

### 4G/LTE Flexible PCB Internal Antennas

Product Number : ATIFLTE-3217

#### 1. Picture

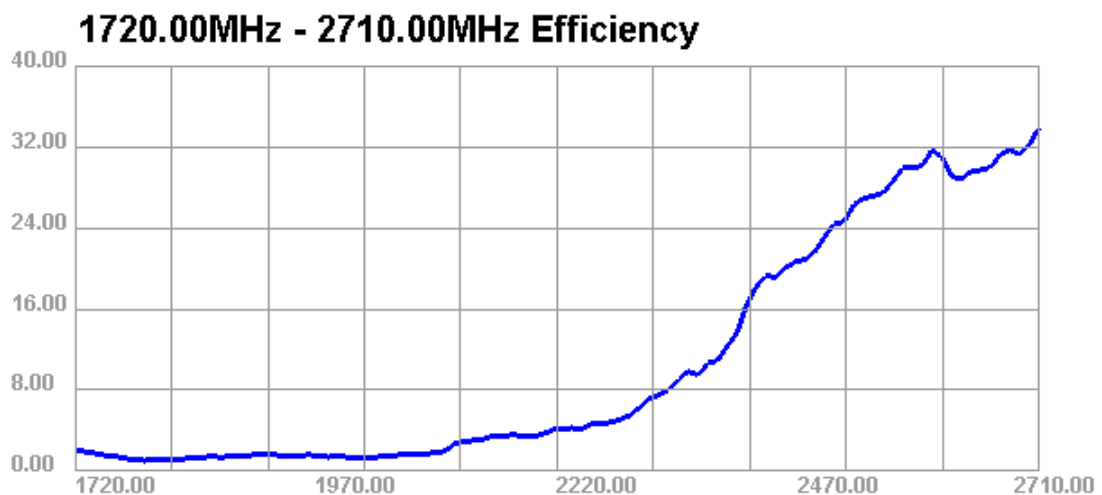
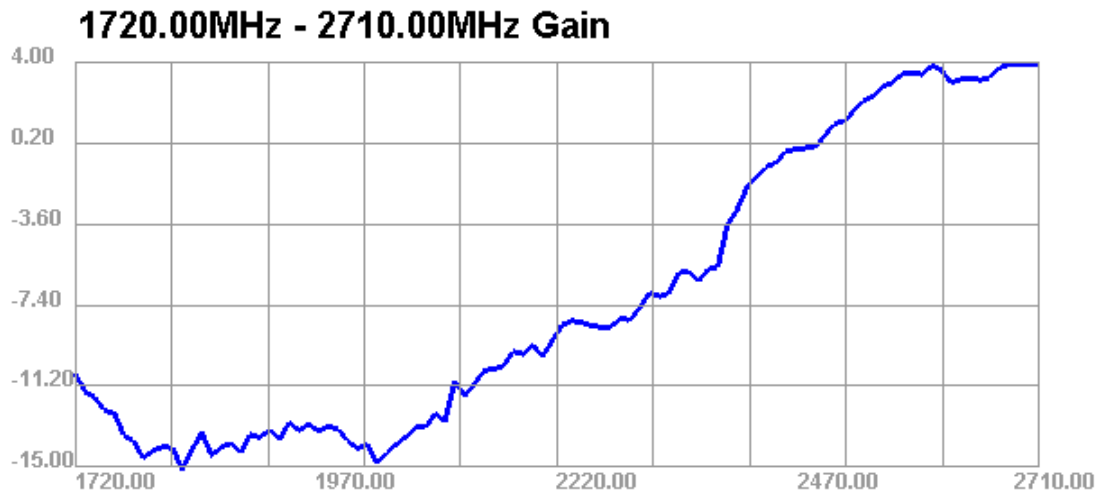


