



Features

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



VCA3216K24L ----- Chip Antenna

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

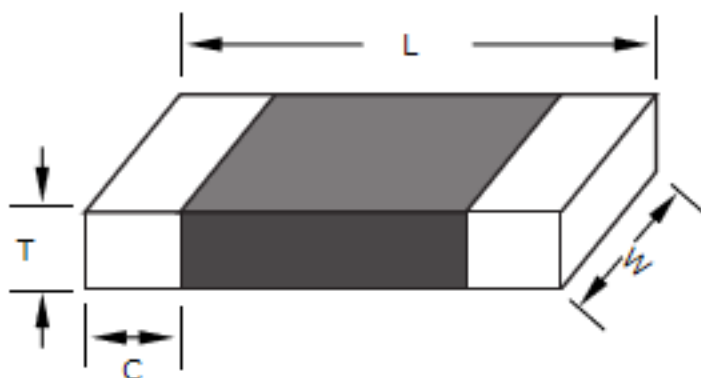
Parameter	Specification	Units
Frequency	2450	MHz
Bandwidth	100 (Min.)	MHz
*Peak Gain	2.48	dBi
*Peak Efficiency	73.60%	%
Impedance	50	Ω
Maximum Power	4	W
VSWR	≤ 2	
Polarization	Linear	

