



Shenzhen Tongcheng infinite Technology Co., Ltd

SPECIFICATION FOR APPROVAL

supplier: ShenzhenTongchengInfinite Technology Co., Ltd

Supplierspecifications:2.4/5.8G WIFI antenna

Supplier model: TCNZWJ2458G-1

Customer Name : Shenzhen Huaxing Video Technology Co. LTD

Customer Item No : RT001

Version No : RT001antenna V1.0

Sample delivery date : March 13,2023

Acknow ledgme nt column	supplier	RF Engineer	to examine	approval	file
		Yan Peihao	Zhong Anmin	Feng Juan	Zou Fanglan
	customer	Certified Engineer	to examine	approval	file

Contents

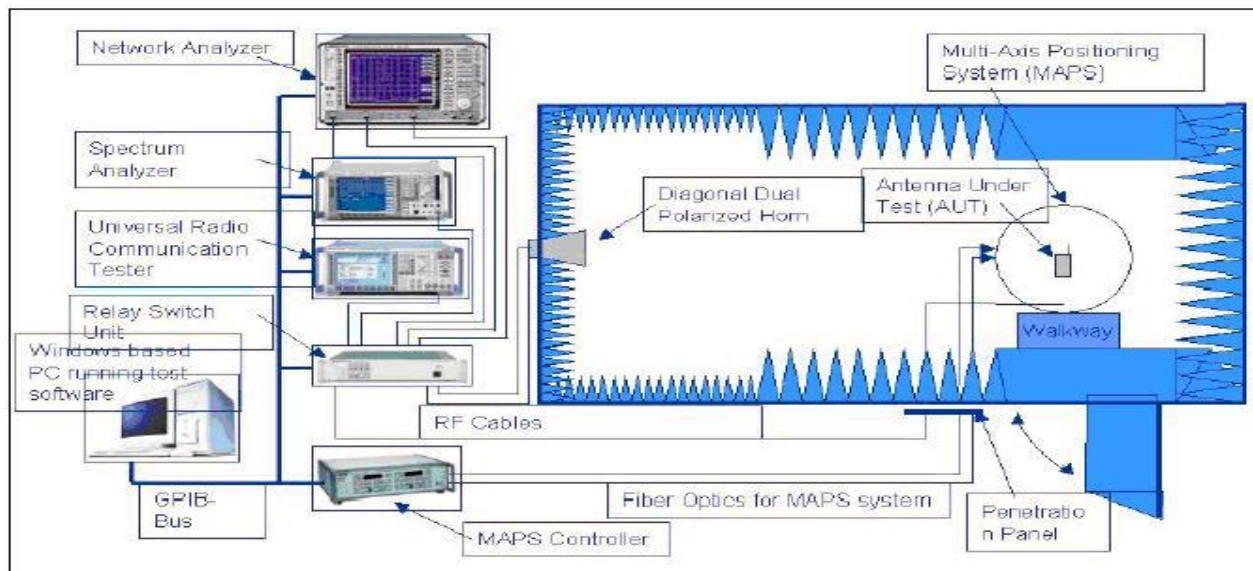
<i>Item</i>	<i>Description</i>
1.....	Test instrument and environment
2.....	Antenna performance
3.....	building-out circuit
4.....	Antenna passive data S11, ReturnLoss, Smith
5.....	Gain of efficiency
6.....	3D antenna orientation diagram
7.....	2D antenna orientation diagram
8.....	Antenna drawing



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1. Test instrument and environment: CTIA 743 darkroom, 8960 / 5515c, the mobile phone is placed back to the turntable 4 meters away from the standard horn antenna:



2. Antenna performance:

serial number	Work index	Working parameters
1	working frequency	2400-2500MHZ/5120-5960MHZ
2	Standing wave ratio	≤ 2.0
3	Return loss	$\leq -8\text{dB}$ Max
4	Antenna gain	Peak gain2.4G 2480MHZ:2.55dBi Peak gain5G 5206MHZ:2.55 dBi Peak gain5G 5346MHZ:2.5 dBi Peak gain5G 5598MHZ:1.7 dBi Peak gain5G 5850MHZ:1.08 dBi
5	Antenna efficiency	2.4G: $\geq 50\%$ 5.8G: $\geq 50\%$
6	Polarization direction	Vertical / horizontal
7	Interface type	Three-generation wire terminal
8	Antenna size	83MM*5.0MM

