SPECIFICATION

SPEC NO. : SP03AH2450E-0090

PART NO. : 03P15E9M0E00140

PRODUCT NAME : ESAJ0I00

DESCRIPTION : Embedded WIFI Antenna

RoHS Compliant Product

REVISION STATUS

VERSION	DATE	PAGE	REVISION DESCRIPTION	PREPARED	CHECKED	APPROVED
01	2011.04.06	Whole	新制定	林佳蓁	游詠惠	徐偉泓
02	2020.06.12	P.2~7	Add Data.	翁秀惠	馬得淞	張敦信、吳佳宗

Prepared By	Checked By	Approved By
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CIROCOMM TECHNOLOGY .

PART NUMBER : 03P15E9M0E00140

1 SCOPE

Cirocomm's customized **Embedded WIFI Antenna** covers the 2450MHz.

2 Name of the product

This product is named "**Embedded WIFI Antenna** ".

3 Electrical characteristics

3-1 Electrical characteristics of antenna

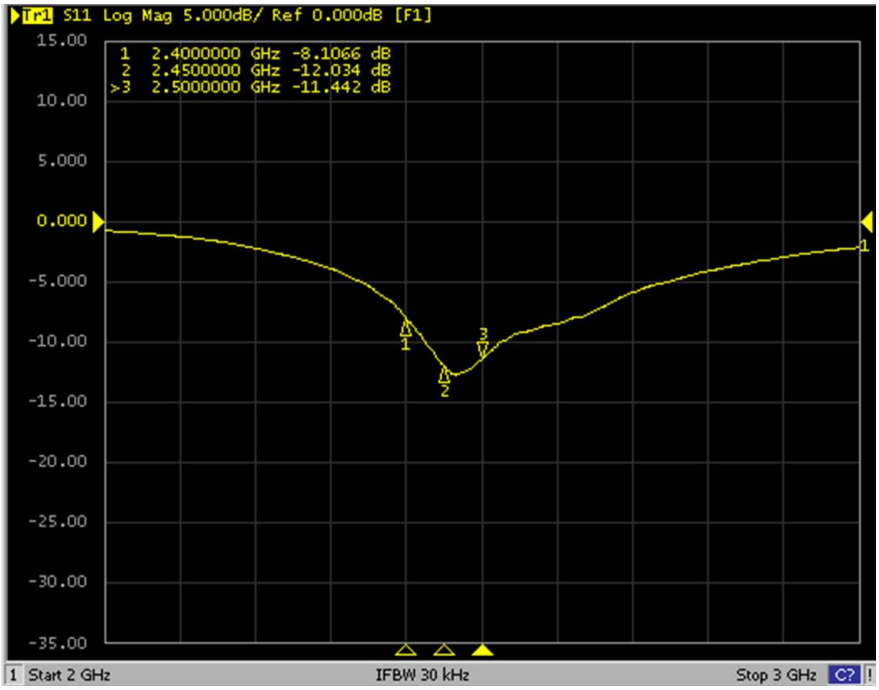
The antenna has the electrical characteristics given in Table 1 under the *cirocomm* standard installation conditions shown in the figure of Evaluation Board.

Table 1

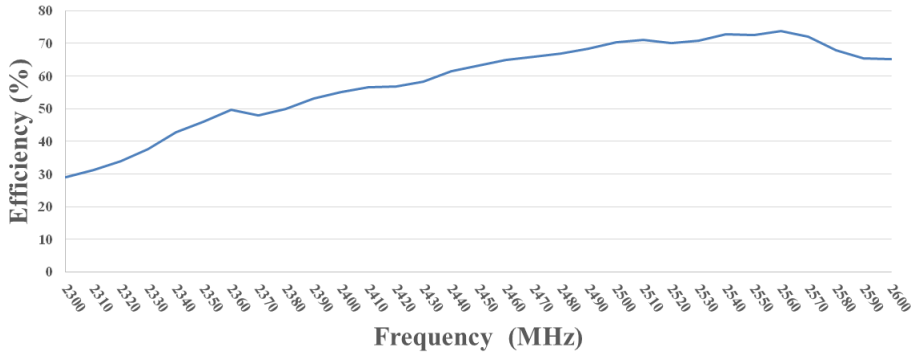
No	Parameter	Specification
1	Working Frequency	2400~2500MHz
2	Dimension	20.9x20.65x0.15 mm
3	Polarization	Linear
4	Operating Temperature	- 40℃ to +85℃

* Actual value will depend on customer ground plane size.

