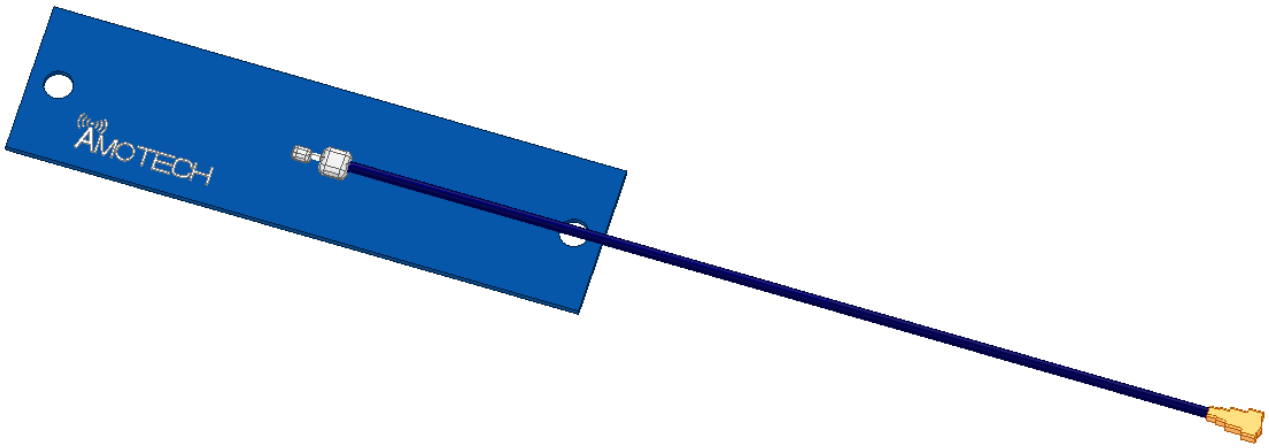
Document	Datasheet
Type	PCB & Cable Assembly Type
Application	2.4GHz & 5.5GHz WLAN
Part No.	AMO-PCS0-F7015-UL100
Revision	0

DATASHEET



Application

WLAN Dual-band(2.4GHz/5GHz)

Features

PCB & Cable Assembly Type
60*16*0.8mm^3 , Slim & Small Size
Φ 1.13 mm and 100mm RF cable
with U.FL Compatible connector
RoHS Compliant

AMOTECH

Notes
The contents of this datasheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order.

Revision History

Rev. No	Date	Title	Contents	Page
0	'19.08.28		New Published	

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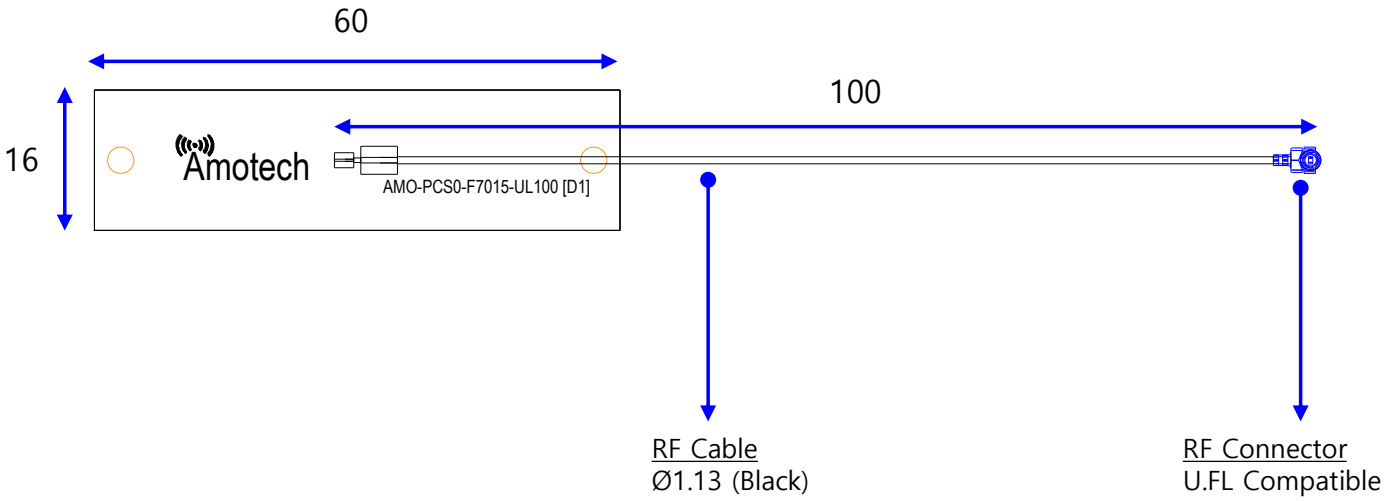
1. Specifications

