



# SAMPLE FOR APPROVAL

CUSTOMER: \_\_\_\_\_ Ruijie Networks Co., Ltd. \_\_\_\_\_

PART NUMBER: \_\_\_\_\_ CUS REV: 01 \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_ EXD-515810VH-1.13-MHF \_\_\_\_\_

SUBMITTED DATES: \_\_\_\_\_ 2019.06.10 \_\_\_\_\_ EXC REV: 01 \_\_\_\_\_

- ENCLOSED:  DRAWING  INSPECTION REPORT
- SPECIFICATION SHEET



CUSTOMER	QA	APPROVED	MADE
	Chun Wu	Song.liu	Kelvin.li



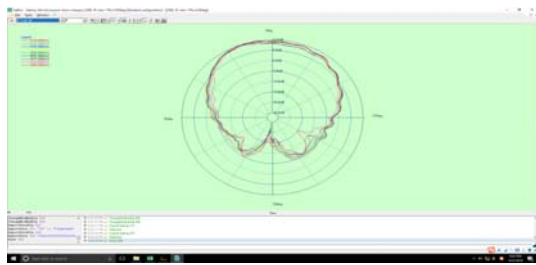
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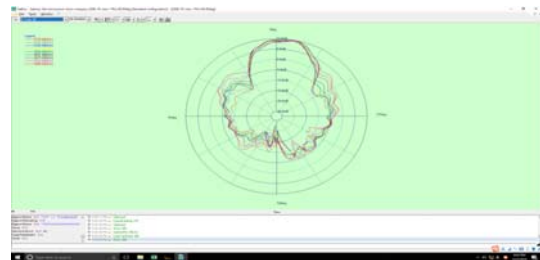


## EST310 Technical specifications of directional antenna ( EXD-515810VH-1.13-MHF)

Electrical specifications		
Antenna typ	EST310 directive antenna	
Frequency range(MHz)	5150-5850	
VSWR	≤2.0	
Impedance(ohm)	50 Ω	
Polarization	horizontal	vertical
Gain(dBi)	11	10
H plan beam width	60	85
E plan beam width	30	33
Max input power(W)	10 W	
Mechanical specifications		
Dimensions(mm)	87.51mm (L) × 70.5mm (W)	
Connector	MHF	
Cable	1.13 coaxial line	
Length	60mm	
Connector position	bottom	
Radome material	Matching machine	
Operating temperature(°C)	-30~+70°C	
RoHS	Accord with RoHS	



2D radiation pattern of plane H



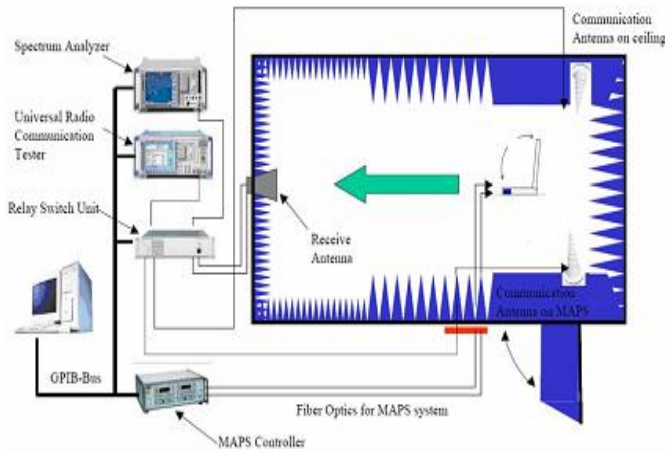
2D radiation pattern on side E



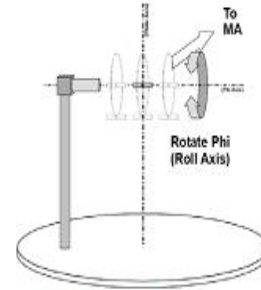
# EST310 SETUP for antenna test

## Test Equipment & Conditions

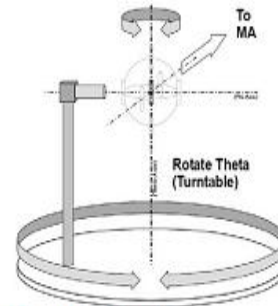
- 1. Network Analyzers : Agilent 5071C
- 2. Communications Test Set: Agilent E5515C CMW500
- 3. 3D Chamber Test System



