

5G/4G/LTE Flexible Antenna



AFC8513U4G

Request Samples



Check Inventory



85 x 13.8 x 0.2 mm

RoHS/RoHS II Compliant

MSL Level = 1

Features

- Wide Band
- Cellular 5G/4G/LTE/2G/3G/GSM
- Dual-band Wi-Fi 2.4/5GHz
- GNSS - GPS/GLONASS/BeiDou/QZSS/COMPASS
- Compact design
- Peak Gain of 5dBi
- Linear Polarization
- High Efficiency (>60% across all bands)
- Easy installation using adhesive tape
- Fully customizable cable and connector options for RF connection

Applications

- IoT
- M2M
- Wearables
- Set Top Boxes
- Transportation
- Home Automation
- Smart Metering/City

Product Image



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Part Number Builder

AFC8513U4G -

Color / Adhesive tape	
Code	Description
S (Standard)	Black with adhesive tape
A	White with adhesive tape
B	Black without adhesive tape
C	White without adhesive tape

Cable length in 'mm'	
Cable length supported : Ø1.13 mm (50 mm to 500 mm)	
Code	Description
0100 (Standard)	100 mm
Other Examples :	
0050	50 mm
0200	200 mm

Cable Type & Connector Type		
Code	Cable Type	Connector Type
S (Standard)	Ø1.13 mm	IPEX-1 (F)
A		IPEX-4 (F)
B		MMCX (F)
C		MMCX (M)
D		MCX (F)
E		MCX (M)
F		SMA (F)
G		SMA (M)
H		RP-SMA (F)
I		RP-SMA (M)
J		SMB (F)
K		SMB (M)
L		FAKRA-D (F)

Example Configurations :

Part Number	Color / Adhesive tape	Cable length	Cable Type / Connector Type
AFC8513U4G S-0100S	Black with adhesive tape	0100 mm	Ø1.13 mm with IPEX-1 (F) (Standard)
AFC8513U4G B-0050A	Black without adhesive tape	0050 mm	Ø1.13 mm with IPEX-4 (F)

Note :

- For the standard part number (AFC8513U4G**S-0100S**), please refer to the packaging at the end of the document.
- For custom configurations (AFC8513U4G-), MOQs, pricing and packaging changes may be applicable.



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Electrical Specification

Parameter	Specification			Unit
	Min	Typ	Max	
Operating Frequency	698		4000	MHz
VSWR			3	
Peak gain		5		dBi
Impedance		50		Ω
Polarization	Linear			
Input Power			5	W

Mechanical Specification

Parameter	Specification
Antenna Dimensions	85 x 13.8 x 0.2 mm
Antenna Type	Flexible Printed Circuit
Mounting Type	Adhesive
RF Connector	I-PEX 1 (F)
RF Cable Type	\varnothing 1.13 mm
Cable Length	100 mm

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
ROHS Complaint	Yes
PB Free	Yes
ESD Sensitive	No
MSL Level	1
Vibration	10 to 55Hz with 1.5mm amplitude 2hours

