

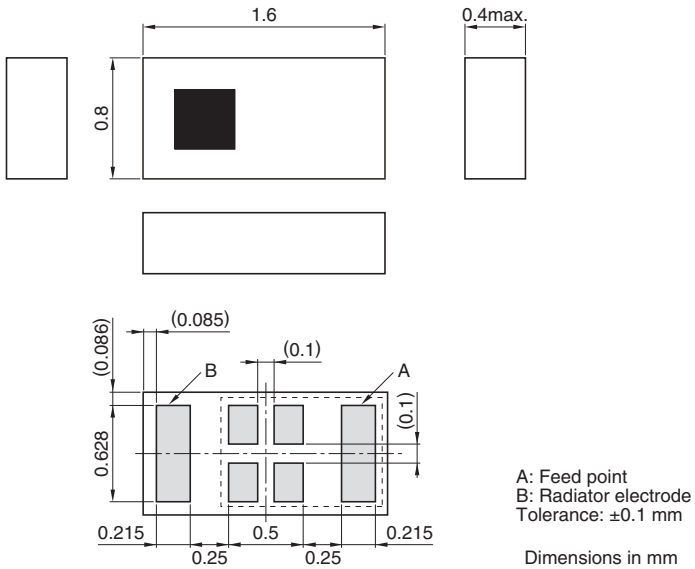
Multilayer Chip Antennas

For 2.4GHz band

Conformity to RoHS Directive
Halogen-free

ANT Series ANT016008LCS2442MA1

SHAPES AND DIMENSIONS



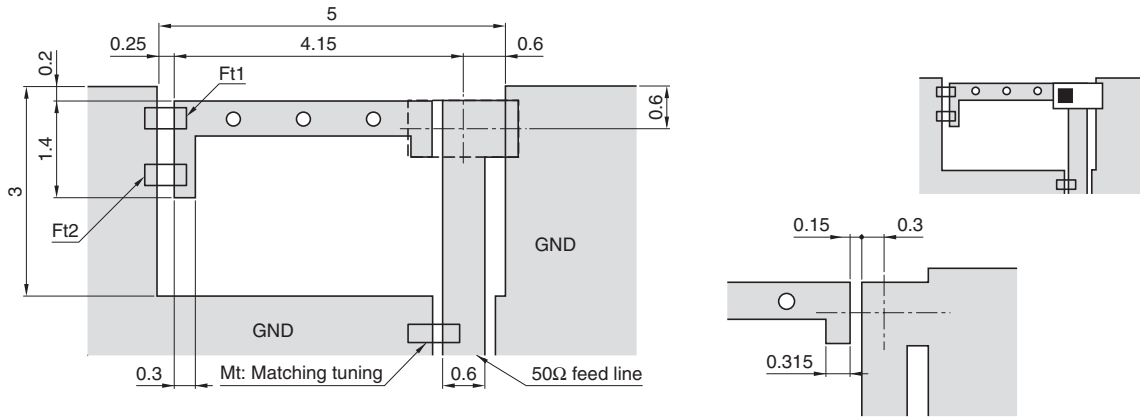
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

• All specifications are subject to change without notice.

