



# 东莞市皇捷通讯科技有限公司

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

3N0401BK-018

2.4/5GHz ISM Flexible Polymer

## Key Features

2.4/5 GHz ISM  
2400-2500 MHz  
5150-5850 MHz  
Embedded Antenna  
Wifi Antenna  
High Performance  
Ground Plane Independent  
Self-Adhesive  
Dimensions 23.0 x 37mm  
ustomizable Cable and Connecto



## Description

3N0401BK-018 antenna is flexible high efficiency embedded solution covering 2.4/5 GHz. Antenna can be easily mounted in most devices due to self-adhesive layer and small size. 3N0401BK-018 is omnidirectional, ground plane independent antenna. Cable and connector is upon request.

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## Antenna and electrical specifications

Parameters	2.4/5GHz ISM Flexible Polymer
Standards	双频
Band (MHz)	2.4/5GHz
Frequency (MHz)	2400-2500 MHz,5150-5850 MHz
Return Loss (dB)	-15.6
VSWR	<2.5
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 (77mm Standard)
Cable Type	Other Cables Available (1.13mm Standard)

### Antenna Measurement Conditions:

Mounted 40x10x0.3 Cm ABS Plastic Plate

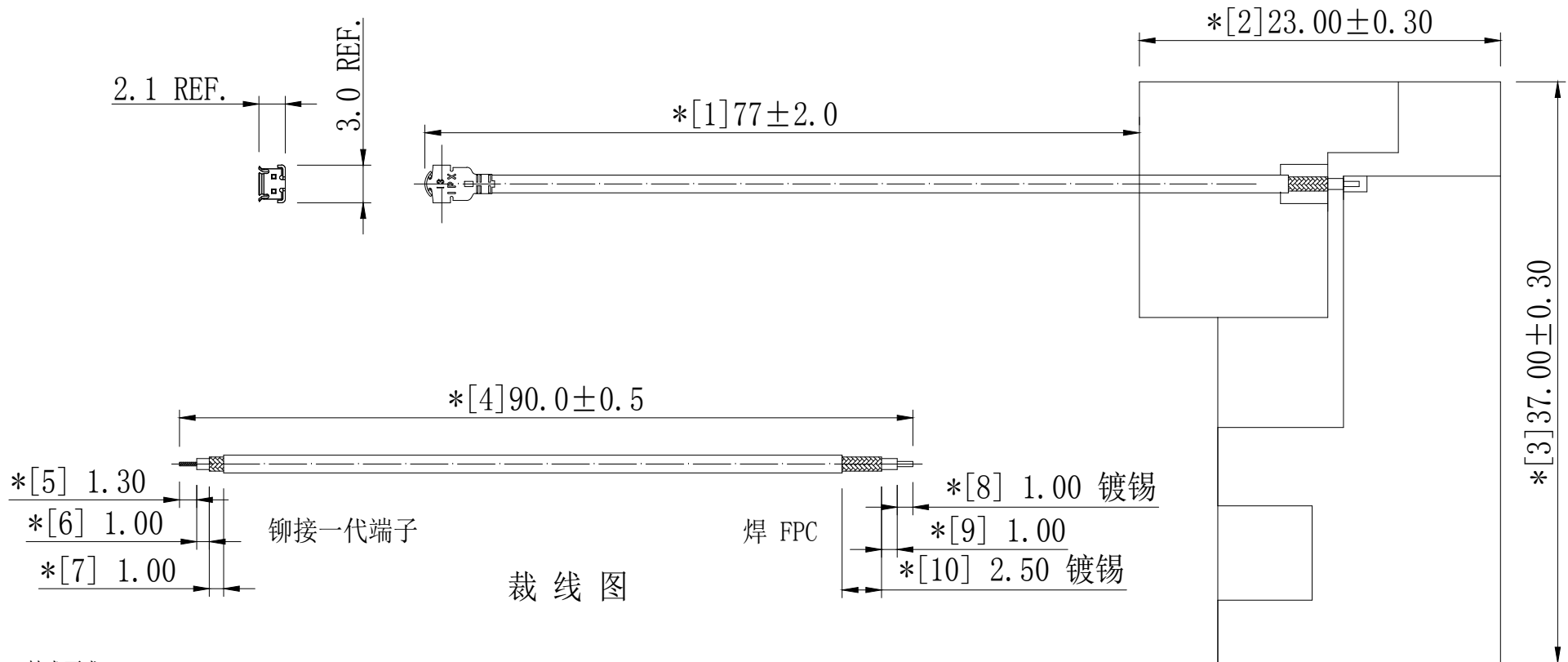
Measured in Certified CTIA 3DAnechoic Chamber



