



东莞市皇捷通讯科技有限公司

DONGGUAD HUANG JIE COMMUNI CAT ION TECHNOLOGY CO.,LTD.

3N0401BK-035

2.4GHz ISM Flexible Polymer

Key Features

2.4 GHz ISM
1575.42 MHz
2400-2500 MHz
Embedded Antenna
Wifi Antenna
High Performance
Ground Plane Independent
Self-Adhesive
Dimensions 40.33 x 34.06mm
ustomizable Cable and Connecto



Description

3N0401BK-035 antenna is flexible high efficiency embedded solution covering 2.4 GHz. Antenna can be easily mounted in most devices due to self-adhesive layer and small size. 3N0401BK-035 is omnidirectional, ground plane independent antenna. Cable and connector is upon request.

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Antenna and electrical specifications

| | |
|----------------------|--|
| Parameters | 2.4GHz ISM Flexible Polymer |
| Standards | WiFi |
| Band (MHz) | 2.4GHz |
| Frequency (MHz) | 1575.42 MHz, 2400-2500 MHz |
| Return Loss (dB) | -15.6 |
| VSWR | <2.0 |
| Efficiency (%) | 40-60 |
| Peak Gain (dBi) | 2 |
| Impedance (Ohm) | 50 |
| Polarisation | Linear |
| Radiation Pattern | Omni-Directional |
| Max. Input Power (W) | 25 |
| Connector Type | Most RF Connectors (U.FL Standard) |
| Cable Length | Any Cable Length (152mm Standard) |
| Cable Type | Other Cables Available (0.81mm Standard) |

Antenna Measurement Conditions:

Mounted 40x10x0.3 Cm ABS Plastic Plate

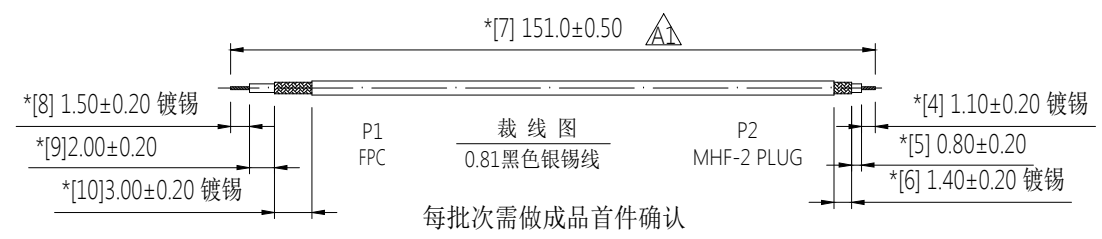
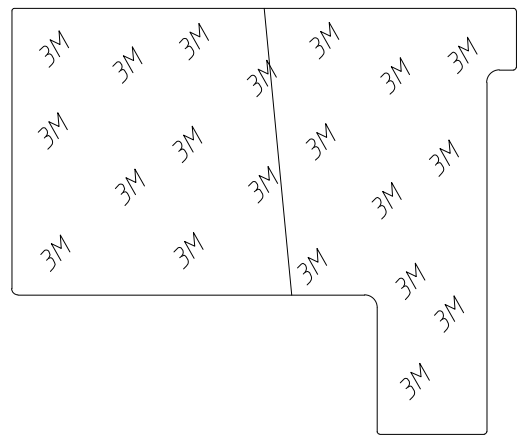
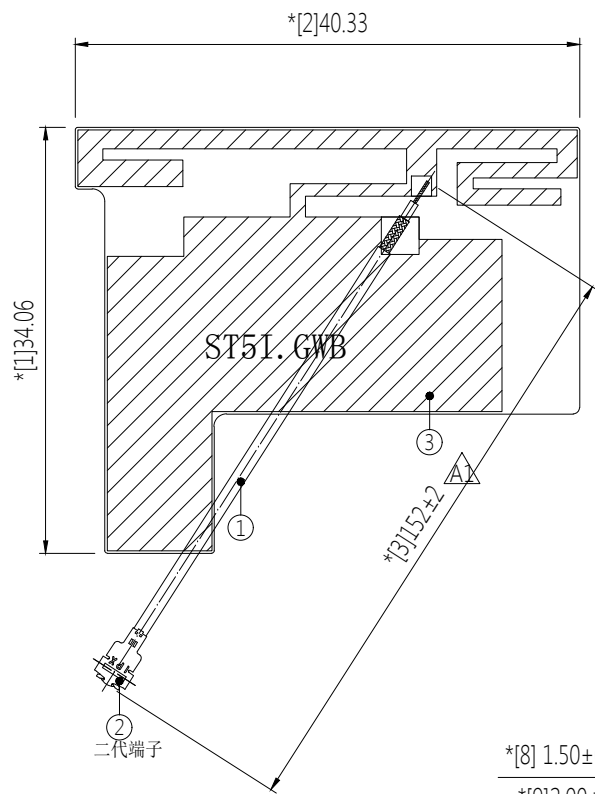
Measured in Certified CTIA 3DAnechoic Chamber