## 2. Electrical Characteristics

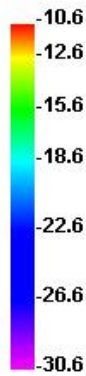
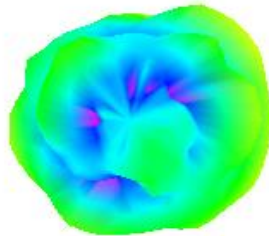
Item		Specifications
Antenna	Frequency Range	650 ~800 / 810 ~ 980 /1700 ~ 2690 MHz
	Polarization	Linear
	Gain	2.0dB
	V.S.W.R	<2.5
	Impedance	50Ω
	Dimension	31.76 * 16.66 mm
Mechanical	Cable	RF1.13 or others
	Connector	IPEX
	Mounting Method	Embedded
Environmental	Operating Temperature	-40°C ~+85°C
	Vibration	10 to 55Hz with 1.5mm amplitude 2hours
	Environmentally Friendly	ROHS Compliant

## 3. Testing of Gain, Efficiency & Radiation Pattern

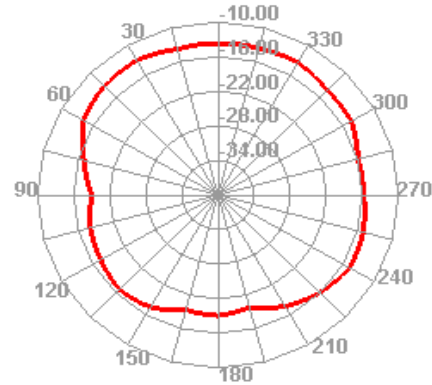
### 3.1 1720.00MHz - 2710.00MHz



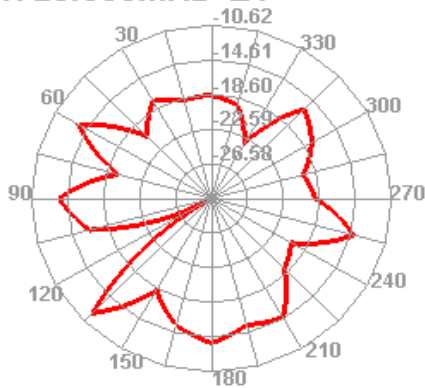
**1720.000MHz**



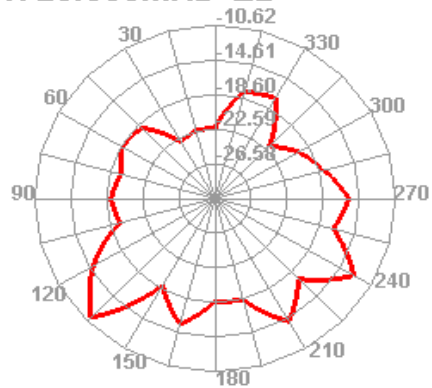
**1720.000MHz H**



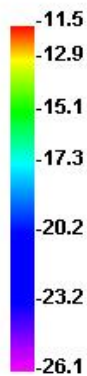
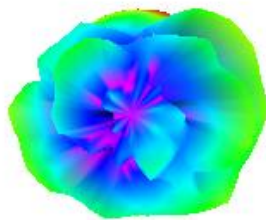
**1720.000MHz E1**



