Antenna Measurement Report

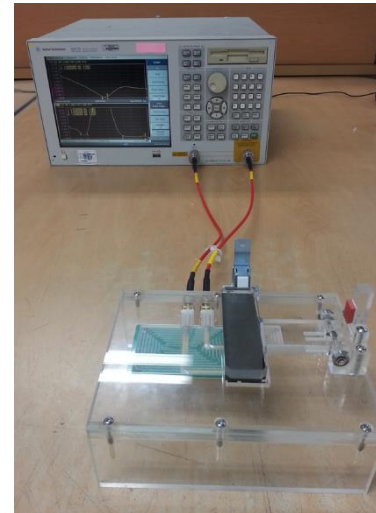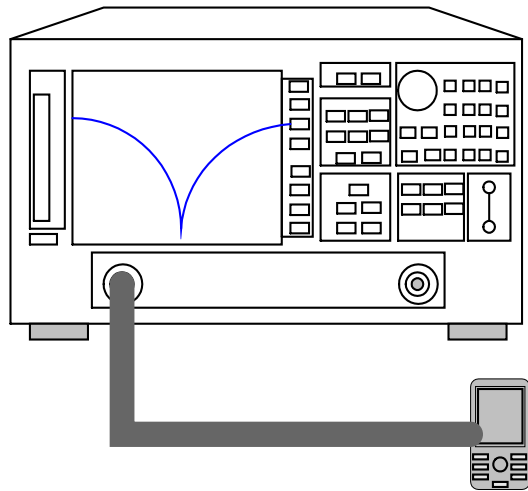| Customer	Amosense
Model	OMEGA / IOTA
Application	Bluetooth

2022 .07 .01

AMO

A M O T E C H
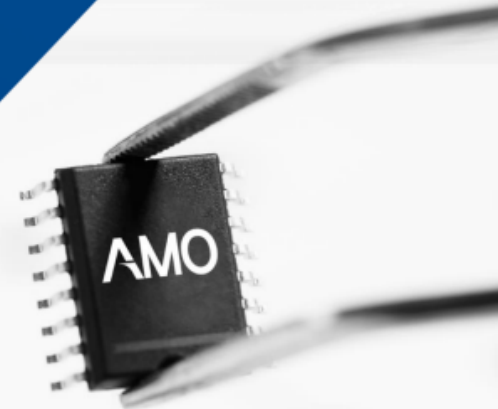
Measuring Method

1. VSWR

Connect (soldering) 50Ω semi-rigid coaxial cable to the 50Ω spot in handset.
To minimize the loss of transmission, semi-rigid coaxial cable is used.
After connecting the DUT to the network, select the frequency to be measured and measure the VSWR.

2. Antenna Gain

No	Description
FA1	Anechoic Chamber
EQ1	Wireless Communications Test Set
EQ2	Network Analyzer
EQ3	System Controller
EQ4	System Monitor
N1	Azimuth Positioner
N2	Turn-Table & Linear Slide
N3	3D Transparent Positioner
N4	Positioner Controller
AN1	Dual Polarized Transmit Antenna
EUT	Mobile Station

GPIB Inter-Connection
RF(TX)
RF(RX)
Polarization control with RF Switch
Fiber Optic Convert & Cable

wave-absorbing materials

DUT

measurement

1) Use the reference horn antenna to perform calibration.
2) Set the frequency band, mount the EUT as shown in the figure, and measure according to the
   direction of measurement in the Anechoic Chamber.

3. Location

AMOTECH CO.,LTD
171, Majung-ro, Seo-gu, Incheon, Republic of Korea

4. Antenna lab

5. Equipment List & Calibration Status

Manufacturer	Name	Standard	Purpose	Calibration date
MTG	Anechoic chamber	3x3x6 [m]	Antenna radiation measurement	Everyday
Agilent Technologies	E5071B	300kHz ~ 8.5GHz	Antenna radiation measurement	Sep 15,2021
Agilent Technologies	E5071B	300kHz ~ 8.5GHz	Antenna S-parameter	Sep 15,2021