Mechanical and environmental specifications

| | |
|---------------------------|------------------|
| Specifications | 3N0401BK-035 |
| Mounting Type | Self-Adhesive |
| Dimensions (mm) | 40.33 x 34.06mm |
| Adhesive Type | 3M |
| Material | Flexible Polymer |
| Operating Temperature (C) | -40 to +85 |
| Storage Temperature (C) | -40 to +85 |
| Substance Compliance | RoHS |

| REVISION | DESCRIPTION | DATE | DRAFTER |
|----------|-------------|----------|---------|
| A0 | 首次发行 | 21.09.07 | S.He |
| A1 | 变更线长 | 21.10.26 | S.He |



每批次需做成品首件确认

- 技术要求:
- 1 方向要求: 无方向要求。
 - 2 电气特性: 特性阻抗:50Ω; 频率范围:1575.42MHz, 2400MHz~2500MHz;
检验方法: 单测天线,使用网络分析仪100%比对Gold sample波形测试。
 - 3 拔出力测试: 最小0.8kgf。
测试方法: 沿电缆中心轴,以约25±3毫米/分钟的速度,垂直将0.8kg砝码提高桌面即为合格。
 - 4 尺寸检验: [*]为FAI检测项目; *为重点检测项目; ■为CPK管制项目。
 - 5 外观检验: 电缆裁切须平整, 镀锡须光亮, 导体不得有多余股数伸出与散乱;
FPC不得有划痕、刮伤、露铜等不良, 焊接须饱满, 不得有假焊、虚焊、毛刺;
电缆外被不得有破损、折皱及异色等不良。
检验方法: 目视全检。
 - 6 包装规范: 50CS/扎, 2扎/包, 即100PCS/包。
 - 7 环保要求: 产品及其使用之物料皆需要符合RoHS要求。

| 3 | 2YF123 | FPC L40.3*W34mm, 喷黑油背胶 | 1 | --- |
|----|--------------|------------------------------|------|---------|
| 2 | 2LM20P081211 | MHF II PLUG FOR OD0.81 CABLE | 1 | --- |
| 1 | 2C5M08111BK1 | OD0.81黑色银锡线-50 OHM | 1 | --- |
| NO | PART NUMBER | PART NAME & DESCRIPTION | Q'TY | REMARKS |