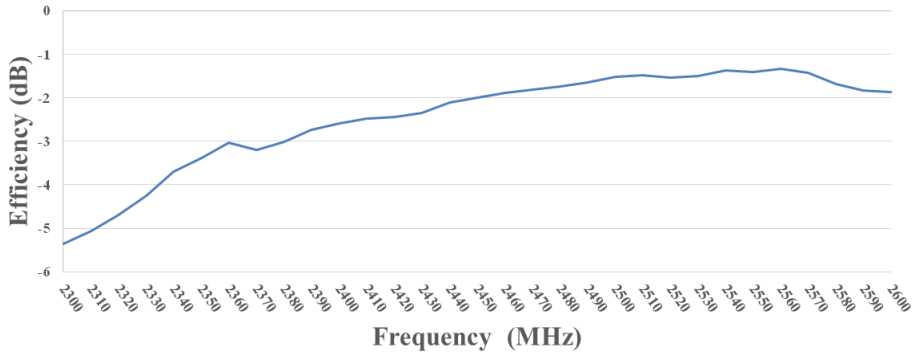
3-2 S11 Response curve



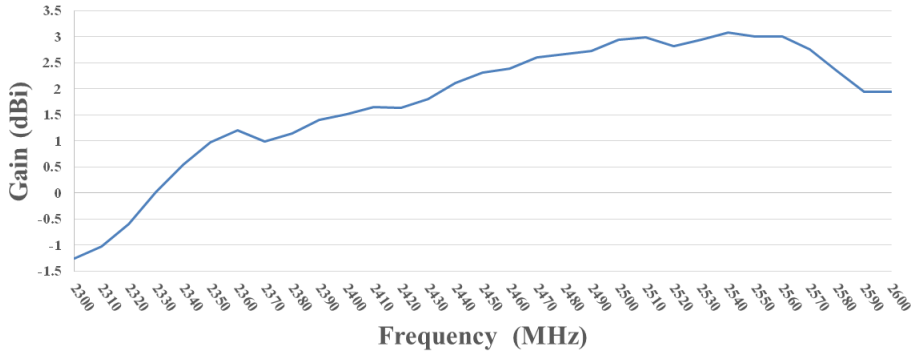
Efficiency



Average Gain

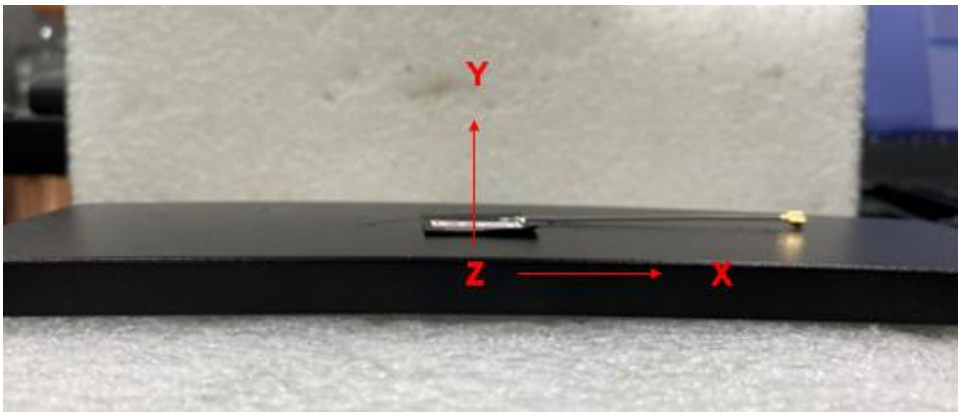


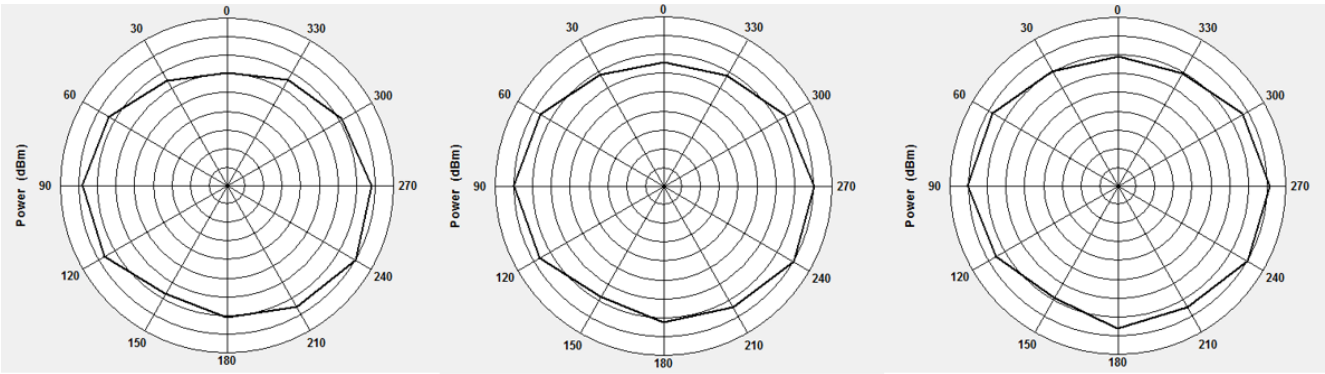