## Mechanical and environmental specifications

Specifications	3N0401BK-018
Mounting Type	Self-Adhesive
Dimensions (mm)	23.0 x 37.0mm
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	FIRST RELEASE	19.10.15	River
A1	删除FPC印字	19.11.01	River



技术要求:

- 1 方向要求: 端子方向如图所示。
- 2 电气特性: 特性阻抗:50Ω; 频率范围:2.4~2.4835GHz VSWR<2.0 ; 5.15~5.85GHz VSWR<2.5(装机测试)  
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 尺寸检验: [\*]为FAI检测项目; \*为重点检测项目; ■为CPK管制项目。
- 4 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。
- 5 包装规范: 50PCS/扎, 2扎/袋。
- 6 环保要求: 产品及其使用之物料皆需要符合RoHS要求。

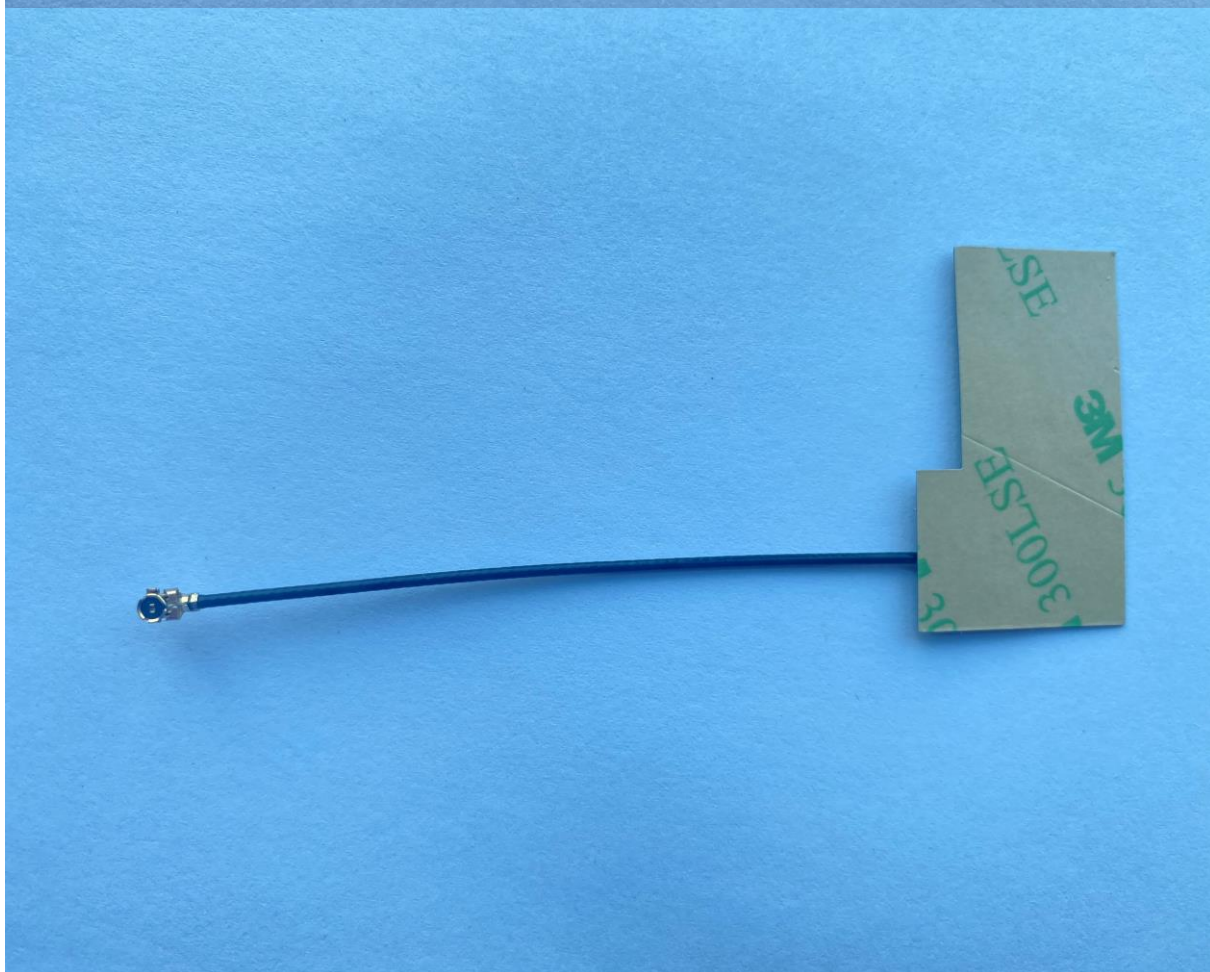
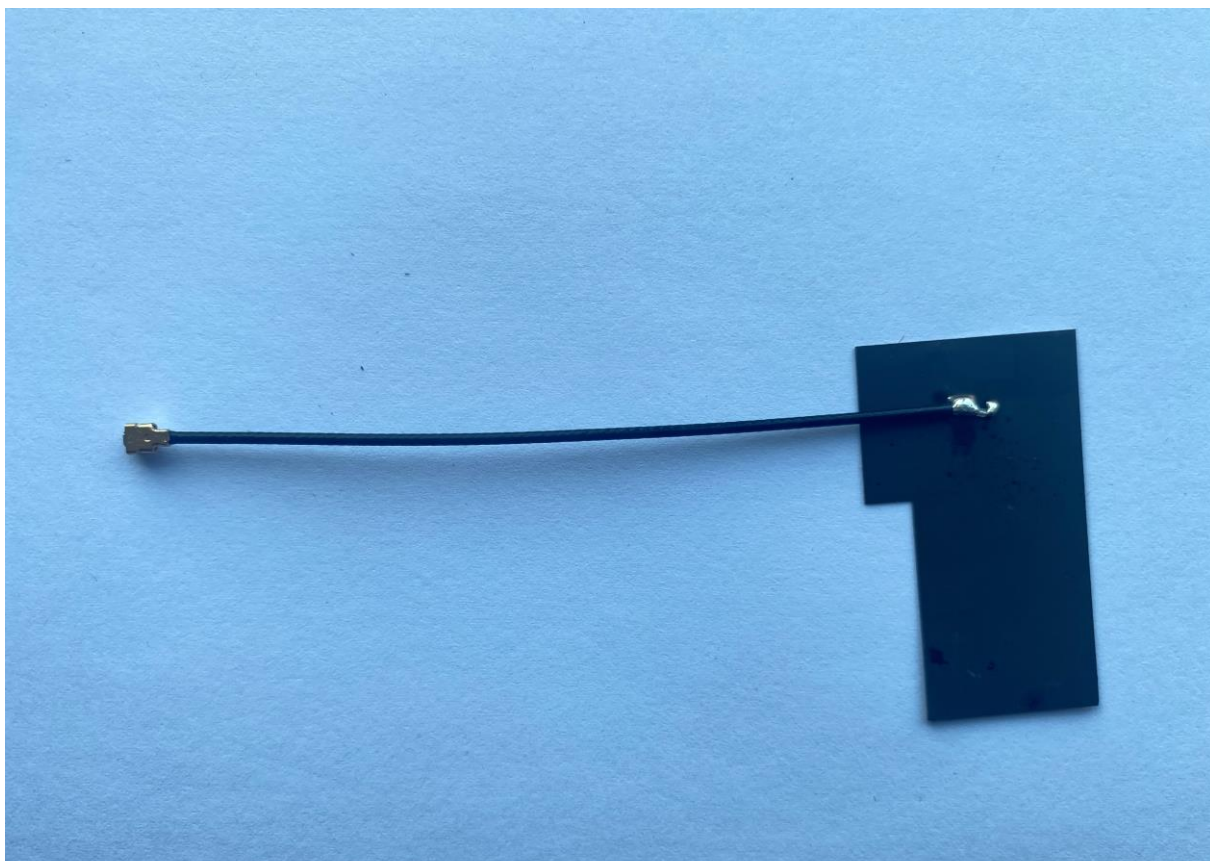
COMPLIANCE WITH THE REQUIREMENT: RoHS; HF; SONY SS-00259; OTHERS  
\*NO USING ESTRICED AND BANNED SUBSTANCE

