

3D Antenna Measurement Summary Report

**PLATFORM
MANUFACTURER:** Dongguan Hengyue Industrial Co.,Ltd.
PLATFORM NAME: 2.4GHz transmitter
ANTENNA TYPE: Copper wire Antenna
TESTED DATE: 2023.02.09
ISSUED: 2023.02.10

GENERAL INFORMATION

APPLICANT:	Dongguan Hengyue Industrial Co.,Ltd. No.6, Fuzhu 3rd Street, Zhangyang District, Zhangmutou Town, Dongguan, Guangdong P.R. China
MANUFACTURER:	Dongguan Hengyue Industrial Co.,Ltd. No.6, Fuzhu 3rd Street, Zhangyang District, Zhangmutou Town, Dongguan, Guangdong P.R. China
MODEL NO.:	Copper wire_3mm_VSC-RC01

Test Standard: ANSI/IEEE Std. 149 1979.

1. Test Equipment List

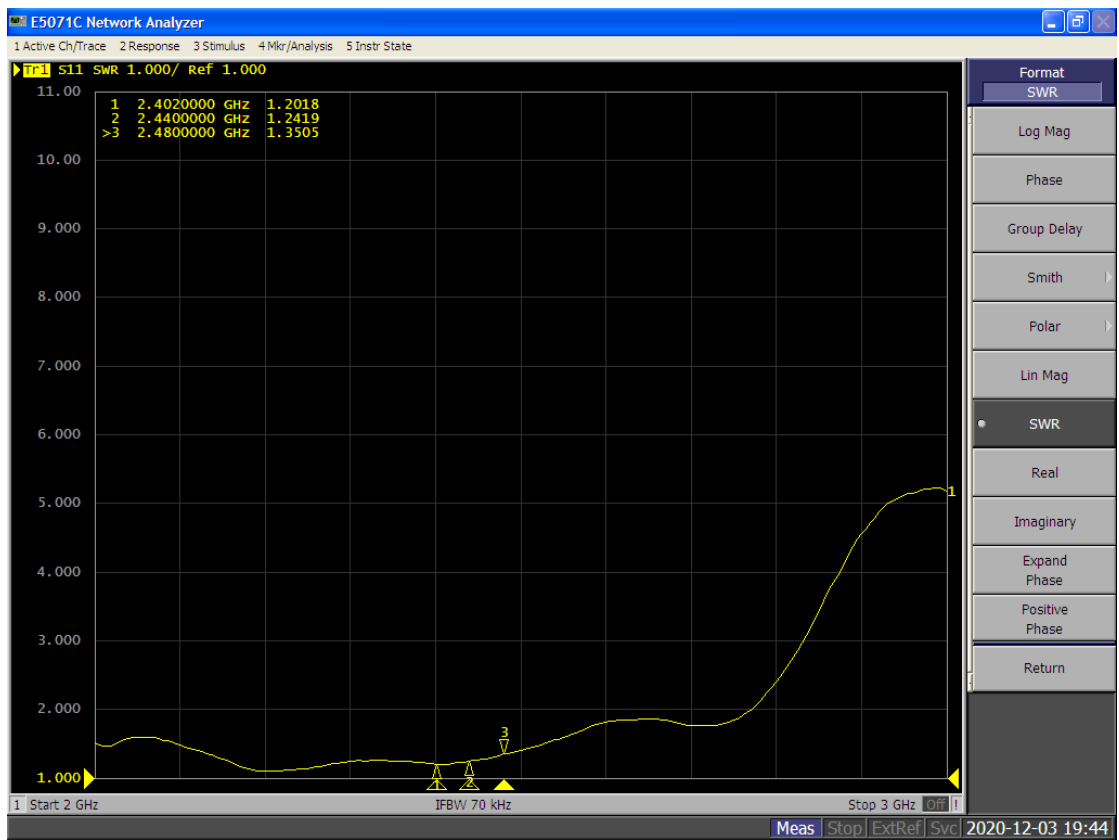
TYPE OF EQUIPMENT	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
Network Analyzer	E5071C	MY46214638	2023.06.02
OTA Chamber	ETS AMS8923	N/A	N/A
RF Switch	ETS EMCenter	N/A	N/A
Measurement Antenna	ETS 3165-01	N/A	N/A

