

specification

Customer : 昊一源

Customer P/N:

Part Name: DIRECT CONNECTED EXTERNAL
ANTENNA

HJ P/N: 3D5201BK06-001

Spec Description : EXTERNAL ANTENNA,COVER
BLACK,COPPER TUBE+COPPER
TUBE,RG178 CABLE+RP-TNC PLUG

Prepared Date: 2023/12/16

Signature

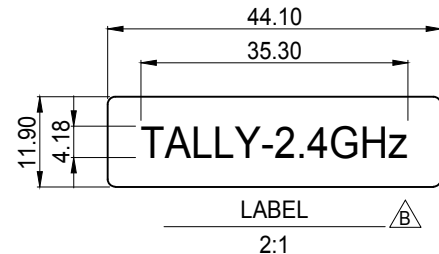
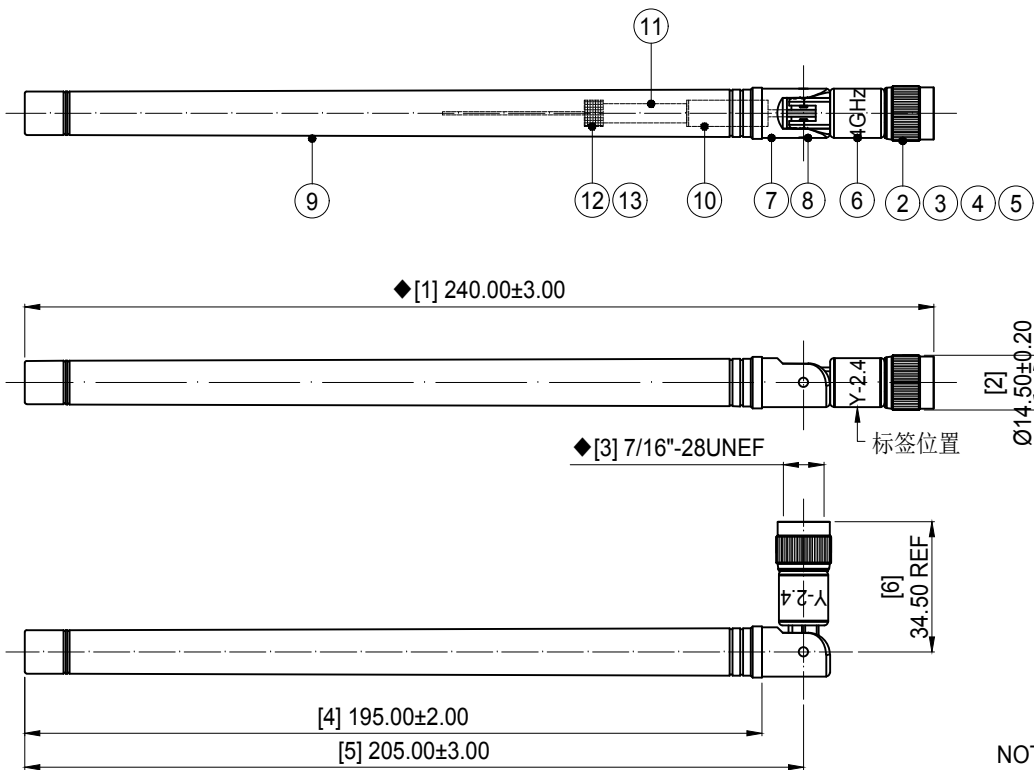
Customer		Supplier	
Confirmed by		Prepared by	S.He
Approved by		Checked by	何修明
		Approved by	刘福勇

东莞市皇捷通讯科技有限公司

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H431	REV.	RELEASE AND CHANGE SUMMARY	DATE
	A	FIRST ISSUE	2023.10.20
	B	LABEL BACKGROUND COLOR, FONT COLOR	2023.11.29
	C	COVER SPRAY BLACK PAINT	2023.12.12