(Testing by 3D anechoic chamber)



Phi axis test

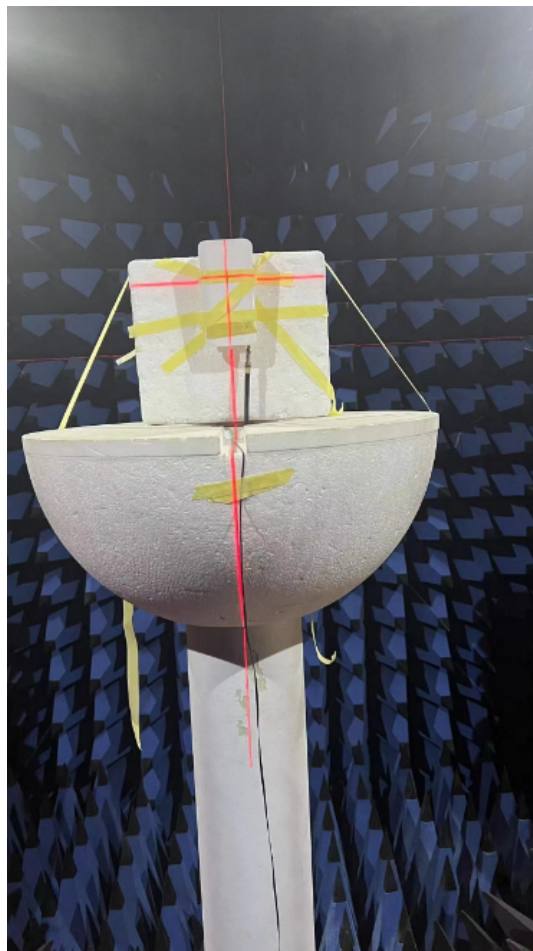
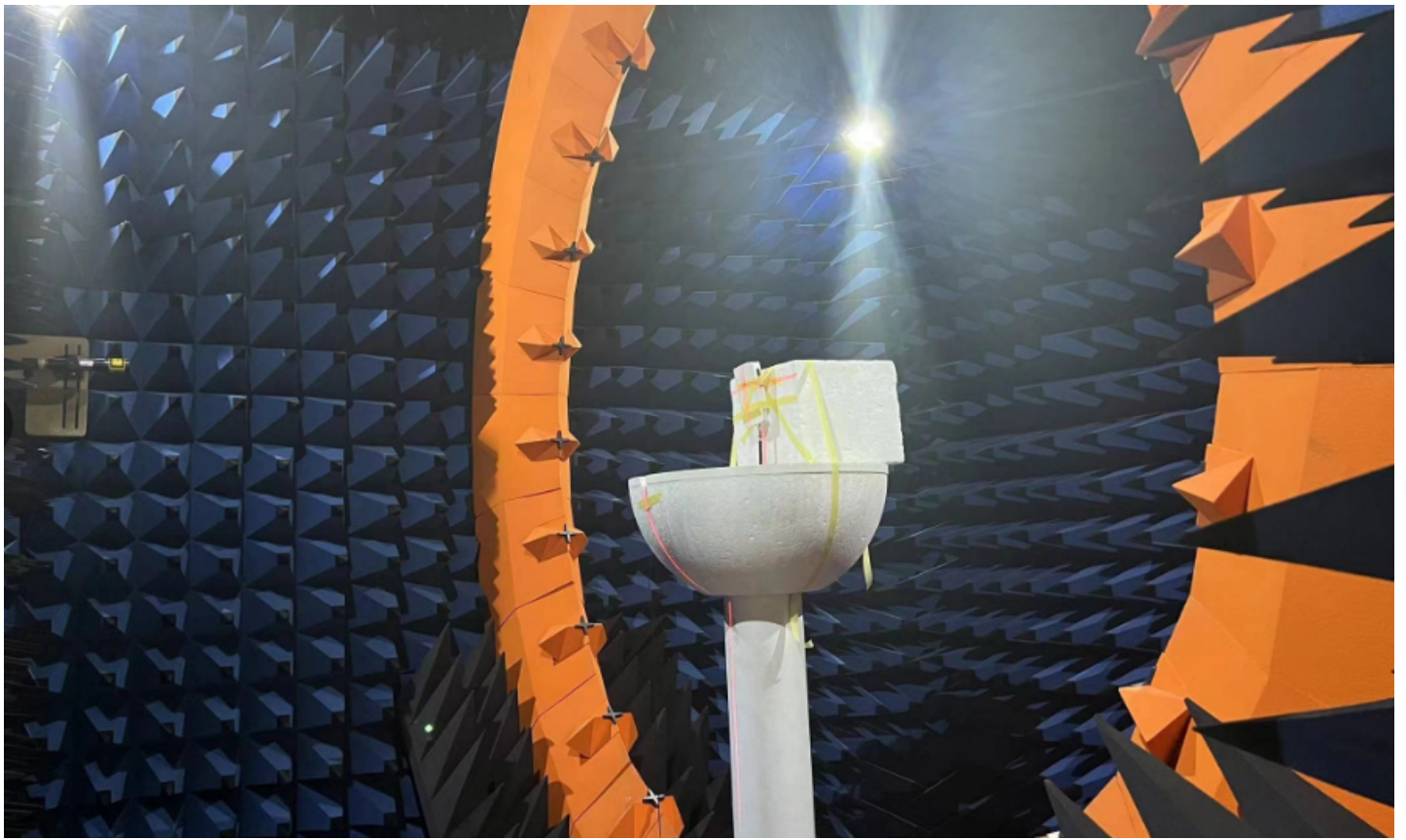


