

Product Number: ZF2425D-IPEXL50
Product Name: 24GPCB Antenna

Specification For Approval

Date: 2024 /08/ 12

File No.: 240812002

Version: 2.0

Customer:

Customer P/N: /

INVAX P/N: ZF2425D-IPEXL50

Description : Antenna

Cortec Checked By:	R@ D Dept 20240812 Jack
Customer Approved By:	

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1. Reliability Testing

Test Item	Procedure	Requirement
1. Visual inspection and Dimension Check	Applicable methods using x5 magnification	follow specification
2. Rapid Changing of Temperature	-40℃ (30minutes) to 90℃ (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. Freq. Tol.: < ±5%
3. Damp Heat	24 hours at 60℃; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. Freq. Tol. : < ±5%
4. Endurance	24 hours at 90℃	After 2 hours recovery: 1. no visible damage 2. Freq Tol.: < ±5%

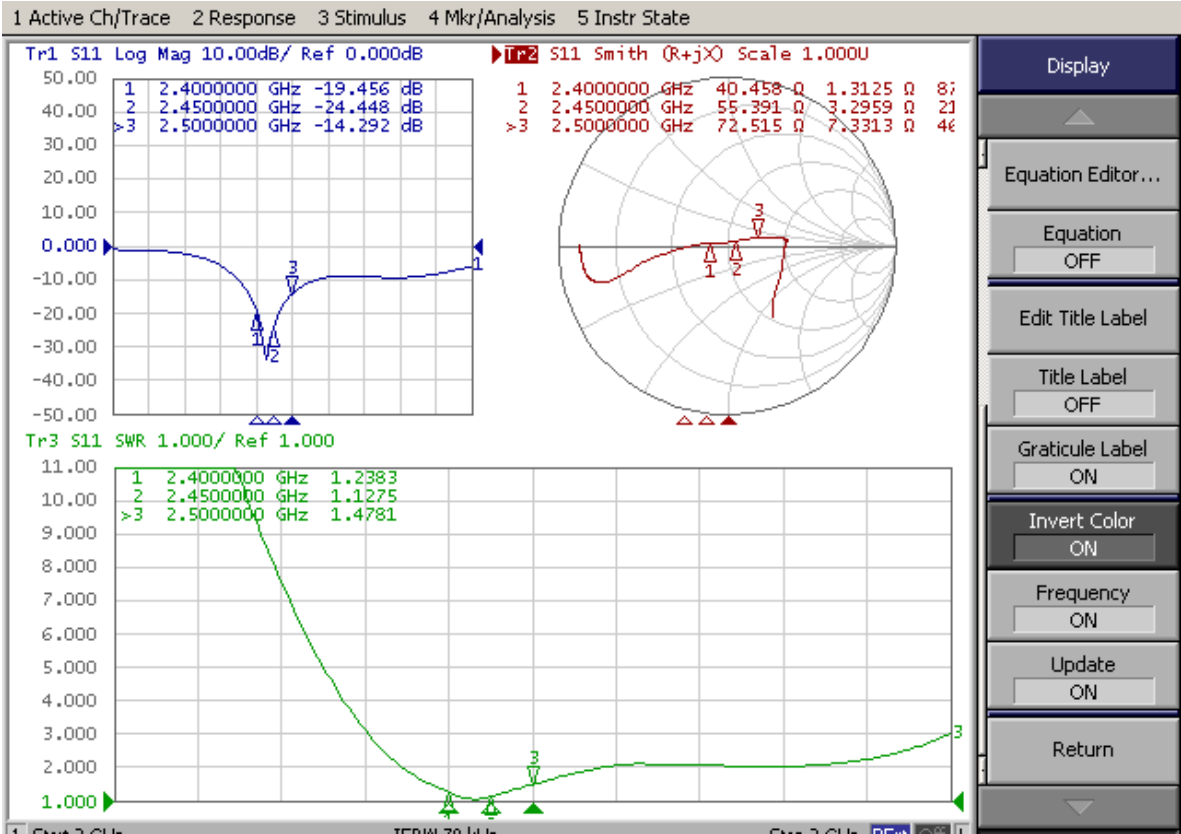
Product Number: ZF2425D-IPEXL50

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2.Specification

A. Electrical Characteristics	
S.W.R.	2400-2500 MHz: <= 1.5
Antenna Gain	2 ± 0.5dBi
Impedance	50 Ohm
B. Material	
Material of Radiator	Cu (Plated)
Connector Type	IPEX
C. Environmental	
Operation Temperature	- 30 °C ~ + 85 °C
Storage Temperature	- 30 °C ~ + 85 °C