1.1 Electrical Specifications

No	Item	Spec.		Remark
		2.4GHz (2400~2485MHz)	5GHz (5100~5850MHz)	
1	VSWR	Max 3:1		
2	Efficiency	typically 82.79 %	typically 71.77 %	Measured data
3	Average Gain	Typically -0.82 dBi	Typically -1.48 dBi	
4	Peak Gain	Typically 2.05 dBi	Typically 2.96 dBi	
5	Radiation Pattern	Omni-directional		
6	Impedance	Normal 50 Ω		

1.2 Mechanical Specifications



[unit : mm]

1.3 Description of Part Number

P/N : AMO (1) PCS0 (2) F7015 (3) UL100 (4)

(1) : **AMO**TECH Antenna

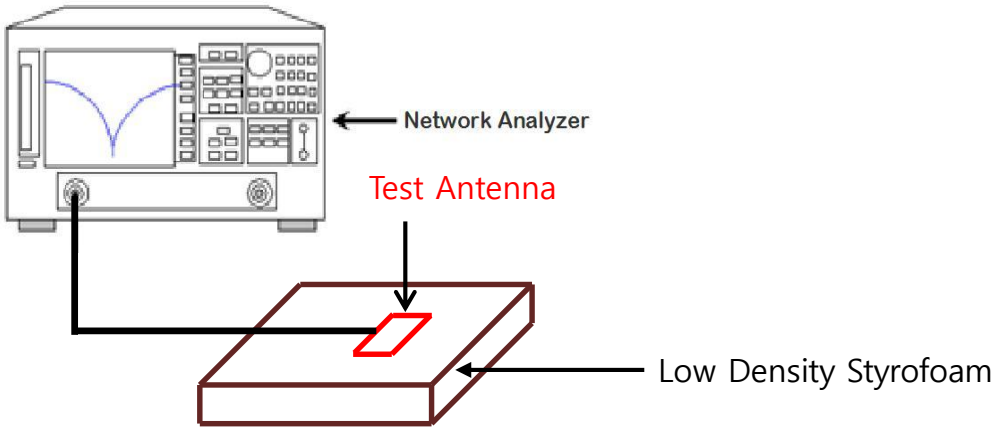
(2) : **P**CB & **C**able assembly / **S**ingle port / Case excluded

(3) : Dual-band(2.4GHz/5GHz), Serial No.

(4) : U.FL compatible connector, cable length

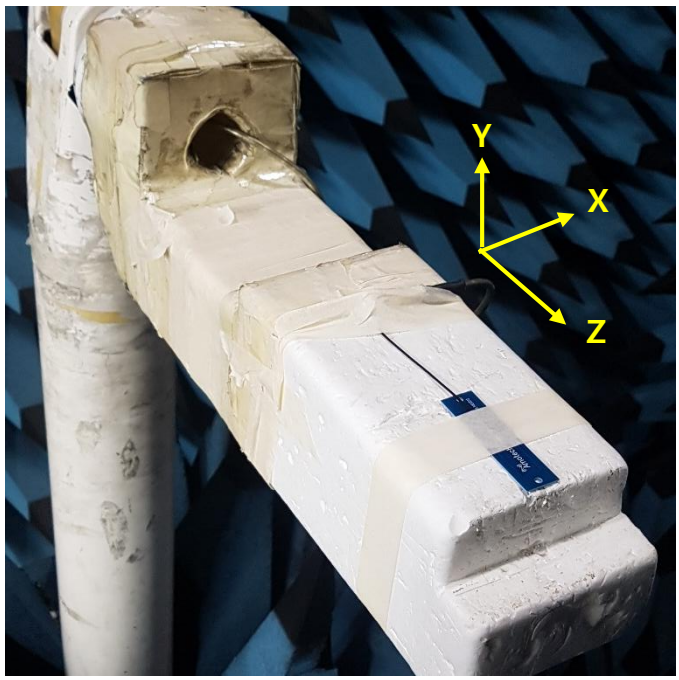
2. Measurement

2.1 Diagram for VSWR Measurement



[Condition for VSWR measurement]

A. Calibration network analyzer and RF cable
   - Start 2000 MHz, Stop 6000 MHz
B. Connect RF Cable to antenna connector
C. SET "FORMAT" of network analyzer in VSWR (SWR)
D. Read the value of VSWR
E. Verify the value of VSWR within specification

