

PBVL50&PCCVL50

Antenna radiation report

Presented by : Merry Team
Date : 2024.09

Radiation field measurement

Measured Lab: BV LAB

Measured time: 2024/9/5 Measured
conduction:

1. Free Space
2. On Head Antenna

PBVL50

Type: Monopole antenna

Operating Frequency : 2402- 2480MHz

Antenna Gain Peak(Free Space): **-0.19 dBi**

Manufacturer/Brand: Merry

Model no: 31AC99900V01



PCCVL50

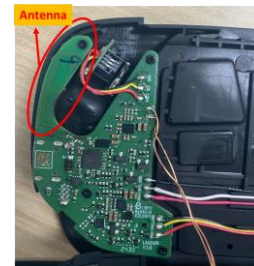
Type: Monopole antenna

Operating Frequency : 2402- 2480MHz

Antenna Gain Peak(Free Space): **0.82 dBi**

Manufacturer/Brand: Merry

Model no: 26CA99906B06



Antenna Efficiency & Gain – PBVL50

Maximum peak gain: -0.19dB Maximum radiation efficiency: 41.87%

Model (free-space)	<i>Merry_BHC999_3D_Gain_FS_2400-2500MHz_Continuous</i>										
Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
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)	-3.97	-3.79	-3.63	-3.60	-3.56	-3.64	-3.73	-3.77	-3.88	-3.96	-4.09
Peak EIRP (dBm)	-0.51	-0.40	-0.29	-0.28	-0.19	-0.23	-0.32	-0.34	-0.37	-0.43	-0.50
Directivity (dBi)	3.46	3.40	3.34	3.31	3.37	3.41	3.41	3.43	3.51	3.53	3.59
Efficiency (dB)	-3.97	-3.79	-3.63	-3.60	-3.56	-3.64	-3.73	-3.77	-3.88	-3.96	-4.09
Efficiency (%)	40.05	41.76	43.36	43.67	44.01	43.25	42.36	42.02	40.92	40.16	38.99
Gain (dBi)	-0.51	-0.40	-0.29	-0.28	-0.19	-0.23	-0.32	-0.34	-0.37	-0.43	-0.50

Model (with head)	<i>Merry_BHC999_3D_Gain_BH_2400-2500MHz_Continuous</i>										
Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
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)	-7.46	-7.28	-7.07	-6.98	-6.87	-6.86	-6.88	-6.91	-7.04	-7.14	-7.27
Peak EIRP (dBm)	-0.61	-0.44	-0.22	-0.12	-0.07	-0.07	-0.11	-0.11	-0.26	-0.31	-0.47
Directivity (dBi)	6.55	6.54	6.55	6.56	6.50	6.58	6.47	6.46	6.48	6.52	6.50
Efficiency (dB)	-7.46	-7.28	-7.07	-6.98	-6.87	-6.86	-6.88	-6.91	-7.04	-7.14	-7.27
Efficiency (%)	17.95	18.70	19.63	20.04	20.56	20.63	20.49	20.39	19.78	19.34	18.76
Gain (dBi)	-0.91	-0.74	-0.52	-0.42	-0.37	-0.27	-0.41	-0.45	-0.56	-0.61	-0.77

Antenna Efficiency & Gain –PCCVL50

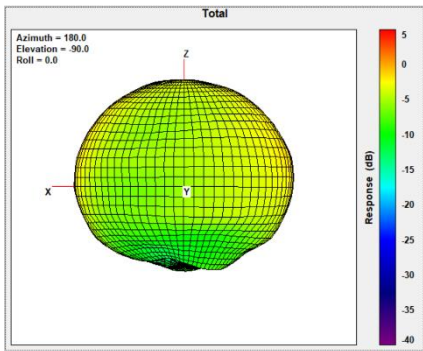
Maximum peak gain: 0.82dB Maximum radiation efficiency: 41.21%

Model (free-space)	<i>Merry_BHC999_Case_3D_Gain_FS_2400-2500MHz_Continuous</i>										
Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
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)	-3.69	-3.71	-3.75	-3.83	-3.84	-3.86	-3.91	-3.96	-3.98	-3.93	-3.91
Peak EIRP (dBm)	0.82	0.76	0.64	0.49	0.36	0.24	0.07	0.08	0.13	0.24	0.34
Directivity (dBi)	4.50	4.48	4.39	4.32	4.19	4.10	3.98	4.04	4.11	4.17	4.26
Efficiency (dB)	-3.69	-3.71	-3.75	-3.83	-3.84	-3.86	-3.91	-3.96	-3.98	-3.93	-3.91
Efficiency (%)	42.78	42.53	42.15	41.40	41.35	41.13	40.66	40.21	39.99	40.44	40.62
Gain (dBi)	0.82	0.76	0.64	0.49	0.36	0.24	0.07	0.08	0.13	0.24	0.34