3. S Parameter Test data



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4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

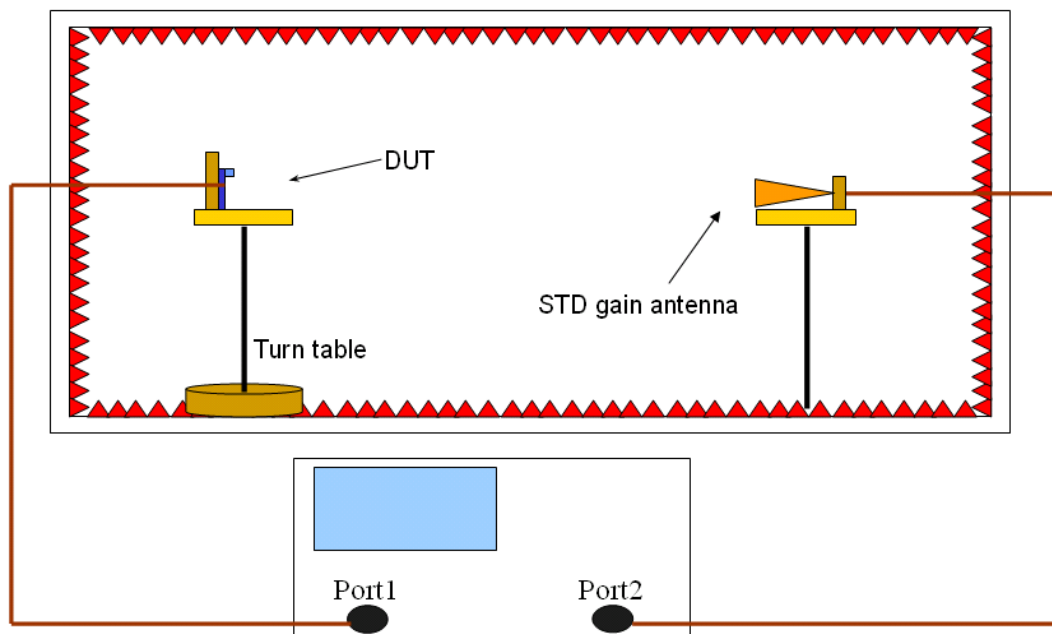
Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.6 ~ 6.0 GHz for Gain Calibration

