



上海增信电子有限公司
Signal Plus Technology Co., Ltd.

规格承认书
SPECIFICATION FOR APPROVAL

日期
DATE: 2023.04.07

版本
REV.: C

客 户
CUSTOMER: DAVO LINK

客 户 料 号
CUSTOMER P/N:

品 名
PART NAME: Internal PCB FR4 Ant, 2.4G&5G 1.37 low loss black cable 120mm
with RF CONN for DVW-632

供 方 料 号
SUPPLIER P/N: 6307F00020

送样日期Date: 送样数量Q'TY: Pcs

客户确认CUSTOMER APPROVED BY		
核准 Approved by	审核 Checked by	拟制 Prepared by

供方确认SUPPLIER SIGNATURE		
核准 Approved by	审核 Checked by	拟制 Prepared by
Jack		andy

ZX-QT-RD-0011-A1

Add:上海市徐汇区桂箐路69号30栋605室 Tel:021-54266190 Fax:021-54266191

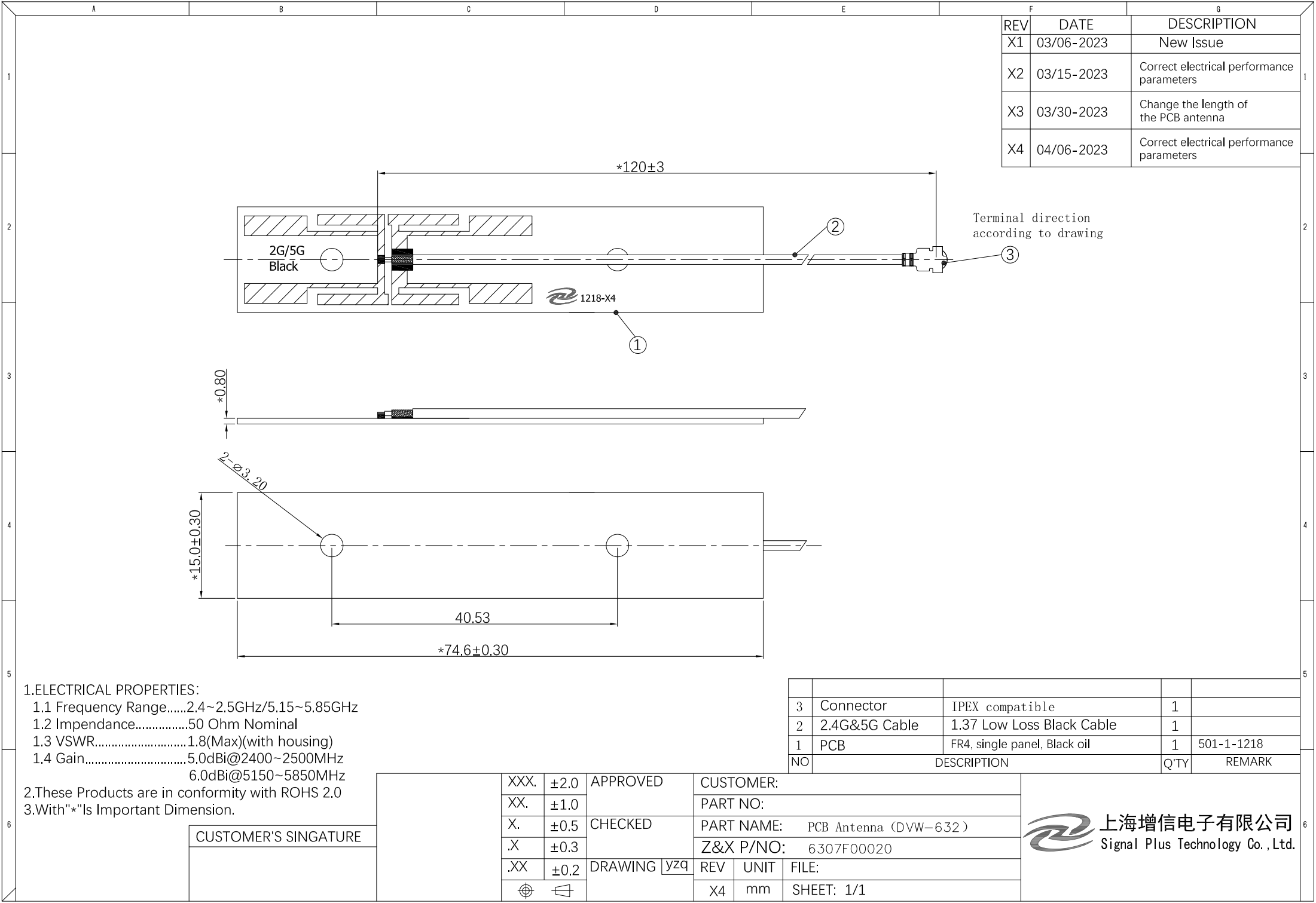
Specification

1. Electrical Properties :

- 1.1 Frequency Range.....2400~2500MHz & 5150~5850MHz
- 1.2 Impedance 50 Ω
- 1.3 VSWR ≤ 1.8
- 1.5 Gain 5dBi @ 2400~2500MHz
6dBi @ 5150~5850MHz

2. Physical Properties :

- 2.1 Cable..... RF 1.37
- 2.2 Connector IPEX compatible
- 2.3 Operating Temp. -20°C ~ +65°C
- 2.4 Storage Temp. -30°C ~ +75°C





上海增信电子有限公司
Signal Plus Technology Co., Ltd.

Antenna Test Report

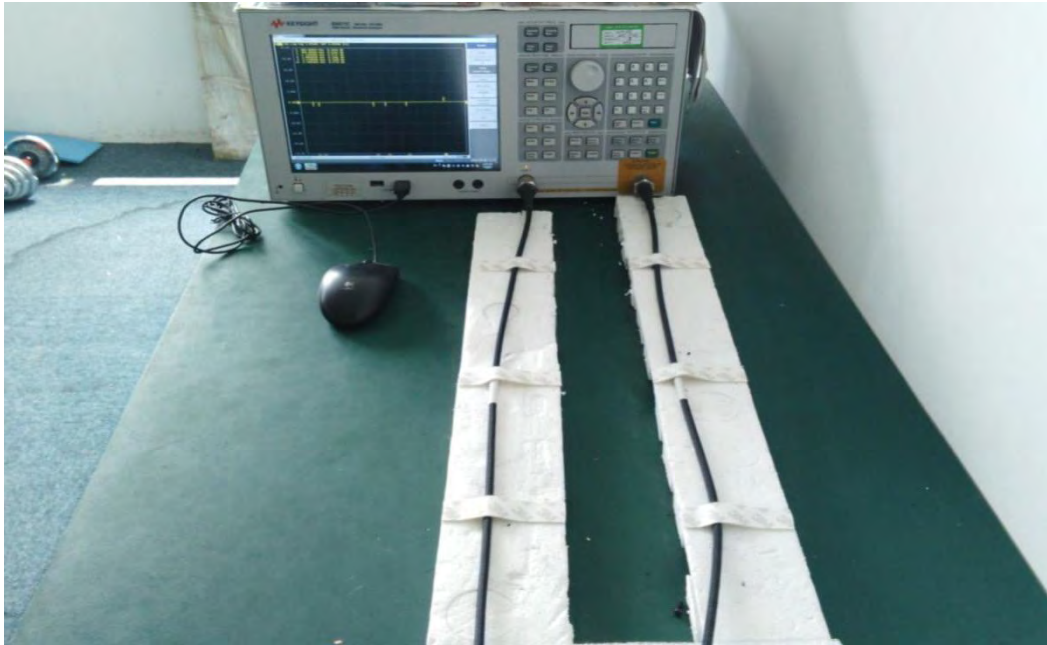
DVW-632

1. RF Fixture Experiment

1.1 Test Setup

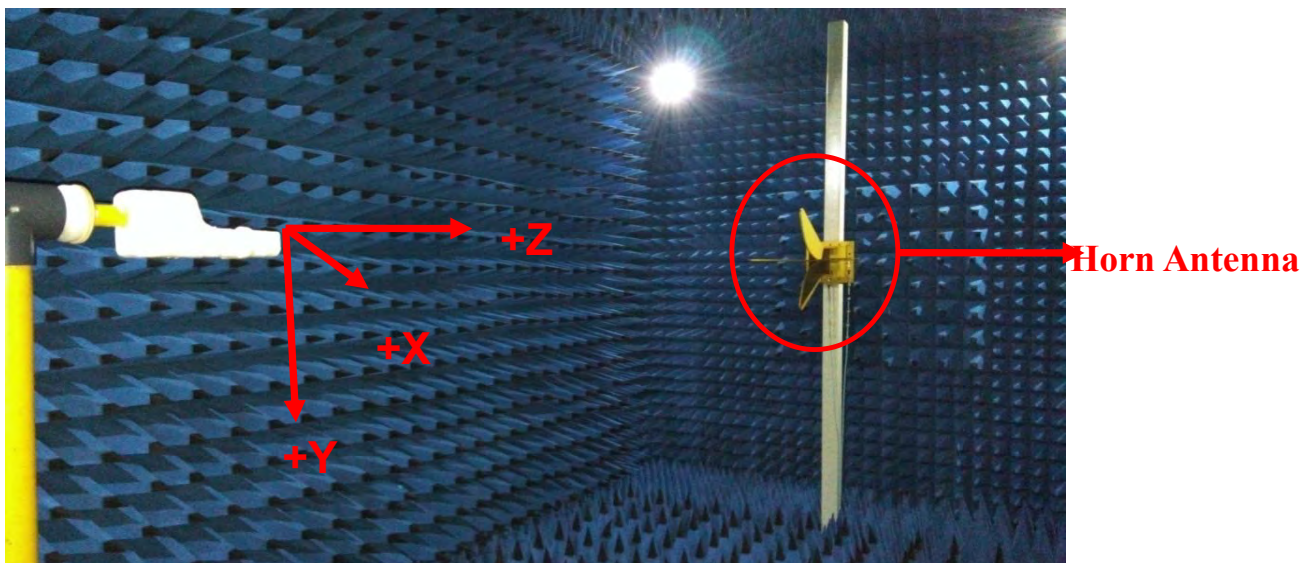
1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S_{11}) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

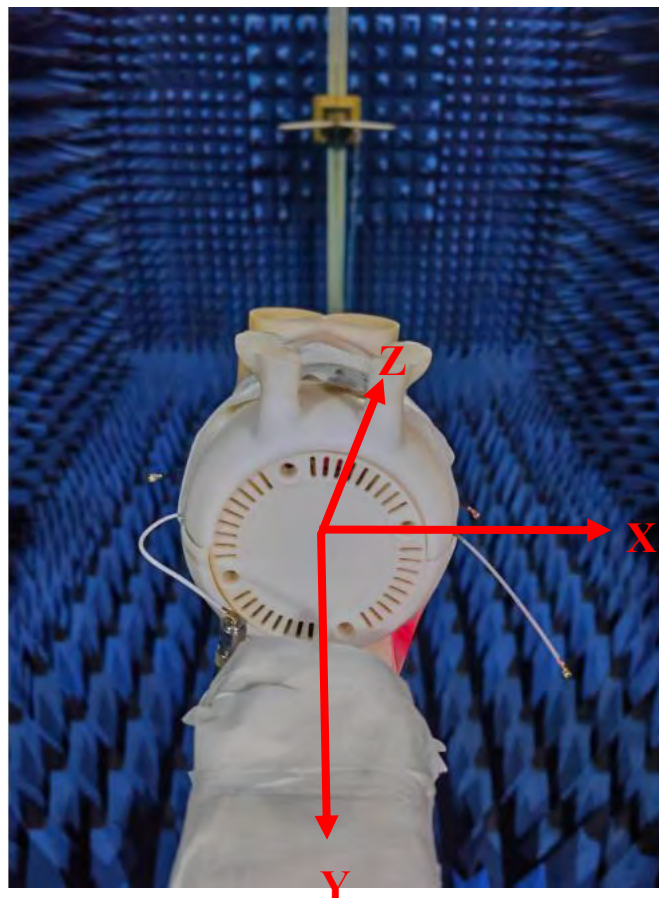


1.1.2 Anechoic Chamber Test Setup

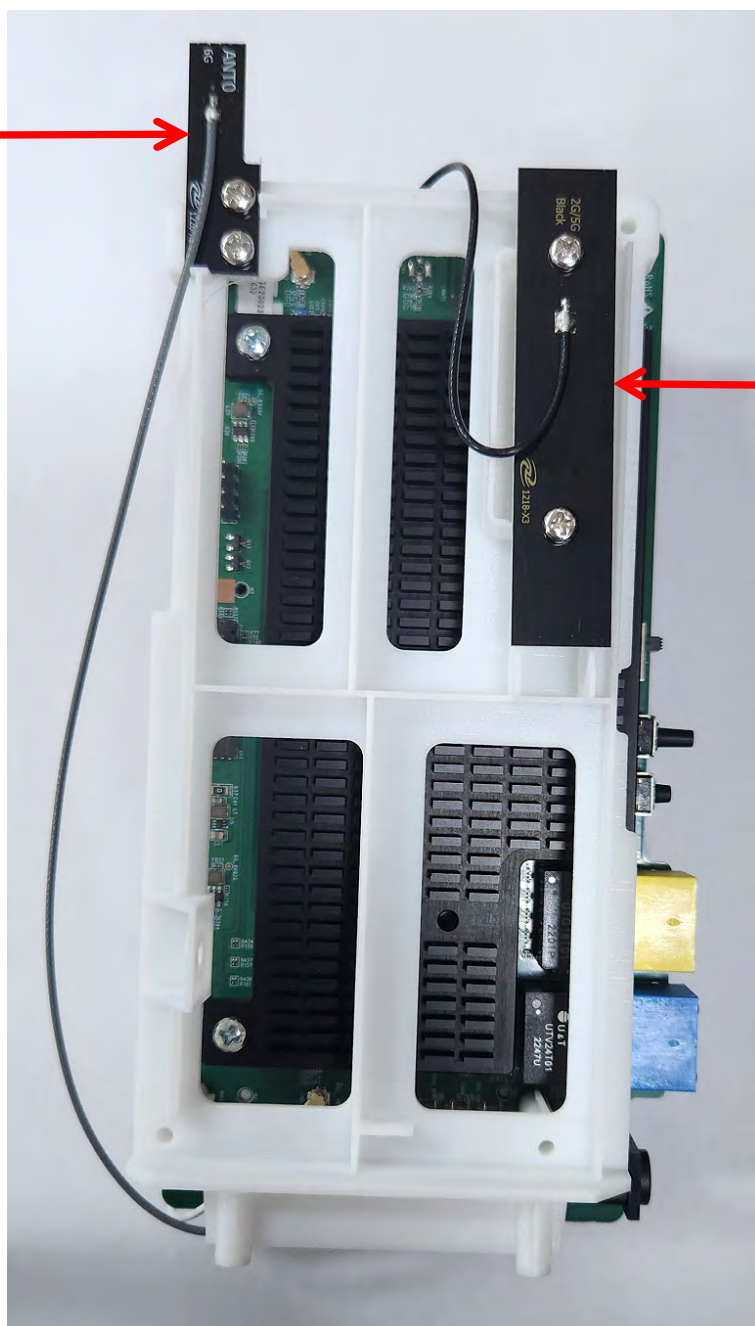
The gain of the antenna was measured in the anechoic chamber. The chamber provides less than -30 dB reflectivity from 400 MHz through 6 GHz. The chamber size is: 7m*4m*3m. The measurement results are calibrated using a leaky wave horn standard. We can measure the antenna gain and efficiency accurately.



2. Antenna Solution

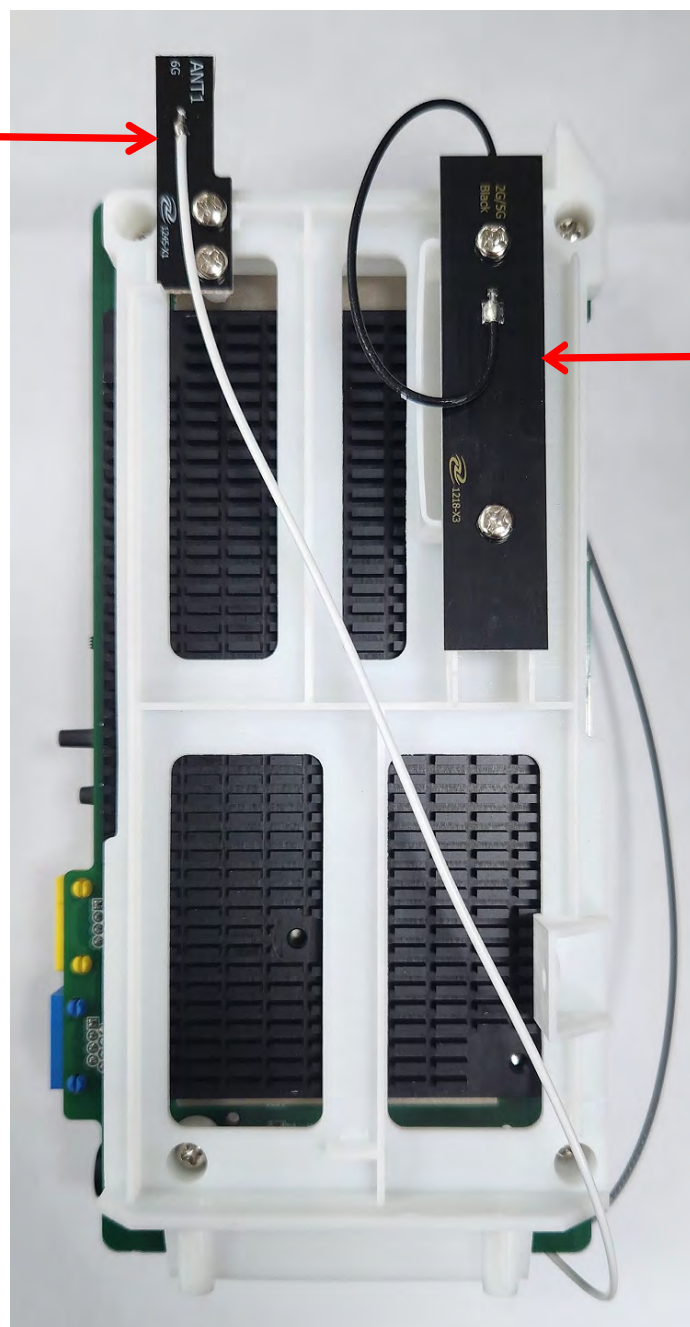


Ant0 6G
240mm Cable



Ant1 2&5G
120mm Cable

Ant1 6G
250mm Cable



Ant0 2&5G
120mm Cable

Data Preview

Ant0-2&5G 120mm Cable

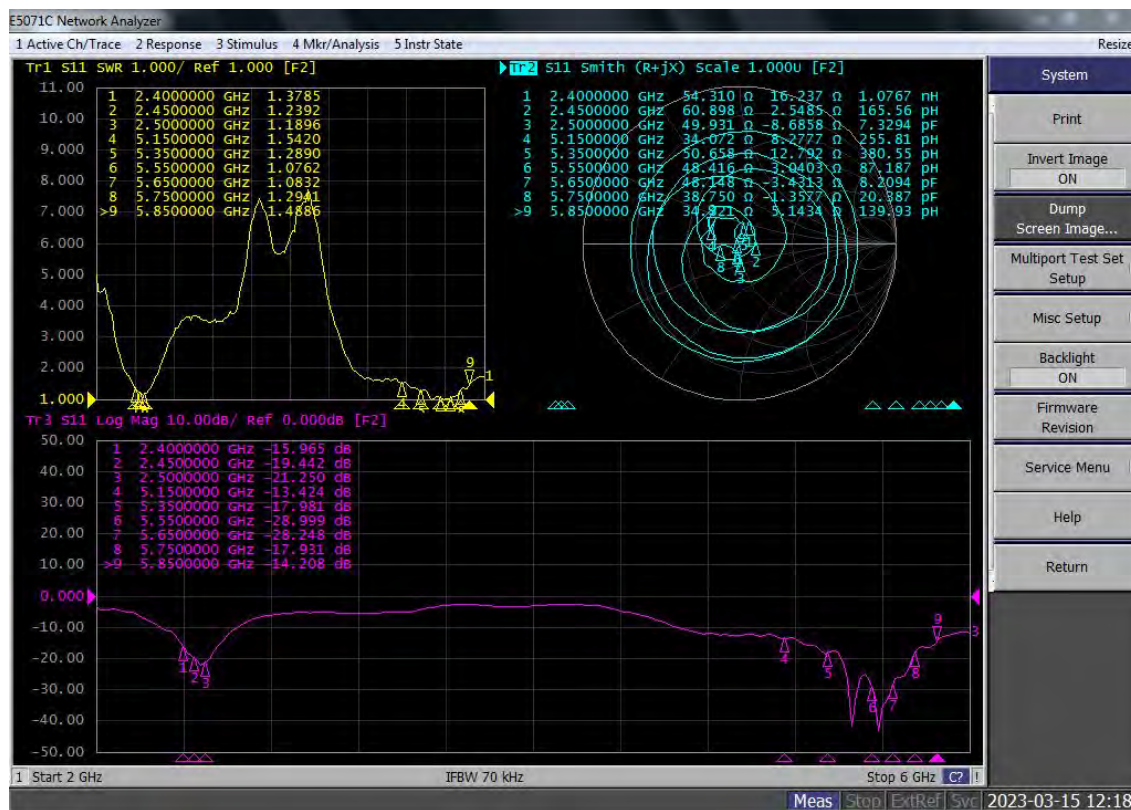
Freq.(MHz)	2400	2450	2500	5150	5350	5550	5650	5750	5850
VSWR	1.38	1.24	1.19	1.54	1.29	1.08	1.08	1.29	1.49
Gain(dBi)	5.84	5.96	5.91	5.76	6.17	6.55	6.14	6.58	6.42
Eff. (%)	76.20	78.70	78.30	78.50	77.80	75.90	70.80	74.10	75.60

