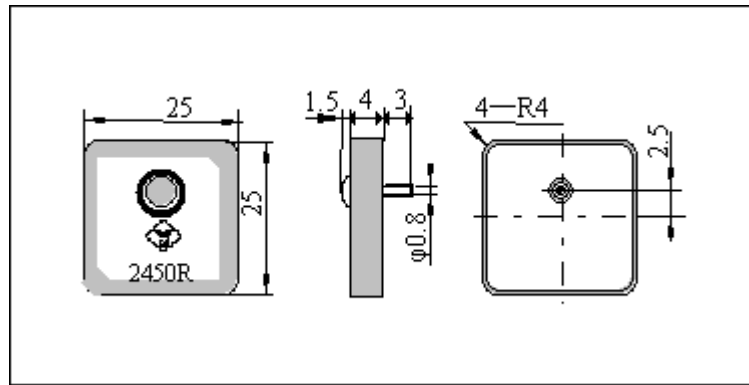


## **PA25MM/CH/2450 – WiFi / ZIGBEE CERAMIC PATCH**

This series of microwave dielectric antenna elements are designed to be used for Zigbee and WLAN applications. The patch antenna with compact size incorporates a rectangular micro-strip design with C/A right-hand circular polarization, featuring low RL, low Axial Ratio but high gain.



### **Structure and Material**

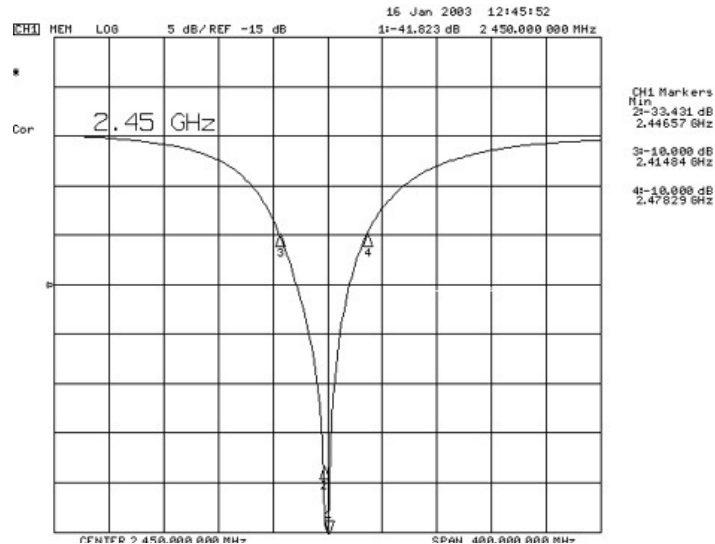
Description	Structure / Material
Antenna Substrate	Dielectric Ceramic
Pin	Cu, Sn Plated
Electrode	Ag Plated
Ground Base	Ag Plated

### **Electrical Characteristics**

Item	Specification	Tolerance
Frequency Range	2450MHz	±2.5MHz
F <sub>o</sub> Centre Frequency	2540MHz (70mm square ground plane)	±3.0MHz
BW Bandwidth	>50MHz	±0.5MHz
VSWR	<1.5:1 (in band)	±0.5
Gain (Zenith)	3.0dBi (70mm square ground plane)	±0.5dBi
Axial Ratio	<3dB (70mm square ground plane)	±0.2dB
Polarisation	Right Hand Circular	
Z <sub>o</sub> Impedance	50Ω	
Frequency Temperature Coefficient	0±10 ppm/°C	

The above data is to be used as baseline information only. For a more detailed specification, application support or application approval samples, please contact our technical support help desk on +44(0) 2392327 020. We reserve the right to modify the specifications without prior notice.

## Return Loss



## Reliability

MTBF=1×10<sup>-6</sup>/pc.hr

Temperature: 40±5°C

Load: DC=5V±0.5 V

Quantity: 2000pcs

Sustained Time: 480h

## Environmental specifications

Post Environmental Tolerance (above)

Temperature range 25±3°C

Relative Humidity range 55~75%RH

Operating Temperature range -40°C~+85°C

Storage Temperature range -40°C~+100°C

## Moisture Resistance

The device should satisfy the electrical characteristics specified above after exposed to the temperature 40±2 and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

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### ***Vibration Resistance***

The device should satisfy the electrical characteristics specified above after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X, Y and Z directions.

### ***Drop Shock***

The device should satisfy the electrical characteristics specified above after dropping onto the hard wooden board from the height of 30cm for 3 times each facet of the 3 dimensions of the device.

### ***High Temperature Endurance***

The device should satisfy the electrical characteristics specified above after exposed to temperature  $80\pm 5^{\circ}\text{C}$  for  $24\pm 2$  hours and 1~2 hour's recovery time under normal temperature.

### ***Low Temperature Endurance***

The device should also satisfy the electrical characteristics specified above after exposed to the temperature  $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$  for  $24\pm 2$  hours and to 2 hours recovery time under normal temperature.

### ***Temperature Cycle Test***

The device should also satisfy the electrical characteristics specified above after exposed to the low temperature  $-25^{\circ}\text{C}$  and high temperature  $+85^{\circ}\text{C}$  for  $30\pm 2$  min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

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