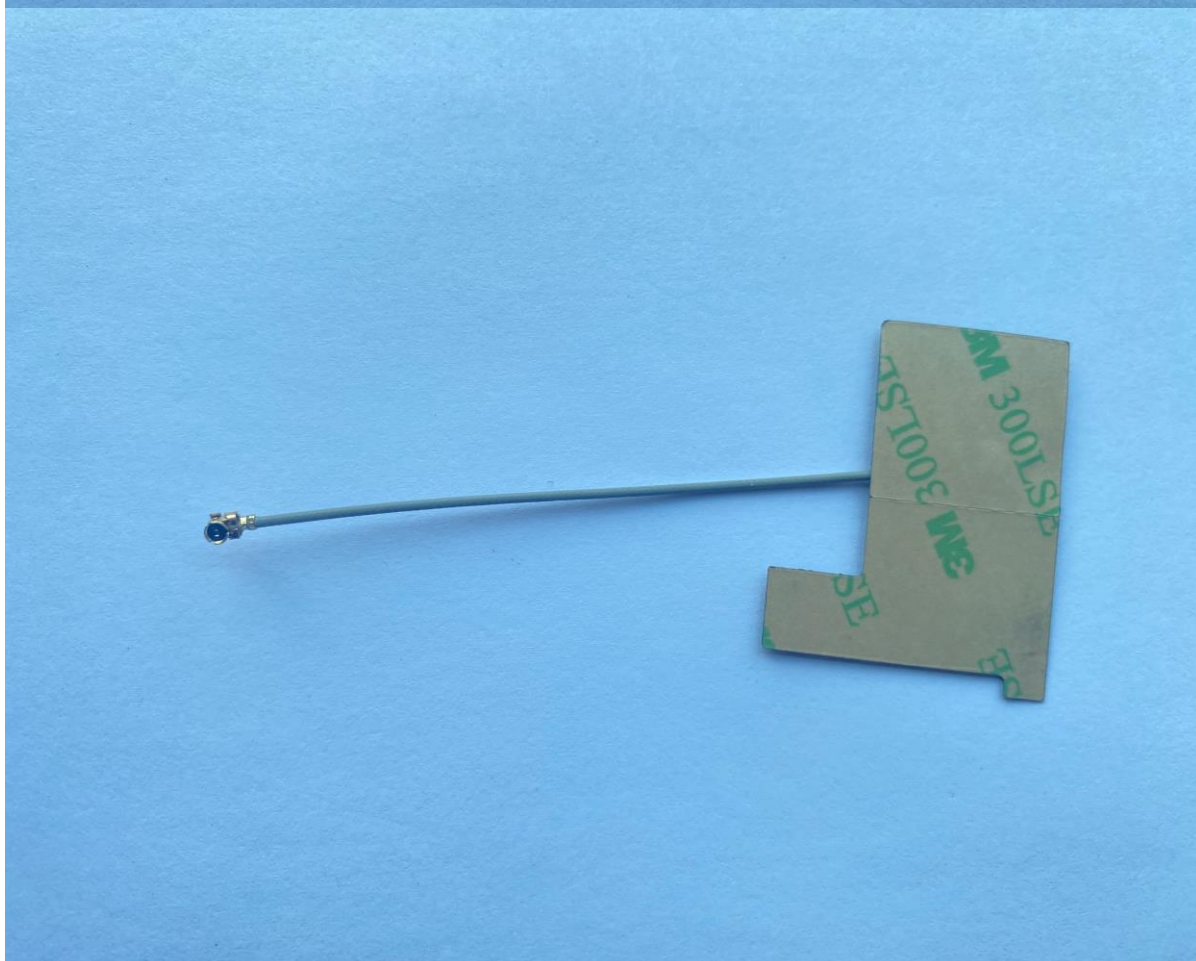
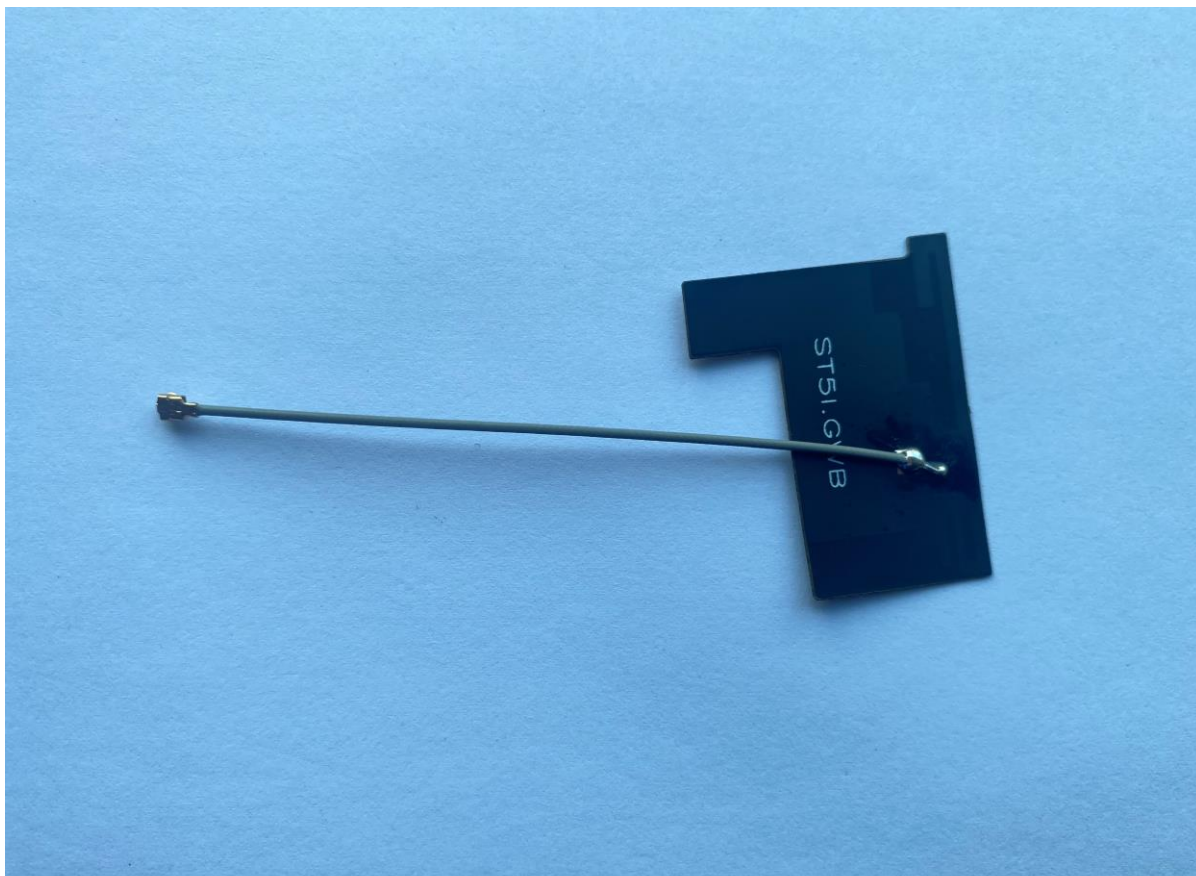
GENERAL TOLERANCE:
LINEAR:
X ±0.20
X.X ±0.15
X.XX ±0.05
X.XXX ±0.01
ANGLE:
X° ±4.00°
X.X° ±3.00°
X.XX° ±2.00°
X.XXX° ±1.00°

