

Antenna Test Report

Y299 V1.0

Manufacturer	Dongguan Yichuang Electronics Co., Ltd. 8th Floor, Elevator No.3, Building E, Fengzhimei Industrial Park, Fenggang Town, Dongguan City, Guangdong Province, China
Project name	Y299
Model. IC	--
Model. ANT	WAN337030JD251SN03

2025/01/17

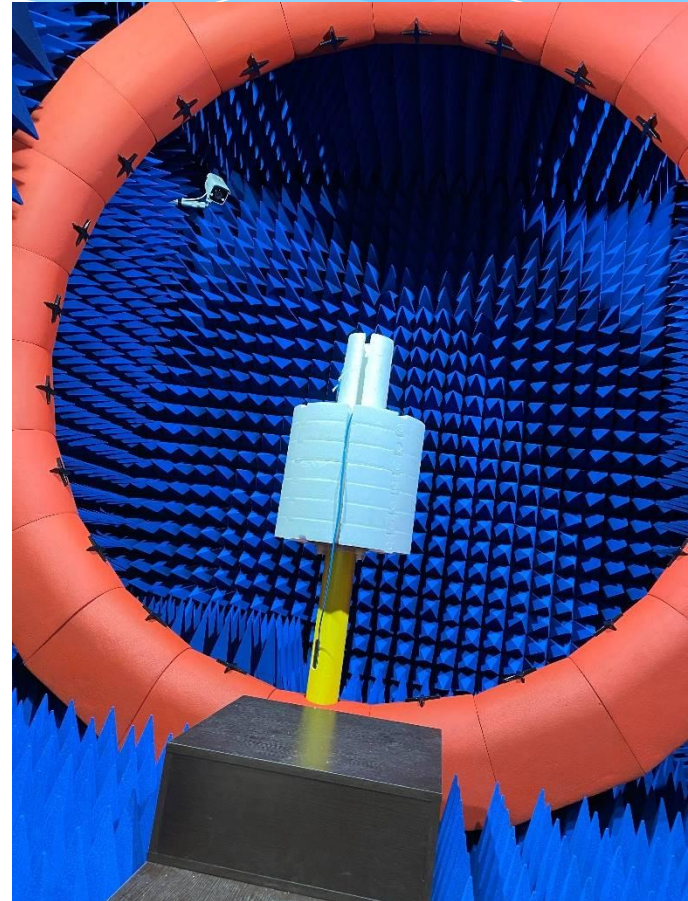
Equipment of OTA test



Network analyzer **E5071C**



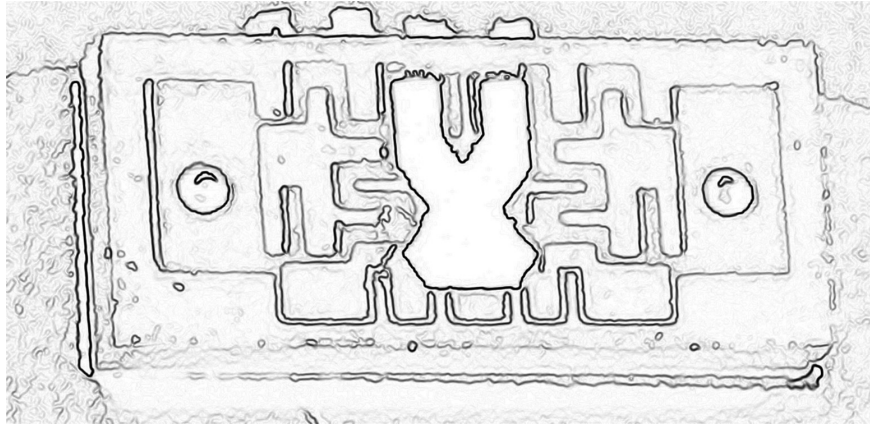
Comprehensive tester **CMW500**



