

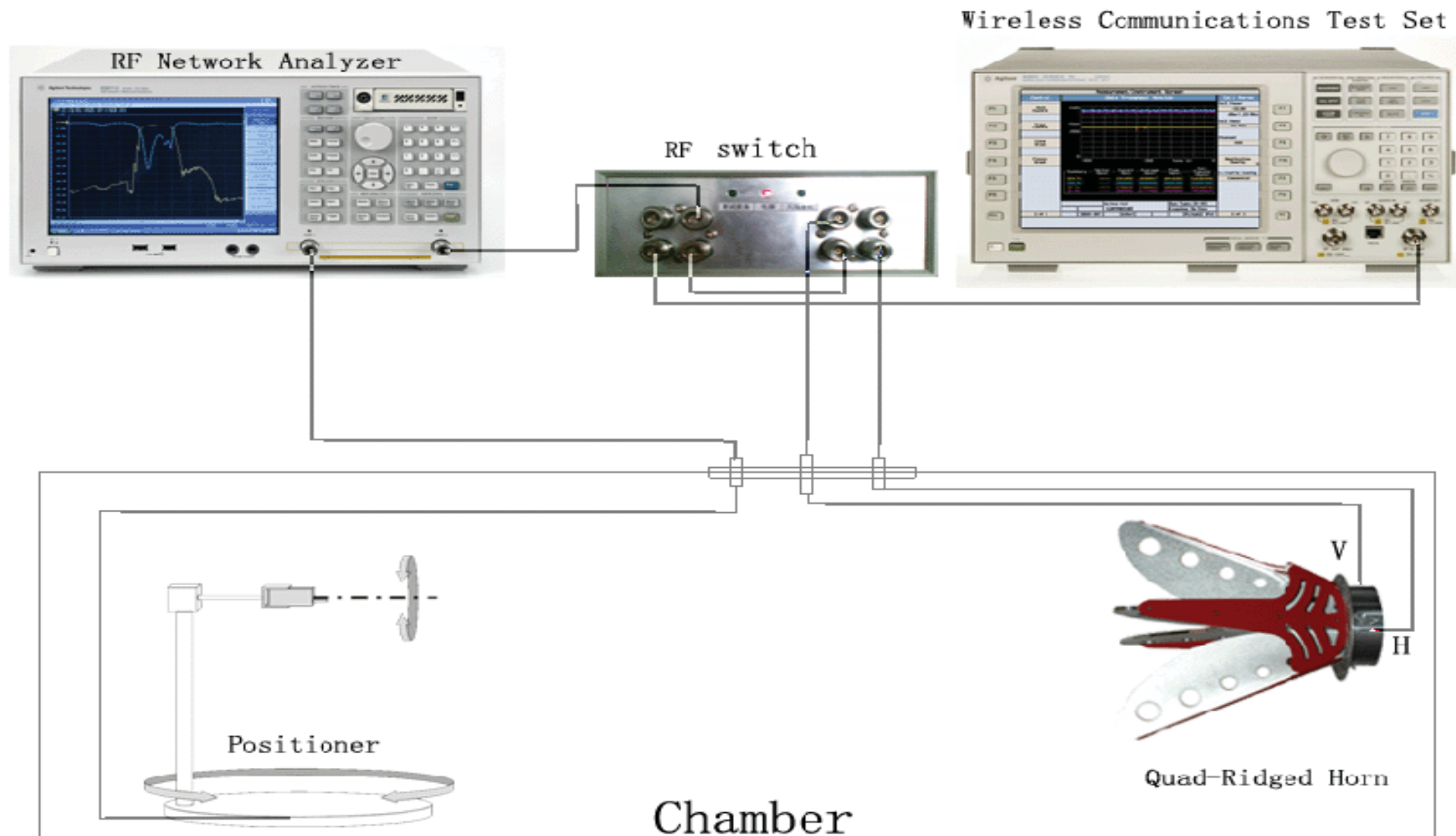
Shenzhen ATN communication co.,Ltd

Antenna Specification

Customer:	ACL	Project name	KBJWH503A	date	JUL 8, 2025
band	2.4G-2.48GHz				
Report version	V1.0				
Antenna type	PCB antenna				