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

Absolute Maximum Ratings

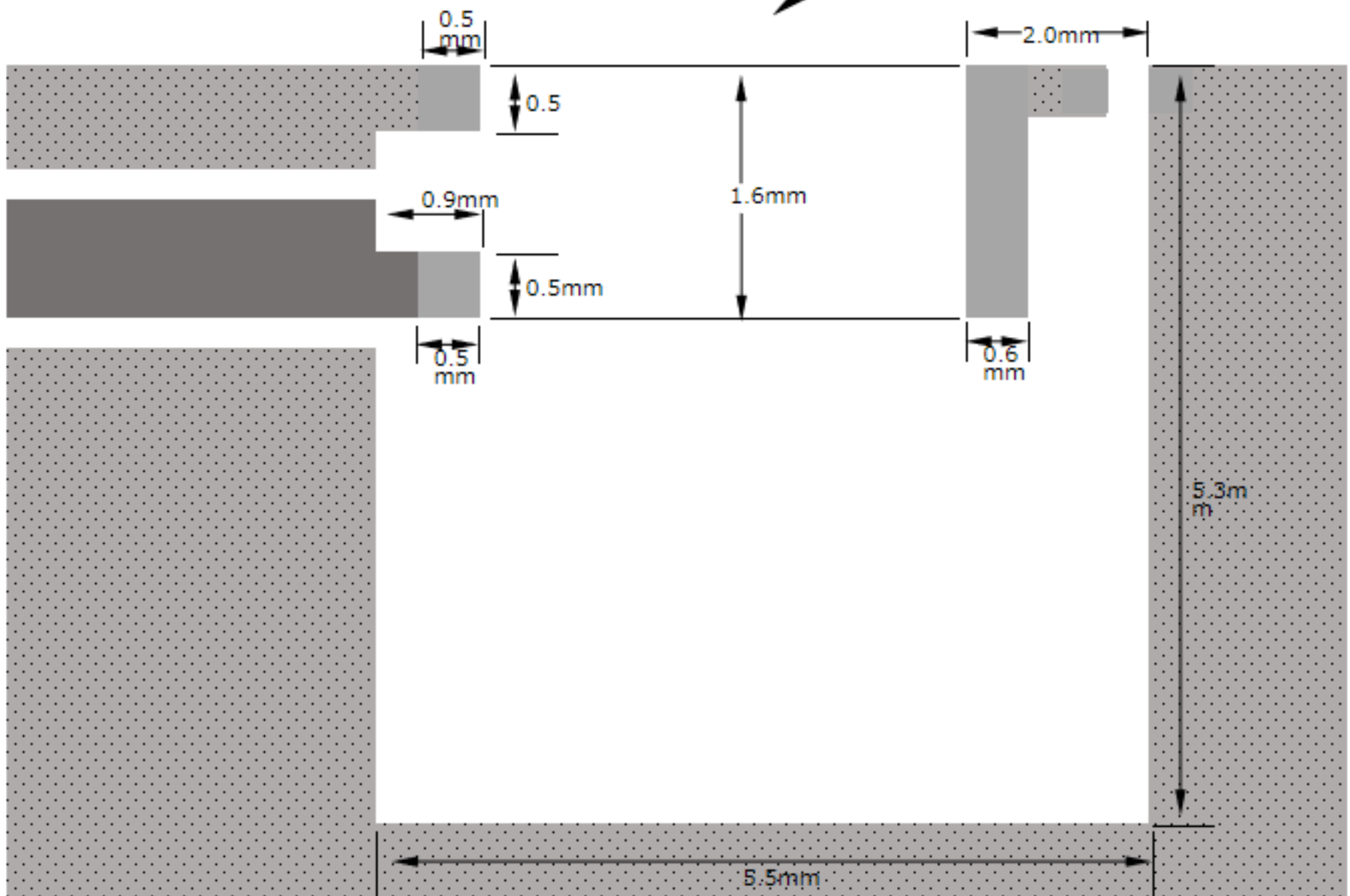
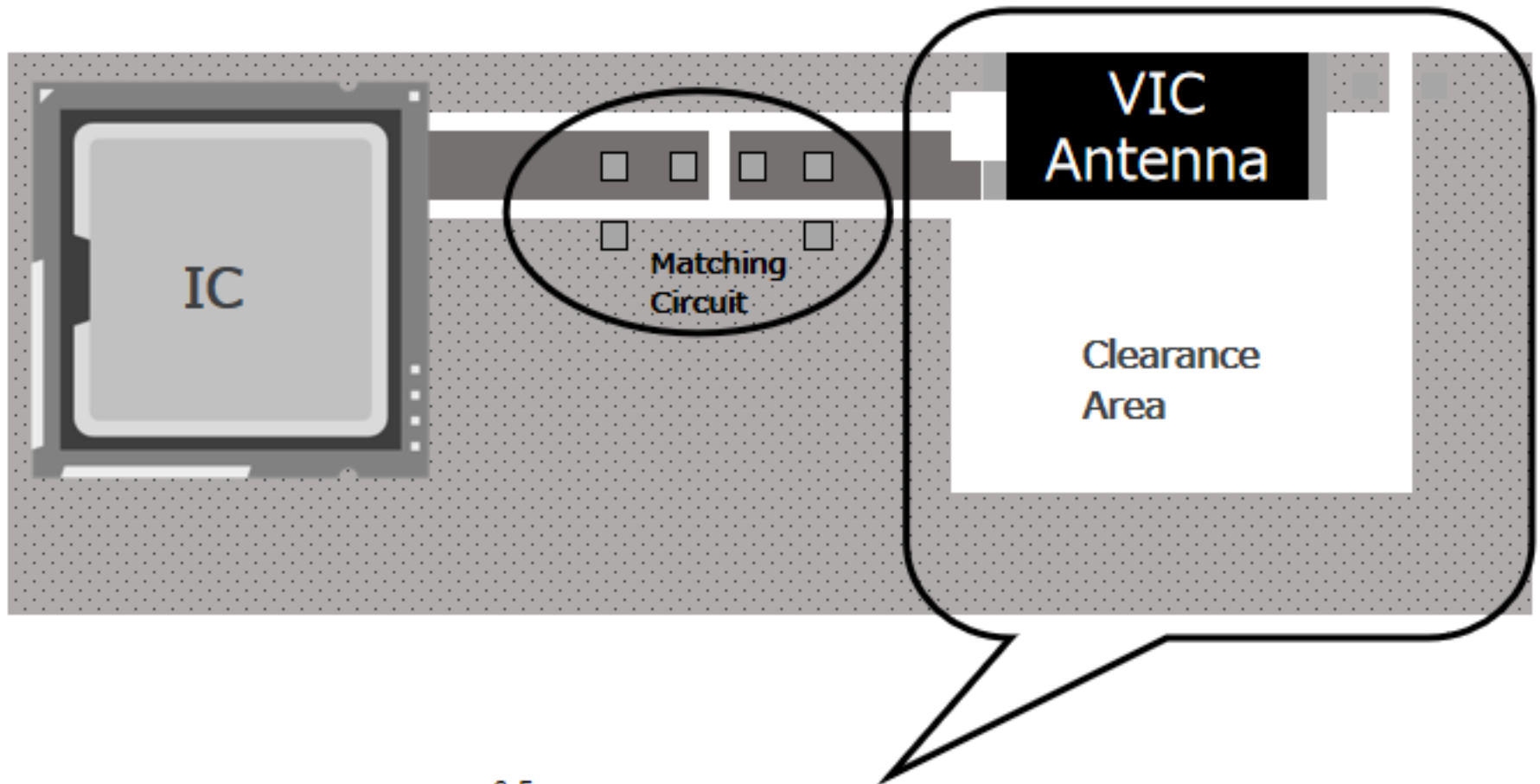
Parameter	Symbol	Value	Unit
Maximum Operating temperature	T _{OPER}	-40 to +90	°C
Maximum Storage temperature	T _{STG}	-55 to +125	°C
Maximum lead temperature for soldering during 10s	T _L	260	°C