| | |
|-------------------------|---|
| HJ-Tech 东莞市皇捷通讯科技有限公司 | |
| FILE NAME: 产品图 | TITLE: 内置天线, 0.81黑色银锡线, P1端焊接FPC, P2端打二代端子, 线长152mm, ST51 (WiFi天线), RF2106017 |
| ENG/DATE: S.He/21.06.05 | P/N: 3N0401BK-035 |
| CHE/DATE: | UNIT: mm |
| APP/DATE: | SCALE: 1:1 |
| | REVISION: A0 |
| | SHEET: 1/1 |

COMPLIANCE WITH THE REQUIREMENT: RoHS; HF; SONY SS-00259; OTHERS
*NO USING ESTRICED AND BANNED SUBSTANCE

H366

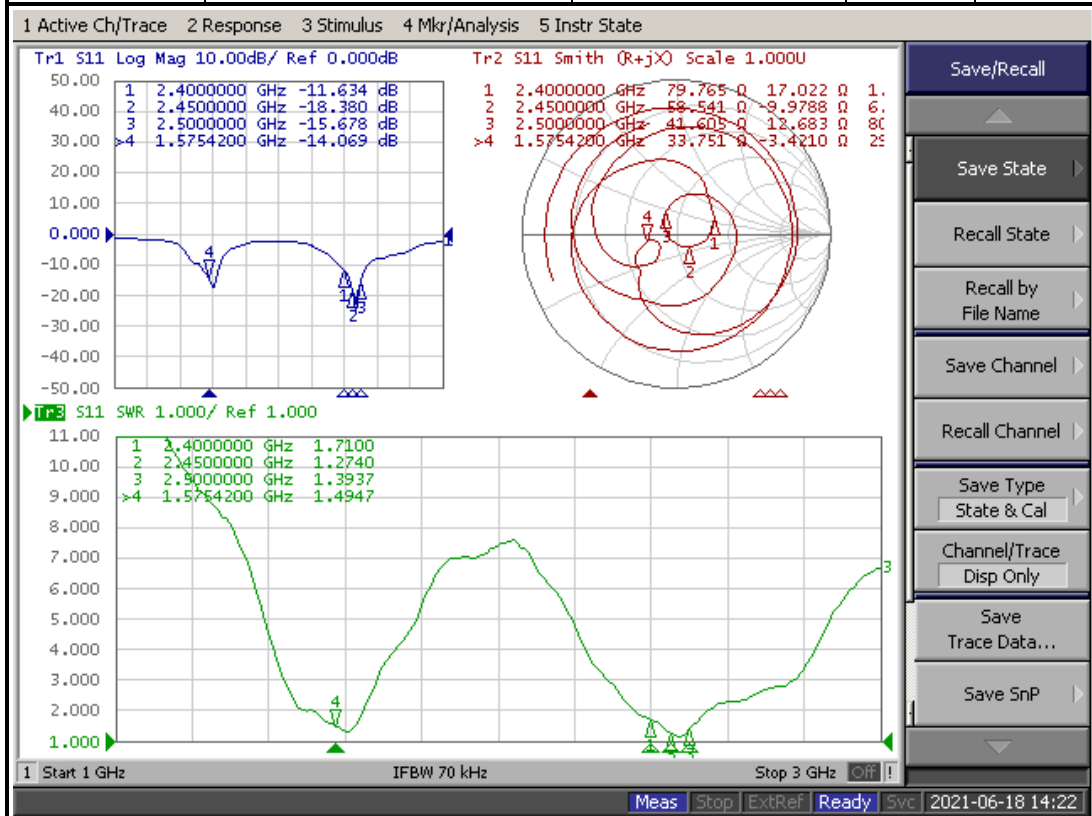
实物照片



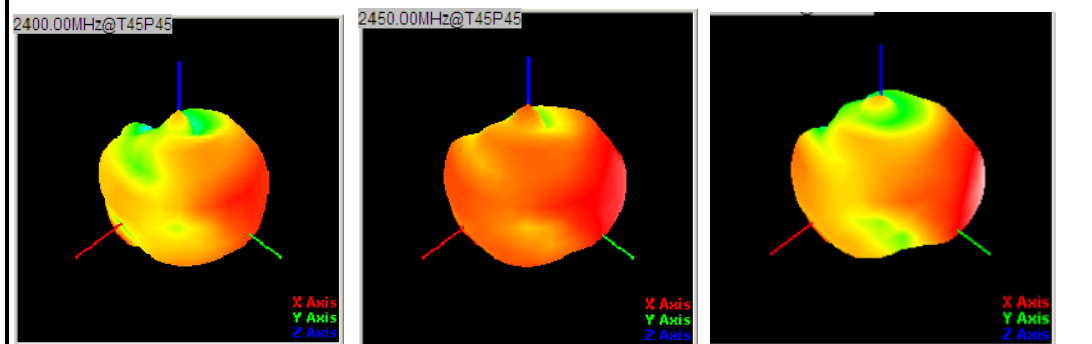
天线电气特性测试报告

Antenna Electrical Characteristic Test Report

| | | | | |
|------------------------|----------------------|----------------------------------|------------|---------------|
| 产品料号 Part Number: | 3N0401BK-035 | 测试项目 Item | 规格 Spec | 结果判定 Judge |
| 产品名称 Part Name: | ST5I(GWB天线) FPC 内置天线 | Characteristic impedance 特性阻抗 | 50Ω | ok |
| 测试设备 Test Equipment | 网络分析仪/微波暗室 | 1575.42MHz VSWR | 2.0 Max | ok |
| 数量 Quantity | 5 pcs | 2400-2500MHz VSWR | 2.0 Max | OK |
| 测试日期 Test Date | 2021/06/21 | Gain 增益 | 2DB | OK |



