Confidential Information

VLG TECHNOLOGY

VLG Communication Technology Limited
Address: 4th Floor, Building B5, Taohuayuan Technology Innovation Ecological Park, Tiegang Community, Xixiang Street, Bao'an District, Shenzhen, China

Name	U35	Frequency	5725-5850MHz
Model	V1516-008-A-04/05		A
	Hushuai		
	2024-10-17		
VLG Communication Technology			

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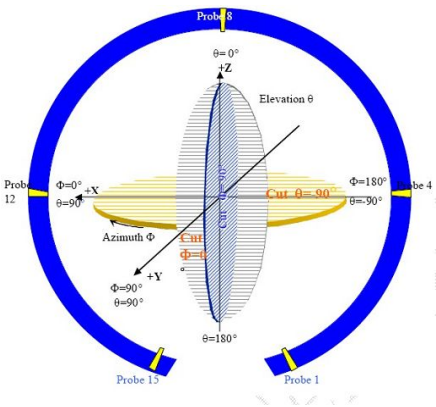
1、Antenna picture

The report mainly provides the test status of various electrical performance parameters of U45 Antenna 。U45 antenna is a single frequency antenna， Antenna 5725-5850MHz。 The antenna picture is shown below。

Antenna picture

2、Antenna testing equipment

The antenna input characteristics were tested using an Agilent E5071C vector network analyzer; Antenna radiation characteristics were measured using a Satimo Starlab 3D near-field microwave antrum chamber, Use the instrument Agilent E5071C comprehensive measuring instrument 。The 3D chambertest coordinates are as follows:



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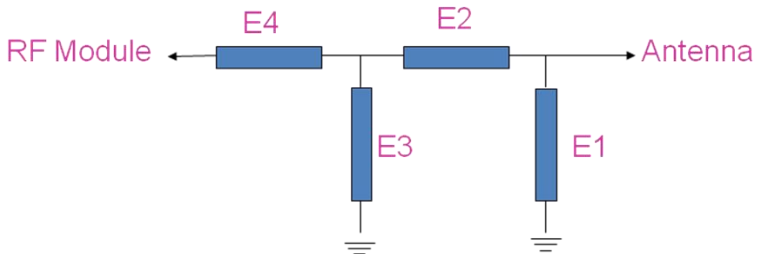
The matching circuit of the antenna

antenna matching circuit is provided by the customer。



Element	Value
E1(0402)	NA
E2(0402)	0 Ω
E3(0402)	NA
E4(0402)	0 Ω

3、Electrical properties

3.1 The standard specifications

U45 antenna operating frequency range of 5725-5850MHz; The following table is the test index of U45 antenna performance by VLG。

	frequency (MHz)	VSWR	frequency (MHz)	VSWR
Frequency	TX		RX	
	5725MHz~5850MHz	≤3. 5	5725MHz~5850MHz	≤3. 5

