

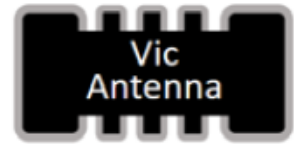
VIC SEMICONDUCTOR CO.,LIMITED

SPECIFICATION FOR APPROVAL



Features

- Higher Reliability
- SMT Process
- Meet RoHS Spec
- Thick/Thin Film and Newly Patent Process
- Higher Gain and Higher Radiation Efficiency



VCA3216K24M -----Chip Antenna

Electrical Characteristics (@TA=25 °C Unless Otherwise Noted)

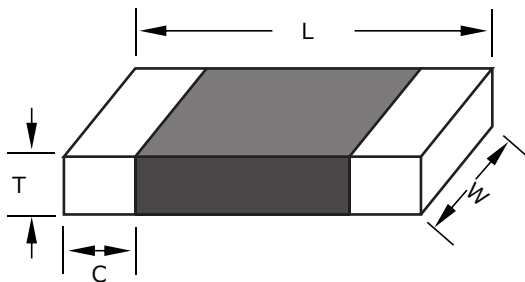
Parameter	Specification	
Frequency	2400-2500MHz	5150-5850MHz
Bandwidth	100MHz	700MHz
*Peak Gain	2.2dBi	2.8dBi
*Peak Efficiency	85.30%	76.4%
Impedance	50Ω	50Ω
Maximum Power	3.5	2.8W
VSWR	≤2	
Polarization	Linear	

* Test condition: Test board size 98*65 mm; Matching circuit: Pi matching circuit will be required

Absolute Maximum Ratings

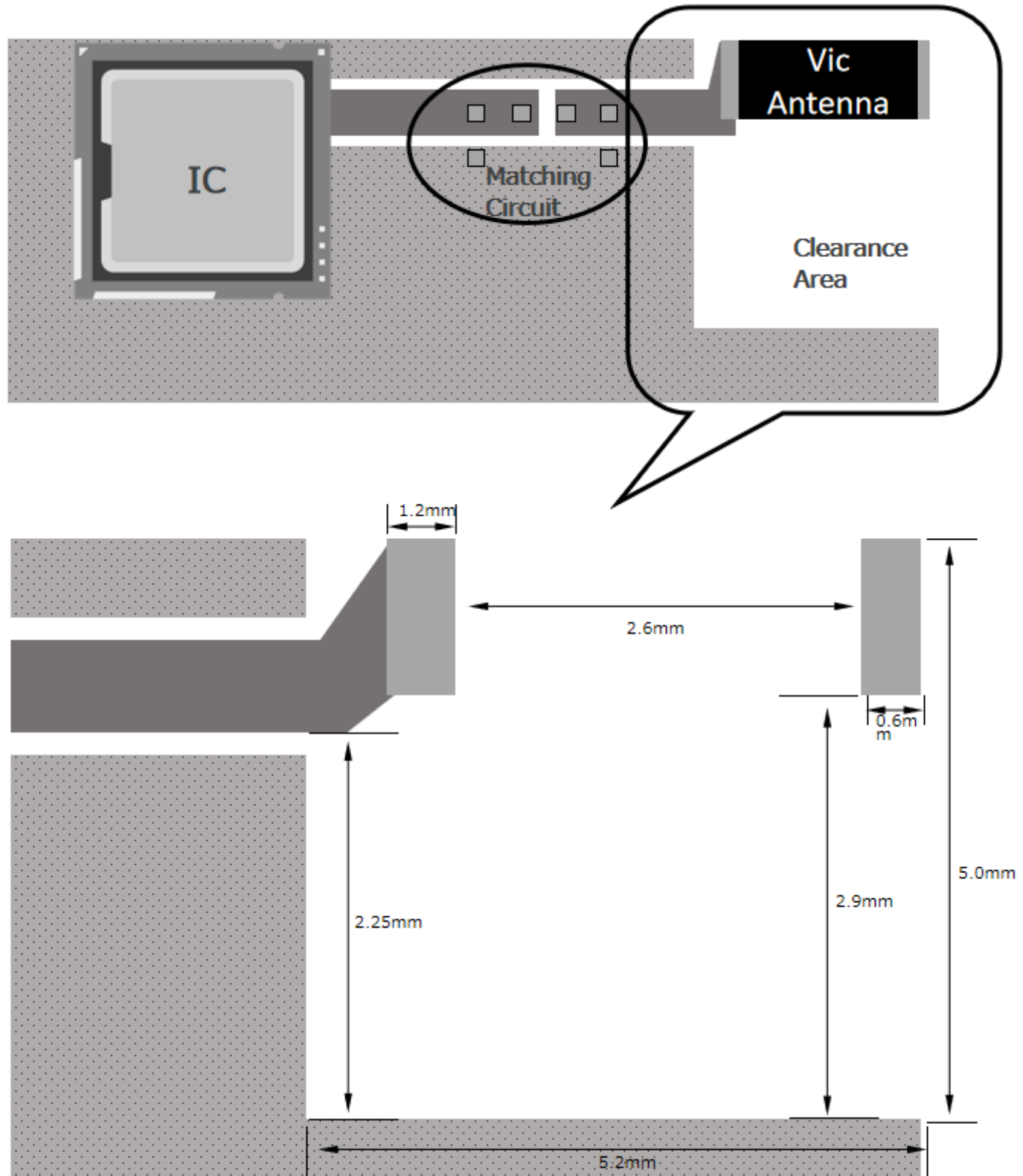
Parameter	Symbol	Value	Unit
Maximum Operating temperature	T _{OPER}	-40 to +90	°C
Maximum Storage temperature	T _{STG}	-55 to +125	°C
Maximum lead temperature for soldering during 10s	T _L	260	°C

