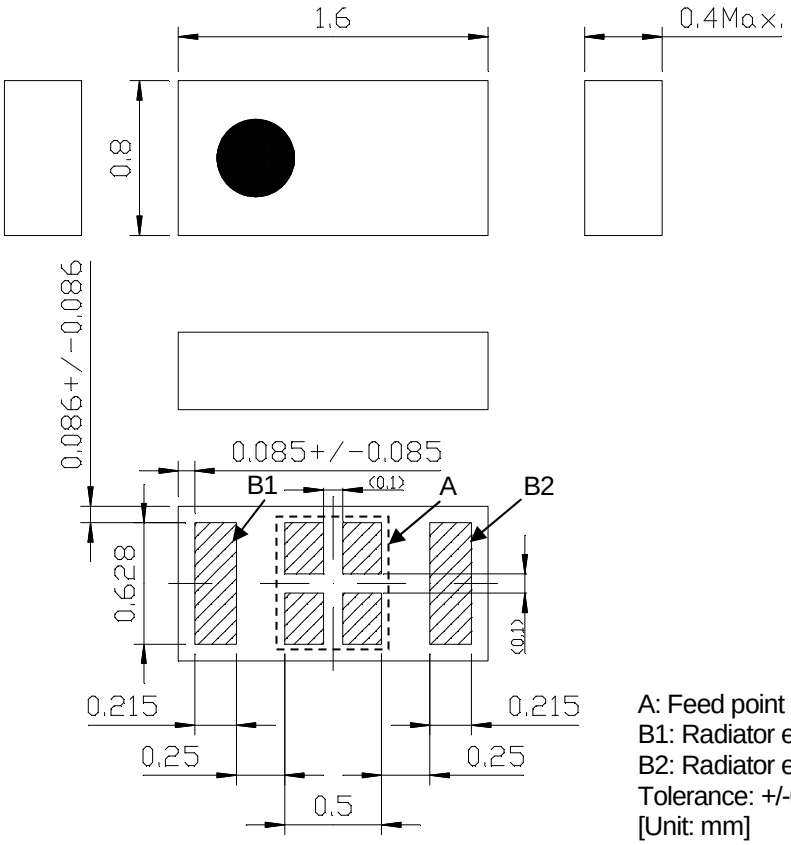
CHIP MULTILAYER ANTENNA FOR IEEE802.11a/b/g/n

SAMPLE P/N: ANT016008LCD2442MA1

[MECHANICAL DIMENSIONS]



A: Feed point
B1: Radiator electrode for 2.4GHz
B2: Radiator electrode for 5.5GHz
Tolerance: +/-0.1 mm
[Unit: mm]

[ELECTRICAL CHARACTERISTICS]

PARAMETER		**UNIT**
Center Frequency ($F_{11b/g/n}$, F_{11a})	$F_{11b/g/n}$: 2442, F_{11a}: 5500	MHz
Band Width ($F_{11b/g/n}$, F_{11a})	$F_{11b/g/n}$: +/-42, F_{11a}: +/-350	MHz
VSWR at BW ($F_{11b/g/n}$, F_{11a})	$F_{11b/g/n}$: 6.5 (Max.), F_{11a}: 4 (Max.)	
Polarization	Linear	
Impedance	50	ohm
PCB size	120 x 65 x 1.0	mm

* This is typical antenna performance with the standard PCB.