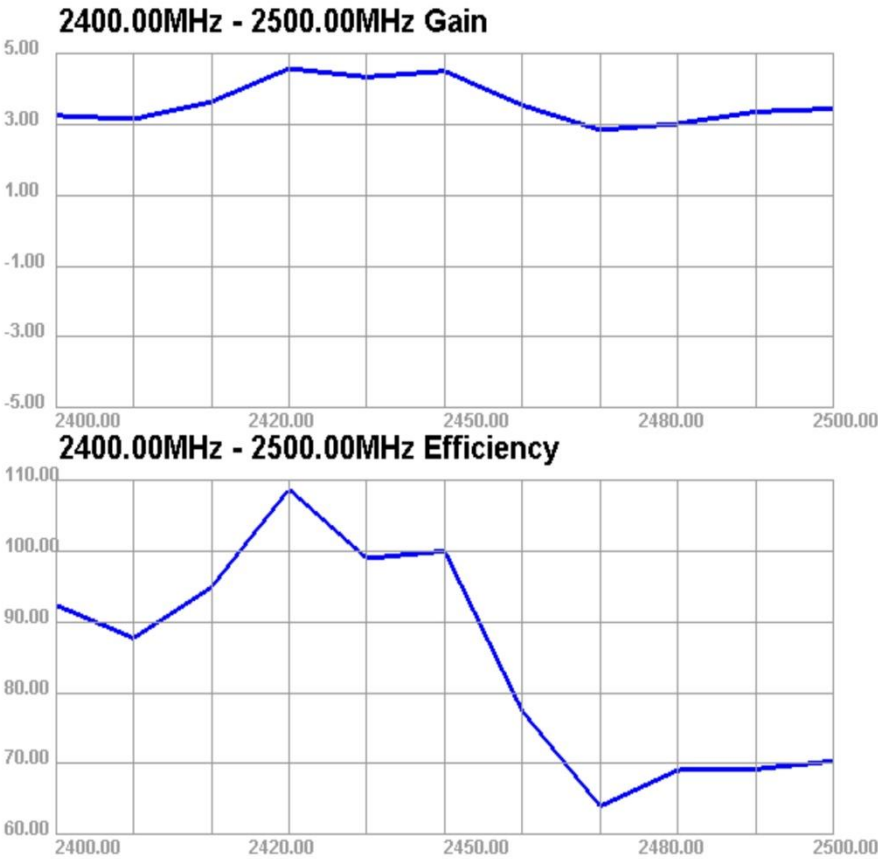
Double Ridged Horn Antenna



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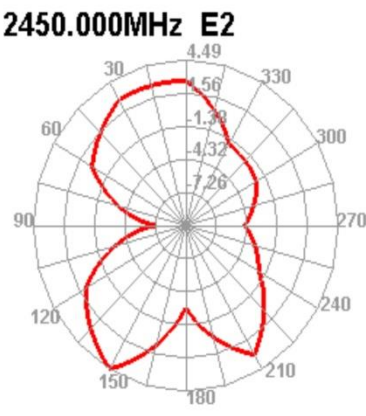
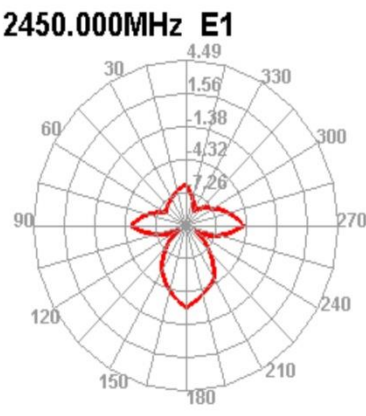
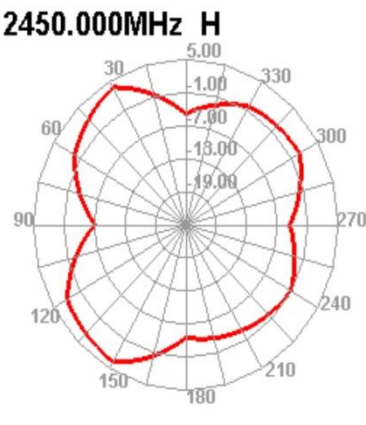
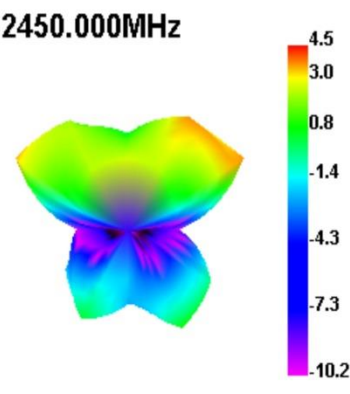
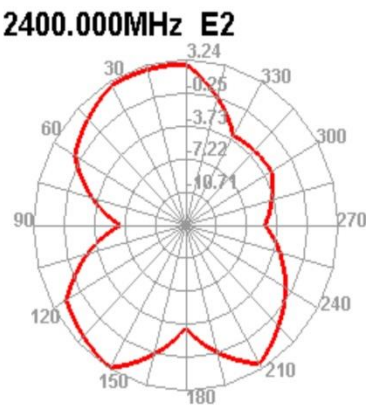
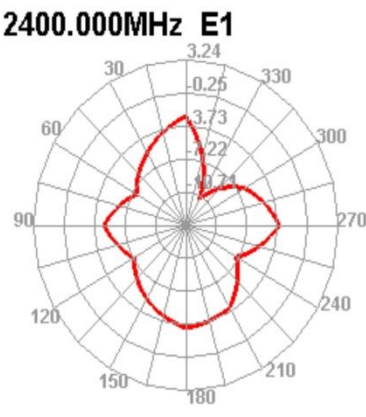
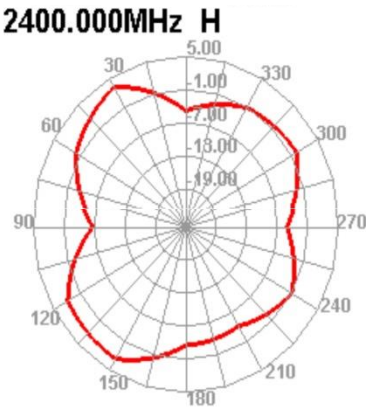
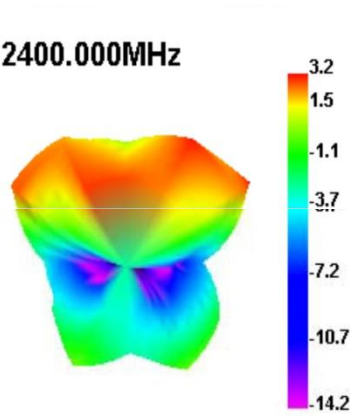
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Passive Test For WIFI1								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)
2400	92.37	-0.34	3.24	1.09	43.69	48.683	3.24	-14.19
2410	87.71	-0.57	3.14	0.99	41.592	46.123	3.14	-14.42
2420	94.86	-0.23	3.63	1.48	45.175	49.682	3.63	-12.72
2430	98.98	0.36	4.57	2.42	51.878	56.8	4.57	-11.45
2440	98.93	-0.05	4.33	2.18	47.504	51.426	4.33	-10.85
2450	99.97	0	4.49	2.34	48.101	51.873	4.49	-10.19
2460	77.4	-1.11	3.53	1.38	37.145	40.255	3.53	-11.75
2470	64.01	-1.94	2.84	0.69	30.451	33.56	2.84	-13.21
2480	69.1	-1.61	3.01	0.86	32.7	36.403	3.01	-13.14
2490	69.26	-1.6	3.35	1.2	32.517	36.744	3.35	-13.78
2500	70.37	-1.53	3.43	1.28	32.84	37.531	3.43	-14.81