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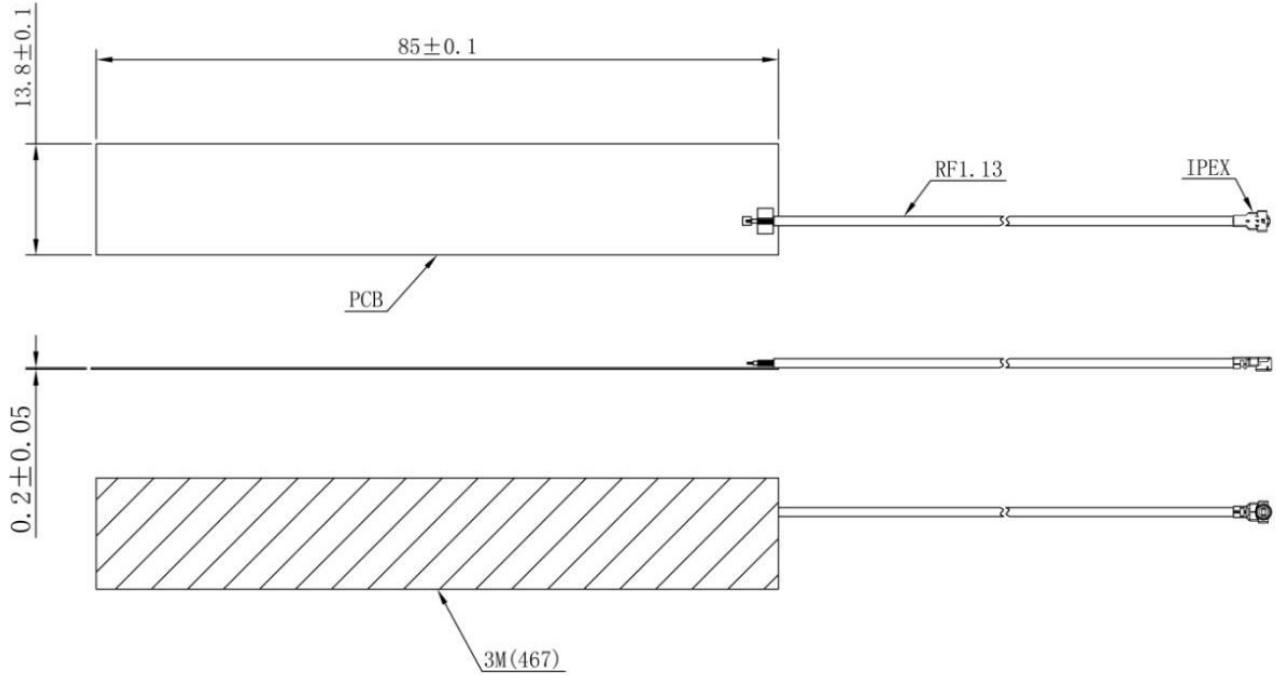


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Product Dimension



Unit : mm

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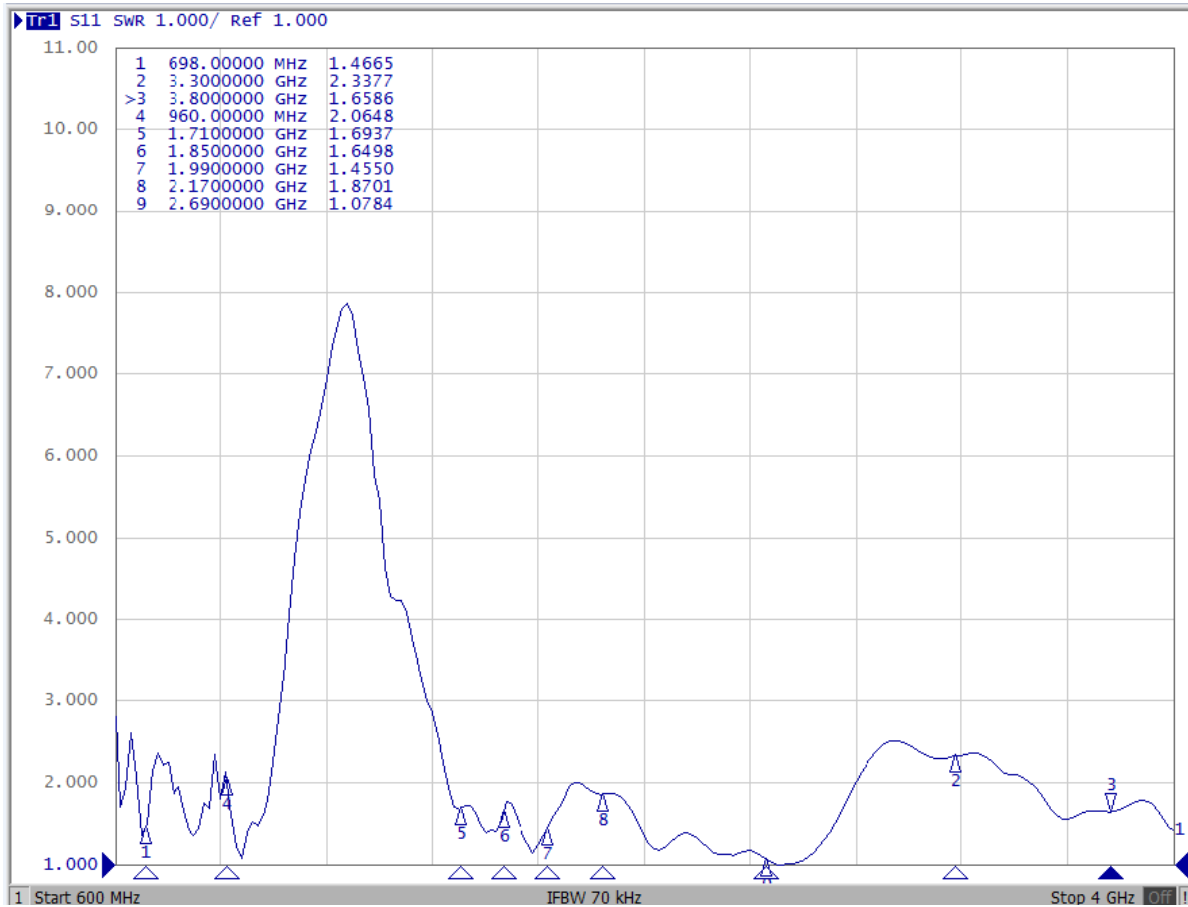