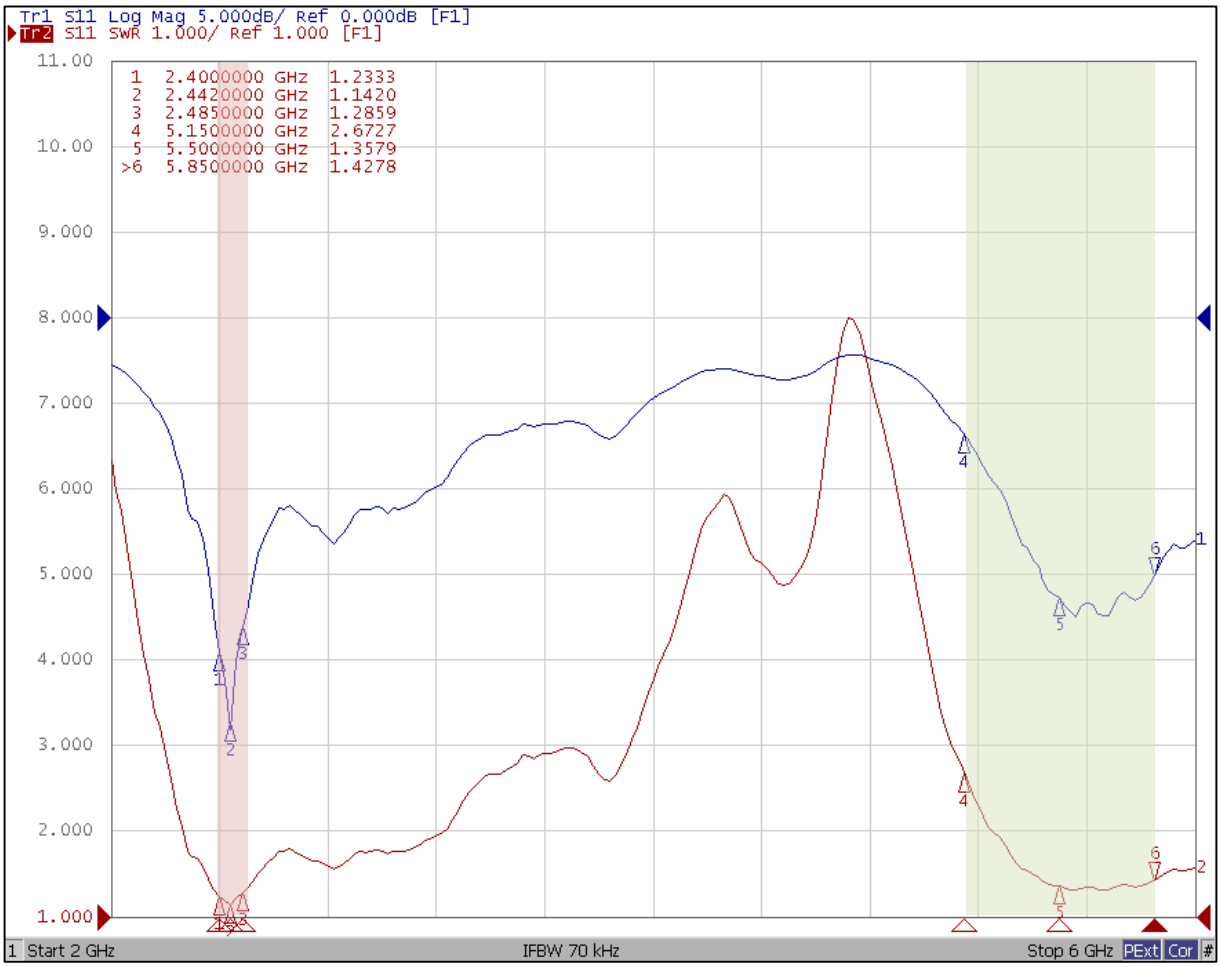


[Condition for efficiency and average gain measurement]