1. Measurement Result_OMEGA

1-1) Antenna Matching Value 및 S-Parameter
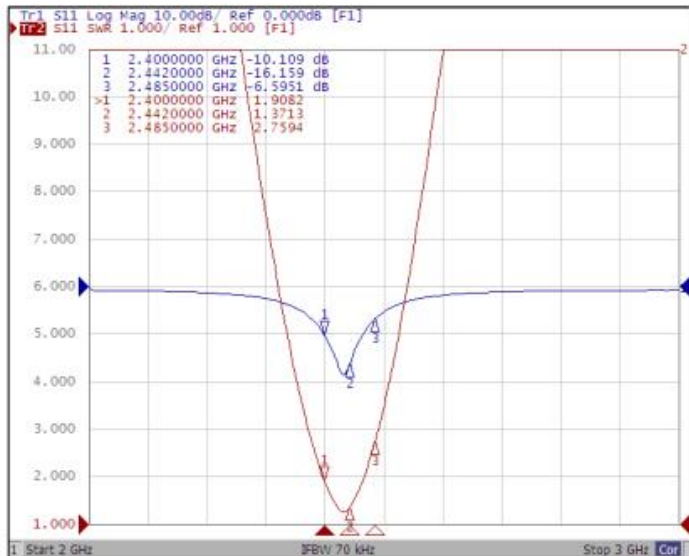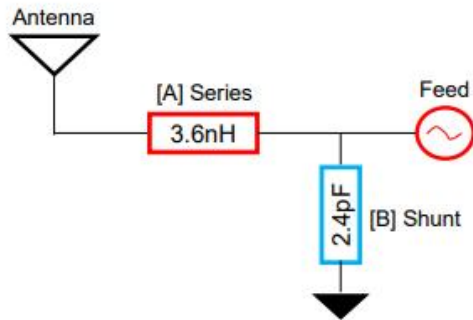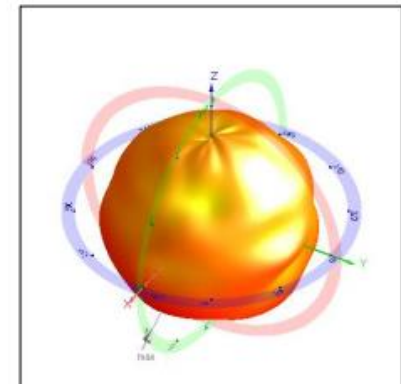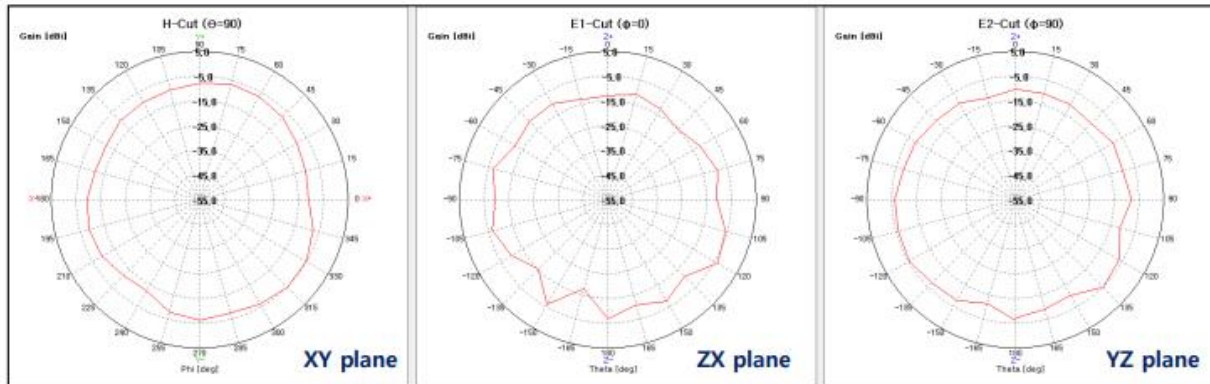

Return Loss & VSWR

1. Measurement Result_OMEGA

1-2) Passive Antenna Gain

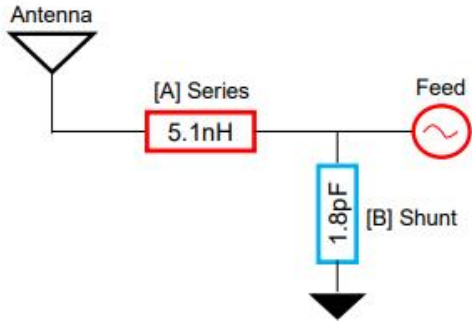| Frequency [MHz]	Efficiency [%]	Average gain [dBi]	Peak gain [dBi]
2400	11.90	-9.25	-4.86
2442	13.87	-8.58	-3.98
2485	14.12	-8.50	-3.87