H372

No.	PART NUMBER	PART NAME & DESCRIPTION	Q' TY	REMARKS
3	2YF082	FPC. L*W=37*23mm	1	黑色
2	2LM10P113210	MHF-1 PLUG FOR OD1.13 CABLE	1	镀全金
1	2C5M11312BK1	微细同轴电缆, OD1.13, 黑色双锡线	1	依裁线图裁线

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: 射频电缆组件			
ENG/DATE: River/19.10.15	2.4GHz内置天线, 1.13黑色双锡线, P1端焊接FPC, P2端打1代端子, 裁线长L=90mm			
CHE/DATE:	P/N: 3N0401BK-018			
APP/DATE:	UNIT: mm	SCALE: 	REVISION: A0	SHEET: 1/1

# 实物照片



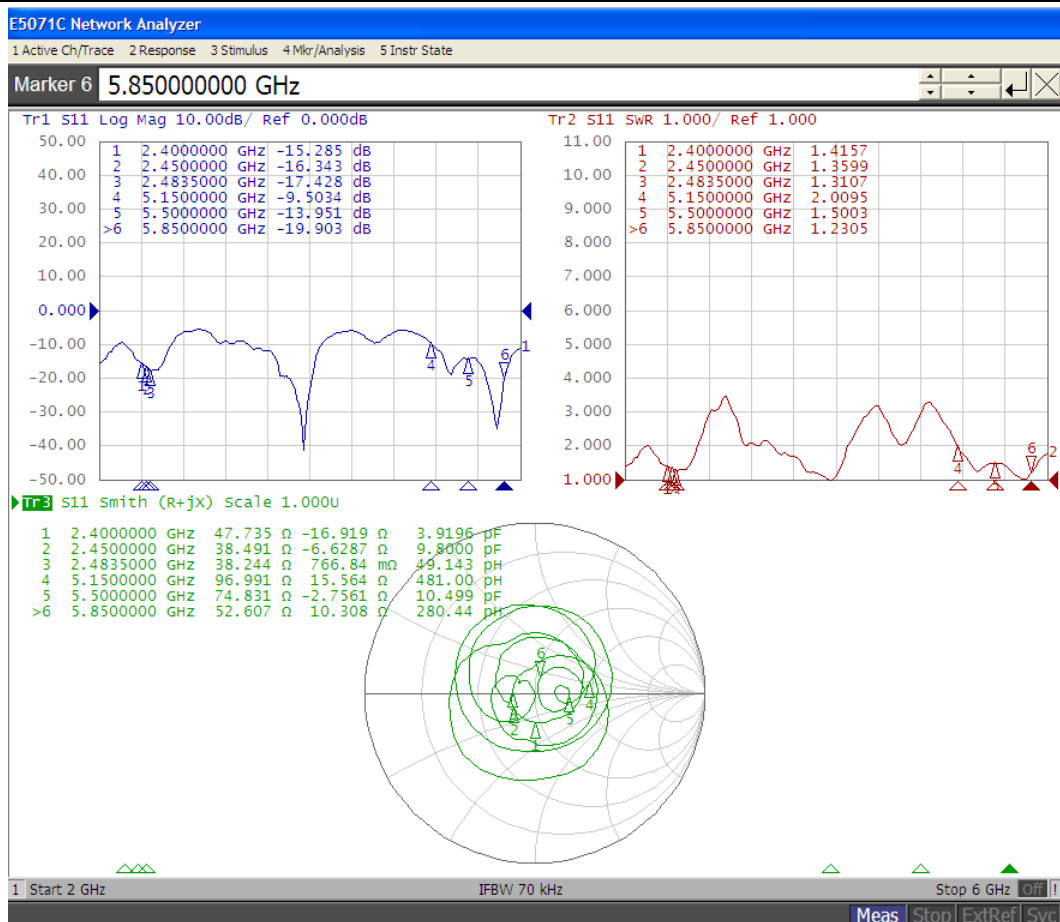


# 天线电气特性测试报告

## Antenna Electrical Characteristic Test Report

文件编号:HJ-QR-Q-22 Rev:A0

产品料号 Part Number:	3N0401BK-018	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	2.4~2.4835GHz VSWR	2.0/2.5 Max	OK
数量 Quantity	5 pcs	//		OK
测试日期 Test Date	2019/10/10	Gain 增益	2/4dBi	OK



Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	5150.0	5170.0	5190.0
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	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-5.00	-5.22	-5.38	-5.07	-5.01	-4.94	-4.88	-4.63	-4.89	-4.92	-5.07	-4.16	-3.20	-3.38
Peak EIRP (dBm)	0.20	0.29	0.51	0.93	0.75	0.71	0.73	0.90	0.65	0.76	0.40	2.65	3.64	3.38
Directivity (dBi)	5.20	5.50	5.88	6.01	5.76	5.65	5.60	5.53	5.54	5.68	5.48	6.82	6.85	6.77
Efficiency (dB)	-5.00	-5.22	-5.38	-5.07	-5.01	-4.94	-4.88	-4.63	-4.89	-4.92	-5.07	-4.16	-3.20	-3.38
Efficiency (%)	31.60	30.10	29.00	31.10	31.50	32.00	32.50	34.40	32.40	32.20	31.10	38.30	47.80	45.90
Gain (dBi)	0.20	0.29	0.51	0.93	0.75	0.71	0.73	0.90	0.65	0.76	0.40	2.65	3.64	3.38
NHPRP ±Pi/4 (dBm)	-6.20	-6.55	-6.59	-6.10	-6.05	-6.06	-5.99	-5.82	-6.24	-6.16	-6.42	-5.50	-4.61	-4.96
NHPRP ±Pi/6 (dBm)	-7.73	-8.08	-8.11	-7.63	-7.58	-7.61	-7.58	-7.44	-7.88	-7.80	-8.03	-7.31	-6.43	-6.80
NHPRP ±Pi/8 (dBm)	-8.81	-9.16	-9.21	-8.74	-8.72	-8.77	-8.78	-8.67	-9.12	-9.04	-9.25	-8.73	-7.87	-8.22
Upper Hem. PRP (dBm)	-8.65	-8.82	-8.94	-8.65	-8.65	-8.75	-8.88	-8.82	-9.13	-9.12	-9.15	-9.62	-8.48	-8.47
Lower Hem. PRP (dBm)	-7.45	-7.70	-7.90	-7.58	-7.47	-7.28	-7.07	-6.72	-6.95	-7.00	-7.23	-5.62	-4.73	-4.99
Upper Hem. PRP (%)	13.63	13.13	12.77	13.63	13.63	13.33	12.93	13.12	12.23	12.25	12.17	10.91	14.18	14.22
Lower Hem. PRP (%)	17.99	16.96	16.23	17.45	17.91	18.70	19.62	21.30	20.20	19.94	18.91	27.43	33.63	31.67

