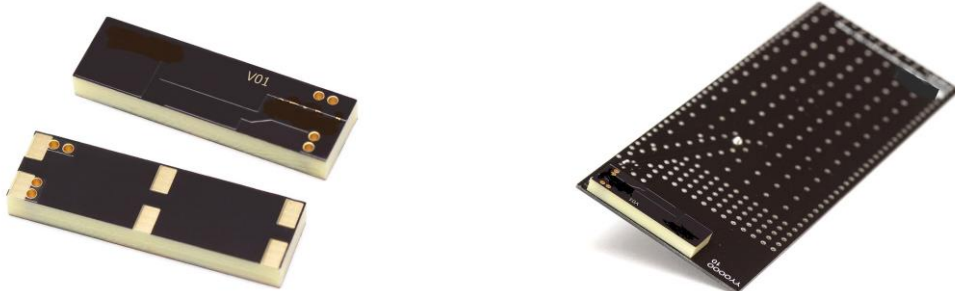


AMC-ANTEUMPF17-01

Cellular 2G/3G surface mount fibreglass antenna

Features

- Cellular:
 - 824 – 960MHz
 - 1710 – 2170MHz
- Surface mount
- High performance
- Fibreglass material
- Ground plane dependent
- Dimensions – 26 x 7.6 x 3mm



Certifications:



1. Antenna and Electrical Specifications

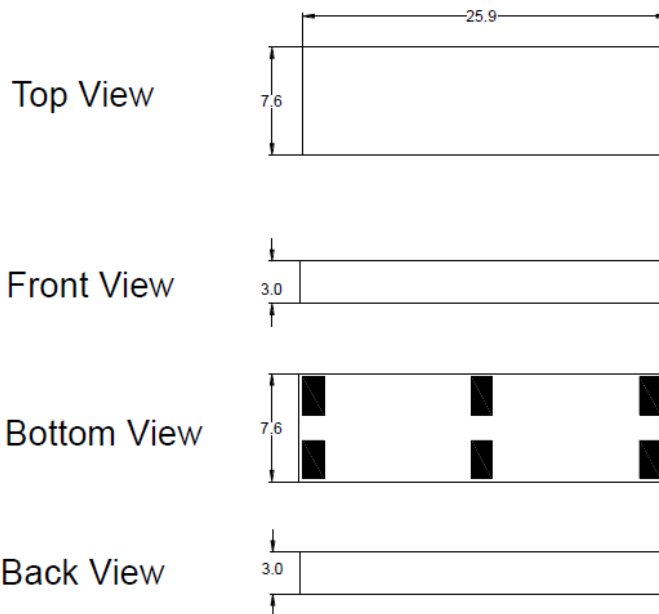
Parameters	Cellular antenna	
Standards	2G & 3G	
Band (MHz)	700/850/900	1700/1800/1900/2100
Frequency (MHz)	824 - 960	1710 - 2170
Return loss (dB)	~-11.5	~-13.3
VSWR	~2.0:1	~1.8:1
Efficiency (%)	~67.5	~70.8
Peak gain (dBi)	~2.2	~2.2
Average gain (dB)	~-1.7	~-1.6
Impedance (Ohms)	50	
Polarisation	Linear	
Radiation pattern	Omni-Directional	
Max. input power (W)	25	

Antenna Measurement Conditions:

- Mounted on ground plane of 113 x 40.5mm
- Measured in certified CTIA 3D Anechoic chamber