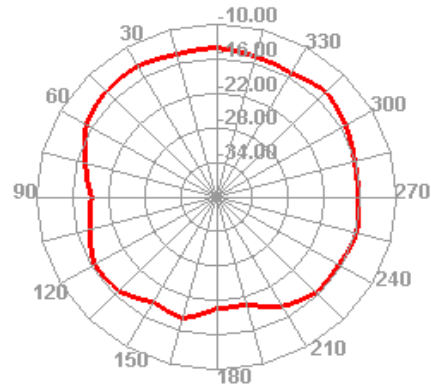
**1720.000MHz E2**



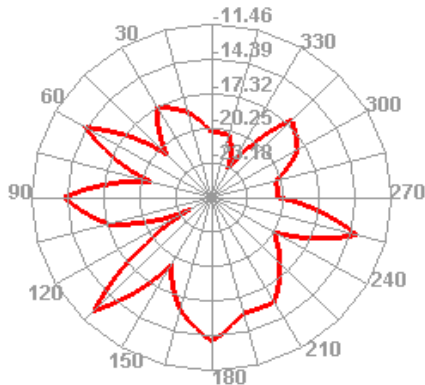
**1730.000MHz**



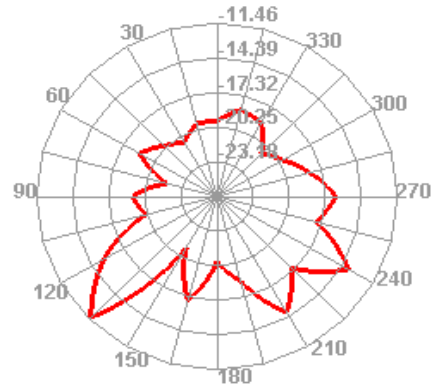
**1730.000MHz H**



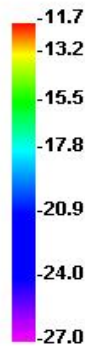
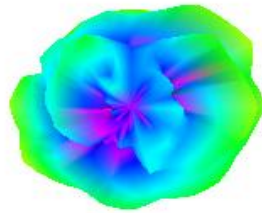
**1730.000MHz E1**