2. Measurement Uncertainty

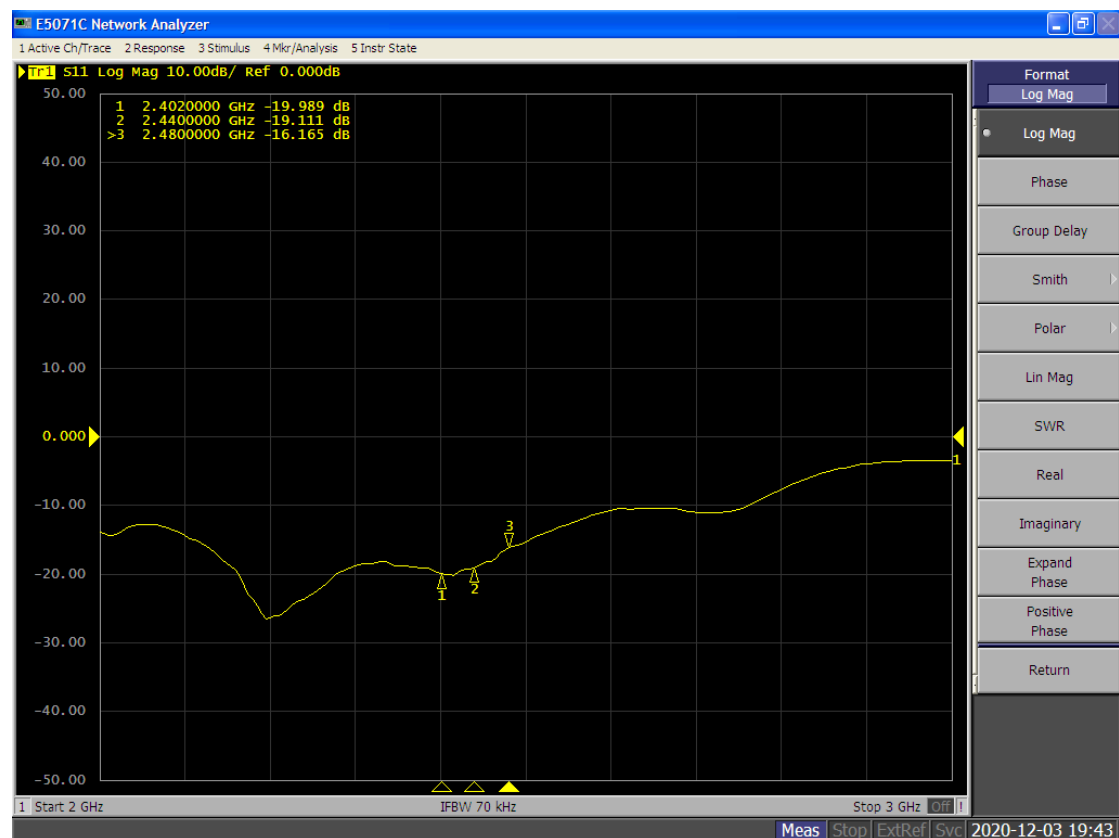
Expanded Uncertainty for Measurement ($k=2$ or 95% Confidence Level) at Passive antenna test over frequency range 780 – 2200MHz is +/- 1.52 dB.