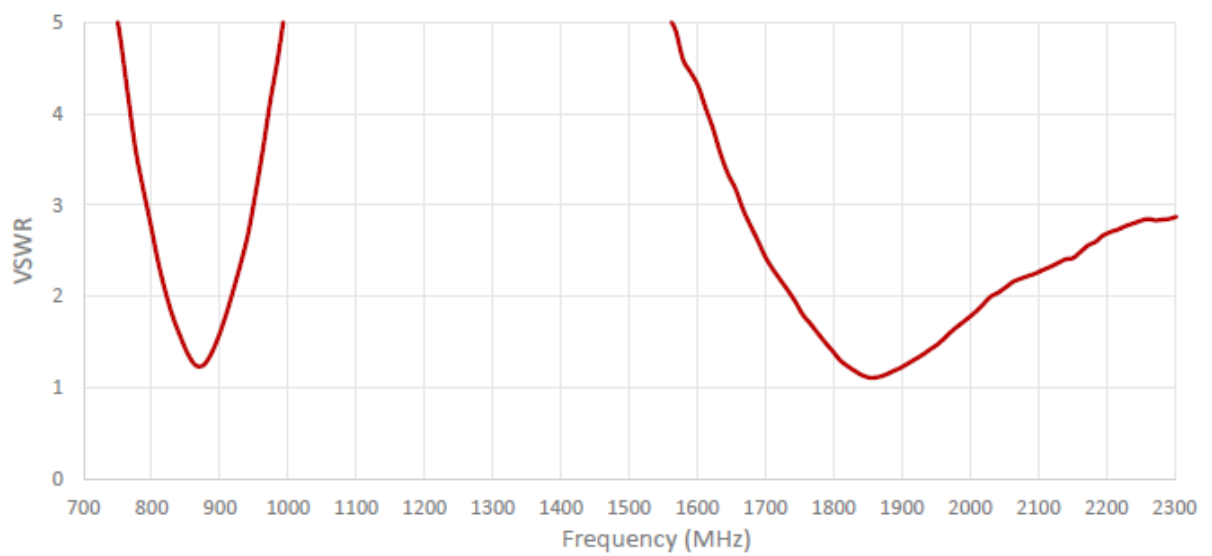
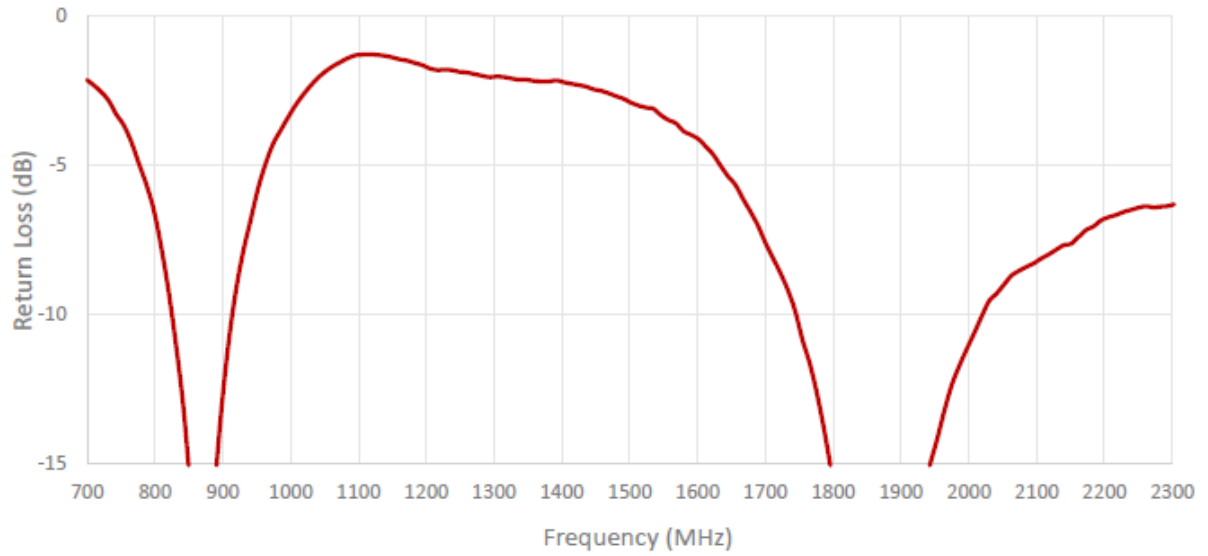
2. Mechanical and Environmental Specifications