2.2 Typical Measurement Result

2.2.1 Return-loss & VSWR

Measurement condition : Air Condition



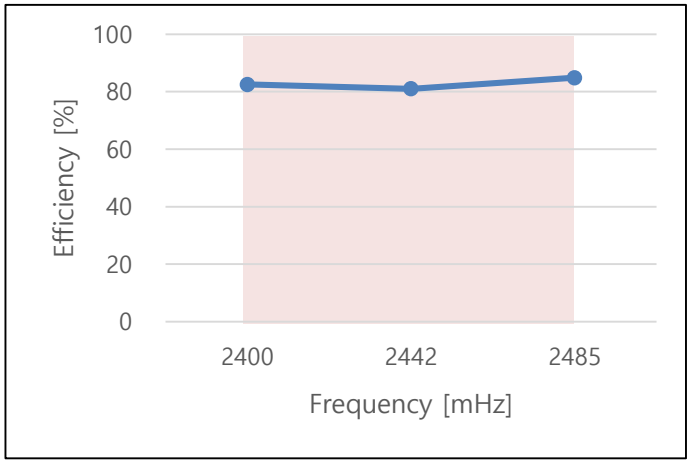
2.4GHz 5GHz

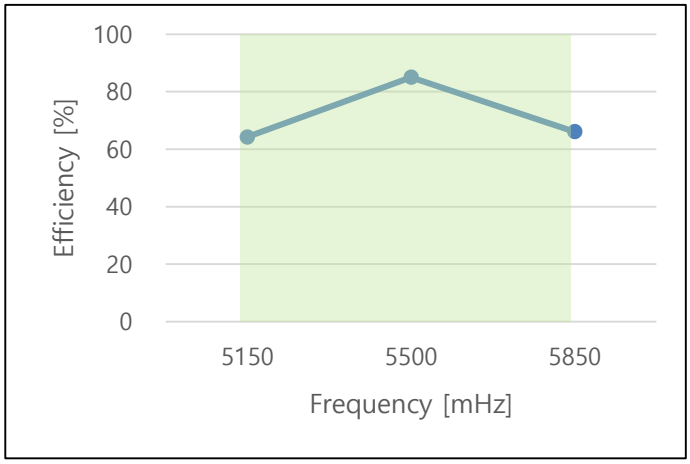
Measured antenna Return-loss / VSWR

2.2.2 Antenna Gain

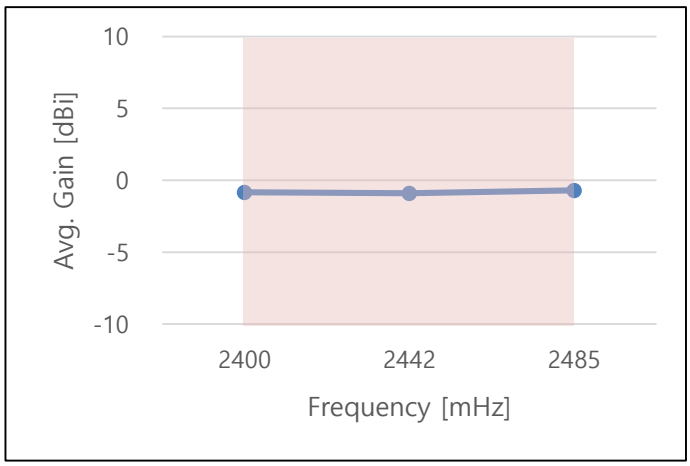
Measurement Condition : Air Condition

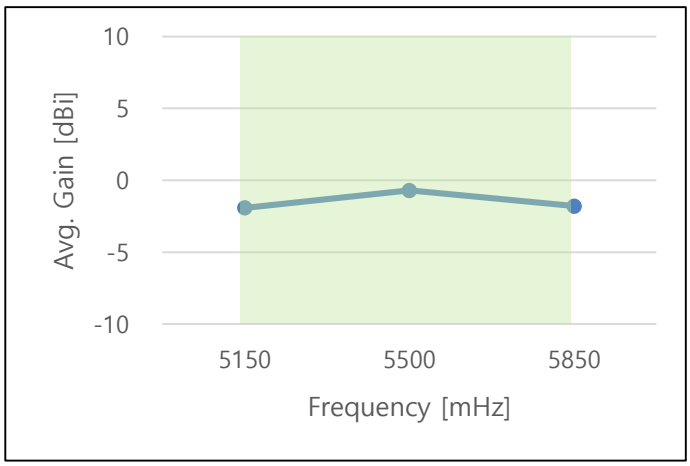
Efficiency





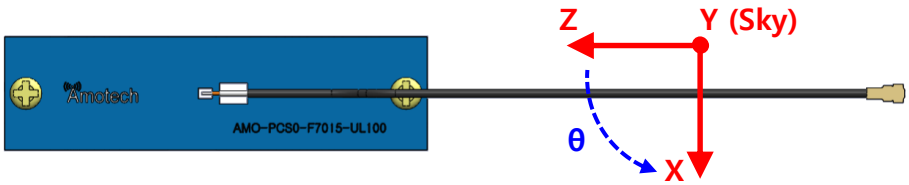
Avg. gain

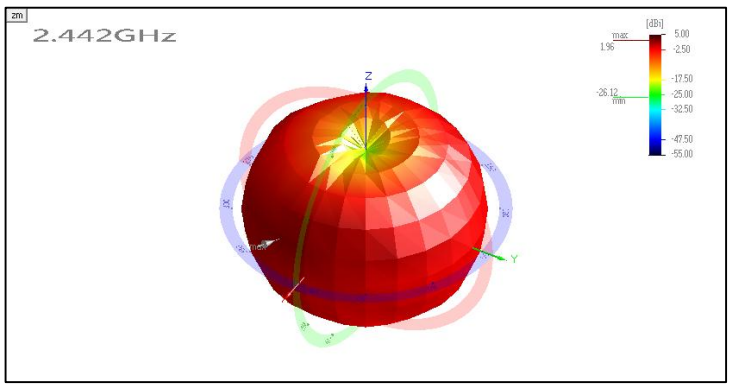




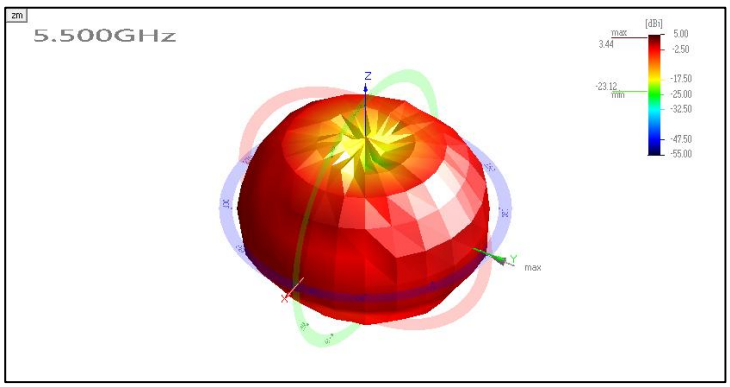
2.4GHz			5GHz		
Freq. [MHz]	Efficiency [%]	Avg. gain [dBi]	Freq. [MHz]	Efficiency [%]	Avg. gain [dBi]
2400	82.49	-0.84	5150	64.24	-1.92
2442	81.02	-0.91	5500	84.99	-0.71
2485	84.86	-0.71	5850	66.07	-1.80

