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Approval Sheet

Customer Name: DESSMANN

Debug Project: S150max

Customer Part No: _____

Boantong Part No.: 74220886

Specification Description : Built-in Antenna-2.4G-Black RG178

Tin-Tin Wire-MCX-K-L=120mm-FPC-30.8×13.1mm

Factory Signature & Stamp:

Prepared by	Reviewed by	Approved by
Xu Zhangjin	Peng Yingjie	Liu Lihua

Customer Approval Signature & Stamp:

Checked by	Reviewed by	Approved by

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Document Creation / Revision / Obsolescence History

[illegible]

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3、Product Drawing

REV.		Revision Date	Revision Details	
A0		26-6-15		

Front view

Technical Requirements

1:The antenna solder joint is secure,Cable dimensions must be per drawing(Connector retention force $\geq$ 1.5Kgf).

2:FPC with silkscreen, Clear and durable lettering.

3:Dimensions marked with an asterisk (*) are critical inspection points for IQC.

4:Packaging and quality standards shall refer to B&T Packaging Specification and B&T Quality Standard, respectively.

5:The material is compliant with RoHS 2.0 requirements.

No.	Part Name	Note	Designer	Wei Ningyu		Weight	Quantity	Scale	Unit	Name	Project No.						
①	MCX-K		Verify														
②	Heat shrink tubing		Approval Li Kaiyong		Page 1 of 1			1:1	mm	P/N	74220886						
③	Fiber tubing		1 >X														
④	coaxial cable		1~9.99														
⑤	UV glue		10~19.99														
⑥	FPC		20~39.99														
			40~		B&T												

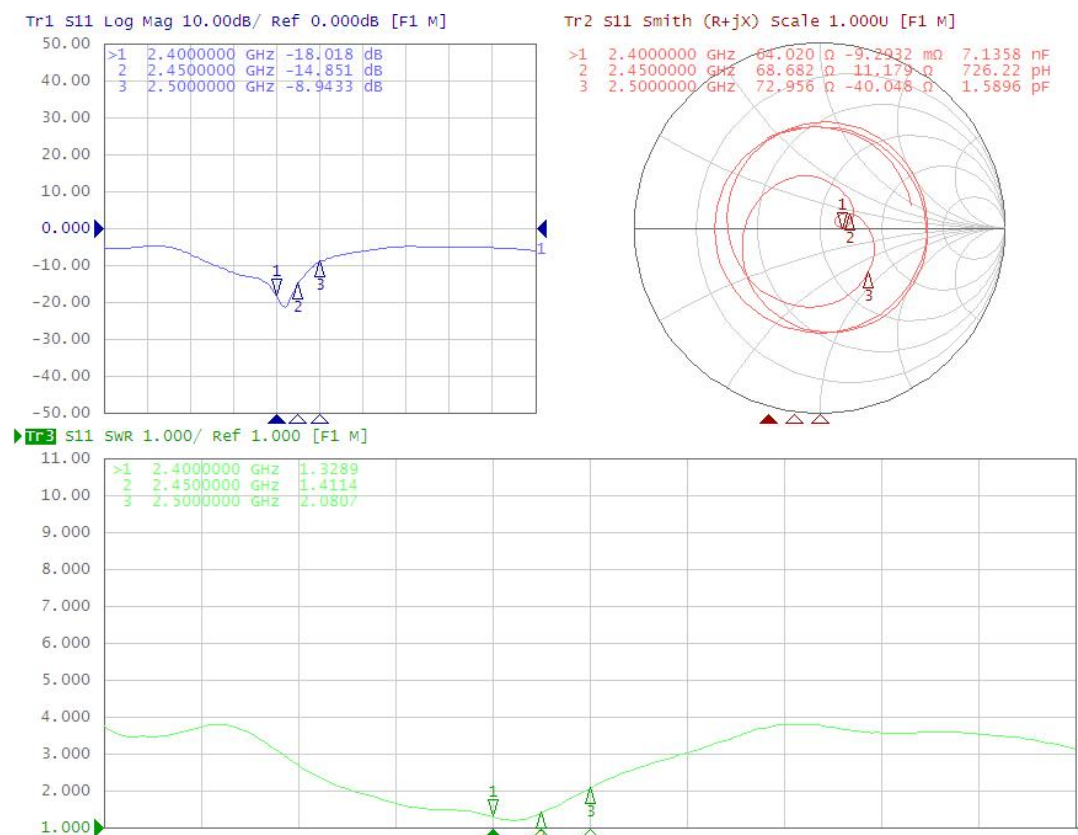
Built-in antenna-2, 46-Black RG1.78mm tin-tin solder wire-MCX-K-L=120mm-FPC-30.8×13.1mm

4、Performance Parameter Table

Electrical Parameters	
Frequency Range	2400~2500MHz
Input Impedance	50 Ω
VSWR	≤ 2.1
Gain	0.73dBi
Power Capacity	<10w
Polarization	Linear Polarization
Radiation Pattern	Omni-directional
Connector Model	MCX-K
Mechanical Parameters	
Overall Length	120 $\pm$ 10mm
Connector Retention Force	≥ 1.5 Kgf
Coaxial Cable	Black RG178 Tin-Tin Wire
Salt Spray Test	24H
Environmental Parameters	
Operating Temperature	-30 $^{\circ}$ C~65 $^{\circ}$ C

5、Electrical Performance Test Report (Complete Machine)