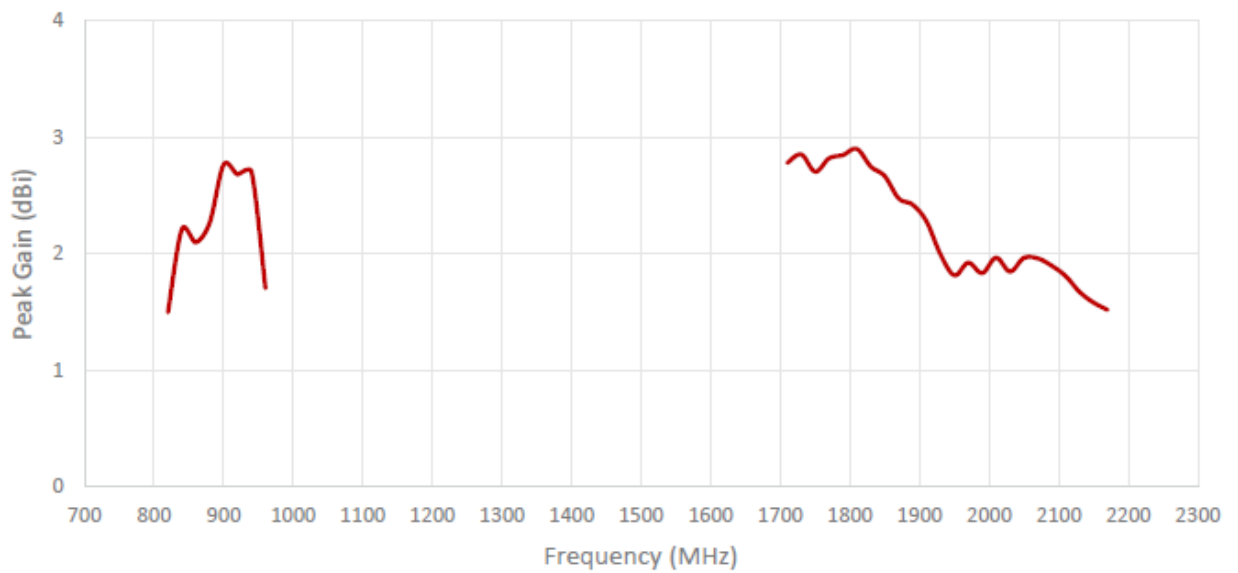
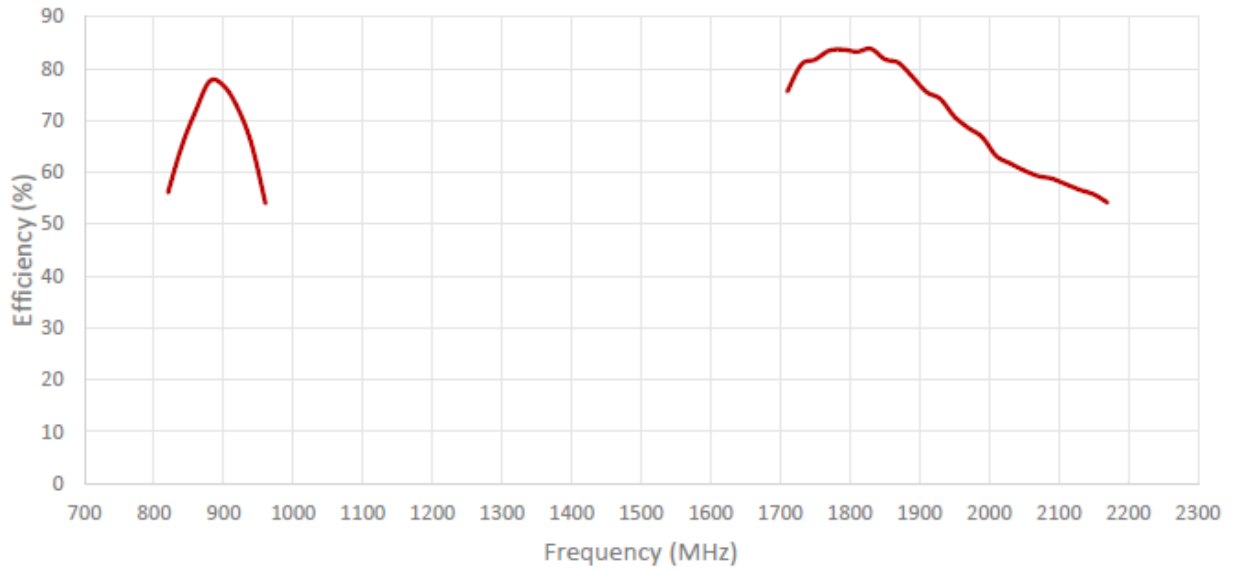
Mounting type	Surface mount
Dimensions (mm)	26 x 7.6 x 3
Material	Fibreglass
Operating temperature (°C)	-40 to +85
Storage temperature (°C)	-40 to +85
Storage relative humidity (%)	Up to 93 at 30°C
Substance compliance	RoHS
Shear Force Test	<p>Minimum specified shear force: 50kgf</p> <p>According to relevant standards for tests: IEC62137-1-2 (2007)</p> <p>Test report No.: TRSF-2J36058-01</p>

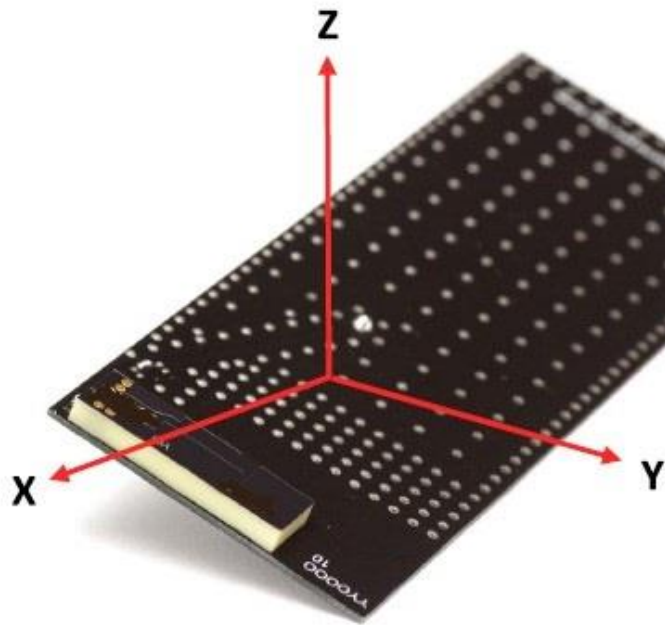
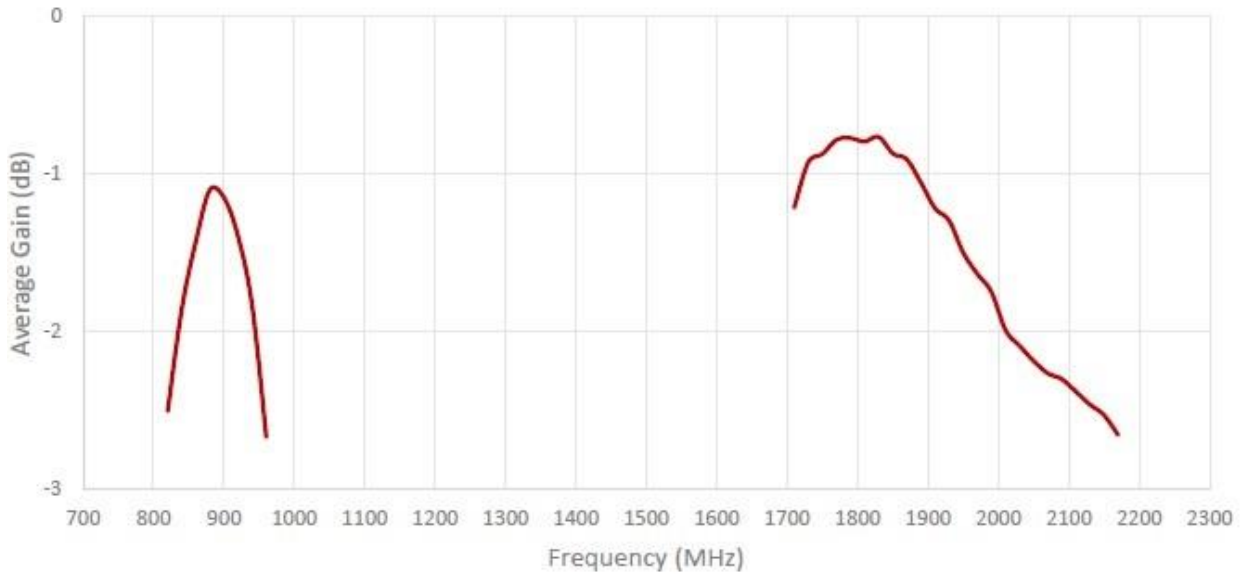