Ant1-2&5G 120mm Cable

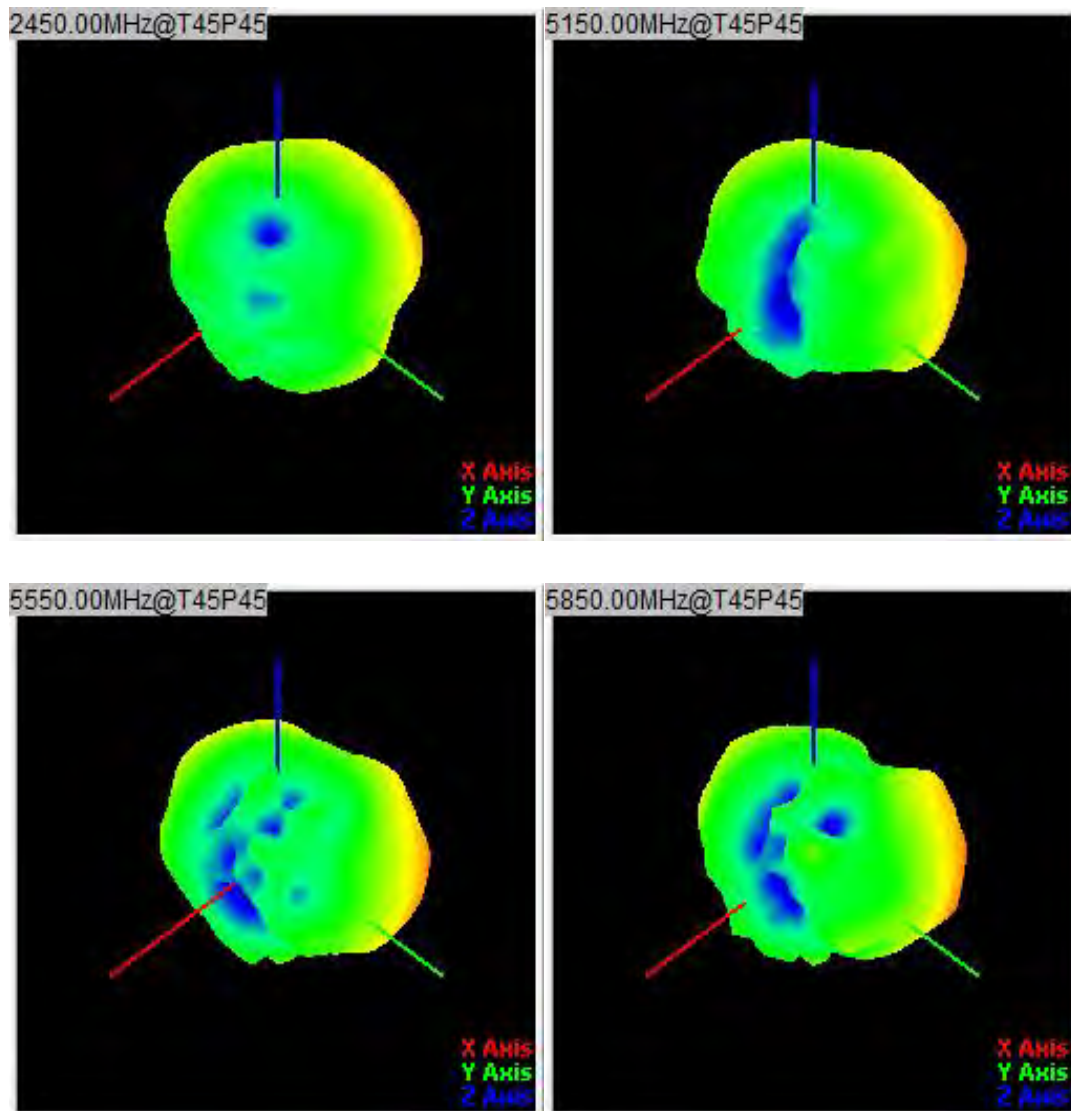
Freq.(MHz)	2400	2450	2500	5150	5350	5550	5650	5750	5850
VSWR	1.14	1.05	1.26	1.73	1.23	1.18	1.14	1.25	1.14
Gain(dBi)	5.78	5.92	5.86	6.43	6.63	6.67	6.00	6.36	6.55
Eff. (%)	77.00	79.30	80.60	79.00	79.30	76.70	70.50	74.80	79.00

S11:

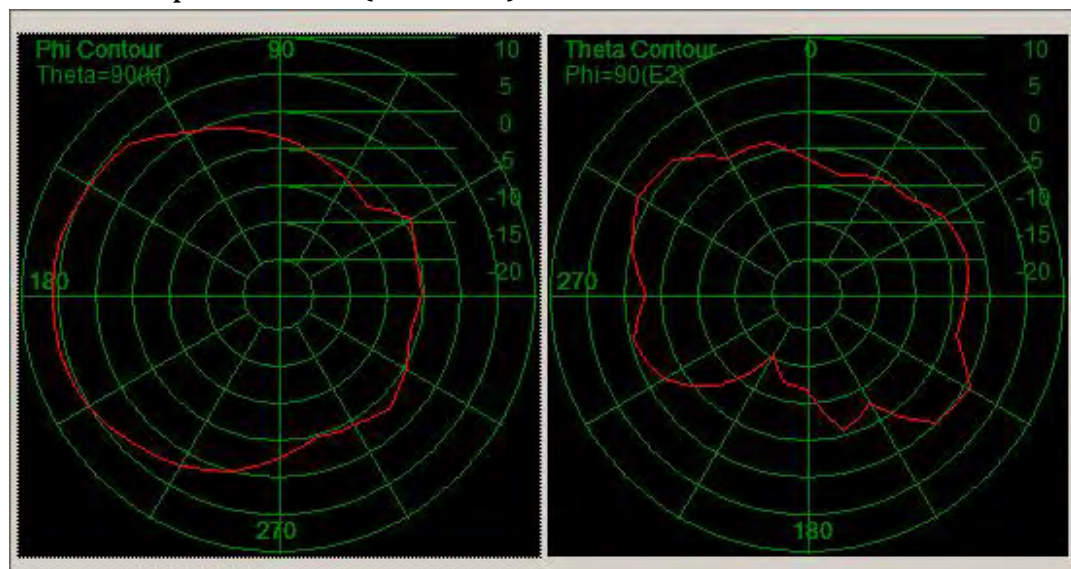
Ant0-2&5G 120mm Cable



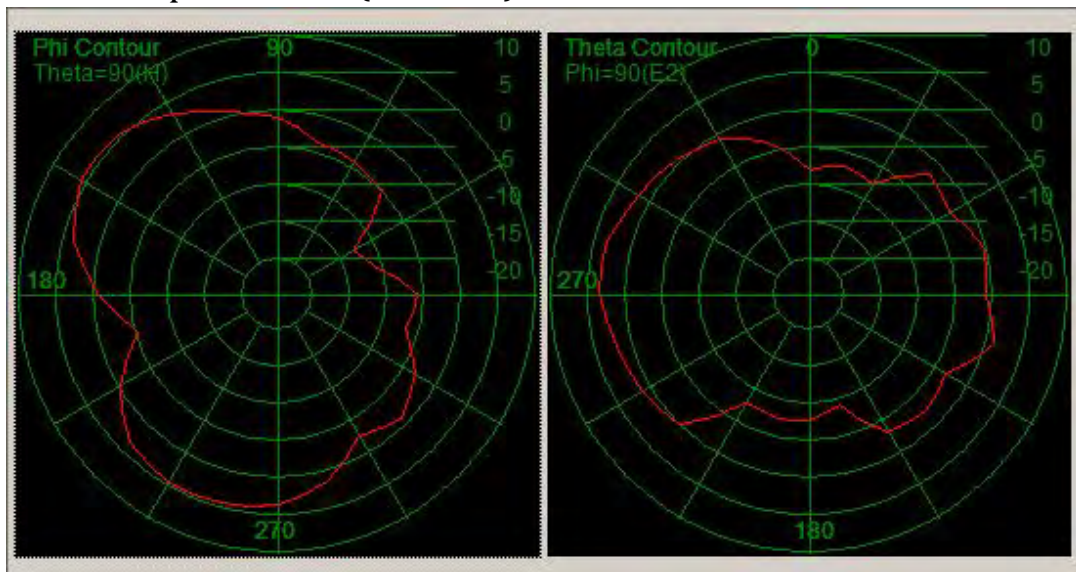
Radiation patterns:3D



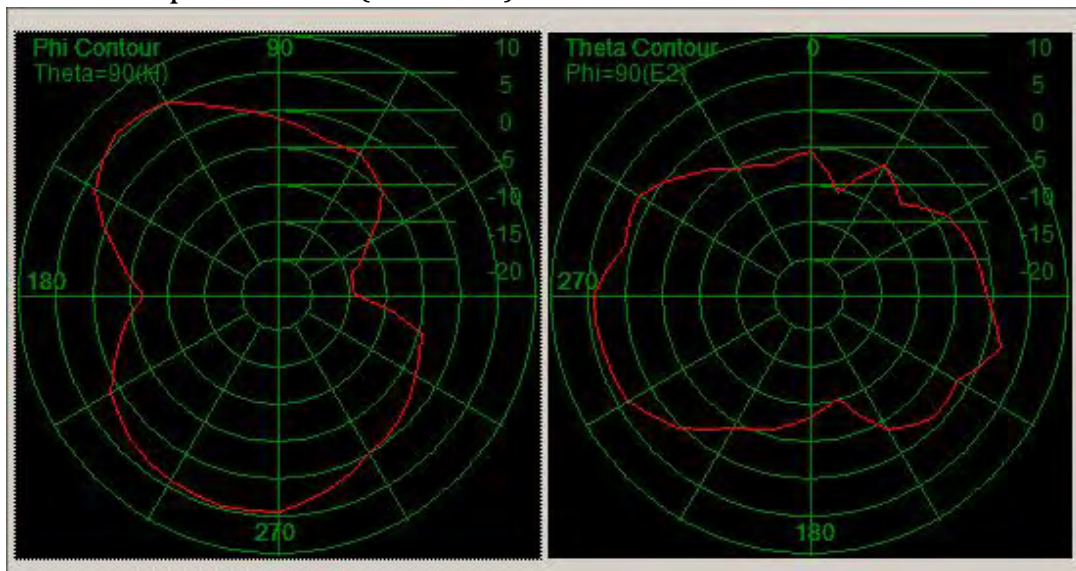
Radiation patterns:2D(2450MHz)



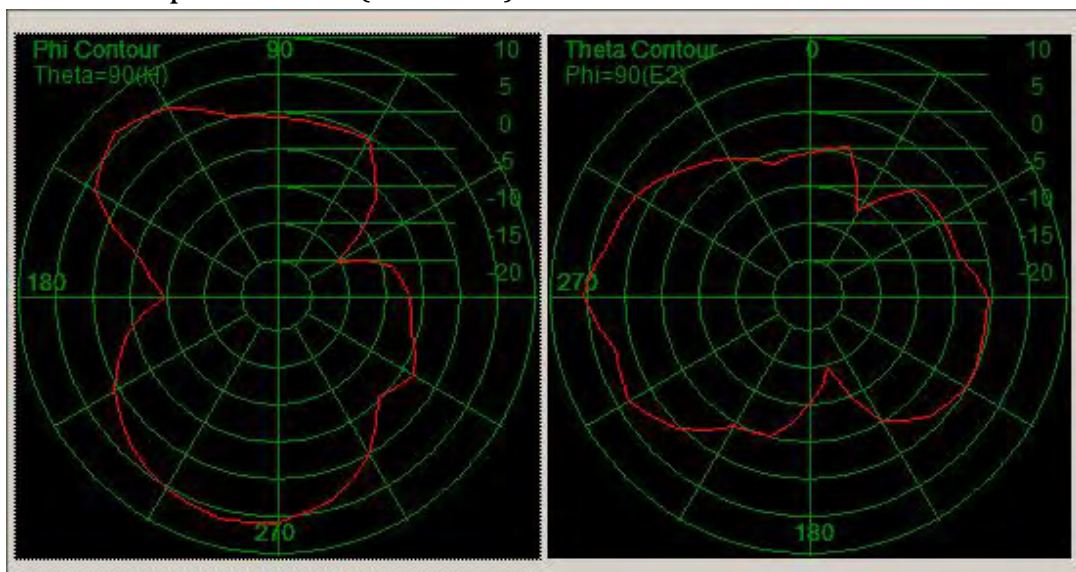
Radiation patterns:2D(5150MHz)



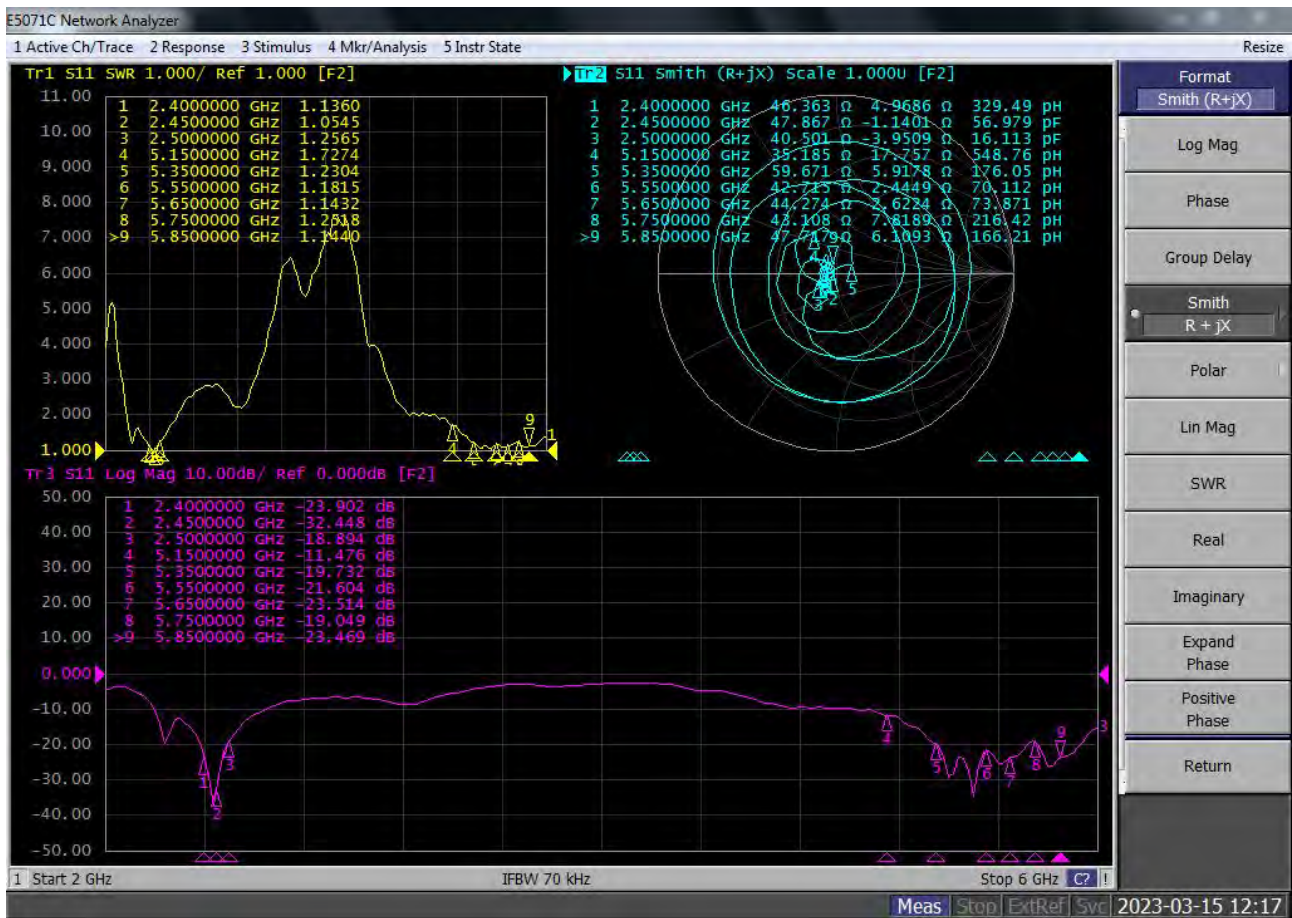
Radiation patterns:2D(5550MHz)



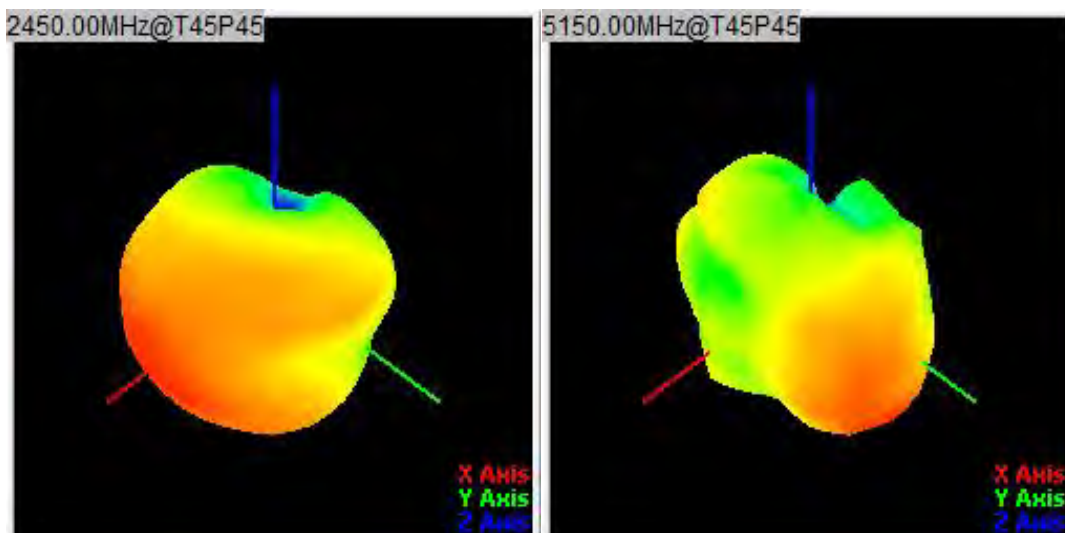
Radiation patterns:2D(5850MHz)