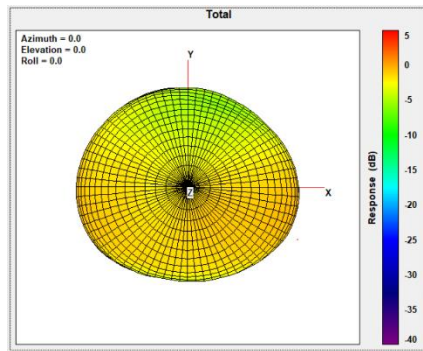
Radiation pattern – PBVL50



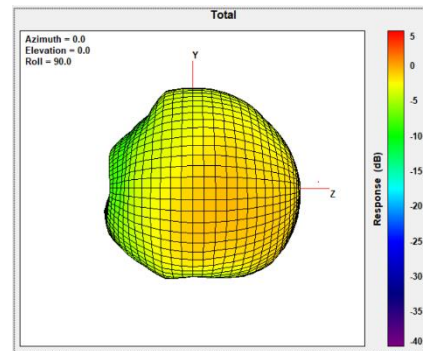
X-Z(+Y)



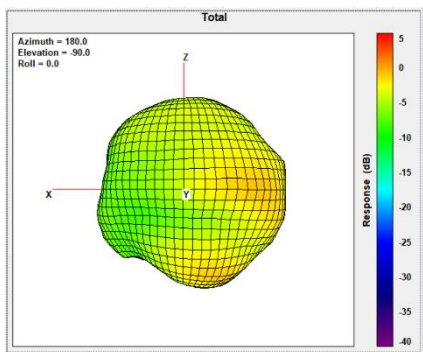
X-Y(+Z)



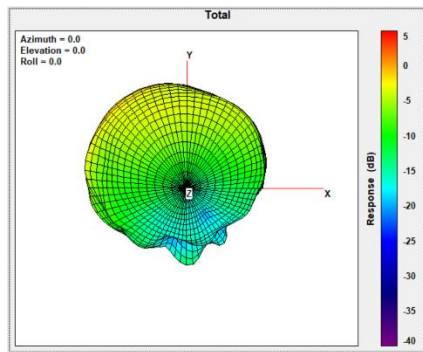
Y-Z(+X)



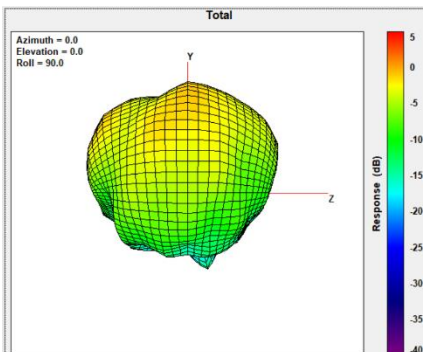
X-Z(+Y)



X-Y(+Z)



Y-Z(+X)



FreeSpace

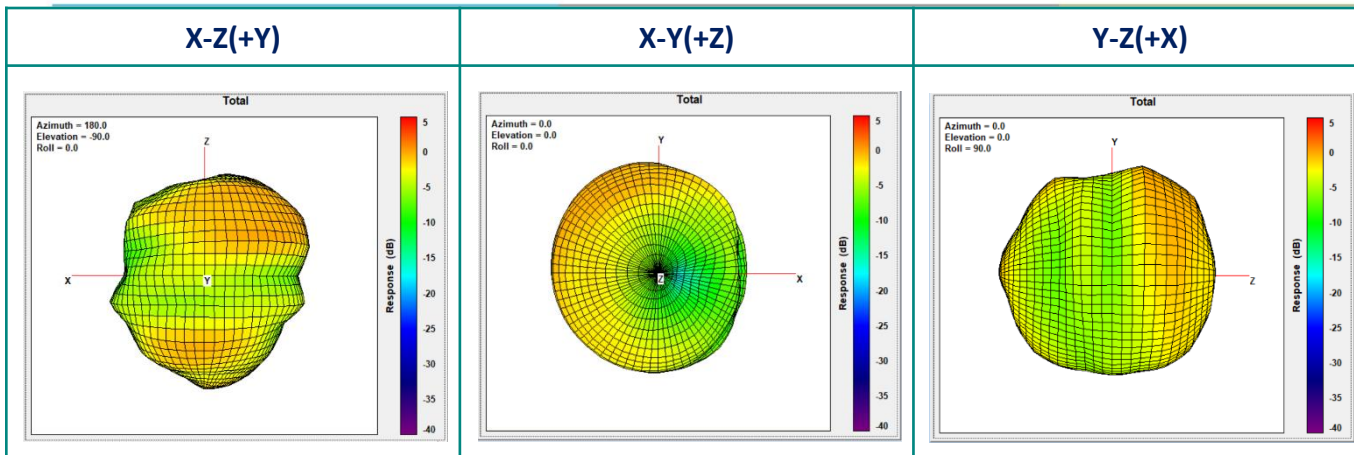
With Head



Radiation pattern –PCCVL50



FreeSpace



Thank You

Delivering Fidelity Sound to Enrich Human's Life