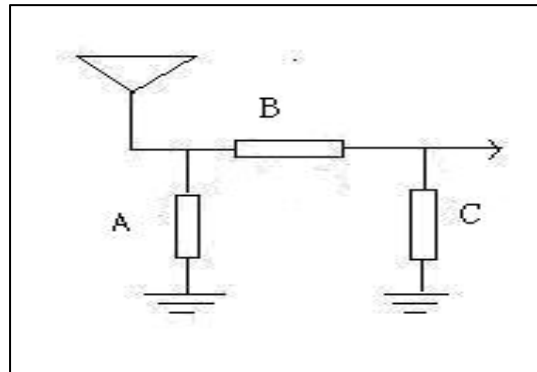


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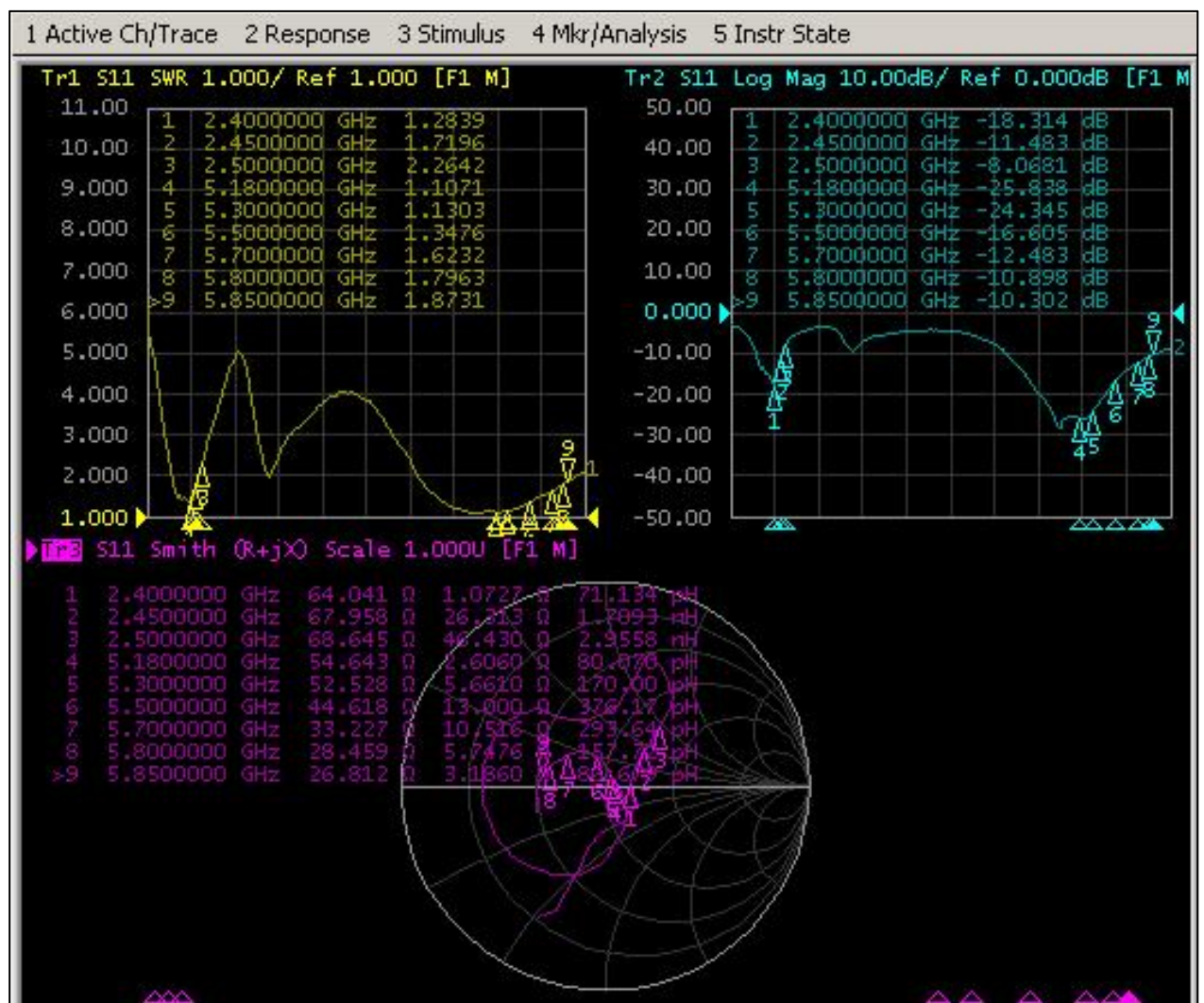
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3. building-out circuit:

No matching circuit was added.



4. Antenna passive data S11, ReturnLoss, Smith :





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5. Gain of efficiency:

Freq (MHz)	Effi (%)	Gain (dBi)
2400	54.32	1.88
2405	54.05	1.8
2410	53.77	1.83
2415	54.86	1.96
2420	55.47	1.97
2425	55.31	1.92
2430	56.05	2.03
2435	58.25	2.33
2440	59.72	2.48
2445	59.97	2.39
2450	57.17	2.22
2455	57.47	2.32
2460	57.42	2.34
2465	57.79	2.29
2470	57.18	2.25
2475	58	2.38
2480	59.45	2.55
2485	60.49	2.62
2490	60.24	2.57
2495	58.8	2.51
2500	58.03	2.57

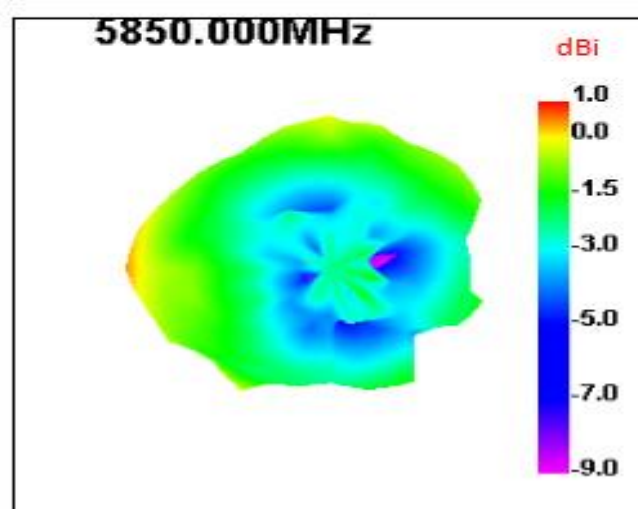
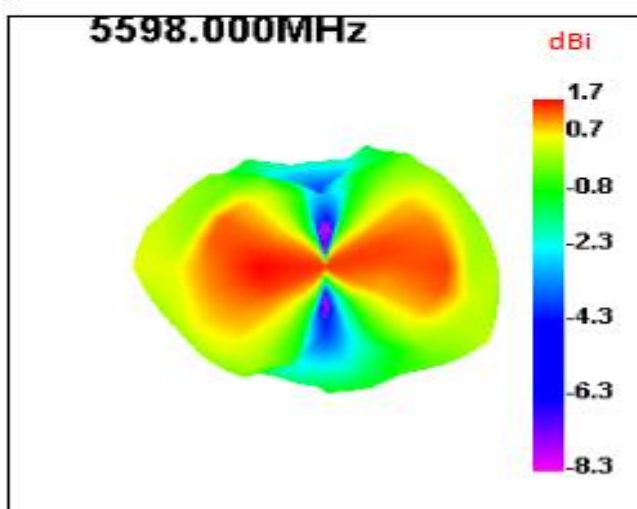
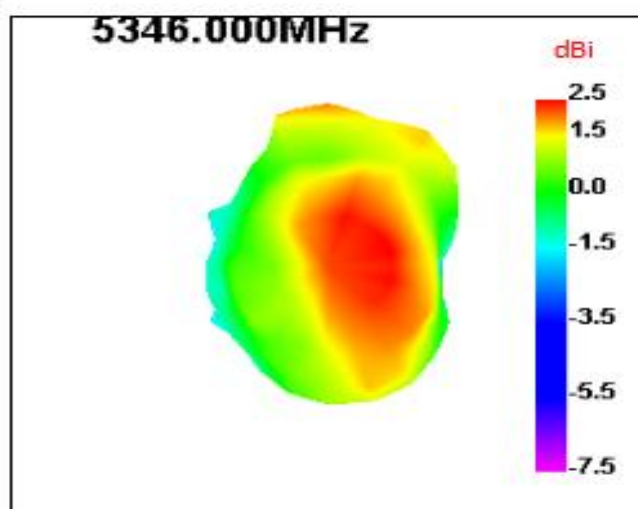