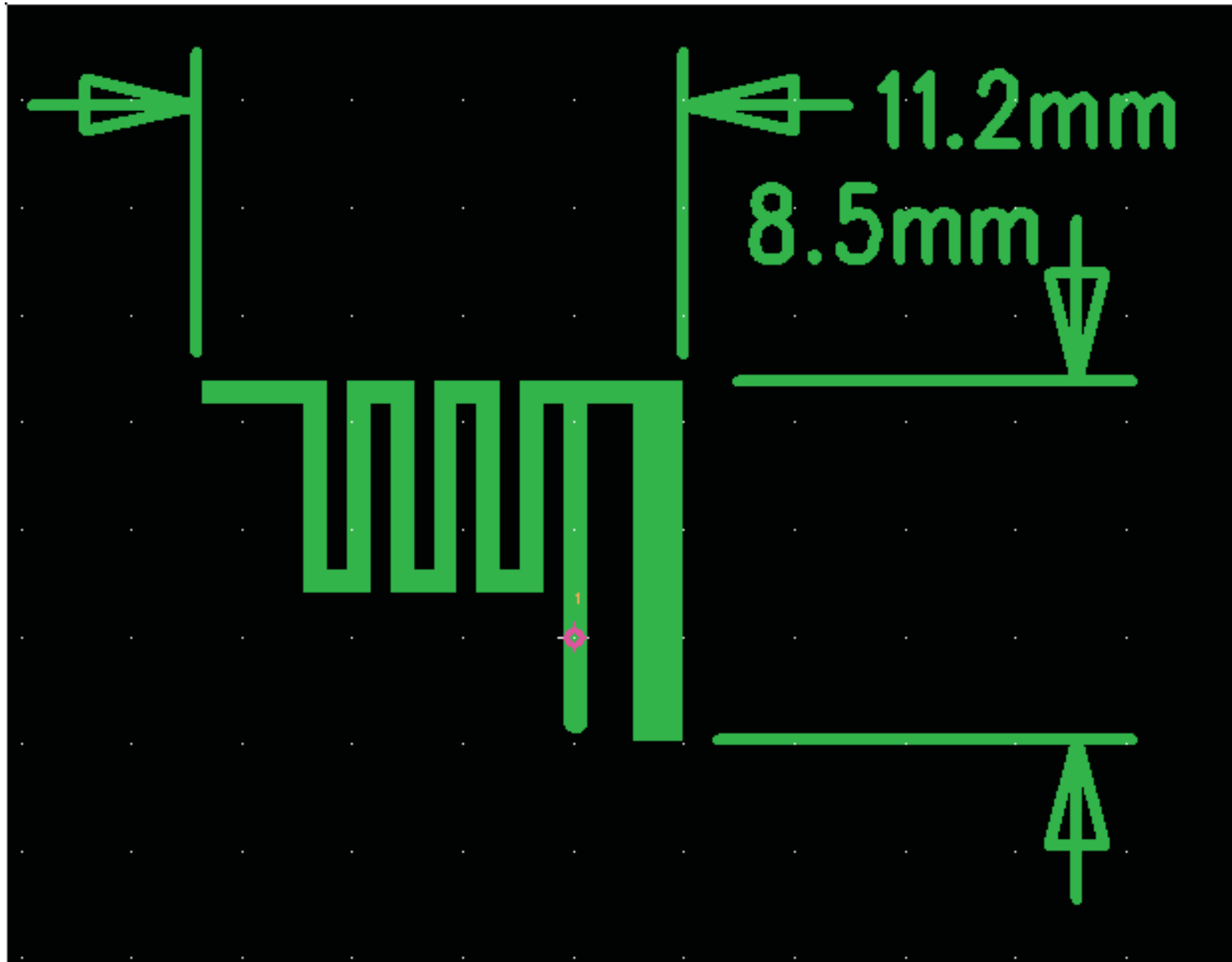
Add:Room 505,Meisheng chuangu Xia Gu,Longchang Road,xin'an Sub-district,Bao'an District,Shenzhen City,Guangdong Province,China