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Test Measurement - VSWR



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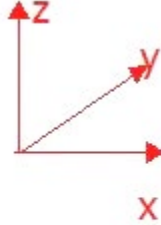


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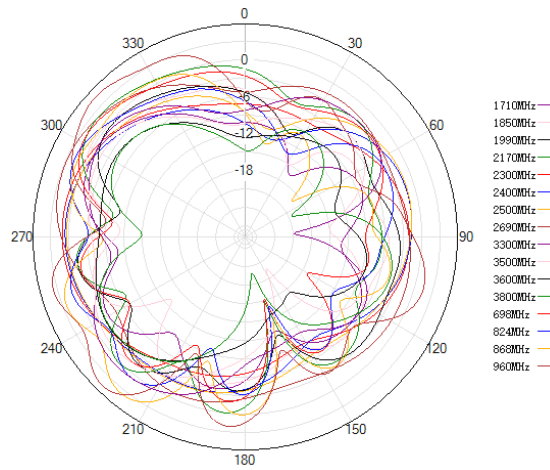
85 x 13.8 x 0.2 mm
RoHS/RoHS II Compliant
MSL Level = 1

Radiation Characteristics

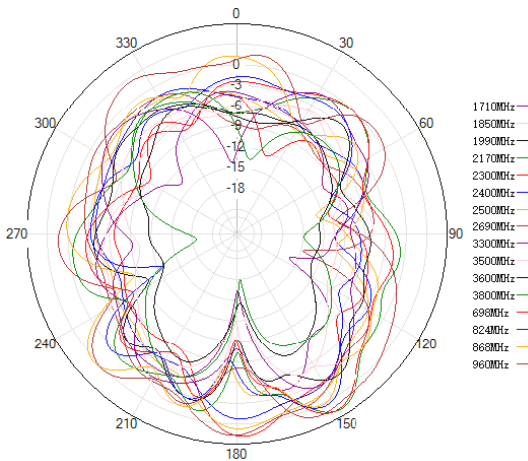


2D Pattern

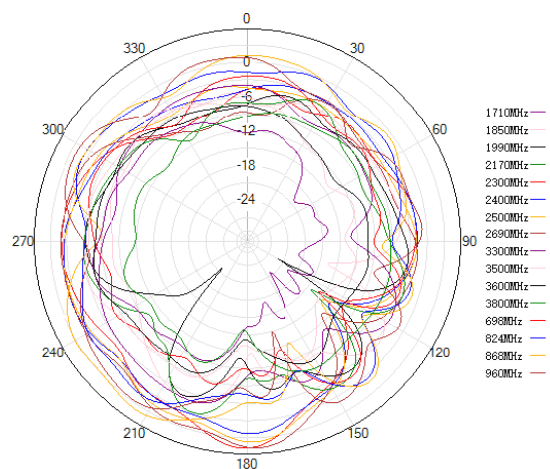
XY - Plane



XZ - Plane



YZ - Plane



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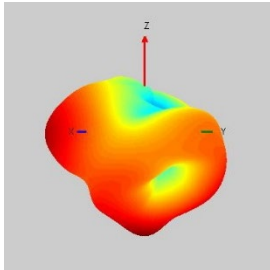


