



SPECIFICATION FOR APPROVAL

Component information:

客户 (Customer)	Ganzhou DHD Technology Co., Ltd
部 品 名 称 (Material Description)	B2507-BT 2.4G Antenna
客 户 料 号 (Customer's Part number)	55-00040-3001
部 品 规 格 (Specifications)	B2507-BT 2.4G Built-In FPC Antenna RG0.81, Black, 30mm Length, 2.0dBi $\pm$ 0.5@2.4-2.5G, With RF IPEX Gen 2 Connector. Efficiency: 48%. Standing Wave Ratio: Less Than 2.0. Environmentally Friendly.
供应商料号 (Supplier's Part number)	QY023-11C0050A
送样日期 (Date)	2026/5/6

Supplier Approval:

拟 制 Prepared By	审 核 Checked By	批 准 Approved By
Zhang Bingxiang	Wu Qianjin	Luo Daxun

Customer approval:

Accepted By	Checked By	Approved By

Recognizing the outcome:

- ☐ Full Approval
☐ Conditional Approval
☐ Unqualified
☐ Others



SPECIFICATION FOR APPROVAL

客户 Customer: DHD

品牌 Brand: Qiyuan

品名 Description: BT Antenna

规格/型号

Specification

/part no: B2507-BT 2.4G Built-In FPC Antenna RG0.81,
Black 30mm Length 2.0dBi $\pm$ 0.5@2.4-2.5G
With RF IPEX Gen 2 Connector. Efficiency: 4
8%. Standing Wave Ratio: Less Than 2.0. En
vironmentally Friendly

日期 Date: 2026.05.06

备注 Remark: 承认签章后请回复一份（或复印件）给我司，其余由贵公司留作存档。如果在签章的承认书（或复印件）回复给我司之前，下了有关此规格产品的订单且又无特别说明，那么我司就确定贵司已完全承认了。Pleasereturnone specificationoronecopyofitwithyourchopandsignatureofapprovalandretain the others for your record. In the event of an order being placed for this part number before the chop and signed with specification (or copy) is returned and without special explanation,itwill be assumed that full approval have been given.

客户签字盖章 Customer's signature and seal:

CHECKED/DATE	AUDITOR/DATE	APPROVED/DATE



SPECIFICATIONS

客户料号

Customer P/N: 55-00040-3001

规格描述

Specification: B2507-BT 2.4G Built-In FPC Antenna RG0.81,
Black 30mm Length 2.0dBi $\pm$ 0.5@2.4-2.5G Wi
th RF IPEX Gen 2 Connector. Efficiency: 48%.
Standing Wave Ratio: Less Than 2.0. Environm
entally Friendly

品名 Description: BT Antenna

供应商 Supplier: Qiyuan

生产商 Producer: Qiyuan

备注 Remark:

承认签章后请回复一份（或复印件）给我司，其余由贵公司留作存档。如果在签章的承认书（或复印件）回复给我司之前，下了有关此规格产品的订单且又无特别说明，那么我司就确定贵司已完全承认了。Pleasereturnonespecificationoronecopyofitwithyourchopandsignatureofapprovalandretain the others for your record. In the event of an order being placed for this part number before the chop and signed with specification (or copy) is returned and without special explanation, it will be assumed that full approval have been given.

CHECKED/DATE	AUDITOR/DATE	APPROVED/DATE
Zhang Bingxiang 2026.05.06	Wu Qianjin 2026.05.06	Luo Daxun 2026.05.06



Resume					
Now no	Modify the section	Change the page number	commence ment date	content of change	Change recorder



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天线照片 (Picture) :



(The image samples are for reference only, and the drawings shall prevail)

电气参数 (Electrical parameters) :

Frequency 频率范围	2.4~2.5GHz
Impedance 特性阻抗	50Ω
S.W.R. 电压驻波比	≤2.0
Antenna Gain 增益	2.0±0.5dBi
Polarization 极化形式	Vertical Polarization/horizontal Polarization
Return Loss 回波损耗	-9.2dB MAX

机械参数(Mechanical parameters):