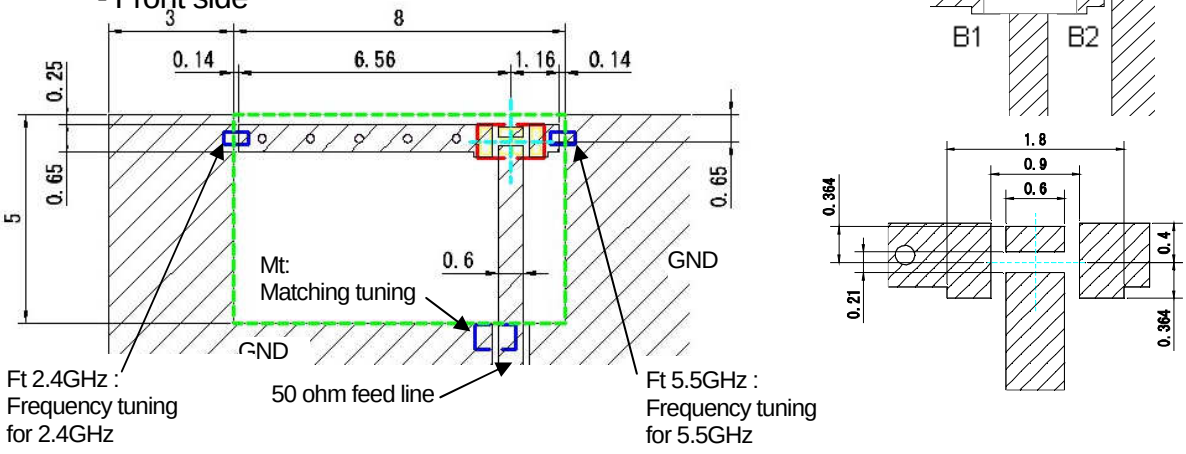
Operating temperature	-40	+85	℃
Storage temperature	-40	+85	℃

All specifications are subject to change without notice and are not guaranteed.

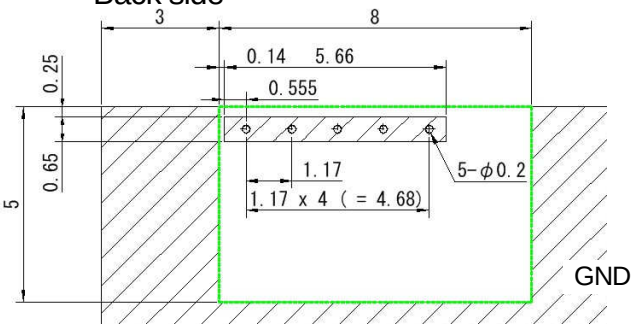
[RECOMMENDED PCB PATTERN]

Electrode

- Front side



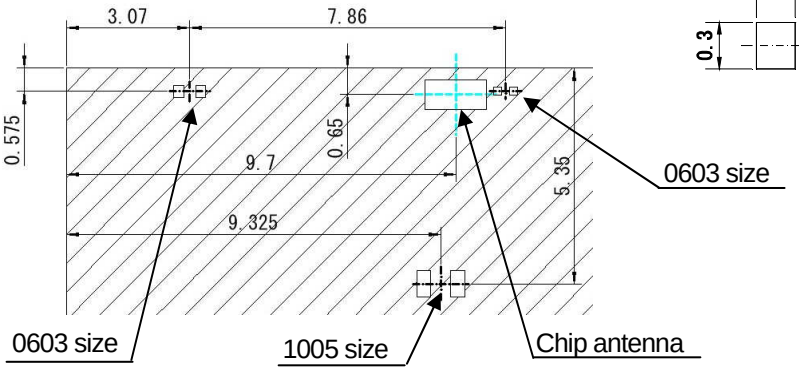
- Back side



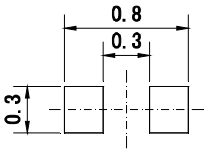
Center line of chip antenna
Chip antenna
Matching component
GND clearance
Via