Theta axis test

## EST310 radiation Set-up



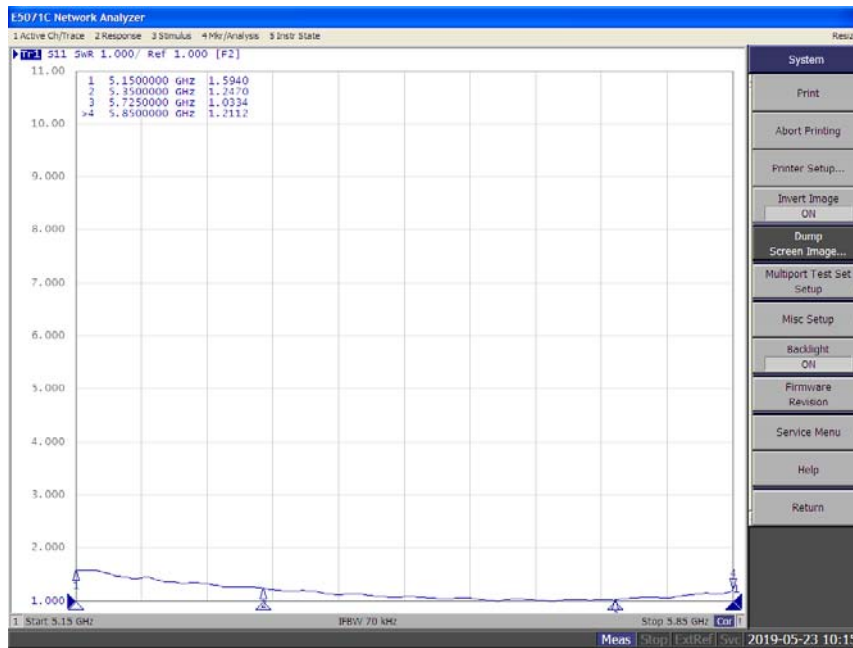
Exceltek Electronics Technology(DG) Co.,Ltd  
 Tel: +86-769-83914041 Fax: +86-769-83914043  
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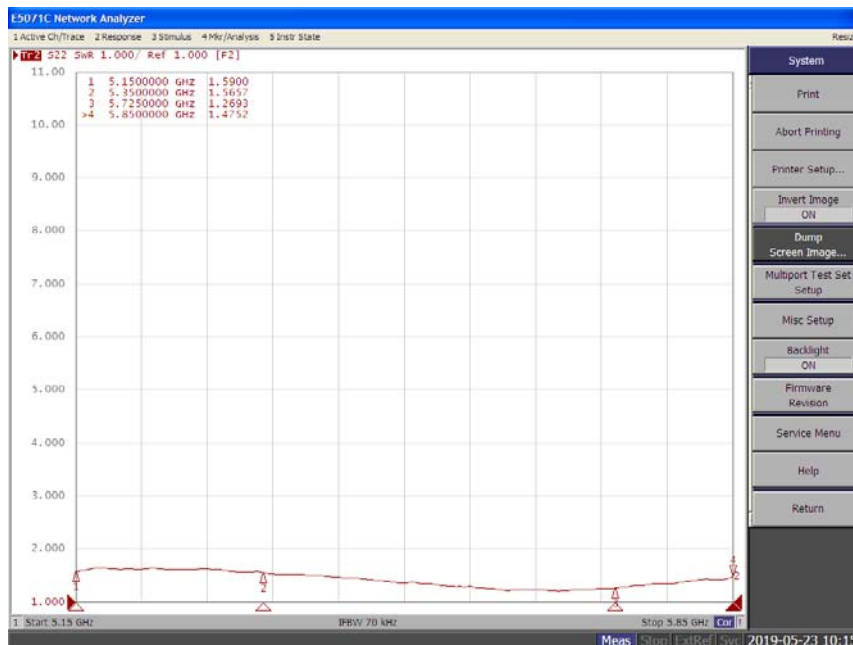