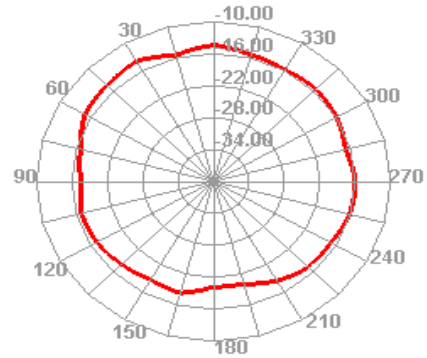
**1730.000MHz E2**



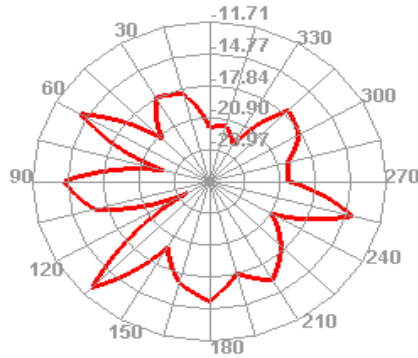
1740.000MHz



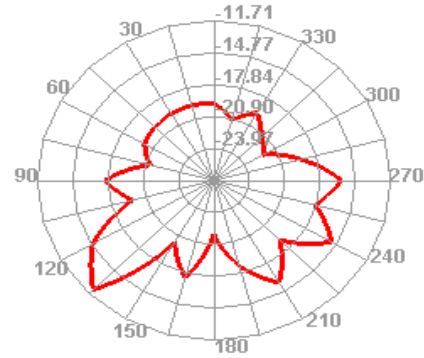
1740.000MHz H



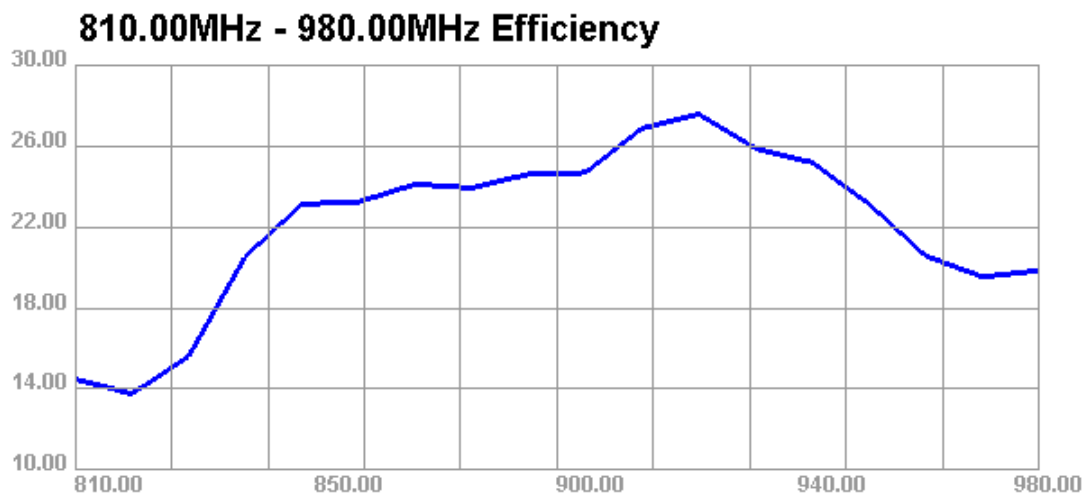
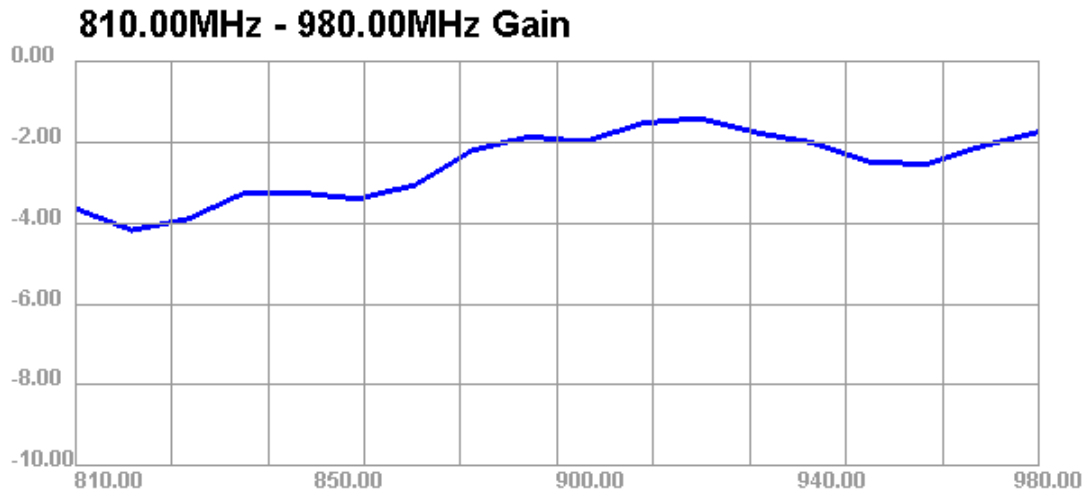
1740.000MHz E1



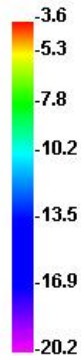
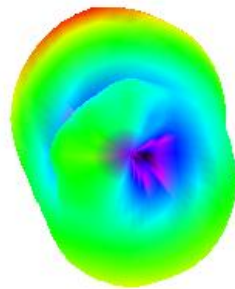
1740.000MHz E2



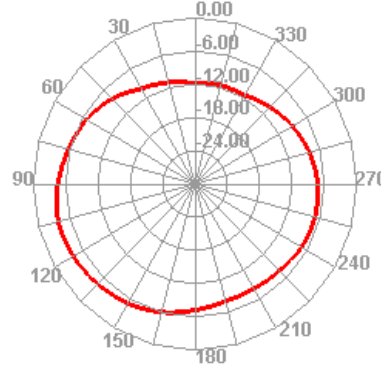
## 3.2 810.00MHz – 980.00MHz



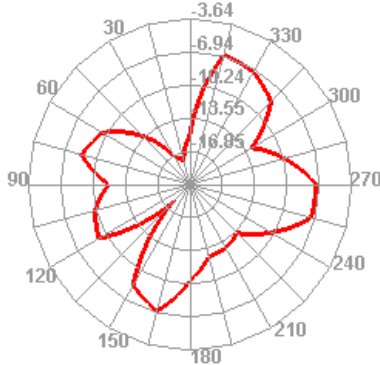
810.000MHz



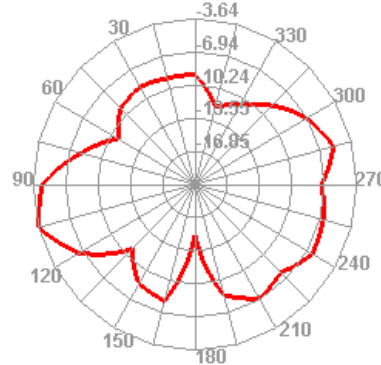
810.000MHz H



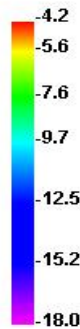
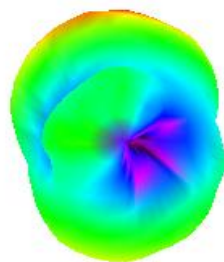
810.000MHz E1



