AN9520

Multilayer Chip Antenna for 2.4GHz Wireless Communication

AN9520 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

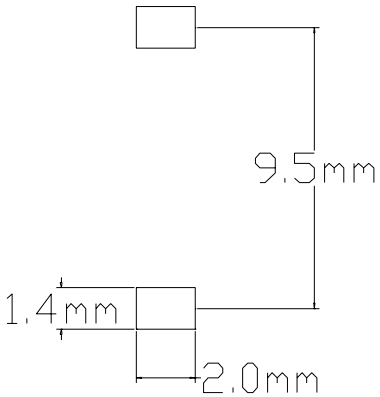
Pin configuration

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

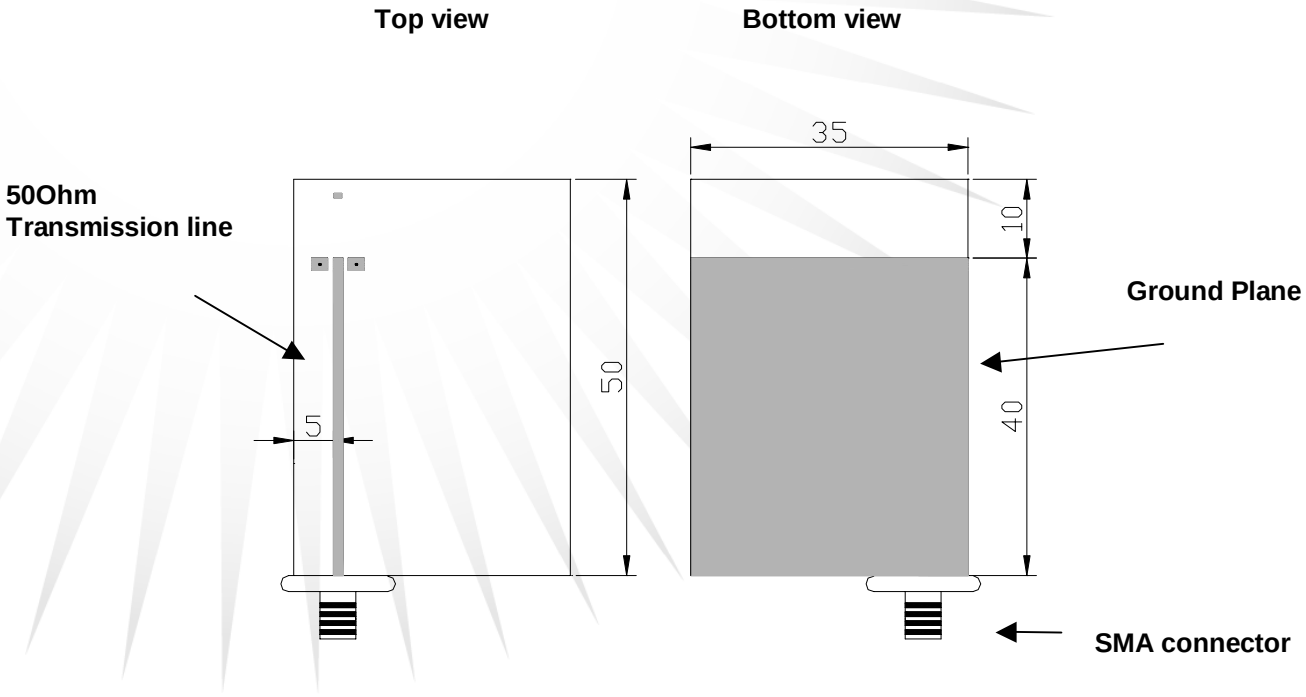
Dimensions

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



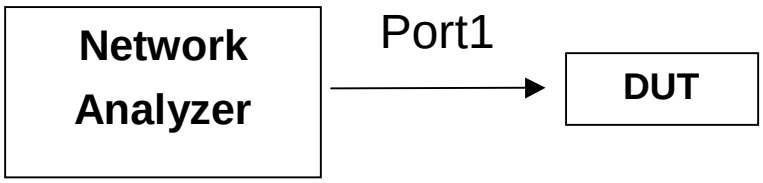
