



中山市博安通通信技术有限公司

ZHONGSHAN B&T TECHNOLOGY Co.,Ltd

零件规格承认书

Approval Specification

正式 ☒ / 条件 ☐

类型: Type: 2.4 / 5.8G 内置天线

范例 R3 代码: R3 Code: 850292406

范例图号: Part Number: TX-DM300BD113B63M

发行日期 Issued Date: 2024.04.12

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核准 Approval by	审核 Check by	撰写 Prepared by
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Project :Y202104090061/4

Date. 2024.04.12

REV: A3

Antenna SPEC

Customer name: 广东长虹

Customer project: 长虹电视系

Part Number: 850292406

B&T P/N: AG-041533-2190

Spec.: 2.4 / 5.8G Internal antenna(shrapnel 30 × 11 × 5.2)-Black
line 1.13-terminal, see line length 285mm

Sealed by corporation:

compilation	ver if y	approval
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Document making / revising / abolishing resume

Edition	Date	Formulate/Revised content	Formulate	approval
A0	2021.03.10	First formulation	Huangfeihui	Tanghai lin/Yilinyu
A0-0310	2021.03.10	Increase the raw material chart	Huangfeihui	Tanghai lin/Yilinyu
A0-0318	2021.03.18	Update the raw material specification and test report	Huangfeihui	Tanghai lin/Yilinyu
A0-0322	2021.03.22	Add the passive data and test report of the electrical performance	Huangfeihui	Tanghai lin/Yilinyu
A0-0323	2021.03.23	Update the finished product inspection specification SIP and benefits	Huangfeihui	Tan hai
A0-0412	2021.04.12	Increase the project number and update the packaging quantity	Huangfeihui	Tan hai
A0-0708	2021.07.08	Update the customer cover drawing number and performance parameters	Huangfeihui	Liulihua/Li hui
A0-0803	2021.08.03	Update the connector model description	Huangfeihui	Liulihua/Li hui
A0-1104	2021.11.04	Increase the fixed list of main raw materials of supplier products, update the drawing process description, SIP, coating report, terminal diagram	Huangfeihui	Liulihua/Li hui
A0-0221	2022.02.21	Update the process description and packaging method	Huangfeihui	Tan hai/Guan Ning
A1	2022.06.29	Update the desiccant instructions and dosage	Huangfeihui	Liulihua/Li hui
A2	2023.09.20	Update the fixed foam gum	Huangfeihui	Liulihua/Li hui
A3	2024.04.12	Update test report (For customer authentication)	Qiucui ping	Liulihua/Li hui

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3、Product drawing

REV.		Revise	Date
A0	22-02-18		
A1	23-9-20	Update ④	3M RP45

The technical requirements

1:the antenna welding part is firm, and the cable size is accurate;(Cable maintenance force $\geq$ 1Kgf).

2: "*" important dimensions;

3: Packaging and quality standards refer to BAT packaging specifications

4: Products must meet the requirements of ROHS;

5: The cup of terminal no orientation requirement .

Number	Part name	Material/technology	Note
①	Coaxial line	1.13 Black tin wire	
②	shrapnel	SUS304 T=0.30mm	
③	Support foam tape	EVA	
④	Fixed foam tape	foam/3M RP45	
⑤	sleeve	Heat shrinkable sleeve	
⑥	Generation 1 RF terminal	Phosphor bronze (gold-plated)	gold-plated (thickness 11")

Designer	TanhaiLin	Weight	Quantity	Scale	Unit
Verify				1:1	mm
Approval					
1>X		±0.05			
1~9.99		±0.10			
10~19.99		±0.15			
20~39.99		±0.20			
40~		±0.30			

Name	2.4 / 5.86 Internal antenna(shrapnel 30×11×5.2)-Black line 1.13-terminal, see line length 285mm
Project No.	Y202104090061
Part No.	AG-041533-2190

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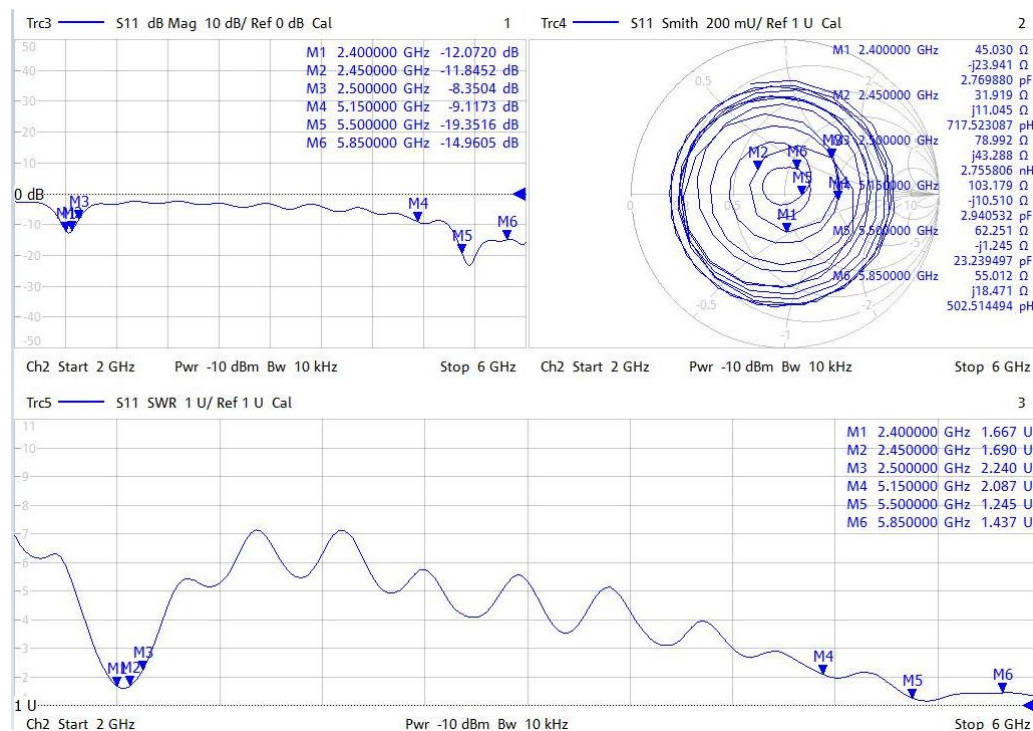
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4、Properties & parameter

