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# ULA3216F2400P Datasheet

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**ULA3216F2400P**

## Specification of ULA3216F2400P Antenna

<b>Customer/Project</b>		<b>ULA3216F2400P Antenna</b>		<b>Frequency Band</b>		<b>2.4G~2.5G</b>	
<b>SCT P/N</b>				<b>Version</b>		<b>A0</b>	
<b>Date</b>							
<b>Checked by</b>	<b>RF</b>			<b>Design by</b>	<b>RF</b>		
	<b>ME</b>				<b>ME</b>		
					<b>Remark</b>		
<b>Customer</b>							
<b>Date</b>							
<b>Confirmed by</b>		<b>RF</b>					
		<b>ME</b>					
<b>Remark</b>							

## Features

- Compact size
- Omni-directional Radiation
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant

## Applications

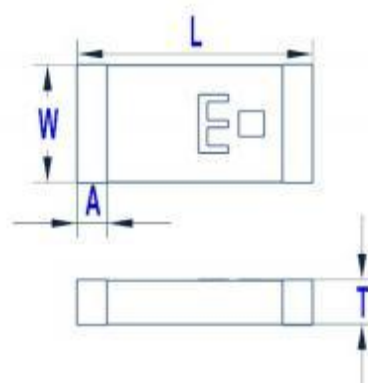
- 2.4GHz wireless communications
- Bluetooth gadget
- Zigbee device
- ISM band equipment

## Specifications

DESCRIPTION	VALUE
Centre Frequency	2.45G
Bandwidth	230MHz (TYP)
Return Loss	10dB min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	1.69 dBi (Typ)
Input Impedance	50 $\Omega$
Maximum Power	1W
Operating Temperature	-40°C~105°C

## Dimensions

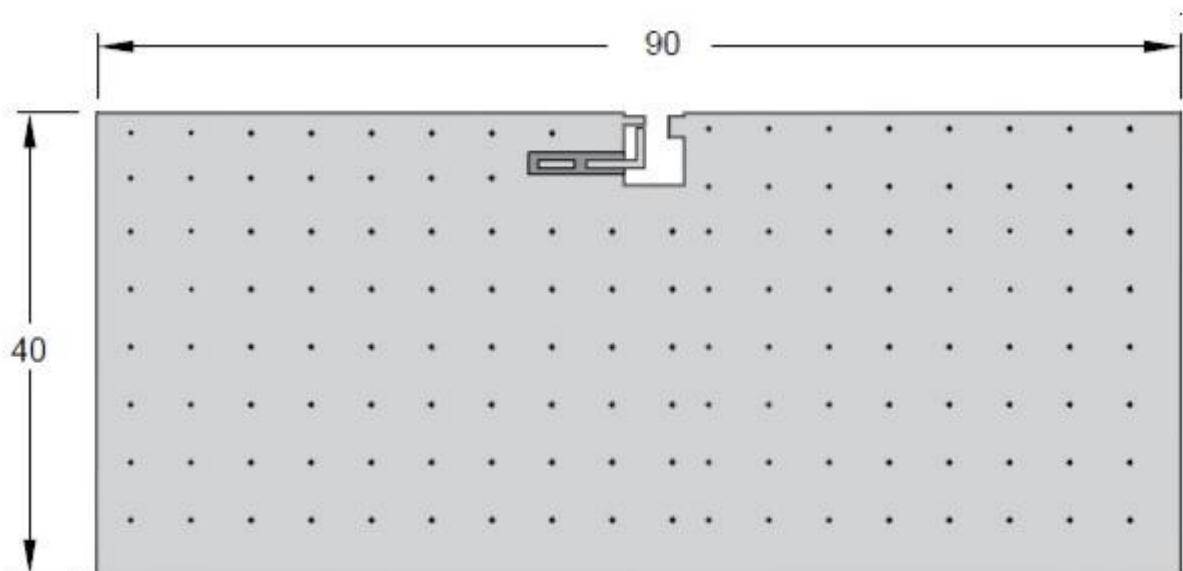
L(mm)	3.05±0.10
W(mm)	1.55±0.10
T(mm)	0.55±0.10
A(mm)	0.40±0.10