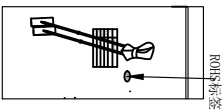
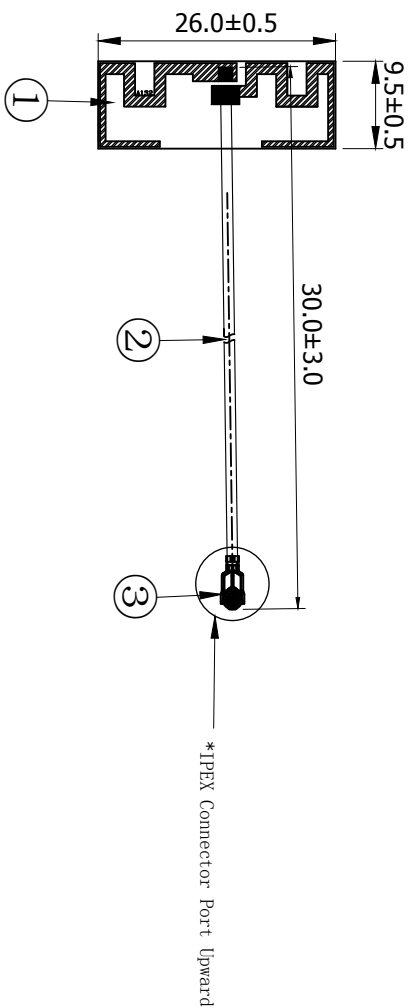
Antenna Colour 天线颜色	Black
RF Cable Model 射频线型号	RG0.81, Black
Connect Type 接口方式	I-PEX II

工作/储存温度 (Operating/ Storage Temperature) :

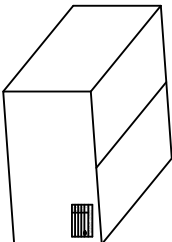
Operating Temperature 工作温度	-40~85℃
Storage Temperature 储存温度	-40~85℃

成品图

REV	DATE	DESCRIPTION
A	2026.05.06	New Issue



Pack full: 200pcs/PE Bag



Specification:
Frequency Range : 2.4~2.5GHz
Return loss: -9.2dB or less
VSWR: 1.92:1max
Gain(Peak): 2.0dBi

1. Affix one ROHS environmental label onto the finished product
2. Affix one outer carton label to the upper right corner of the carton.

XXX	±5.0	APPROVED	CUSTOMER	PART NO	BT-2.4G-FPC-Antenna
XX	±2.0	CHECKED	PART NAME	REV	1/1
X	±0.5		QTY P/NO	SCALE	A 4
.XX	±0.2	DRAWING	UNIT	SIZE	SHEET
⌀	±0.1		A	mm	1 OF 1

NO	PART NAME	DESCRIPTION	QTY	REMARK
3	Connector	IPEX II	1	
2	Cable	RG-0.81 RF Cable 50Ω,Black	1	
1	Antenna Body	FPC: 26. 0*9. 5*0. 2mm, OSP,Black	1	



Dongguanshi Qiyuan
Electronic Technology Co., Ltd.
东莞市启元电子科技有限公司

ENGINEERING DRAWING



环境与可靠性试验(Environmental and reliability testing):

Environmental test

High and low temperature humidity test report						
Experimen tal project	High temperature, low temperature and constant humidity test					
Test sample Name plate	FPC Antenna		Test date		2026. 04. 20	
Quimente	Constant temperature and humidity test chamber network analyzer		Quantity		5PCS	
Inspecti on standd	1. 1. The metal surface coating has no peeling, cracking, wrinkling and other defects;The non-metal part should not be discolored, broken, deformed, degummed and other defects. 2 .Electrical test meets the design requirements; The voltage standing wave ratio test is qualified.					
Test name	experimental project	require	experiment al method	Actual test data	result	
					sample	decide
High temperatu e test	Temperature (℃)	+85±3	In accordance	+85	1	qualified
	Temperature stabilization time of	12	withGB2423.1	1. 2	2	qualified
	test sample (h)		-89 9		3	qualified
	Duration of test (h)	1	chapter	2. 3	4	qualified
	Recovery time (h)	1	To be carried out in the prescribed manner	1	5	qualified
Low temperatu e test	Temperature (℃)	-40±3	n accordance	-40	1	qualified
	Temperature stabilization time of	1	withGB2423.1	1. 2	2	qualified
	test sample (h)		-89 Section 8		3	qualified
	Duration of test (h)	2	chapter	2. 4	4	qualified
	Recovery time (h)	1	Regulation of the methods	1. 1	5	qualified



salt spray test; salt fog test

Salt spray test report				
Experimental project	salt spray test; salt fog test			
Test sample Name plate	FPC Antenna	Test date	2026. 04. 20	
Quimente	salt spray corrosion test chamber	Quantity	5PCS	
Inspection standard	Put the test sample into the prepared salt solution test chamber and salt spray corrosion chamber for continuous spray test			
Salt solution concentration	52g/L	The pH of the salt solution: 6.5-7.2	test cycle: 24h	
Actual test data	55g/L	The pH of the salt solution: 6.8	test cycle: 26h	
Test standard; test criteria	According to GB/T10125 "artificial atmosphere corrosion test, salt spray test" test;Results according to the GB/T6461-2002 "Metal and other inorganic coating on metal substrate after corrosion test is the grade of samples and test pieces" rating.			
test results				
NO.	Corrosion rating	Actual test data	Evaluation of the results	备注
1	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
2	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
3	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
4	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
5	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	



