



东莞市皇捷通讯科技有限公司

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

3N0301BK-012

2.4GHz ISM Flexible Polymer

Key Features

2.4 GHz ISM
2400-2500 MHz

Embedded Antenna
Wifi Antenna
High Performance
Ground Plane Independent
Self-Adhesive

Dimensions 50.0 x 10.0mm
ustomizable Cable and Connecto



Description

3N0301BK-012 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. 3N0301BK-012 is omnidirectional, ground plane independent antenna. Cable and connector is upon request.

东莞市皇捷通讯科技有限公司
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Antenna and electrical specifications

Parameters	2.4GHz ISM Flexible Polymer
Standards	WiFi
Band (MHz)	2.4GHz
Frequency (MHz)	2400-2500 MHz
Return Loss (dB)	-15.6
VSWR	<2.0
Efficiency (%)	40-60
Peak Gain (dBi)	2.5
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 (200mm Standard)
Cable Type	Other Cables Available (1.13mm Standard)

Antenna Measurement Conditions:

Mounted 40x10x0.3 Cm ABS Plastic Plate

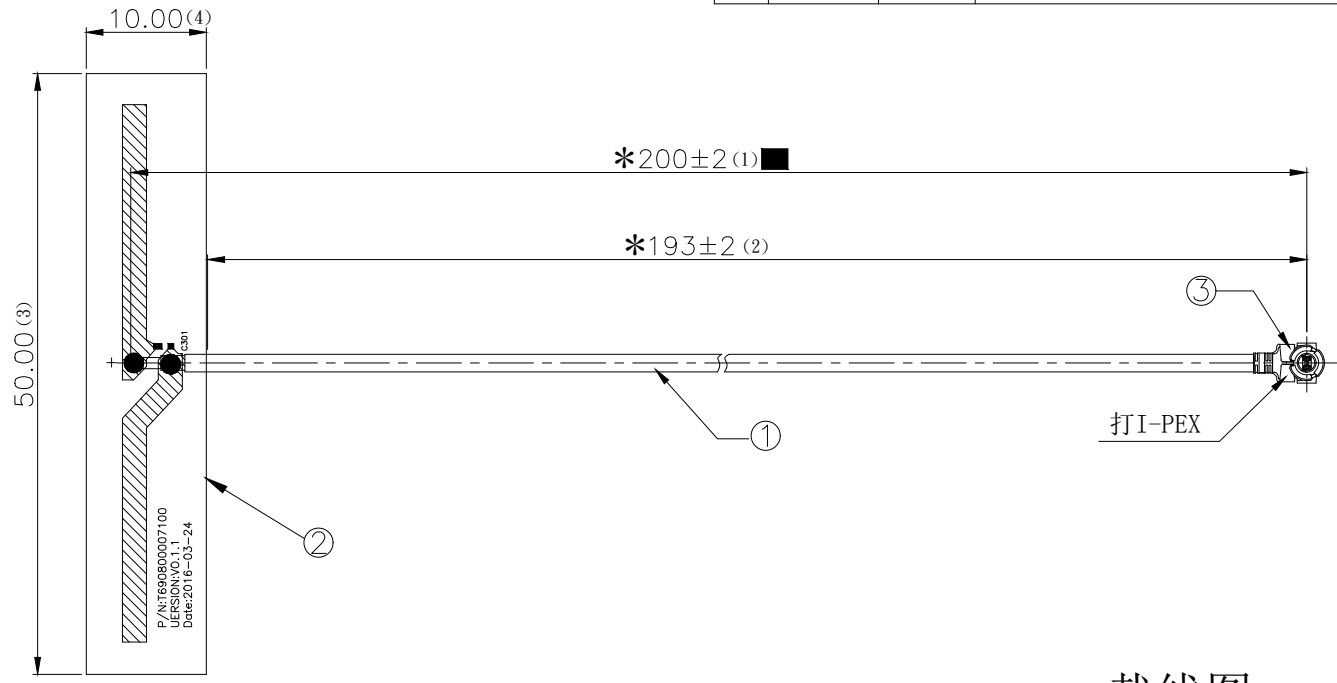
Measured in Certified CTIA 3DAnechoic Chamber



