

Antenna Passive Test Report

Project No. : TCED250100004
Product Type : Antenna
Model Number : TA700B
Test Mode : Free Space
Date of Receipt : 2024.12.31
Date of Test : 2024.12.31
Issued Date : 2025.01.06
Test Sample : M-01
Standard(s) : ANSI/IEEE Std 149-2008
Applicant : Chengdu Spaceon Electronics Co. Ltd.
Address : No.66 Shengye Road, Jinniu District, Chengdu, Sichuan, China
Manufacturer : Chengdu Spaceon Electronics Co. Ltd.
Address : No.66 Shengye Road, Jinniu District, Chengdu, Sichuan, China

TOWE. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

the results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All sample tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of TOWE, the test report shall not be reproduced except in full.

范家福

Fan Jiafu
Approved By:

林其隆

Lin Qilong
Reviewed By:

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REVISION HISTORY

Rev.	Issue Date	Description	Revised by
01	2024.01.06	Original	Fan Jiafu

1. CERTIFICATE OF COMPLIANCE

1.1 DESCRIPTION OF EUT AND TEST(S) PERFORMED

Manufacturer	Chengdu Spaceon Electronics Co. Ltd.
Serial Number(s) / ESN(s) / IMEI(s)	M-01
Model	TA700B
Hardware Version	/
Software Version	/

1.2 LABORATORY ENVIRONMENT

Temperature	Min = 20°C , Max = 24°C	
Relative humidity	Min = 30% , Max = 70%	
Shield effect	0.6 – 8.5G	> 100dB
Ground resistance	< 0.5Ω	

2. MEASUREMENT SYSTEM INFORMATION

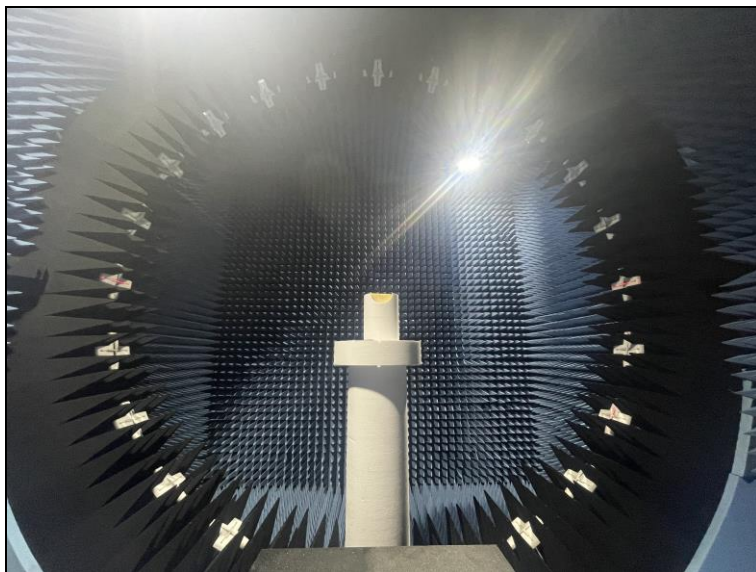
2.1 GENERAL INFORMATION

Measurement Facility:

- Measurement Chamber: ETS-Lindgren 3D fully anechoic chamber and its measuring system (AMS-8923)
- ETS-Lindgren EMCenter
- Vector Network Analyzer: R&S ZNB8



Instruments View



Inside View

2.2 LIST OF EQUIPMENT

Equipment Description	Manufacturer	Identification No.	SN	Current Calibration Date	Next Calibration Date
Vector Network Analyzer	R&S	ZNB8	101413	2024/7/17	2025/7/16
RF switch control	ETS-Lindgren	EMCenter	00251211	N/A	N/A
Measurement software	ETS-Lindgren	EMQuest	N/A	N/A	N/A