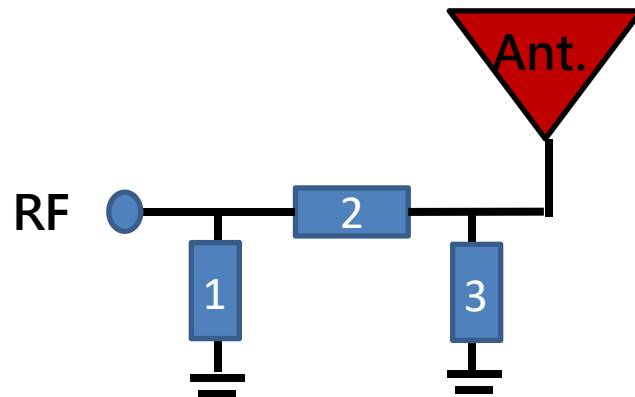
Microwave darkroom FTM-24D multi-probe

Ant. Matching

- Antenna Photo



- Matching Circuit



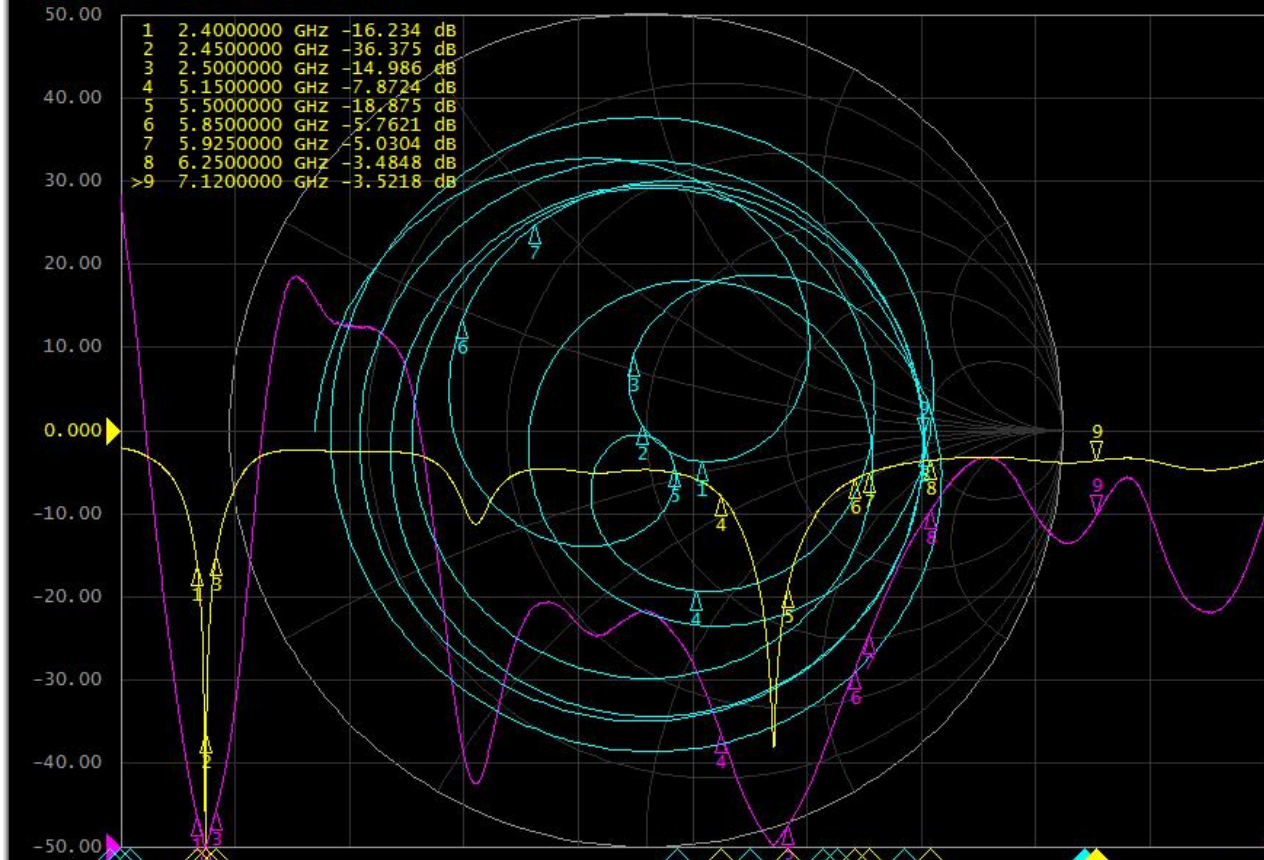
	LC	P/N
Ant.	WAN337030JD251SN03	
1	NC	--
2	1.3nH	Murata
3	2.2nH	Murata

Ant. S11 Parameter

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Tr1 S11 Log Mag 10.00dB/ Ref 0.000dB [F1]
Tr2 S11 Smith (R+jX) Scale 1.000V [F1]
Tr3 S11 SWR 1.000/ Ref 1.000 [F1]