Dimensions for fiberglass antenna 25.9 x 7.6 x 3 mm +/-0.2mm

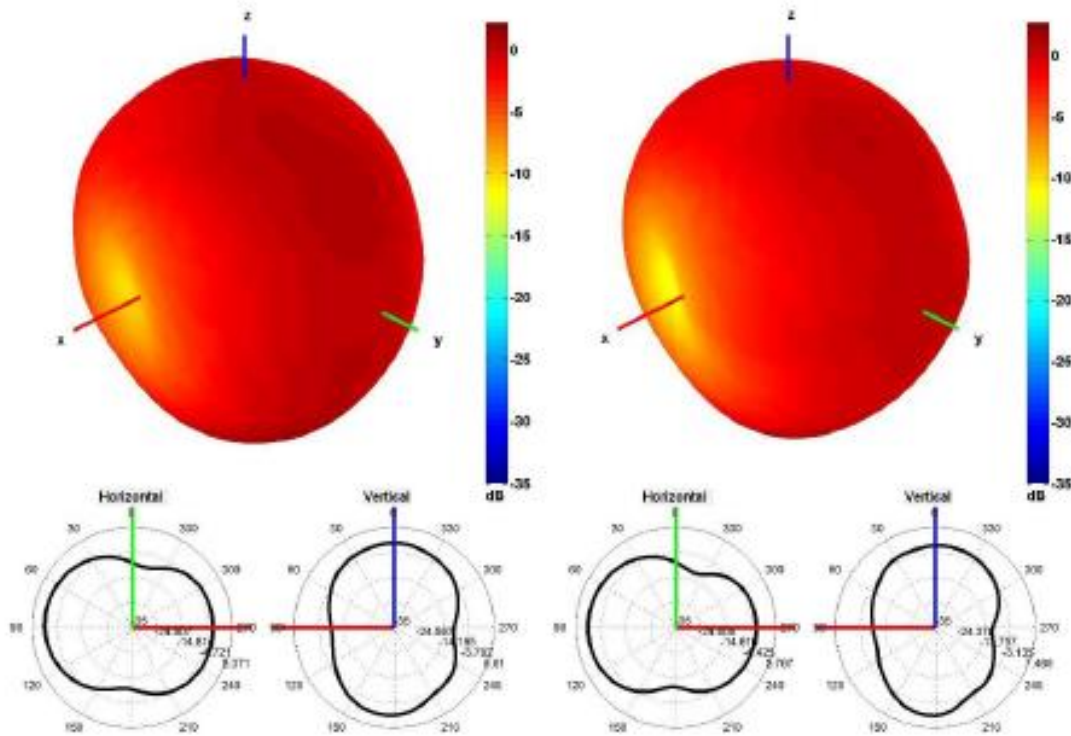
3. Antenna Parameters



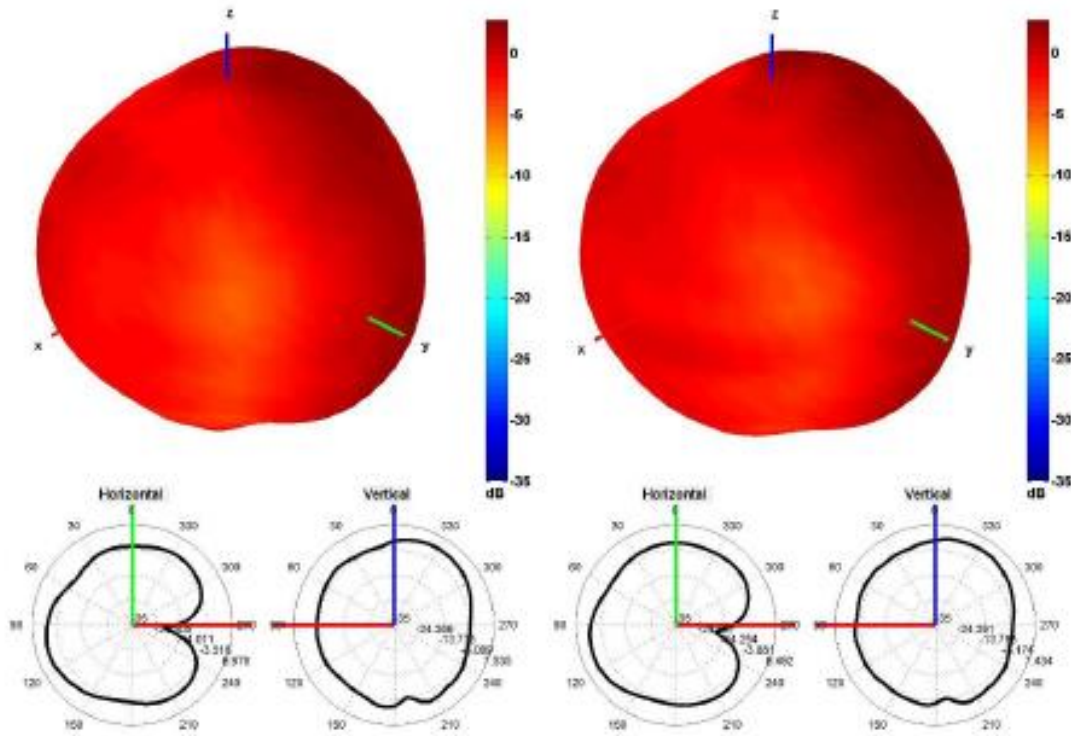




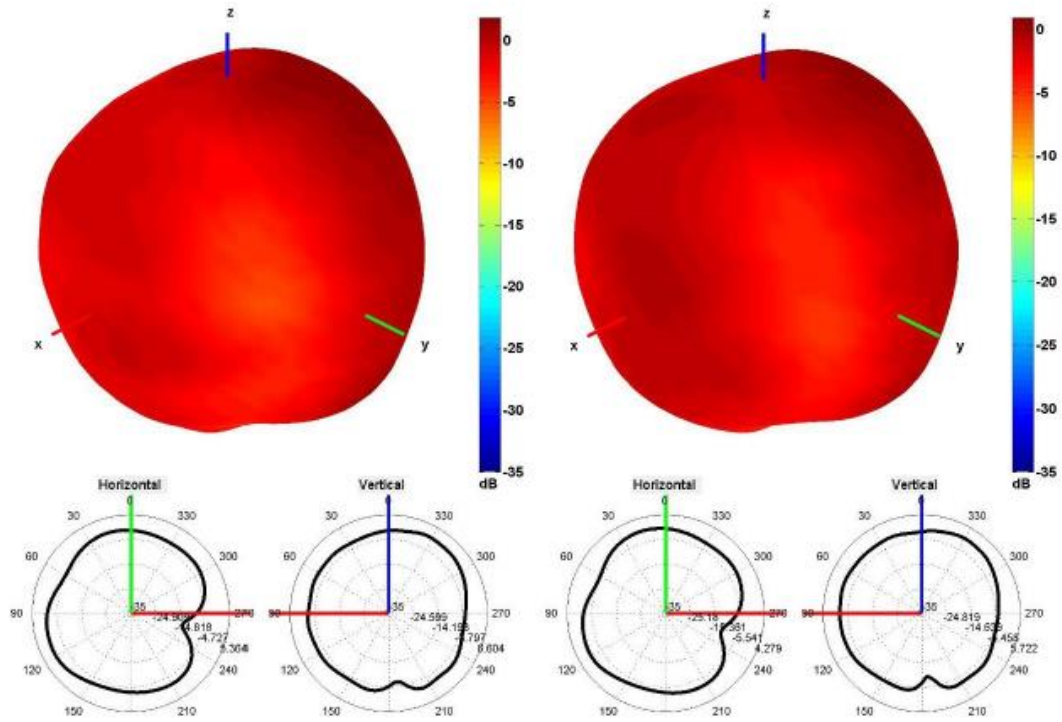
Radiation pattern reference



850 and 940 MHz Radiation pattern