# EST310 Antenna test report (EXD-515810VH-1.13-MHF)

## 一、 VSWR



horizontal y-polarized antenna VSWR<=2.0@5150MHZ-5850MHZ

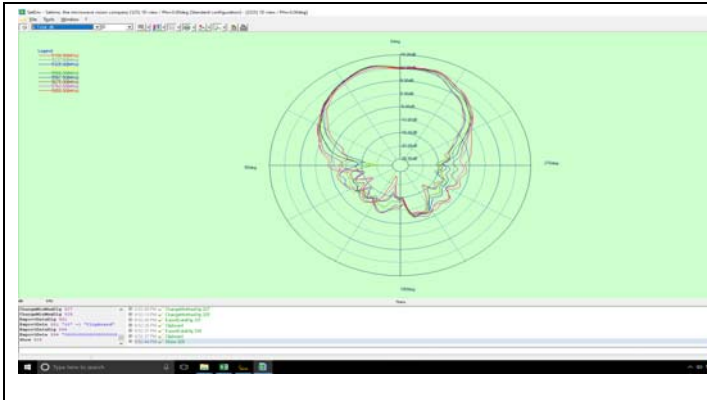


Vertically polarized antenna VSWR<=2.0@5150MHZ-5850MHZ

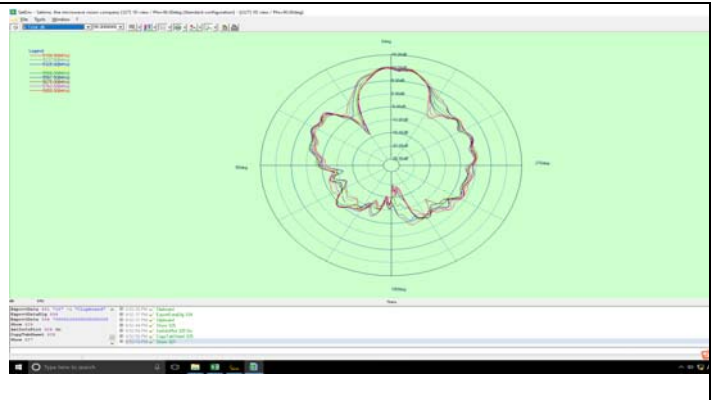




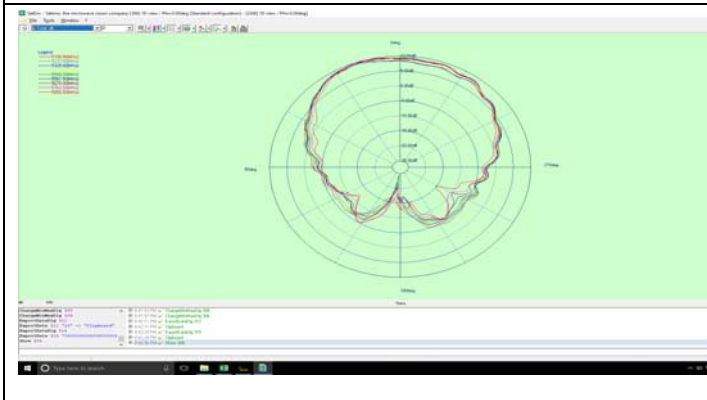
## 2、2D di recti on di agram



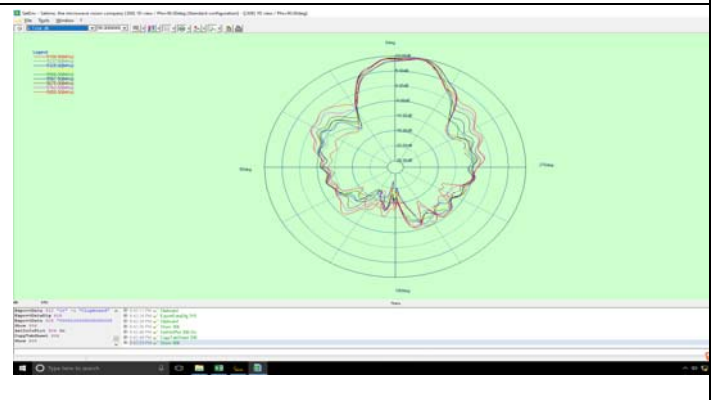