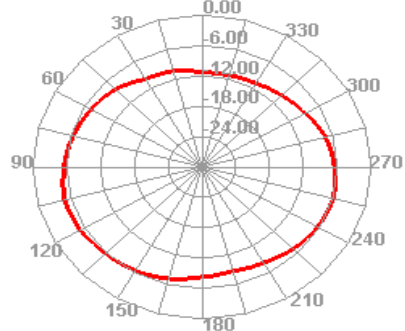
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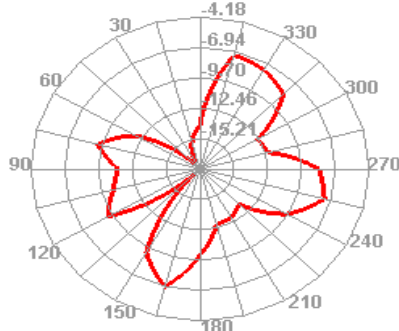
820.000MHz



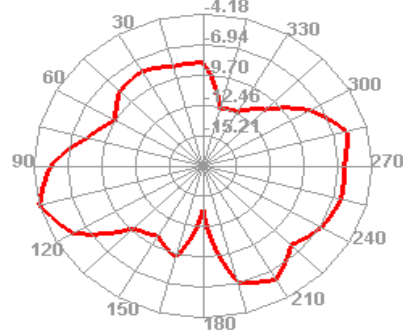
820.000MHz H



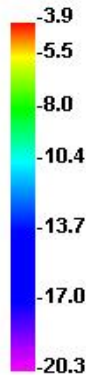
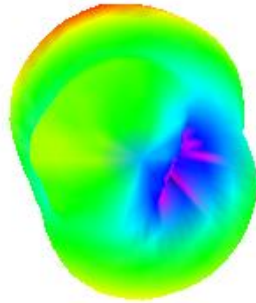
820.000MHz E1



