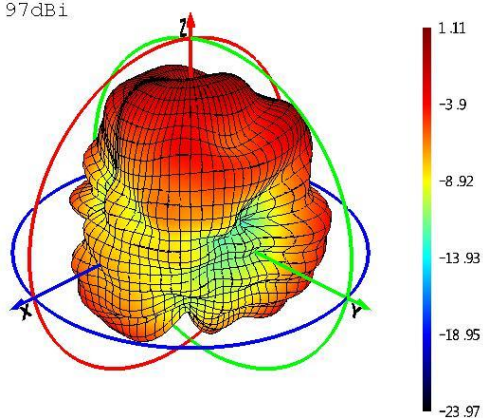
2450MHz

MAX: -0.08dBi
MIN: -21.4dBi

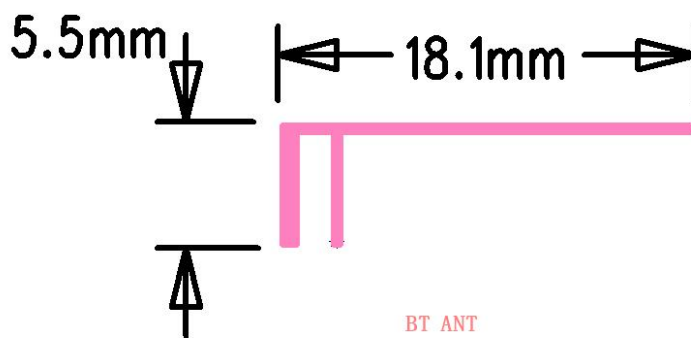


2500MHz

MAX: 1.11dBi
MIN: -23.97dBi

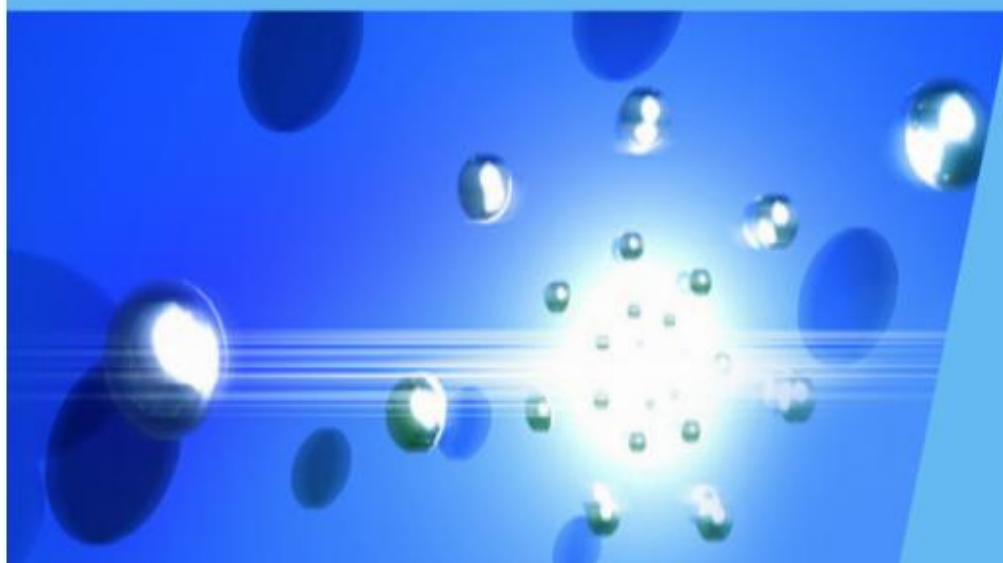


3.7 BT Engineering drawings:



PCB on-board antenna

Professional RF R&D institutions



Thank You !

公司地址: 深圳市宝安23区创业二路友谊大厦1栋3楼 邮编: 518101
3rd Floor,first unit,Friendships Building,Chuangye 2rd Road,Baoan
23 district,Shenzhen,China Post NO:518101
TEL: 0755-27885759 FAX: 0755-27885739
E-mail: 2880181958@qq.com