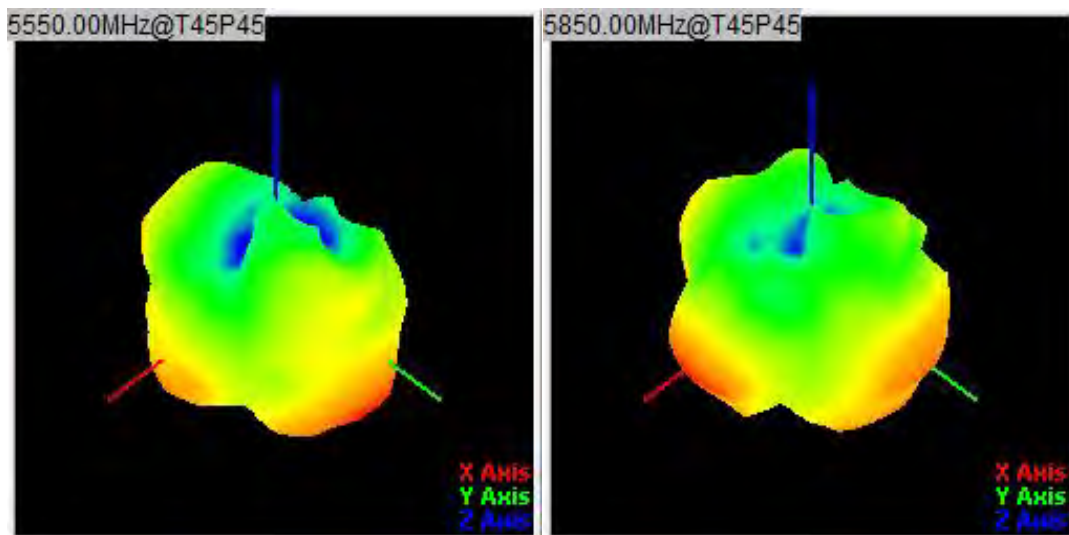


S11:
Ant1-2&5G 120mm Cable

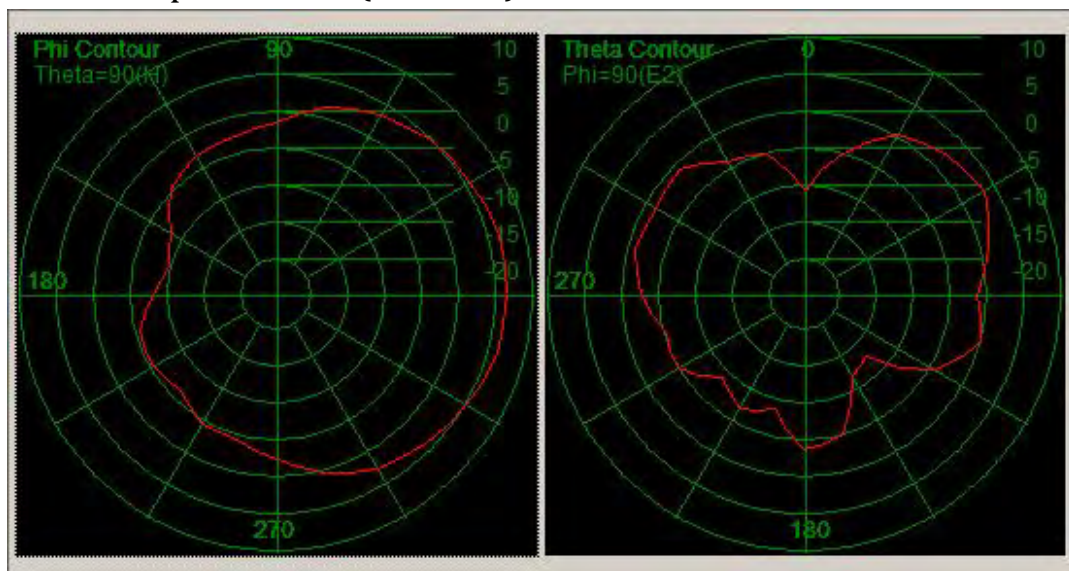


Radiation patterns:3D

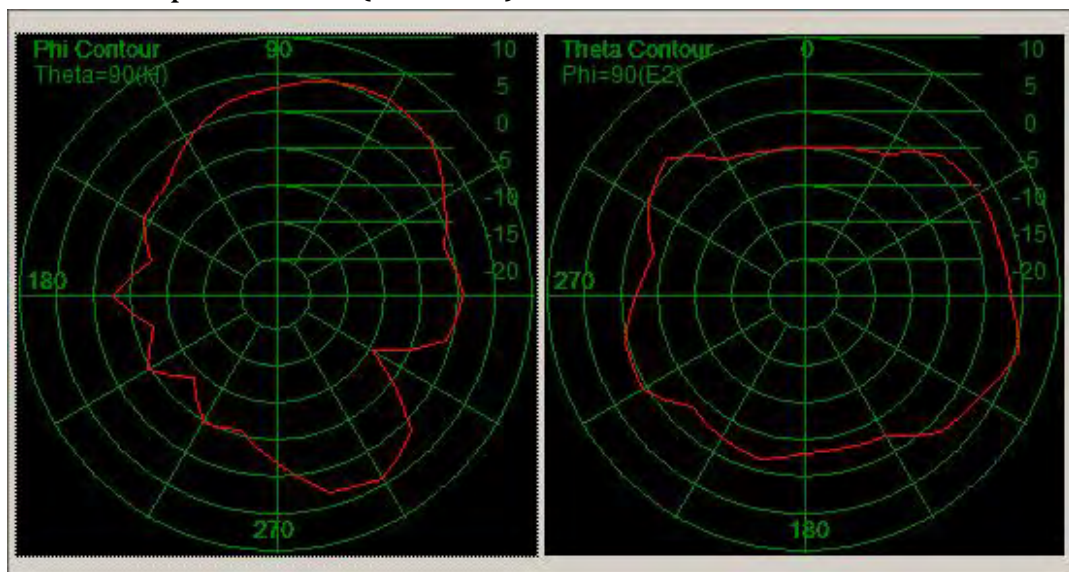




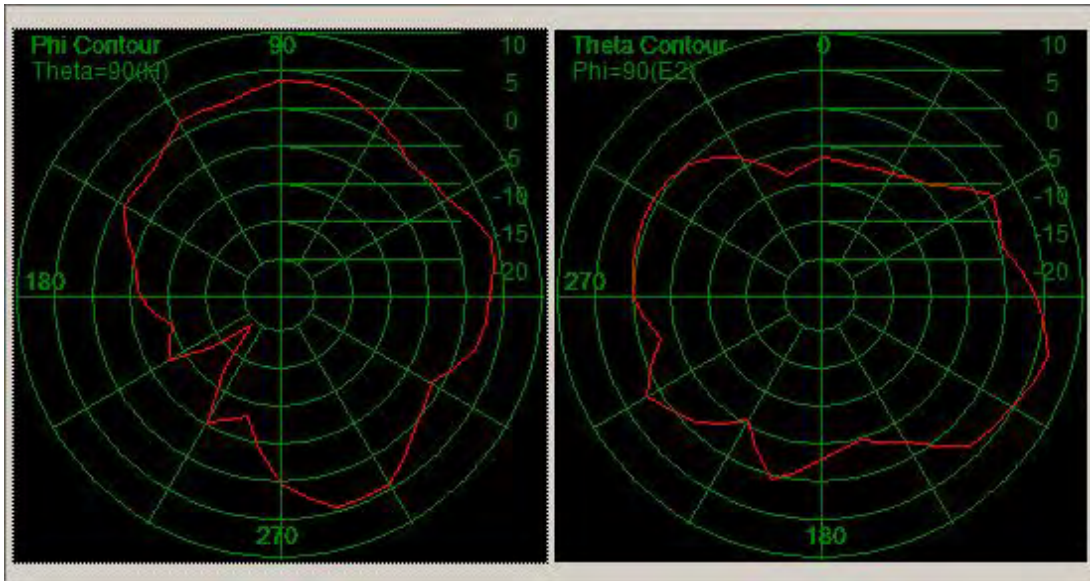
Radiation patterns:2D(2450MHz)



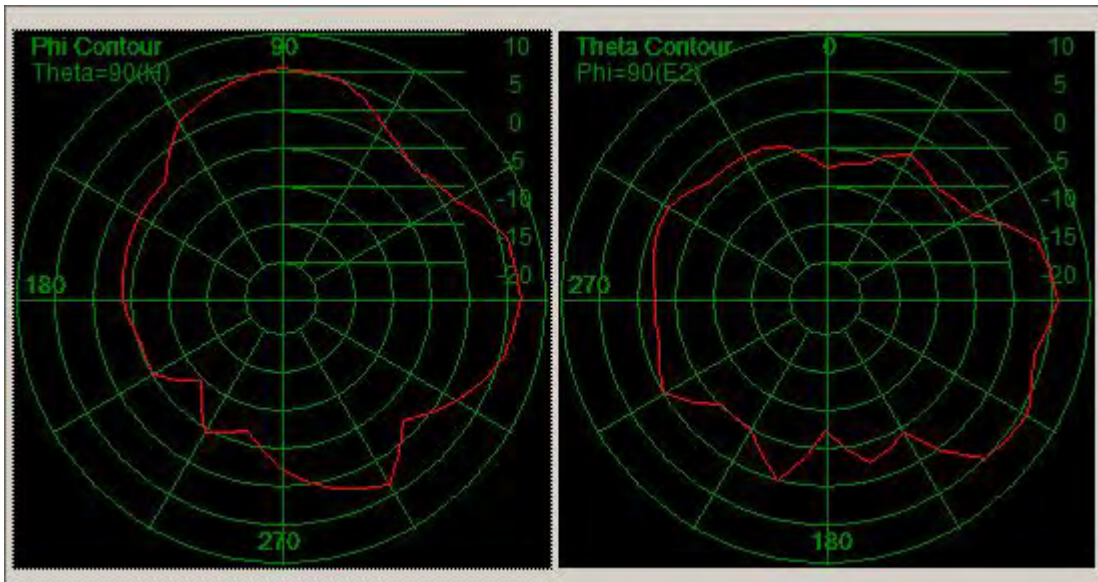
Radiation patterns:2D(5150MHz)



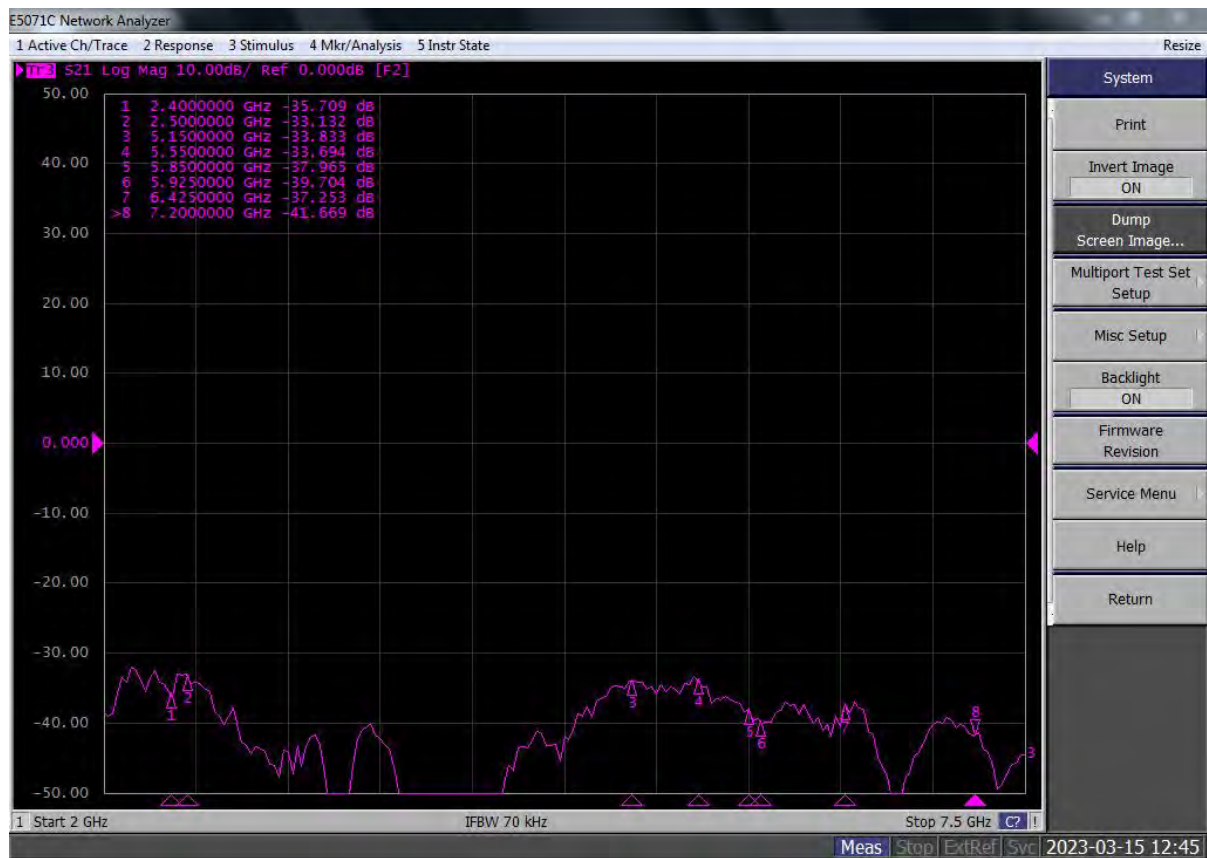
Radiation patterns:2D(5550MHz)



Radiation patterns:2D(5850MHz)



S21-2&5G0,1



S21-2&5G0,6G0



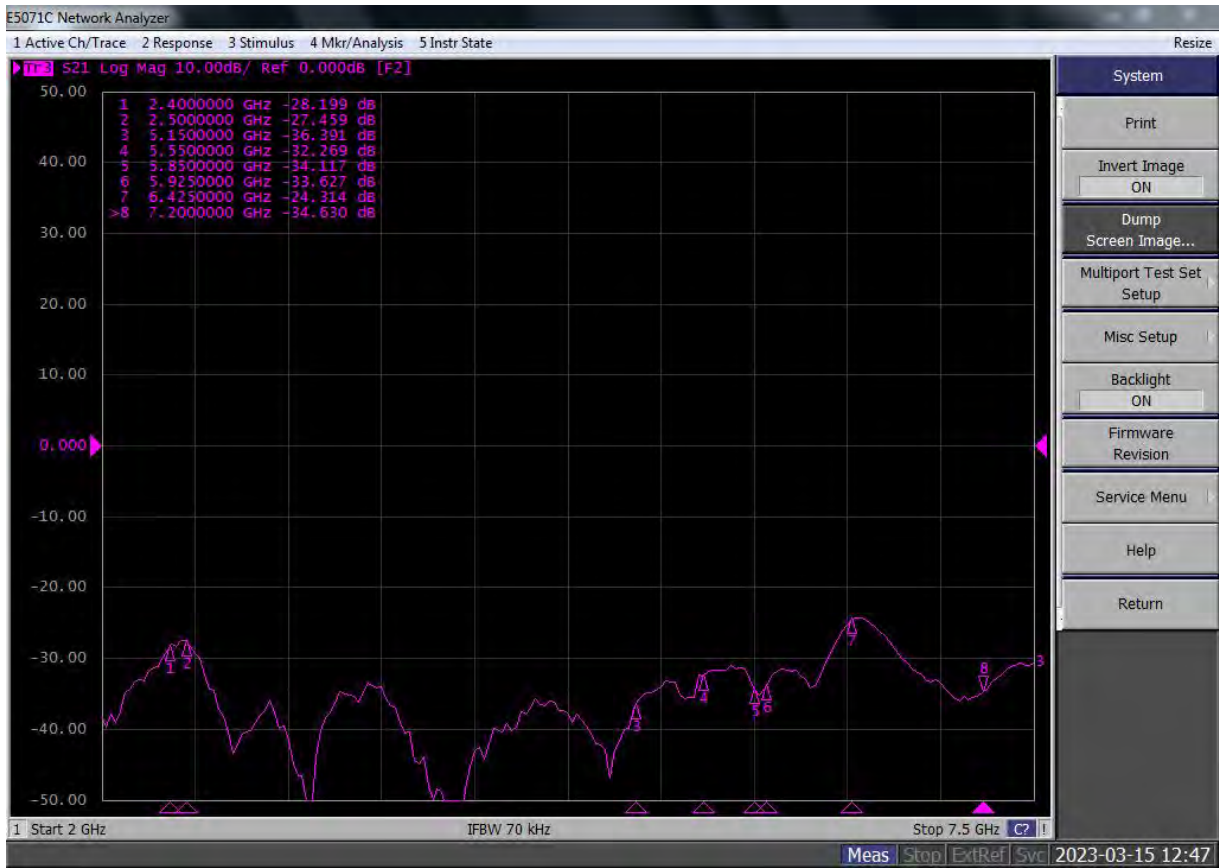
S21-2&5G0,6G1



S21-2&5G1,6G0



S21-2&5G1,6G1



Signal Plus Technology Co.,Ltd.

FAI full size inspection report

No:QIP230304

Customer Name	Davo Link			Product Name	PCB Antenna				Date	April 04, 2023					
Customer P/I	/			Signal Plus P/N	6307F00020				Material	/					
NO.	Size	tolerance		Sample number								Measure Tool	Judgement		
		Upper limit	Lower limit	1	2	3	4	5							
1	74.6.0±0.3	74.9	74.3	74.56	64.63	74.68	74.66	74.57						a	■OK □NG
2	3.20±0.03	3.23	3.17	3.21	3.21	3.2	3.21	3.21						a	■OK □NG
3	40.53±0.2	40.73	40.33	40.52	40.51	40.51	40.52	40.51						a	■OK □NG
4	15.0±0.3	15.3	14.7	15.01	15.02	15.03	15.02	15.02						a	■OK □NG
5	0.80±0.03	0.83	0.77	0.81	0.81	0.8	0.82	0.81						a	■OK □NG
6	120±3	123	117	121.2	121.4	120.8	120.6	121.5						I	■OK □NG
Remark:															

※Measuring tools: A.Vernier caliper B.Quadratic element C.Depth gauge D.Tool microscope E.Thickness gauge F.micrometer G.torsion meter H.Drawing test machine I. Steel rule

Approved: 唐剑剑

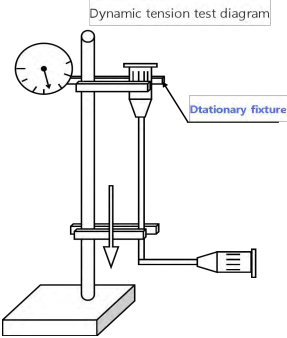
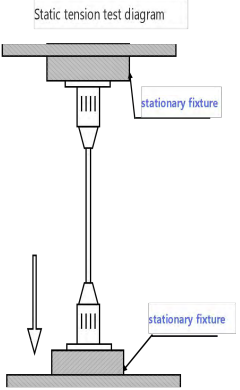
Prepared : 王莲

Review: 韦颖

Signal Plus Technology Co,Ltd.

Reliability Test Report

Report No.:20230325001

Customer Name	Davo Link	Test Date	25 th Mar, 2023		
Product Name	PCB Antenna	Sample Q'TY	5PCS		
Part No.	6307F00020	Edition	/		
Test Purpose	Verify Pad Tension	Test Purpose	/		
Test Item : Tension Test Place: laboratory Test Standard : <u>Reference AQA-SIP-C5036-009</u> Test SPEC Pad Tension $\cong$ 2.0 kgf Equipment : <u>Tension Testing Machine ZP-200</u> Conclusion Due Date : <u>16th Feb, 2024</u>		Test status diagram:  			
Sample before test		Sample after test			
					
Test Result:					
Sample	Sample1	Sample2	Sample3	Sample4	Sample5
Appearance :					
Connector Tension $\cong$ 1.0kgf	3.34	3.25	3.21	3.05	3.13
Judgement : OK					
Mark : The pull is far beyond the standard pull					

Approved :唐剑剑

Review : 王莲

Prepared: 李敬

Reliability Test Report

Report No.: 20230325012

Customer Name	Davo Link	Test Date	23-25 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	2PCS
Part No.	6307F00020	Edition	/
Test Purpose	Verify Appearance	Test Purpose	/

Test Item: salt spray test Place: laboratory Test Standard: <u>GB/T 2423.17</u> Test Time: <u>48H</u> Test SPEC: Temperate <u>35°C</u> Salt-liquor thickness: <u>5%</u> Equipment: Salt spray tester Conclusion Due Date : 16th April, 2023	Test status diagram:
---	-----------------------------

Sample before test	sample after test

Test Result										
Sample	Sample1	Sample2								
Come away	OK	OK								
Oxidation	OK	OK								
VSWR	OK	OK								

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 庞会芳

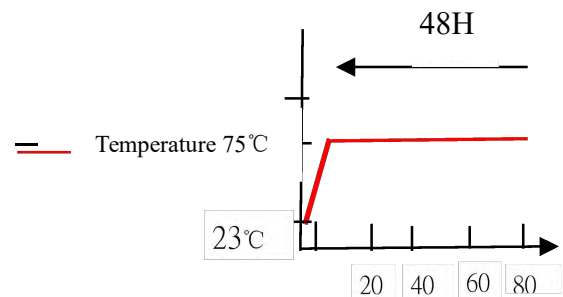
Reliability Test Report

Report No.: HT230324004

Customer Name	Davo Link	Test Date	22-24 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	3PCS
Part No.	6307F00020	Edition	/
Test Purpose	Verify Appearance	Batch number	NA

Test Item: high temperature test Place: laboratory
 Test Standard: GB/T 2423.3
 Test Time: 48H
 Test SPEC: Temperate 75°C
 Equipment: High temperature and high humidity testing machine

Test status diagram:



Sample before test

sample after test



Test Result

Sample	Sample1	Sample2	Sample 3						
Variation	ok	ok	ok						
Come Away	ok	ok	ok						
Crack	ok	ok	ok						

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 李敬

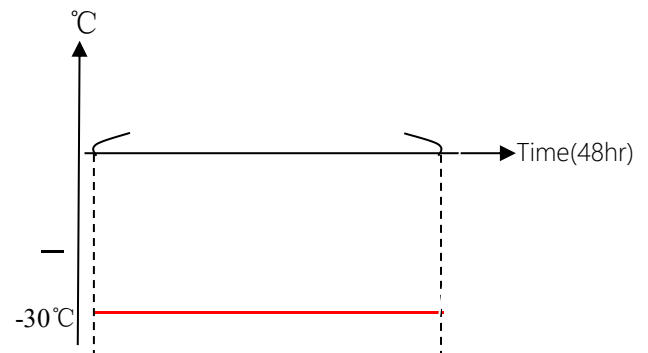
Reliability Test Report

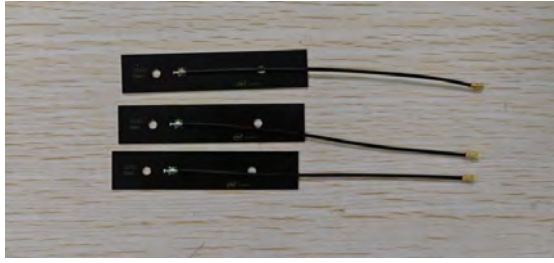
Report No.: LT230326004

Customer Name	Davo Link	Test Date	24-26 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	3PCS
Part No.	6307F00020	Edition	/
Test Purpose	Verify Appearance	Batch number	NA

Test Item: low temperature test Place: laboratory
 Test Standard: GB/T 2423.1
 Test Time: 48H
 Test SPEC: Temperate -30°C
 Equipment: TEMP&HUMI chamber

Test status diagram:



Sample before test	sample after test
	

Test Result

Sample	Sample1	Sample2	Sample 3						
Variation	ok	ok	ok						
Aberration	ok	ok	ok						
Crack	ok	ok	ok						

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 李敬

Signal Plus Technology Co,Ltd.