Test system



ATN antenna

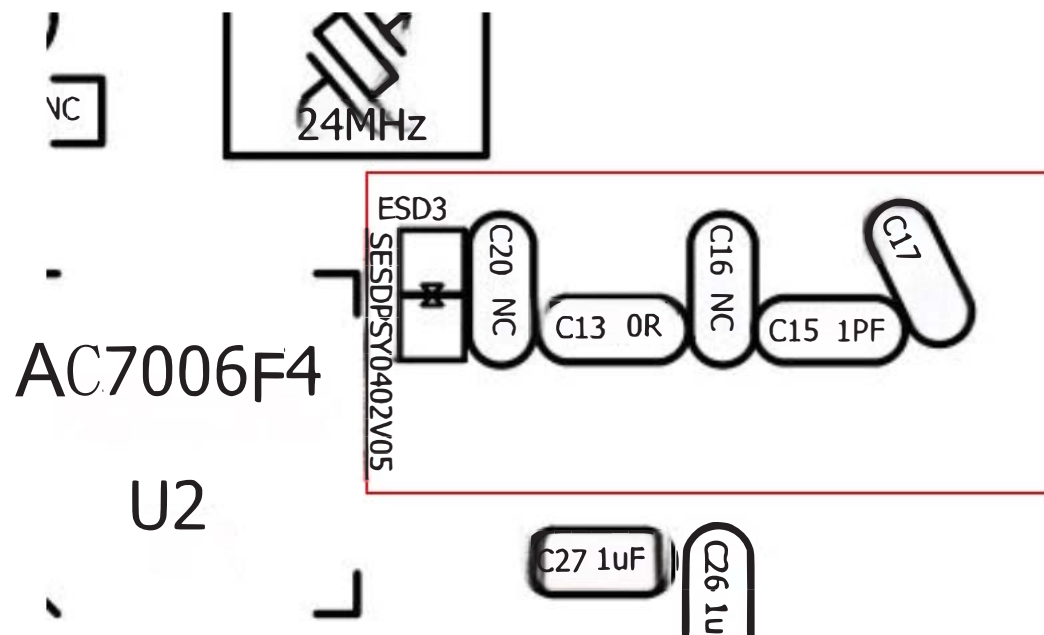
Antenna size



Catalog

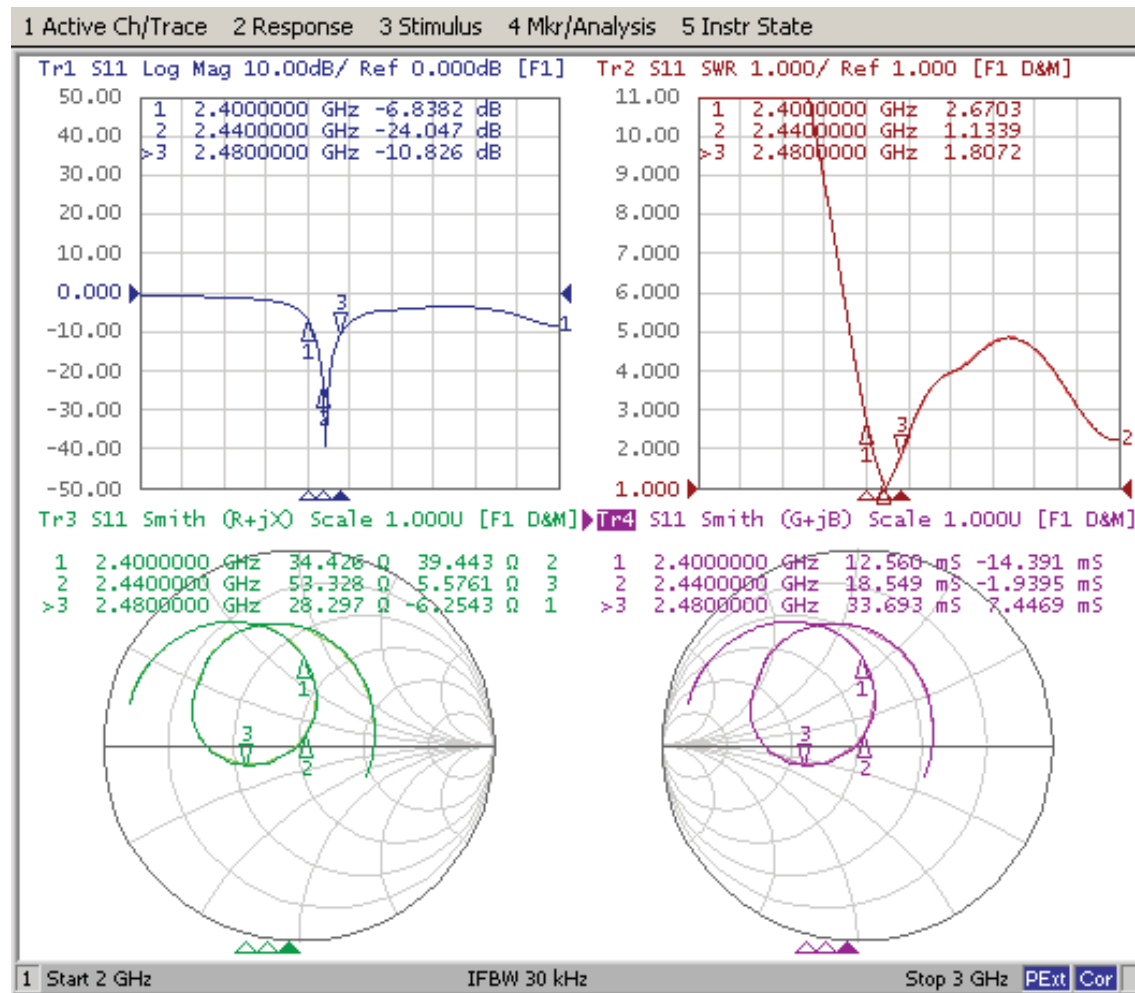
1. Match circuit
2. Passive test data
3. OTA test data

1. match circuit



2. Passive data

2.1 S11 Parameter



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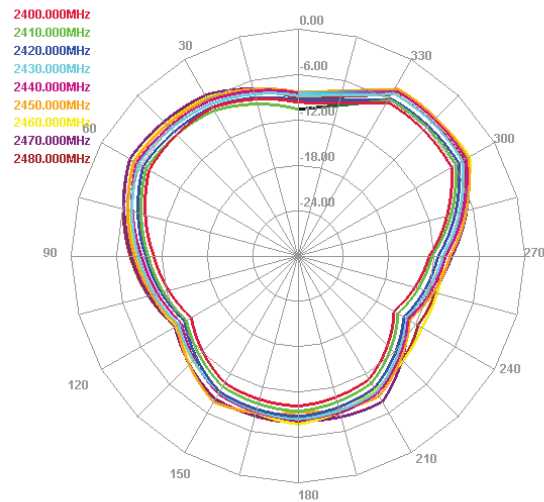
2.2 Gain & Efficiency

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	12.04	-9.19	-4.98
2410	12.73	-8.95	-4.53
2420	14.24	-8.46	-4.13
2430	16.26	-7.89	-3.43
2440	17.89	-7.47	-3.12
2450	19.56	-7.09	-2.52
2460	19.01	-7.21	-2.77
2470	20.53	-6.88	-2.3
2480	19.66	-7.06	-2.36