2.3 MEASUREMENT UNCERTAINTY

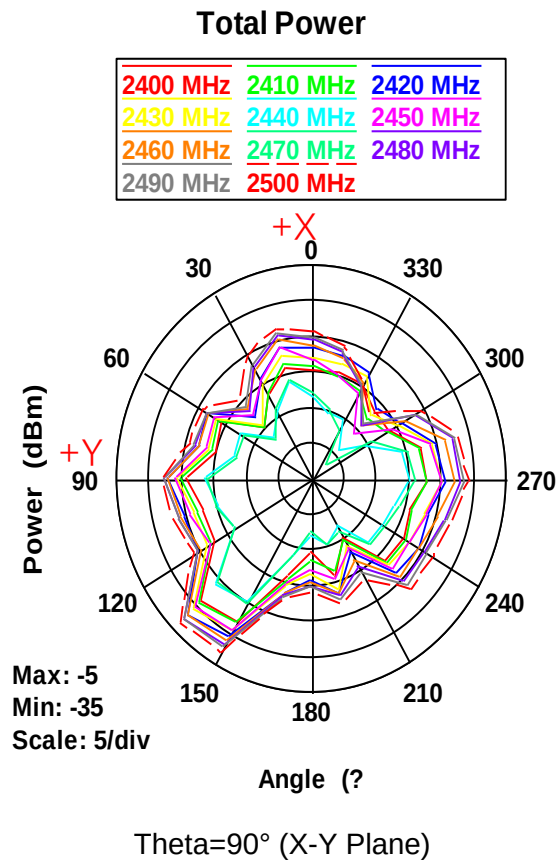
Item	1500 – 1600MHz,2400 – 2500MHz
Gain	0.77dB
Efficiency	0.77dB
Measurement Uncertainty (95% Confidence Interval) K=2	

3.TEST RESULTS

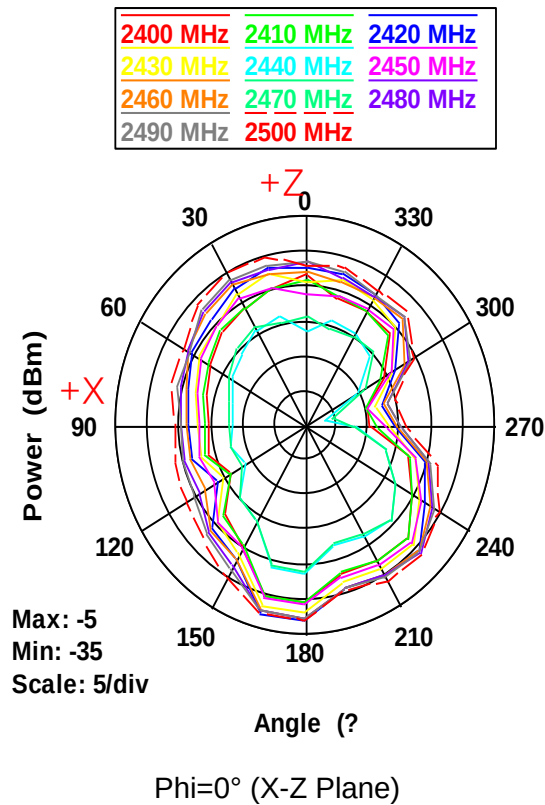
Free Space		
Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	2.45	-9.90
2410	2.50	-9.63
2420	4.46	-7.03
2430	3.42	-8.18
2440	1.05	-13.15
2450	3.09	-8.38
2460	4.69	-6.62
2470	1.05	-13.26
2480	5.23	-6.17
2490	5.54	-5.90
2500	6.69	-4.95

Free Space		
Frequency (MHz)	Efficiency (%)	Gain (dBi)
1500	3.85	-8.29
1510	3.92	-8.43
1520	4.00	-8.36
1530	3.95	-8.44
1540	3.83	-8.40
1550	3.82	-8.44
1560	3.67	-8.63
1570	3.64	-8.66
1575.42	3.62	-8.56
1580	3.53	-8.73
1590	3.45	-8.71
1600	3.46	-8.36

