

HyperX (HDT588) Antenna Radiation Report

MERRY Sounds Excellent

*Presented by : Merry_RF
Date : 2024.11*

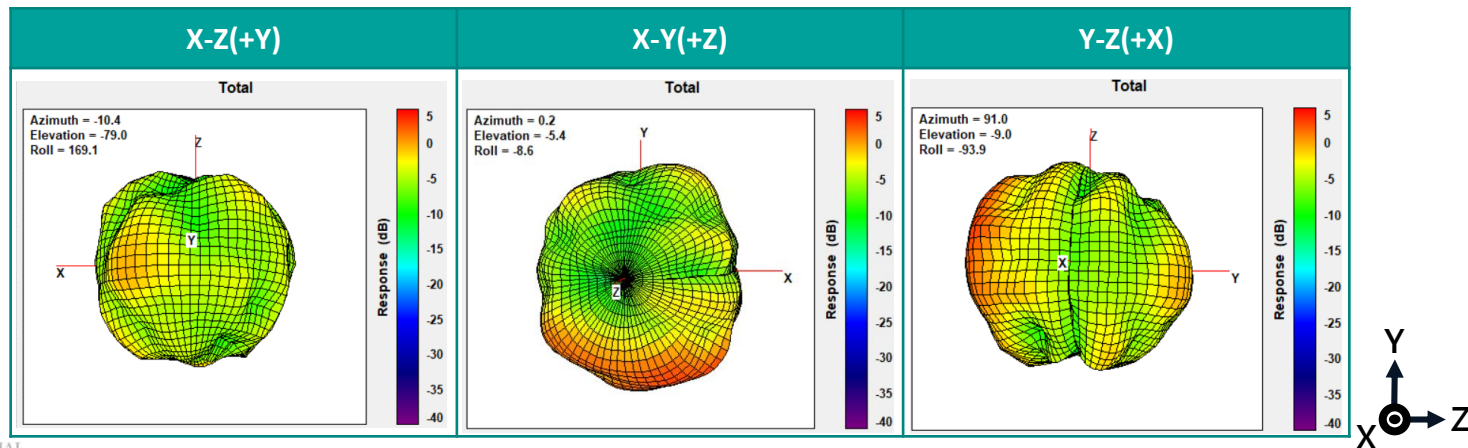
Content

- Test Photo & Setting
- Measured result
 - Antenna Matching circuit
 - Antenna Efficiency & Gain
 - Radiation pattern

	Antenna Brand	Antenna model	Manufacturer address
Headset Ant.Type : Diople	Merry	09D40000000X	NO.22, 23rd road, Taichung Industrial Park, Taichung, 40850 Taiwan, R.O.C.
DAC Ant.Type : Diople	Merry	09D40000000W	NO.22, 23rd road, Taichung Industrial Park, Taichung, 40850 Taiwan, R.O.C

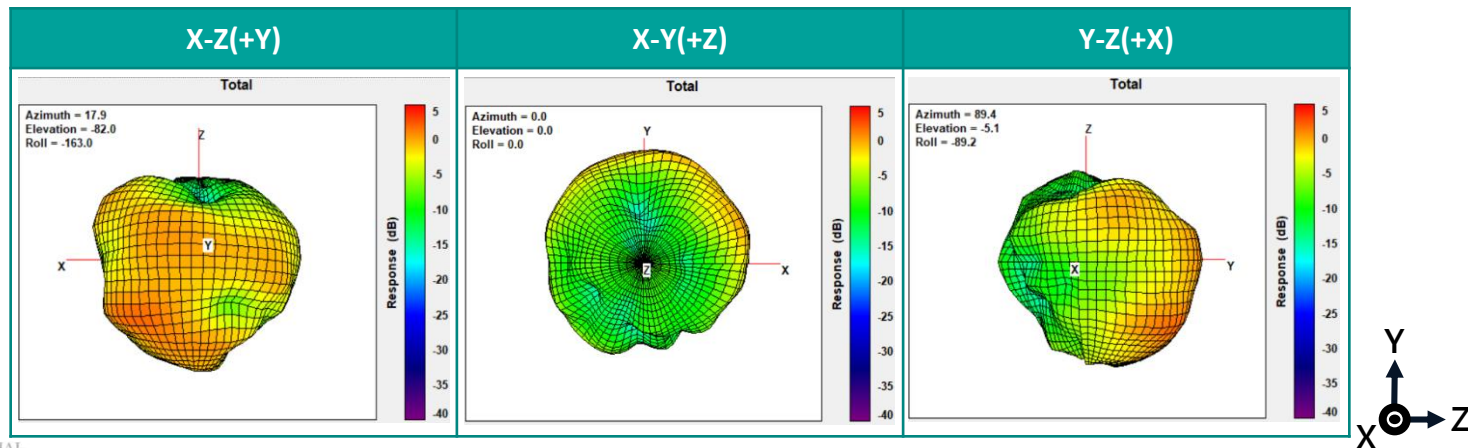
Antenna Efficiency & Gain – Headset Free Space ANT 1 - 2.4G