Product Dimension



Dimension	MM (INCHES)
L	3.2 ± 0.2 (0.126 ± 0.008)
W	1.6 ± 0.2 (0.063 ± 0.008)
T	0.9 ± 0.2 (0.035 ± 0.008)
C	0.5 ± 0.3 (0.02 ± 0.012)

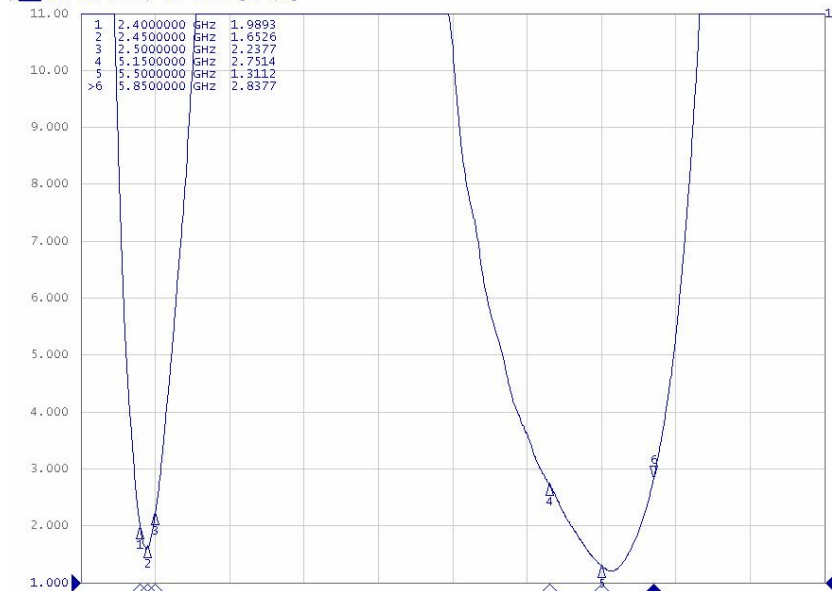
Recommended PCB layout



Characteristics

Fig.1 VSWR

S22 SWR 1.000/ Ref 1.000 [F1 D/M]