Solder Resist

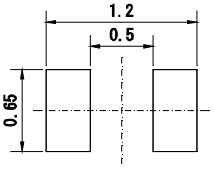
- Front side



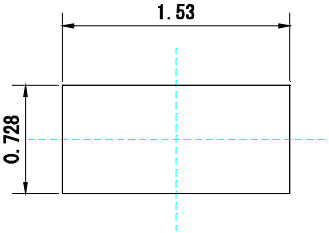
For 0603 size



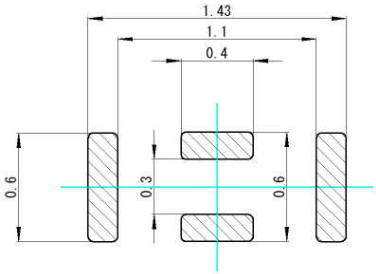
For 1005 size



For Chip antenna



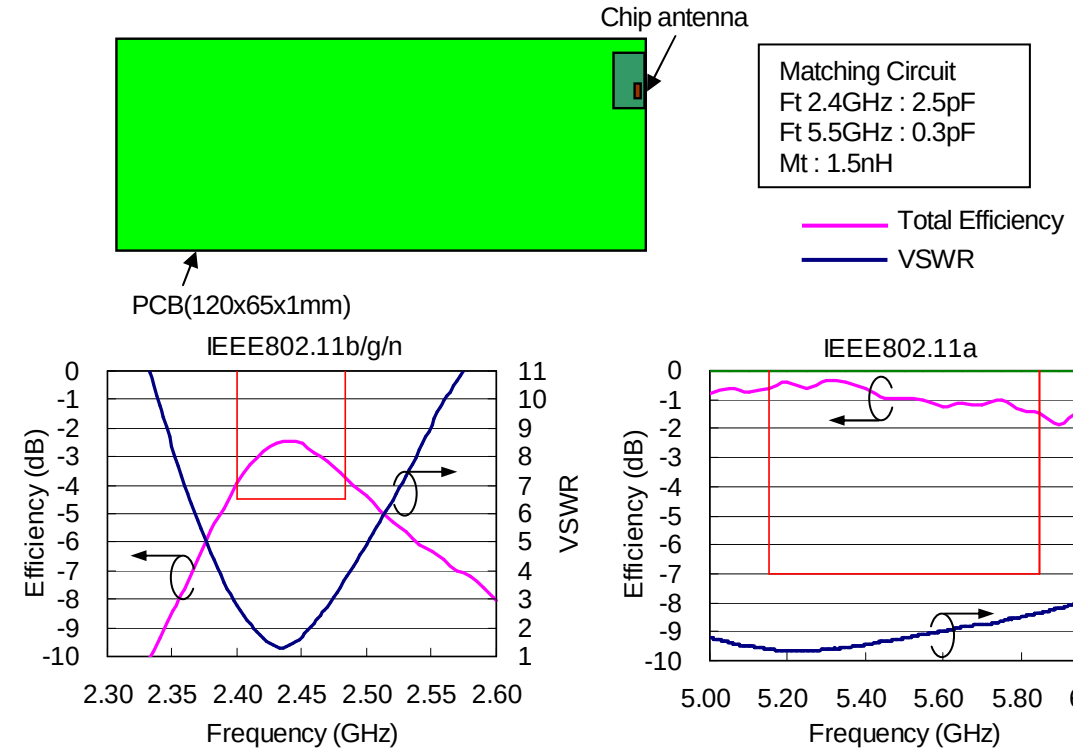
Recommend aperture size of metal mask for solder printing



Aperture of metal mask

[Unit: mm]

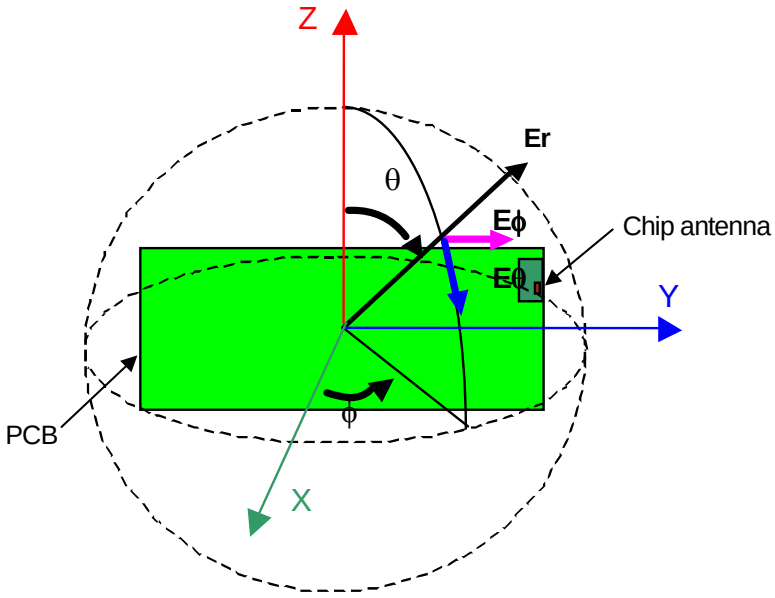
[EFFICIENCY AND VSWR]