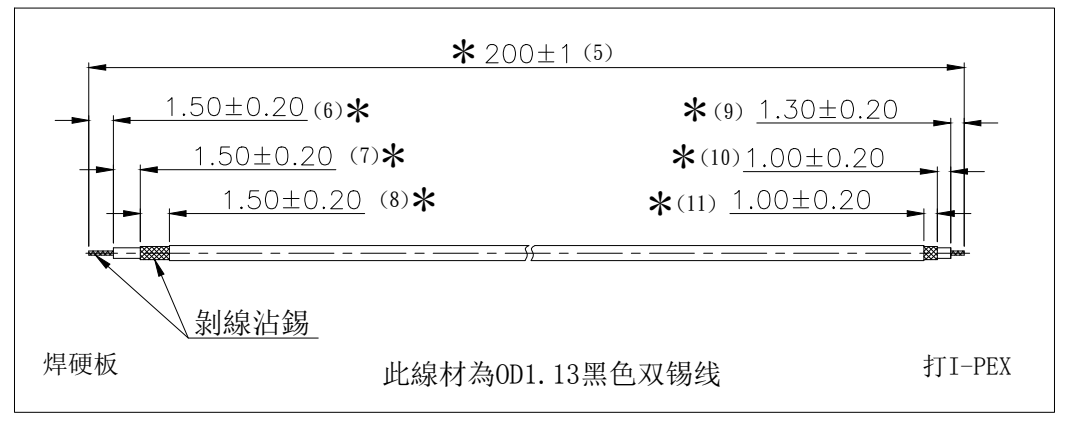
Mechanical and environmental specifications

Specifications	3N0301BK-012
Mounting Type	Self-Adhesive
Dimensions (mm)	50.0 x 10.0mm
Adhesive Type	3M
Material	Flexible Polymer
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS

REV.	ECN NO.	LOCAS.	DESCRIPTION	DATE	DESIGN
A0			The first edition released	2017.07.13	lwh
A1			统一料号	2018.10.23	MARK



裁线图



技术要求:

- 1.1 线材表面不能出现刮花, 剥线沾锡不能有大头和破洞等等;
- 1.2 PCB不能出现假焊和刮花现象, 线材与I-PEX保持力: 1.3Kgf;
- 1.3 带“(xx)”尺寸为FAI, 带“*”尺寸重点尺寸, 带“■”尺寸为CPK尺寸;
- 1.4 包装规格: 50PCS/扎, 2扎/袋;

3	2LM10P113210	I-PEX	镀金	1
2	2YP022	PCB硬板	L50.0*W10.0*T1.60mm(背贴3M胶)	1
1	2C5M11312BK1	CABLE	黑色双锡线	1
NO	N/P	PART NAME	DESCRIPTION	Q' TY
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				
* NO USING RESTRICTED AND BANNED SUBSTANCE				

