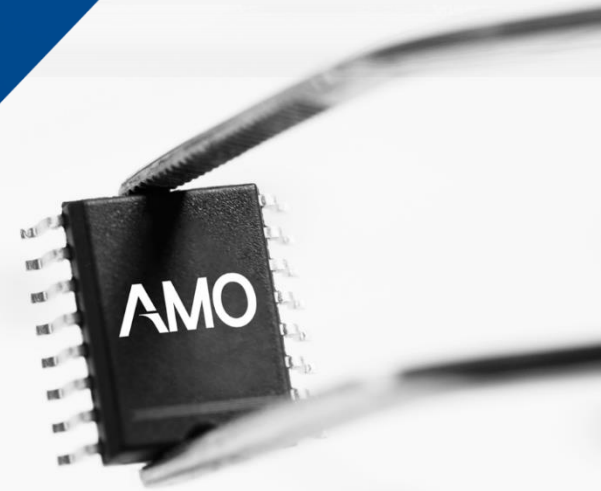


Antenna Specification

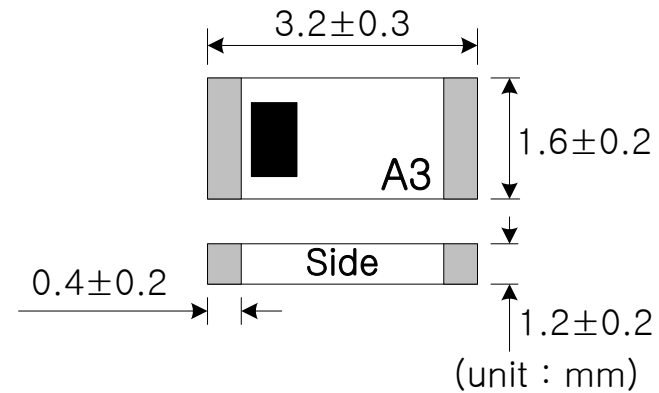
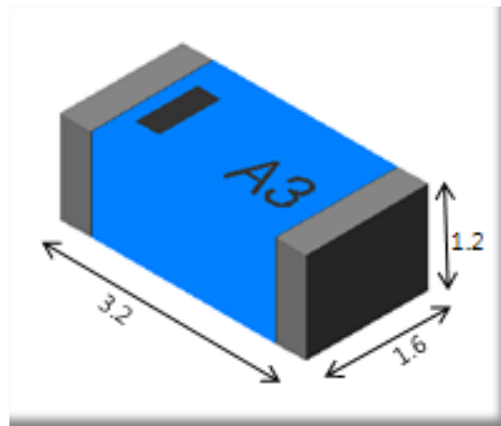
Customer	현대HT
Model	Smart doorlock inside
Application	BLE, Thread
Amotech P/N	ALA321C3

2026 .09 .07



Confidential

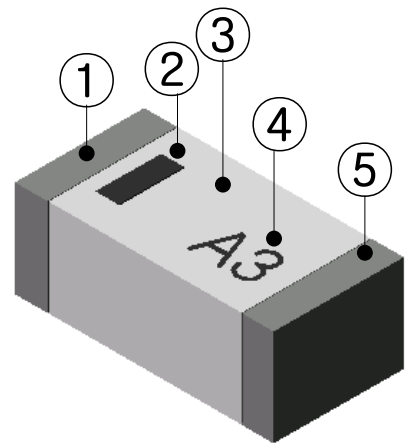
1. Mechanical specification



Antenna Top & Side

No	Item	Specification
1	Antenna Type	Chip Type
2	Dimensions (L*W*H)	3.0 * 1.5 * 1.2 mm ³
3	Unit Weight	Typical 20 mg
4	Operating Temperature	-40 ~ +105 °C