Reliability Test Report

Report No.:20230325005

Customer Name	Davo Link	Test Date	25 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	5PCS
Part No.	6307F00020	Edition	/
Test Purpose	Verify Connector Tension	Test Purpose	/

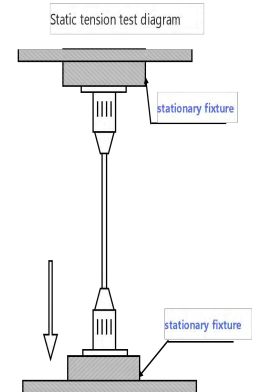
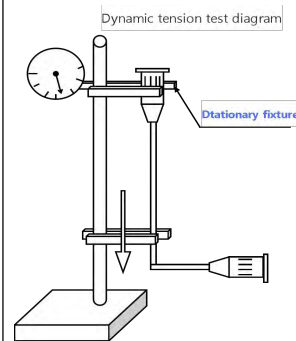
Test Item : Tension Test Place: laboratory

Test Standard : Reference AQA-SIP-C5036-009

Test SPEC

Connector Tension $\geq$ 1.0 kgfEquipment : Tension Testing Machine NK-300Conclusion Due Date : 2024.02.16

Test status diagram:



Sample before test

Sample after test



Test Result:

Sample	Sample1	Sample2	Sample3	Sample4	Sample5
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Appearance :

Connector Tension $\geq$ 1.0kgf	3.2	2.7	3.1	3.0	3.3
---------------------------------	-----	-----	-----	-----	-----

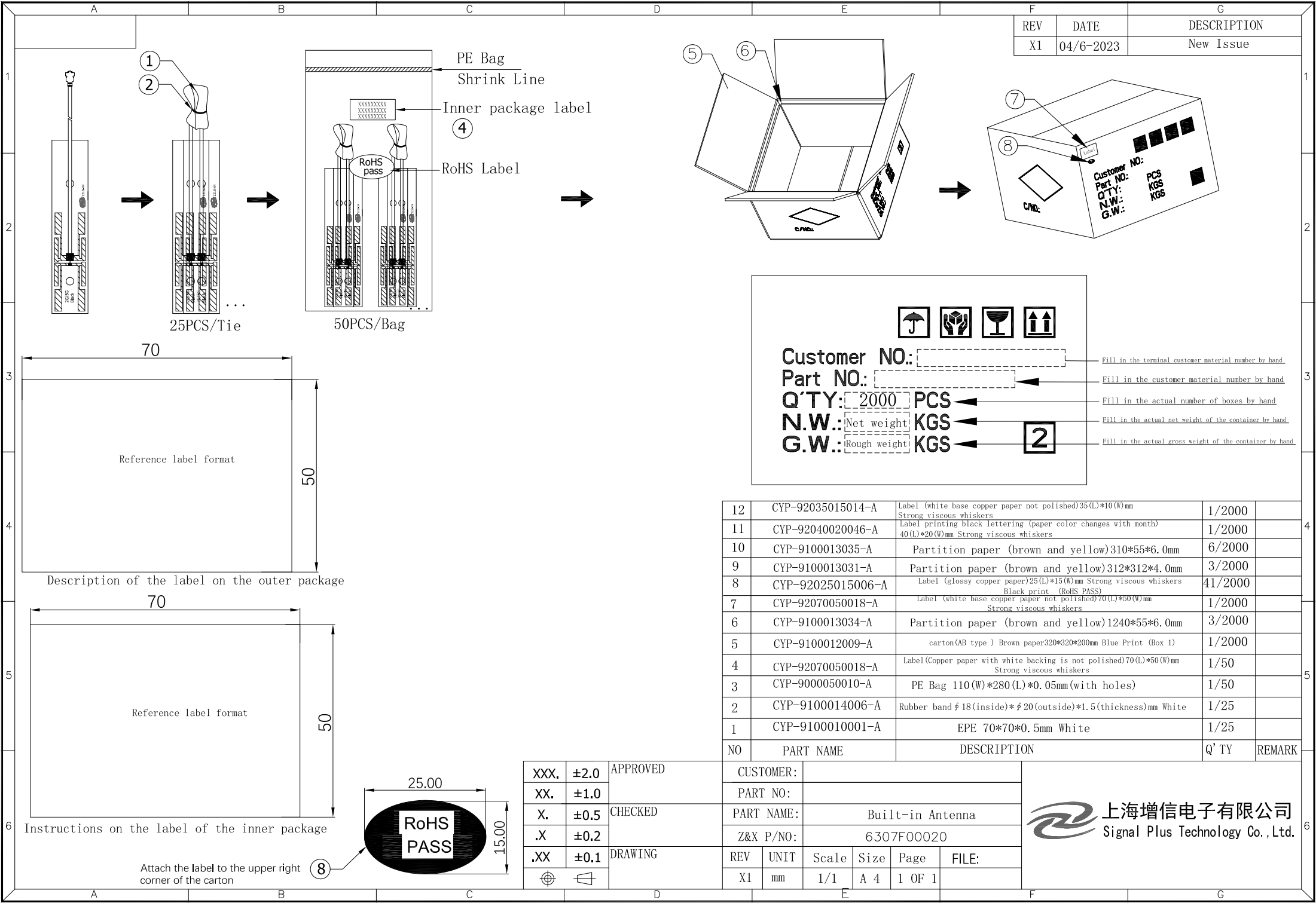
Judgement : OK

Mark : The pull is far beyond the standard pull

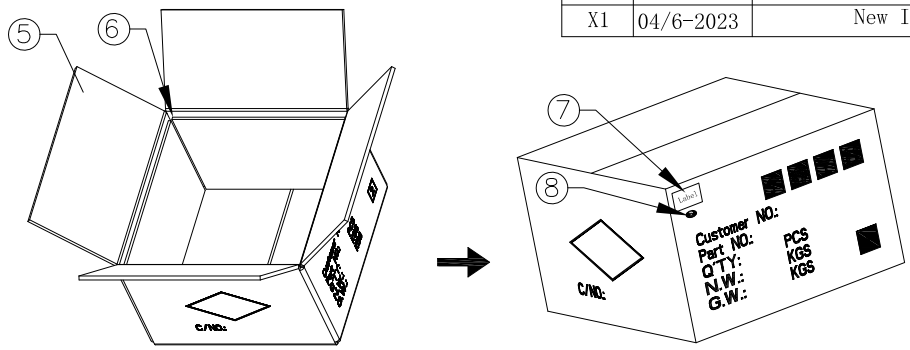
Approved :唐剑剑

Review : 王莲

Prepared: 王丹



REV	DATE	DESCRIPTION
X1	04/6-2023	New Issue



Customer NO.: []

Part NO.: []

Q'TY: 2000 PCS

N.W.: Net weight KGS

G.W.: Rough weight KGS

2

Fill in the terminal customer material number by hand

Fill in the customer material number by hand

Fill in the actual number of boxes by hand

Fill in the actual net weight of the container by hand

Fill in the actual gross weight of the container by hand

12	CYP-92035015014-A	Label (white base copper paper not polished)35(L)*10(W)mm Strong viscous whiskers	1/2000	
11	CYP-92040020046-A	Label printing black lettering (paper color changes with month) 40(L)*20(W)mm Strong viscous whiskers	1/2000	
10	CYP-9100013035-A	Partition paper (brown and yellow)310*55*6.0mm	6/2000	
9	CYP-9100013031-A	Partition paper (brown and yellow)312*312*4.0mm	3/2000	
8	CYP-92025015006-A	Label (glossy copper paper)25(L)*15(W)mm Strong viscous whiskers Black print (RoHS PASS)	41/2000	
7	CYP-92070050018-A	Label (white base copper paper not polished)70(L)*50(W)mm Strong viscous whiskers	1/2000	
6	CYP-9100013034-A	Partition paper (brown and yellow)1240*55*6.0mm	3/2000	
5	CYP-9100012009-A	carton(AB type) Brown paper320*320*200mm Blue Print (Box 1)	1/2000	
4	CYP-92070050018-A	Label(Copper paper with white backing is not polished)70(L)*50(W)mm Strong viscous whiskers	1/50	
3	CYP-9000050010-A	PE Bag 110(W)*280(L)*0.05mm(with holes)	1/50	
2	CYP-9100014006-A	Rubber band φ 18(inside)*φ 20(outside)*1.5(thickness)mm White	1/25	
1	CYP-9100010001-A	EPE 70*70*0.5mm White	1/25	
NO	PART NAME	DESCRIPTION	Q' TY	REMARK

上海增信电子有限公司
Signal Plus Technology Co., Ltd.

XXX.	±2.0	APPROVED	CUSTOMER:	
XX.	±1.0		PART NO:	
X.	±0.5	CHECKED	PART NAME:	Built-in Antenna
.X	±0.2		Z&X P/NO:	6307F00020
.XX	±0.1	DRAWING	REV	UNIT
			X1	mm
			Scale	1/1
			Size	A 4
			Page	1 OF 1
			FILE:	



上海增信电子有限公司
Signal Plus Technology Co., Ltd.

规格承认书
SPECIFICATION FOR APPROVAL

日期
DATE: 2023.04.07

版本
REV.: C

客 户
CUSTOMER: DAVO LINK

客 户 料 号
CUSTOMER P/N:

品 名
PART NAME: Internal PCB Teflon Ant, 6G-ANT0 1.37 low loss Gray cable 240mm
with RF CONN for DVW-632

供 方 料 号
SUPPLIER P/N: 6307F00012

送样日期Date: 送样数量Q'TY: Pcs

客户确认CUSTOMER APPROVED BY		
核准 Approved by	审核 Checked by	拟制 Prepared by

供方确认SUPPLIER SIGNATURE		
核准 Approved by	审核 Checked by	拟制 Prepared by
Jack		andy

ZX-QT-RD-0011-A1

Add:上海市徐汇区桂箐路69号30栋605室 Tel:021-54266190 Fax:021-54266191

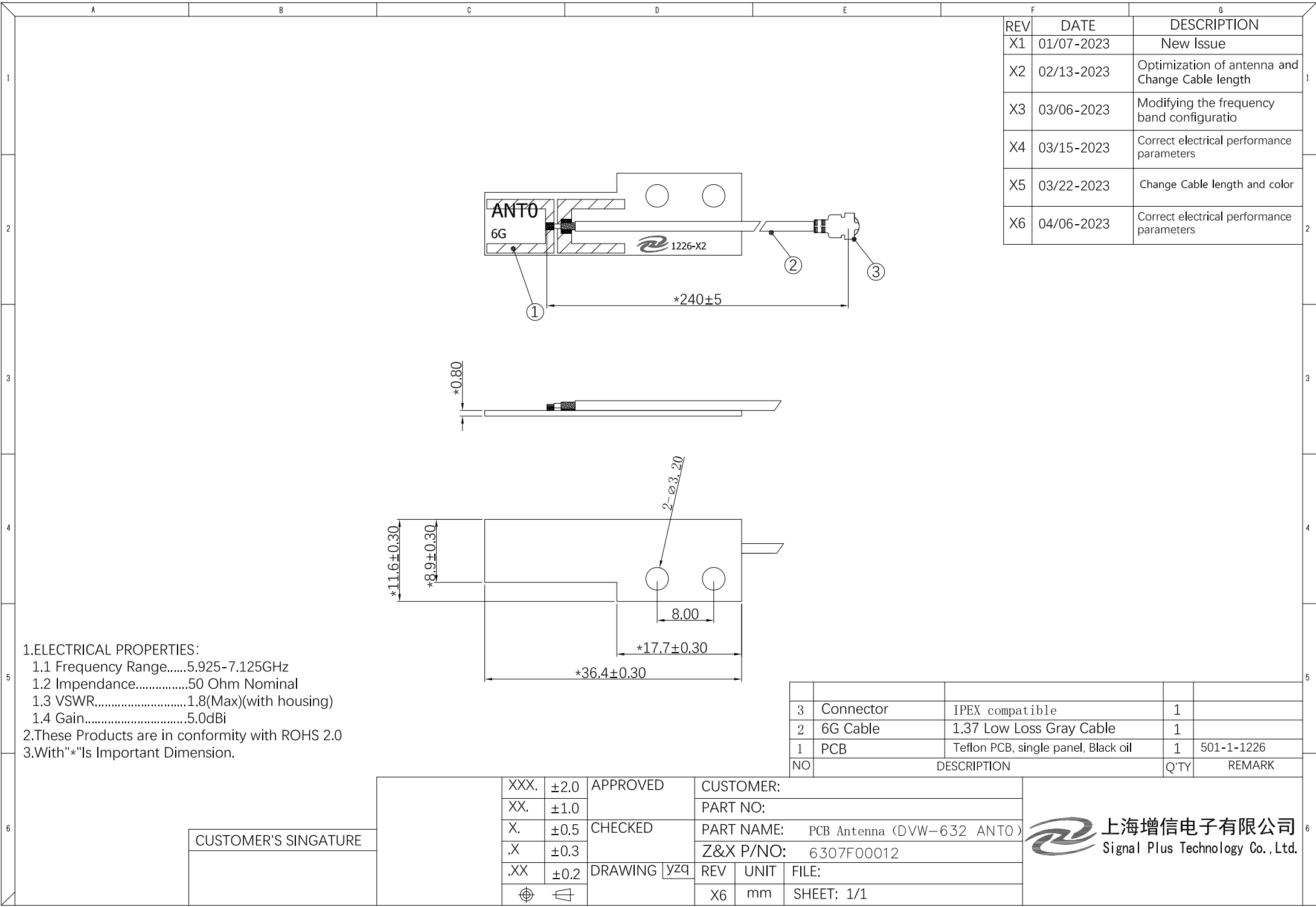
Specification

1. Electrical Properties :

- 1.1 Frequency Range.....5925~7125MHz
- 1.2 Impedance 50 Ω
- 1.3 VSWR ≤ 1.8
- 1.5 Gain 5dBi

2. Physical Properties :

- 2.1 Cable..... RF 1.37
- 2.2 Connector IPEX compatible
- 2.3 Operating Temp. -20°C ~ +65°C
- 2.4 Storage Temp. -30°C ~ +75°C





上海增信电子有限公司
Signal Plus Technology Co., Ltd.

Antenna Test Report

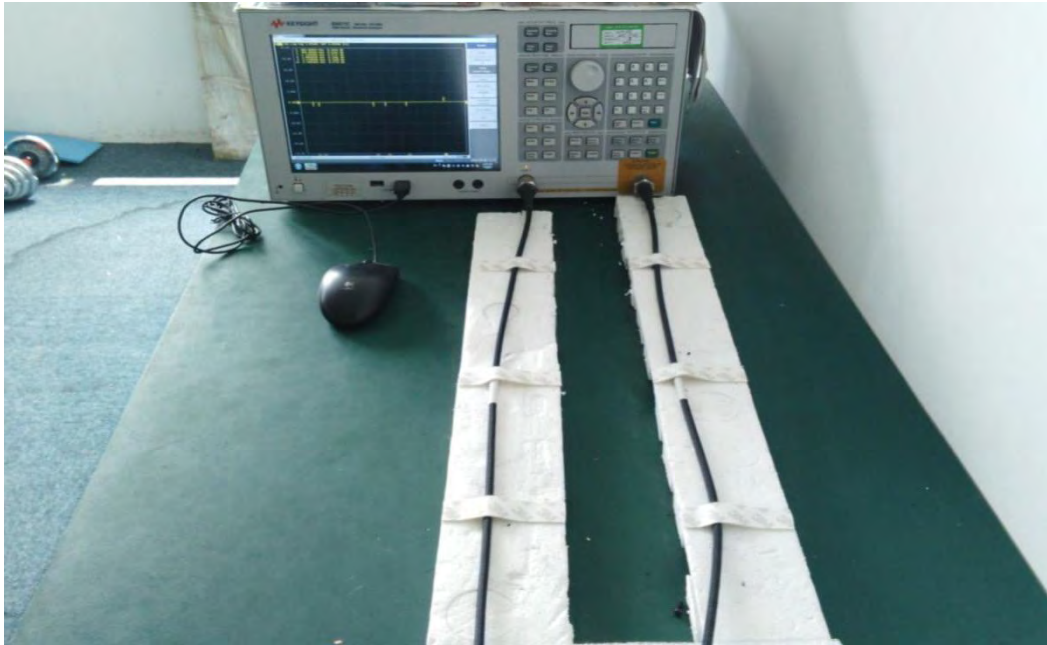
DVW-632

1. RF Fixture Experiment

1.1 Test Setup

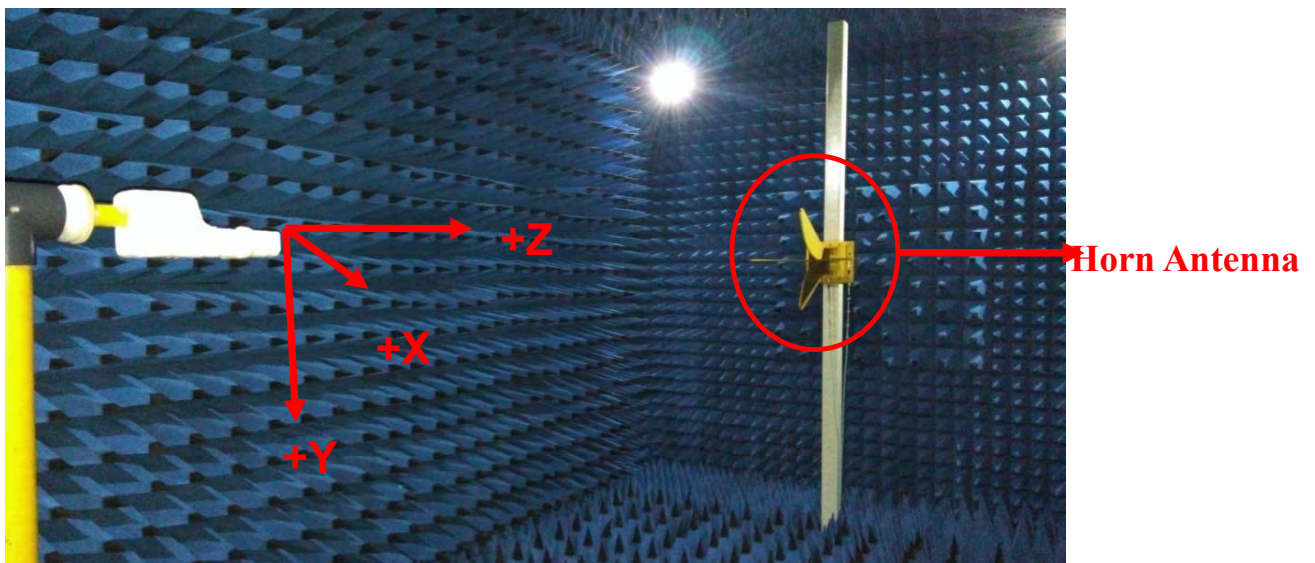
1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S_{11}) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

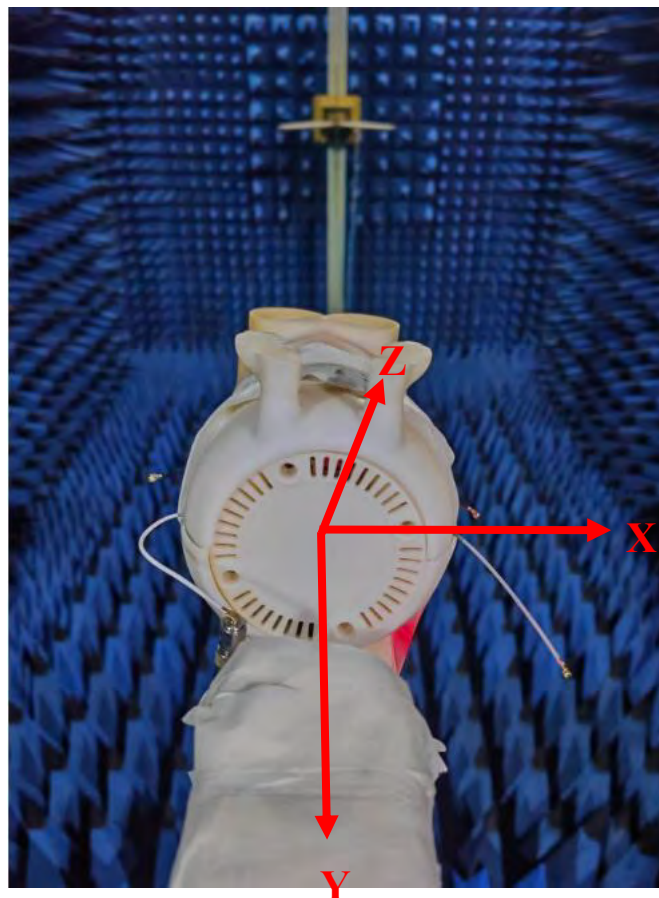


1.1.2 Anechoic Chamber Test Setup

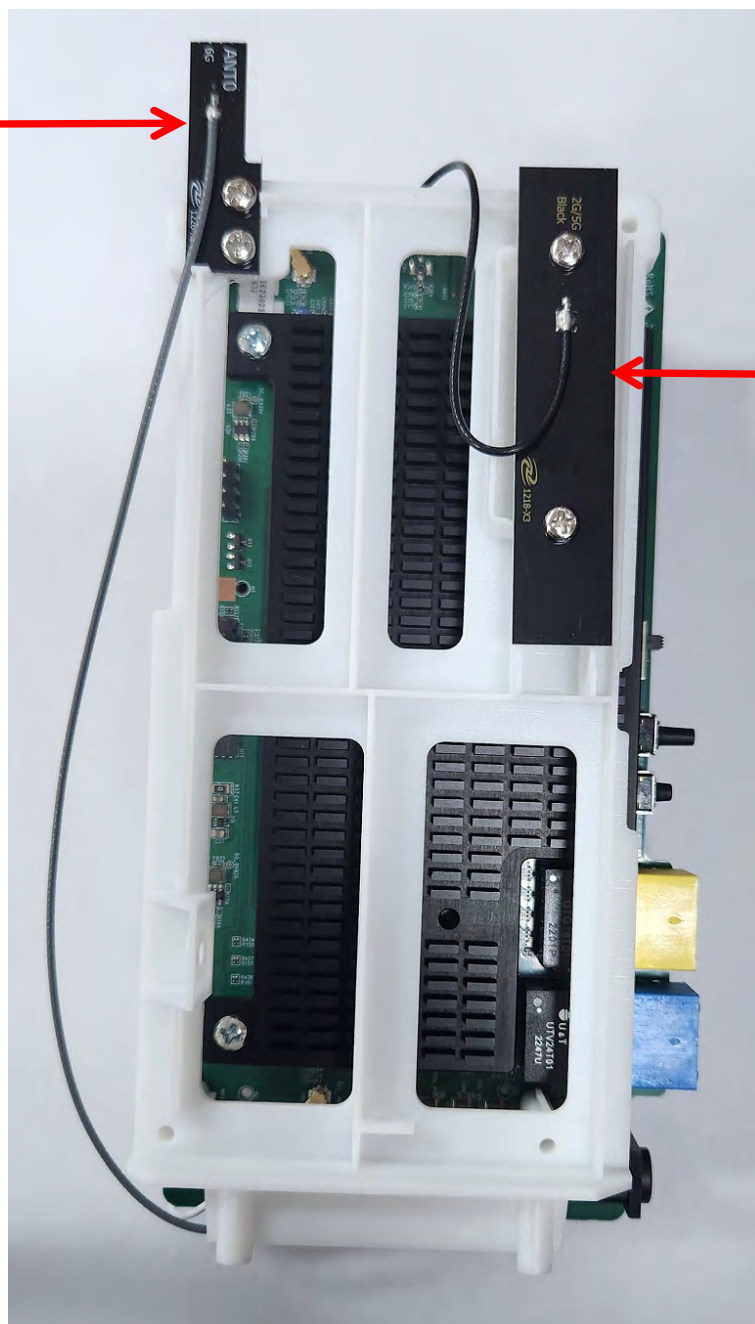
The gain of the antenna was measured in the anechoic chamber. The chamber provides less than -30 dB reflectivity from 400 MHz through 6 GHz. The chamber size is: 7m*4m*3m. The measurement results are calibrated using a leaky wave horn standard. We can measure the antenna gain and efficiency accurately.