Model	<i>Merry_HeadSet_HDT588_Ant1_3D_Gain_FS_2300-2600MHz_Continuous</i>										
Test / Position	<i>3D Gain / FS</i>										
Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak EIRP (dBm)	3.88	3.83	3.73	3.55	3.49	3.51	3.54	3.48	3.48	3.59	3.64
Directivity (dBi)	6.16	6.17	6.15	6.09	6.06	6.14	6.26	6.30	6.38	6.47	6.52
Efficiency (dB)	-2.28	-2.34	-2.42	-2.53	-2.57	-2.63	-2.72	-2.82	-2.89	-2.88	-2.88
Efficiency (%)	59.15	58.33	57.31	55.78	55.37	54.59	53.44	52.24	51.37	51.57	51.49
Gain (dBi)	3.88	3.83	3.73	3.55	3.49	3.51	3.54	3.48	3.48	3.59	3.64



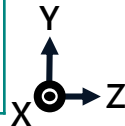
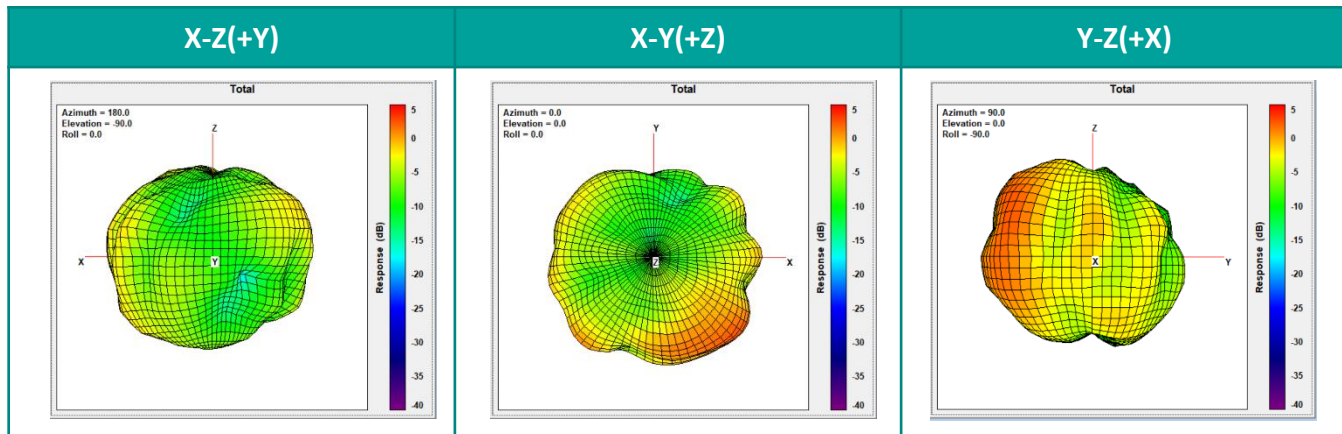
Antenna Efficiency & Gain – Headset On Head ANT 1 - 2.4G

Model	<i>Merry_HeadSet_HDT588_Ant1_3D_Gain_BHL_2300-2600MHz_Continuous</i>										
Test / Position	<i>3D Gain / BHL</i>										
Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak EIRP (dBm)	2.17	2.18	2.13	1.96	1.83	1.70	1.51	1.41	1.34	1.32	1.37
Directivity (dBi)	6.92	6.98	6.98	6.91	6.82	6.76	6.67	6.61	6.54	6.41	6.36
Efficiency (dB)	-4.75	-4.80	-4.84	-4.94	-4.99	-5.07	-5.16	-5.20	-5.20	-5.09	-5.00
Efficiency (%)	33.48	33.14	32.81	32.03	31.69	31.15	30.50	30.19	30.23	30.99	31.66
Gain (dBi)	2.17	2.18	2.13	1.96	1.83	1.70	1.51	1.41	1.34	1.32	1.37