Peak Gain



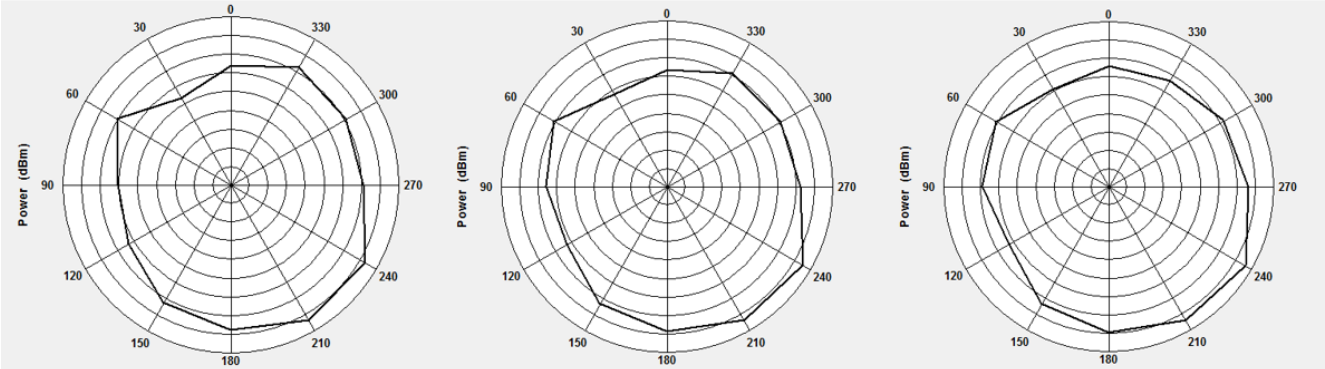
Frequency (MHz)	2400	2450	2500
Efficiency(%)	55.18	63.12	70.44
Average Gain(dB)	-2.58	-1.99	-1.52
Peak Gain (dBi)	1.51	2.31	2.94