Recommend Test Board Pattern



Unit:mm

Board thickness 0.6mm
Board material:FR4

Testing Block



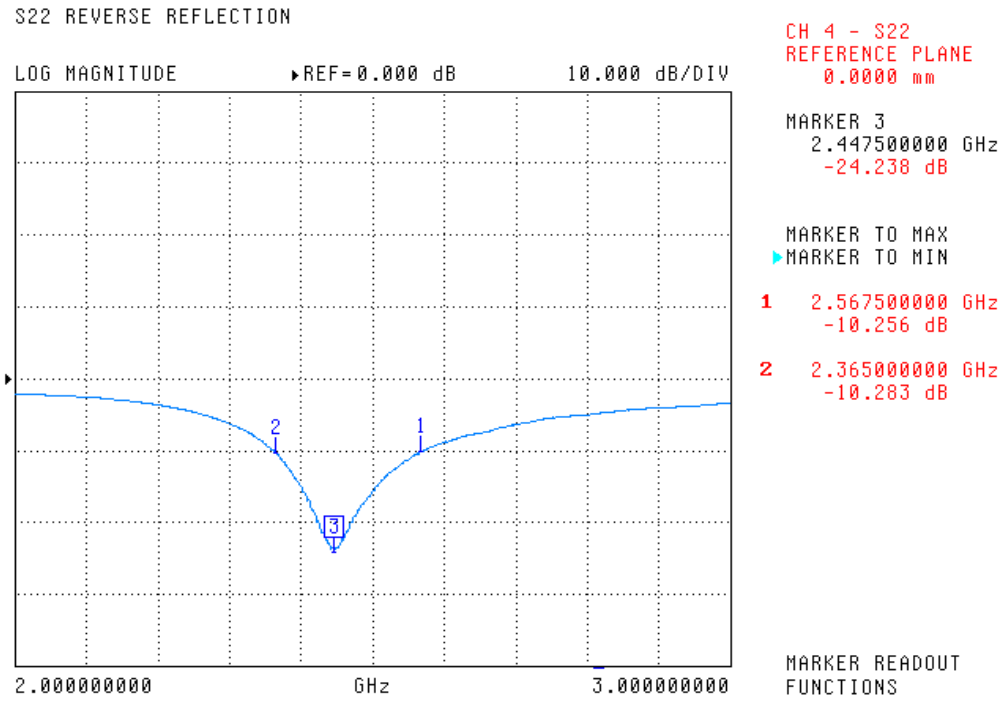
Measurement

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

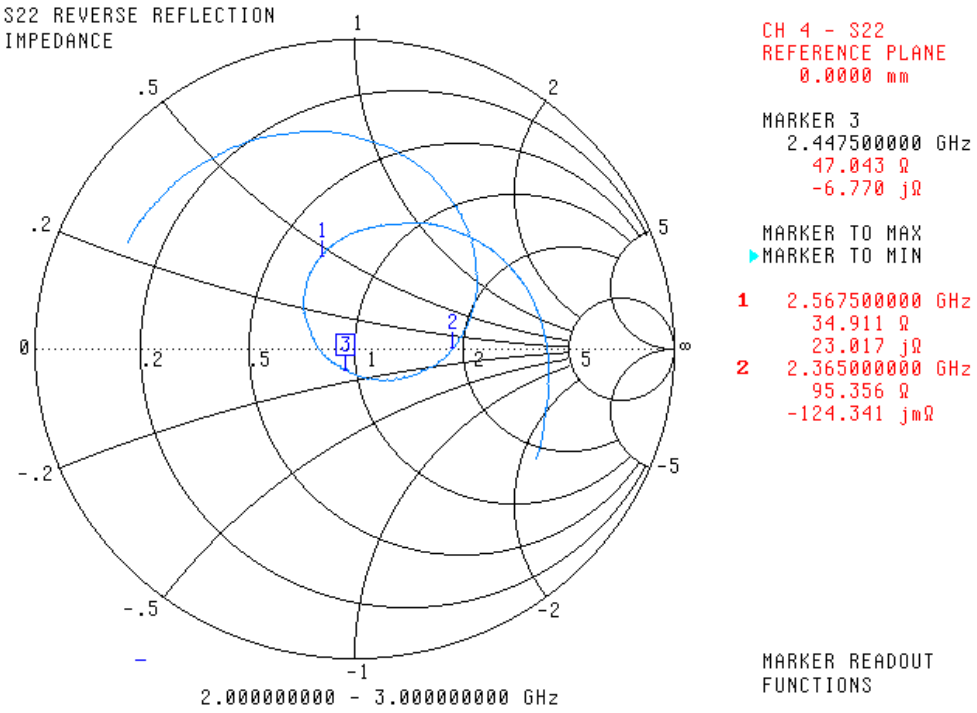
VNA calibrate with 1 path reflection only calibration sequence on test board feed point. The test board layout as recommend dimension.