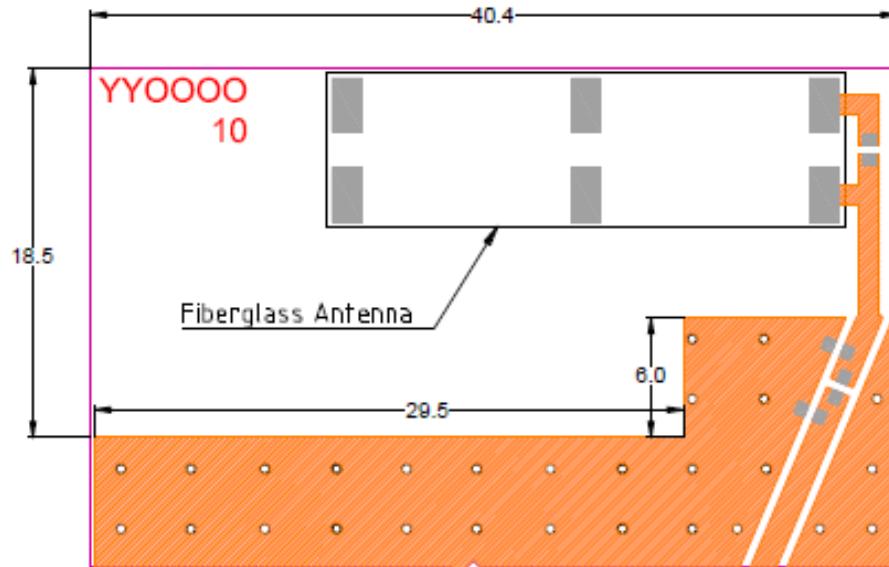


1750 and 1850 MHz Radiation pattern



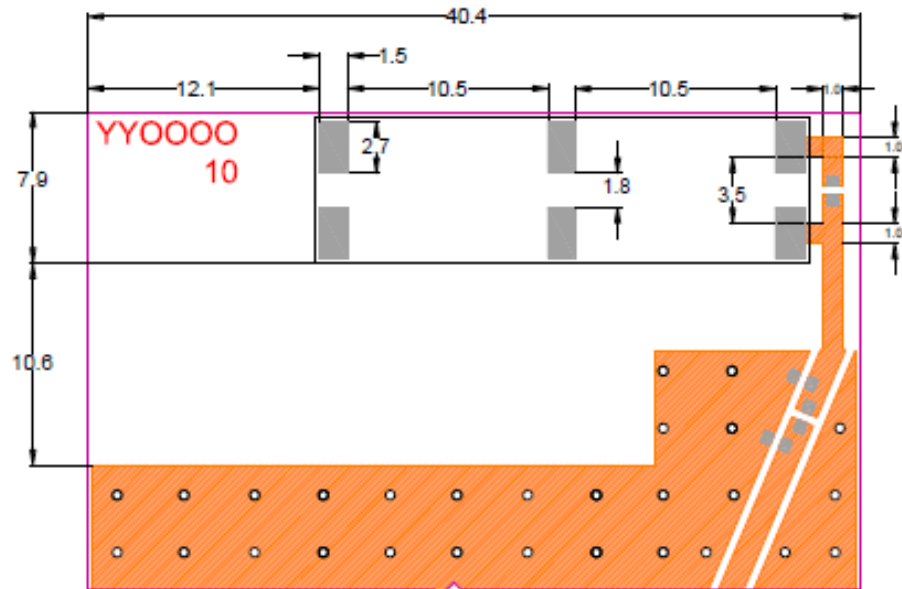
1950 and 2100 MHz Radiation pattern

4. PCB Layout



Minimum area required for antenna integration (40.4mm x 18.5mm)