Electrical Parameter		
Freq Range		2400~2500MHz/5150-5850MHz
Characteristic Impedance		50 Ω
VSWR		sample of reference project
Max gain	2.4G	0.63dBi
	5.8G	3.01dBi
The Max input power		<10w
Polarization mode		Polar linearization
Radiation mode		Omni directional
Antenna Type		PIFA
Connector style		IPEX terminal
Mechanics Properties		
Length		See line length $285 \pm 3\text{mm}$ /Bus line length $300 \pm 3\text{mm}$
Maintain the force		$\geq 1\text{Kgf}$
Coaxial cable		Black 1.13 double tin wire
Salt spray test		24H
Environment parameter		
Operating Temp		$-30^{\circ}\text{C} \sim 65^{\circ}\text{C}$

5、Electrical test report (Single antenna)

S11 Parameter



➤ Standing wave ratio data-2.4G

Freq/MHz	2400MHz	2450MHz	2500MHz
VSWR	1.66	1.69	2.24

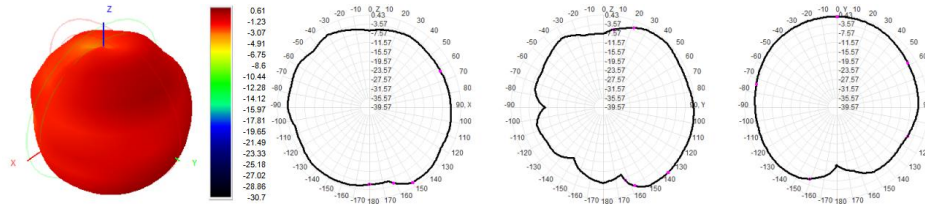
➤ Antenna darkroom test data-2.4G

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400.0	-3.51	0.61	44.60
2410.0	-3.43	0.63	45.35
2420.0	-3.55	0.33	44.18
2430.0	-3.59	0.18	43.75
2440.0	-3.70	-0.03	42.68
2450.0	-3.90	-0.17	40.76
2460.0	-3.93	-0.13	40.42
2470.0	-4.02	-0.16	39.61
2480.0	-4.15	-0.25	38.43
2490.0	-4.43	-0.41	36.03
2500.0	-4.64	-0.60	34.34

