

承 认 书

SPECIFICATION FOR APPROVAL

客 户 名 称

CUSTOMER NAME:

产 品 名 称

PRODUCT NAME: 2.4G 陶瓷贴片天线

客 户 料 号

CUSTOMER P/N:

优比电子料号

UB P/N: UB01NP3D75A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Mark Liang 	
APPROVED BY:	Changxing Liu	
DATE:	2020/12/11	

东莞地址：东莞市塘厦镇林村社区新太阳工业城 79 栋

杭州地址：杭州市滨江区秋溢路 500 号乐通科技园 3 栋 106 室

电话：0769-81777126

传真：0769-81777126

网址：www.ubuant.com

变更履历 Change calendar

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A	Original version	Mark.Liang	2020-12-11

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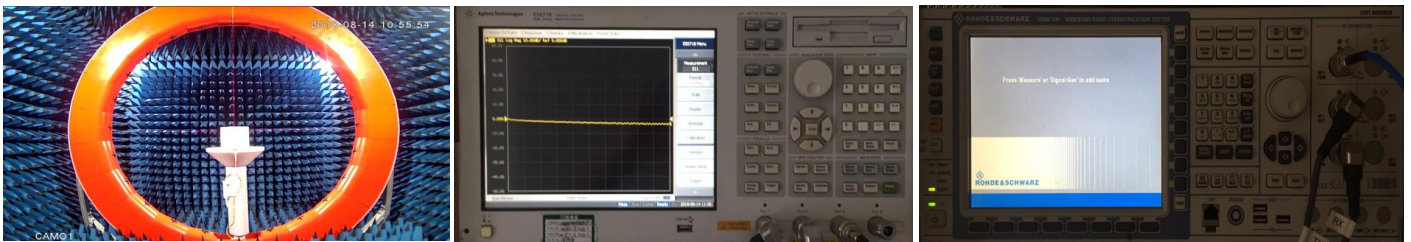
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1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	10.4 x 5.4 x3.0	mm
Working Frequency	2400~ 2500	MHz
Input Impedance	50	Ω
VSWR	2.0Max	
Polarization	Linear Polarization	
Gain	3.47	dBi
Efficiency	≥ 40	%
Connector Type	Open	
Operating temperature	-20 $^{\circ}$ C~+70 $^{\circ}$ C	
Storage Temp	-20 $^{\circ}$ C~+50 $^{\circ}$ C	

2. Test items and equipment

	Test items	Test equipment
Parameter	1.Return Loss 2. VSWR	Network analyzer (Agilent E5071B)
Passive parameters of the whole machine	1.Frequency 2.Gain 3. Radiation Pattern	1.3D microwave darkroom (5m*5m*4m) 2. Network analyzer (Agilent E5071B)
Active parameters of the whole machine	1.TRP 2.TIS	1.3D microwave darkroom (5m*5m*4m) 2. Comprehensive test instrument (CMW500)



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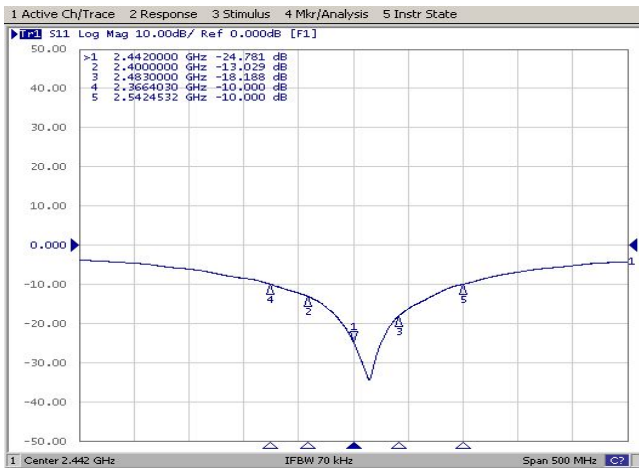
5-2. Electrical Specifications (Evaluation Board Dimensions: 100 x 50 mm²)