Antenna 2D Pattern

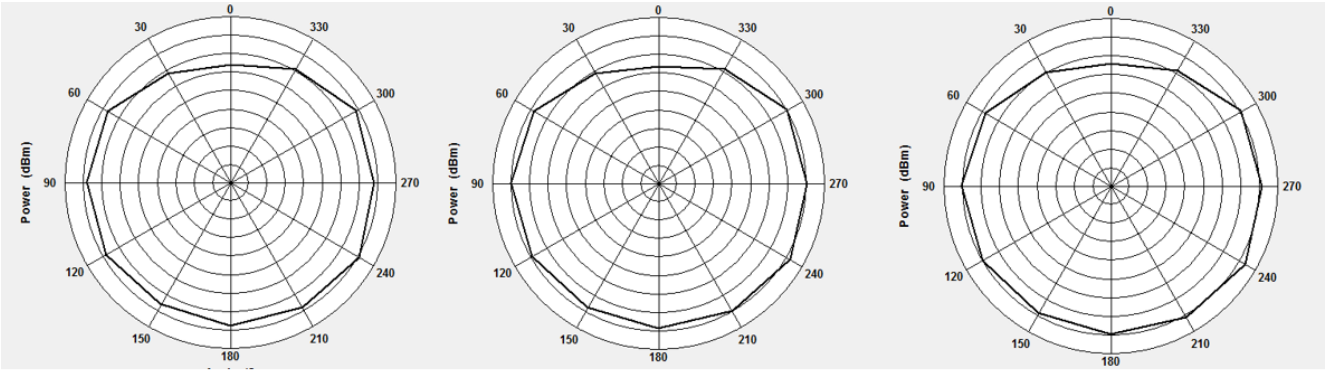




2400MHz-XZ　　2450MHz-XZ　　2500MHz-XZ

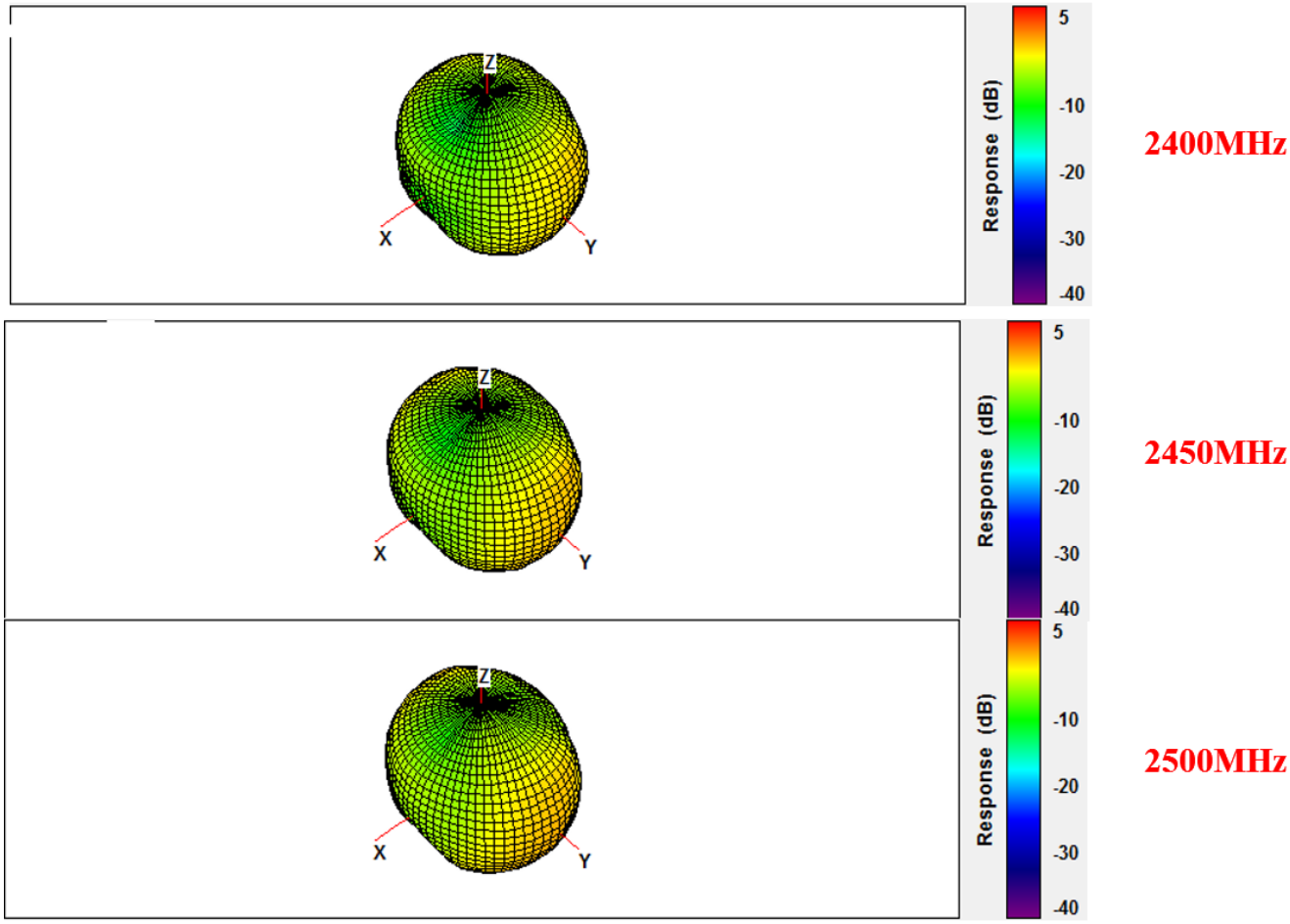


2400MHz-YZ　　2450MHz-YZ　　2500MHz-YZ



2400MHz-XY　　2450MHz-XY　　2500MHz-XY

Antenna 3D Pattern



4 Environmental conditions

4-1 Operating conditions

The antenna has the electrical characteristics given in Tables 1 in the temperature range of -40℃ to +85℃ and under the environmental conditions of +40℃ and 0-95% r.h..