2D radiation direction diagram of horizontally polarized Port (Plane H)



2D radiation direction diagram of horizontally polarized Port (Plane E)

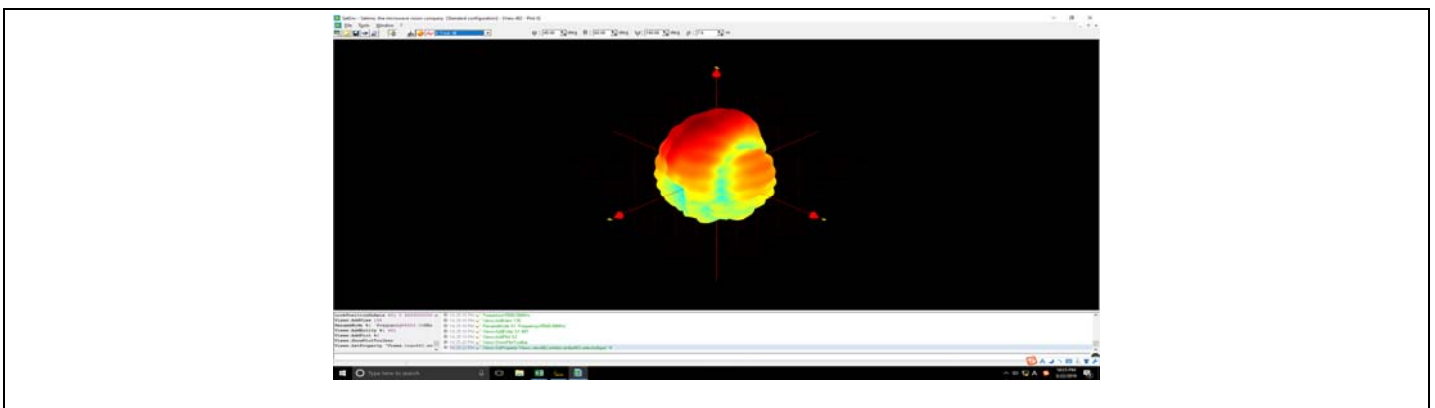


2D radiation direction diagram of vertical polarized Port (Plane H)

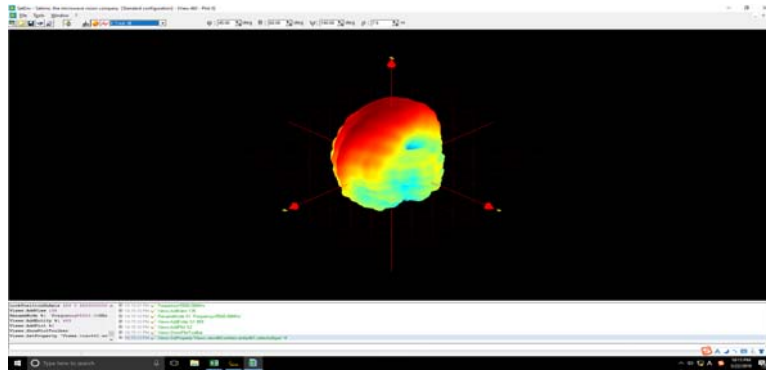


2D radiation direction diagram of Vertical polarized Port (Plane E)