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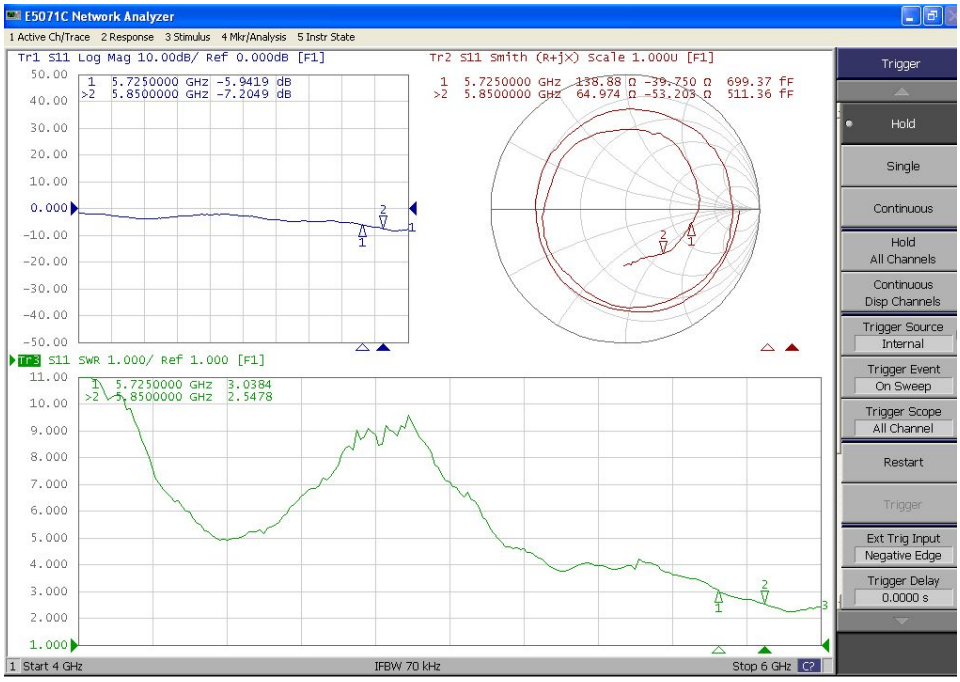
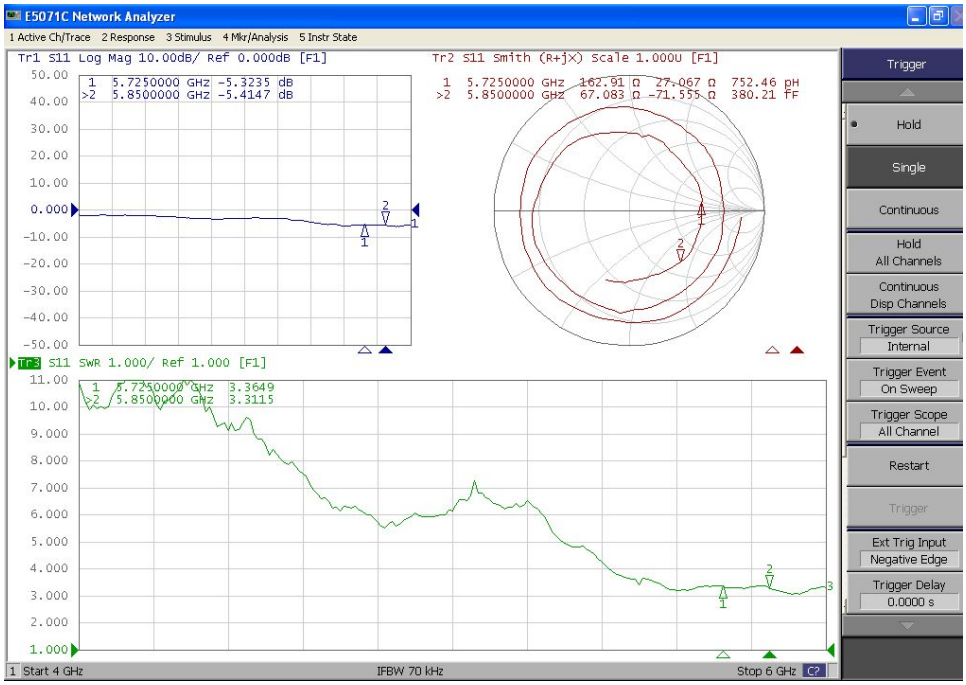
3.2 S11：

Return loss、VSWR、Smith chart

ANTENNA 1#



ANTENNA 2#



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ANTENNA TX

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3.3 The efficiency of the antenna

ANTENNA 1#

U45接收1# RX1		
Frequency (MHZ)	Efficiency	Gain (dBi)
5720	39.98%	2.28
5730	41.55%	2.43
5740	43.20%	1.44
5750	42.70%	2.15
5760	43.31%	2.60
5770	47.83%	3.37
5780	47.86%	2.26
5790	44.04%	2.06
5800	41.59%	2.18
5810	41.72%	2.35
5820	43.37%	1.90
5830	42.09%	1.79
5840	39.61%	2.04
5850	40.22%	2.43

