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

DONGGUAN HUANGJIE COMMUNICATION TECHNOLOGY CO., LTD.

东莞市皇捷通讯科技有限公司

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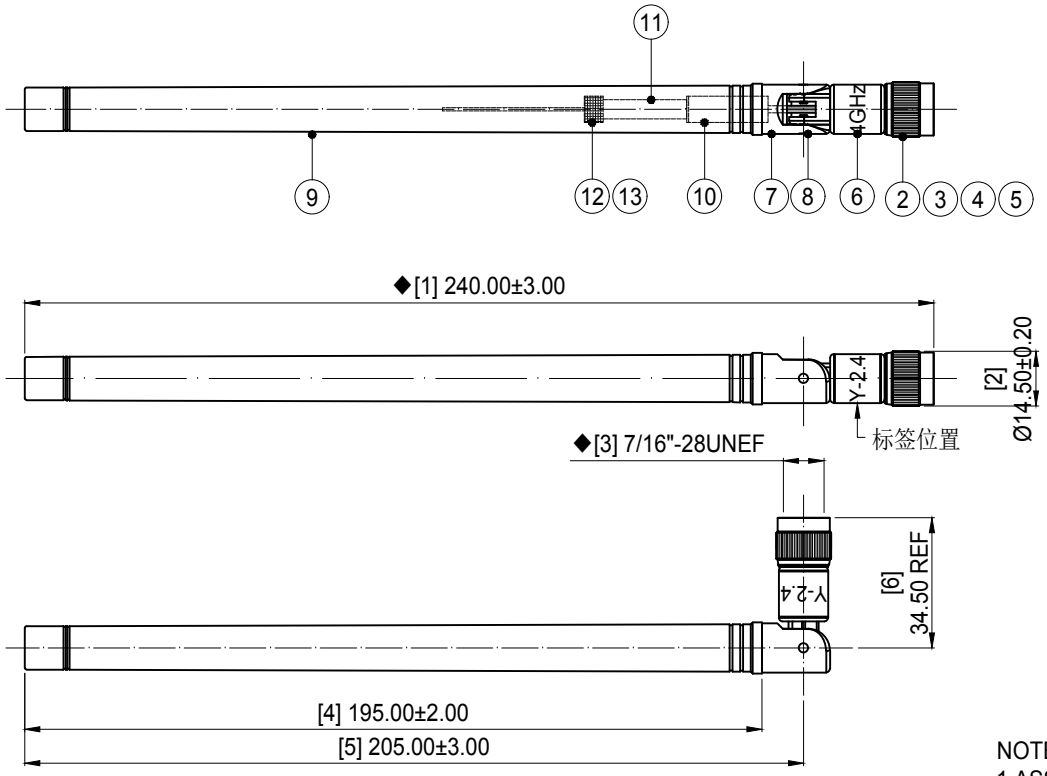
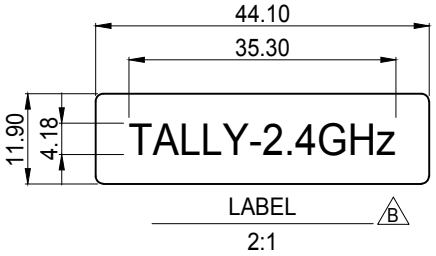
H431	REV.	RELEASE AND CHANGE SUMMARY	DATE
	A	FIRST ISSUE	2023.10.20
	B	LABEL BACKGROUND COLOR, FONT COLOR	2023.11.29
	C	COVER SPRAY BLACK PAINT	2023.12.12





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.

No.	PART NUMBER	PART NAME AND DESCRIPTION	Q'TY
14	2FZ7109	LABEL：44.10*11.90,PET △B	1
13	2MH106	FOAM：L45.00*W10.00*T1.00,EVA,BLACK+3M 9448A	1
12	2MH011	FOAM：Ø5.50*T5.00,EVA,BLACK	1
11	2YG041	COPPER TUBE：Ø5.00*L27.10,BRASS	1
10	2YG223	COPPER TUBE：Ø7.00*L28.50,BRASS	1
9	2SBKG5200-5	COVER：Ø13.60*L195.00,TPE,BLACK △C	1
8	2SBKM2802	RIVET：Ø2.40*L5.10,POM,BRASS△C	2
7	2SBKU31R0	FIXED SEAT：Ø13.00*L28.20,CD384,PC+PBT,BLACK△C	1
6	2SBKD36R0	FIXED SEAT：Ø13.00*L25.30,CD13,PC+PBT,BLACK △C	1
5	2LC17PF802-9	TUBE：Ø2.80*L4.60,KIRSITE,Ni-PLATED	1
4	2LC17PF802-6	INSULATION：Ø2.30*T0.70,PTFE,WHITE	1
3	2LC17PF802-5	TNC PIN：Ø1.70*L14.80,BRASS,Au-PLATED	1
2	2LC17PF802-2	TNC PLUG：Ø14.50*L20.20,BRASS,BLACK	1
1	2C5R17811BN1	COAXIAL CABLE：RG178,50Ω,SILVER TIN WIRE,BROWN	1