Note: Tested antenna has been soldered. Evaluation board size is 120x65x1 mm

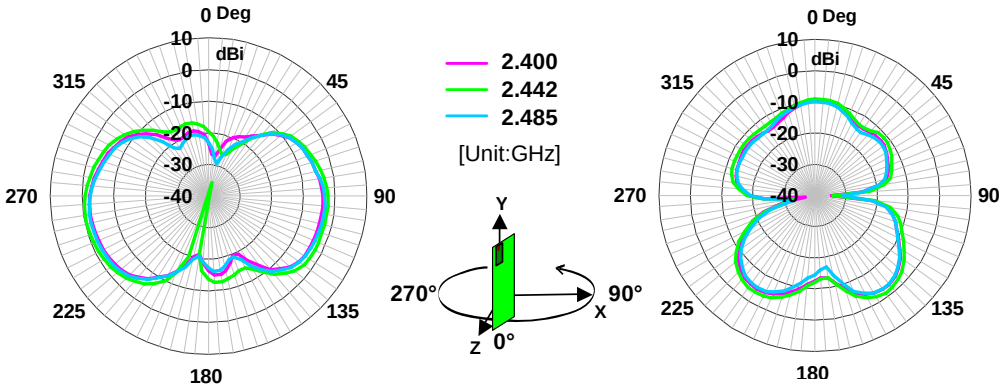
[RADIATION PATTERN]

Measurement Method



Note: Tested antenna has been soldered. Evaluation board size is 120x65x1 mm

[RADIATION PATTERN - IEEE802.11b/g/n -]

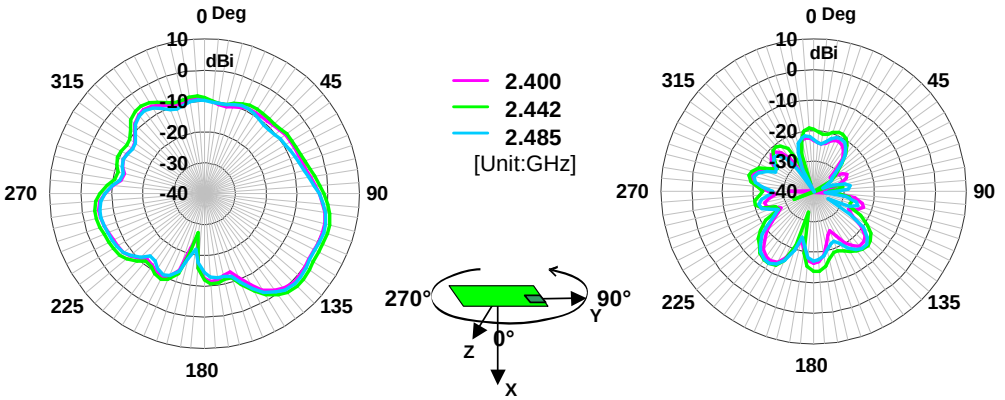


Horizontal Polarization

Frequency[GHz]	2.400	2.442	2.485
Average[dBi]	-7.06	-5.44	-6.82
Maximum[dBi]	-2.18	-0.48	-1.94
Minimum[dBi]	-27.38	-44.31	-29.46

Vertical Polarization

Frequency[GHz]	2.400	2.442	2.485
Average[dBi]	-9.62	-8.45	-10.13
Maximum[dBi]	-2.82	-1.44	-3.02
Minimum[dBi]	-36.90	-34.11	-32.46