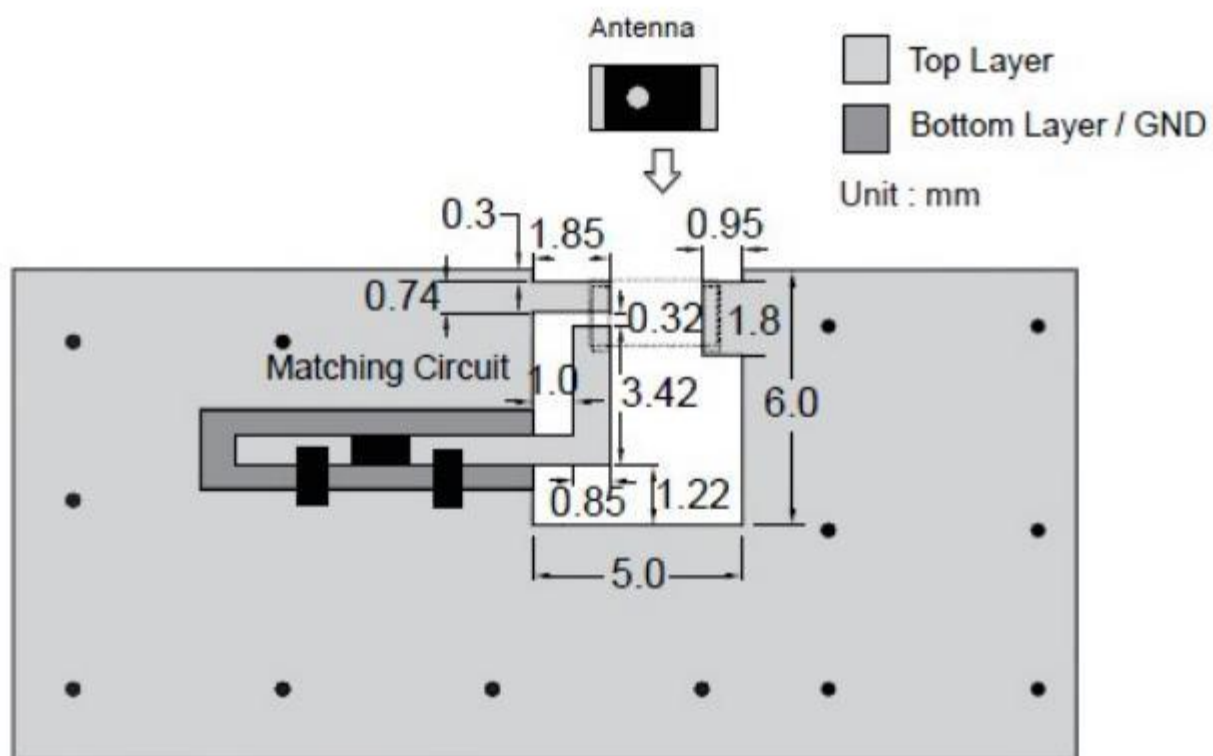
## Pin configuration

S1	Feeding Point
S2	GND

## Reference design of evaluation board

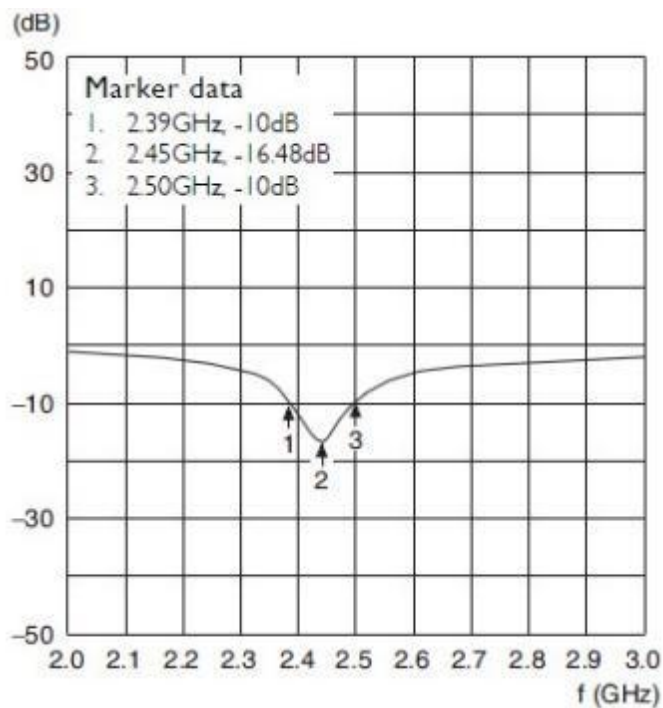


Unit : mm

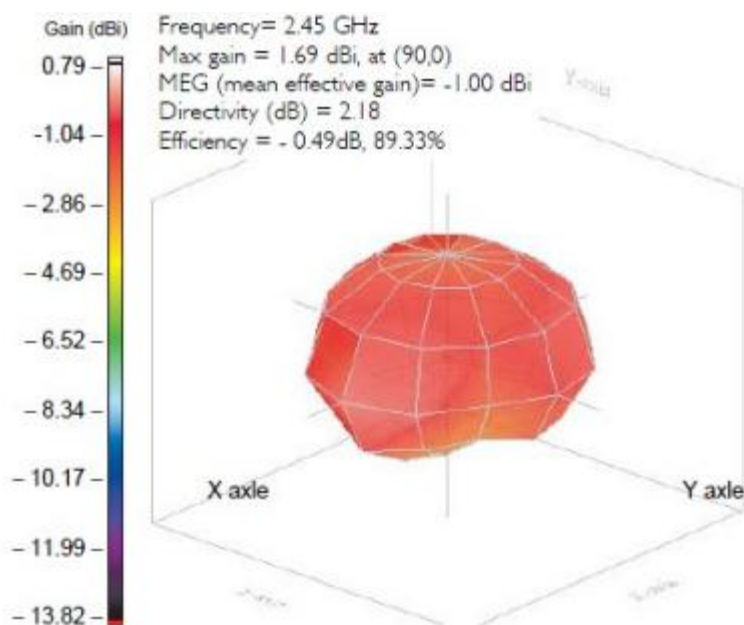