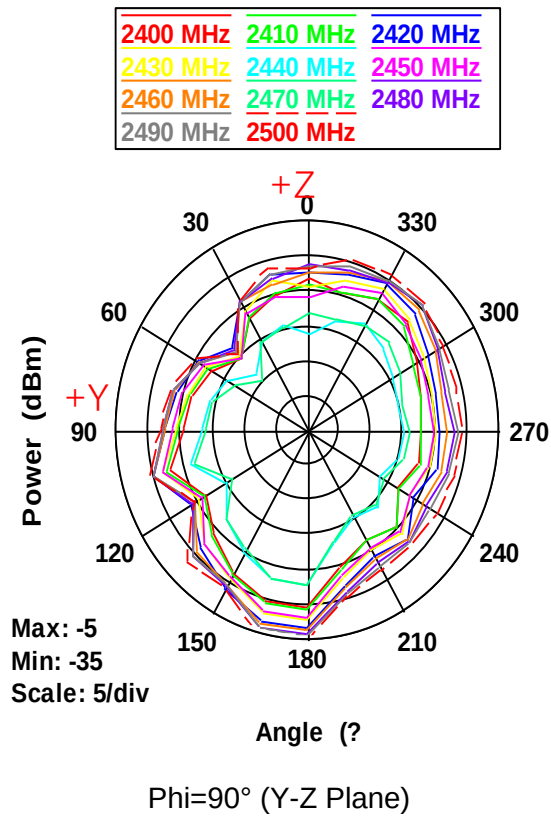
4. 2-D PATTERN PLOTS



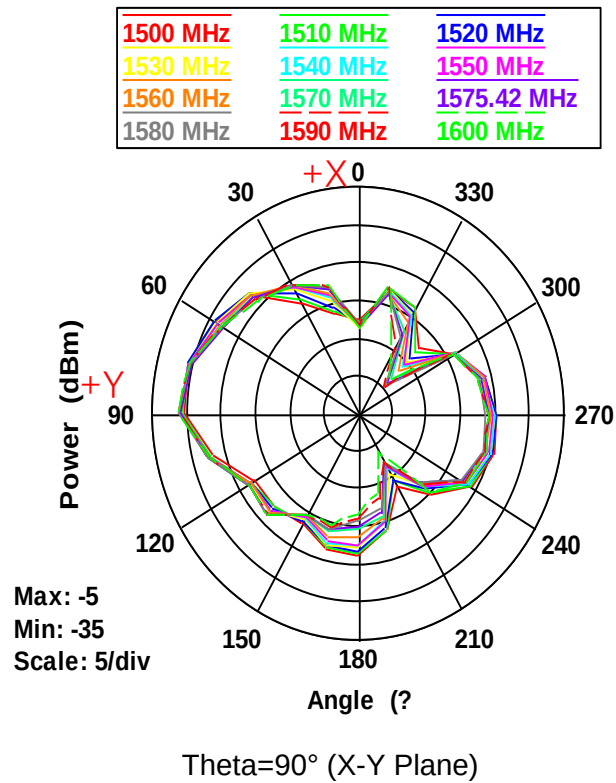
Total Power



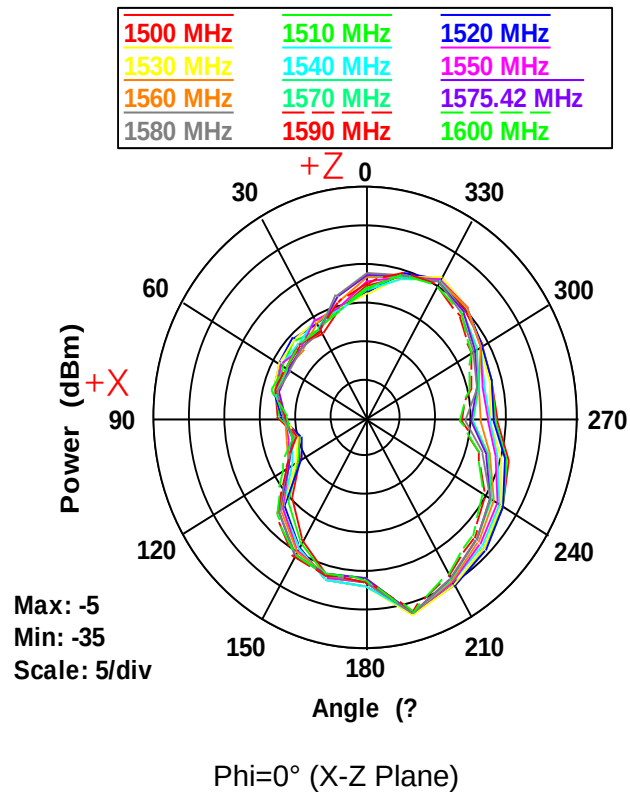
Total Power



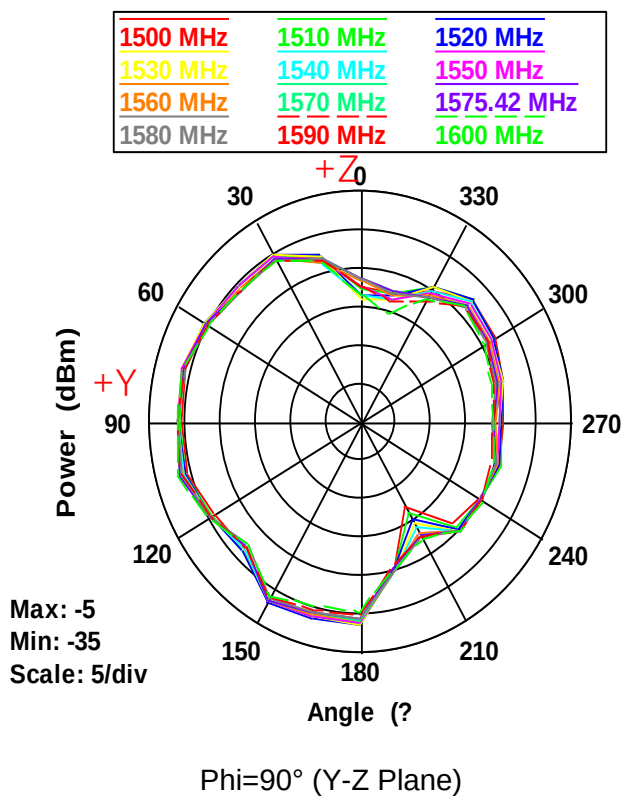
Total Power