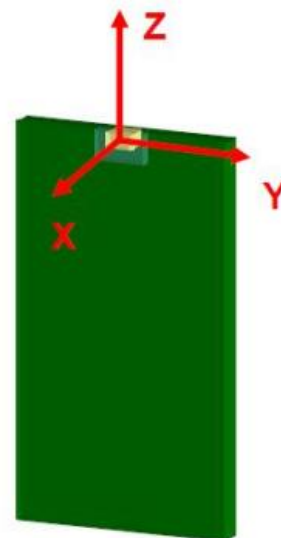
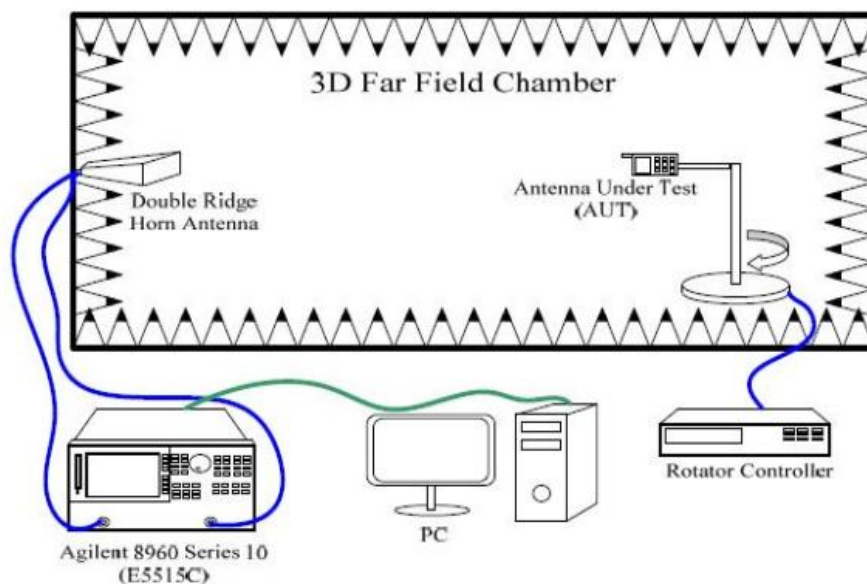


Frequency (MHz)	VSWR
2400	2.0
2450	1.7
2500	2.2
5150	2.8
5500	1.3
5850	2.8

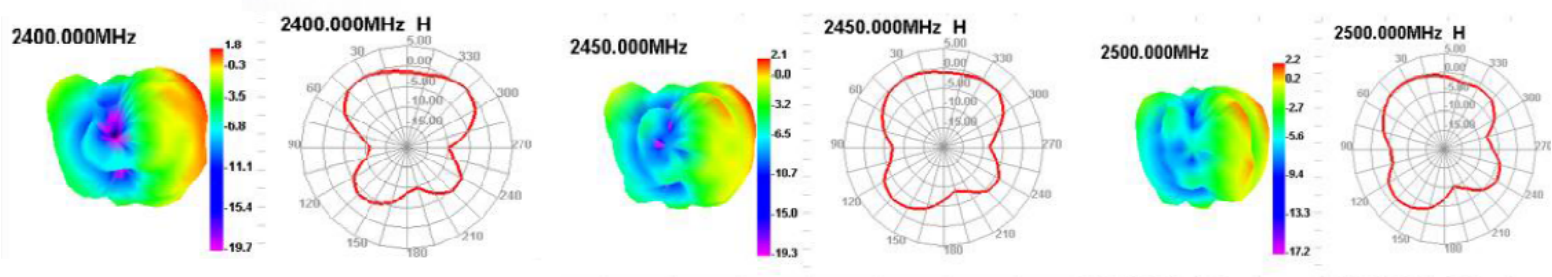
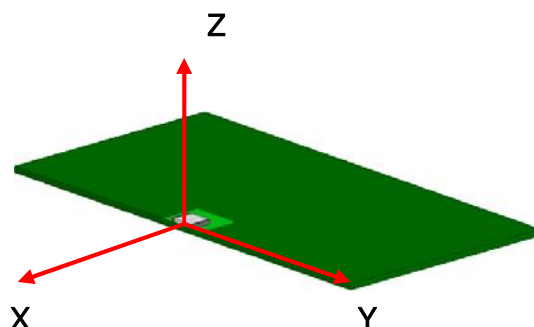
Radiation Pattern

The Gain pattern is measured in Xunjing's FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.