Check Inventory

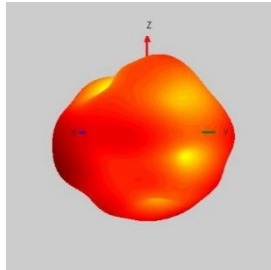


85 x 13.8 x 0.2 mm
RoHS/RoHS II Compliant
MSL Level = 1

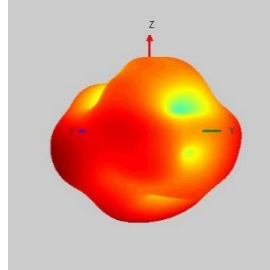
3D Pattern



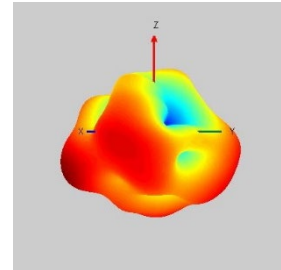
698 MHz



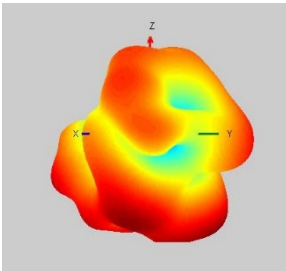
824 MHz



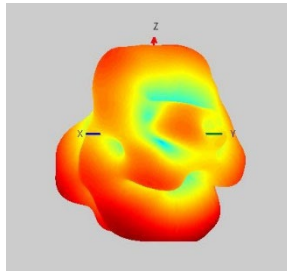
868 MHz



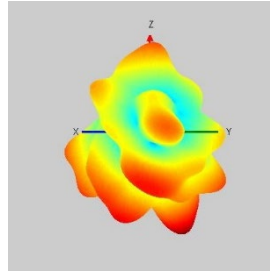
960 MHz



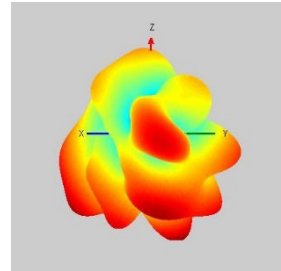
1710 MHz



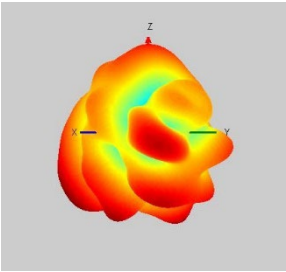
1850 MHz



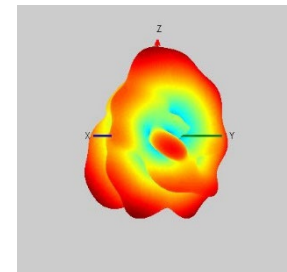
1990 MHz



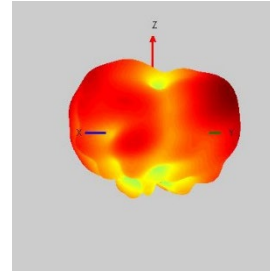
2170 MHz



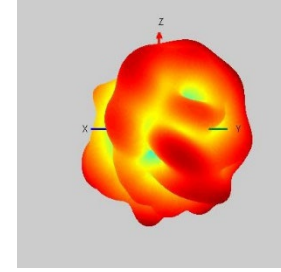
2300 MHz



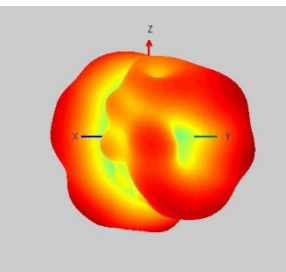
2400 MHz



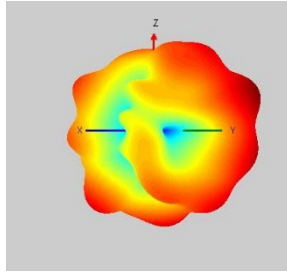
2500 MHz



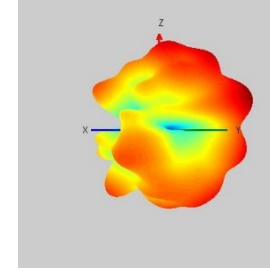
2690 MHz



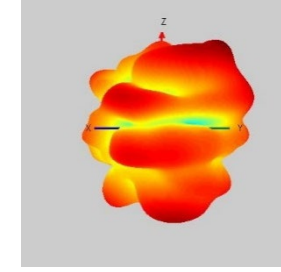
3300 MHz



3500 MHz



3600 MHz



3800 MHz

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Gain and Efficiency

Frequency (MHz)	Efficiency	Gain (dBi)
698	0.65	4.82
824	0.61	2.28
960	0.63	4.77
1710	0.67	5.1
1990	0.61	2.38
2170	0.62	2.47
2690	0.66	5.2
3300	0.63	2.8
3800	0.60	0.69

Packaging Information

Number of Antenna/ Carton : 1000 pcs
Dimension of the Carton : 370 x 360 x 170 mm
Weight of the Carton : 4 kg

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