

WLAN0259

**Multilayer Chip Antenna for 2.4GHz
Wireless Communication**

WLAN0259 Multilayer Chip Antenna

◆ Features

- Miniaturized size 9.5(L)x2.0(W)x1.0(H)
- Light weight and low profile
- Omni-directional in azimuth

◆ Applications

- 2.4GHz wireless communications
- Modules
- Bluetooth
- 802.11b
- Other 2.4GHz Wireless Application



Specifications

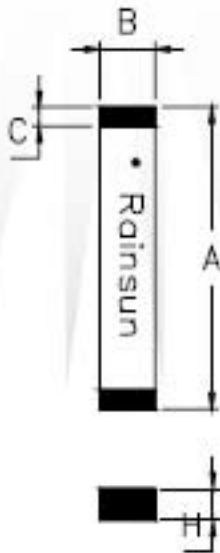
Center frequency	2.45GHZ
Peak gain	1.5dBi
Operation temperature	-40 ~ +85 °C
Storage temperature	-40 ~ +85 °C
VSWR	2.0 (Max)
Input Impedance	50 Ohm
Power handling	3W (Max)
Bandwidth	200MHz
Azimuth beamwidth	Omni-directional
Polarization	Linear

Pin configuration



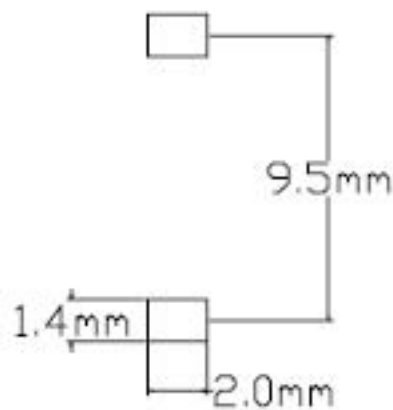
Pin No	Pin assignment
1	Feed termination
2	Feed point mark
3	Solder termination