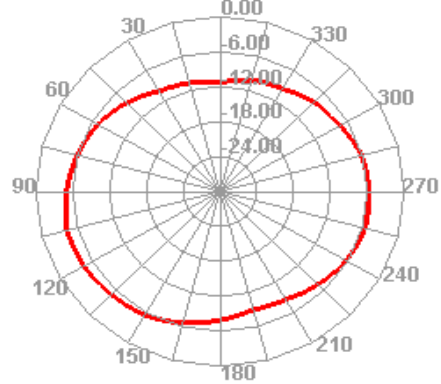
820.000MHz E2



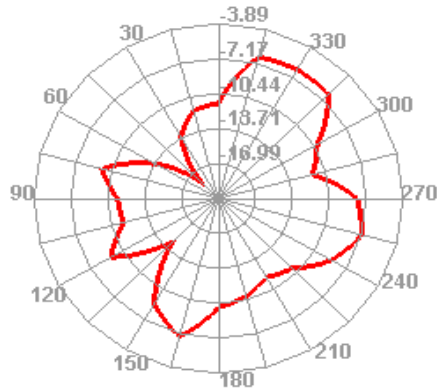
830.000MHz



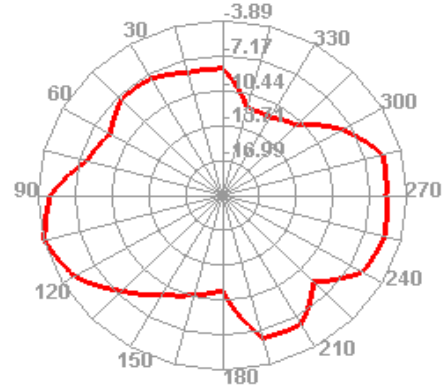
830.000MHz H



830.000MHz E1

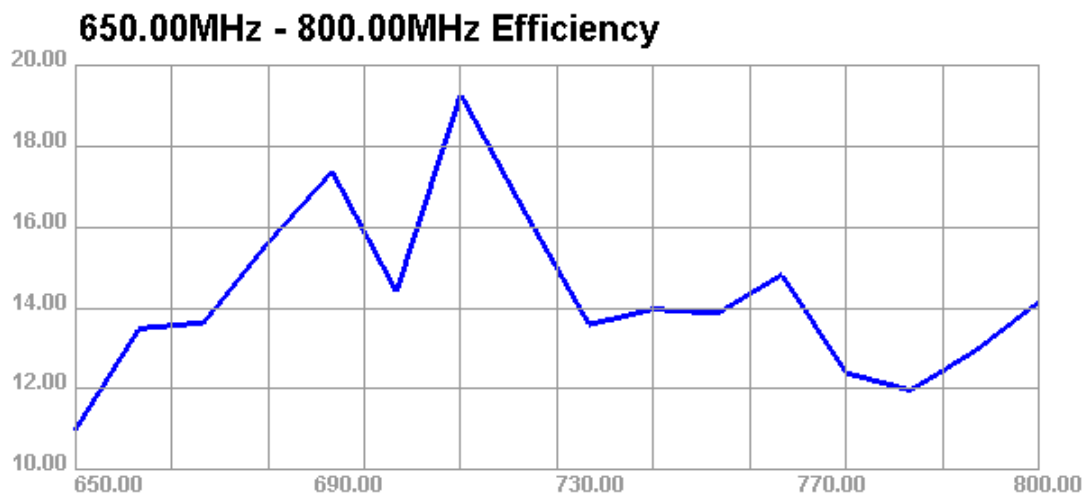
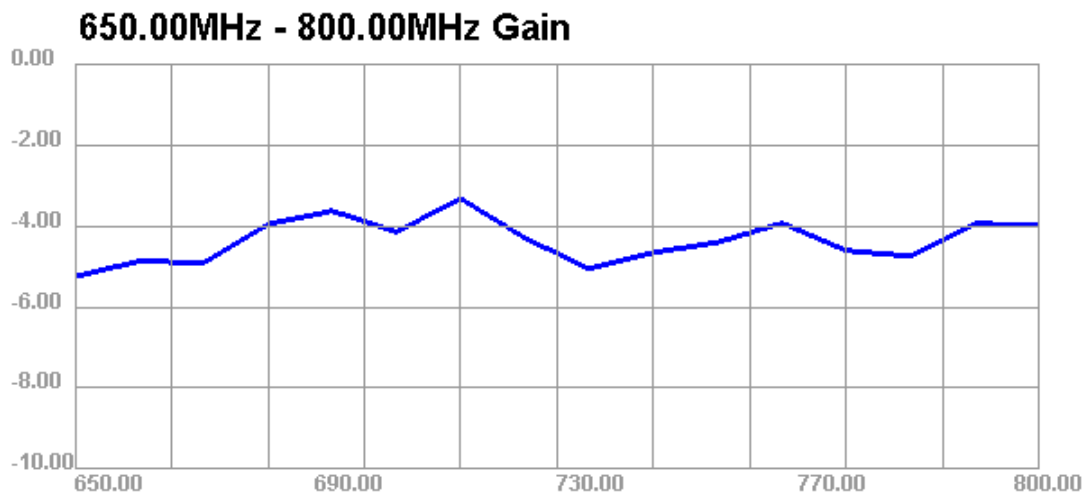