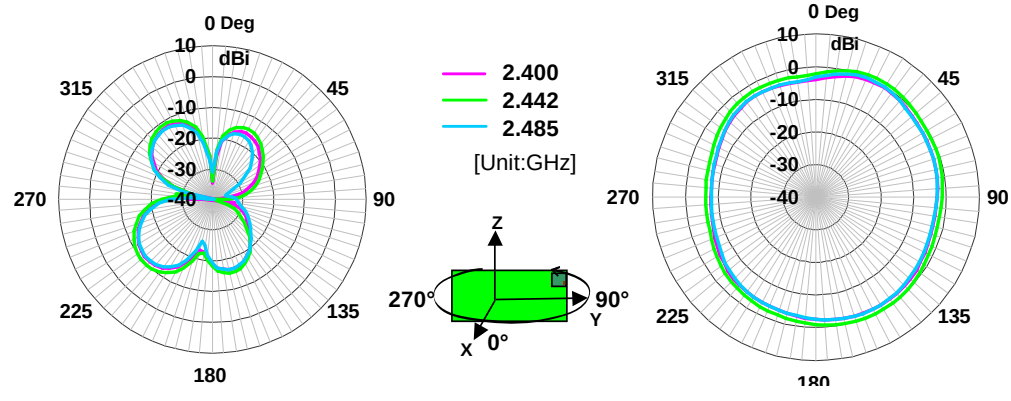


Horizontal Polarization

Frequency[GHz]	2.400	2.442	2.485
Average[dBi]	-5.81	-4.32	-5.70
Maximum[dBi]	0.54	2.27	1.19
Minimum[dBi]	-26.20	-27.25	-22.01

Vertical Polarization

Frequency[GHz]	2.400	2.442	2.485
Average[dBi]	-21.03	-19.00	-20.43
Maximum[dBi]	-13.19	-12.04	-12.29
Minimum[dBi]	-48.22	-46.88	-40.26



Horizontal Polarization

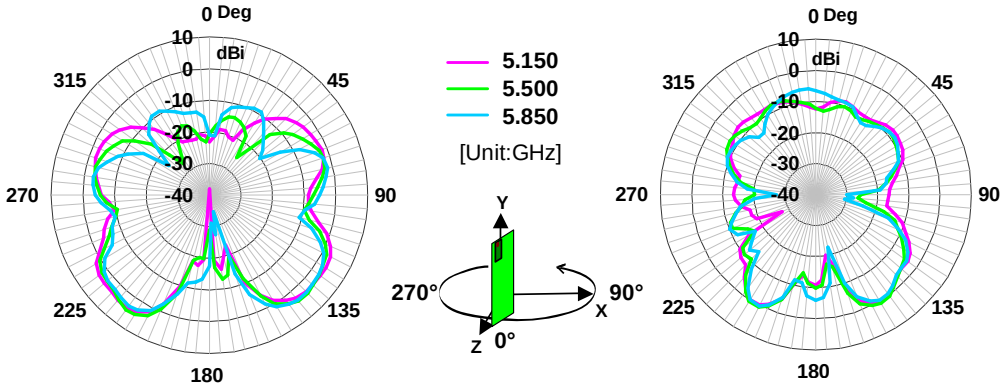
Frequency[GHz]	2.400	2.442	2.485
Average[dBi]	-17.05	-15.74	-17.47
Maximum[dBi]	-11.24	-9.64	-11.46
Minimum[dBi]	-48.22	-51.80	-40.53

Vertical Polarization

Frequency[GHz]	2.400	2.442	2.485
Average[dBi]	-3.21	-1.68	-3.18
Maximum[dBi]	-0.54	0.98	-0.23
Minimum[dBi]	-7.87	-6.33	-7.97

Note: Tested antenna has been soldered. Evaluation board size is 120x65x1 mm

[RADIATION PATTERN - IEEE802.11a -]

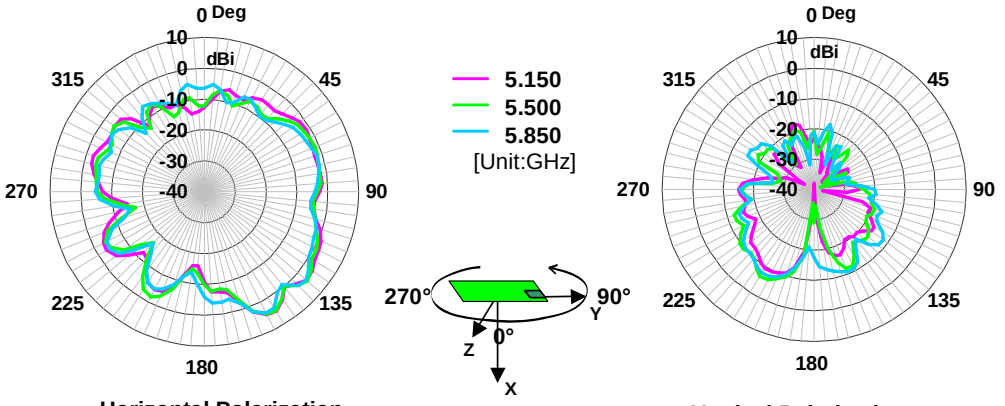


Horizontal Polarization

Frequency[GHz]	5.150	5.500	5.850
Average[dBi]	-2.39	-2.73	-3.25
Maximum[dBi]	4.22	4.78	3.29
Minimum[dBi]	-42.06	-29.06	-34.55