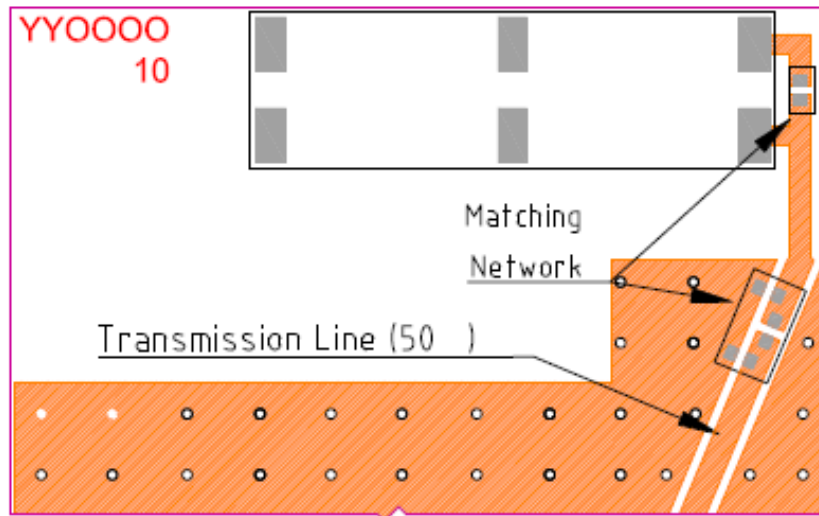
- Solder Region
- Copper Region
- Copper-Free Region



Layout dimensions for antenna integration (mm)

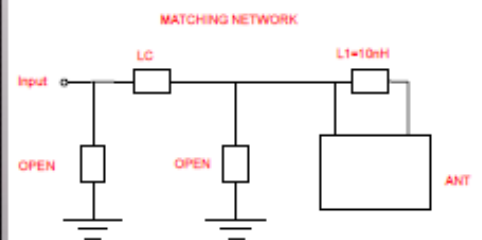
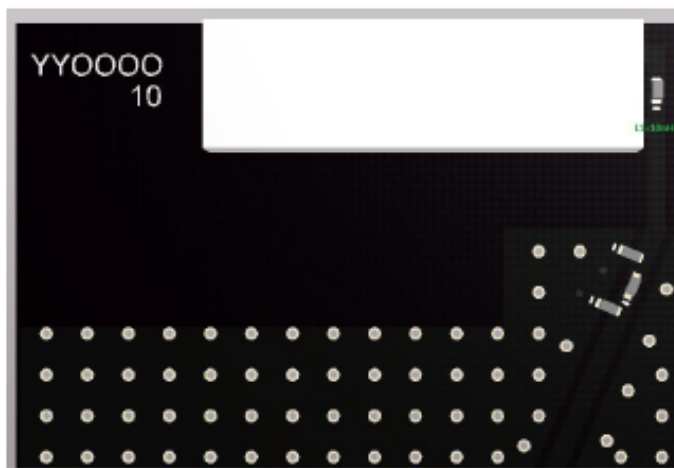
- Solder Region
- Copper Region
- Copper-Free Region