| Frequency ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1 | 2 | 3 | 4 | 5 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Frequency (MHz) | 2400.0 | 2410.0 | 2420.0 | 2430.0 | 2440.0 | 2450.0 | 2460.0 | 2470.0 | 2480.0 | 2490.0 | 2500.0 | 1560.0 | 1565.0 | 1570.0 | 1575.0 | 1580.0 |
| Point Values | | | | | | | | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Ant. Port Input Pwr. (dBm) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -6.39 | -6.14 | -5.89 | -4.87 | -4.46 |
| Tot. Rad. Pwr. (dBm) | -3.66 | -3.54 | -3.54 | -3.35 | -3.43 | -3.56 | -3.53 | -3.50 | -3.83 | -3.95 | -3.86 | 1.35 | 1.51 | 1.64 | 1.59 | 1.29 |
| Peak EIRP (dBm) | 2.04 | 2.41 | 2.65 | 2.72 | 2.59 | 2.41 | 2.49 | 2.51 | 2.07 | 1.68 | 1.51 | 5.87 | 5.63 | 5.73 | 5.21 | 4.44 |
| Directivity (dBi) | 6.40 | 6.35 | 6.19 | 6.07 | 6.02 | 5.97 | 6.02 | 6.01 | 5.90 | 5.63 | 5.37 | -6.39 | -6.14 | -5.89 | -4.87 | -4.46 |
| Efficiency (dB) | -3.66 | -3.54 | -3.54 | -3.35 | -3.43 | -3.56 | -3.53 | -3.50 | -3.83 | -3.95 | -3.86 | 46.35 | 52.39 | 62.01 | 58.14 | 48.09 |
| Efficiency (%) | 51.03 | 53.04 | 54.15 | 56.30 | 57.61 | 58.05 | 57.09 | 55.60 | 54.26 | 52.07 | 50.66 | | | | | |



审核Checker: 王俊

测试者Tester: Mark