2.2.3 2D / 3D Radiation Pattern

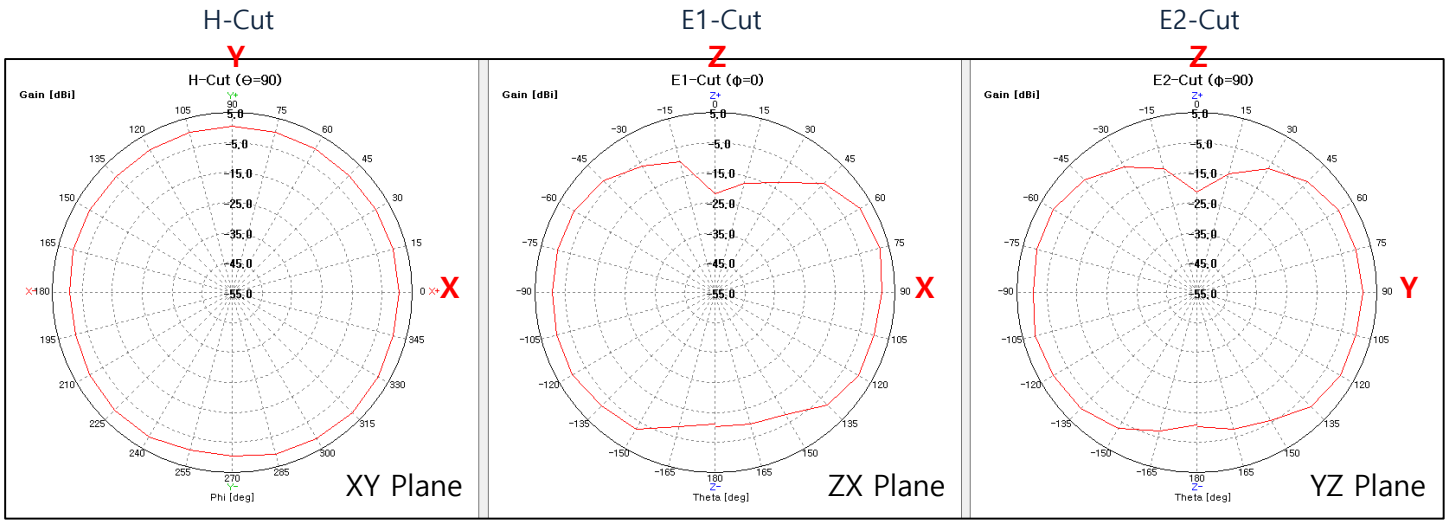




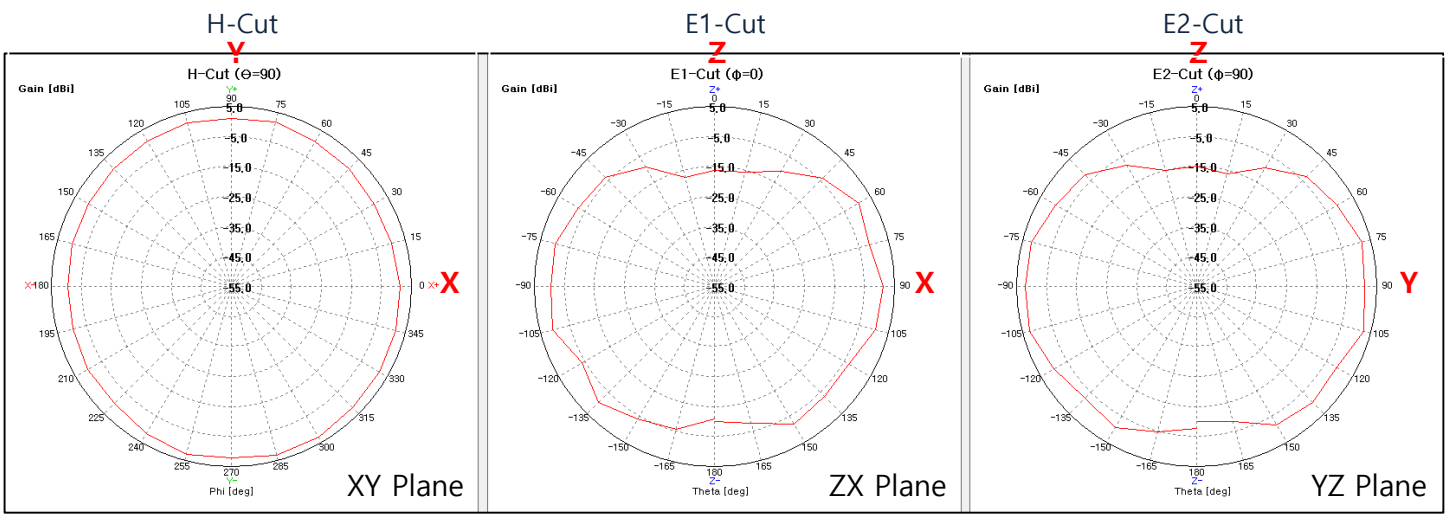
3D Radiation Pattern [2.4GHz]