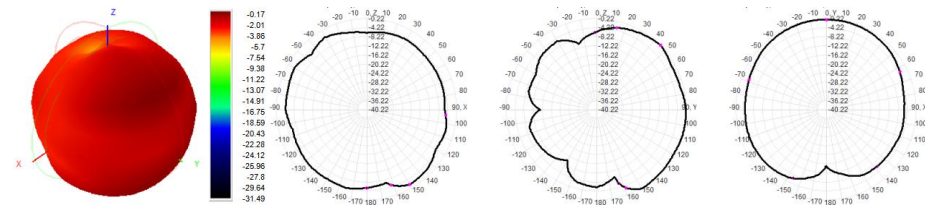
➤ Directional diagram

ANT-2.4G-1-2D-3D

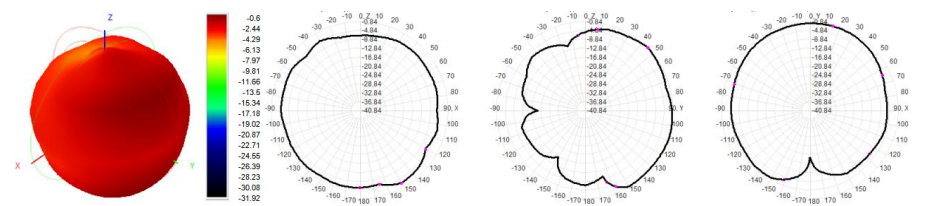
2400MHz



2450MHz



2500MHz



➤ Standing wave ratio data-5.8G

Freq/MHz	5150MHz	5550MHz	5850MHz
VSWR	2.08	1.24	1.43

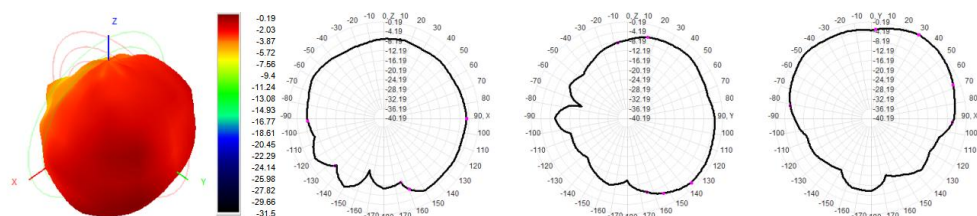
Antenna darkroom test data-5.8G

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
5150.0	-6.13	-0.19	24.40
5250.0	-5.38	0.56	28.97
5350.0	-5.14	1.02	30.62
5450.0	-4.27	1.93	37.43
5550.0	-3.61	2.48	43.53
5650.0	-3.60	2.58	43.64
5750.0	-3.76	2.21	42.08
5850.0	-3.89	3.01	40.85

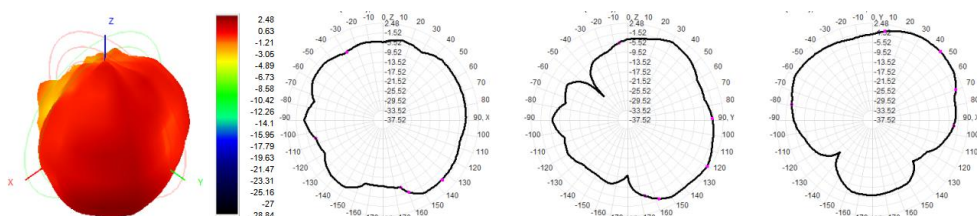
➤ Directional diagram

ANT-5.8G-1-2D-3D

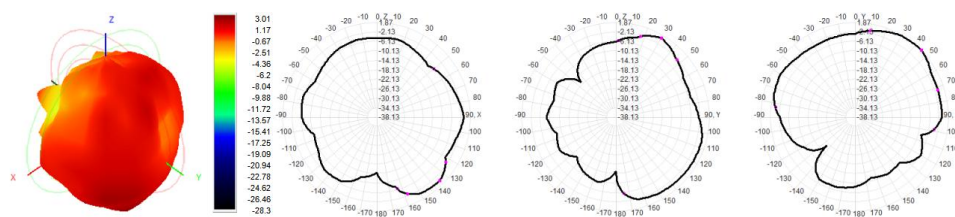
5150MHz



5550MHz



5850MHz



PACKING CRITERION

P/N: AG-041533-2190

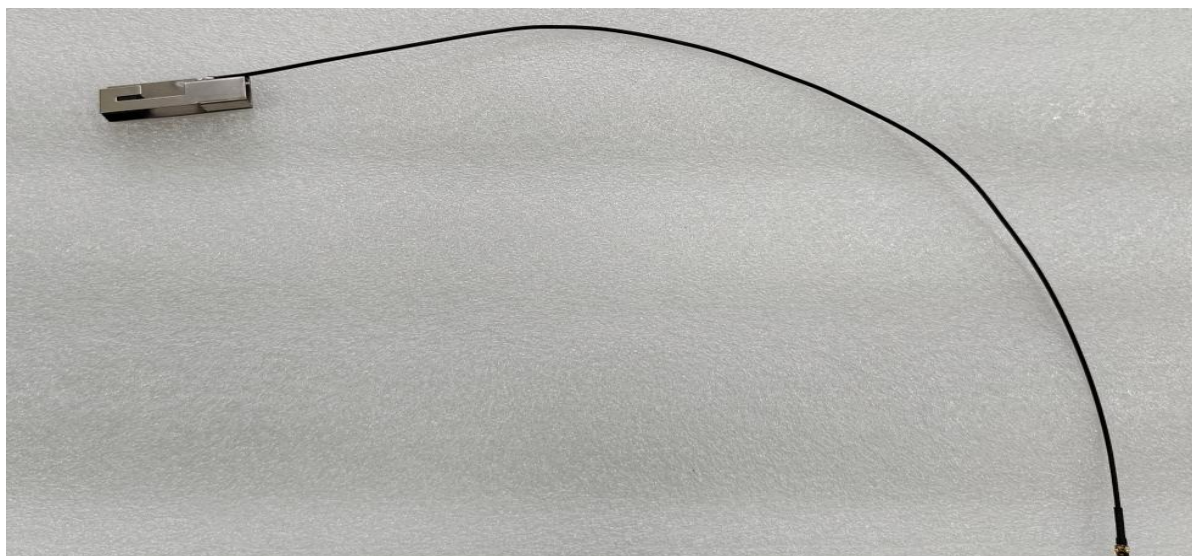
Spec.: 2.4 / 5.8G Internal antenna(shrapnel $30 \times 11 \times 5.2$)-Black line 1.13-terminal, see line length 285mm



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Packing requirement

7、Antenna photo



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