3. Characteristics of antenna

3.1. VSWR



3.2. S11

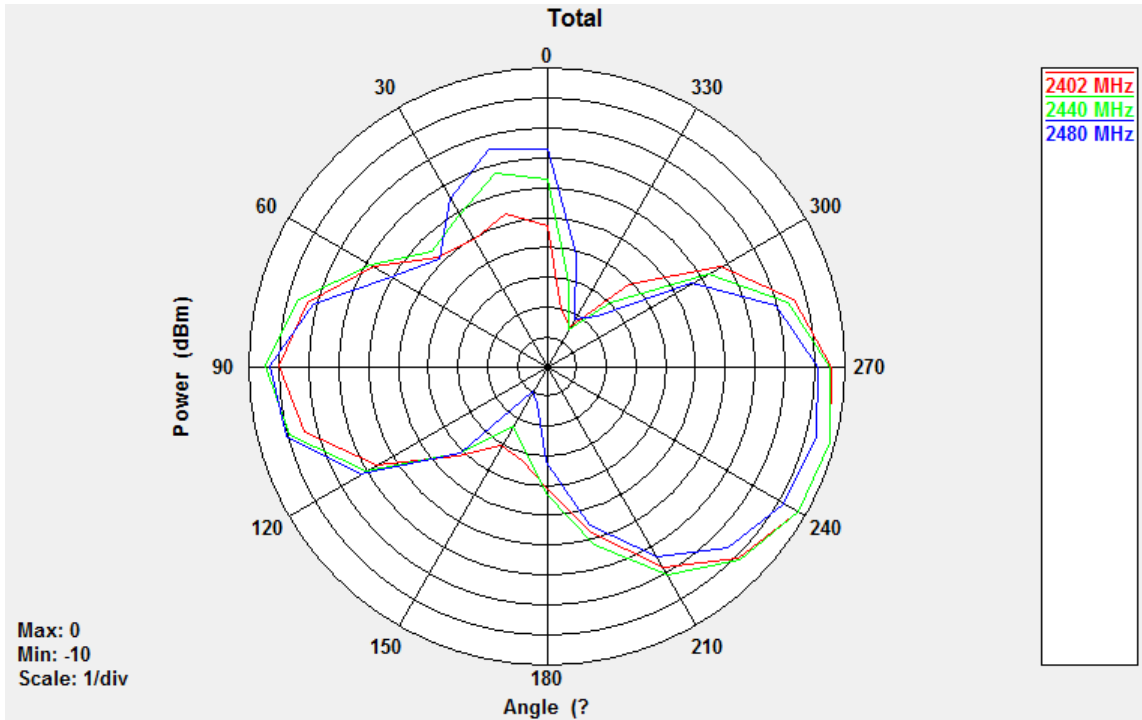


3.3. 3D Antenna Gain-Free Space

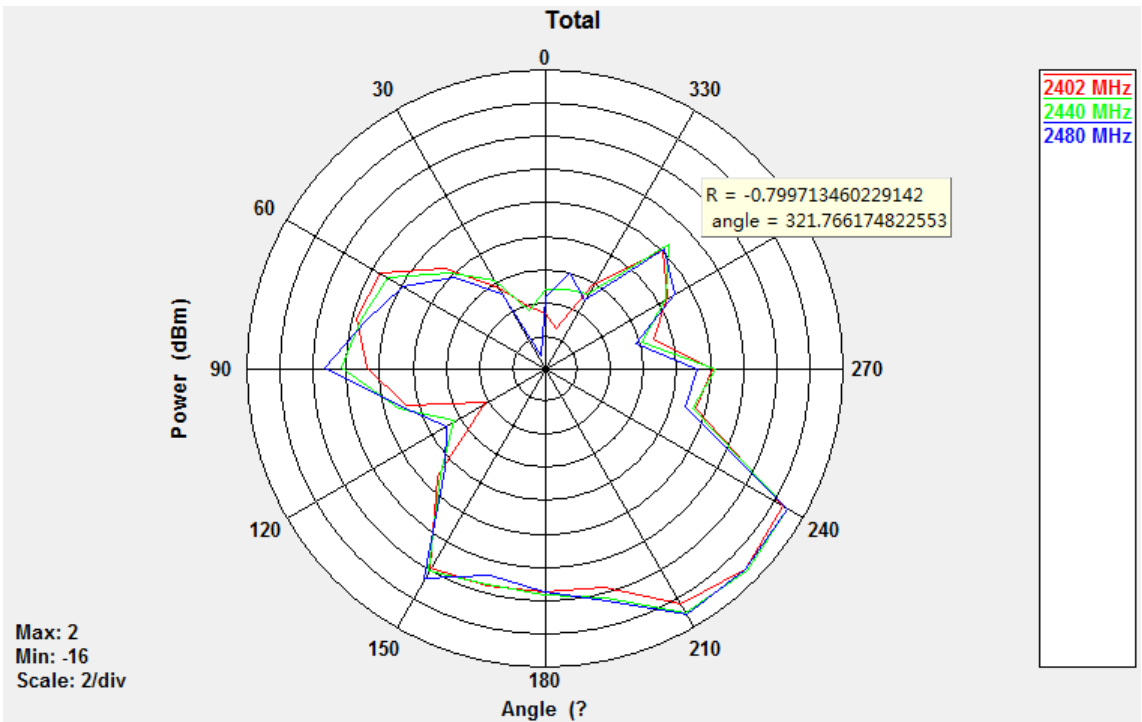
Model	Frequency (MHz)	Directivity (dBi)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
Copper wire _3mm_VSC- RC01	2402	6.48	-3.99	39.94	2.5
	2440	6.66	-3.72	42.46	2.94
	2480	6.93	-3.75	42.15	3.18