Measured Antenna patterns

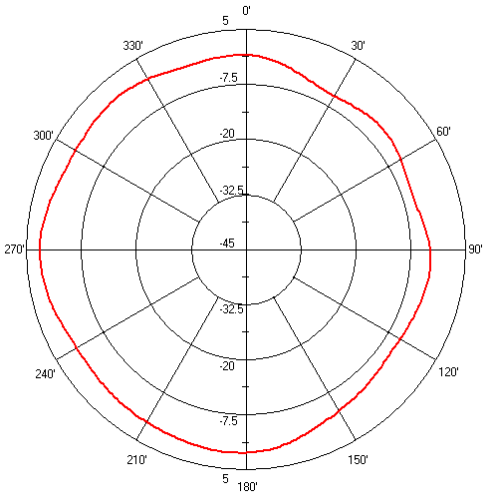
Return loss



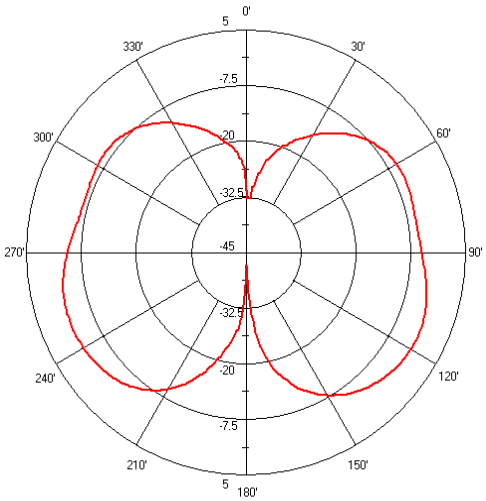
Smith Chart



2.45 GHz H-Plane

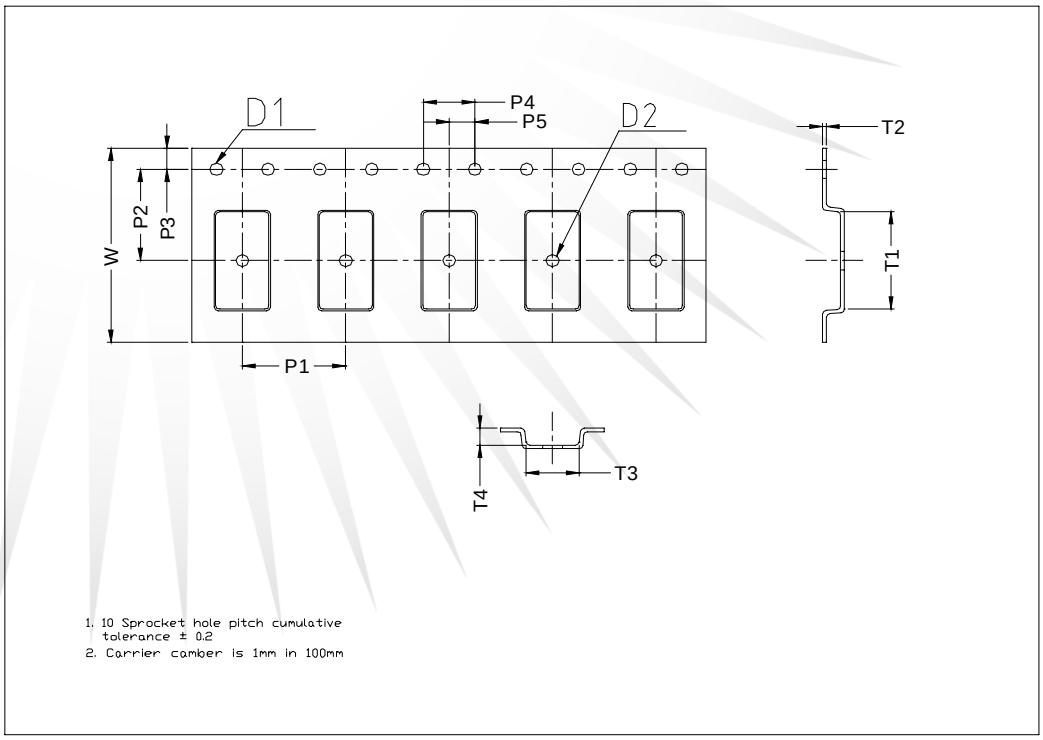


2.45 GHz E-Plane