Dimensions

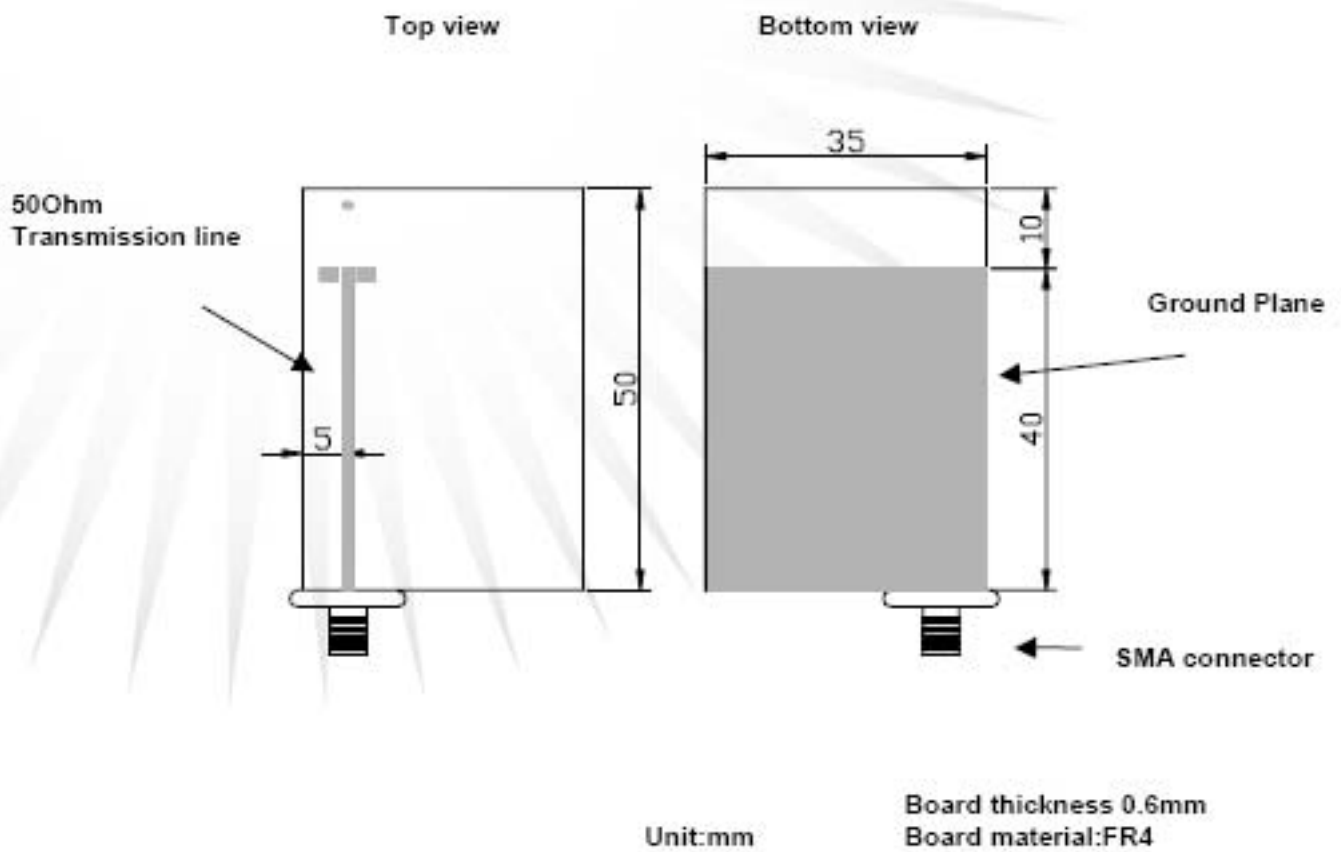


symbol	Dimensions(mm)
A	9.5 ± 0.1
B	2.0 ± 0.1
C	0.5 ± 0.1
H	1.0 ± 0.2

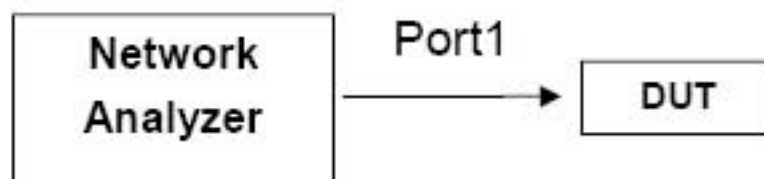
PCB foot printer



Recommend Test Board Pattern



Testing Block



Measurement



**Testing Instrument: Anritsu 37369C
VNA(Vector Network Analyzer)**

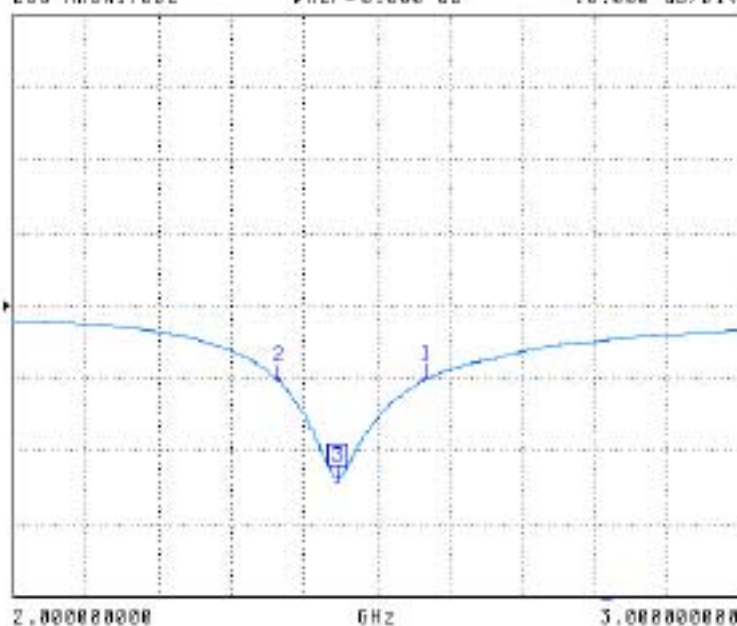
VNA calibrate with 1 path reflection only
calibration sequence on test board feed
point. The test board layout as recommend
dimension.

