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| SPEC NO. | SP03AC24508-0260 | ISSUED DATE | 2023.04.07 | PUBLISHED BY |
| PRODUCT NAME | FDAH0I20 | VERSION | 03 | |
| | | PAGE | 1/5 | |

SPECIFICATION

SPEC NO. : SP03AC24508-0260
PART NO. : 03C15C030E040T
PRODUCT NAME : FDAH0I20
DESCRIPTION : FR4 Dual-Band Antenna
RoHS Compliant Product
COMPANY NAME : Cirocomm Technology Corp.
No.5, Industrial 2nd Road, PingZhen
ADDRESS : Dist., Taoyuan City 324, Taiwan
(R.O.C.)

REVISION STATUS

| VERSION | DATE | PAGE | REVISION DESCRIPTION | PREPARED | CHECKED | APPROVED |
|---------|------------|-------|----------------------|----------|---------|----------|
| 01 | 2022.10.19 | Whole | New Issued. | 翁秀惠 | 馬得淞 | 張敦信、吳佳宗 |
| 02 | 2023.03.28 | P.1 | Add Name & Address. | 翁秀惠 | 馬得淞 | 張敦信、吳佳宗 |
| 03 | 2023.04.07 | P.2&5 | Updates. | 翁秀惠 | 馬得淞 | 張敦信、吳佳宗 |
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| SPEC NO. | SP03AC24508-0260 | ISSUED DATE | 2023.04.07 | PUBLISHED BY |
| PRODUCT NAME | FDAH0120 | VERSION | 03 | |
| | | PAGE | 2/5 | |

CIROCOMM TECHNOLOGY.

PART NUMBER: 03C15C030E0040T

1 SCOPE

Cirocomm's customized **FR4 Dual-Band Antenna** covers the 2450/5800MHz.

2 Name of the product

This product is named "FR4 Dual-Band Antenna".

3 Electrical characteristics

3-1 Electrical characteristics of antenna

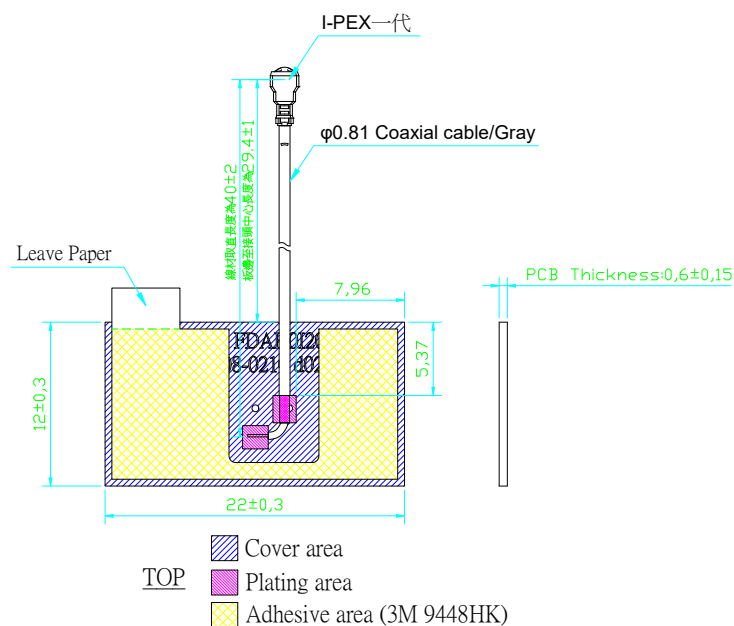
The antenna has the electrical characteristics given in Table 1 under the *cirocomm* standard installation conditions shown in the figure of Evaluation Board.

Table 1

| No. | Parameter | Specification |
|-----|-----------------------|------------------------------|
| 1 | Working Frequency | 2400~2500MHz 5150~5850MHz |
| 2 | Dimension(PCB) | 22*12*0.6 mm |
| 3 | Polarization | Linear |
| 4 | Operating Temperature | - 40°C to +85°C |

* Actual value will depend on customer device.

Environment

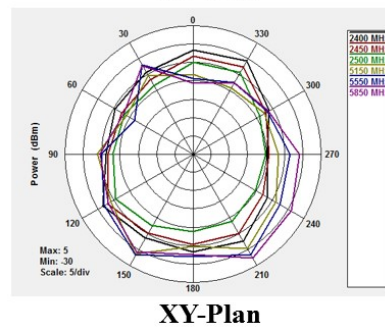
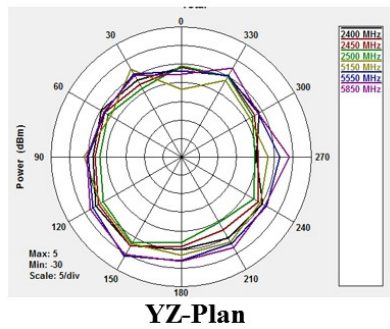
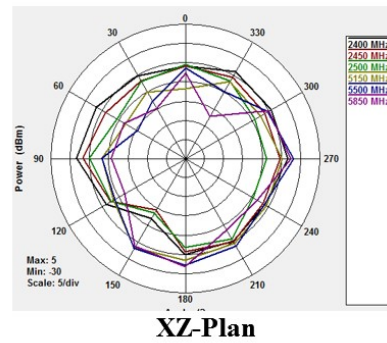
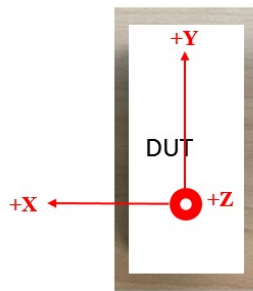


