

# **HDT576 Antenna Report**

## **Antenna model: HDT576**

*Testing Date: 2024.1.14*

*Report Date : 2025.2.5*

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## Test Equipment

Passive	
Antenna Type:	PIFA , Dipole
Antenna Model:	HDT576-Metal , HDT576-FPC
Antenna brand	Corsair
Antenna Peak Gain	HDT576-Metal: 2.96dBi , HDT576-FPC: 2.03dBi
Test Equipment	E5071C ENA Vector Network Analyzer – Keysight / Calibration Date: 2023/05/30
Test chamber	ETS-lindgren_AMS-8500 Antenna Measurement System/Calibration Date: 2023/04/15
Testers	Frankie Chang
Test Software	ETS-Lindgren EMQuest
Test lab and location	Lab : BV , No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City, Taiwan

# Antenna Efficiency

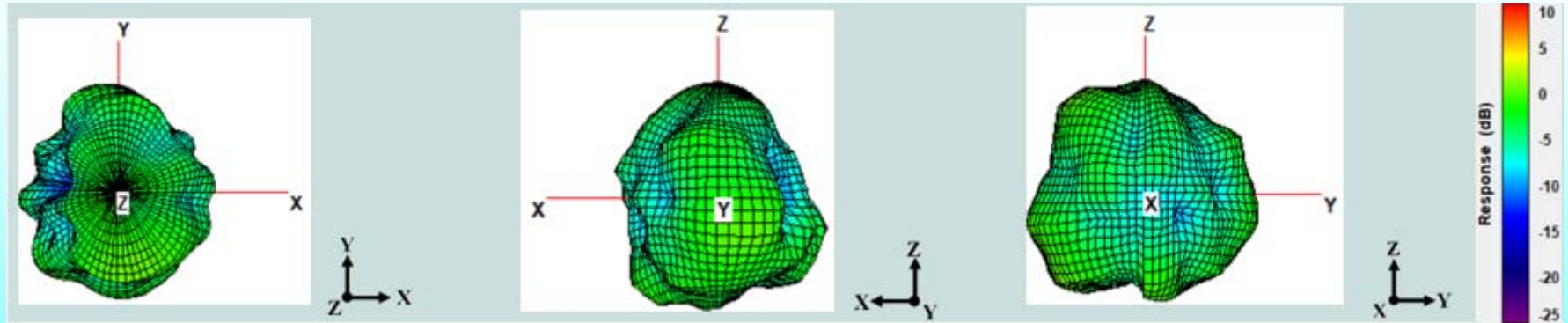
## Free Space

Merry HDT576_Metal_FS_2400~2500MHz											
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-3.05	-3.02	-3.01	-3.07	-3.07	-3.13	-3.29	-3.45	-3.68	-3.84	-4.00
Peak EIRP (dBm)	2.85	2.95	2.96	2.91	2.84	2.67	2.25	1.81	1.22	1.27	1.21
Directivity (dBi)	5.91	5.97	5.97	5.98	5.91	5.80	5.54	5.27	4.90	5.10	5.21
Efficiency (dB)	-3.05	-3.02	-3.01	-3.07	-3.07	-3.13	-3.29	-3.45	-3.68	-3.84	-4.00
Efficiency (%)	49.50	49.92	50.00	49.32	49.35	48.60	46.87	45.14	42.83	41.33	39.83
Gain (dBi)	2.85	2.95	2.96	2.91	2.84	2.67	2.25	1.81	1.22	1.27	1.21

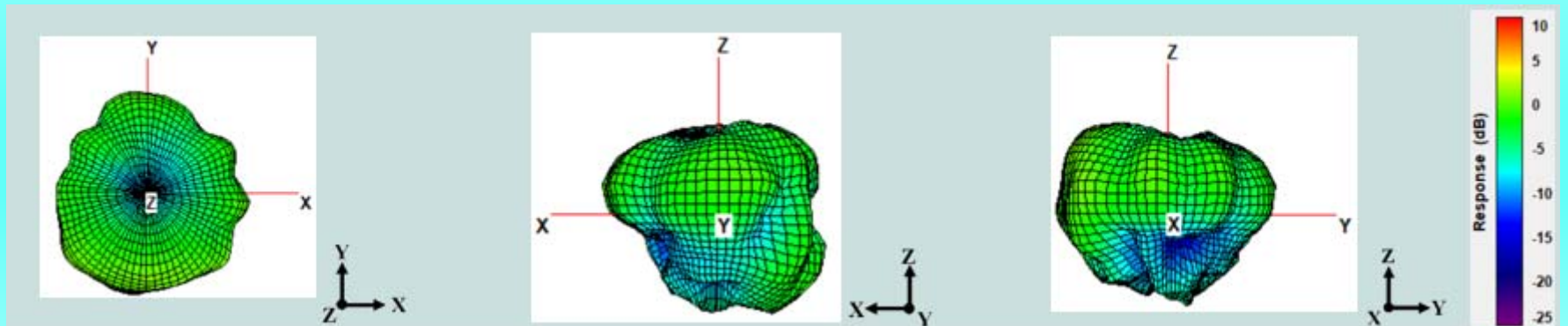
Merry HDT576_FPC_FS_2400~2500MHz											
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-3.08	-3.03	-2.99	-3.01	-2.96	-2.96	-3.01	-3.00	-3.03	-2.95	-2.90
Peak EIRP (dBm)	2.03	1.89	1.67	1.42	1.29	1.17	1.02	1.12	1.14	1.25	1.46
Directivity (dBi)	5.11	4.92	4.66	4.43	4.24	4.12	4.04	4.11	4.16	4.20	4.36
Efficiency (dB)	-3.08	-3.03	-2.99	-3.01	-2.96	-2.96	-3.01	-3.00	-3.03	-2.95	-2.90
Efficiency (%)	49.18	49.75	50.19	49.98	50.64	50.59	49.97	50.14	49.82	50.70	51.27
Gain (dBi)	2.03	1.89	1.67	1.42	1.29	1.17	1.02	1.12	1.14	1.25	1.46

# Radiation Pattern

Metal



FPC



## Measurements description

### Conducted Measurements

Conducted measurements was done using Network Analyzer – Keysight, the Return Loss of the Antenna was obtained to ensure the efficiency over the operation frequency.

### Antenna Radiation Patten Measurements

Radiation Pattern Measurements was done in the ETS-lindgren anechoic chamber through radiation, the Headset was set to continuous radiation and the AMS-8500 receive the RF power in 360degree angel with rotation of EUT.

### Antenna Gain Calculation

The antenna gain was calculated as the difference between the measured Peak EIRP(dBm) and Ant. port input pwr(dBm) in previous page.