Total Power

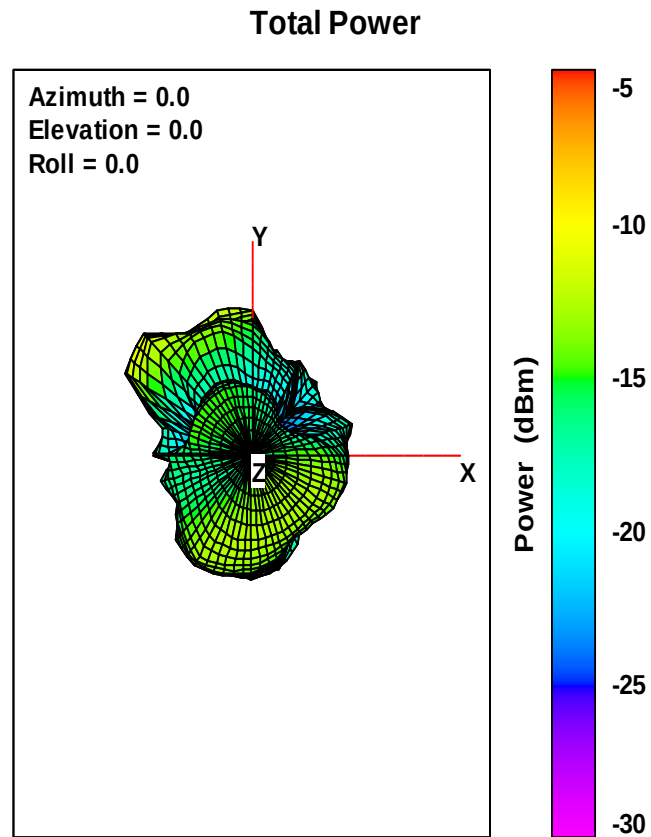


Total Power

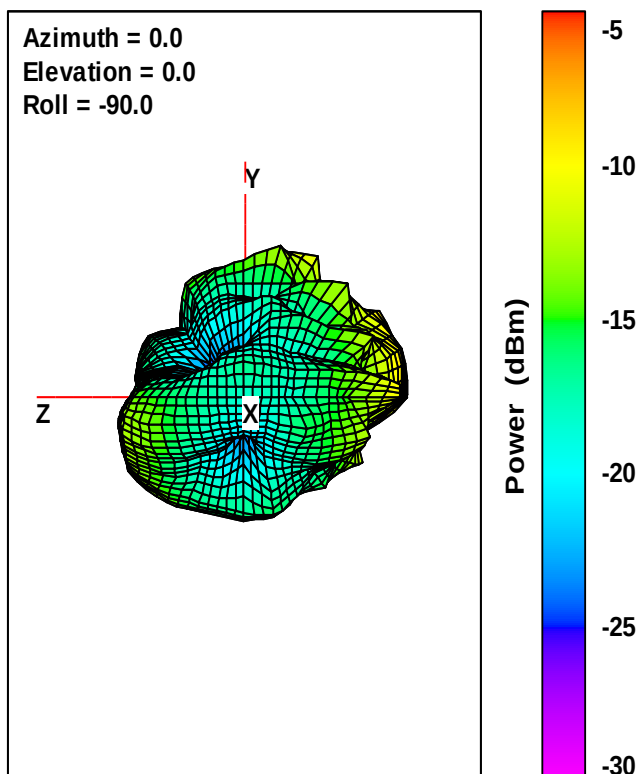


5. 3-D PATTERN PLOTS

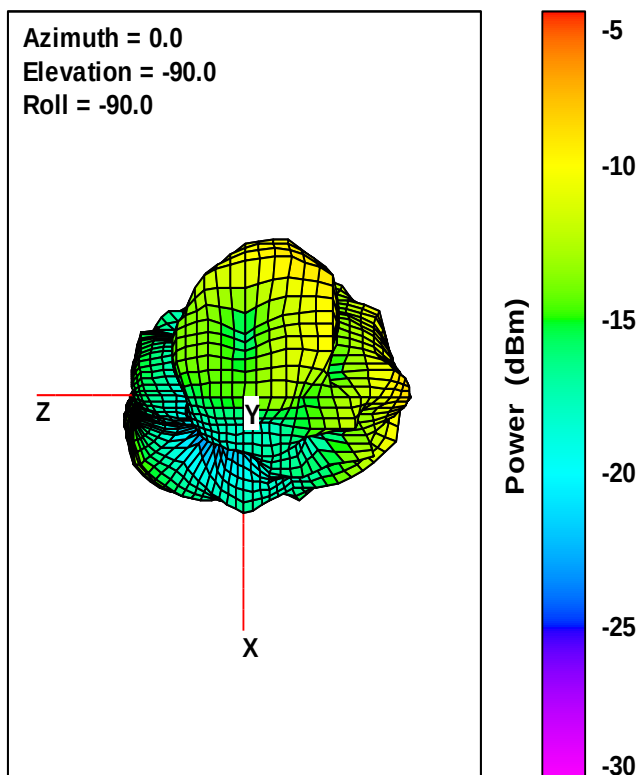
BT



Total Power

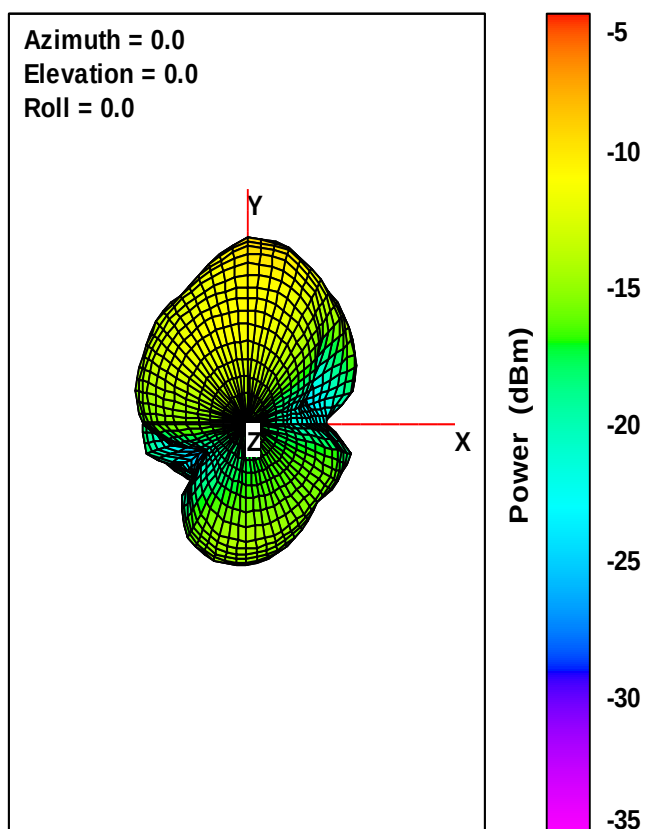


Total Power



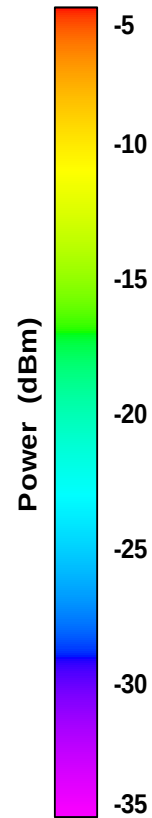
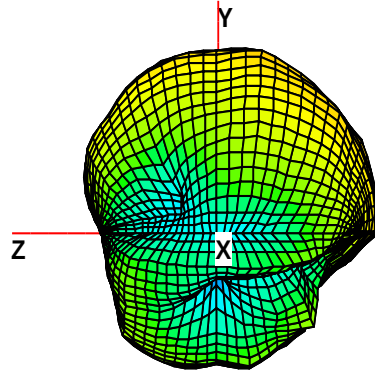
GPS

Total Power



Total Power

Azimuth = 0.0
Elevation = 0.0
Roll = -90.0



Total Power

Azimuth = 0.0
Elevation = -90.0
Roll = -90.0