## 3、3D di recti onal di agram



3D radiation direction of horizontally polarized antenna



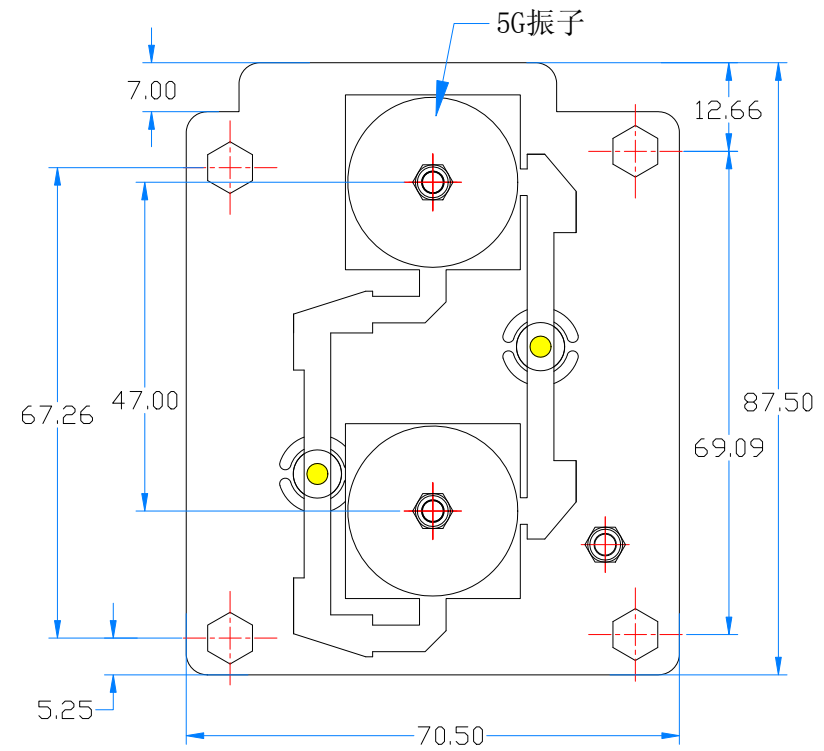
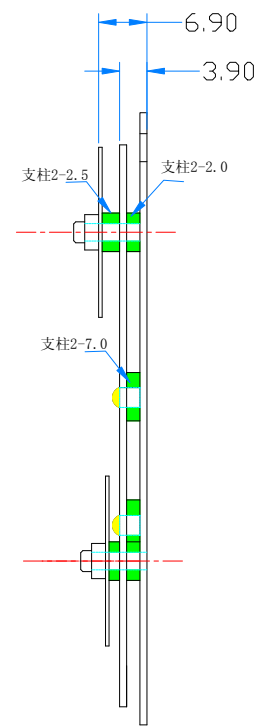
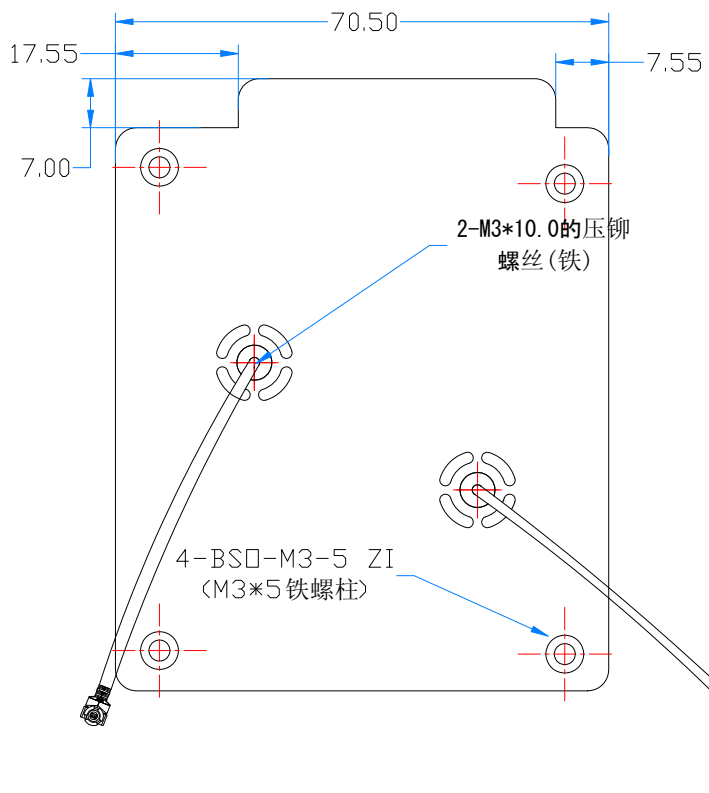
3D radiation direction of vertically polarized antenna