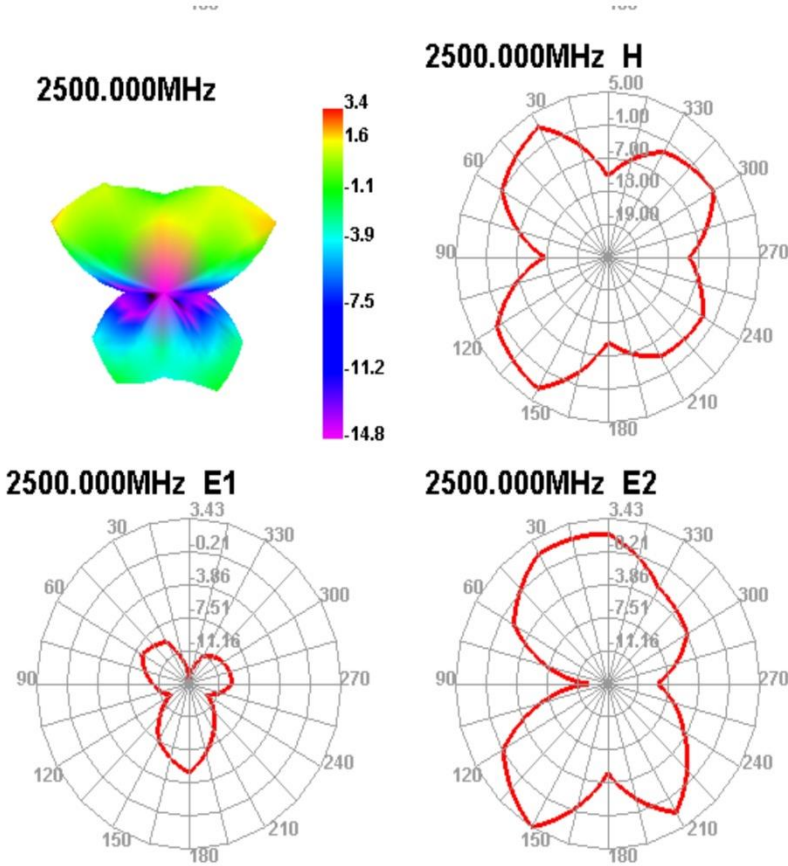
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Attenut Hor	Attenut Ver
51.59	51.29
50.23	49.94
50.68	50.46
50.88	50.56
50.24	49.98
50.38	50.16
49.33	49.05
49.47	49.17
50.28	50.02
50.1	49.74
49.02	48.64

Application Information	
04Version	4.68.283
TotalTime	5m 56s 110ms
AdditionalInfor	NULL

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5. Anical DrawingSee attached files