Product Dimension



Dimension	MM (INCHES)
L	$\frac{3.2 \pm 0.2}{(0.126 \pm 0.008)}$
W	$\frac{1.6 \pm 0.2}{(0.063 \pm 0.008)}$
T	$\frac{0.7 \pm 0.2}{(0.03 \pm 0.008)}$
C	$\frac{0.5 \pm 0.3}{(0.02 \pm 0.012)}$

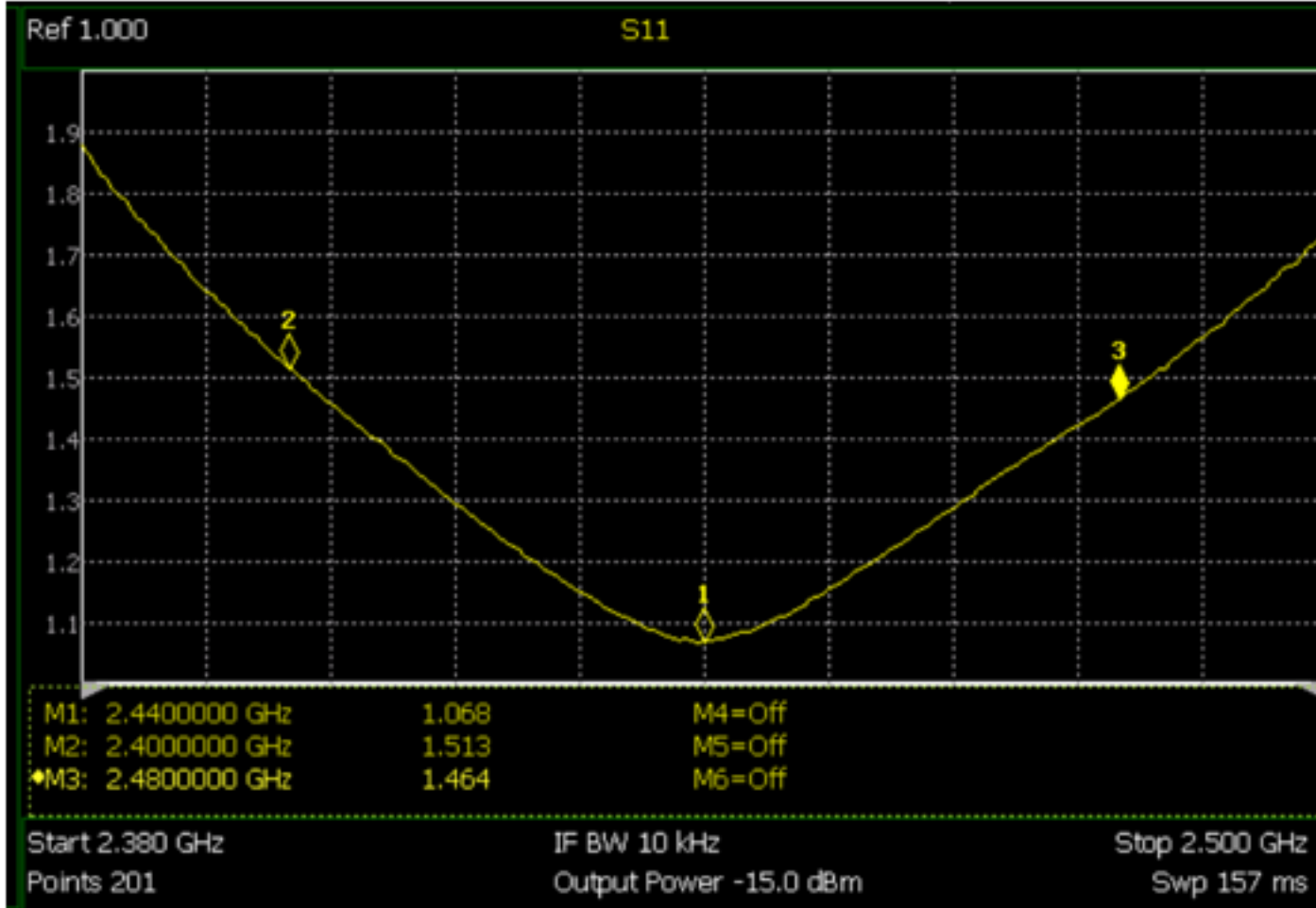