Antenna S11 Parameter



VSWR Data

Freq/MHz	2412MHz	2437MHz	2462MHz
VSWR	1.3	1.4	2.1

Antenna Anechoic Chamber Test Data

Active Data

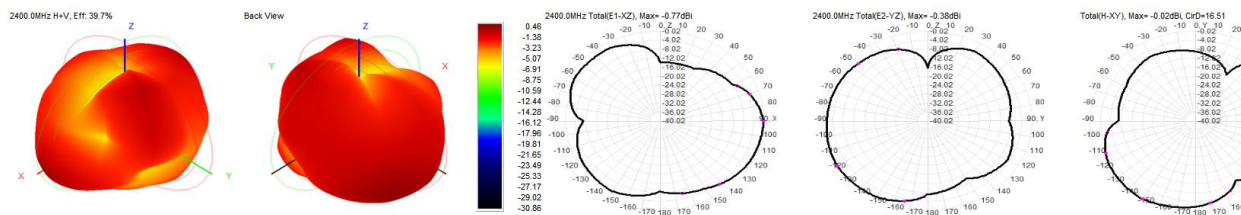
	TRP	TIS
1	14.86	-84.03
6	15.15	-83.05
11	15.06	-83.54

Passive Data

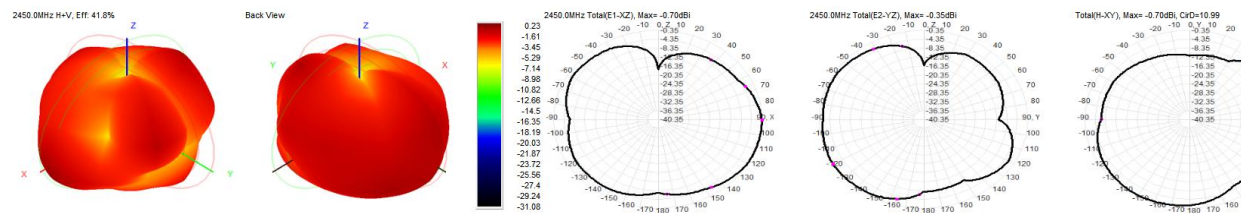
Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400.0	-4.01	0.46	39.71
2410.0	-3.94	0.45	40.37
2420.0	-3.91	0.40	40.61
2430.0	-3.76	0.39	42.07
2440.0	-3.85	0.21	41.20
2450.0	-3.78	0.23	41.83
2460.0	-3.90	0.27	40.78
2470.0	-3.85	0.57	41.22
2480.0	-4.05	0.67	39.33
2490.0	-4.07	0.73	39.15
2500.0	-4.04	0.58	39.45

Antenna Radiation Pattern

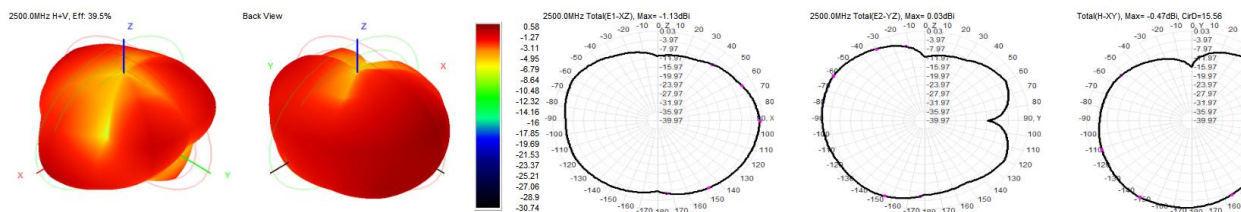
2400M 3D-E1-E2-H



2450M 3D-E1-E2-H



2500M 3D-E1-E2-H



6、Material Composition & Hazardous Substance List

Specification	Texture of material	ROHS Test Results (PPM)	ICP test number						ICP test number	Test time
			Cd	Pb	Hg	Cr+6	PBB	PBDE		
1	wire	FEP	ND	ND	ND	ND	ND	ND	NGBPC26000015815	2026/1/19
		Tinned wire	ND	ND	ND	ND	ND	ND	A2250642229101001	2025/9/5
2	Terminal	PBT	ND	ND	ND	ND	ND	ND	A2250847182101002E	2025/11/20
		Phosphor Bronze	ND	4	ND	ND	ND	ND	CANEC25027363005	2025/11/13
3	FPC	PI	ND	ND	ND	ND	ND	ND	SHAEC25031840901	2025/12/8
		Tape	ND	ND	ND	ND	ND	ND	SZXEC25003068037	2025/8/28
4	Connector	brass	3	17537	ND	ND	ND	ND	SHAEC26004930417	2026/3/9
		PTFE	ND	ND	ND	ND	ND	ND	TAOEC25007265701	2025/8/6
5	Heat shrinkable sleeve	Heat shrinkable sleeve	ND	ND	ND	ND	ND	ND	CANEC26006480913	2026/3/30
6	UV glue	UV glue	ND	ND	ND	ND	ND	ND	SZXEC25004605602	2025/12/2

PACKING CRITERION

Product Part No: 74220886

Product Specification: Built-in Antenna-2.4G-Black RG178 Tin-Tin Wire-MCX-K-L=120mm-FPC-30.8×13.1mm

一、Label Requirements (Refer to corresponding finished label specification by customer; adopt general label requirements if no special demand)

Inner Label: approx. 10cm (L) × 6cm (W)

Buyer	*****		
Supplier	Sichuan Boantong Communication Technology Co., Ltd.		
Material Code	*****		
Production Order No.	*****		
Product Name & Specification	*****	Inspector	**
Qty./Unit	*****	Date	****.***
Traceability Code	*****	Serial No.	**

二、Packing Requirements

Operation Instruction:

1. Inner Packaging:

Products: 50 PCS per small bag,
100 PCS per large bag

2. Outer Packaging:

Quantity per carton subject to actual packing

Notes:

- Whether partitions and pearl cotton need to be added;
- Label attachment, e.g. RoHS, etc;

8、Antenna Schematic Diagram