1 Start 2 GHz

IFBW 70 kHz

Stop 8 GHz

Cor

Hold

Stop

ExtRef

Svc

2025-01-16 19:06

Resize

Trigger

Hold

Single

Continuous

Hold
All Channels

Continuous
Disp Channels

Trigger Source
Internal

Trigger Event
On Sweep

Trigger Scope
All Channel

Restart

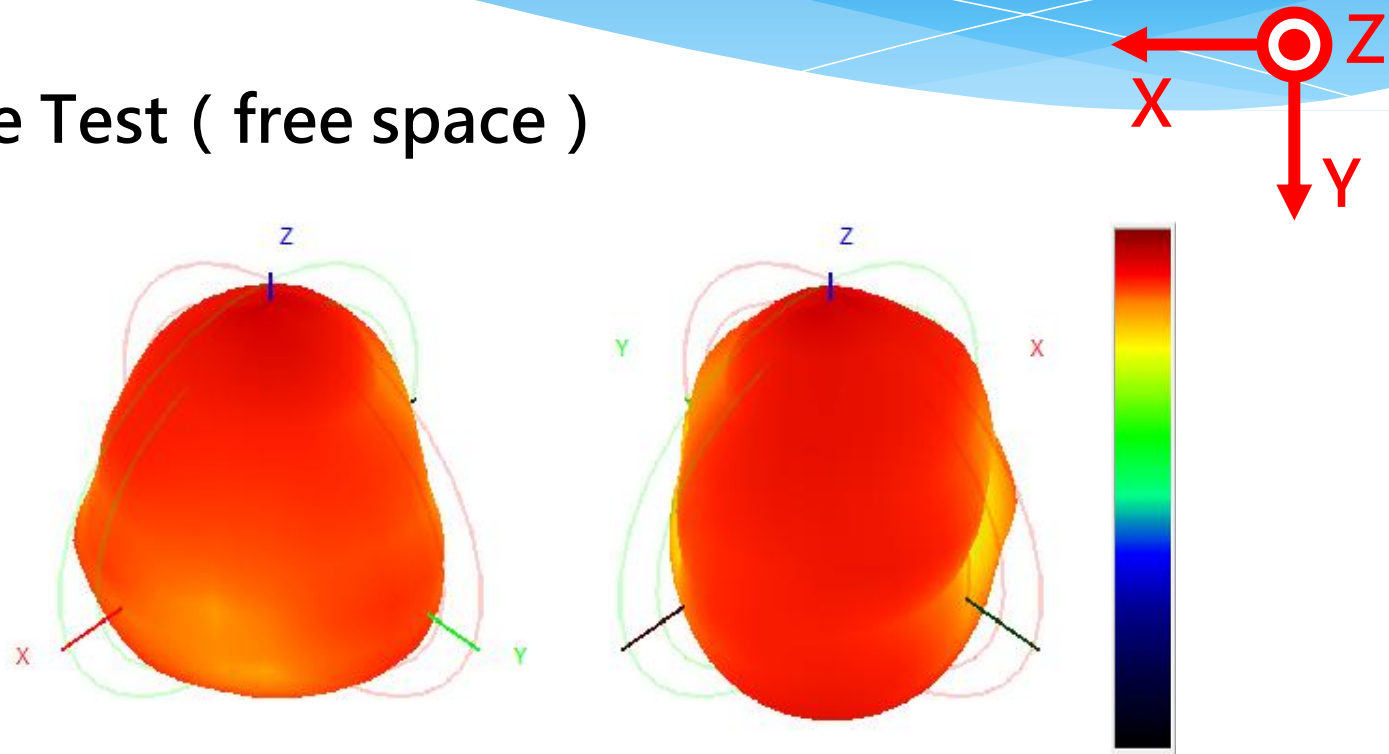
Trigger

Ext Trig Input
Negative Edge

Trigger Delay
0.0000 s

Ant. Gain Pattern @2.4GHz

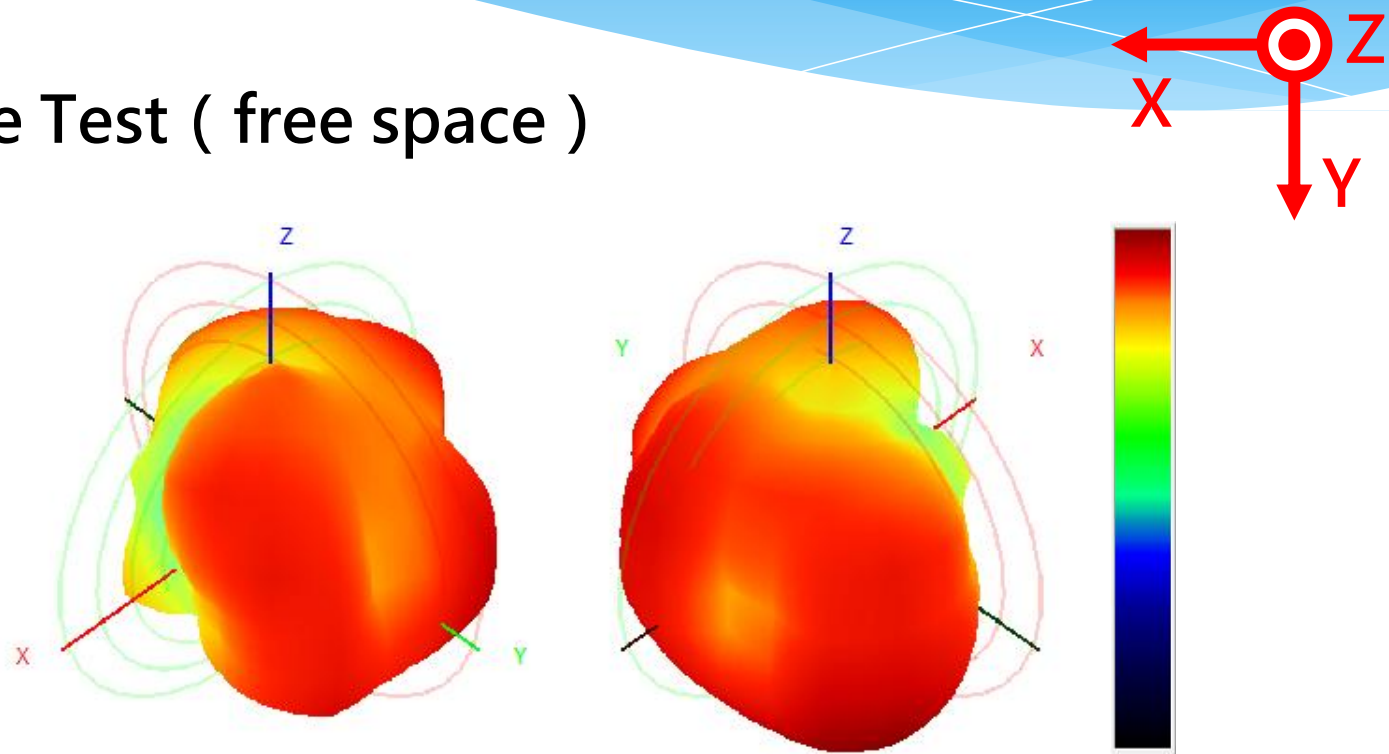
- Passive Test (free space)



Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-3.32	-3.21	-3.18	-3.14	-3.09	-3.01	-2.98	-2.99	-3.02	-3.04	-3.14
Gain (dBi)	0.70	0.73	1.02	1.56	2.23	2.92	3.41	3.65	3.68	3.59	3.38
Efficiency (%)	46.52	47.71	48.10	48.51	49.10	50.02	50.30	50.22	49.94	49.69	48.58

Ant. Gain Pattern @5.8GHz

- Passive Test (free space)



Frequency (MHz)	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
Efficiency (dBi)	-3.91	-4.11	-3.97	-3.94	-4.40	-3.92	-3.57	-3.20	-3.64	-3.57	-3.61	-3.23	-3.17	-3.41	-3.15
Gain (dBi)	1.24	1.41	2.30	1.64	0.88	0.95	1.59	1.02	0.72	0.50	0.49	1.04	0.90	0.81	1.26
Efficiency (%)	40.61	38.81	40.13	40.36	36.33	40.56	43.98	47.81	43.21	43.96	43.52	47.55	48.22	45.56	48.38

Ant. Gain Pattern @2.4GHz

- Active Test

Frequency Band	2.4GWIFI		
channel	1	6	11
TRP	16.16	15.95	16.32
TIS	-70.57	-74.19	-76.78

Frequency Band	5.8GWIFI		
channel	1	6	11
TRP	14.5	13.21	12.29
TIS	-70.85	-71.43	-70.71