



**Unlicensed Band Antenna Gain**

**Model: SM-A176B/DS, SM-A176B**

**FCC ID: A3LSMA176B**

**BT/WIFI\_2.4GHz, 5GHz (SUB2)**

A17 BT, WiFi (Sub2 2.4G/5G)	
Freq	Peak.[dBi]
2400	-4.4
2412	-4.3
2437	-4.2
2451	-4.1
2472	-4.4
2485	-4.0
5150	-4.7
5290	-4.8
5430	-4.7
5570	-4.7
5710	-4.6
5850	-4.9

## Radiation Pattern Test

Antennas tested for Gain and Efficiency must be assembled into the enclosure and tested in the fully assembled and operating **A3LSMA176B** handset. The antenna is tested in free space in the anechoic chamber in the H, E1 and, E2 planes. The radiation patterns are measured at the center of transmit and receive bands.

A picture showing the geometry for this device is included in the test setup photos.

## Chamber Information

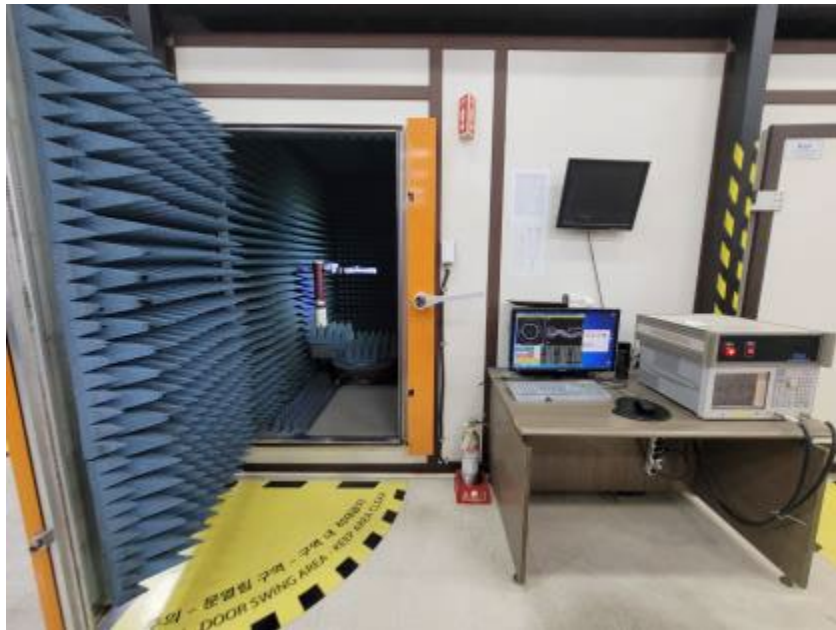
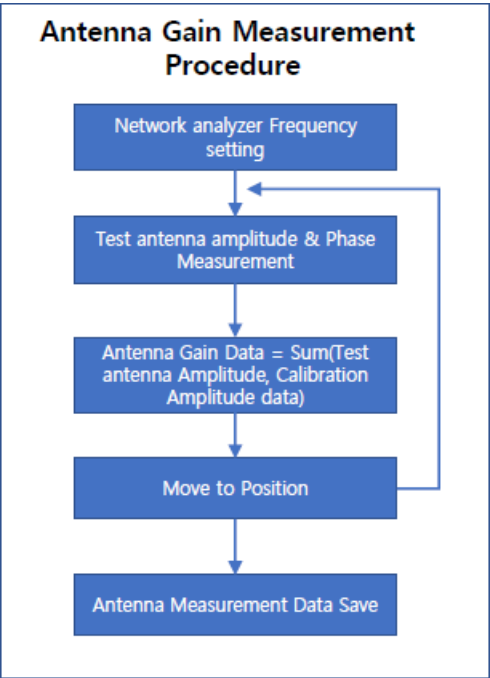


Figure 2: Geometry of Anechoic Chamber for Radiation patterns.

- ✓ Location : Kyocera-Avx.  
(166, Gosan-ro, Gunpo-si, Gyeonggi-do, Republic of Korea)
- ✓ Size : 3 x 2.5 x 2.5m
- ✓ Frequency : 600 MHz - 6GHz
- ✓ TX Antenna : KSS-HA600 (Double Rigid Horn Antenna)
- ✓ KSS 3D Motion Controller

Antenna Gain Measurement Procedure



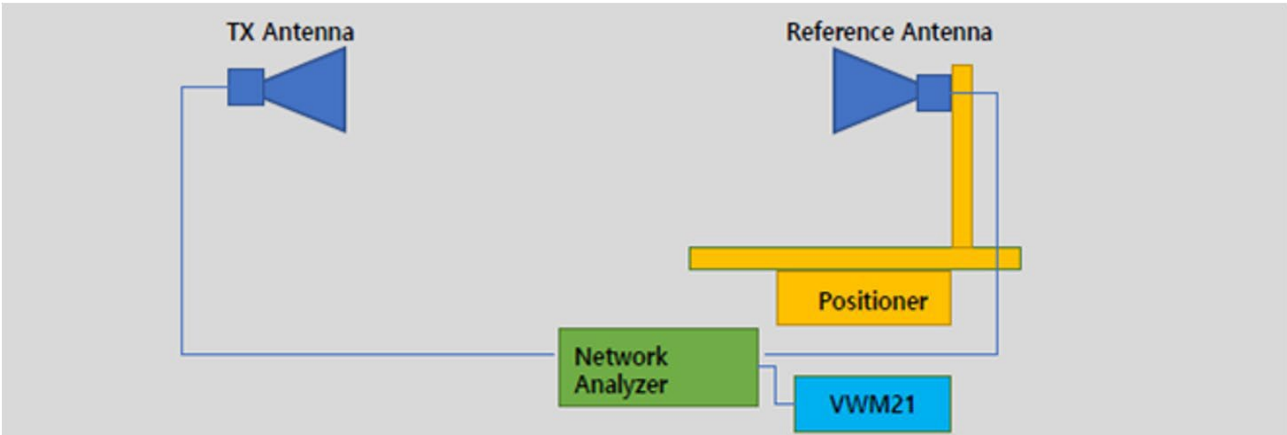
Detail antenna description

- ✓ Antenna type :
  - Metal Foil Antenna
- ✓ Antenna manufacturer : Kyocera AVX Components

Frequency Band

Mode	Frequency Band (MHz)
WIFI	2,400~2,485 MHz, 5,150~5,850 MHz

Table of calibrated equipment



Part	Model Name	Specification	Cal date
Tx Antenna	KSS-HA600	600MHz to 6GHz	
Reference Antenna	KSS-HA600	600MHz to 6GHz	
Network Analyzer	Agilent E5071B	300kHz to 8.5GHz	Cal. Due : 2025.10.05
Measurement Software	KSS-ANT		

Test dates

2025.05.21

Names of test personnel

JH Lee

## Radiation plots for max gain plane (3D)

WiFi

2.4G

5G