BOM

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
DRA./DATE: S.He 23.10.20
CHE./DATE:
APP./DATE:
FILE FORM: HJ-QR-E-03 22.09.01

Dongguan HUANGJIE Communication Technology Co., Ltd.
东莞市皇捷通讯科技有限公司
TITLE: EXTERNAL ANTENNA,COVER BLACK, COPPER TUBE+COPPER TUBE, RG178 CABLE+RP-TNC PLUG(WiFi-2.4G)
CODE: 3D5201BK06-001

SIZE:	UNIT:	PRO.:	SCALE:	PAGE:
A4	mm	3rd	1:2	1/1

0 10 20

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DONGGUAN HUANG JIE COMMUNICATION TECHNOLOGY CO., LTD.

2400-2500MHz External antenna

Gel antenn 3D5201BK06-001

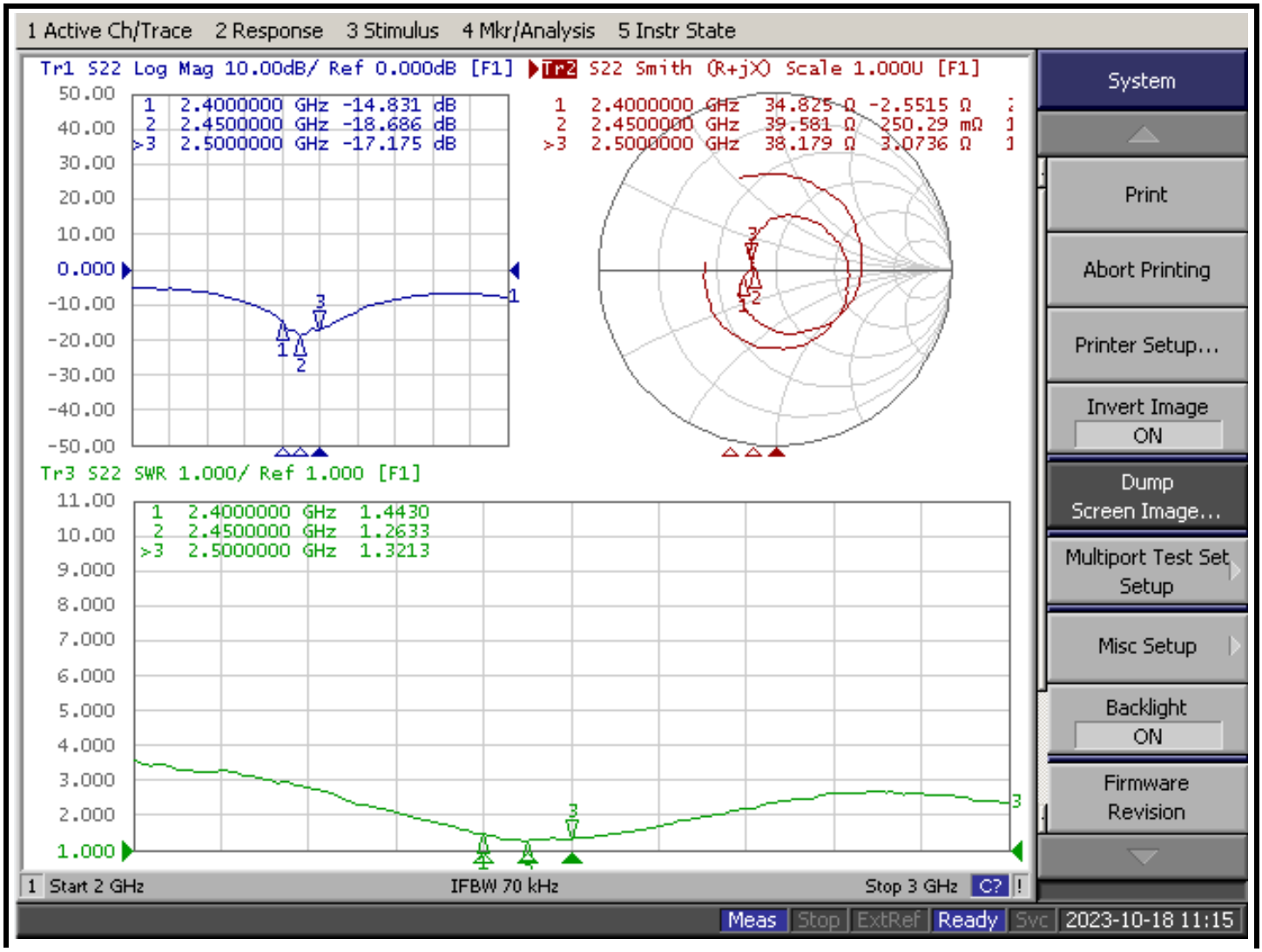
Model NO	3D5201BK06-001
Electric Spec	
Frequency rang-MHz	2400-2500MHz
Bandwidth -MHz	See waveform diagram for details
Gain -dBi	2-3.04 DBI
VSWR	2400-2500MHz ≤2.0
Impedance-Ω	50
Connector model	/
CABLE Spec	/