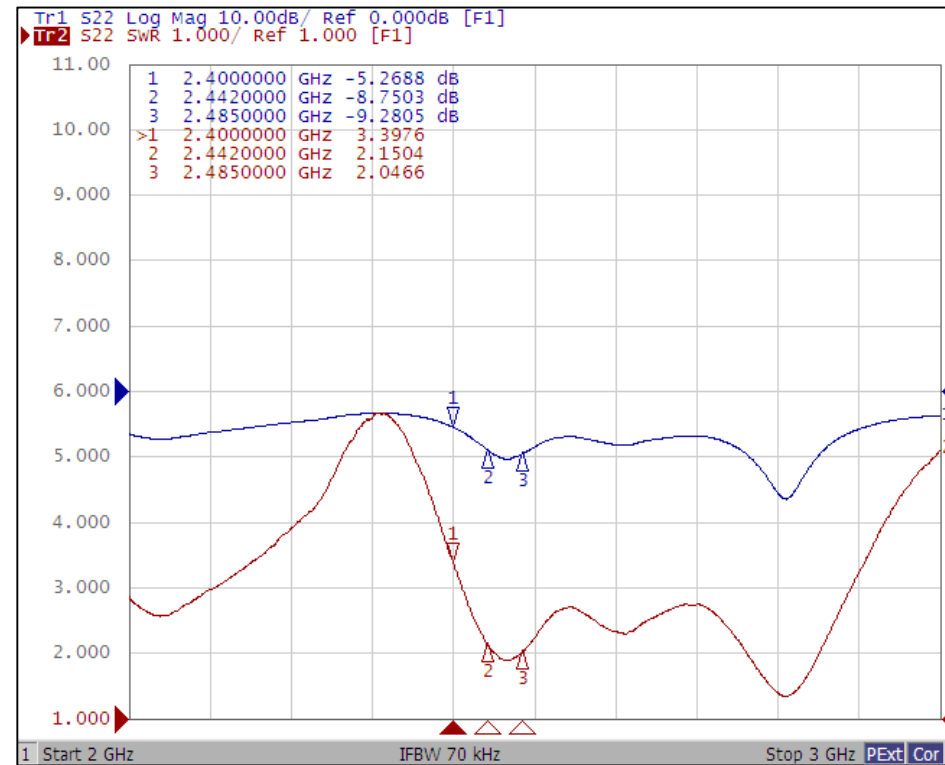
2. Appearance and material



No	Item	Function	Material
①	External Electrode	Soldering, Input Port	Ag/Ni/Sn
②	Direction index	Indication of	Ceramic
③	Ceramic Body	-	Ceramic
④	Model No. index	-	Ceramic
⑤	External Electrode	Soldering	Ag/Ni/Sn

3. Antenna Test result

- Measured Return-Loss & VSWR



3. Antenna Test result

- Passive Antenna gain Table :

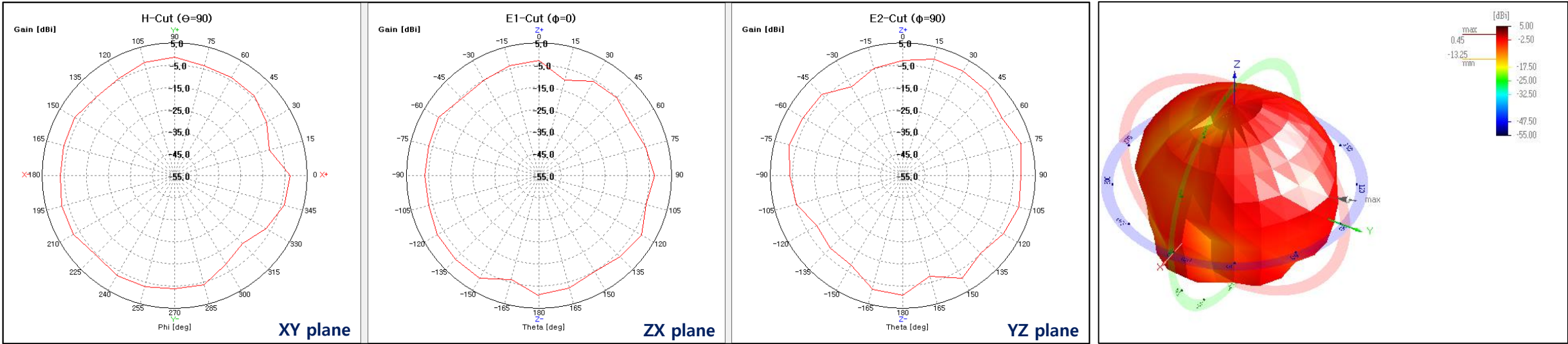
Frequency [MHz]	Efficiency [%]	Average gain [dBi]	Peak gain [dBi]
2400	33.56	-4.74	-0.56
2420	36.74	-4.35	0.03
2442	43.11	-3.65	0.45
2460	42.53	-3.71	0.07
2485	47.52	-3.23	0.25