RECOMMENDED PC BOARD PATTERNS

ELECTRODE

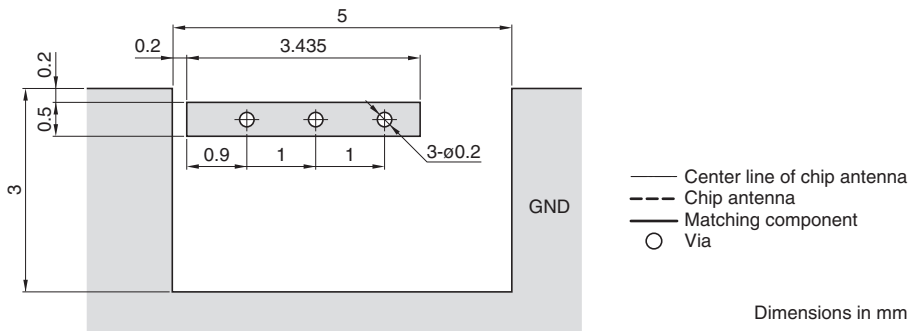
Front side



Ft: Frequency tuning

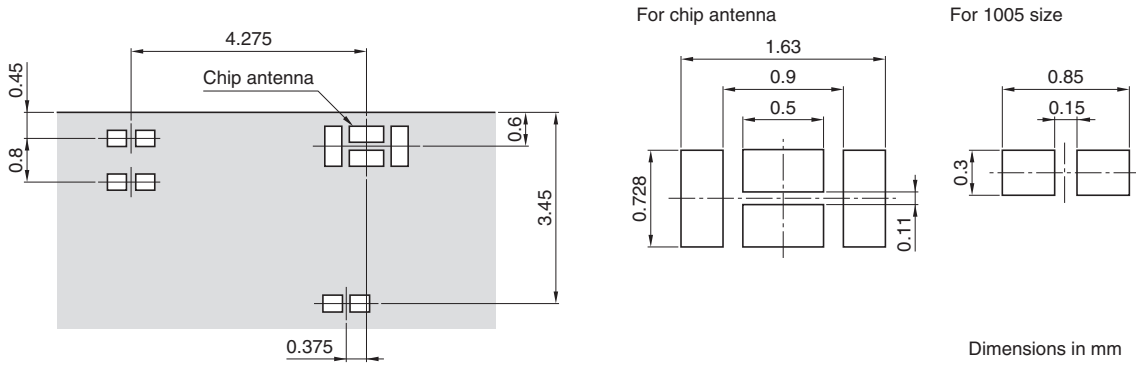
Dimensions in mm

Back side

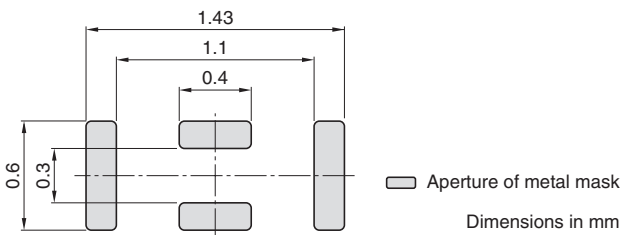


SOLDER RESIST

Front side



RECOMMEND APERTURE SIZE OF METAL MASK FOR SOLDER PRINTING



• All specifications are subject to change without notice.

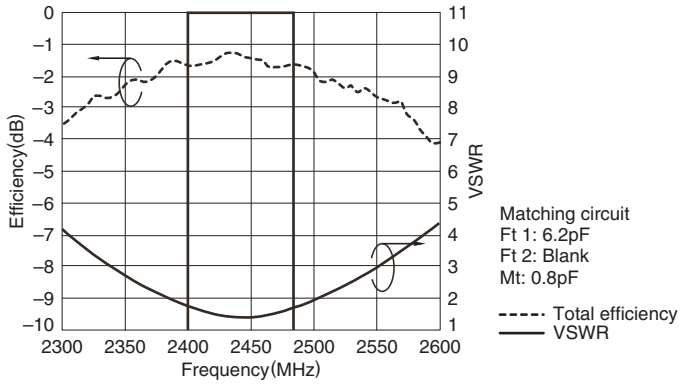
ELECTRICAL CHARACTERISTICS

Center frequency	2442MHz	
Band width(BW)	±42MHz	
VSWR (at BW)	3max.	
Polarization	Linear	
Impedance	50Ω	
PCB size	50×20×1.0mm ³	
Antenna keep-out area	5×3mm ²	
Temperature range	Operating	-40 to +85°C
	Storage	-40 to +85°C

• This is typical antenna performance with the standard PCB.

FREQUENCY CHARACTERISTICS

EFFICIENCY AND VSWR



• All specifications are subject to change without notice.

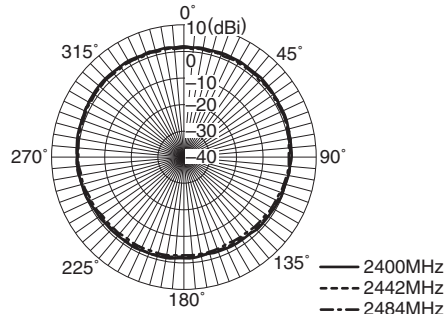
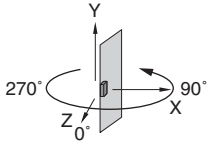
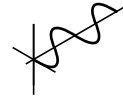
RADIATION PATTERNS