## Typical Electrical Characteristics

### Return loss



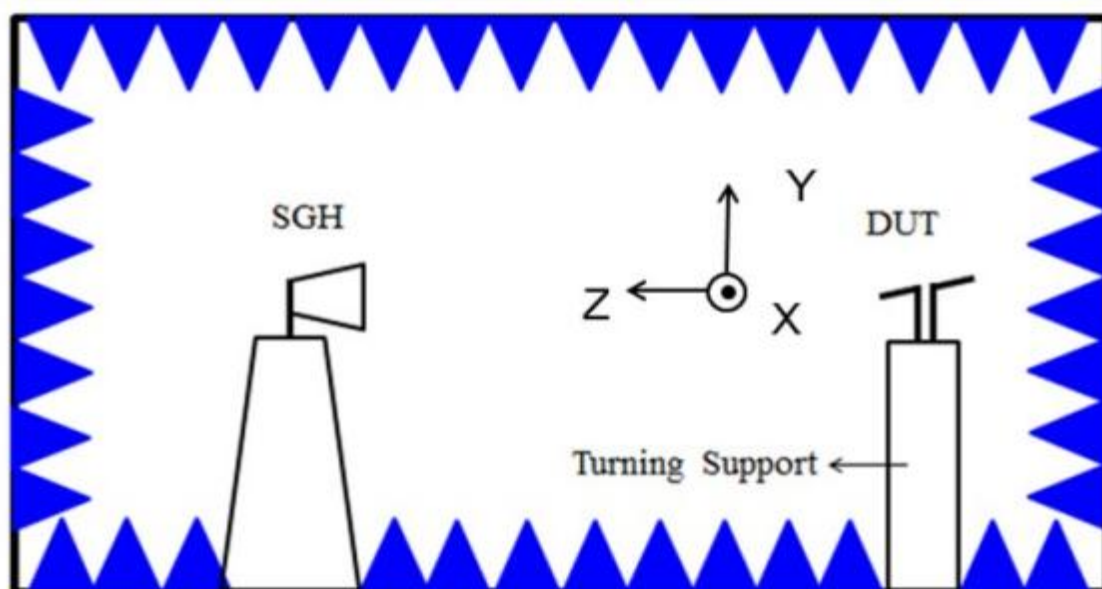
### Radiation pattern



## Efficiency table:

	Efficiency	Peak Gain
2400MHz	60.74%	1.1dBi
2450Mhz	66.37%	1.69dBi
2500MHz	55.13%	-0.55dBi