NOTES:
 1 ASSEMBLY REQUIREMENTS: TNC PLUG AND CABLE ADOPTING RIVETING PROCESS.
 2 ELECTRICAL SPECIFICATION: 100% TESTING USING A VECTOR NETWORK ANALYZER. NOMINAL IMPEDANCE: 50Ω; FREQUENCY RANGE:2.4GHz-2.5GHz; VSWR: 2.0 MAX..
 3 DIMENSION INSPECTION: [*],FAI INSPECTION ITEM; ◆,QIP INSPECTION ITEM; ★,CPK INSPECTION ITEM.
 4 APPEARANCE INSPECTION: VISUAL INSPECTION; NO TRANSFORM,NO CRACK, NO STAIN AND NO BURR.
 5 PACKING SPECIFICATION: 50PCS/BAG,20BAG/BOX,1000PCS/BOX.
 6 ENVIRONMENTAL REQUIREMENTS: RoHS COMPLIANT.

14	2FZ7109	LABEL: 44.10*11.90,PET $\triangle B$	1
13	2MH106	FOAM: L45.00*W10.00*T1.00,EVA,BLACK+3M 9448A	1
12	2MH011	FOAM: $\varnothing 5.50$ *T5.00,EVA,BLACK	1
11	2YG041	COPPER TUBE: $\varnothing 5.00$ *L27.10,BRASS	1
10	2YG223	COPPER TUBE: $\varnothing 7.00$ *L28.50,BRASS	1
9	2SBKG5200-5	COVER: $\varnothing 13.60$ *L195.00,TPE,BLACK $\triangle C$	1
8	2SBKM2802	RIVET: $\varnothing 2.40$ *L5.10,POM,BRASS $\triangle C$	2
7	2SBKU31R0	FIXED SEAT: $\varnothing 13.00$ *L28.20,CD384,PC+PBT,BLACK $\triangle C$	1
6	2SBKD36R0	FIXED SEAT: $\varnothing 13.00$ *L25.30,CD13,PC+PBT,BLACK $\triangle C$	1
5	2LC17PF802-9	TUBE: $\varnothing 2.80$ *L4.60,KIRSITE,NI-PLATED	1
4	2LC17PF802-6	INSULATION: $\varnothing 2.30$ *T0.70,PTFE,WHITE	1
3	2LC17PF802-5	TNC PIN: $\varnothing 1.70$ *L14.80,BRASS,Au-PLATED	1
2	2LC17PF802-2	TNC PLUG: $\varnothing 14.50$ *L20.20,BRASS,BLACK	1
1	2C5R17811BN1	COAXIAL CABLE: RG178,50Ω,SILVER TIN WIRE,BROWN	1
No.	PART NUMBER	PART NAME AND DESCRIPTION	Q'TY

GENERAL TOLERANCE: UNLESS OTHERWISE SPECIFIED LINEAR: 0.5 < L ≤ 6 ± 0.05 6 < L ≤ 30 ± 0.10 30 < L ≤ 120 ± 0.20 ANGULAR: 0 < L ≤ 10 ± 1°30' 10 < L ≤ 50 ± 1°00' 50 < L ≤ 120 ± 0°30'		FILE TYPE: PRODUCT DRAWING	Dongguan HUANGJIE Communication Technology Co., Ltd. 东莞市皇捷通讯科技有限公司	
		DRA./DATE: S.He 23.10.20	TITLE: EXTERNAL ANTENNA,COVER BLACK, COPPER TUBE+COPPER TUBE, RG178 CABLE+RP-TNC PLUG(WIFI-2.4G)	
		CHE./DATE:	CODE: 3D5201BK06-001	
		APP./DATE:		
FILE FORM: HJ-QR-E-03 22.09.01	SIZE: A4	UNIT: mm	PRO.: 3rd	SCALE: 1:2 PAGE: 1/1

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DONGGUAN HUANG JIE COMMUNICATION TECHNOLOGY CO., LTD.