3D Radiation Pattern [5GHz]



2D Radiation Pattern [2.4GHz]



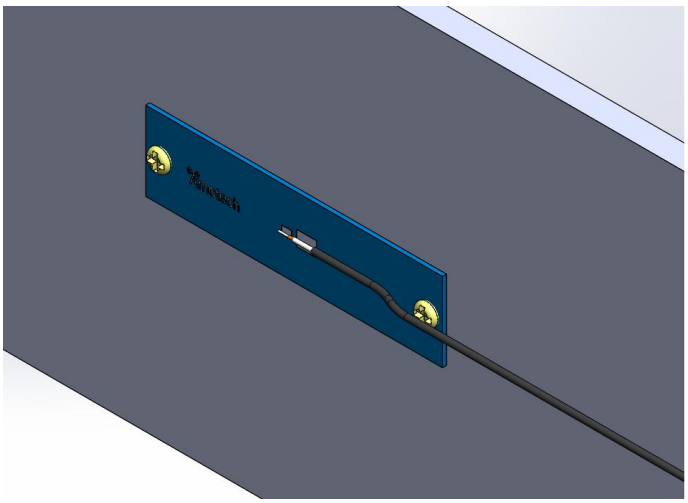
2D Radiation Pattern [5GHz]

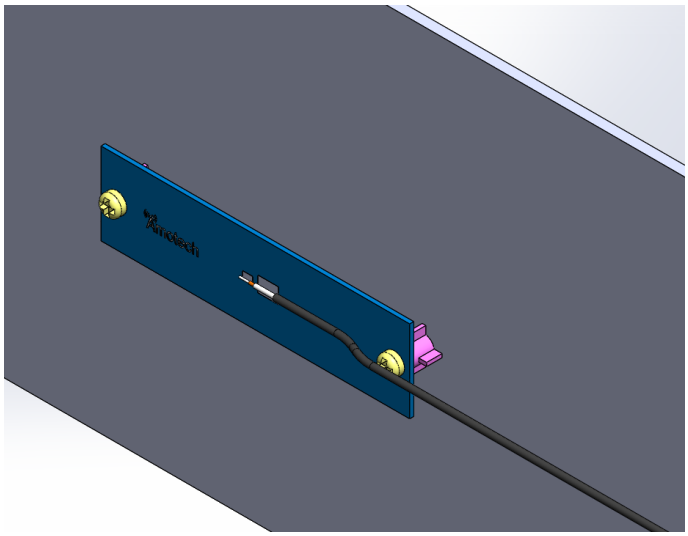
3. Reliability

No	Item	Test Condition	Test Requirements
1	Thermal Shock (Temperature Cycle)	1. 1 cycle / step 1 : -40 ± 3℃, 30 min step 2 : +80 ± 3℃, 30 min 2. Number of cycle : 10 3. Measure after left for 48 hrs min. at room temperature	1. No visual damage 2. Within electrical spec (VSWR)
2	High Temperature Resistance	1. Temperature : +80 ± 5℃ 2. Time : 96 hrs 3. Measure after left for 24 hrs min. at room temperature	1. No visual damage 2. Within electrical spec (VSWR)
3	Low Temperature Resistance	1. Temperature : -40 ± 5℃ 2. Time : 96 hrs 3. Measure after left for 24 hrs min. at room temperature	1. No visual damage 2. Within electrical spec (VSWR)
4	Humidity (Steady Condition)	1. Humidity : 85 % RH 2. Temperature : +85 ± 3℃ 3. Time : 48 hrs 4. Measure after left for 48 hrs min. at room temperature	1. No visual damage 2. Within electrical spec (VSWR)