5. Matching Network



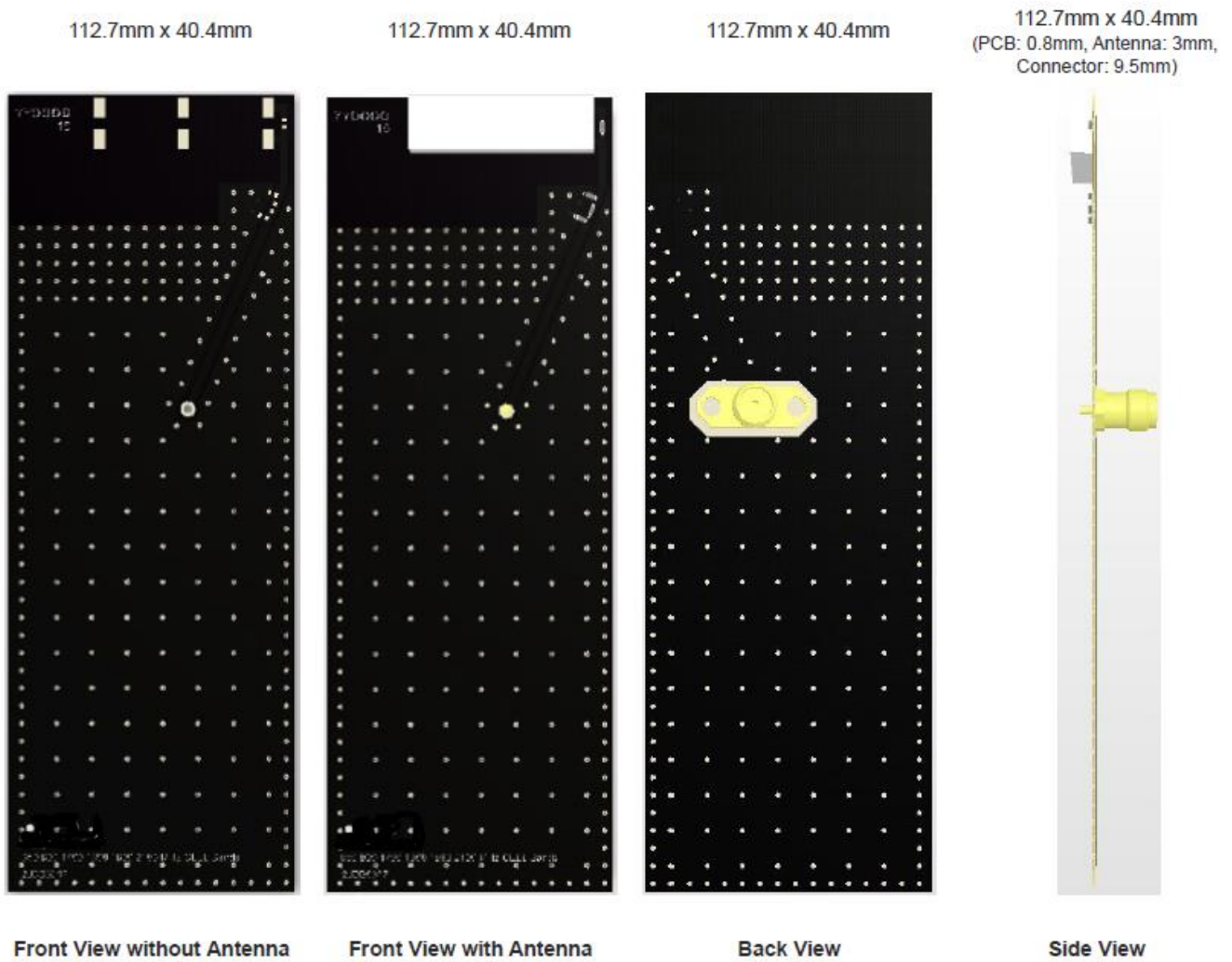
- Solder Region
- Copper Region
- Copper-Free Region

Matching network drawing



3D View of matching components and recommended values (LC = 00ohm resistor)

