

Antenna Report

Frequency range of operation:

2.4G Proprietary Protocol Antenna1:

- ANT-A: 2.4 to 2.48 GHz.

2.4G Proprietary Protocol Antenna2:

- ANT-B: 2.4 to 2.48 GHz

Bluetooth Antenna:

- BT: 2.4 to 2.48 GHz

Antenna Types:

ANT-A: PCB IFA antenna, ANT-B: PCB IFA antenna, BT: PCB IFA antenna.

Antenna Brand Manufacturer:

Bomin Electronics Co., Ltd: Dongsheng Industrial Park, Economic Development Experimental Zone, Meizhou City, Guangdong Province.

Antenna Model:

2.4G Proprietary Protocol Antenna1: 309000161039R3-ANT_SKY_ANT-A

2.4G Proprietary Protocol Antenna2: 309000161039R3-ANT_SKY_ANT-B

Bluetooth Antenna: 309000161039R3-BT_AIR_ANT

Antenna Gain:

Frequency	Peak Gain (dbi)		
	ANT-A	ANT-B	Bluetooth
	IFA	IFA	IFA
2400-2480MHz	4.51	4.76	4.72

Measurement Test Method:

Solder pigtails on feeding point of antenna and measure passive antenna performance by VNA and OTA chamber system.

Test Equipment used:

VNA: Agilent E5071C

OTA chamber: Sunyield

Software for Measurement:

Sunyield

Test Set-up:

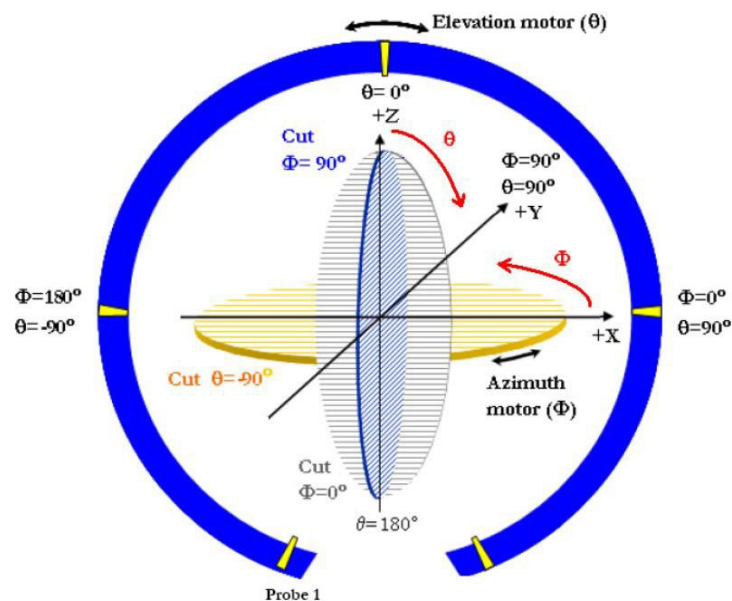
1. Set up the device on the turn table and connect the pigtails to the RF cable.
2. Put the device on head model.
3. Measure the 3D passive performance according to the following coordinate axis.

Turntable – Phi: 0-150°, step size: 30°, clockwise rotation

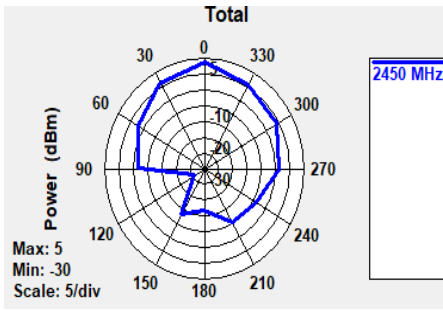
Test Equipment Calibration Information:

Equipment	Manufacturer	SN	Calibration period
OTA laboratory	Sunyield	SY-24	2025.5.9
Comprehensive measuring instrument CMW500	R&S	171221	2025.11.1
Vector Signal Generator SMBV100B	R&S	101443	2025.7.24
Network Analyzer E5071C	Keysight	MY46733546	2026.3.3
MXA Signal Analyzer	Keysight	MY59050194	2025.9.12
Standard antenna	Sunyield	/	2025.5.9