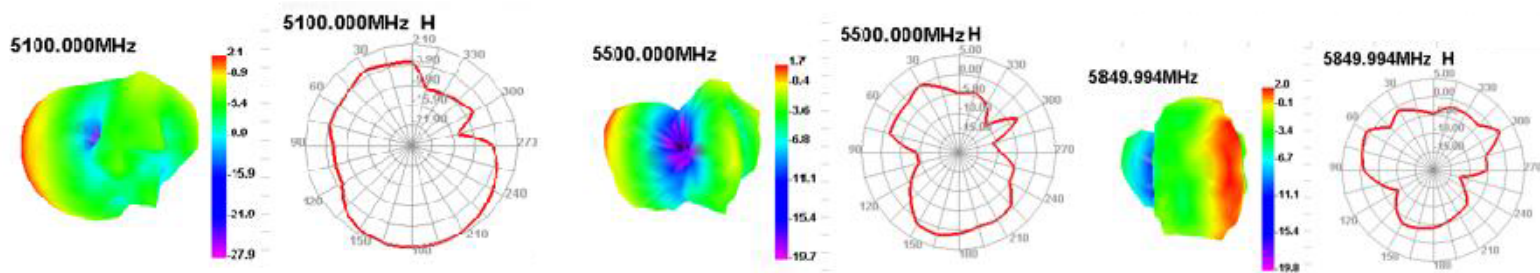
Fig.2 FAR-field Chamber



3D Gain Pattern (2400 -2500MHz)



3D Gain Pattern (5100-5850 MHz)

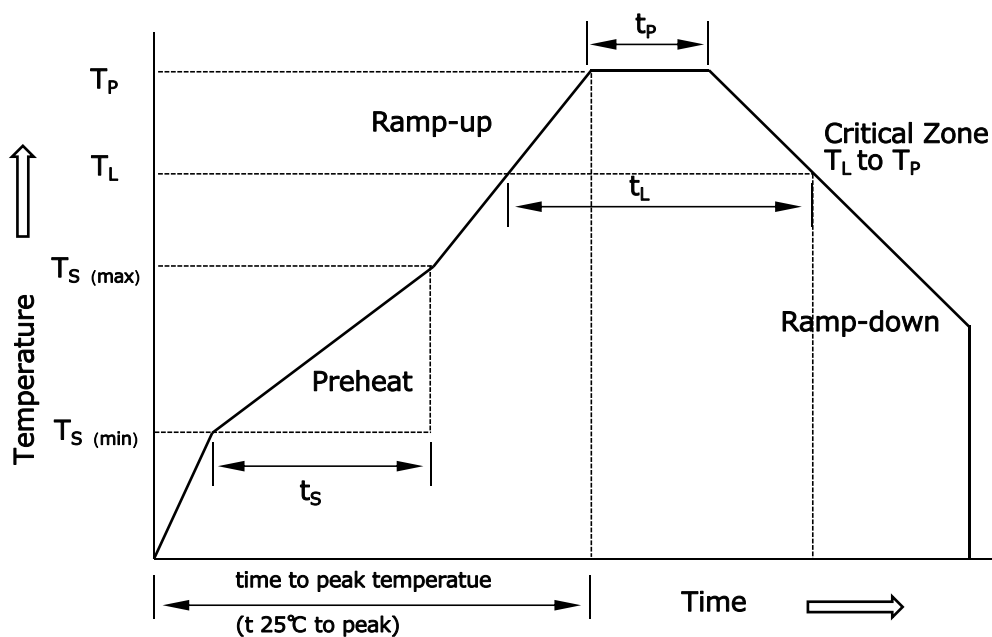




VCA3216Y25TB ----- Multilayer chip Antenna

Recommendable reflow soldering

Profile Feature	Pb-Free Assembly
Average Ramp-UP Rate (T _{smax} to T _p)	3 °C/secondmax.
Preheat -Temperature Min(T _{smin}) -Temperature Max(T _{smax}) -Time(T _{smin} to T _{smax})	150 °C 200 °C 60-180seconds
Time maintained above: -Temperature(T _L) -Time(t _L)	217 °C 60-150 seconds
Peak/Classification Temperature(T _p)	260°C
Time within 5°C of actual Peak Temperature(tp)	20-40 seconds
Ramp-Down Rate	6°C/secondmax.
Time 25°C to Peak Temperature	8 minutes max.