6. Evaluation Board

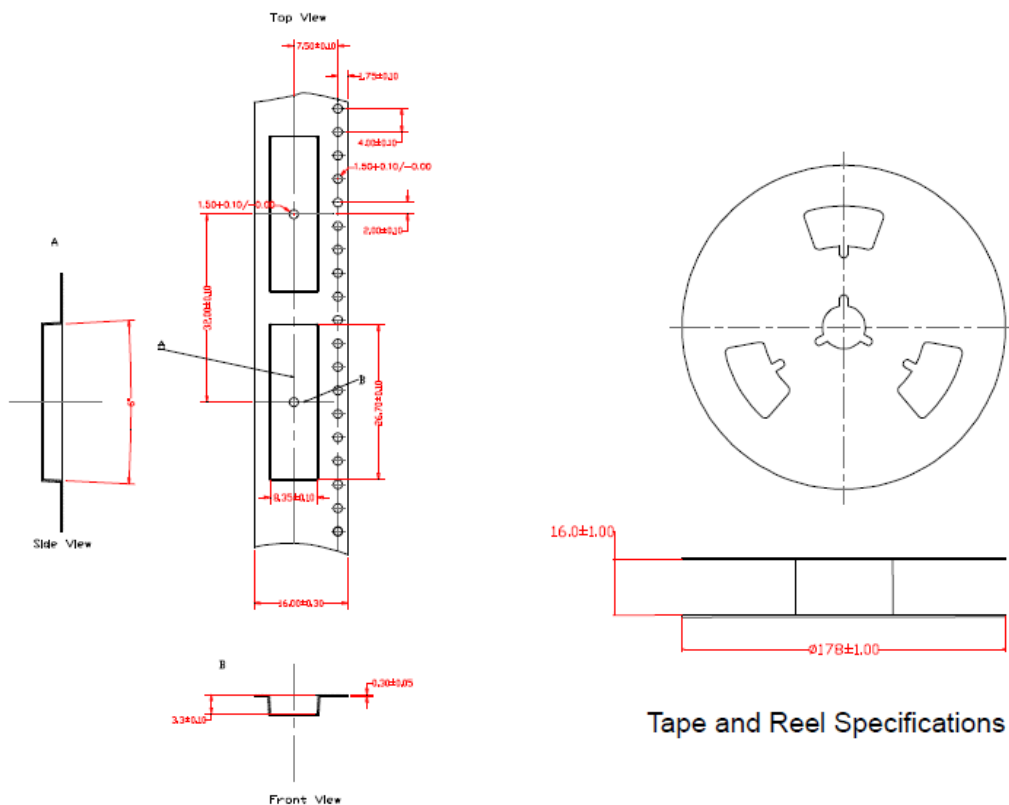


7. Packaging

PACKAGING SPECIFICATION

REEL	
Max Quantity per Reel	140
REEL CARTON	
Reels per Carton	10
Max Quantity per Carton	1400
Reel Carton Dimensions (cm)	40.5 x 23 x 16.5
Reel Carton Weight (Kg)	3.3
PALLET	
Max Cartons per Pallet	70
Cartons per Layer	10
Number of Layers	7
Max Quantities per Pallet	98,000
Total Cartons Dimensions (cm)	115 x 81 x 115.5
Total Cartons Weight (Kg)	231
Pallet size and weight not included above	
Typical Pallet Size (cm)	120 x 100 x 14.4
Typical Pallet Weight (Kg)	5-25

8. Tape & Reel Information



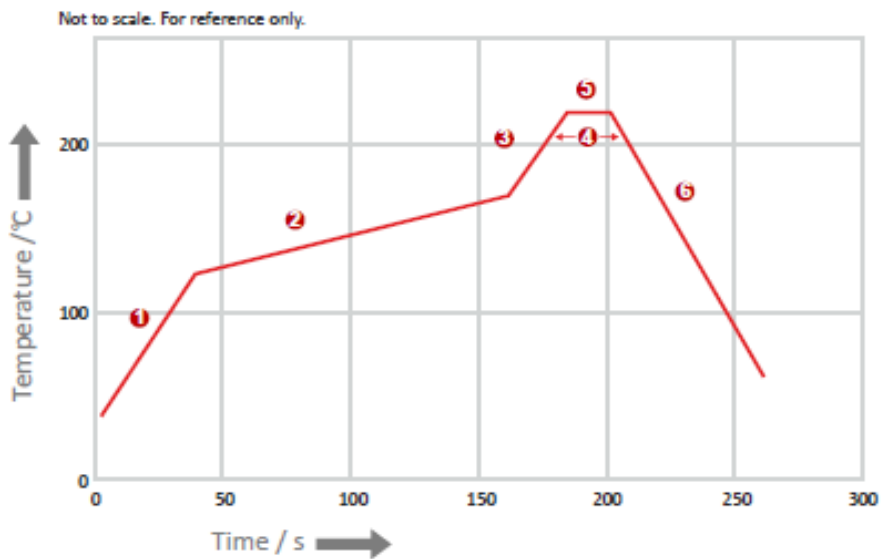
Tape and Reel Specifications

9. Reflow

REFLOW TEMPERATURE PROFILE

Minimum Recommended Reflow Profile

Method of heat transfer		Controlled hot air convection
1	Average temperature gradient in preheating	2.5 °C/s
2	Soak time	2-3 minutes
3	Max temperature gradient in reflow	3 °C/s
4	Time above 217 °C	Max 30 sec
5	Peak temperature in reflow	230 °C for 10 seconds
6	Temperature gradient in cooling	Max -5 °C/s



REFLOW TEMPERATURE PROFILE

Maximum Recommended Reflow Profile

Method of heat transfer	Controlled hot air convection
1 Average temperature gradient in preheating	2.5 °C/s
2 Soak time	2-3 minutes
3 Max temperature gradient in reflow	3 °C/s
4 Time above 217 °C	Max 60 sec
5 Time above 230 °C	Max 50 sec
6 Time above 250 °C	Max 10 sec
7 Peak temperature in reflow	260 °C for 5 seconds
8 Temperature gradient in cooling	Max -5 °C/s