Measured Antenna patterns

Return loss

S22 REVERSE REFLECTION

LOG MAGNITUDE REF=0.000 dB 10.000 dB/DIV



CH 4 - S22
REFERENCE PLANE
0.000 mm

MARKER 3
2.44750000 GHz
-24.238 dB

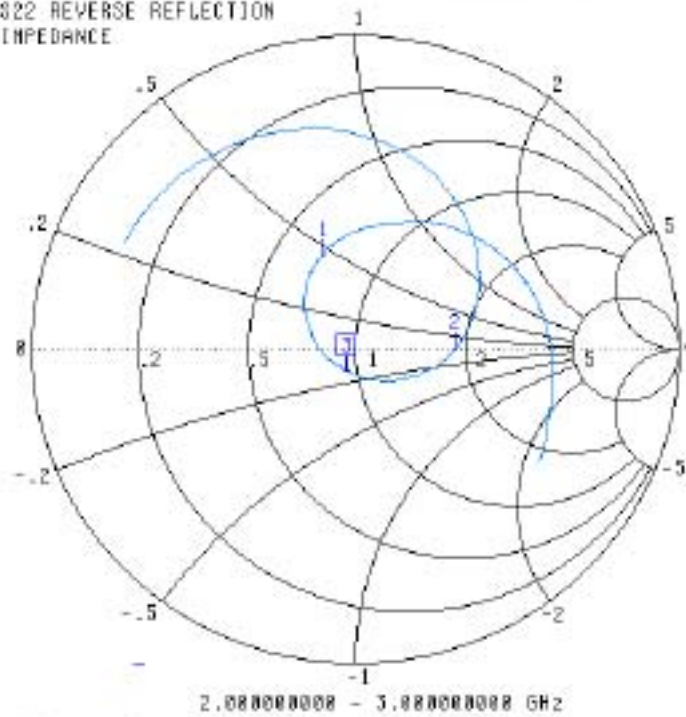
MARKER TO MAX
MARKER TO MIN

1 2.56750000 GHz
-10.236 dB
2 2.36500000 GHz
-10.203 dB

MARKER READOUT
FUNCTIONS

Smith Chart

322 REVERSE REFLECTION
IMPEDANCE



CH 4 - 322
REFERENCE PLANE
0.0000 m

MARKER 3
2.447500000 GHz
47.843 Ω
-6.770 j Ω

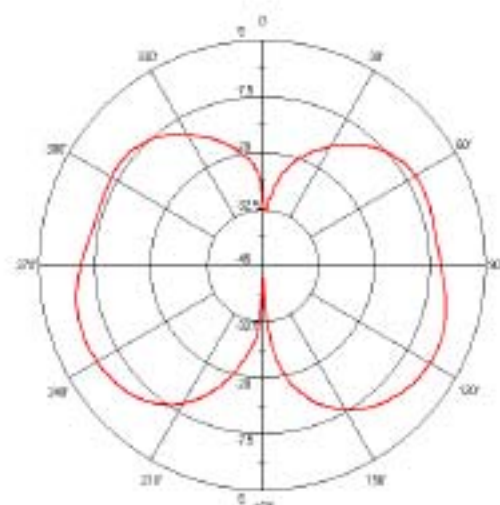
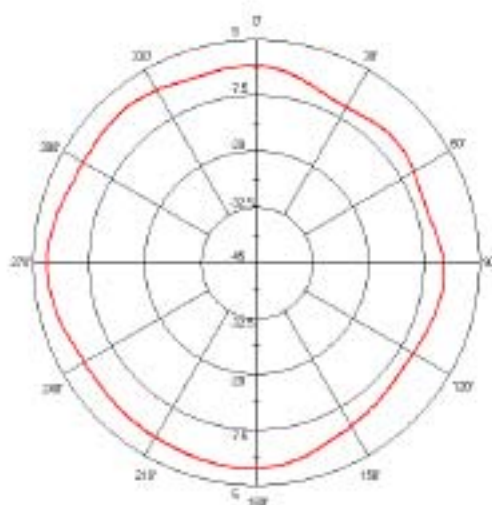
MARKER TO MAX
MARKER TO MIN