5-2-1. Electrical Table

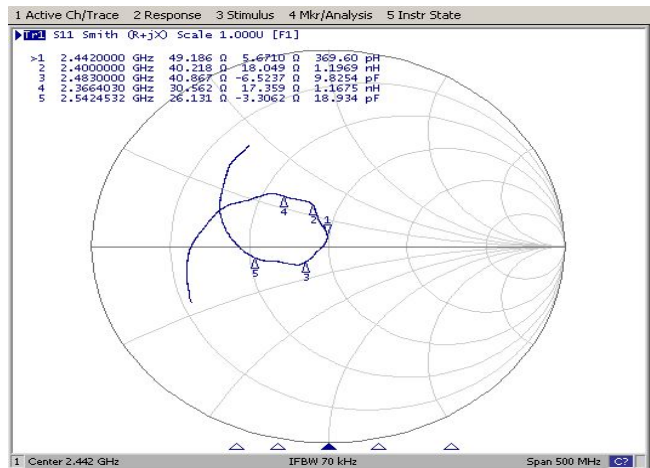
Characteristics		Specifications	Unit
Outline Dimensions		5.0 x 2.2 x 1.6	mm
Working Frequency		2400 ~ 2484	MHz
Bandwidth		140 (typical)	MHz
VSWR		2 Max. (typical)	
Characteristic Impedance		50	Ω
Polarization		Linear Polarization	
Peak Gain	(@2442 MHz)	3.5 (typical)	dBi
Efficiency		65 (typical)	%

5-2. Return Loss & Smith Chart

Return Loss (S_{11})

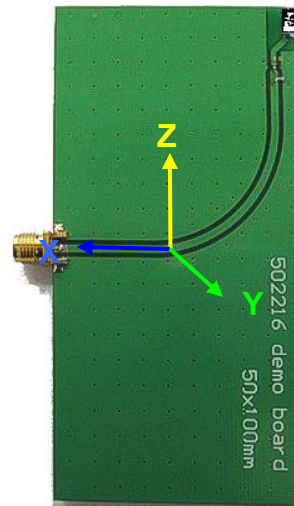
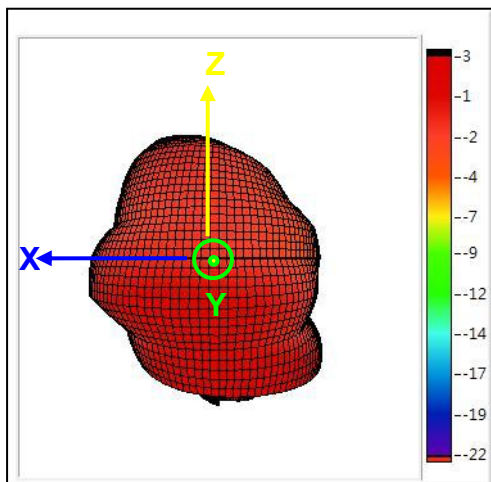
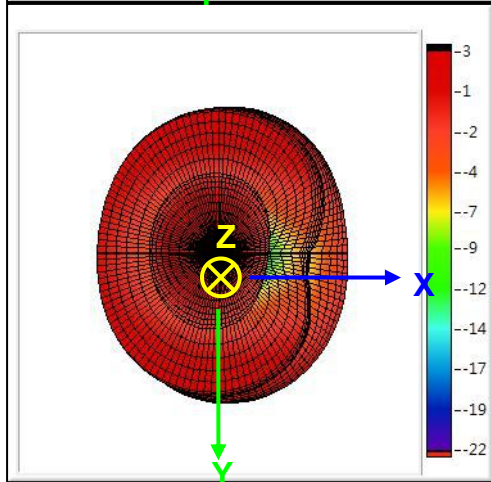
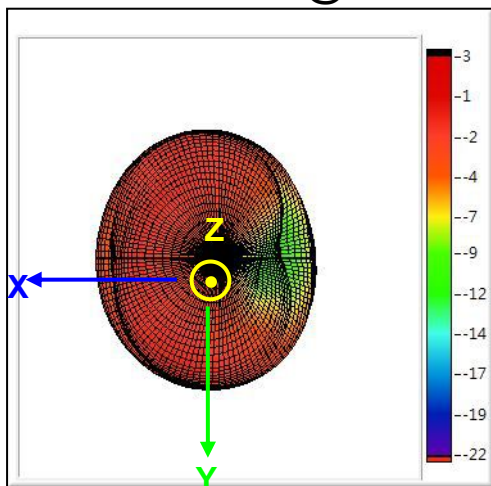