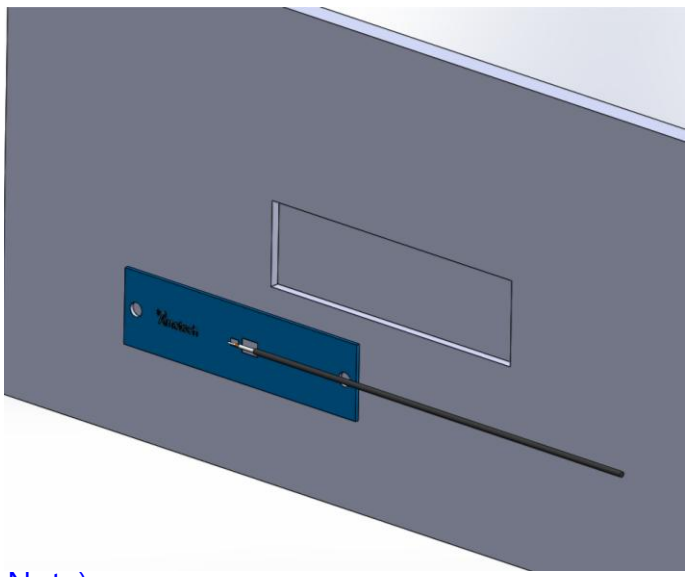
4. Recommendation

4.1 Fastening using screw





4.2 Fastening using adhesive tape.

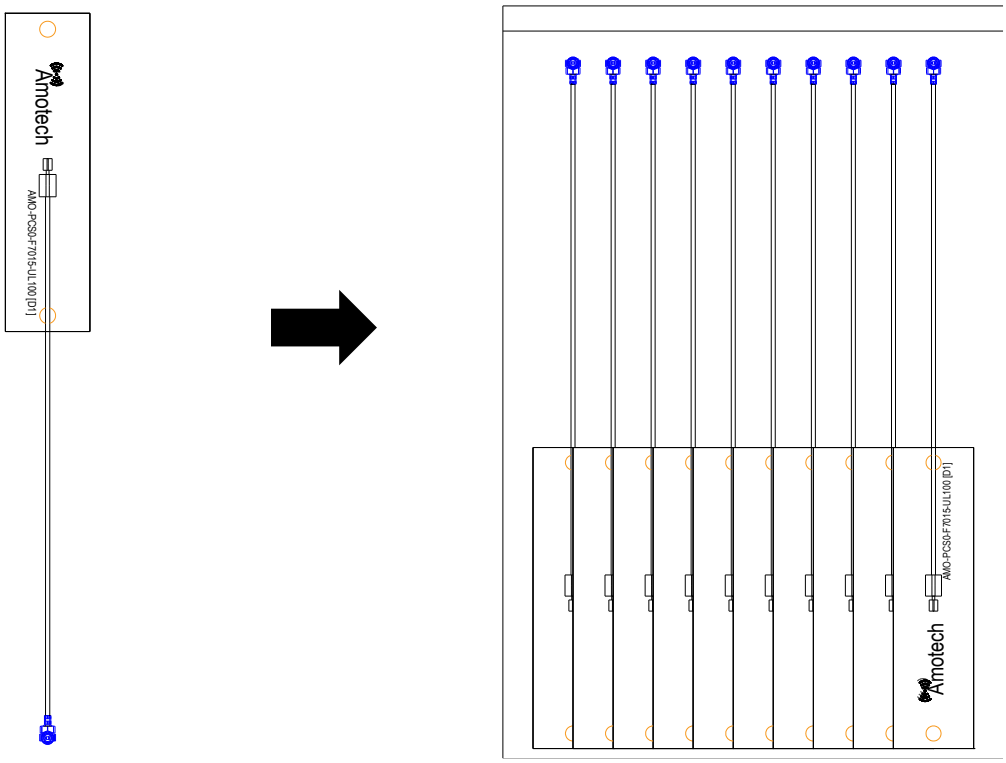


Note)
PCB of antenna can be attached directly in housing.
In this case, adhesive tape should be applied under PCB.
Adhesive tape is not contain in standard BOM and It is optional.