2. Antenna Solution

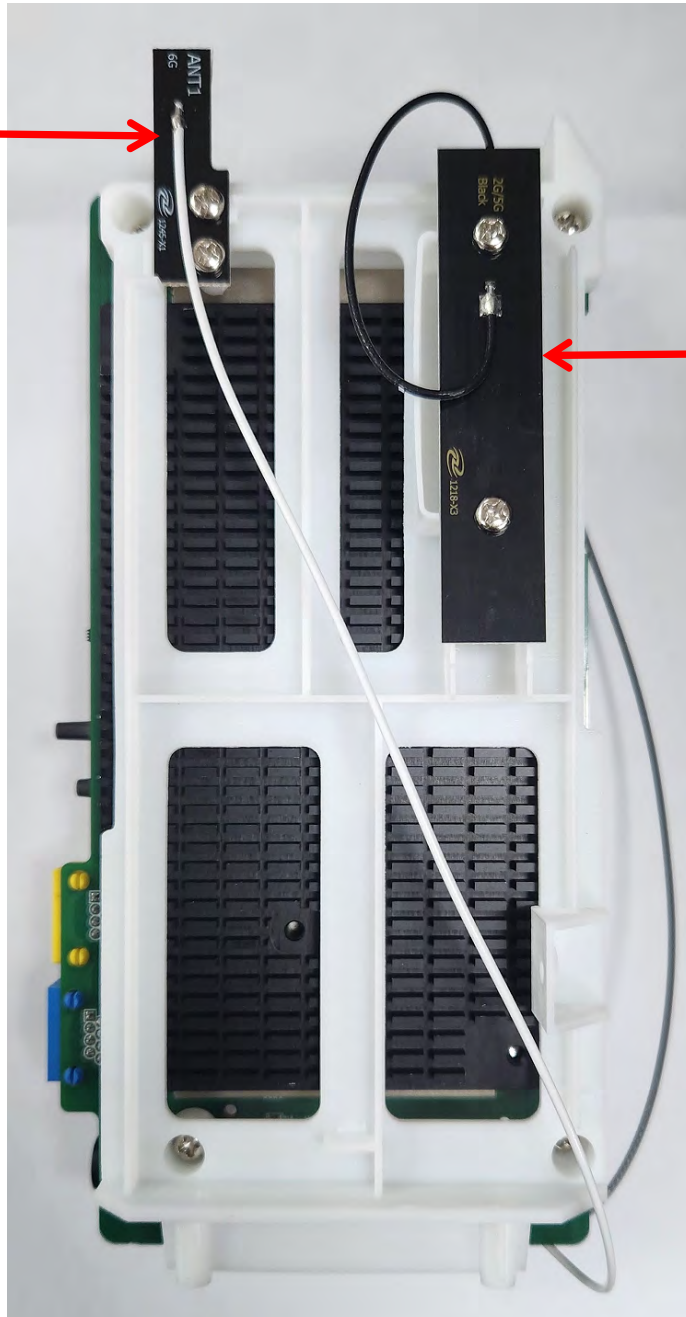


Ant0 6G
240mm Cable



Ant1 2&5G
120mm Cable

Ant1 6G
250mm Cable



Ant0 2&5G
120mm Cable

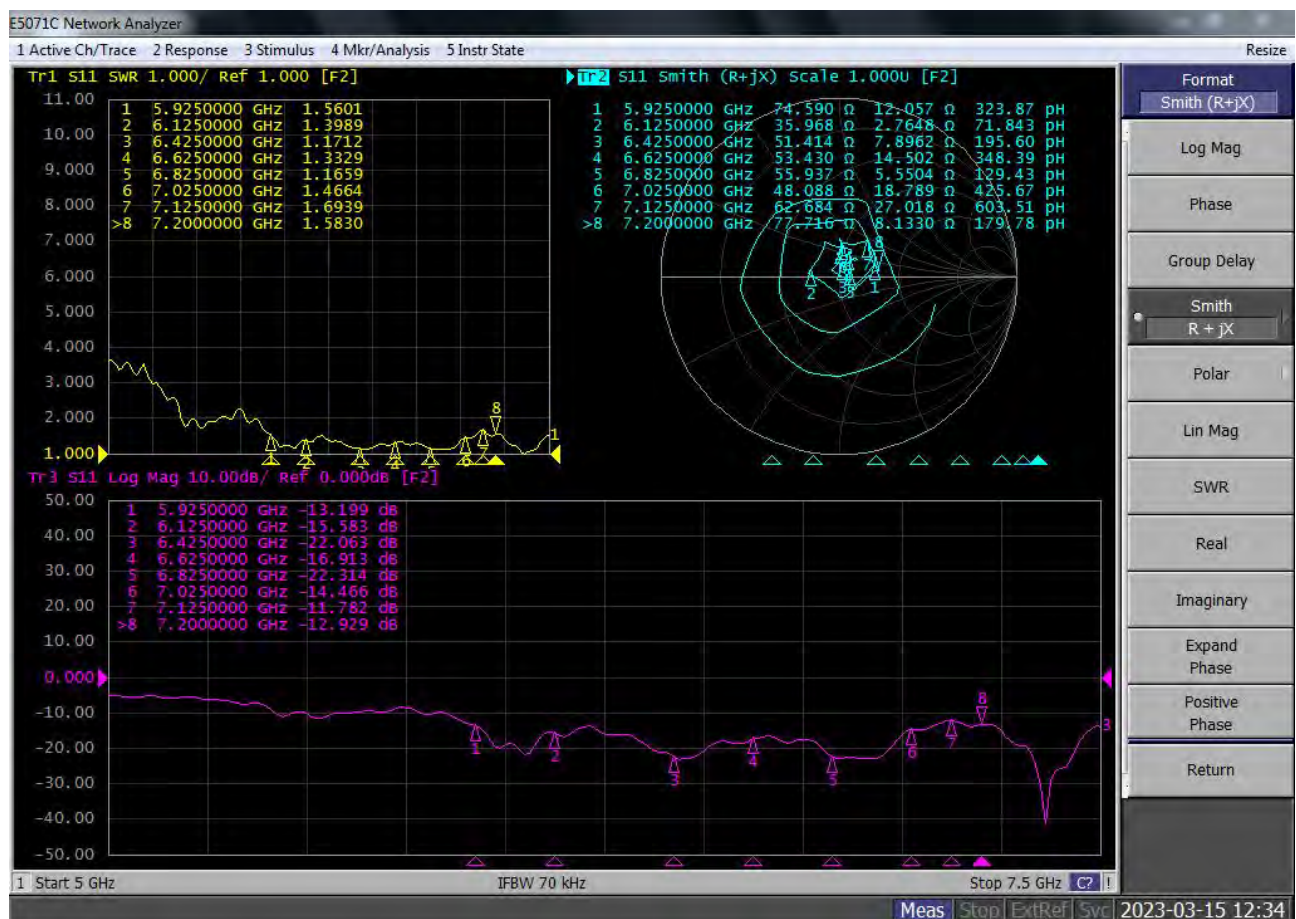
Data Preview

Ant0-6G 240mm Cable

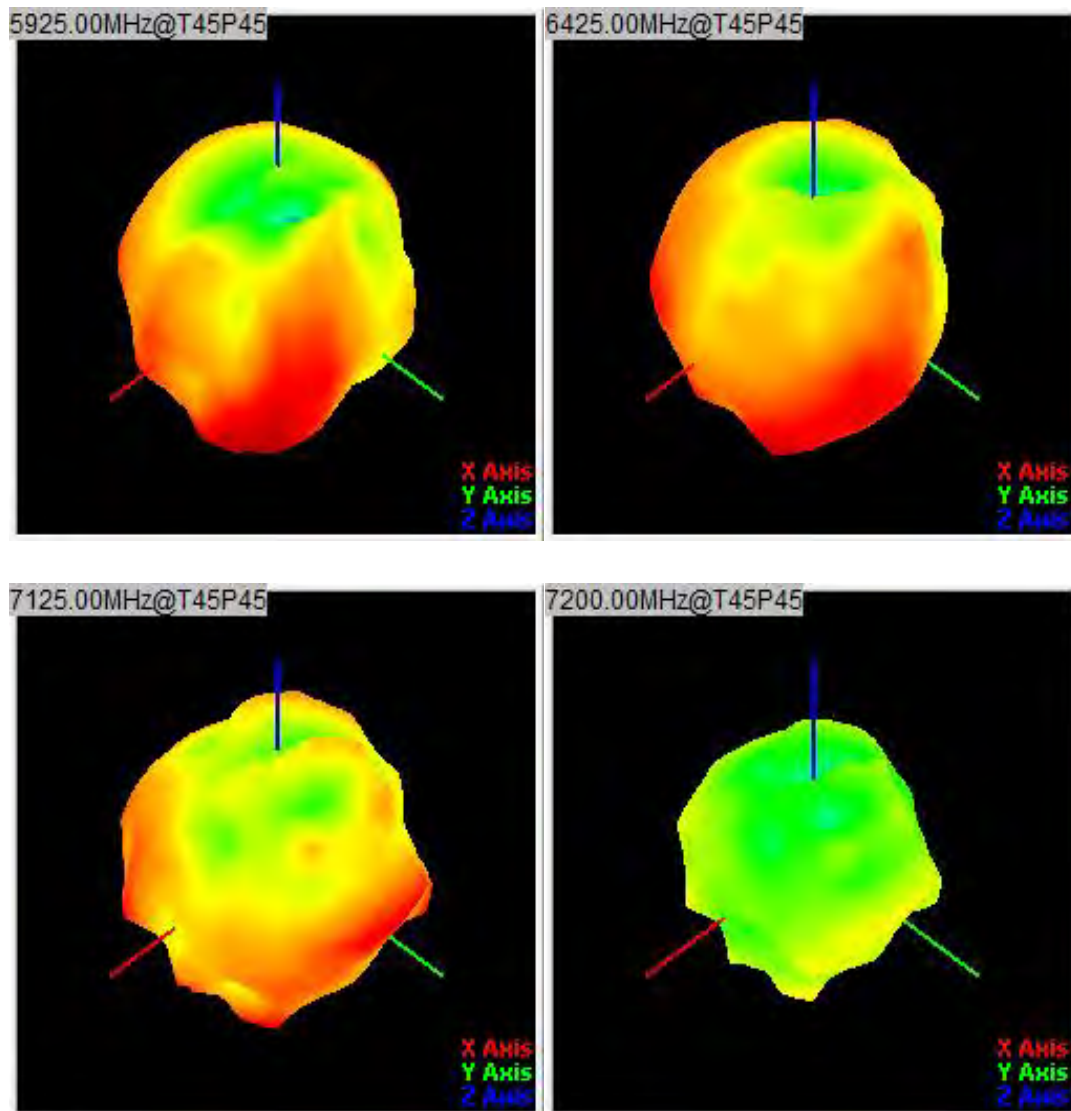
Freq.(MHz)	5925	6125	6425	6625	6825	7025	7125	7200
VSWR	1.56	1.40	1.17	1.33	1.17	1.47	1.69	1.58
Gain(dBi)	5.03	5.19	5.09	5.73	5.83	5.13	5.01	5.25
Eff. (%)	68.20	66.50	75.50	80.40	80.50	67.70	68.60	74.40

S11:

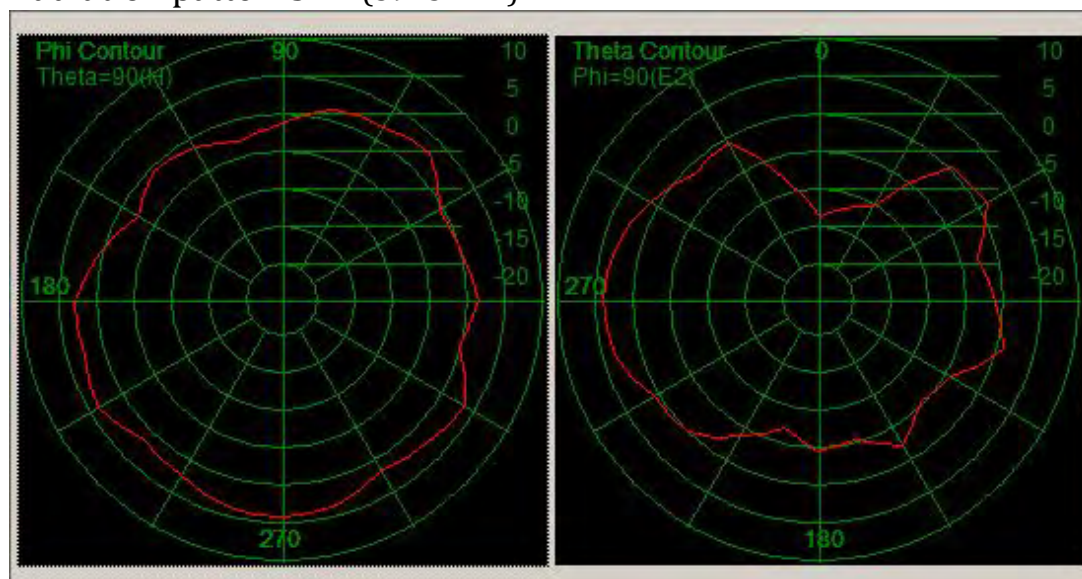
Ant0-6G 240mm Cable



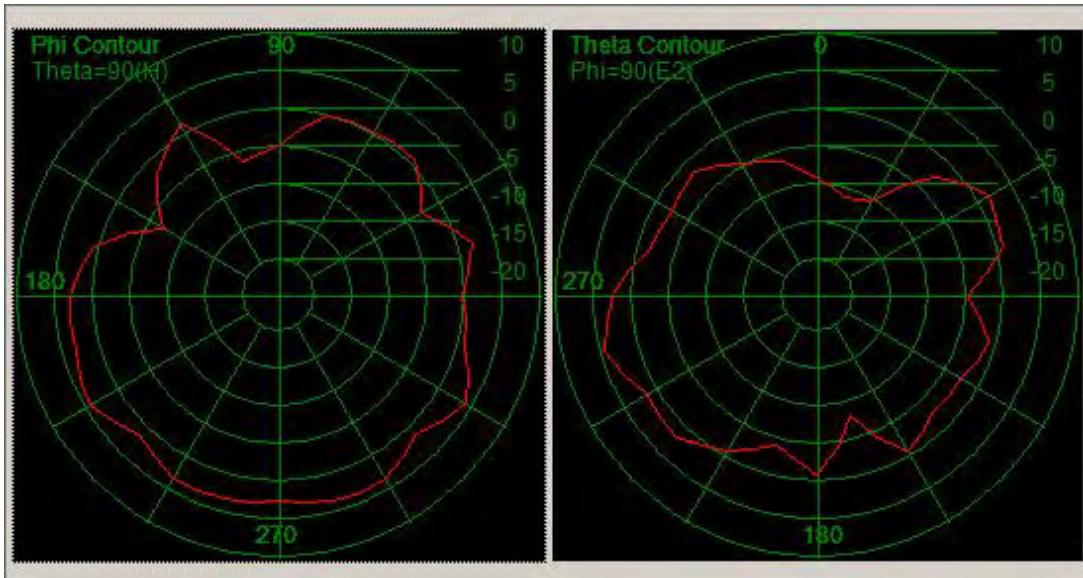
Radiation patterns:3D



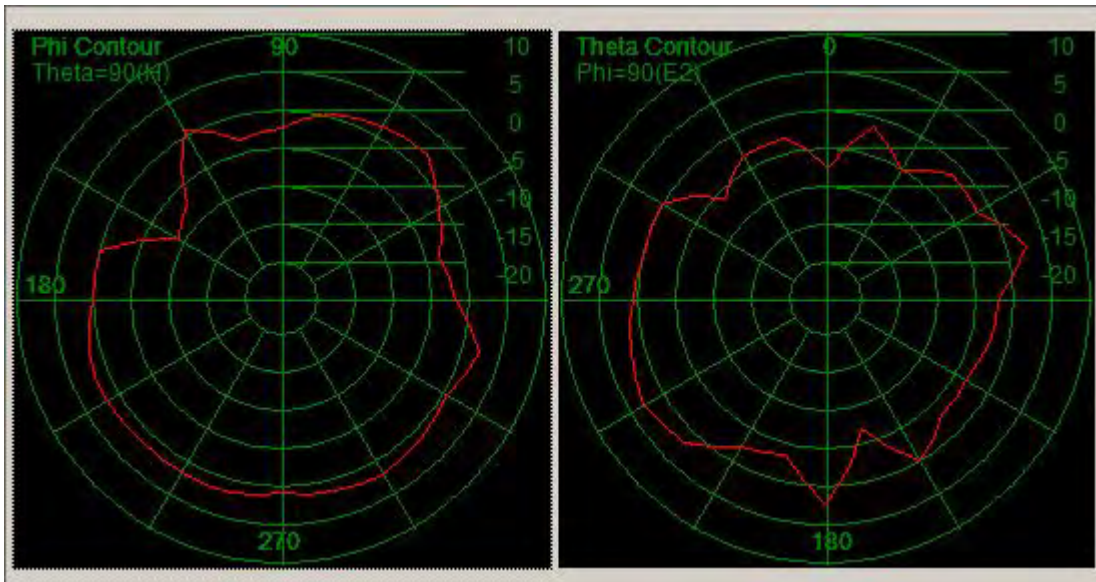
Radiation patterns:2D(5925MHz)



Radiation patterns:2D(6425MHz)



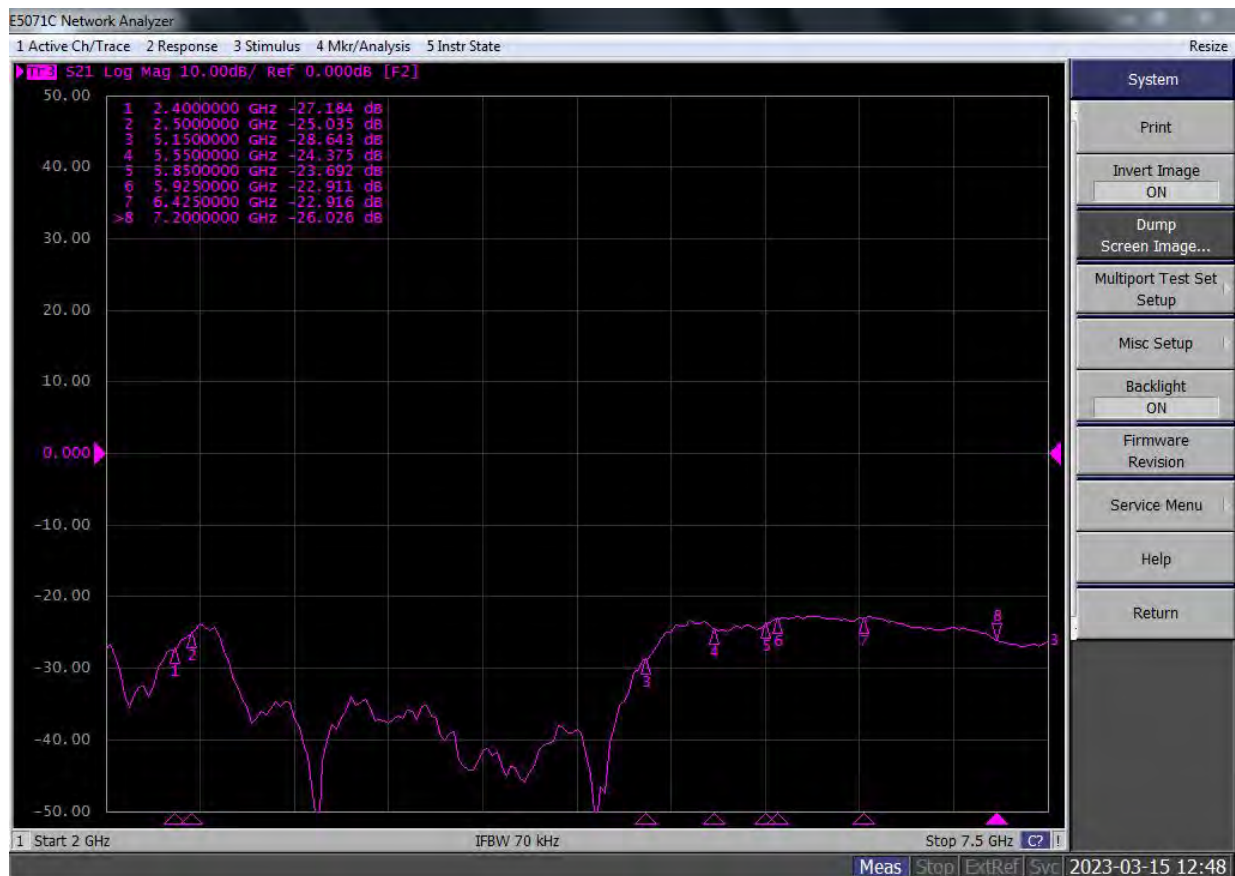
Radiation patterns:2D(7125MHz)



S21-2&5G0,6G0



S21-2&5G1,6G0



S21-6G0,6G1



Signal Plus Technology Co,Ltd.