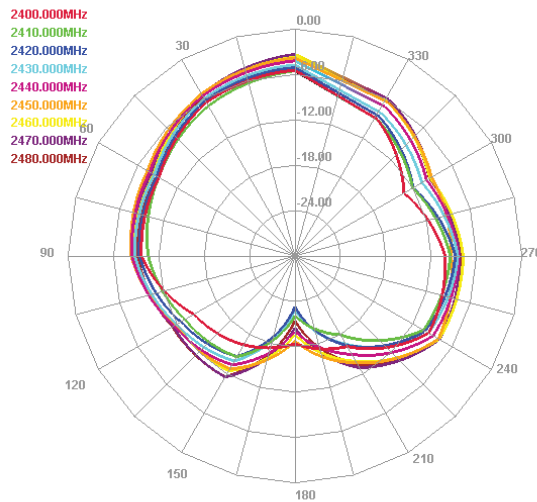
ATN antenna

2.3 Radiation pattern(gain unit:dBi)

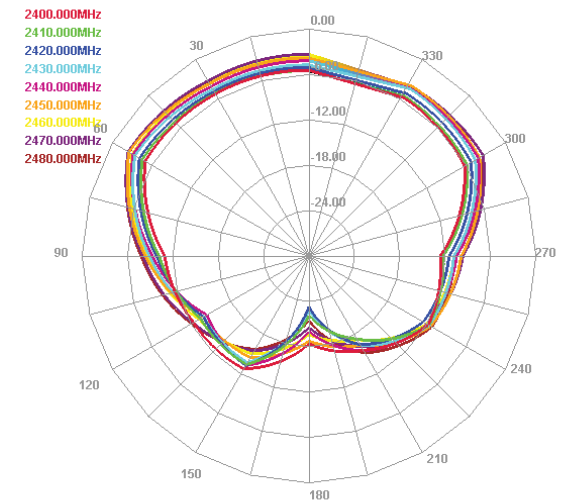
Horizontal



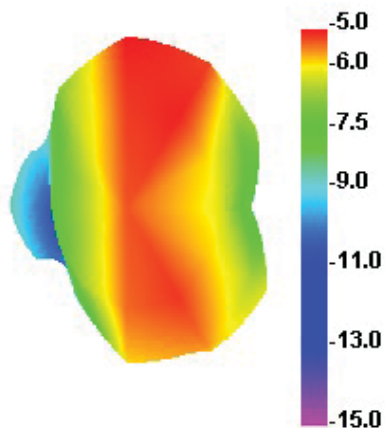
E1 Face



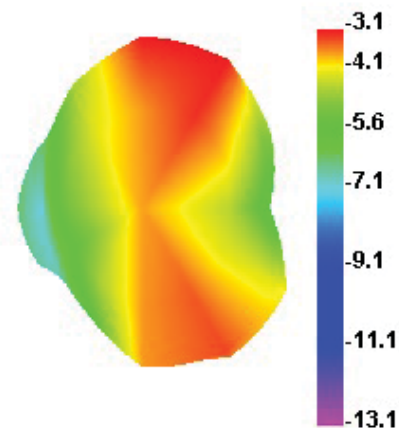
E2 Face



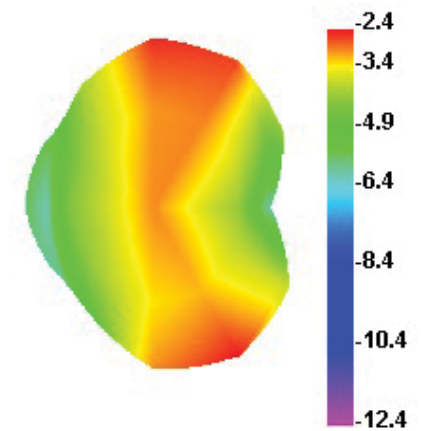
2400.000MHz



2440.000MHz



2480.000MHz



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3. OTA test data

band	channel	TRP (dBm)	TIS (dBm)
Bluetooth BR (free)	0	-1.6	-84.3
	39	-0.8	-85.8
	78	-1.1	-84.5

band	channel	TRP (dBm)	TIS (dBm)
Bluetooth BR (head)	0	-4.0	-80.9
	39	-3.8	-80.7
	78	-3.2	-81.9