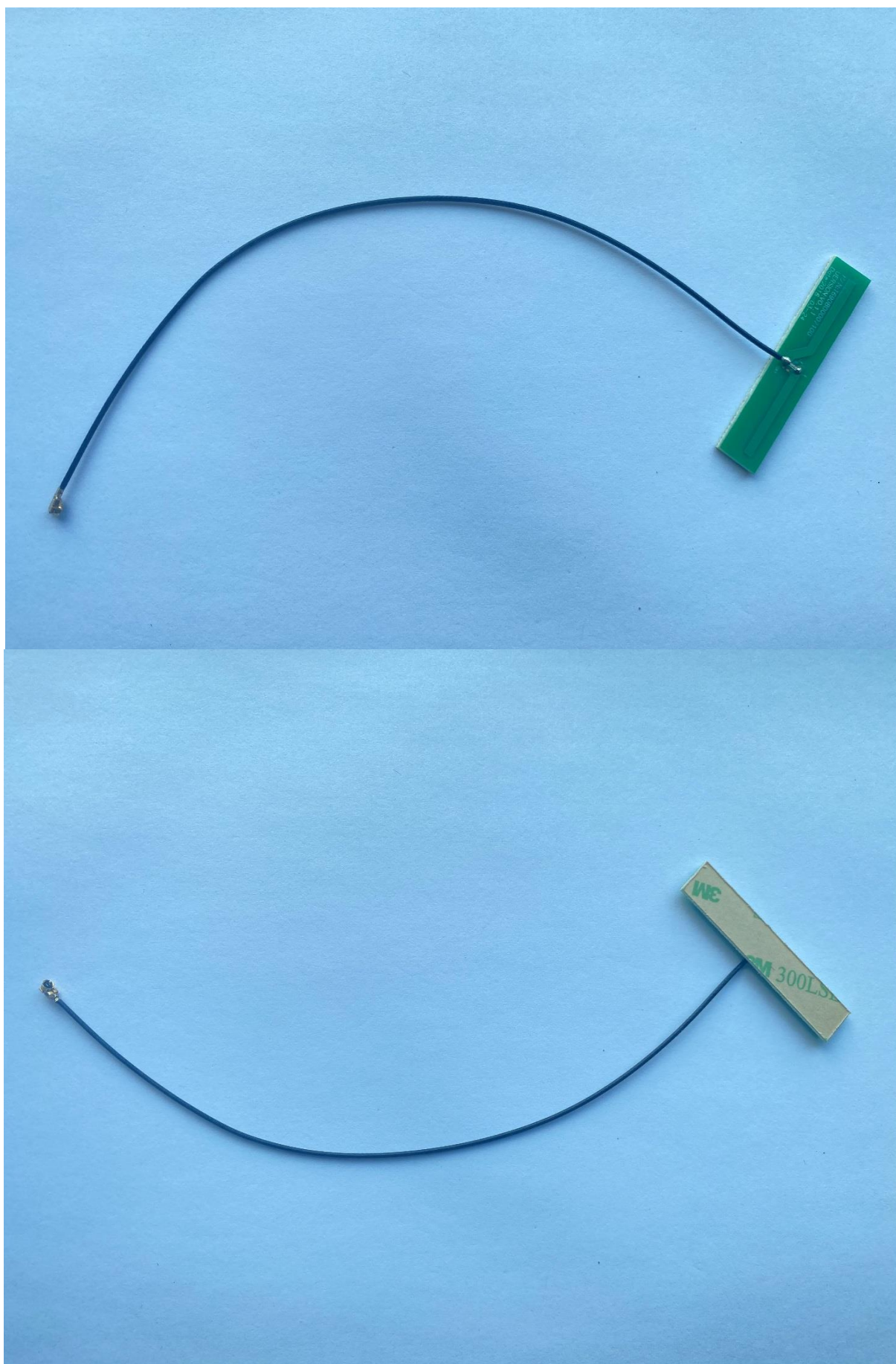
客户代码: H133

DIM	TOL	DIM	TOL
X.	±0.20	X'.	±4.0°
X.X	±0.15	X.X°	±3.0°
X.XX	±0.05	X.XX°	±2.0°
X.XXX	±0.005	X.XXX°	±1.0°

HJ-Tech 东莞市皇捷通讯科技有限公司

DRAW NO.	DATE	DRAW NAME: 内置天线, 1.13黑色双锡线, P1端焊接PCB, P2端打一代端子, 裁线尺寸长200mm	
DESIGN: lwh	2017.07.13	FILE:	P/N NO. 3N0301BK-012
CHECK:		MODEL:	UNIT: mm SHEET: N/A
APPROVED:		REV. A0	SCALE N/A

实物照片





天线电气特性测试报告

Antenna Electrical Characteristic Test Report

文件编号:HJ-QR-Q-22 Rev:A0

产品料号 Part Number:	3N0301BK-012	测试项目 Item	规格 Spec	结果判定 Judge
产品名称 Part Name:	WiFi天线	Characteristic impedance 特性阻抗	50Ω	/
测试设备 Test Equipment	网络分析仪/微波暗室	2.4~2.5GHz VSWR	2.0 Max	OK
数量 Quantity	5 pcs	//		OK
测试日期 Test Date	2019/10/16	Gain 增益	2.5dBi	OK

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
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
Tot. Rad. Pwr. (dBm)	-2.46	-2.39	-2.32	-2.16	-2.18	-2.24	-2.19	-2.09	-2.21	-2.27	-2.31
Peak EIRP (dBm)	2.02	1.70	1.59	1.81	1.87	1.93	2.25	2.50	2.32	2.42	2.18
Directivity (dBi)	4.48	4.10	3.92	3.97	4.05	4.17	4.44	4.59	4.53	4.68	4.50
Efficiency (dB)	-2.46	-2.39	-2.32	-2.16	-2.18	-2.24	-2.19	-2.09	-2.21	-2.27	-2.31
Efficiency (%)	56.80	57.60	58.60	60.80	60.50	59.70	60.30	61.80	60.10	59.40	58.70
Gain (dBi)	2.02	1.70	1.59	1.81	1.87	1.93	2.25	2.50	2.32	2.42	2.18
NHPRP ±Pi/4 (dBm)	-3.54	-3.65	-3.49	-3.20	-3.29	-3.46	-3.43	-3.38	-3.63	-3.55	-3.68
NHPRP ±Pi/6 (dBm)	-5.14	-5.27	-5.14	-4.87	-4.97	-5.16	-5.14	-5.10	-5.33	-5.24	-5.36
NHPRP ±Pi/8 (dBm)	-6.38	-6.53	-6.41	-6.15	-6.25	-6.44	-6.43	-6.38	-6.61	-6.51	-6.63
Upper Hem. PRP (dBm)	-5.98	-5.89	-5.78	-5.59	-5.60	-5.63	-5.58	-5.46	-5.55	-5.58	-5.59
Lower Hem. PRP (dBm)	-5.00	-4.96	-4.92	-4.79	-4.83	-4.90	-4.86	-4.77	-4.91	-4.99	-5.07
Upper Hem. PRP (%)	25.22	25.74	26.41	27.58	27.57	27.32	27.68	28.48	27.86	27.67	27.59
Lower Hem. PRP (%)	31.60	31.89	32.19	33.20	32.92	32.36	32.67	33.36	32.27	31.69	31.11