Smith Chart (S_{11})



7. Radiation Pattern (with 100 x 50 mm² Evaluation Board)

7-1. 3D Gain Pattern @ 2442 MHz (unit: dBi)



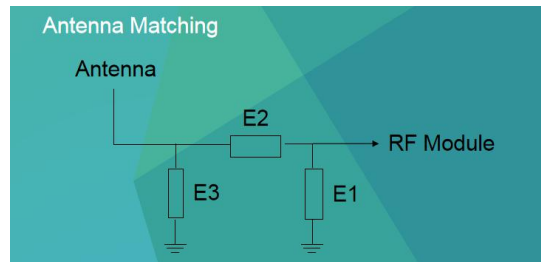
6. Active test data:

Antenna complete machine test

Item	Measurement	Azimuths	Elevations	Standard	Band	Channel	Frequency	Max	Min	Total
1	TRP	Every30	Every30	WIFI (Station)	WIFI_B (11M)	10	2457	21.92	-9.57	17.03
2	TIS(EIRP)	Every30	Every30	WIFI (Station)	WIFI_B (11M)	10	2457	88.46	56.96	83.59

7. Antenna Matching Network

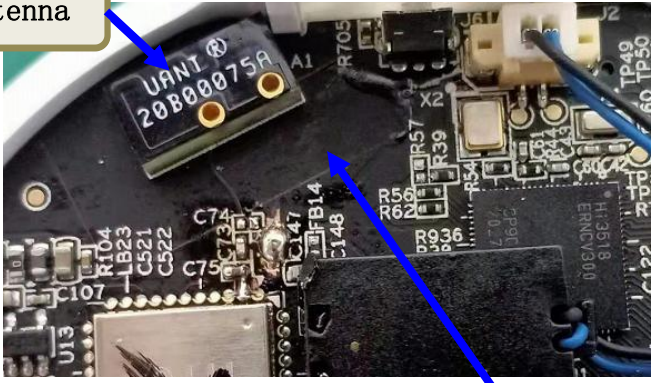
Element	Value
E1	0.5 PF
E2	3.9 NH
E3	N/A

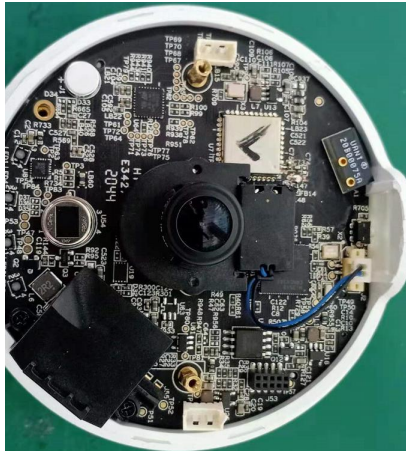


*Match the electronic components according to the above to achieve the reported antenna performance