5. Packing

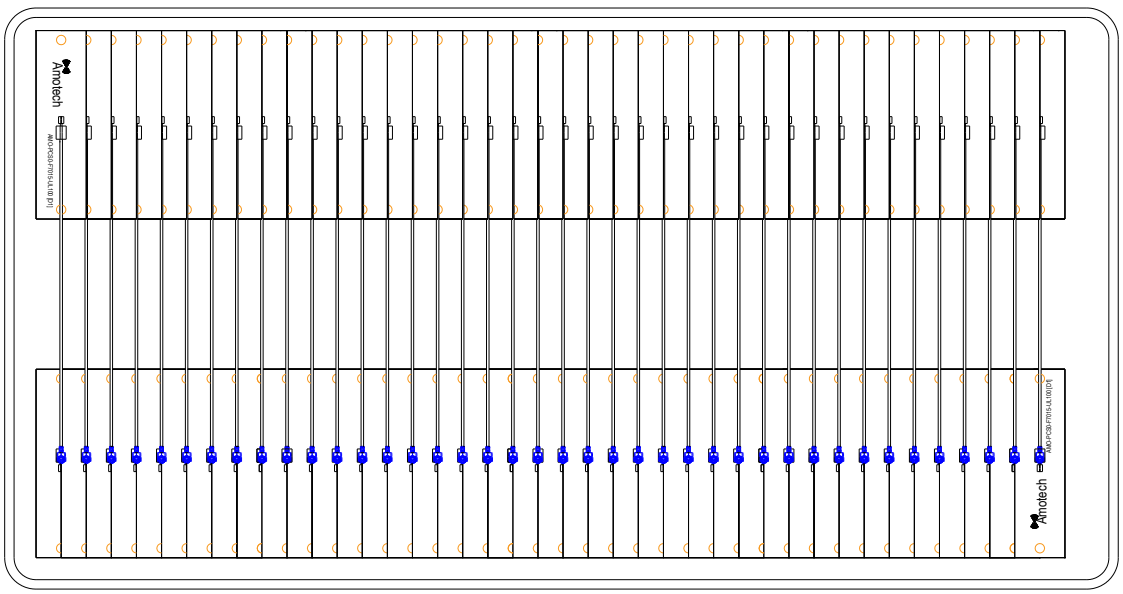
5.1 Unit Packing

- Pack size : 100 x 150 (mm)
- Material : PET
- Quantity : 10 pcs in 1 bundle



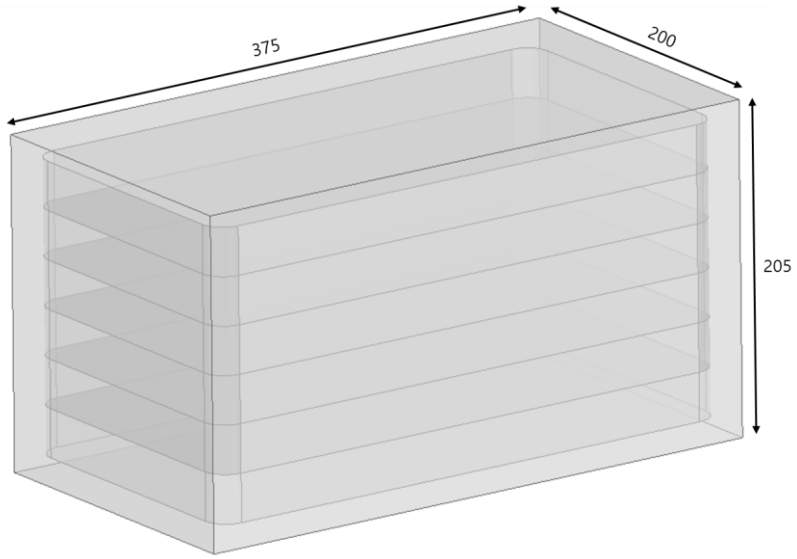
5.2 Tray Packing

- Tray size : 355(W) x 185(D) x 30(H) (mm)
- Quantity : 800 pcs (10pcs X 80bundle = 800pcs)

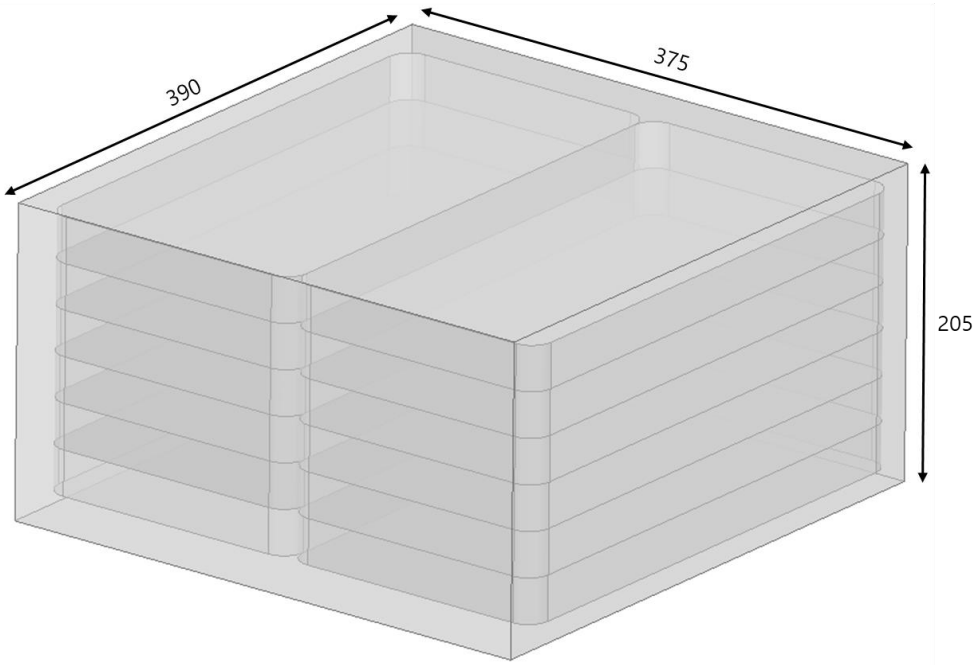


5.3 Box Packing

- Box1 size : 355(W) x 185(D) x 30(H) (mm)
- Quantity : 4800 pcs (800pcs x 6 tray = 9600pcs)



- Box2 size : 390(W) x 375(D) x 30(H) (mm)
- Quantity : 9600 pcs (800pcs X 12 tray = 9600pcs)



5.4 Label

Customer	
Item	NCA Antenna
Model	PCB + Cable assembly antenna
Quantity	
Part No.	AMO-PCS0-F7015-UL100
P/O No.	
Ship date	
Supplier	**AMOTECH CO., Ltd** 380, Namdongsero-ro, Namdong-gu, Incheon, Korea TEL. 82-32-821-0363 Fax. 82-32-811-0283
MADE IN KOREA	