2400-2500MHz External antenna

Gel antenn 3D5201BK06-001



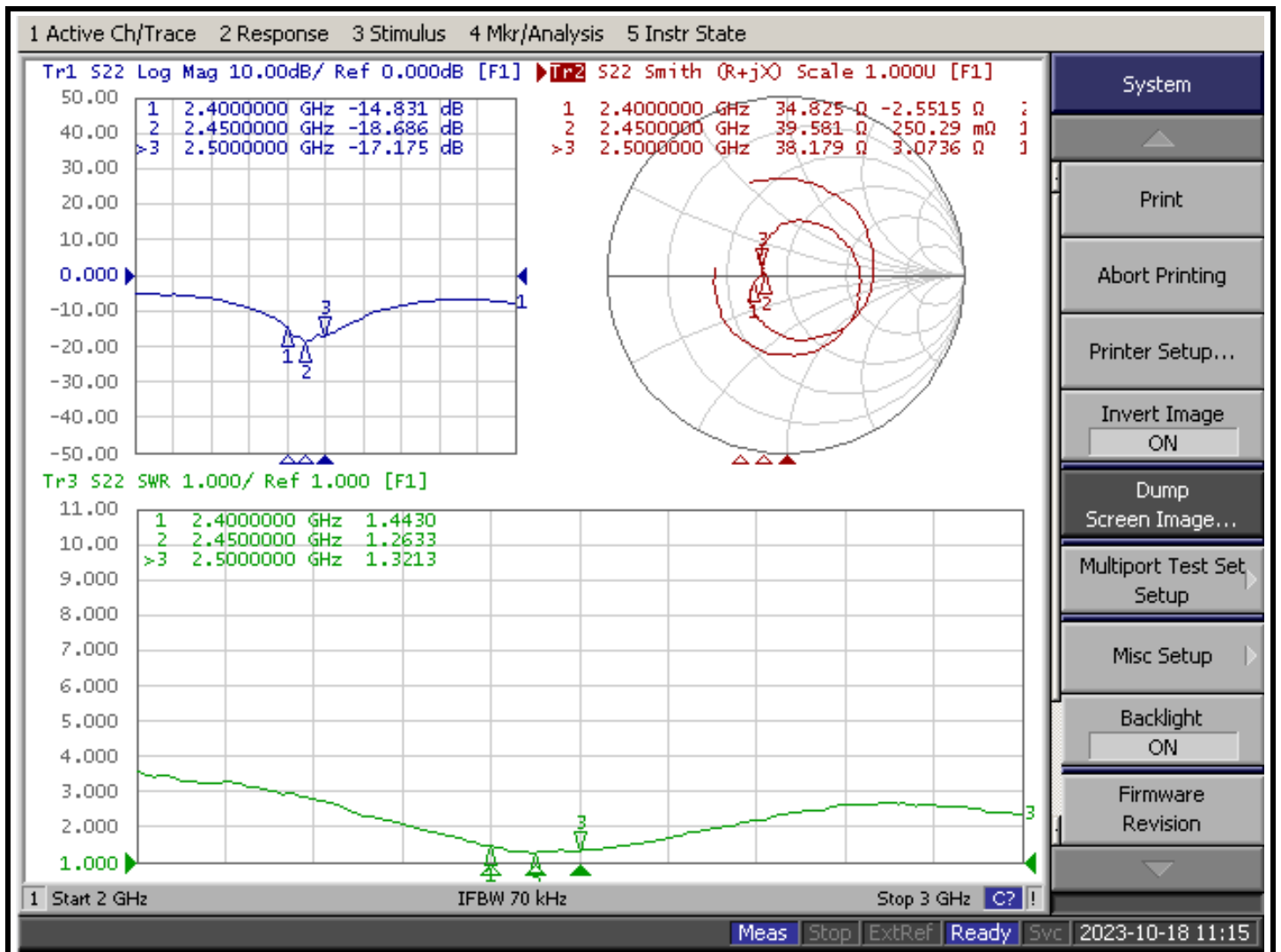
Model NO	3D5201BK06-001
Electric Spec	
Frequency rang-MHz	2400-2500MHz
Bandwidth -MHz	See waveform diagram for details
Gain -dBi	2-3.04 DBI
VSWR	2400-2500MHz ≤ 2.0
Impedance- Ω	50
Connector model	/
CABLE Spec	/
Mechanical Specification	
Size -mm	240.0*14.5mm
Antenna weight-kg	/
Working Temperature - $^{\circ}$ c	-40~60
Radome color	BLACK