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
5210.0	5230.0	5250.0	5270.0	5290.0	5310.0	5330.0	5350.0	5370.0	5390.0	5410.0	5430.0	5450.0	5470.0	5490.0	5510.0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-3.25	-3.17	-3.69	-3.05	-4.22	-3.52	-3.89	-3.50	-2.72	-2.61	-2.45	-2.92	-4.04	-3.67	-4.16	-3.56
3.41	3.53	3.05	3.49	2.11	2.68	2.34	2.82	3.67	3.78	3.85	3.46	2.33	2.42	1.94	2.63
6.65	6.70	6.73	6.54	6.33	6.20	6.23	6.32	6.40	6.38	6.30	6.37	6.37	6.08	6.10	6.19
-3.25	-3.17	-3.69	-3.05	-4.22	-3.52	-3.89	-3.50	-2.72	-2.61	-2.45	-2.92	-4.04	-3.67	-4.16	-3.56
47.30	48.20	42.80	49.50	37.80	44.50	40.80	44.70	53.40	54.90	56.90	51.10	39.40	43.00	38.40	44.00
3.41	3.53	3.05	3.49	2.11	2.68	2.34	2.82	3.67	3.78	3.85	3.46	2.33	2.42	1.94	2.63
-4.93	-4.77	-5.09	-4.26	-5.35	-4.80	-5.36	-4.99	-4.22	-4.07	-3.84	-4.20	-5.20	-4.76	-5.28	-4.75
-6.76	-6.58	-6.87	-5.99	-7.05	-6.48	-7.03	-6.64	-5.86	-5.70	-5.46	-5.81	-6.79	-6.30	-6.75	-6.15
-8.17	-7.96	-8.22	-7.27	-8.28	-7.66	-8.18	-7.77	-6.95	-6.78	-6.52	-6.86	-7.80	-7.26	-7.66	-7.02
-8.14	-7.93	-8.35	-7.67	-8.80	-8.10	-8.46	-8.03	-7.18	-7.01	-6.77	-7.14	-8.12	-7.60	-7.92	-7.17
-4.95	-4.94	-5.50	-4.89	-6.08	-5.38	-5.76	-5.38	-4.65	-4.56	-4.46	-4.98	-6.19	-5.91	-6.53	-6.05
15.36	16.11	14.61	17.10	13.18	15.48	14.27	15.73	19.16	19.92	21.04	19.30	15.41	17.36	16.15	19.17
31.99	32.09	28.18	32.43	24.65	29.01	26.53	28.96	34.25	34.97	35.82	31.76	24.03	25.63	22.25	24.84

31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
5530.0	5550.0	5570.0	5590.0	5610.0	5630.0	5650.0	5670.0	5690.0	5710.0	5730.0	5750.0	5770.0	5790.0	5810.0	5830.0	5850.0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-3.91	-4.56	-4.68	-5.38	-5.09	-4.70	-4.38	-3.58	-3.66	-3.41	-3.45	-3.77	-3.52	-3.53	-3.08	-2.95	-3.02
2.32	1.67	1.66	0.68	0.83	1.43	1.73	2.36	2.54	3.06	3.18	2.96	3.49	3.64	4.20	4.34	4.25
6.22	6.23	6.34	6.06	5.91	6.13	6.11	5.95	6.20	6.48	6.63	6.72	7.01	7.17	7.28	7.29	7.28
-3.91	-4.56	-4.68	-5.38	-5.09	-4.70	-4.38	-3.58	-3.66	-3.41	-3.45	-3.77	-3.52	-3.53	-3.08	-2.95	-3.02
40.70	35.00	34.10	29.00	31.00	33.90	36.50	43.80	43.00	45.60	45.20	42.00	44.50	44.40	49.20	50.70	49.80
2.32	1.67	1.66	0.68	0.83	1.43	1.73	2.36	2.54	3.06	3.18	2.96	3.49	3.64	4.20	4.34	4.25
-5.22	-5.91	-6.00	-6.75	-6.42	-6.07	-5.92	-5.20	-5.19	-4.74	-4.74	-5.07	-4.72	-4.75	-4.35	-4.22	-4.27
-6.54	-7.16	-7.20	-7.94	-7.59	-7.25	-7.08	-6.34	-6.32	-5.84	-5.81	-6.11	-5.74	-5.76	-5.34	-5.23	-5.27
-7.37	-7.95	-7.98	-8.70	-8.36	-8.02	-7.85	-7.11	-7.06	-6.56	-6.51	-6.79	-6.42	-6.44	-6.06	-5.97	-6.03
-7.34	-7.88	-7.94	-8.66	-8.43	-8.11	-7.83	-7.01	-7.10	-6.82	-6.88	-7.23	-7.04	-7.10	-6.67	-6.54	-6.60
-6.53	-7.28	-7.45	-8.13	-7.79	-7.35	-6.99	-6.21	-6.28	-6.05	-6.07	-6.37	-6.07	-6.05	-5.58	-5.45	-5.53
18.43	16.28	16.08	13.60	14.36	15.46	16.49	19.88	19.51	20.78	20.49	18.93	19.75	19.50	21.55	22.16	21.85
22.23	18.72	17.98	15.38	16.64	18.40	20.00	23.94	23.54	24.81	24.71	23.09	24.70	24.86	27.69	28.51	27.99