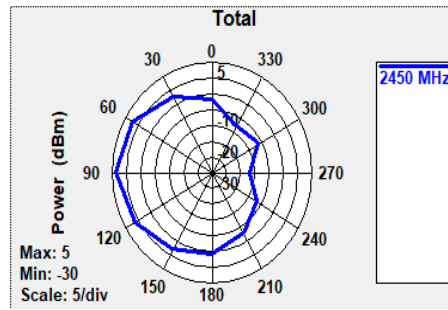
Antenna Radiated Pattern Orientation:



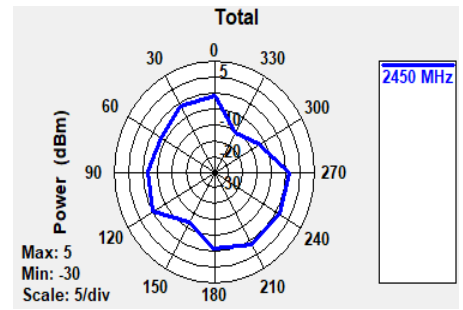
2450 MHz



XY plane



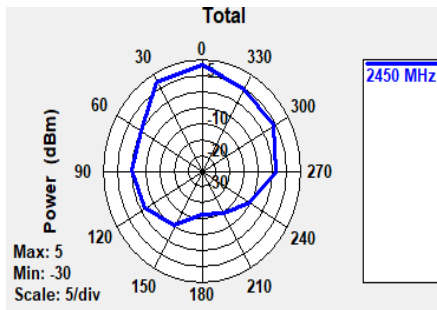
XZ plane



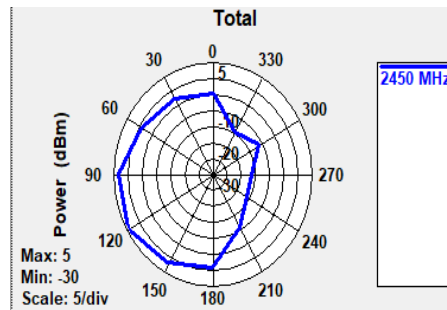
YZ plane

ANT-B

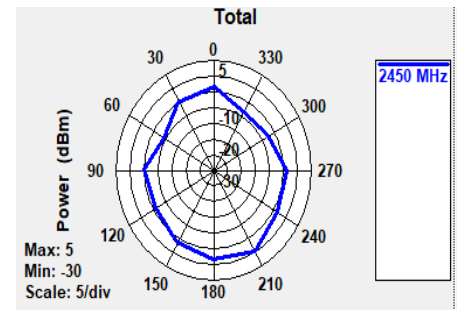
2450 MHz



XY plane



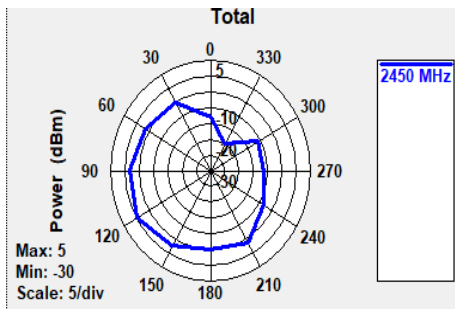
XZ plane



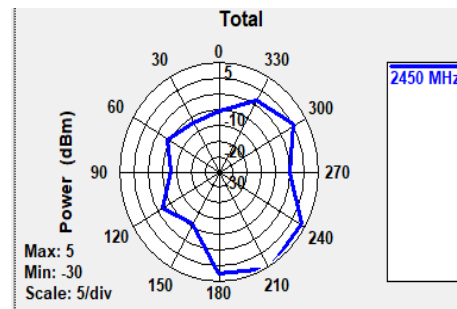
YZ plane

Bluetooth

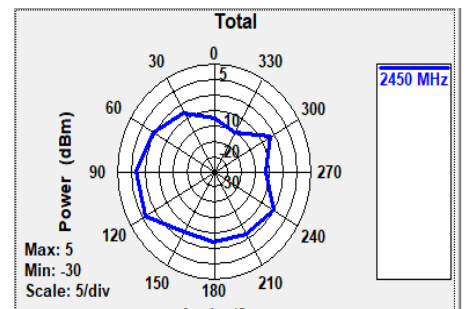
2450 MHz



XY plane



XZ plane



YZ plane