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| SPEC NO. | SP03AC24508-0260 | ISSUED DATE | 2023.04.07 | PUBLISHED BY |
| PRODUCT NAME | FDAH0120 | VERSION | 03 | |
| | | PAGE | 3/5 | |

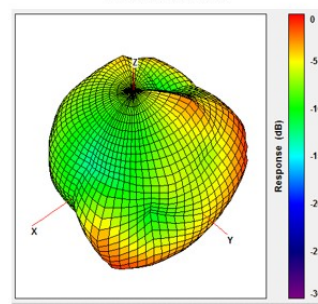
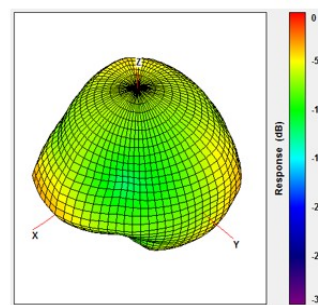
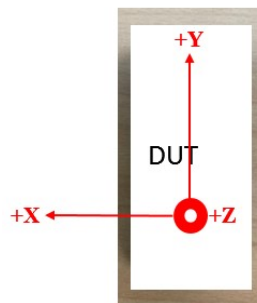
3-2 Antenna Performance

| Frequency (MHz) | 2400 | 2450 | 2500 | 5150 | 5550 | 5850 |
|-------------------|-------|-------|-------|-------|-------|-------|
| Efficiency (%) | 40.11 | 42.29 | 39.81 | 54.10 | 54.02 | 51.71 |
| Average Gain (dB) | -3.97 | -3.74 | -4.00 | -2.67 | -2.67 | -2.86 |
| Peak Gain (dBi) | 0.29 | 1.56 | 1.18 | 5.21 | 5.62 | 4.56 |

Antenna 2D Pattern



Antenna 3D Pattern



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| SPEC NO. | SP03AC24508-0260 | ISSUED DATE | 2023.04.07 | PUBLISHED BY |
| PRODUCT NAME | FDAH0120 | VERSION | 03 | |
| | | PAGE | 4/5 | |

4 Environmental conditions

4-1 Operating conditions

The antenna has the electrical characteristics given in Tables 1 in the temperature range of -30°C to +80°C and under the environmental conditions of +40°C and 0-95% r.h..

4-2 Storage temperature range

The storage temperature range of product is -40°C to +85°C.

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°C 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°C 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

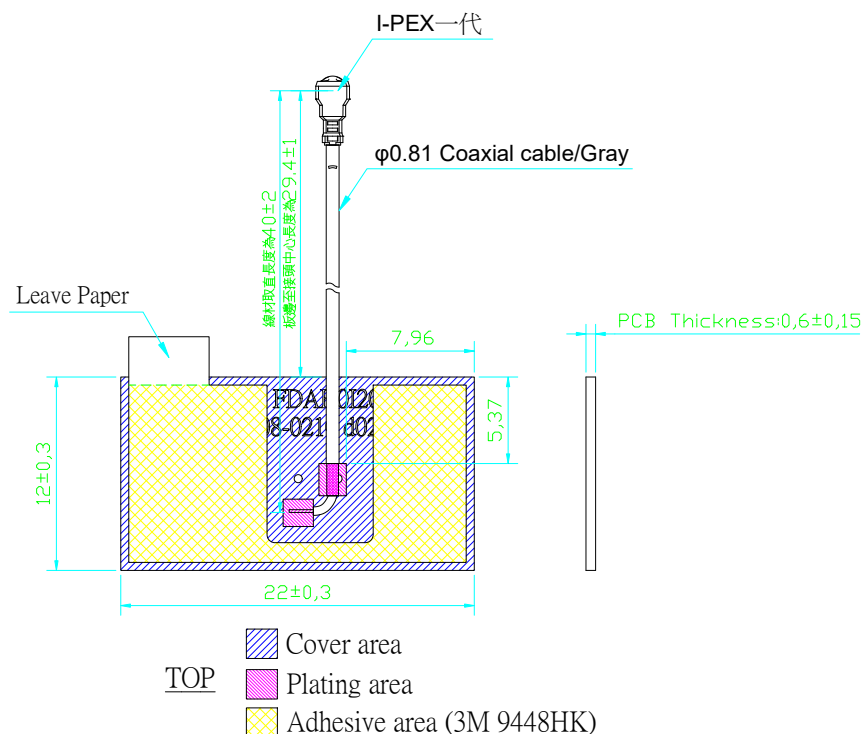
If any defect occurs from the product during proper use within a year after delivery, it will be repaired or replaced free of charge.

8 Other

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

9 Drawings (Unit: mm)

ANTENNA

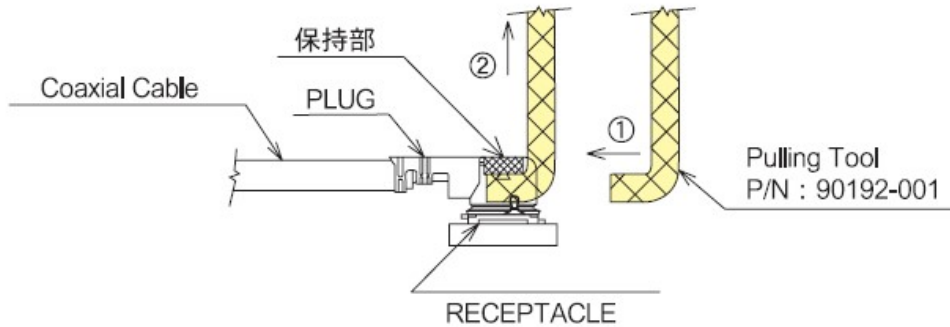


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| | | PAGE | 5/5 | |

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.