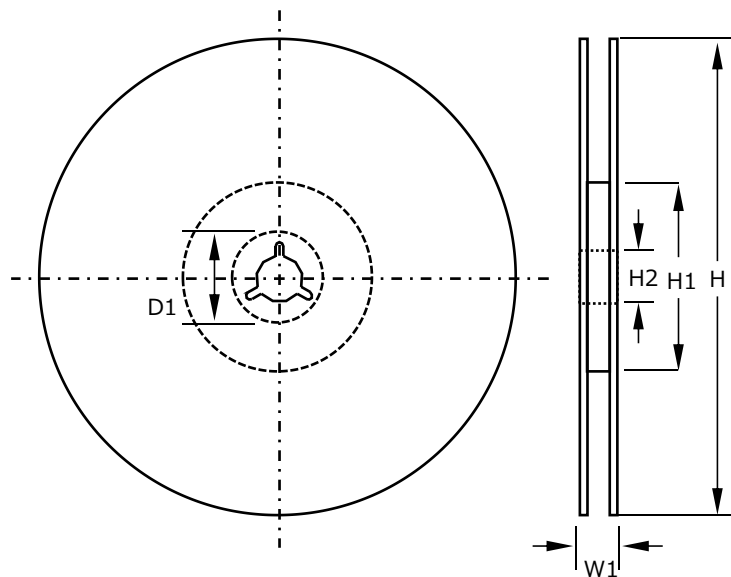
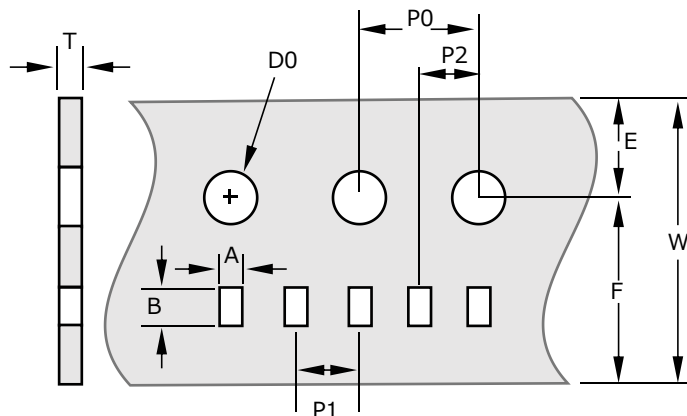




VCA3216Y25TB ----- Multilayer chip Antenna

Packaging Information

Symbol	1206(3216)
A	1.88 ± 0.03 (0.074 ± 0.001)
B	3.50 ± 0.03 (0.138 ± 0.001)
E	1.75 ± 0.10 (0.069 ± 0.004)
F	3.5 ± 0.05 (0.138 ± 0.002)
P0	4.00 ± 0.10 (0.157 ± 0.004)
P1	4.00 ± 0.10 (0.157 ± 0.004)
P2	2.00 ± 0.05 (0.079 ± 0.002)
D0	1.50 ± 0.10 (0.059 ± 0.004)
W	8.00 ± 0.30 (0.315 ± 0.012)
T	1.5 ± 0.03 (0.059 ± 0.001)
D1	21.00 ± 0.80 (0.827 ± 0.032)
H	180.00 ± 2.00 (7.087 ± 0.079)
H1	62.0 ± 1.5 (2.44 ± 0.059)
H2	13.00 ± 1.00 (0.512 ± 0.039)
W1	13.0 ± 1.00 (0.512 ± 0.039)



DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Quantity of products in the taping package

- (1) Standard quantity : 5,000 pcs/Reel for the Series.
- (2) Shipping quantity is a multiple of standard quantity.
- (3) For additional information, please contact your local Sales Representative.