ANTENNA 2#

U45接收2# RX2		
Frequency (MHZ)	Efficiency	Gain (dBi)
5720	37.19%	2.63
5730	37.98%	3.00
5740	38.16%	2.00
5750	36.85%	1.49
5760	37.06%	2.70
5770	40.04%	3.54
5780	39.96%	2.57
5790	38.68%	1.90
5800	36.86%	2.61
5810	36.48%	3.25
5820	36.99%	2.48
5830	35.29%	1.58
5840	33.34%	2.33
5850	32.99%	2.79

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ANTENNA TX

U45发射 TX 1		
Frequency (MHZ)	Efficiency	Gain (dBi)
5720	44.30%	0.74
5730	45.30%	1.27
5740	45.51%	2.15
5750	44.38%	2.06
5760	45.09%	0.85
5770	48.05%	1.78
5780	46.5%	1.85
5790	42.7%	1.63
5800	41.2%	0.51
5810	41.7%	1.01
5820	41.6%	1.61
5830	40.8%	1.24
5840	40.3%	0.17
5850	40.5%	0.55

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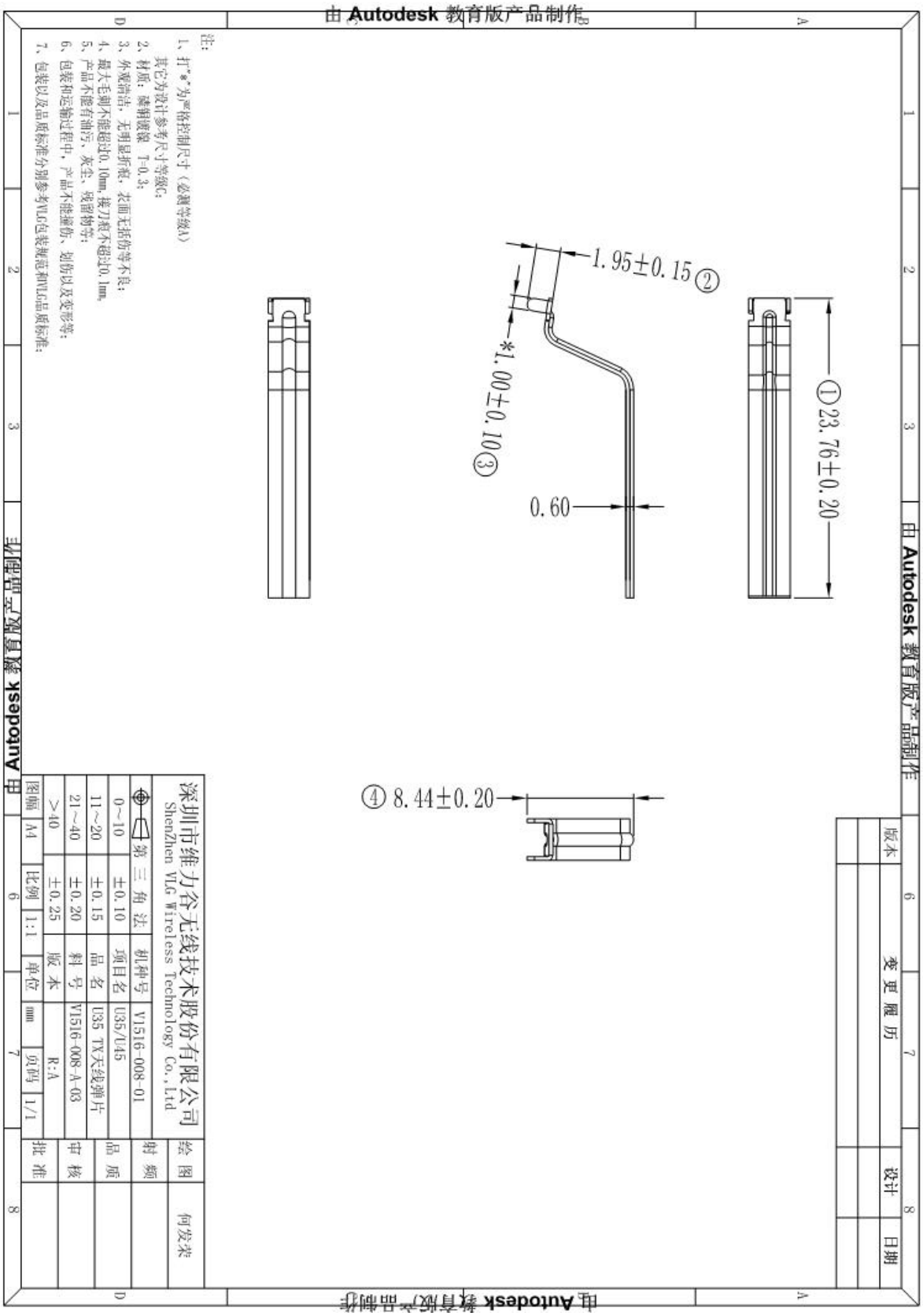