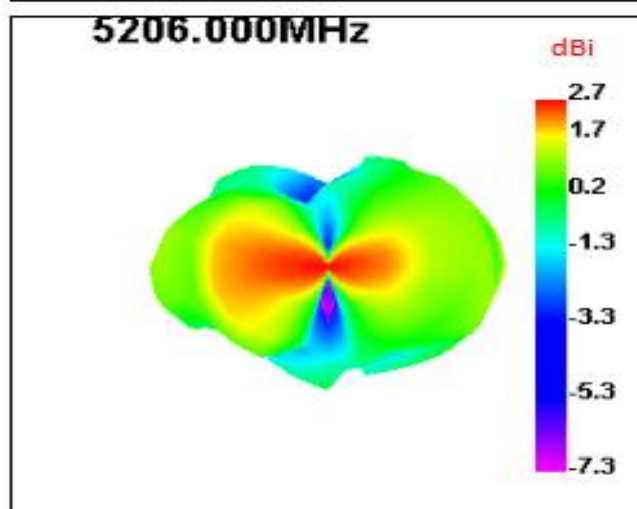
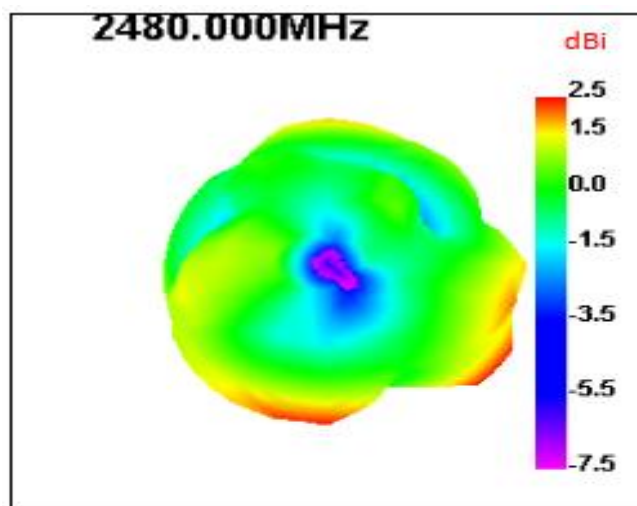
Freq (MHz)	Effi (%)	Gain (dBi)
5150	53.27	2.37
5178	55.43	2.84
5206	57.48	2.71
5234	60.02	2.94
5262	57.24	2.57
5290	57.02	2.39
5318	59.46	2.45
5346	61.61	2.5
5374	62.45	2.41
5402	64.9	2.56
5430	57.54	2.08
5458	56.99	2.01
5486	55.47	1.79
5514	54.03	1.86
5542	54.04	1.83
5570	55.01	1.94
5598	54.38	1.7
5626	57.8	1.81
5654	56.98	1.89
5682	59.16	1.72
5710	57.55	1.31
5738	55.24	1.19
5766	53.57	0.81
5794	50.47	0.56
5822	50.05	0.23
5850	52.7	1.08



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6. 3D antenna orientation diagram:

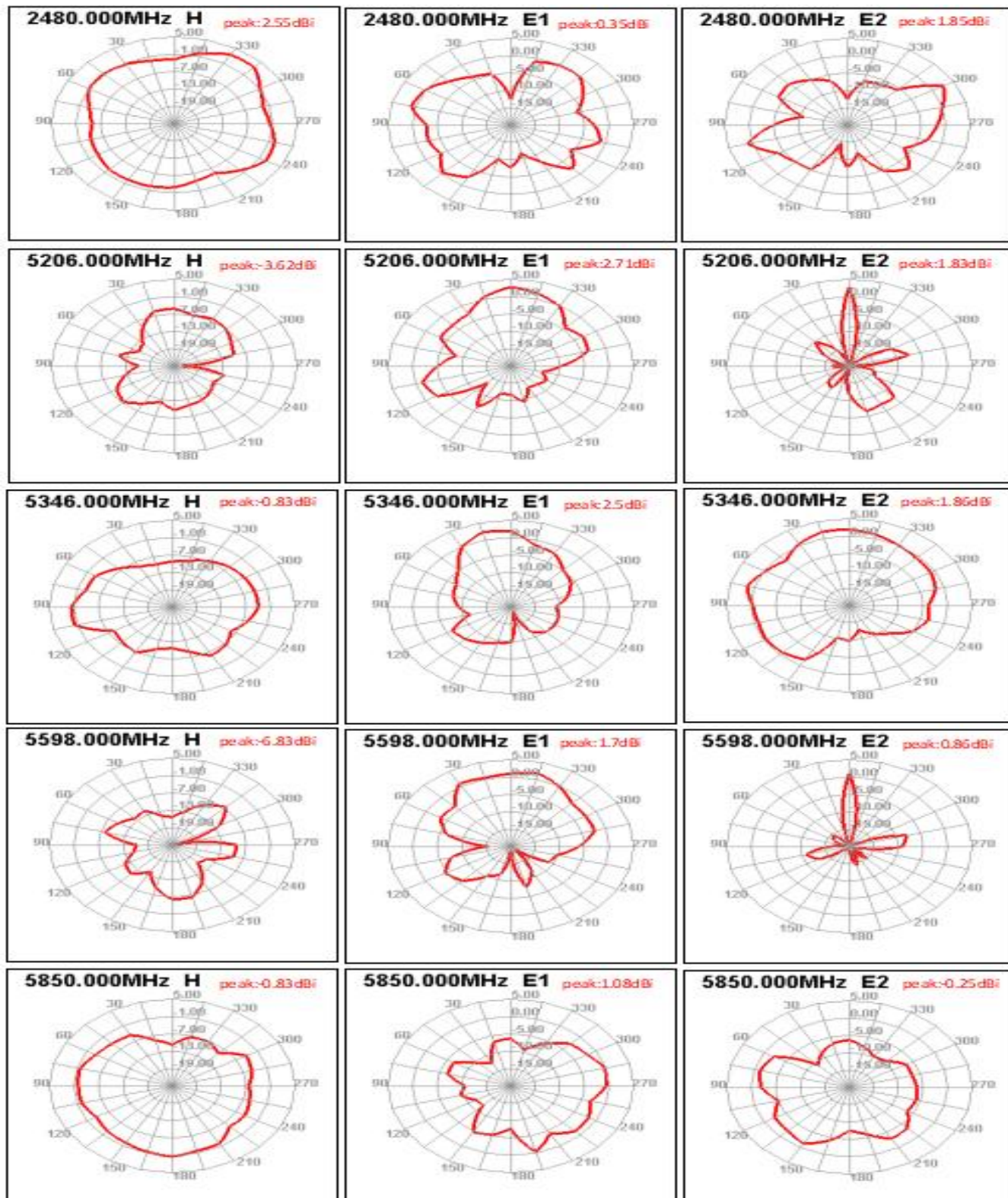




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7.2D antenna orientation diagram:

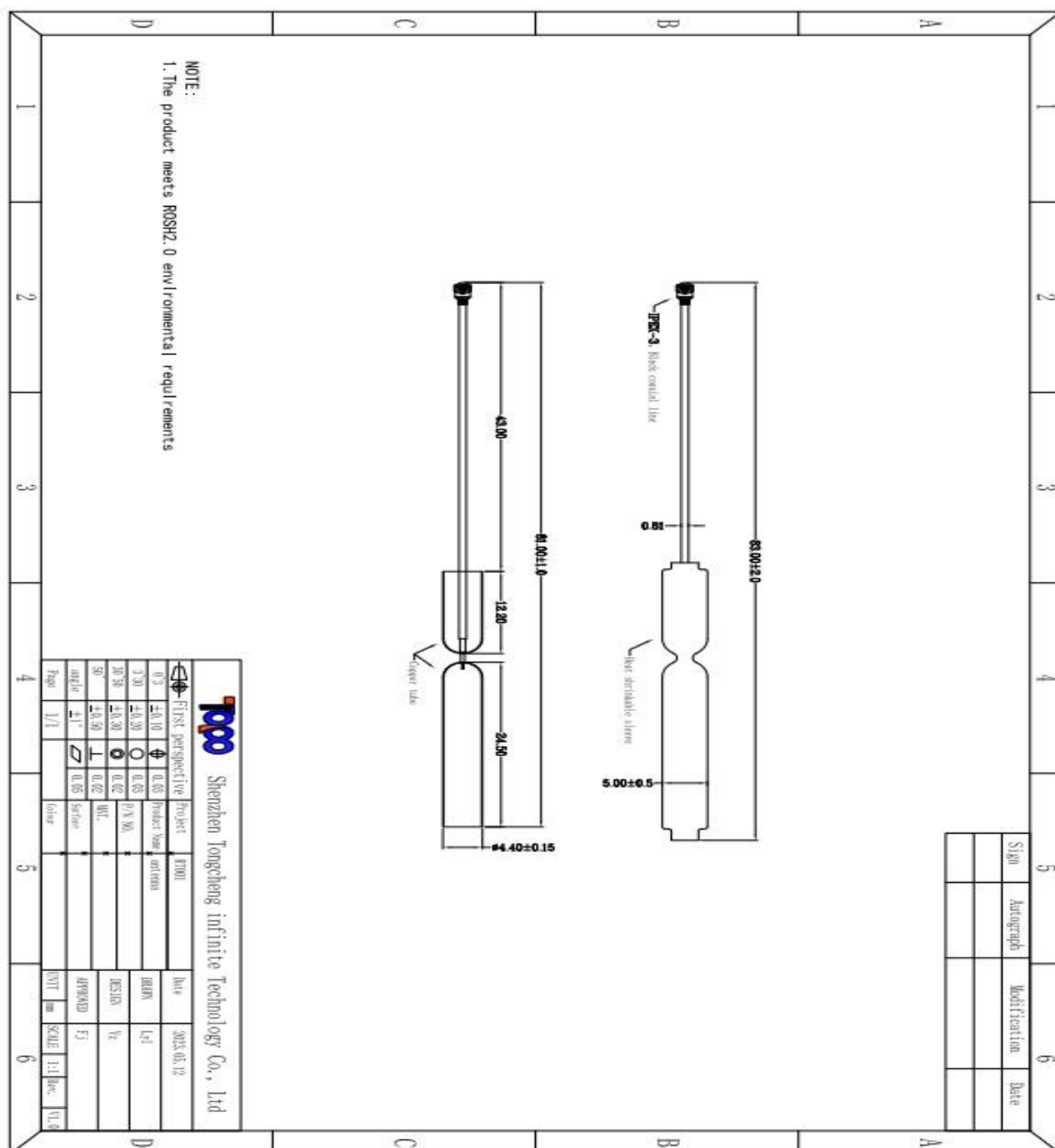




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8. Antenna drawing:



Place of production: Room 403, Jinfulai Complex Building, No. 49-1
Dabao Road, Dalang Community, Xin 'an Street, Bao 'an District, Shenzhen