4-2 Storage temperature range

The storage temperature range of product is -40℃ to +85℃

5 Reliability tests

The decision standard of the confirmation of the movement is doing the characteristic electric standard of the antenna module. And, the decision standard of the appearance isn't thought function problem become defect be.

5-1 Low-temperature test

Expose the specimen to -40℃ for 16 hours and then to normal temperature/ humidity for 24 hours or more. After that examine the appearance and functions.

5-2 High-temperature test

Expose the specimen to +85℃ for 16 hours and then to normal temperature/ humidity for 24 hours or more. After that examine the appearance and functions.

6 Inspection

As for the examination in the mass production, the receiving character of the ratio wave sent in a shield box from the standard antenna and VSWR are confirmed in the picking out examination.

7 Warranty

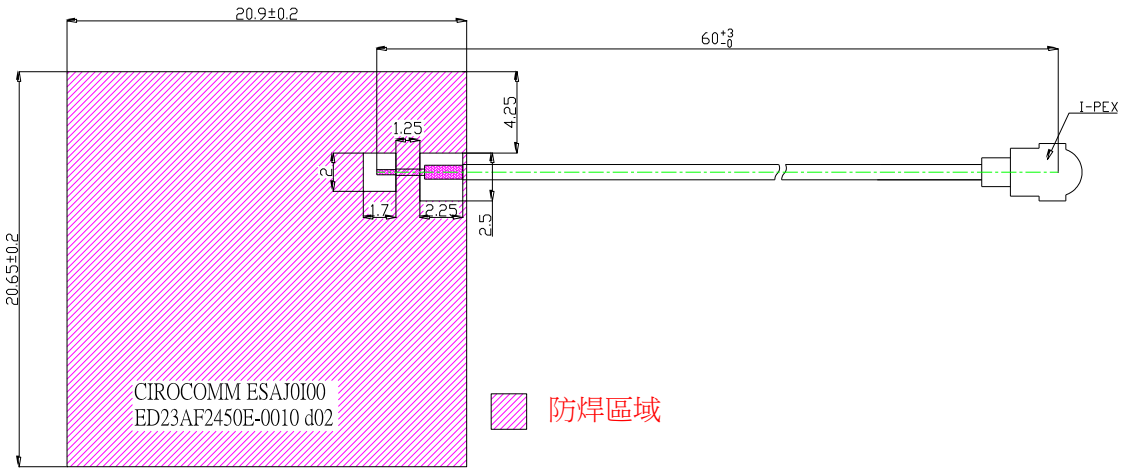
If any defect occurs form the product during proper use within a year after delivery, it will be repaired or replaced free of charge.

8 Other

Any question arising from this specification manual shall be solved by arrangement made by both parties.

9 Drawings

ANTENNA



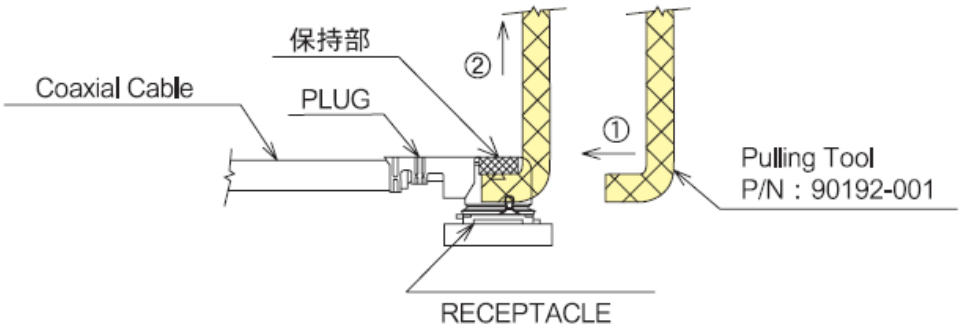
註:
1.接頭型IPX(F)
2.接頭耐拉力>1kg(10 sec)
3.線材 φ 0.8(mm)
4.單位:mm
5.顏色:黑色

10 Plugs Usage Precautions

10-1 Mating / unmating

(1) To disconnect connectors, insert the end portion of I-PEX under the connector flanges and pull off vertically, in the direction of the connector mating axis.

(2) To mate the connectors, the mating axes of both connectors must be aligned and the connectors can be mated. The "click" will confirm fully mated connection. Do not attempt to insert on an extreme angle.



10-2 Pull forces on the cable after connectors are mated

After the connectors are mating, do not apply a load to the cable in excess of the values indicated in the diagram below.