8. Antenna installation diagram

Antenna





整机外观



主板净空状态,若净空有设变需重新评估调试,以达到天线的最佳性能

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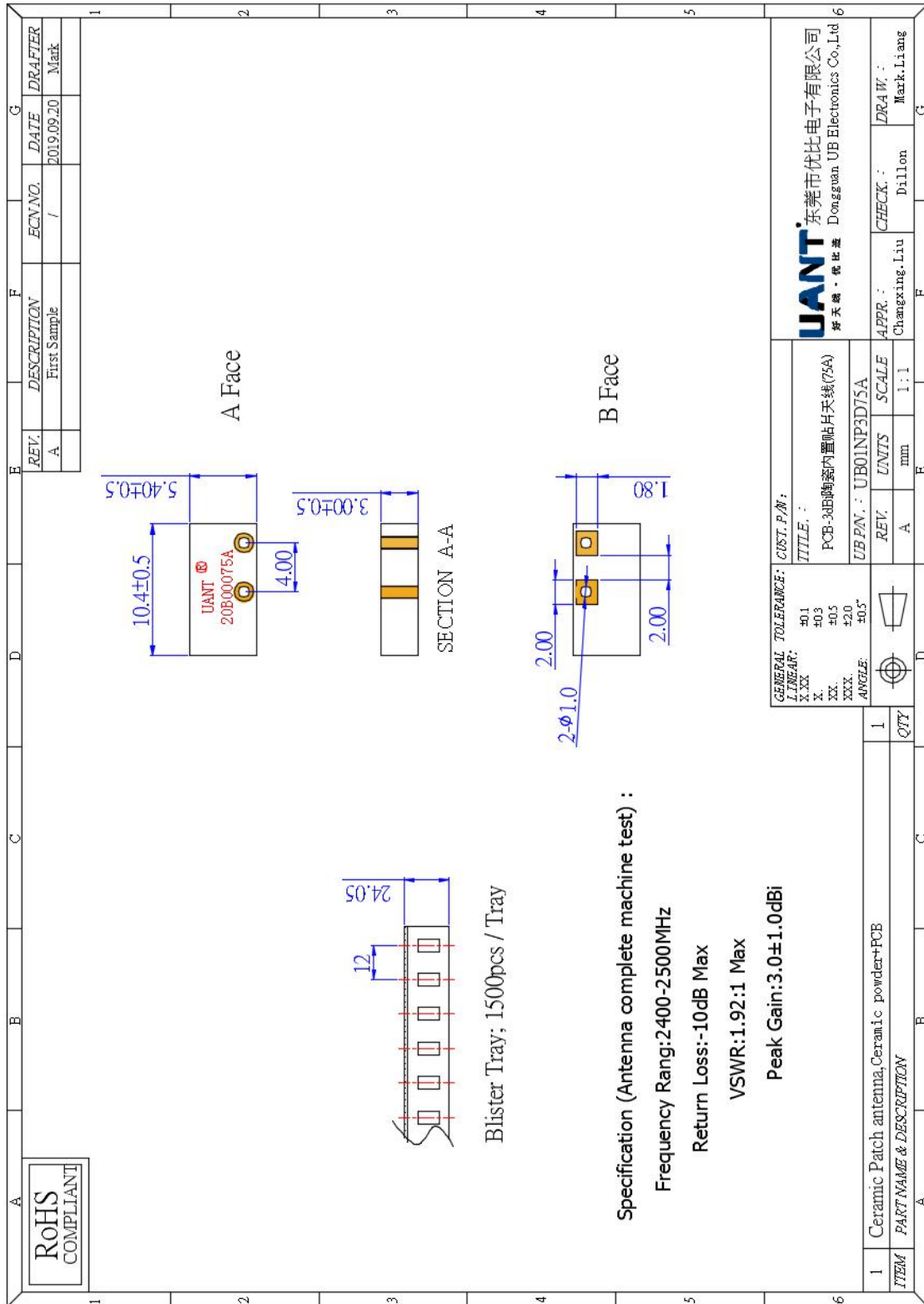
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9. Mechanical Specification



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