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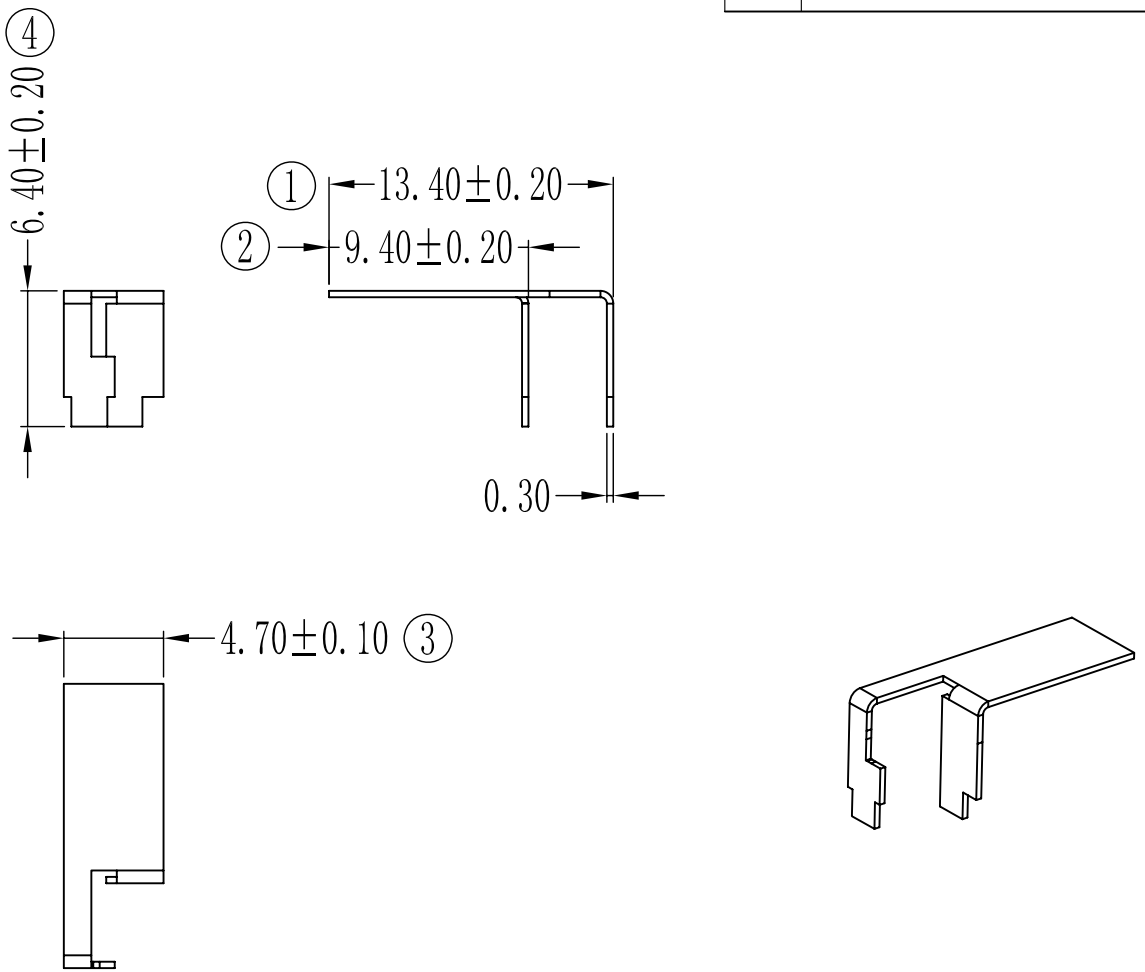