Recommended PCB layout



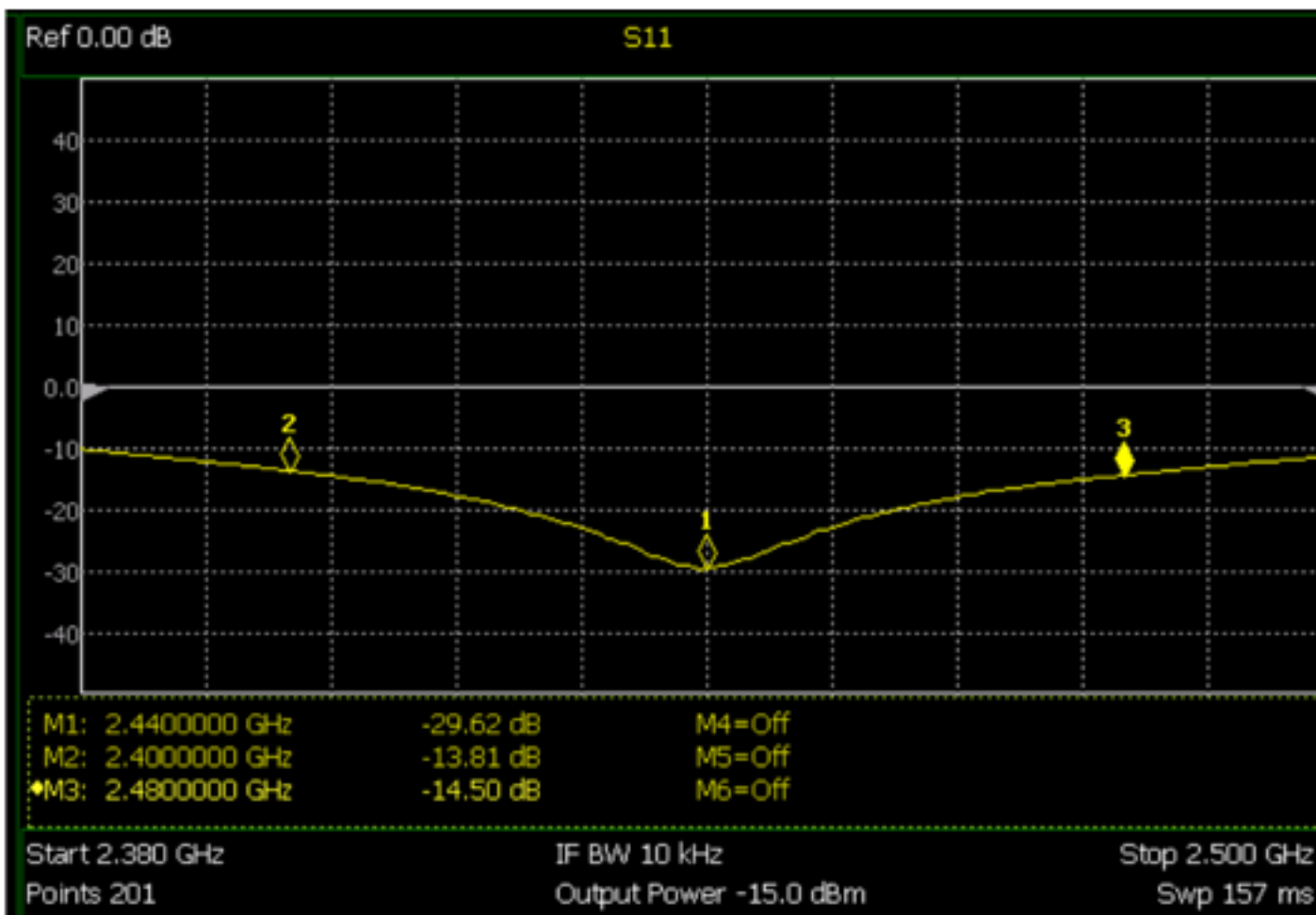


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VSWR

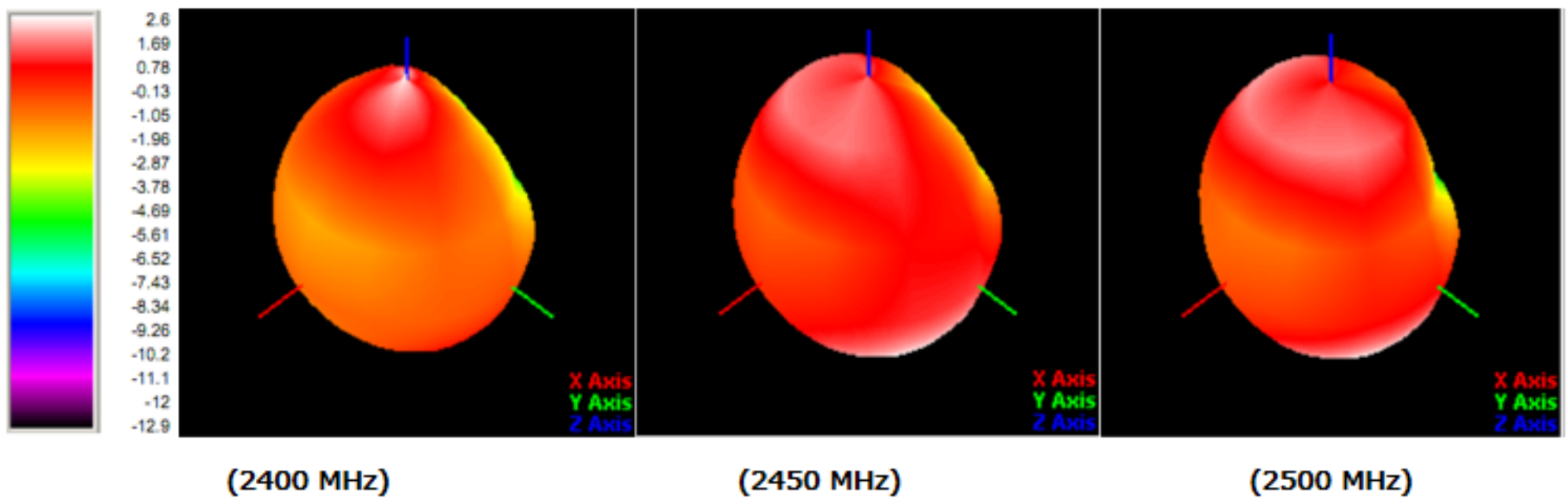
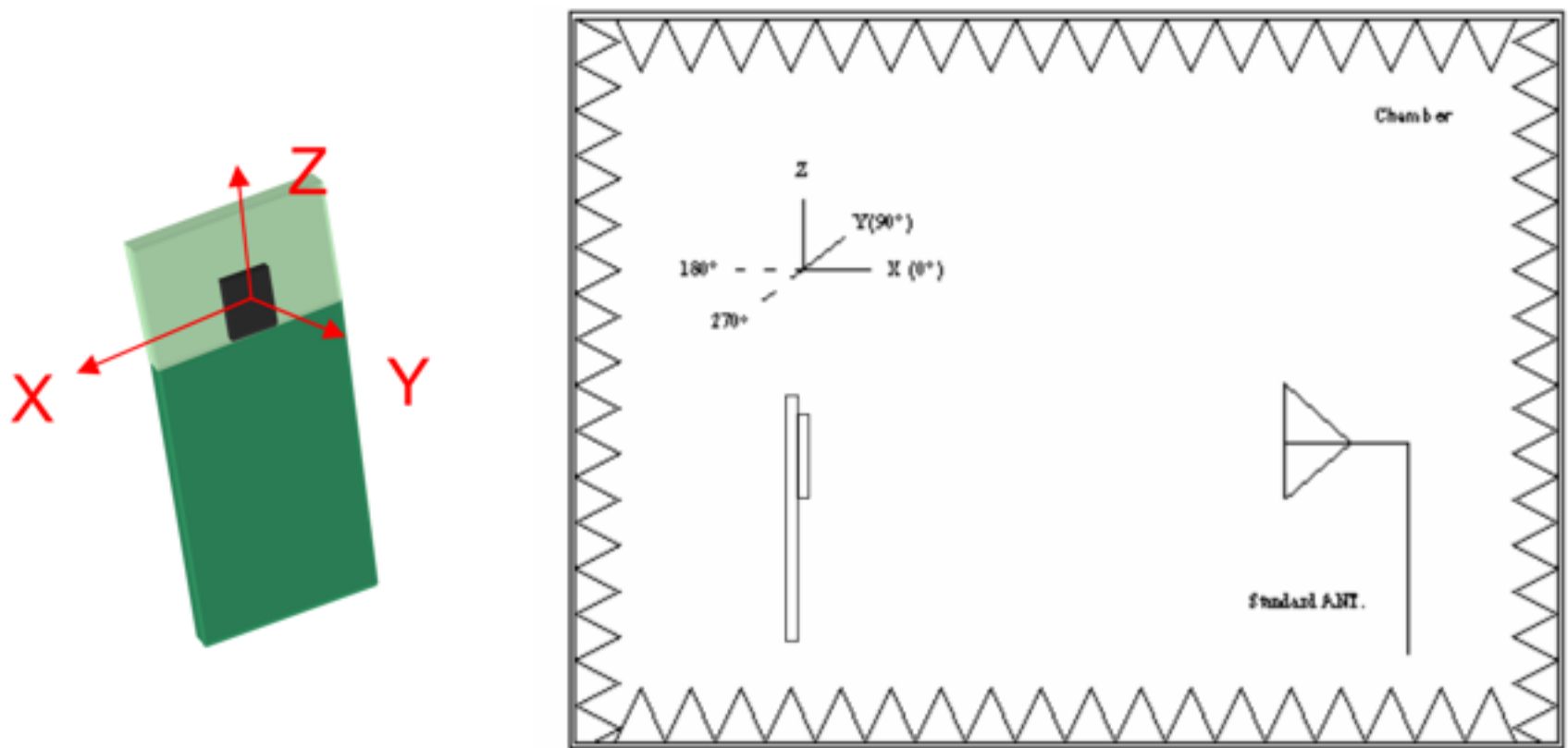


Return Loss



3D Gain Pattern

The Gain pattern was measuring in Vic's FAR-field chamber. DUT will be placed on the table of rotator, a standard horn antenna and Vector Network Analyzer was using to collected data. (Please contact to Vic for more detail)