#### 4、Gain and efficiency

Frequency (MHZ)	vertical polarization			horizontal polarization		
	gain (dbi)	H Angle	E Angle	gain (dbi)	H Angle	E Angle
5150	9.82826538	99.92 deg	32.85 deg	11.5003244	56.20 deg	34.71 deg
5237	9.88804182	91.12 deg	33.37 deg	11.5085347	56.92 deg	33.62 deg
5325	9.8634936	88.70 deg	33.17 deg	11.618761	58.92 deg	33.38 deg
5412	9.96609651	87.71 deg	34.28 deg	11.7013229	59.84 deg	31.14 deg
5500	10.2131103	88.72 deg	34.59 deg	11.8585609	61.33 deg	29.29 deg
5587	9.91286034	87.83 deg	35.44 deg	11.5992127	61.51 deg	29.65 deg
5675	10.1941459	85.00 deg	35.45 deg	11.5933383	63.83 deg	30.40 deg
5762	10.086081	84.16 deg	33.02 deg	11.269317	66.47 deg	29.31 deg
5850	9.80669927	81.26 deg	32.54 deg	10.7255604	69.65 deg	29.10 deg



REV	DESCRIPTION	DATE
01	DRAWING RECEIVED	2019.05.30



NOTES:  
1、频率: 5150-5850MHZ, VSWR<=2.0;  
2、所有材质需符合ROHS标准;

THIRD ANGLE PROJECTION 	DRAWING APPROVAL		 <b>Exceltek</b> Electronics Technology(DG) Co.,Ltd
	DWN:		
TOLERANCES UNLESS OTHERWISE SPECIFIED ONE PLACE DECIMAL .X ±0.2 TWO PLACE DECIMAL .XX ±0.1 THREE PLACE DECIMAL .XXX N/A HOLE DIA. VARIATION .XX ±0.05 ANGULAR DIMENSION (ENG) ±1°	CHK:	REV: 01	
	APPD:	TITLE: EST310定向天线EXD-515810VH-1.13-MHF	
	SIZE: A4 UNIT: mm	SHEET: 1 OF 1	SCALE: 1:1

# Declaration of RoHS Conformity

Declares on raw material, package and process additive that use for specified in column that delivery to customers has been designed and manufactured in compliance with EU Directive 2011/65/EU RoHS requirement of restricted of hazardous substance. Upon the parts specified, we shall take the initiative in time to notify customers about the approval sheet once the material/manufacturing change to make product have any deviation on RoHS.



Company

Exceltek Electronics Technology(DongGuan)Co.,Ltd

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**Exceltek Electronics Technology (Dongguan) co., Ltd**

## **Certificate Of Compliance**

WE HEREBY CERTIFY THAT ALL RF CABLE ASSEMBLIES LISTED BELOW ARE MANUFACTURED IN COMPLIANCE WITH Ruijie REQUIREMENTS. FOR THE RAW MATERIAL INFORMATION, PLEASE REFER TO THE ATTACHED PART LIST.

P/O.: SAMPLE

◆ REV: 01

QTY: 5 PCS

◆ DESCRIPTION: EXD-515810VH-1.13-MHF

◆ RoHS COMPLIANCE



REVIEWED BY: Kart Duan

DATE: 2019-06-10

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