Measurement results

Passive Antenna gain table

Frequency [MHz]	Efficiency [%]	Average gain [dBi]	Peak gain [dBi]
2400	33.56	-4.74	-0.56
2420	36.74	-4.35	0.03
2442	43.11	-3.65	0.45
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2485	47.52	-3.23	0.25

Radiation pattern



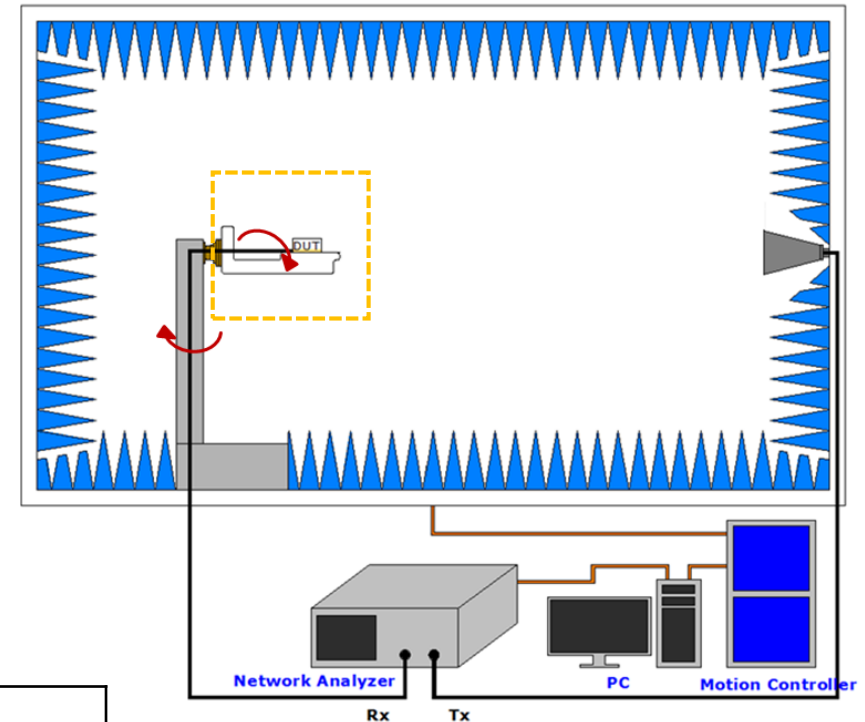
2D / 3D radiation pattern @2442MHz

4. Antenna Electrical Specification

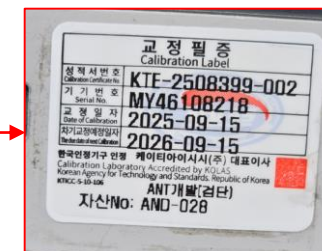
4-1. Test Site

AMOTECH Co.,Ltd.
57, Geomdan-ro, Geomdan-gu, Incheon, Republic of Korea

4-2. Test equipment



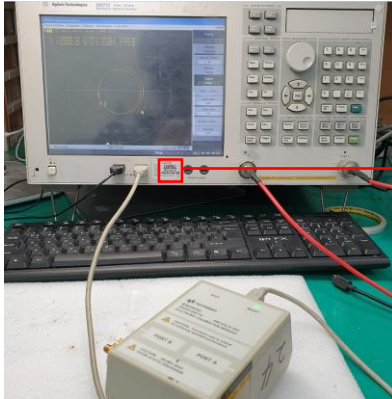
No	Equipment	Maker	MODEL
1	Anechoic Chamber	MTG	8*4*4 (Size)
2	Network Analyzer	KESIGHT	E5071C



- Date of Calibration : 2025-09-15
- The due date of next Calibration : 2026-09-15

4. Antenna Electrical Specification

4-3. Network Analyzer calibration



Ecal : Keysight 85093C



- Date of Calibration :
2025-09-15
- The due date of next Calibration :
2026-09-15

4-4. Test setup and photo