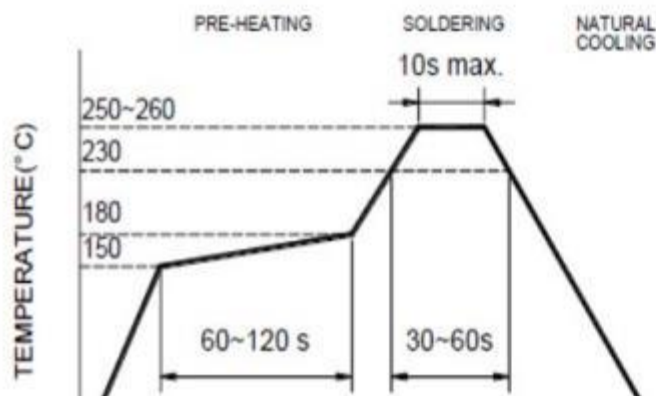
## Chamber Coordinate System



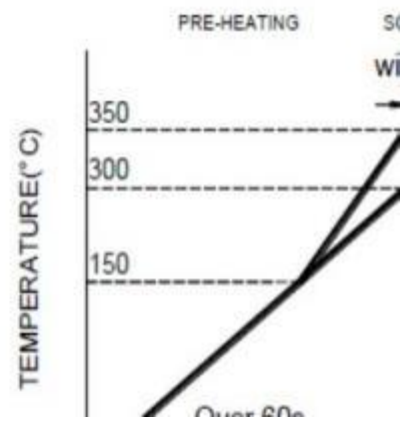
## Soldering and Mounting

Mildly activated rosin fluxes are preferred. The minimum amount of solder can lead to damage from the stresses caused by the difference in coefficients of expansion between solder, chip and substrate. The terminations are suitable for all wave and re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

### Reflow Soldering

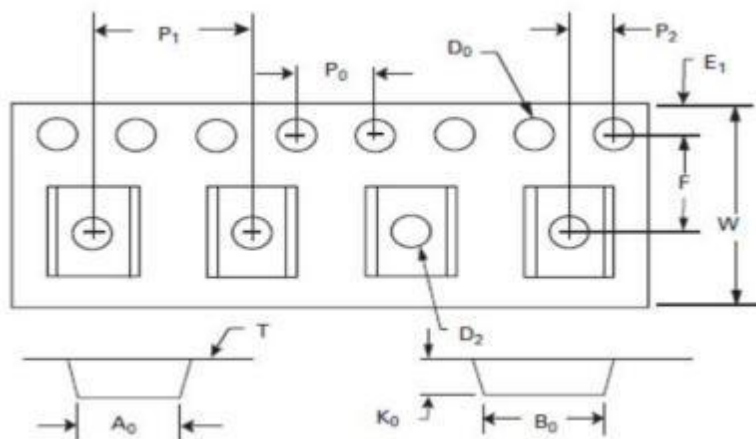


### Iron Soldering



## Packaging Information

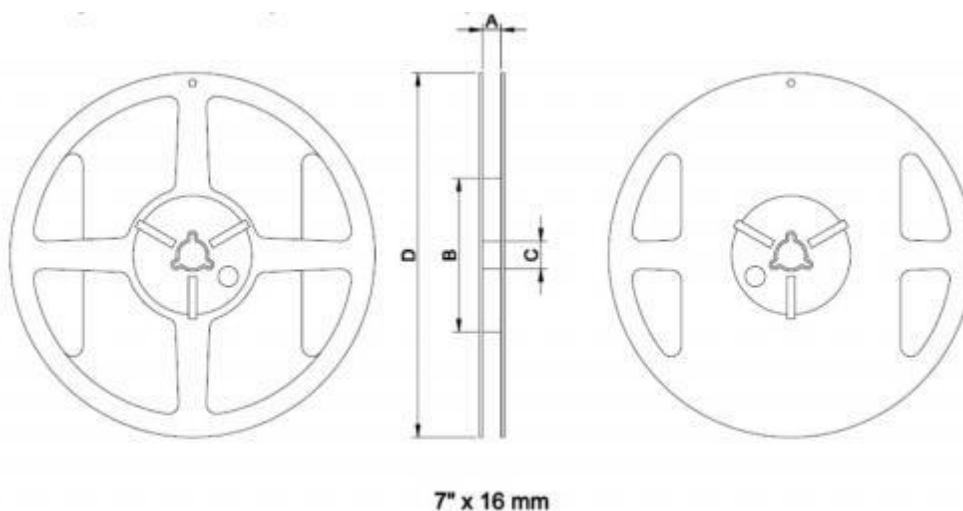
### Tape Specification:



W	F	E1	D0	D1	P0	P1	A0
12+0.2-0.3	4+/-0.05	1.75+/-0.10	1.55+/-0.05	1.00	4.00+/-0.10	4.00+/-0.10	1.95+/-0.10

B0	T	K0
3.65+/-0.10	0.25+/-0.10	0.87+/-0.1

### Reel Specification: (7", Φ180 mm)



Tape Width(mm)	A(mm)	B(mm)	C(mm)	D(mm)	Chip/Reel(pcs)
16	16±1.0	60±2	13.5±0.5	178±2	3000