Mechanical Specification	
Size -mm	240.0*14.5mm
Antenna weight-kg	/
Working Temperature -° c	-40～60
Radome color	BLACK

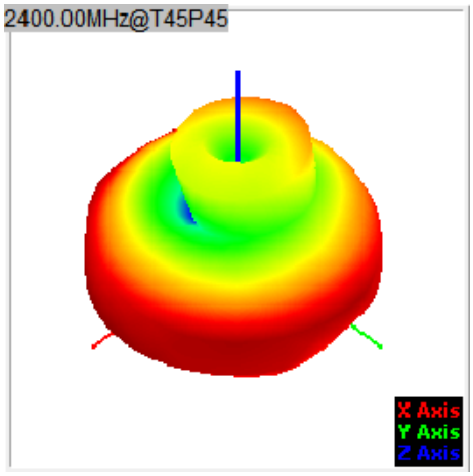
东莞市皇捷通讯科技有限公司

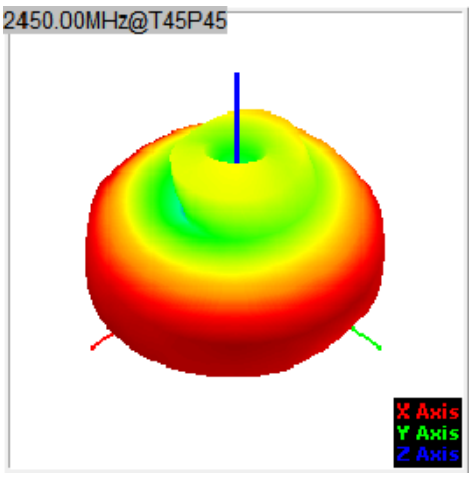
Antenna Electrical Characteristic Test Report

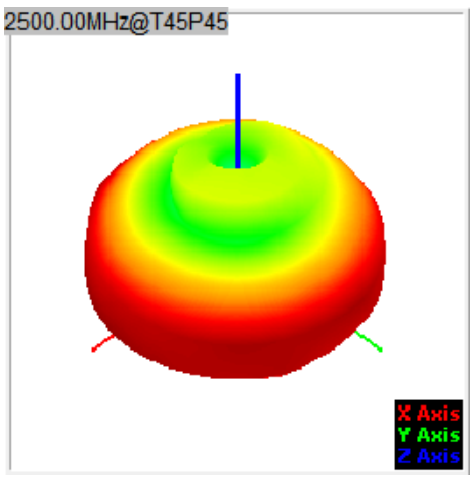
Part Number:	3D5201BK06-001	Item	Spec	Judge
Part Name:	5005-WiFi	VSWR	≤2.0	pass
Test Equipment	Network analyzer/ microwave darkroom	Characteristic impedance	50Ω	pass
Quantity	2pcs	Gain	2-3dBi	pass
Test Date	2023/10/17			



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







Checked by	何修明	Tested by	SQW