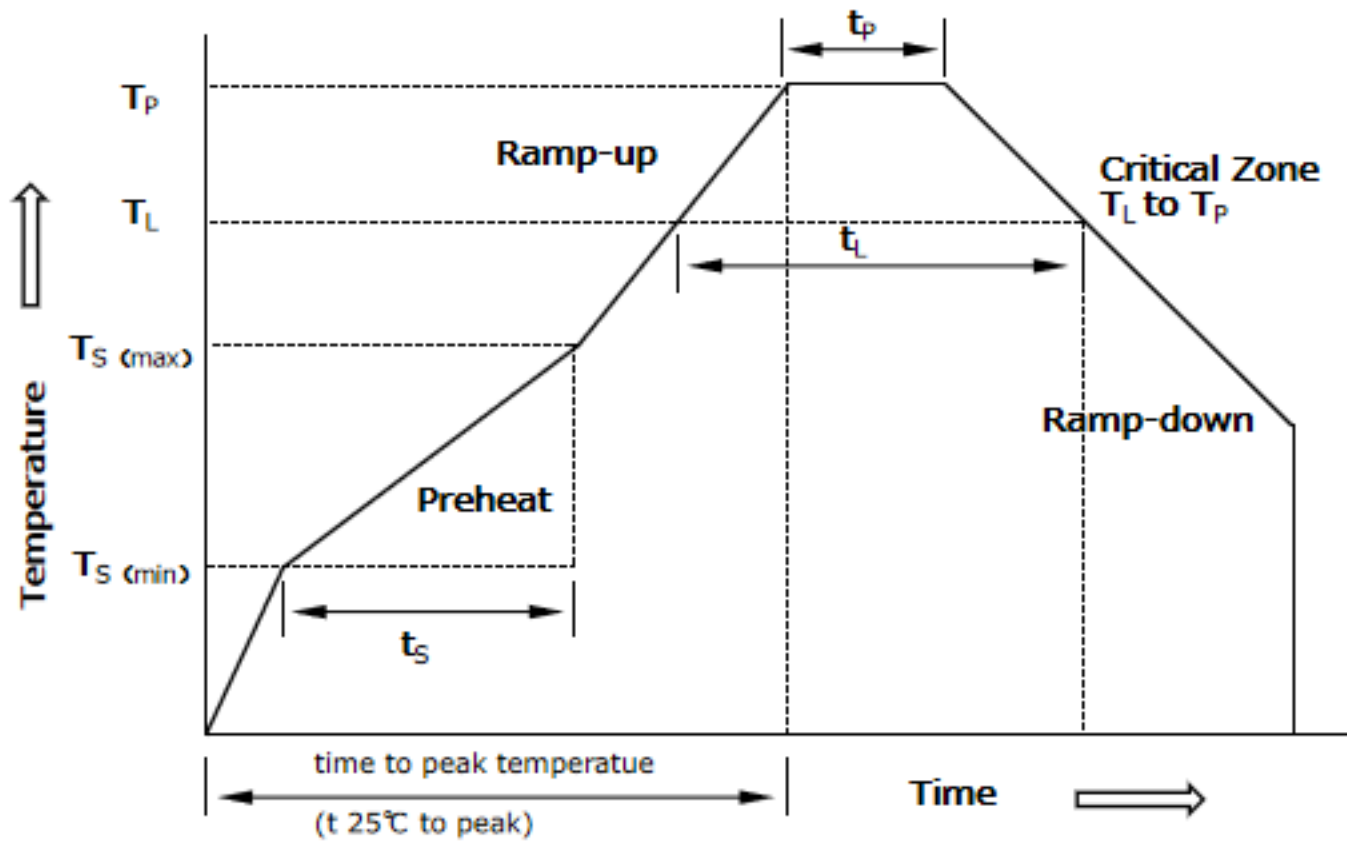




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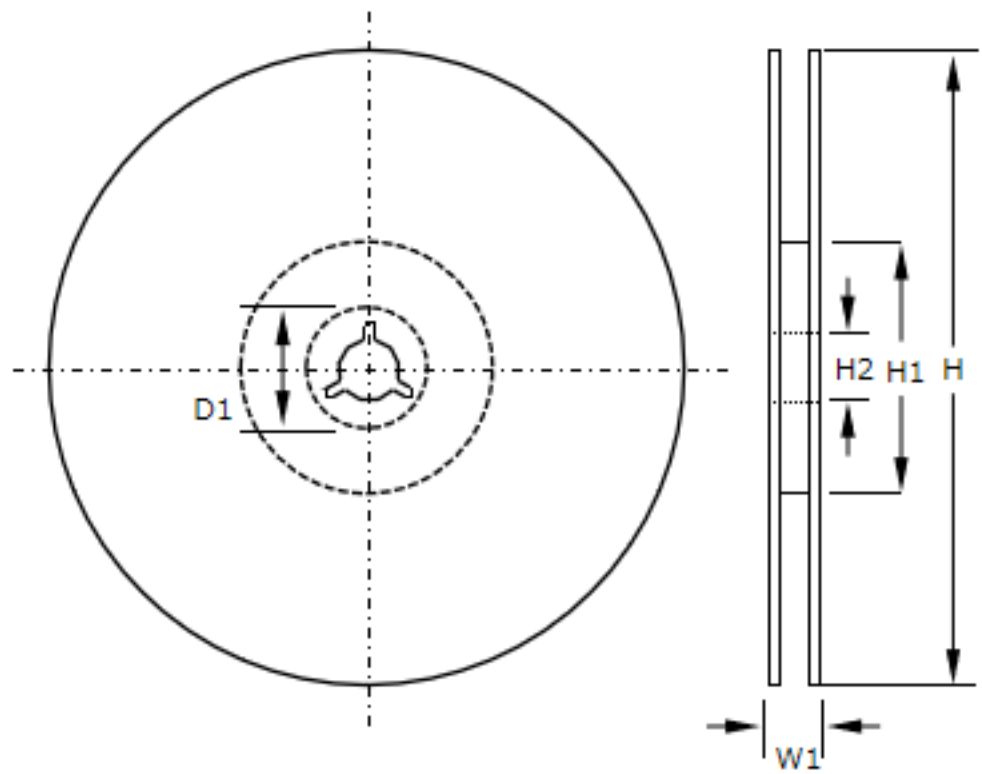
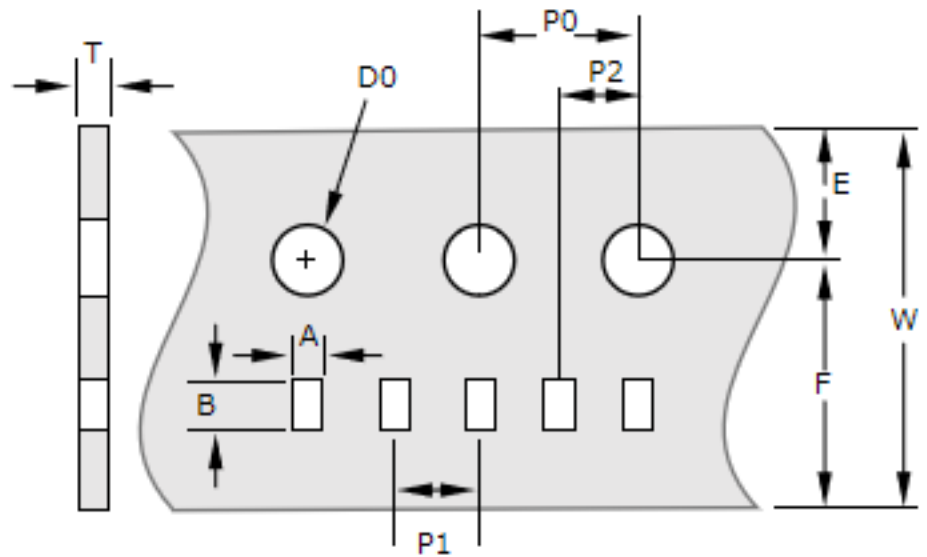
Recommendable reflow soldering

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(t _p)	20-40 seconds
Ramp-Down Rate	6°C/secondmax.
Time 25°C to Peak Temperature	8 minutes max.



Packaging Information

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



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.