Vertical Polarization

Frequency[GHz]	5.150	5.500	5.850
Average[dBi]	-7.05	-7.06	-7.32
Maximum[dBi]	0.04	0.89	0.31
Minimum[dBi]	-27.83	-26.31	-30.64

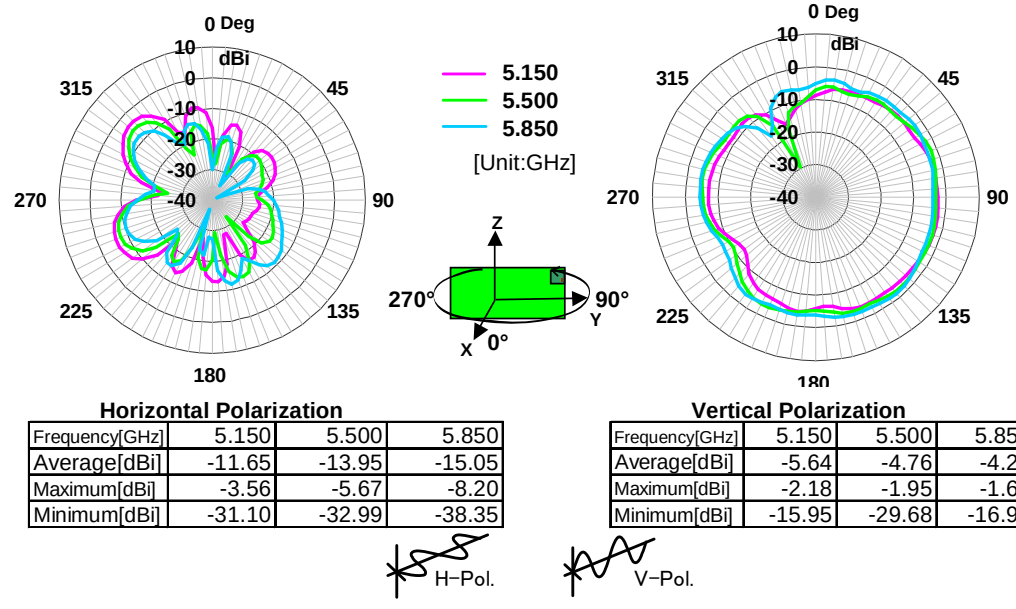


Horizontal Polarization

Frequency[GHz]	5.150	5.500	5.850
Average[dBi]	-2.74	-3.11	-3.60
Maximum[dBi]	5.18	5.04	4.09
Minimum[dBi]	-15.95	-17.14	-16.56

Vertical Polarization

Frequency[GHz]	5.150	5.500	5.850
Average[dBi]	-17.92	-15.62	-15.19
Maximum[dBi]	-9.40	-6.43	-7.73
Minimum[dBi]	-42.06	-37.80	-33.50



Horizontal Polarization

Frequency[GHz]	5.150	5.500	5.850
Average[dBi]	-11.65	-13.95	-15.05
Maximum[dBi]	-3.56	-5.67	-8.20
Minimum[dBi]	-31.10	-32.99	-38.35

Vertical Polarization

Frequency[GHz]	5.150	5.500	5.850
Average[dBi]	-5.64	-4.76	-4.21
Maximum[dBi]	-2.18	-1.95	-1.61
Minimum[dBi]	-15.95	-29.68	-16.91

Note: Tested antenna has been soldered. Evaluation board size is 120x65x1 mm

ENVIRONMENT INFORMATION

1. RoHS STATEMENT

ROHS Compliance

2. Non-Use of Halogen (Bromine and Chlorine)

The product does not include Halogens and their compounds based on the following definition.

- Bromine(Br)≦ 900ppm*
- Chlorine(Cl)≦ 900ppm*
- (Bromine(Br)+Chlorine(Cl)≦ 1500ppm*)
  (*Certain homogeneous materials)