Directivity angle

Vertical polarization

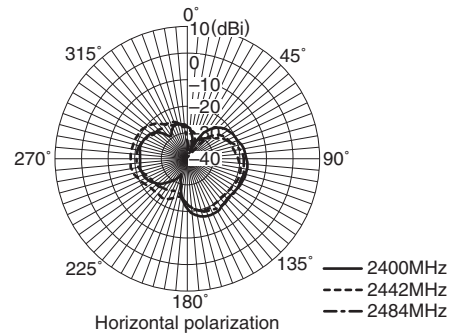


Horizontal polarization



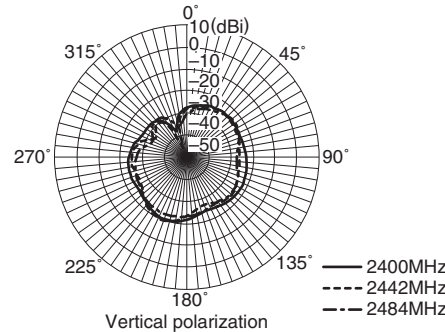
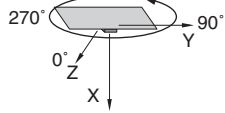
Vertical polarization

Frequency(MHz)	2400	2442	2484
Average(dBi)	0.0	0.3	-0.2
Maximum(dBi)	1.3	1.6	1.2
Minimum(dBi)	-2.4	-2.2	-3.0



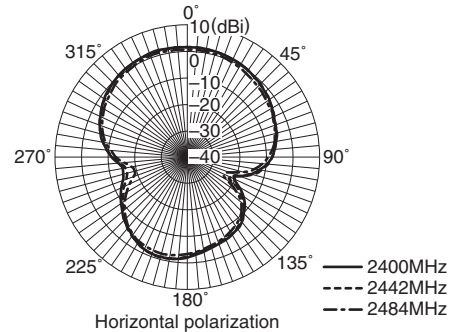
Horizontal polarization

Frequency(MHz)	2400	2442	2484
Average(dBi)	-21.5	-21.5	-21.3
Maximum(dBi)	-16.9	-18.5	-17.2
Minimum(dBi)	-46.0	-40.8	-36.4



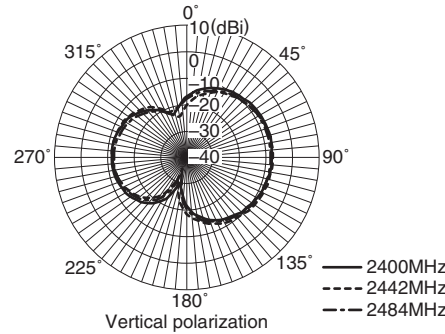
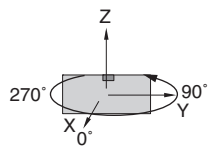
Vertical polarization

Frequency(MHz)	2400	2442	2484
Average(dBi)	-24.1	-24.7	-24.8
Maximum(dBi)	-20.2	-19.1	-21.5
Minimum(dBi)	-39.2	-46.1	-34.9



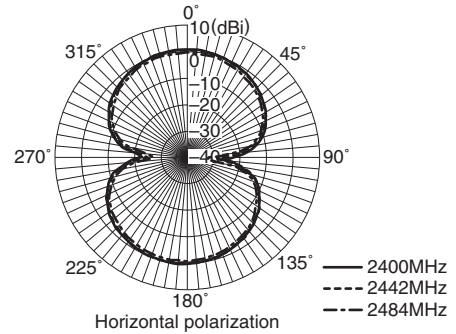
Horizontal polarization

Frequency(MHz)	2400	2442	2484
Average(dBi)	-2.9	-2.6	-3.1
Maximum(dBi)	1.3	1.6	1.2
Minimum(dBi)	-21.5	-21.9	-23.6



Vertical polarization

Frequency(MHz)	2400	2442	2484
Average(dBi)	-12.2	-11.8	-12.3
Maximum(dBi)	-8.0	-7.5	-8.2
Minimum(dBi)	-31.2	-30.5	-35.8



Horizontal polarization

Frequency(MHz)	2400	2442	2484
Average(dBi)	-3.1	-2.7	-3.2
Maximum(dBi)	0.2	0.6	0.1
Minimum(dBi)	-29.8	-28.5	-31.3

• Tested antenna has been soldered. Evaluation board size is 50x20x1 mm³.

• All specifications are subject to change without notice.