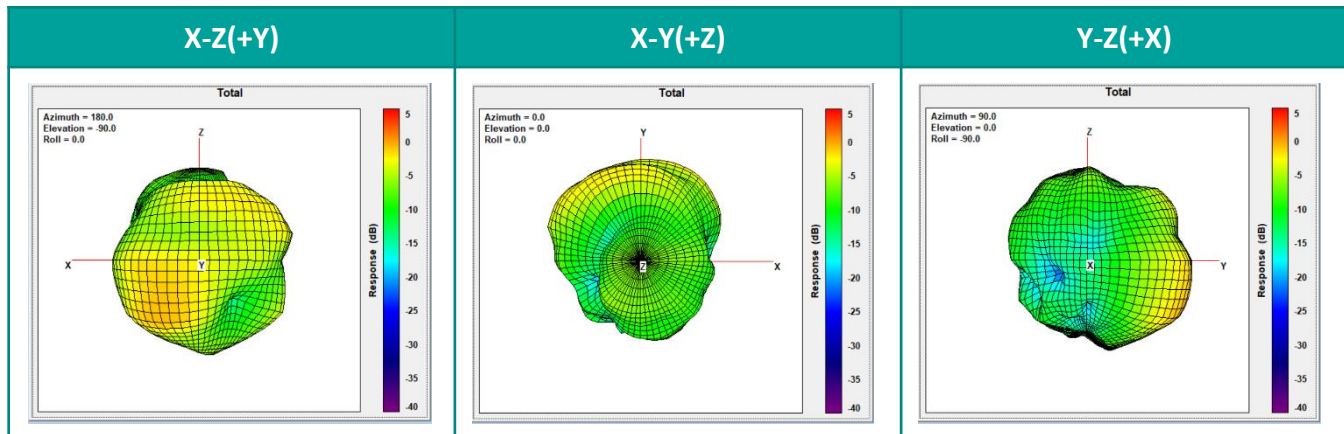
Antenna Efficiency & Gain – Headset Free Space ANT 2 - BT

Model	Merry_HDT588_DVT1_BT_FS_3D_Gain_2400-2500MHz_Continuous										
Test / Position	3D Gain / FS										
Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak EIRP (dBm)	2.70	2.87	2.93	2.83	2.76	2.63	2.36	2.15	1.90	1.73	1.48
Directivity (dBi)	6.25	6.37	6.43	6.41	6.40	6.38	6.32	6.37	6.44	6.54	6.62
Efficiency (dB)	-3.55	-3.50	-3.50	-3.58	-3.64	-3.75	-3.97	-4.22	-4.54	-4.82	-5.15
Efficiency (%)	44.14	44.62	44.66	43.84	43.26	42.16	40.12	37.82	35.19	32.99	30.58
Gain (dBi)	2.70	2.87	2.93	2.83	2.76	2.63	2.36	2.15	1.90	1.73	1.48



Antenna Efficiency & Gain – Headset On Head ANT 2 - BT

Model	<i>Merry_HDT588_DVT1_BT_BHL_3D_Gain_2400-2500MHz_Continuous</i>										
Test / Position	<i>3D Gain / FS</i>										
Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak EIRP (dBm)	0.07	0.02	-0.14	-0.28	-0.45	-0.67	-0.86	-1.20	-1.64	-2.10	-2.76
Directivity (dBi)	7.13	7.12	7.08	7.06	7.05	7.08	7.10	7.04	6.97	6.90	6.68
Efficiency (dB)	-7.07	-7.10	-7.22	-7.34	-7.50	-7.75	-7.96	-8.24	-8.60	-9.00	-9.44
Efficiency (%)	19.64	19.51	18.97	18.46	17.77	16.79	16.01	14.99	13.80	12.60	11.37
Gain (dBi)	0.07	0.02	-0.14	-0.28	-0.45	-0.67	-0.86	-1.20	-1.64	-2.10	-2.76



Thank You

Delivering Fidelity Sound to Enrich Human's Life