Packing

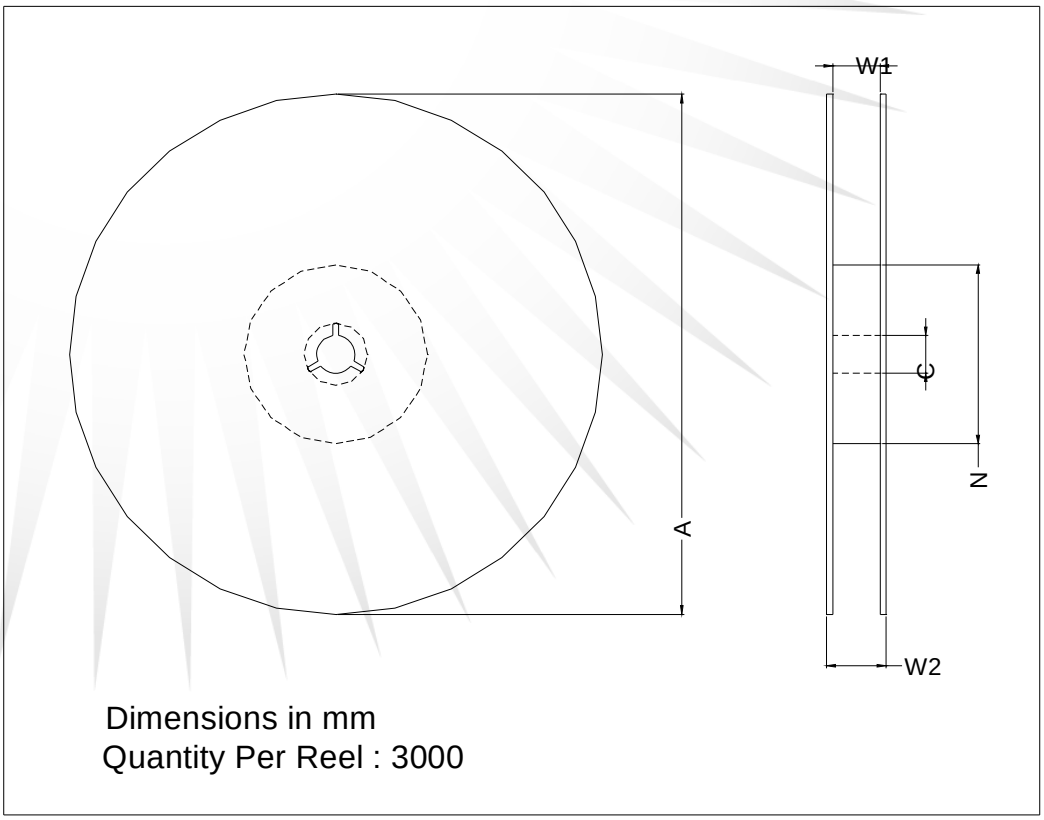
Blister Tape



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



Dimensions in mm
Quantity Per Reel : 3000

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