FAI full size inspection report

No:QIP230301

Customer Name	Davo Link			Product Name	PCB Antenna				Date	25th Mar, 2023					
Customer P/I	/			Signal Plus P/N	6307F00012				Material	/					
NO.	Size	tolerance		Sample number								Measure Tool	Judgement		
		Upper limit	Lower limit	1	2	3	4	5							
1	36.4±0.3	36.70	36.10	36.38	36.41	36.39	36.39	36.40						a	■OK □NG
2	17.7±0.3	18.00	17.40	17.68	17.68	17.69	17.69	17.69						a	■OK □NG
3	8.9±0.3	9.20	8.60	8.92	8.93	8.92	8.91	8.92						a	■OK □NG
4	11.6±0.3	11.90	11.30	11.62	11.63	11.62	11.62	11.63						a	■OK □NG
5	0.80±0.03	0.83	0.77	0.81	0.82	0.81	0.81	0.82						a	■OK □NG
6	185.0±5	190.0	180.6	185.2	185.7	186.1	186.3	185.4						I	■OK □NG
Remark:															

※Measuring tools: A.Vernier caliper B.Quadratic element C.Depth gauge D.Tool microscope E.Thickness gauge F.micrometer G.torsion meter H.Drawing test machine I. Steel rule

Approved: 唐剑剑

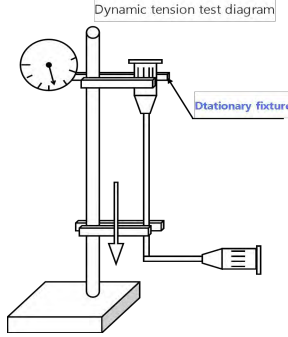
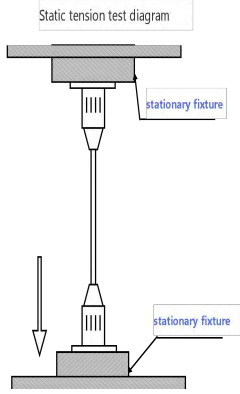
Prepared : 王莲

Review: 庞会芳

Signal Plus Technology Co.,Ltd.

Reliability Test Report

Report No.:20230325002

Customer Name	Davo Link	Test Date	25 th Mar, 2023		
Product Name	PCB Antenna	Sample Q'TY	5PCS		
Part No.	6307F00012	Edition	/		
Test Purpose	Verify Pad Tension	Test Purpose	/		
Test Item : Tension Test Place: laboratory Test Standard : <u>Reference AQA-SIP-C5036-009</u> Test SPEC Pad Tension $\geq$ 2.0 kgf Equipment : <u>Tension Testing Machine ZP-200</u> Conclusion Due Date : <u>16th Feb, 2024</u>		Test status diagram: 			
Sample before test		Sample after test			
					
Test Result:					
Sample	Sample1	Sample2	Sample3	Sample4	Sample5
Appearance :					
Connector Tension $\geq$ 1.0kgf	3.28	3.15	3.22	3.25	3.18
Judgement : OK					
Mark : The pull is far beyond the standard pull					

Approved :唐剑剑

Review : 王莲

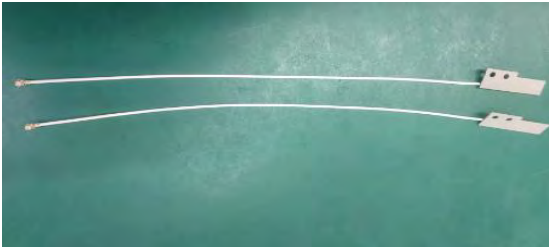
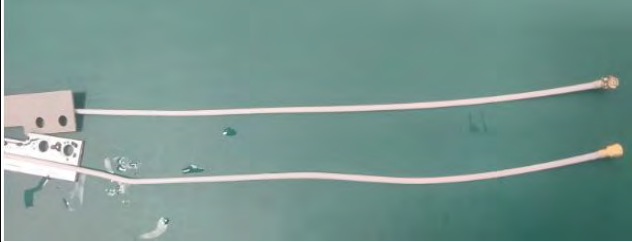
Prepared: 李敬

Reliability Test Report

Report No.: 20230325010

Customer Name	Davo Link	Test Date	23-25 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	2PCS
Part No.	6307F00012	Edition	/
Test Purpose	Verify Appearance	Test Purpose	/

Test Item: salt spray test Place: laboratory Test Standard: <u>GB/T 2423.17</u> Test Time: <u>48H</u> Test SPEC: Temperate <u>35°C</u> Salt-liquor thickness: <u>5%</u> Equipment: Salt spray tester Conclusion Due Date : 16th April, 2023	Test status diagram:
---	-----------------------------

Sample before test	sample after test
	

Test Result										
Sample	Sample1	Sample2								
Come away	OK	OK								
Oxidation	OK	OK								
VSWR	OK	OK								

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 庞会芳

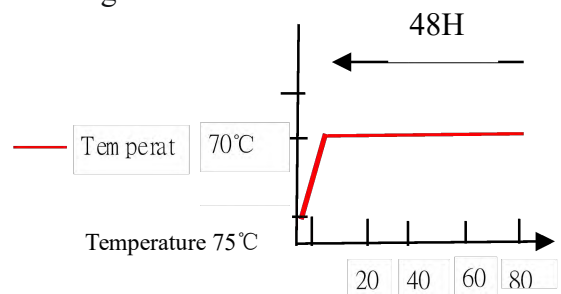
Reliability Test Report

Report No.: :HT230324001

Customer Name	Davo Link	Test Date	22-24 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	3PCS
Part No.	6307F00012	Edition	/
Test Purpose	Verify Appearance	Batch number	NA

Test Item: high temperature test Place: laboratory
 Test Standard: GB/T 2423.3
 Test Time: 48H
 Test SPEC: Temperate 75°C
 Equipment: High temperature and high humidity testing machine

Test status diagram:



Sample before test



sample after test



Test Result

Sample	Sample1	Sample2	Sample 3						
Variation	ok	ok	ok						
Come Away	ok	ok	ok						
Crack	ok	ok	ok						

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 李敬

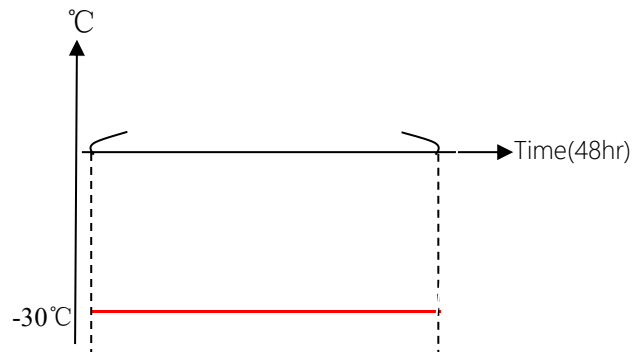
Reliability Test Report

Report No.: :LT230326001

Customer Name	Davo Link	Test Date	24-26 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	3PCS
Part No.	6307F00012	Edition	/
Test Purpose	Verify Appearance	Batch number	NA

Test Item: low temperature test Place: laboratory
 Test Standard: GB/T 2423.1
 Test Time: 48H
 Test SPEC: Temperate -30°C
 Equipment: TEMP&HUMI chamber
 Conclusion Due Date : 16th April, 2023

Test status diagram:



Sample before test

sample after test



Test Result

Sample	Sample1	Sample2	Sample 3						
Variation	ok	ok	ok						
Aberration	ok	ok	ok						
Crack	ok	ok	ok						

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 李敬

Reliability Test Report

Report No.:20230325007

Customer Name	Davo Link	Test Date	25 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	5PCS
Part No.	6307F00012	Edition	/
Test Purpose	Verify Connector Tension	Test Purpose	/

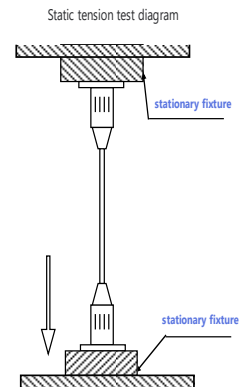
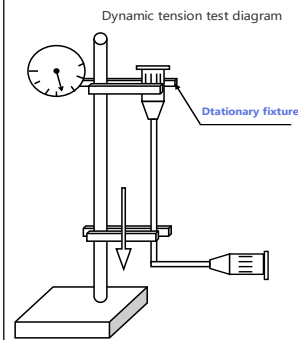
Test Item : Tension Test Place: laboratory

Test Standard : Reference AQA-SIP-C5036-009

Test SPEC

Connector Tension $\geq$ 1.0 kgfEquipment : Tension Testing Machine NK-300Conclusion Due Date : 2024.02.16

Test status diagram:



Sample before test

Sample after test



Test Result:

Sample	Sample1	Sample2	Sample3	Sample4	Sample5
--------	---------	---------	---------	---------	---------

Appearance :

Connector Tension $\geq$ 1.0kgf	3.0	3.0	3.2	3.0	3.0
---------------------------------	-----	-----	-----	-----	-----

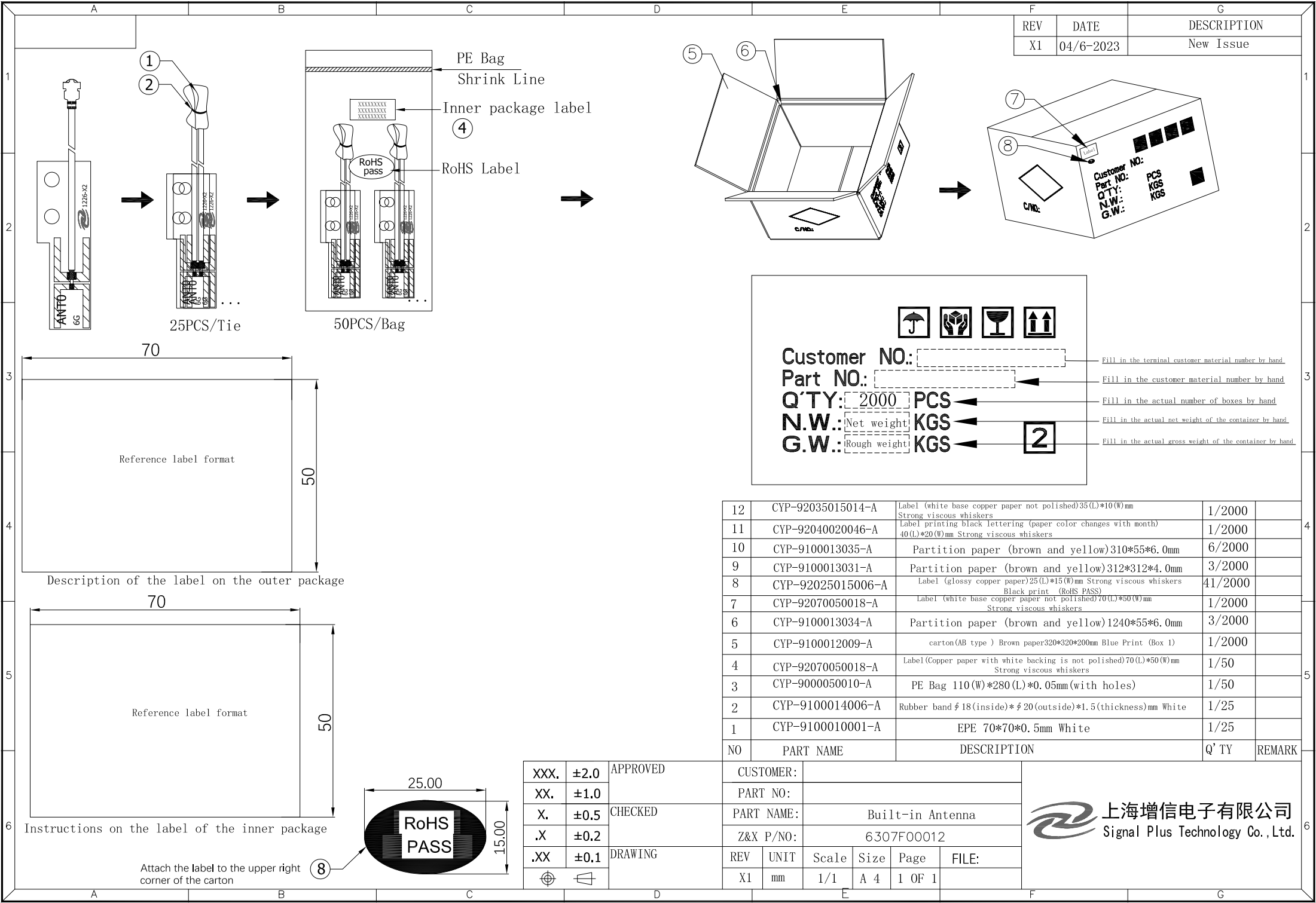
Judgement : OK

Mark : The pull is far beyond the standard pull

Approved :唐剑剑

Review : 王莲

Prepared: 王丹



F		G	
REV	DATE	DESCRIPTION	
X1	04/6-2023	New Issue	

12	CYP-92035015014-A	Label (white base copper paper not polished)35(L)*10(W)mm Strong viscous whiskers	1/2000	
11	CYP-92040020046-A	Label printing black lettering (paper color changes with month) 40(L)*20(W)mm Strong viscous whiskers	1/2000	
10	CYP-9100013035-A	Partition paper (brown and yellow)310*55*6.0mm	6/2000	
9	CYP-9100013031-A	Partition paper (brown and yellow)312*312*4.0mm	3/2000	
8	CYP-92025015006-A	Label (glossy copper paper)25(L)*15(W)mm Strong viscous whiskers Black print (RoHS PASS)	41/2000	
7	CYP-92070050018-A	Label (white base copper paper not polished)70(L)*50(W)mm Strong viscous whiskers	1/2000	
6	CYP-9100013034-A	Partition paper (brown and yellow)1240*55*6.0mm	3/2000	
5	CYP-9100012009-A	carton(AB type) Brown paper320*320*200mm Blue Print (Box 1)	1/2000	
4	CYP-92070050018-A	Label(Copper paper with white backing is not polished)70(L)*50(W)mm Strong viscous whiskers	1/50	
3	CYP-9000050010-A	PE Bag 110(W)*280(L)*0.05mm(with holes)	1/50	
2	CYP-9100014006-A	Rubber band φ 18(inside)*φ 20(outside)*1.5(thickness)mm White	1/25	
1	CYP-9100010001-A	EPE 70*70*0.5mm White	1/25	
NO	PART NAME	DESCRIPTION	Q' TY	REMARK

XXX.	±2.0	APPROVED
XX.	±1.0	
X.	±0.5	CHECKED
.X	±0.2	
.XX	±0.1	DRAWING
		

CUSTOMER:							
PART NO:							
PART NAME:		Built-in Antenna					
Z&X P/NO:		6307F00012					
REV	UNIT	Scale	Size	Page	FILE:		
X1	mm	1/1	A 4	1 OF 1			

 上海增信电子有限公司
Signal Plus Technology Co., Ltd.



上海增信电子有限公司
Signal Plus Technology Co., Ltd.

规格承认书
SPECIFICATION FOR APPROVAL

日期
DATE: 2023.04.07

版本
REV.: B

客 户
CUSTOMER: DAVO LINK

客 户 料 号
CUSTOMER P/N:

品 名
PART NAME: Internal PCB Teflon Ant, 6G-ANT1 1.37 low loss white cable 250mm
with RF CONN for DVW-632

供 方 料 号
SUPPLIER P/N: 6307F00013

送样日期Date: 送样数量Q'TY: Pcs

客户确认CUSTOMER APPROVED BY		
核准 Approved by	审核 Checked by	拟制 Prepared by

供方确认SUPPLIER SIGNATURE		
核准 Approved by	审核 Checked by	拟制 Prepared by
Jack		andy

ZX-QT-RD-0011-A1

Add:上海市徐汇区桂箐路69号30栋605室 Tel:021-54266190 Fax:021-54266191

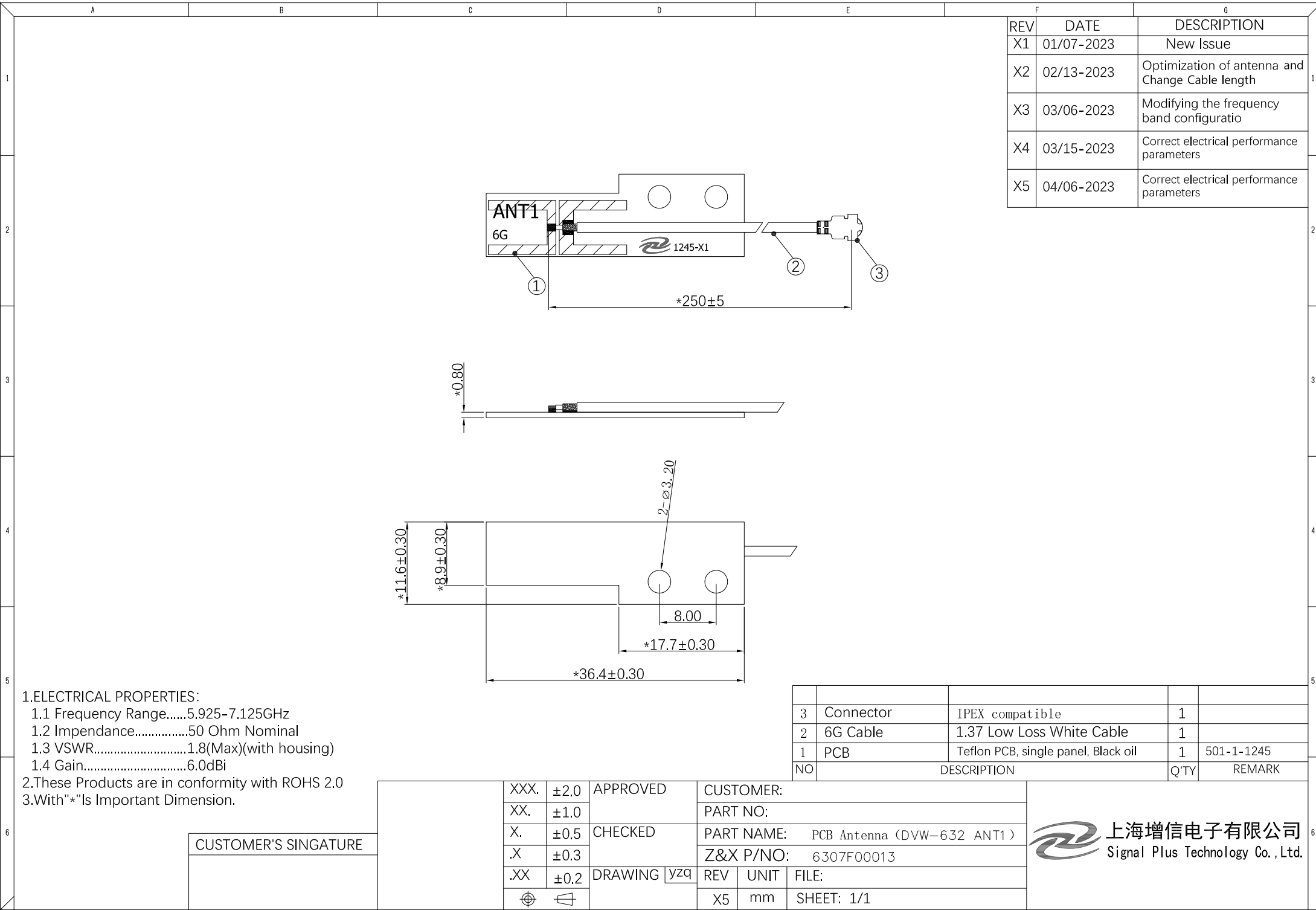
Specification

1. Electrical Properties :

- 1.1 Frequency Range.....5925~7125MHz
- 1.2 Impedance 50 Ω
- 1.3 VSWR ≤ 1.8
- 1.5 Gain 6dBi

2. Physical Properties :

- 2.1 Cable..... RF 1.37
- 2.2 Connector IPEX compatible
- 2.3 Operating Temp. -20°C ~ +65°C
- 2.4 Storage Temp. -30°C ~ +75°C



REV	DATE	DESCRIPTION
X1	01/07-2023	New Issue
X2	02/13-2023	Optimization of antenna and Change Cable length
X3	03/06-2023	Modifying the frequency band configuratio
X4	03/15-2023	Correct electrical performance parameters
X5	04/06-2023	Correct electrical performance parameters

- 1.ELECTRICAL PROPERTIES:
- 1.1 Frequency Range.....5.925-7.125GHz
 - 1.2 Impedance.....50 Ohm Nominal
 - 1.3 VSWR.....1.8(Max)(with housing)
 - 1.4 Gain.....6.0dBi
- 2.These Products are in conformity with ROHS 2.0
- 3.With "*"Is Important Dimension.

3	Connector	IPEX compatible	1	
2	6G Cable	1.37 Low Loss White Cable	1	
1	PCB	Teflon PCB, single panel, Black oil	1	501-1-1245
NO	DESCRIPTION		Q'TY	REMARK

CUSTOMER'S SINGATURE

XXX.	±2.0	APPROVED	CUSTOMER:
XX.	±1.0		
X.	±0.5	CHECKED	PART NO:
.X	±0.3		
.XX	±0.2	DRAWING	YZQ
⊕			

CUSTOMER:		
PART NO:		
PART NAME: PCB Antenna (DVW-632 ANT1)		
Z&X P/NO: 6307F00013		
REV	UNIT	FILE:
X5	mm	SHEET: 1/1

 上海增信电子有限公司
Signal Plus Technology Co., Ltd.



上海增信电子有限公司
Signal Plus Technology Co., Ltd.