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第 三 角 法			机种号	V1516-008-01				射 频	胡帅
0～10	±0.10		项目名	U35/U45				品 质	余杨
11～20	±0.15		品 名	U45 RX天线1弹片				审 核	陆伟
21～40	±0.20		料 号	V1516-008-A-04				批 准	彦义永
＞40	±0.25		版 本	R:A					
图幅	A4	比例	1:1	单位	mm	页码	1/1		

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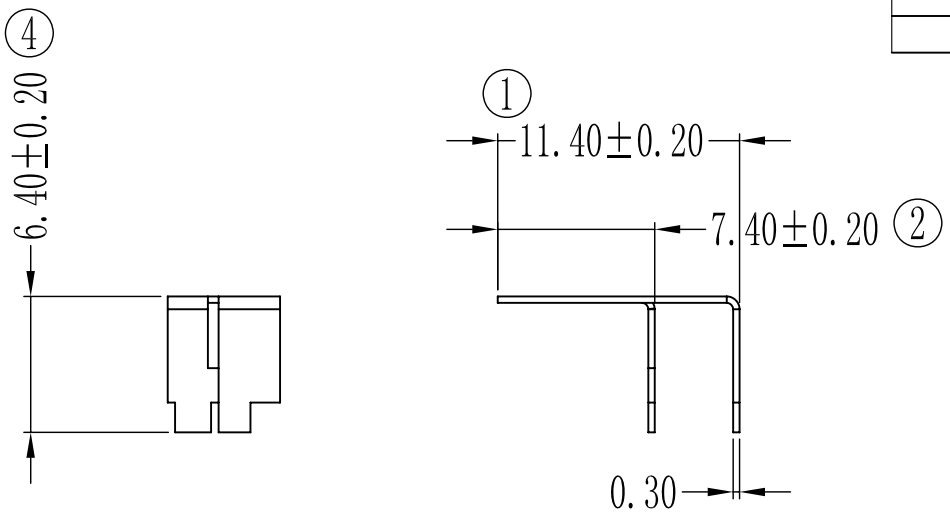

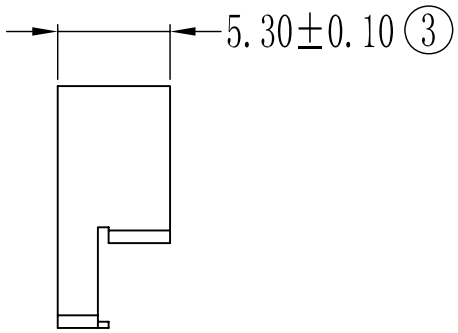

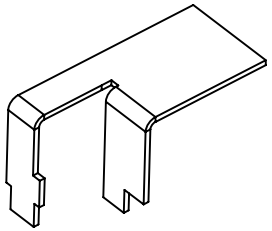

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