830.000MHz E2

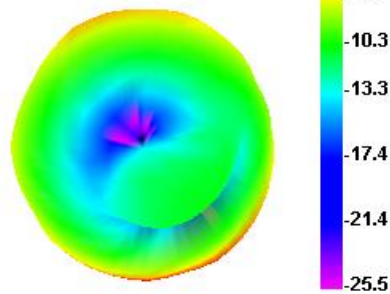




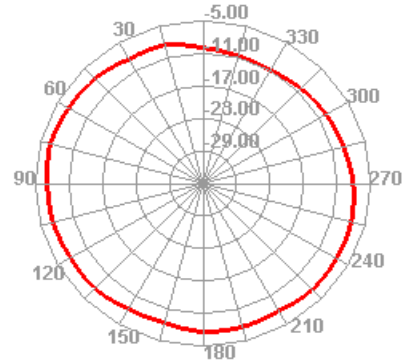
## 3.3 650.00MHz – 800.00MHz



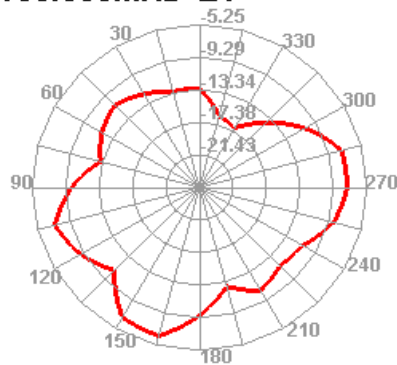
650.000MHz



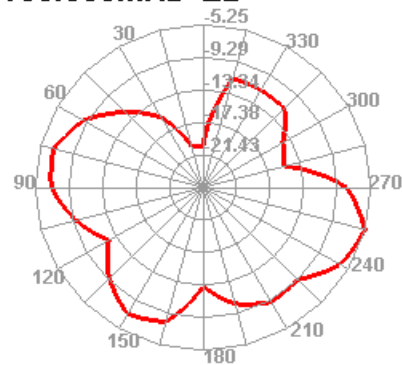
650.000MHz H



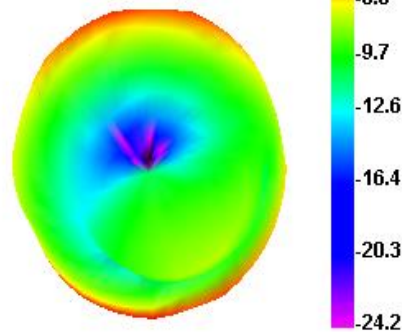
650.000MHz E1



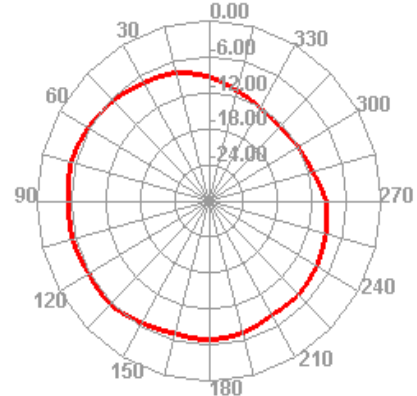
650.000MHz E2



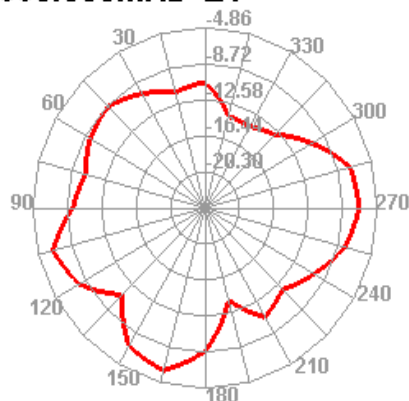
660.000MHz



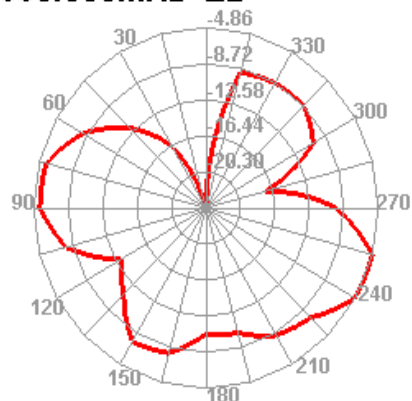
660.000MHz H

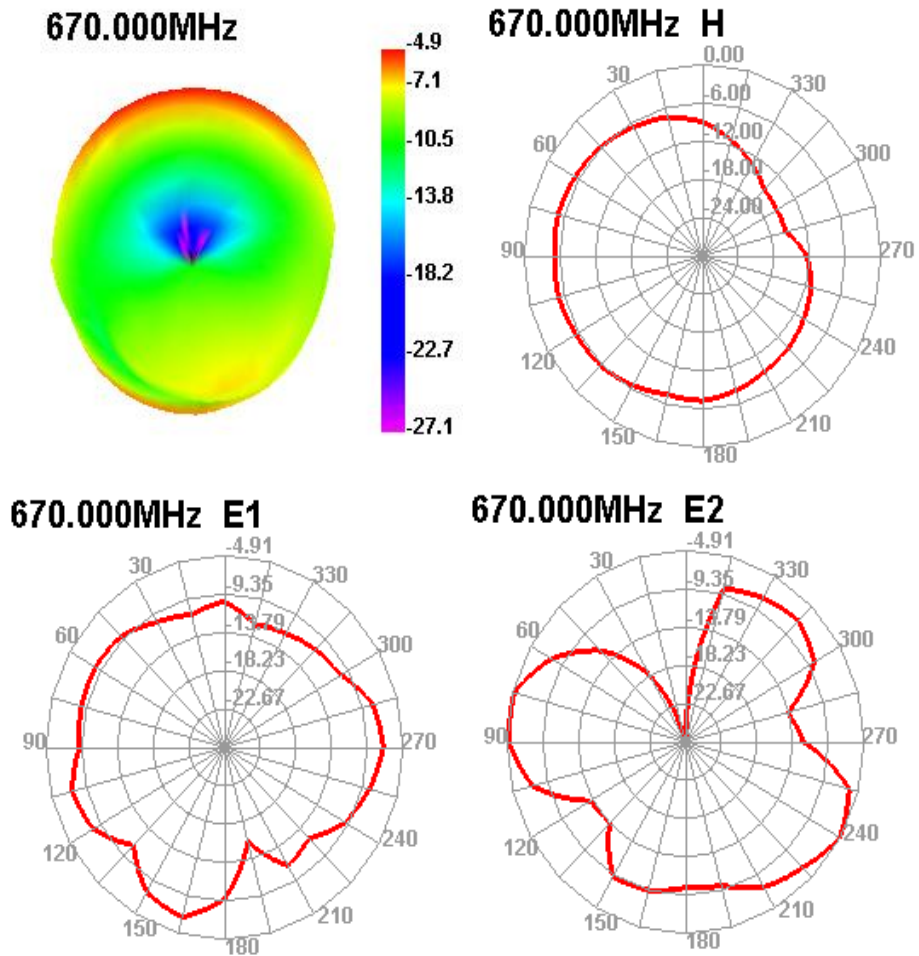


660.000MHz E1

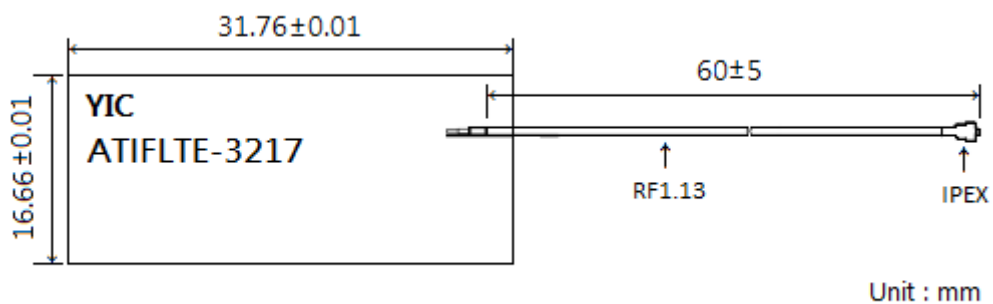


660.000MHz E2





## 4. Drawing



## 5. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	MIL-STD-202G, 201A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	Height: 1.5 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	MIL-STD-202G, 210F, cond. A Solder iron: 350±10°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	MIL-STD-202G, 211A, cond. E Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	MIL-STD-202G, 101E, cond. B Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	MIL-STD-202G, 103B, cond. B Temp: 40°C; RH: >= 95%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	MIL-STD-202G, 108A, cond. A Temp: 85°C; Time: 96 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2002/95/EC
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

### 6. Note

**6.1 This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.**

**6.2 The product will get free warranty for one year since the date of purchase users operate in the correct way; users will have to pay cost of the materials and maintaining fee out of the condition.**

**6.3 Electrostatic sensitive device.Observe precautions for handling.**