Antenna Test Report

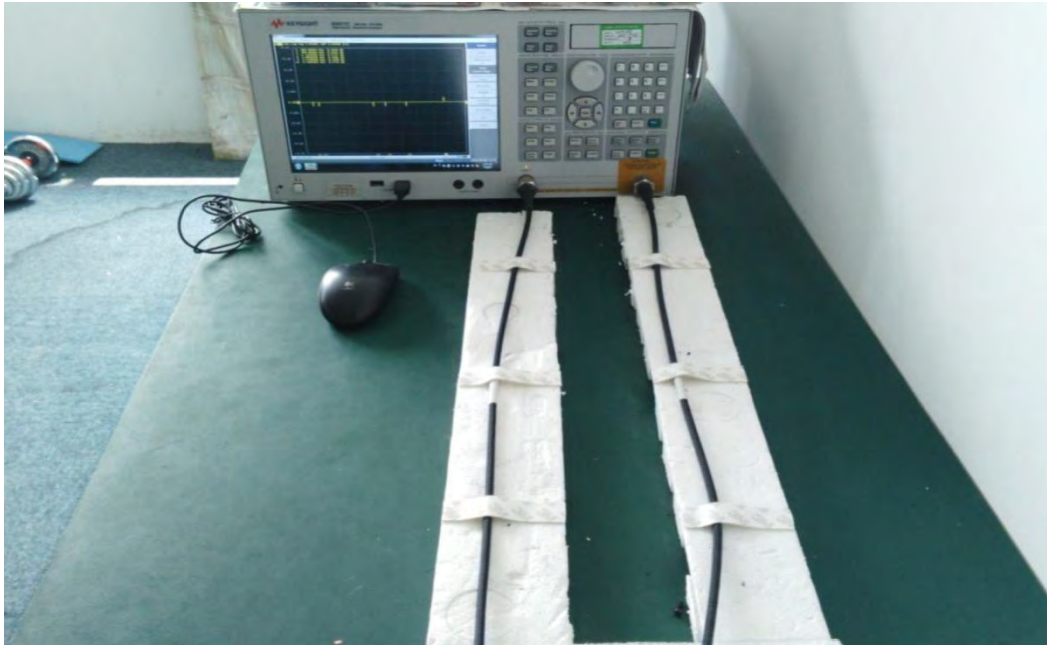
DVW-632

1. RF Fixture Experiment

1.1 Test Setup

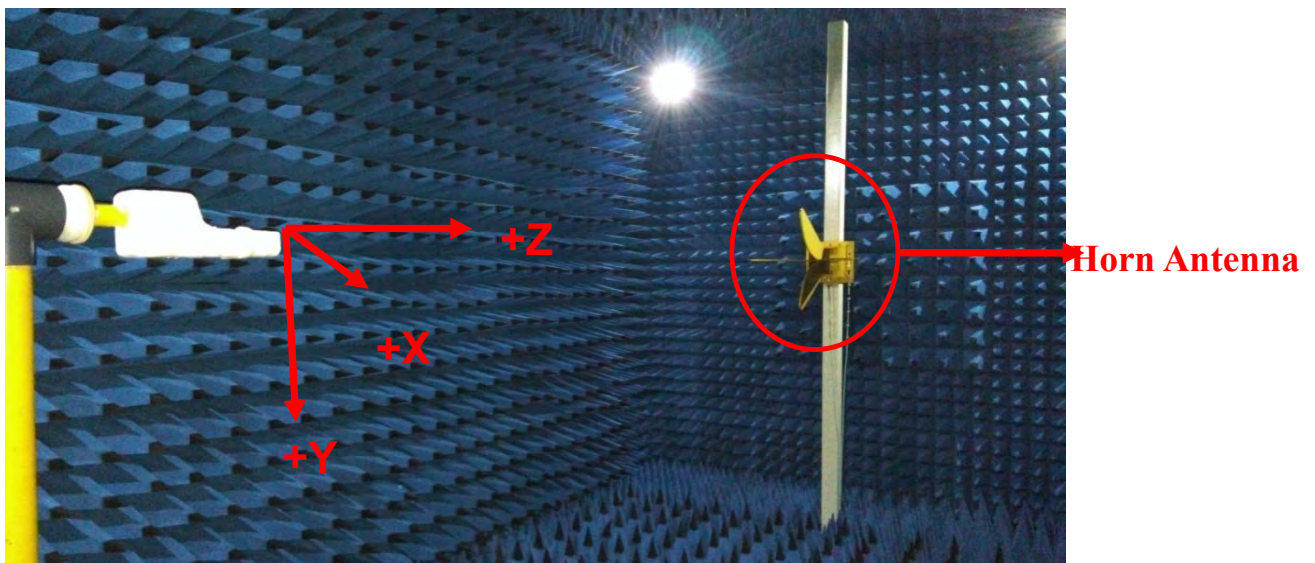
1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S_{11}) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

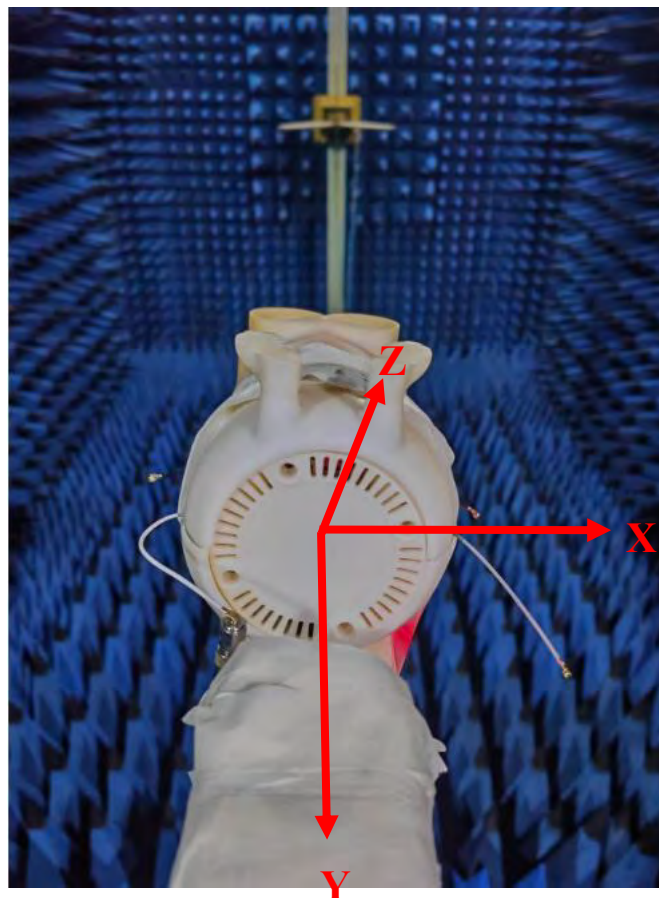


1.1.2 Anechoic Chamber Test Setup

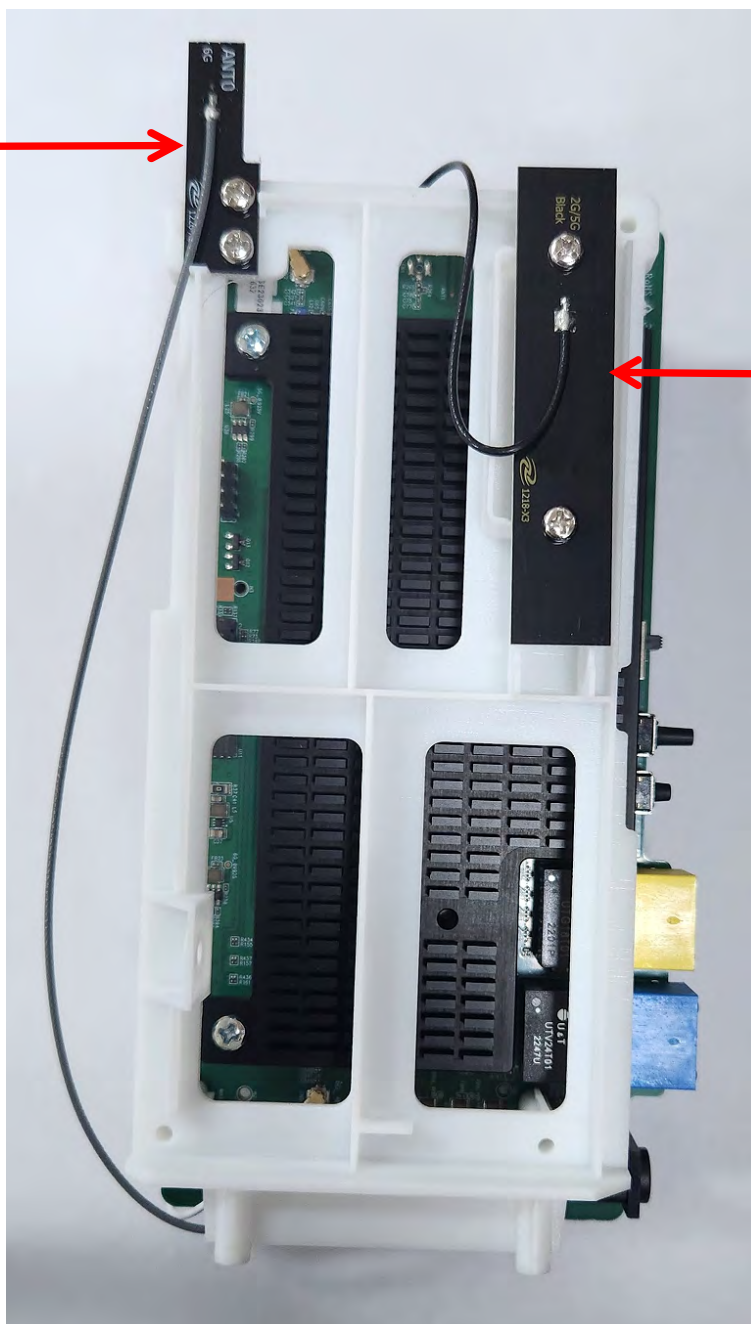
The gain of the antenna was measured in the anechoic chamber. The chamber provides less than -30 dB reflectivity from 400 MHz through 6 GHz. The chamber size is: 7m*4m*3m. The measurement results are calibrated using a leaky wave horn standard. We can measure the antenna gain and efficiency accurately.



2. Antenna Solution

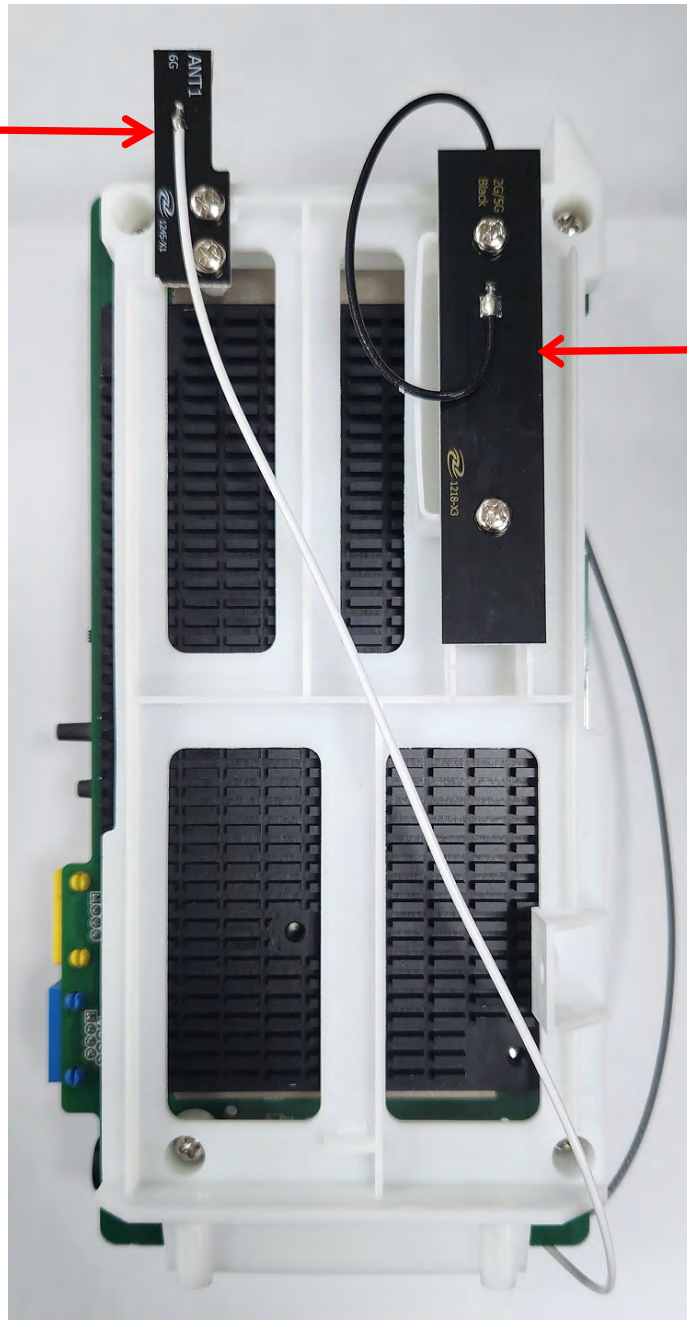


Ant0 6G
240mm Cable



Ant1 2&5G
120mm Cable

Ant1 6G
250mm Cable



Ant0 2&5G
120mm Cable

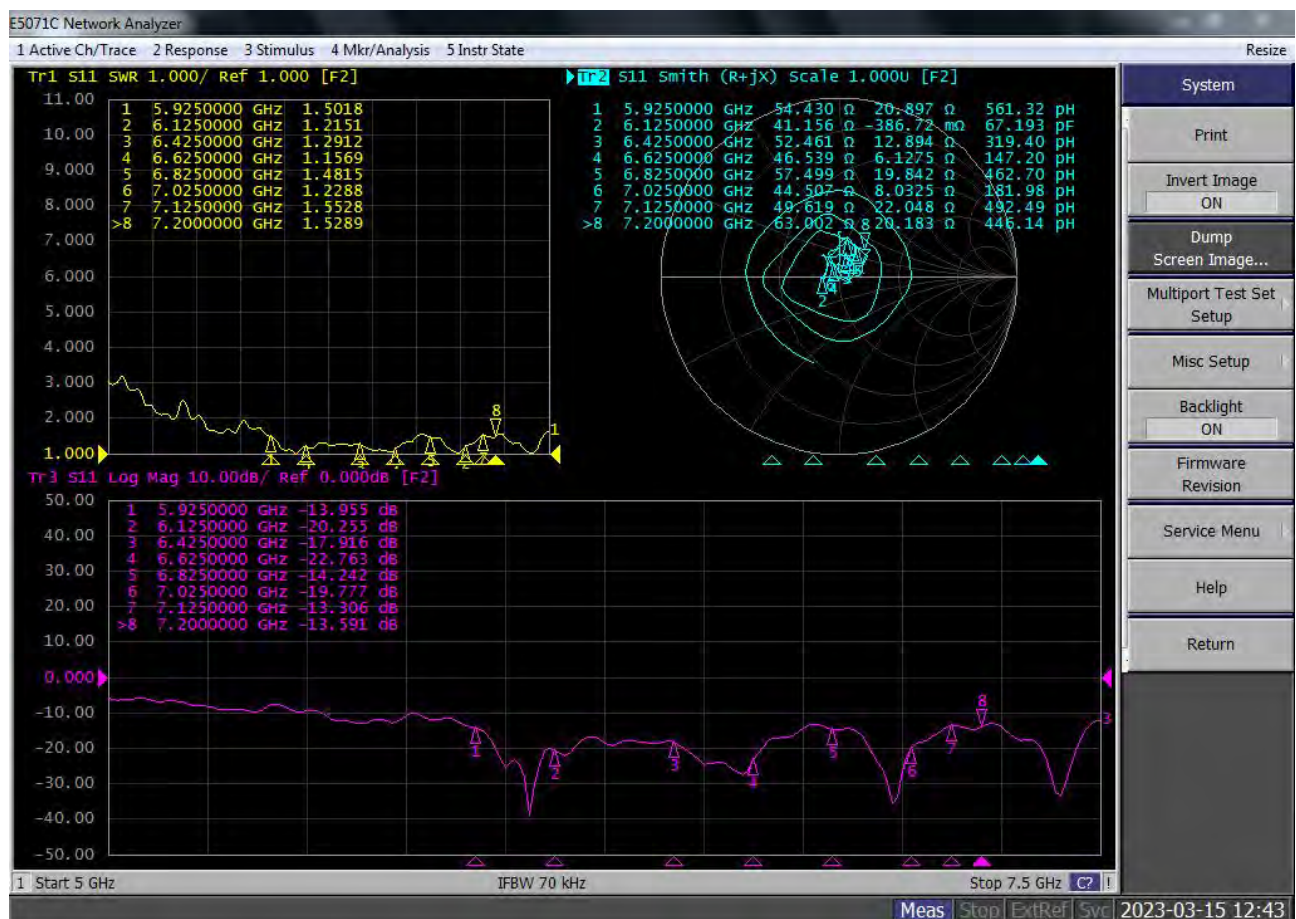
Data Preview

Ant1-6G 250mm Cable

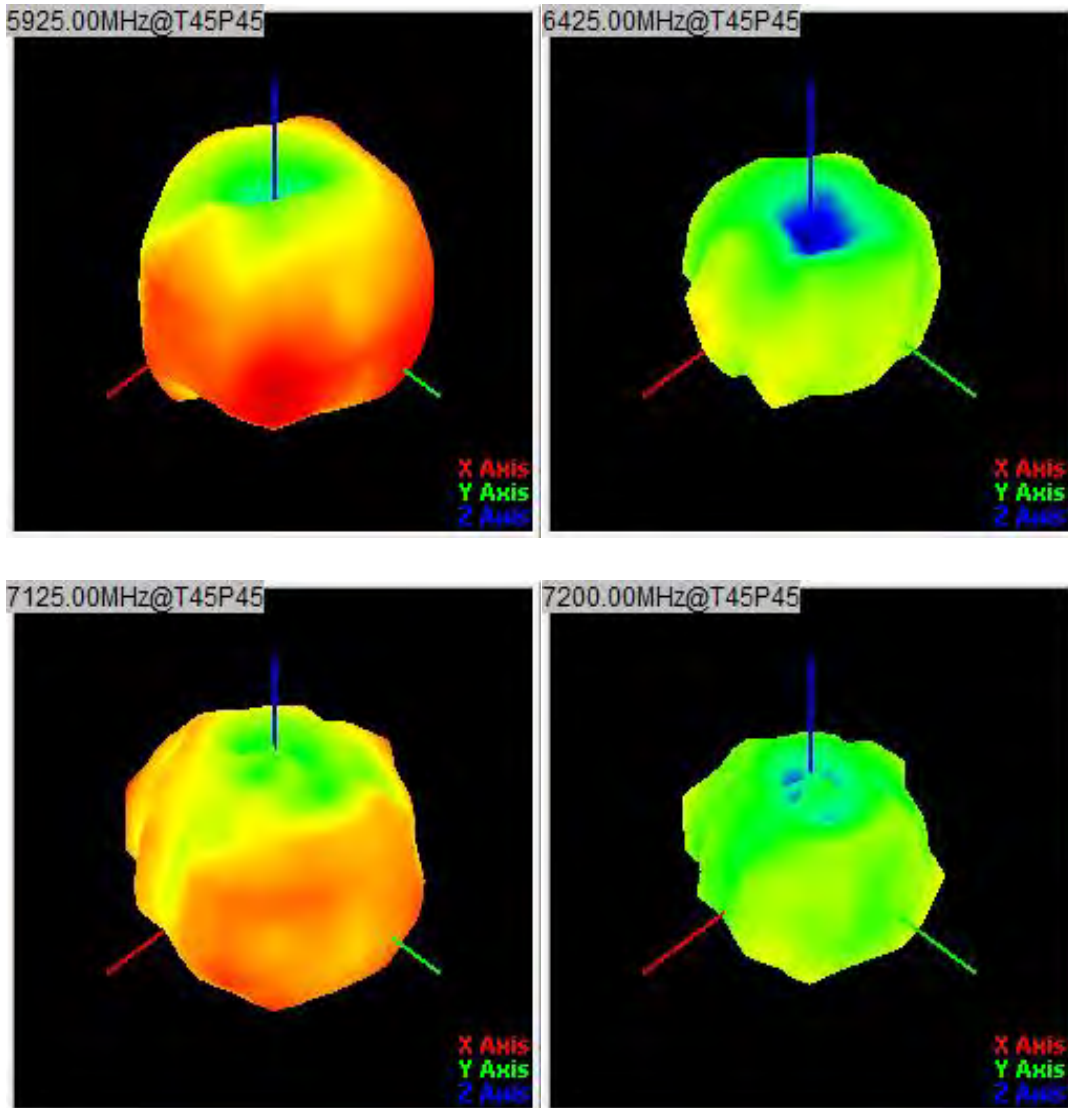
Freq.(MHz)	5925	6125	6425	6625	6825	7025	7125	7200
VSWR	1.50	1.22	1.29	1.16	1.48	1.23	1.55	1.53
Gain(dBi)	5.17	5.19	5.76	6.34	6.59	5.72	5.27	5.91
Eff. (%)	65.90	63.00	67.80	77.00	75.00	64.30	63.60	63.60

S11:

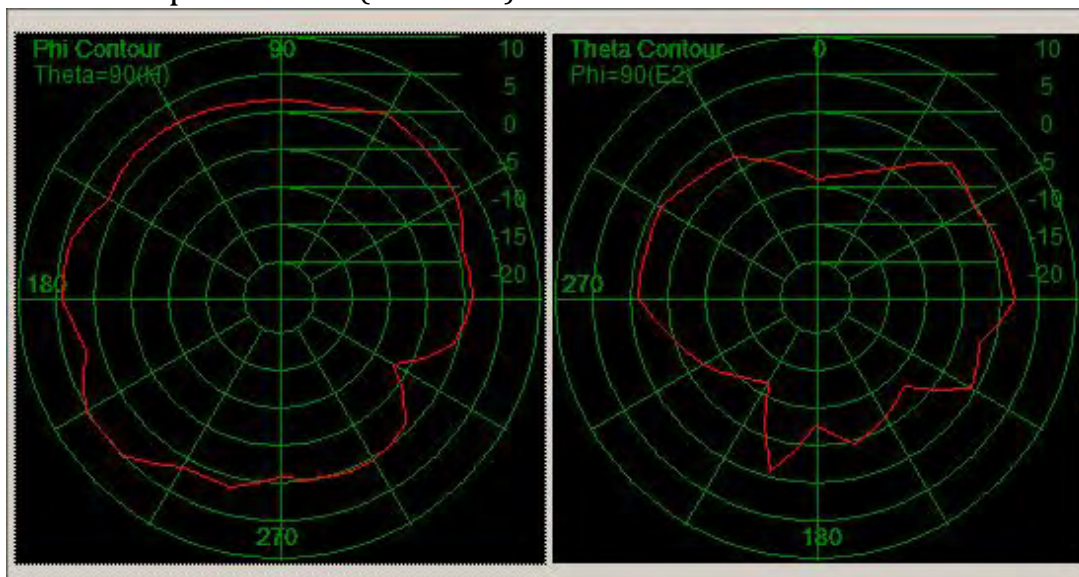
Ant1-6G 250mm Cable



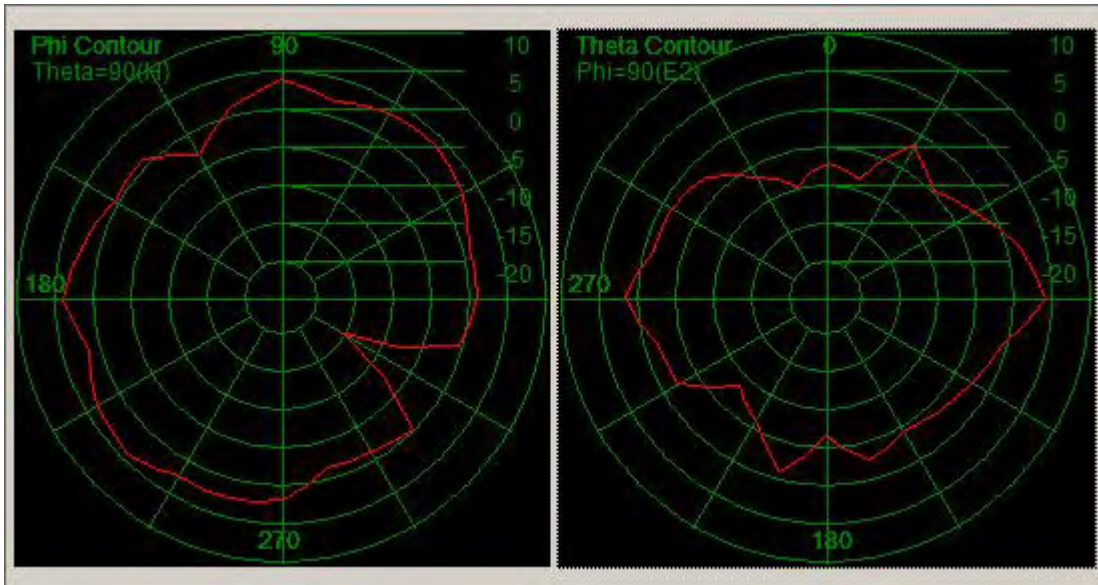
Radiation patterns:3D



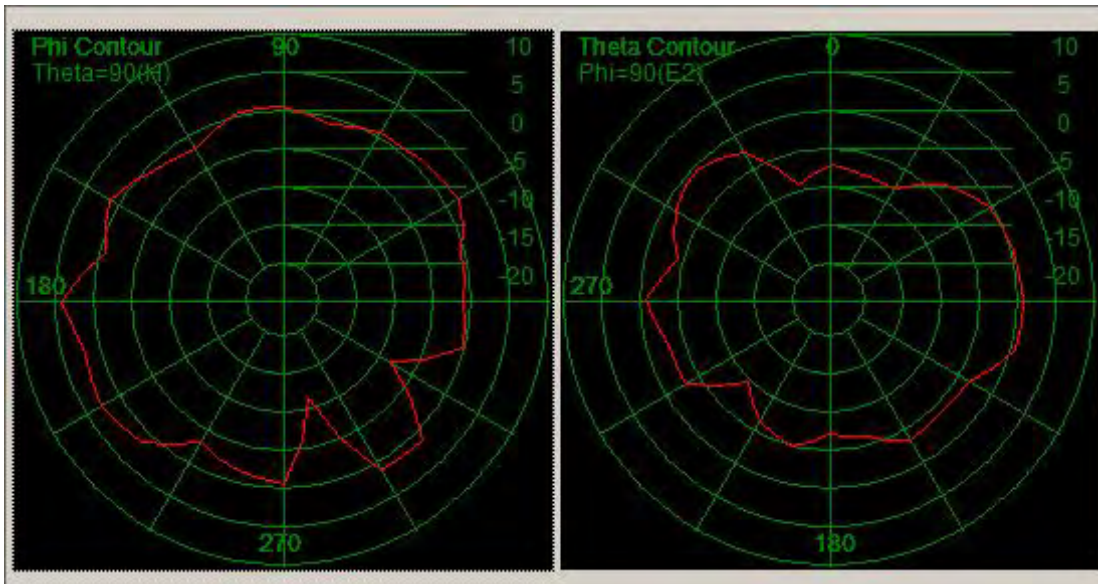
Radiation patterns:2D(5925MHz)



Radiation patterns:2D(6425MHz)



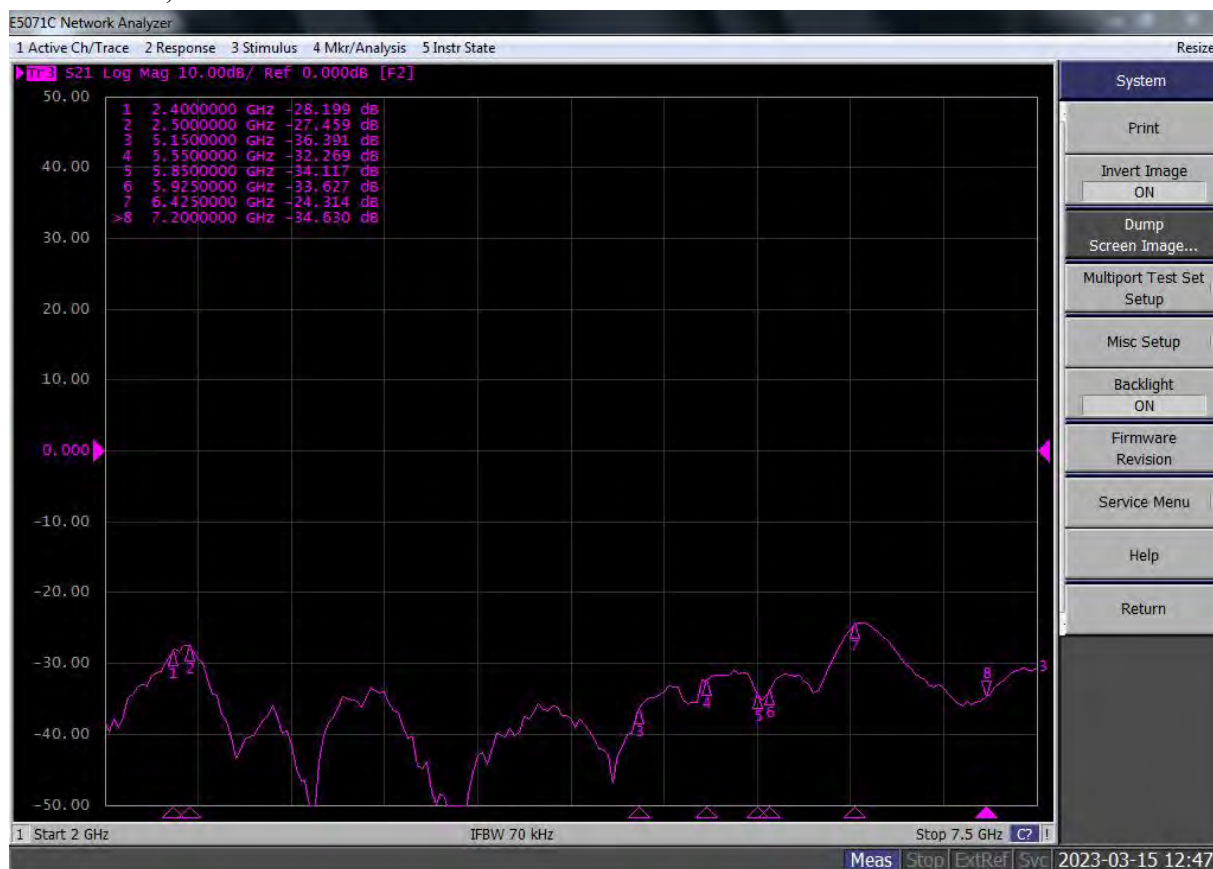
Radiation patterns:2D(7125MHz)



S21-2&5G0,6G1



S21-2&5G1,6G1



S21-6G0,6G1



Signal Plus Technology Co.,Ltd.

FAI full size inspection report

No:QIP230302

Customer Name	Davo Link			Product Name	PCB Antenna			Date	25th Mar, 2023						
Customer P/I	/			Signal Plus P/N	6307F00013			Material	/						
NO.	Size	tolerance		Sample number								Measure Tool	Judgement		
		Upper limit	Lower limit	1	2	3	4	5							
1	36.4±0.3	36.7	36.1	36.38	36.38	36.37	36.38	36.39						a	■OK □NG
2	17.7±0.3	18	17.4	17.69	17.68	17.69	17.68	17.69						a	■OK □NG
3	8.9±0.3	9.2	8.6	8.9	8.91	8.91	8.89	8.9						a	■OK □NG
4	11.6±0.3	11.9	11.3	11.58	11.57	11.57	11.56	11.57						a	■OK □NG
5	0.80±0.03	0.83	0.77	0.81	0.81	0.82	0.81	0.81						a	■OK □NG
6	250.0±5	255	245	251.2	250.5	251.3	250.8	251.1						I	■OK □NG
Remark:															

※Measuring tools: A.Vernier caliper B.Quadratic element C.Depth gauge D.Tool microscope E.Thickness gauge F.micrometer G.torsion meter H.Drawing test machine I. Steel rule

Approved: 唐剑剑

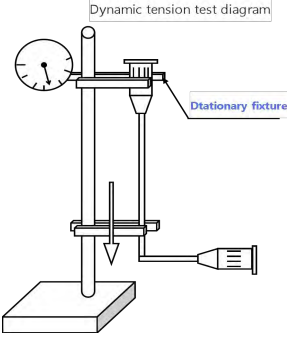
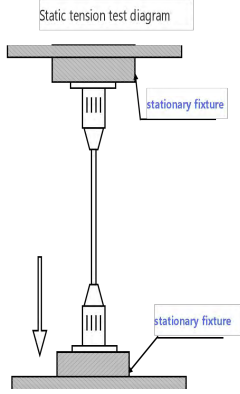
Prepared : 王莲

Review: 韦颖

Signal Plus Technology Co,Ltd.

Reliability Test Report

Report No.:20230325003

Customer Name	Davo Link	Test Date	25 th Mar, 2023		
Product Name	PCB Antenna	Sample Q'TY	5PCS		
Part No.	6307F00013	Edition	/		
Test Purpose	Verify Pad Tension	Test Purpose	/		
Test Item : Tension Test Place: laboratory Test Standard : <u>Reference AQA-SIP-C5036-009</u> Test SPEC Pad Tension ≥ 2.0 kgf Equipment : <u>Tension Testing Machine ZP-200</u> Conclusion Due Date : <u>16th Feb, 2024</u>		Test status diagram: 			
Sample before test		Sample after test			
					
Test Result:					
Sample	Sample1	Sample2	Sample3	Sample4	Sample5
Appearance :					
Connector Tension ≥ 1.0 kgf	3.21	3.10	3.27	3.04	3.14
Judgement : OK					
Mark : The pull is far beyond the standard pull					

Approved :唐剑剑

Review : 王莲

Prepared: 李敬

Reliability Test Report

Report No.: 20230325011

Customer Name	Davo Link	Test Date	23-25 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	2PCS
Part No.	6307F00013	Edition	/
Test Purpose	Verify Appearance	Test Purpose	/

Test Item: salt spray test Place: laboratory Test Standard: <u>GB/T 2423.17</u> Test Time: 48H Test SPEC: Temperate <u>35°C</u> Salt-liquor thickness: <u>5</u> % Equipment: Salt spray tester Conclusion Due Date : 16th April, 2023	Test status diagram:
---	-----------------------------

Sample before test	sample after test
	

Test Result										
Sample	Sample1	Sample2								
Come away	OK	OK								
Oxidation	OK	OK								
VSWR	OK	OK								

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 庞会芳

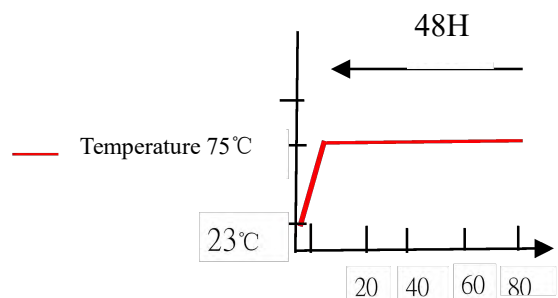
Reliability Test Report

Report No.: HT230324002

Customer Name	Davo Link	Test Date	22-24 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	3PCS
Part No.	6307F00013	Edition	/
Test Purpose	Verify Appearance	Batch number	NA

Test Item: high temperature test Place: laboratory
 Test Standard: GB/T 2423.3
 Test Time: 48H
 Test SPEC: Temperate 75°C
 Equipment: High temperature and high humidity testing machine

Test status diagram:



Sample before test

sample after test

**Test Result**

Sample	Sample1	Sample2	Sample 3						
Variation	ok	ok	ok						
Come Away	ok	ok	ok						
Crack	ok	ok	ok						

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 李敬

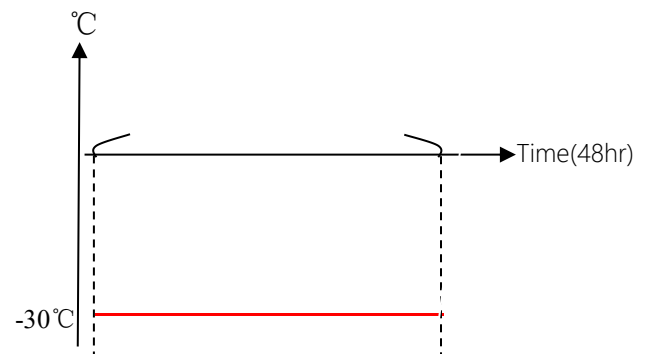
Reliability Test Report

Report No.: :LT230326002

Customer Name	Davo Link	Test Date	24-26 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	3PCS
Part No.	6307F00013	Edition	/
Test Purpose	Verify Appearance	Batch number	NA

Test Item: low temperature test Place: laboratory
 Test Standard: GB/T 2423.1
 Test Time: 48H
 Test SPEC: Temperate -30°C
 Equipment: TEMP&HUMI chamber

Test status diagram:



Sample before test

sample after test

**Test Result**

Sample	Sample1	Sample2	Sample 3						
Variation	ok	ok	ok						
Aberration	ok	ok	ok						
Crack	ok	ok	ok						

Judgement: OK

Remark:

Approved : 唐剑剑

Prepared : 王莲

Review: 李敬

Reliability Test Report

Report No.:20230325006

Customer Name	Davo Link	Test Date	25 th Mar, 2023
Product Name	PCB Antenna	Sample Q'TY	5PCS
Part No.	6307F00013	Edition	/
Test Purpose	Verify Connector Tension	Test Purpose	/

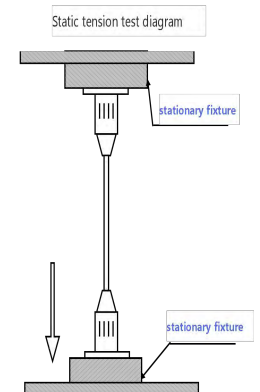
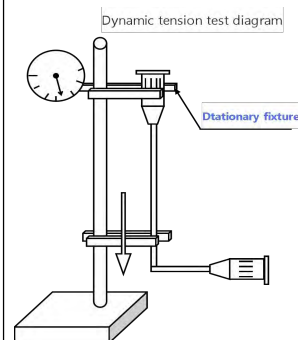
Test Item : Tension Test Place: laboratory

Test Standard : Reference AQA-SIP-C5036-009

Test SPEC

Connector Tension $\geq$ 1.0 kgfEquipment : Tension Testing Machine NK-300Conclusion Due Date : 2024.02.16

Test status diagram:



Sample before test

Sample after test



Test Result:

Sample	Sample1	Sample2	Sample3	Sample4	Sample5
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Appearance :

Connector Tension $\geq$ 1.0kgf	3.1	3.3	2.9	3.1	3.3
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Judgement : OK

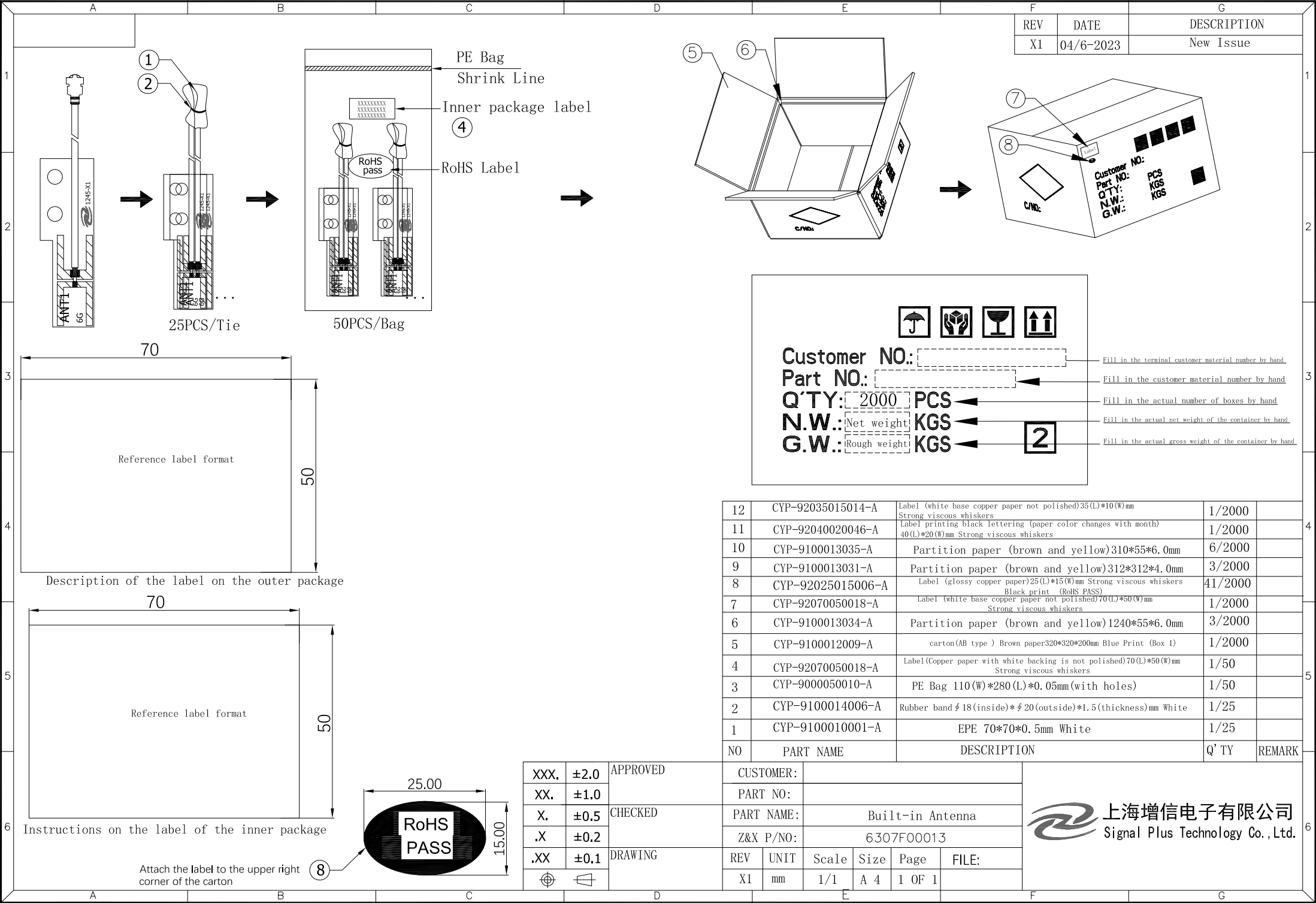
Mark : The pull is far beyond the standard pull

Approved :唐剑剑

Review : 王莲

Prepared: 王丹

REV	DATE	DESCRIPTION
X1	04/6-2023	New Issue



12	CYP-92035015014-A	Label (white base copper paper not polished)35(L)*10(W)mm Strong viscous whiskers	1/2000	
11	CYP-92040020046-A	Label printing black lettering (paper color changes with month) 40(L)*20(W)mm Strong viscous whiskers	1/2000	
10	CYP-9100013035-A	Partition paper (brown and yellow)310*55*6.0mm	6/2000	
9	CYP-9100013031-A	Partition paper (brown and yellow)312*312*4.0mm	3/2000	
8	CYP-92025015006-A	Label (glossy copper paper)25(L)*15(W)mm Strong viscous whiskers Black print (RoHS PASS)	41/2000	
7	CYP-92070050018-A	Label (white base copper paper not polished)70(L)*50(W)mm Strong viscous whiskers	1/2000	
6	CYP-9100013034-A	Partition paper (brown and yellow)1240*55*6.0mm	3/2000	
5	CYP-9100012009-A	carton(AB type) Brown paper320*320*200mm Blue Print (Box 1)	1/2000	
4	CYP-92070050018-A	Label(Copper paper with white backing is not polished)70(L)*50(W)mm Strong viscous whiskers	1/50	
3	CYP-9000050010-A	PE Bag 110(W)*280(L)*0.05mm(with holes)	1/50	
2	CYP-9100014006-A	Rubber band ϕ 18(inside)* ϕ 20(outside)*1.5(thickness)mm White	1/25	
1	CYP-9100010001-A	EPE 70*70*0.5mm White	1/25	
NO	PART NAME	DESCRIPTION	Q' TY	REMARK

CUSTOMER:						
PART NO:						
PART NAME:		Built-in Antenna				
Z&X P/NO:		6307F00013				
REV	UNIT	Scale	Size	Page	FILE:	
X1	mm	1/1	A 4	1 OF 1		

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