测试设备(Test equipment)



Agilent 5071C Network Analyzer

安捷伦 E5071C 网络分析仪

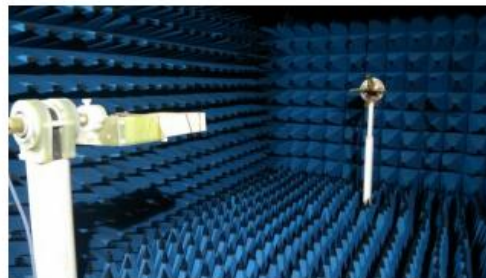


HP8594E Spectrum analyzer

HP 8594E 频谱分析仪



CMW-500



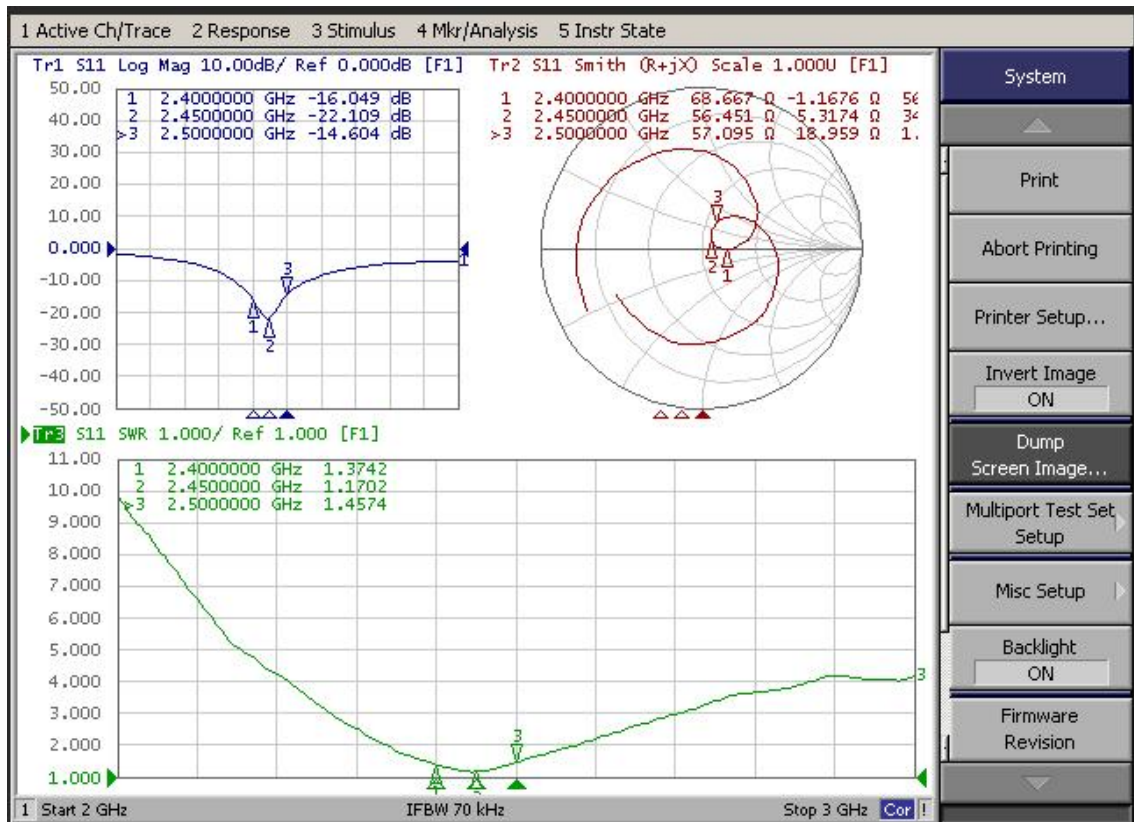
微波暗室

Anechoic chamber



测试参数(Measuring parameter)

V.S.W.R&Return Loss



增益&效率(Gain&Efficiency)



东莞市启元电子科技有限公司

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-3.15	-2.93	-2.73	-2.59	-2.67	-2.57	-2.94	-2.85	-2.83	-2.91	-3.16
Gain (dBi)	1.75	1.87	1.89	1.93	1.89	1.92	1.66	1.92	2.05	2.07	1.81
Efficiency (%)	48.40	50.89	53.34	55.08	54.03	55.32	50.81	51.93	52.17	51.19	48.29



2D、3D Radiation Patter