1 2.567500000 GHz
34.911 Ω
23.017 j Ω
2 2.365000000 GHz
95.356 Ω
-124.341 j Ω

MARKER READOUT
FUNCTIONS

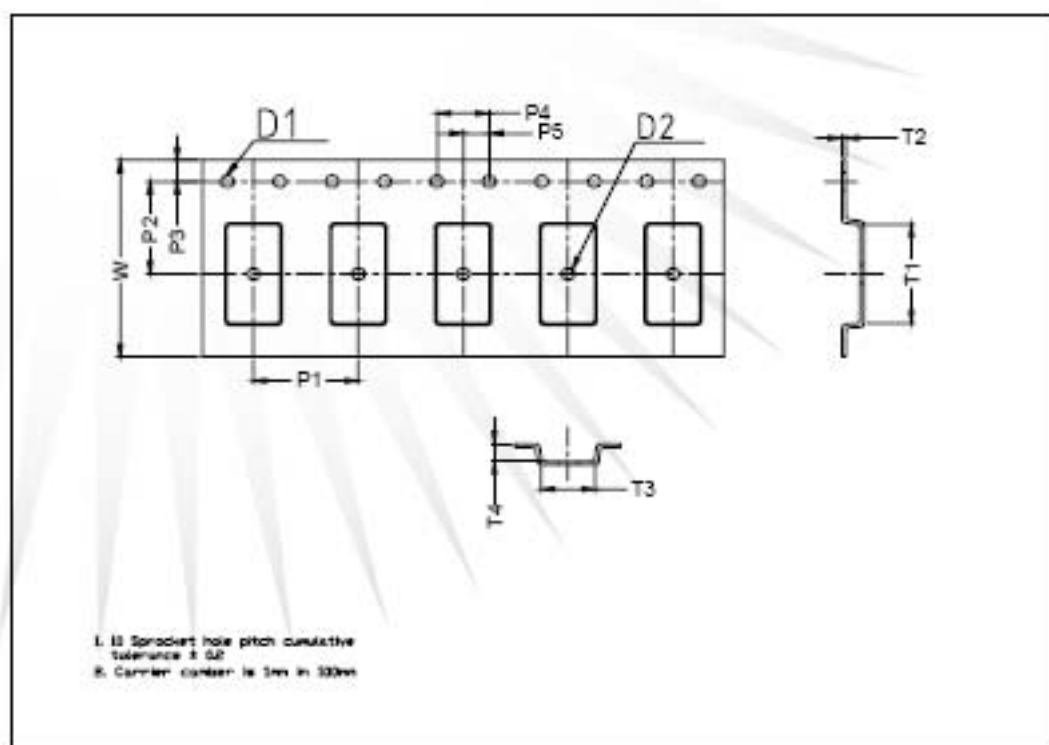
2.45 GHz H-Plane

2.45 GHz E-Plane



Packing

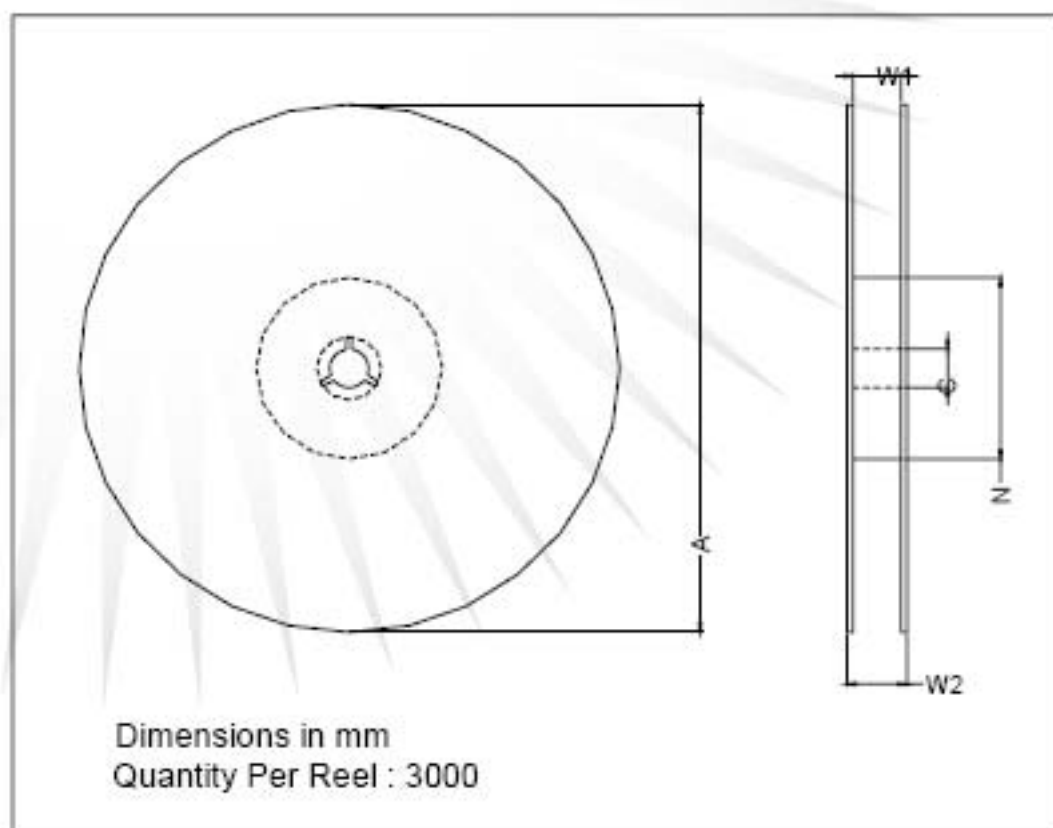
Blister Tape



Symbol	W	P1	P2	P3	P4	P5
Dimension	1.6 ± 0.3	8.0 ± 0.1	7.5 ± 0.1	1.75 ± 0.1	4.0 ± 0.1	2.0 ± 0.1
Symbol	D1	D2	T1	T2	T3	T4
Dimension	1.5 ± 0.1	1.5 ± 0.1	10.0 ± 0.1	0.3 ± 0.05	2.5 ± 0.1	1.5 ± 0.1

Dimensions in mm

Reel



Symbol	A	C	N	W1	W2
Dimension	330 ± 0.1	13.0 ± 0.5	100 ± 0.1	16 ± 0.2	20.8 ± 0.2

Dimensions in mm