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Antenna Electrical Characteristic Test Report

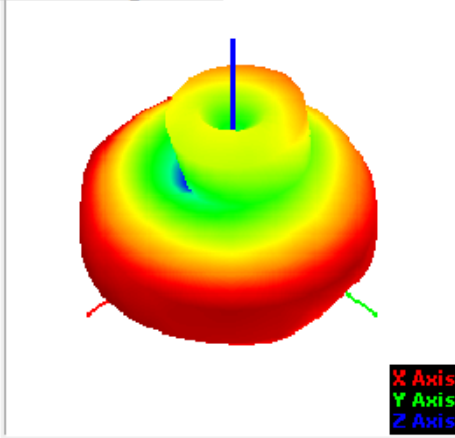
Part Number:	3D5201BK06-001	Item	Spec	Judge
Part Name:	5005-WiFi	VSWR	≤ 2.0	pass
Test Equipment	Network analyzer/ microwave darkroom	Characteristic impedance	50 Ω	pass
Q uantity	2pcs	Gain	2-3dBi	pass
Test Date	2023/10/17			



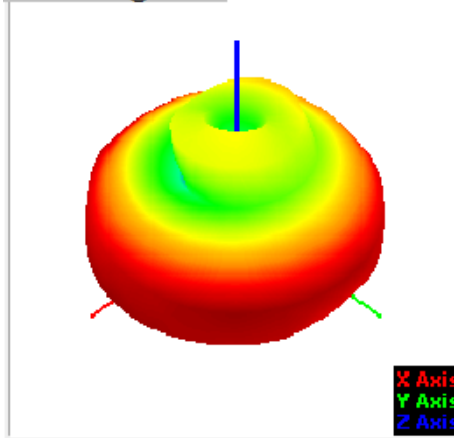


Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-2.16	-2.05	-2.45	-2.06	-2.11	-2.19	-2.34	-2.29	-2.31	-2.18	-2.35
Peak EIRP (dBm)	2.96	3.04	2.58	2.94	2.74	2.68	2.64	2.82	2.84	2.92	2.69
Directivity (dBi)	5.12	5.09	5.02	5.00	4.85	4.88	4.99	5.12	5.14	5.11	5.04
Efficiency (dB)	-2.16	-2.05	-2.45	-2.06	-2.11	-2.19	-2.34	-2.29	-2.31	-2.18	-2.35
Efficiency (%)	60.80	62.40	64.65	65.91	67.04	66.04	65.96	64.18	63.55	60.50	58.20
Gain (dBi)	2.96	3.04	2.58	2.94	2.74	2.68	2.64	2.82	2.84	2.92	2.69

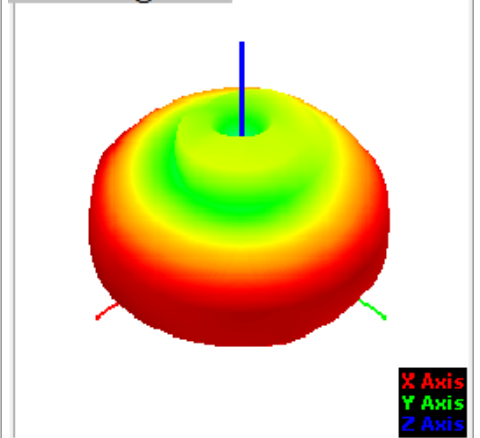
2400.00MHz@T45P45



2450.00MHz@T45P45



2500.00MHz@T45P45



Checked by	何修明	Tested by	SQW
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