Antenna Pattern

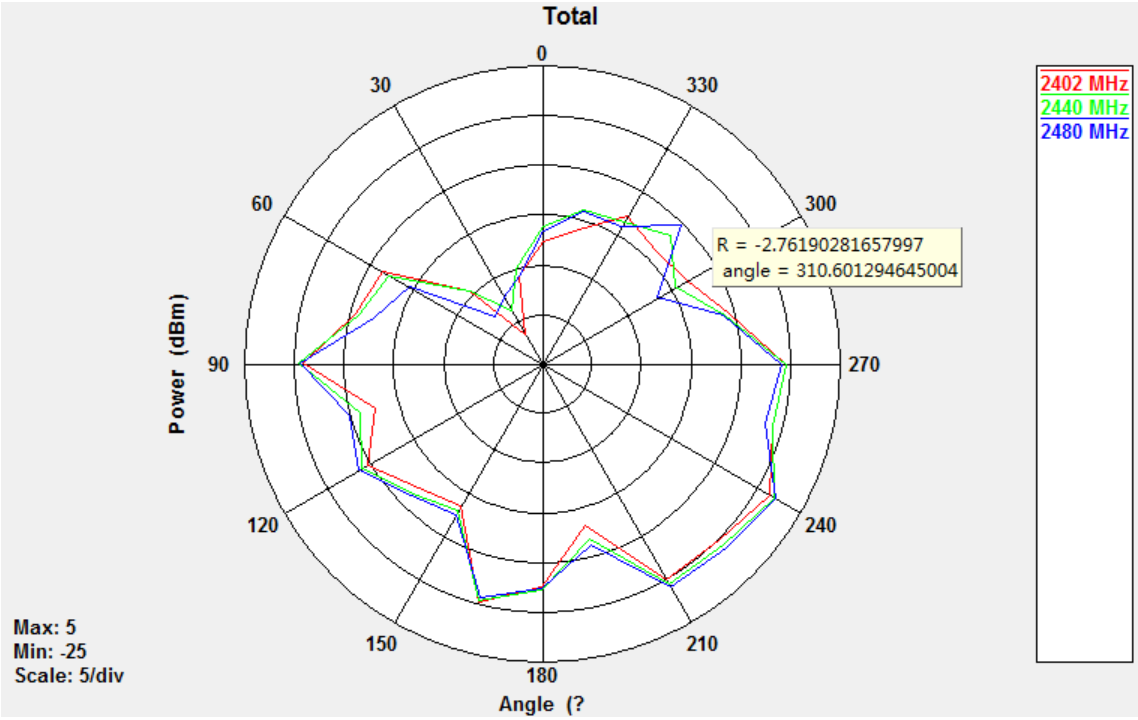
XY



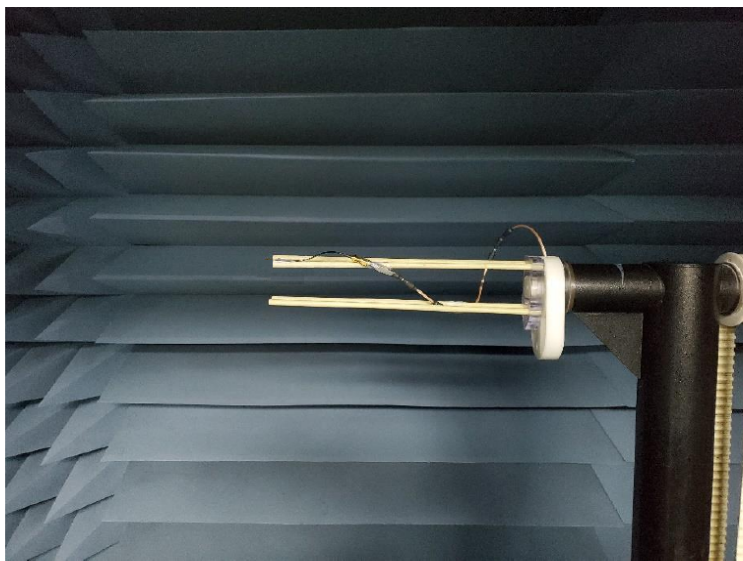
XZ



YZ



Appendix 1.EUT SETUP Photographs



Free Space