1-3) Passive Radiation Pattern

XY plane

ZX plane

YZ plane

2D / 3D radiation pattern @2442MHz

2. Measurement Result_IOTA
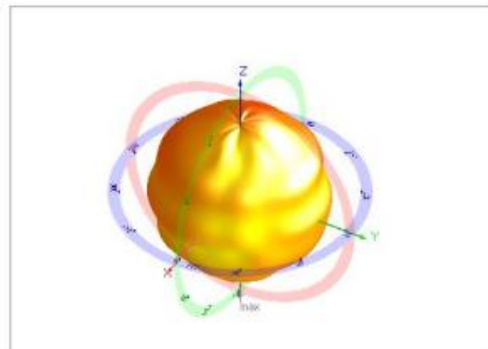
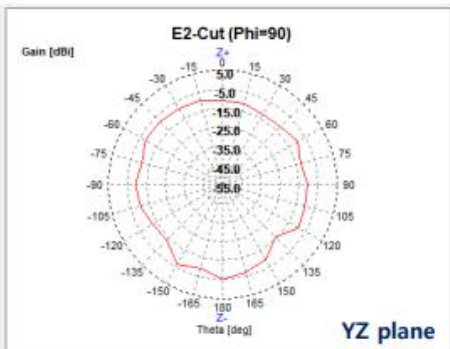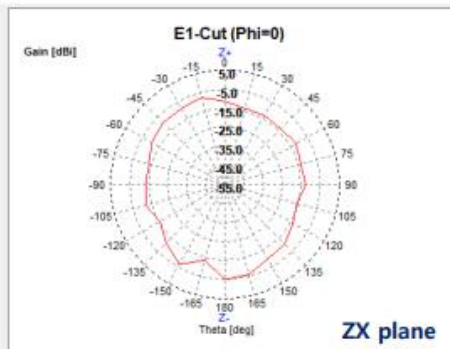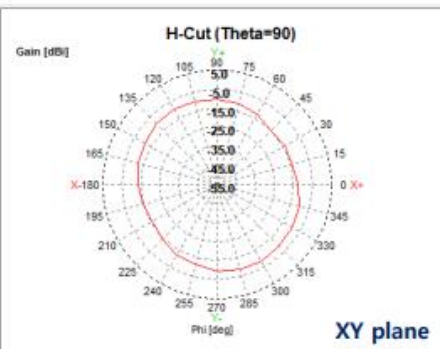## 2-1) Antenna Matching Value 및 S-Parameter
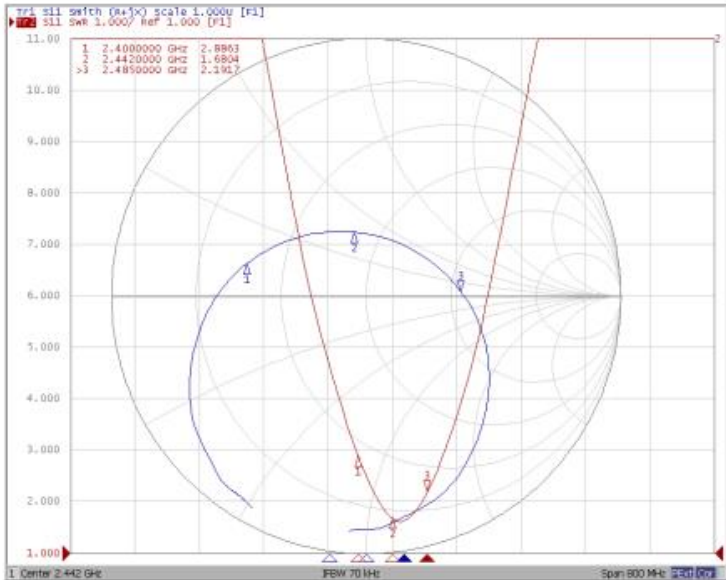
Return Loss & VSWR

2. Measurement Result_IOTA

2-2) Passive Antenna Gain

Frequency [MHz]	Efficiency [%]	Average gain [dBi]	Peak gain [dBi]
2400	5.10	-12.92	-6.73
2442	8.28	-10.98	-5.11
2485	9.61	-10.17	-4.54

2-3) Passive Radiation Pattern

2D / 3D radiation pattern @2442MHz