



AT2450A3104AT ANTENNA SPECIFICATION

Rev. A

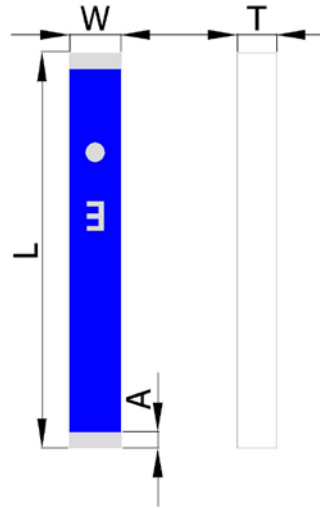
PRODUCT FEATURES

1. Surface mount ceramic antenna with a small size of 8.0 X 1.0 X 0.8 mm.
2. Highly stable under temperature and humidity changes.
3. Superior performance in a compact size, RoHS compliant.

RF CHARACTERISTICS

| PN AT2450A3104AT | Specification |
|-------------------------|------------------|
| Working Frequency Range | 2.4-2.5GHz |
| Gain | 2.0 dBi(Typical) |
| Return Loss | -10 dB min |
| Polarization | Linear |
| Radiation Pattern | Omni-directional |
| Impedance | 50Ω |
| Rated Power | 3W max |
| Operating Temperature | -40°C to +85°C |

PHYSICAL DIMENSIONS



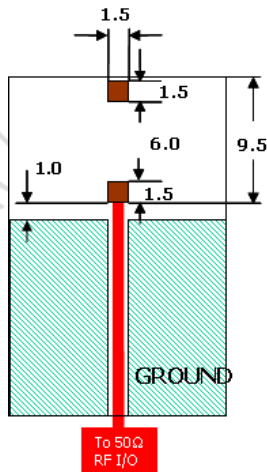
| Symbol | Dimension (mm) |
|--------|----------------|
| L | 8.00 ± 0.20 |
| W | 1.05 ± 0.20 |
| T | 0.80 ± 0.10 |
| A | 0.30 ± 0.20 |

TERMINAL CONFIGURATION



| PIN | Connection |
|-----|--------------------|
| P1 | Feeding |
| P2 | Soldering terminal |

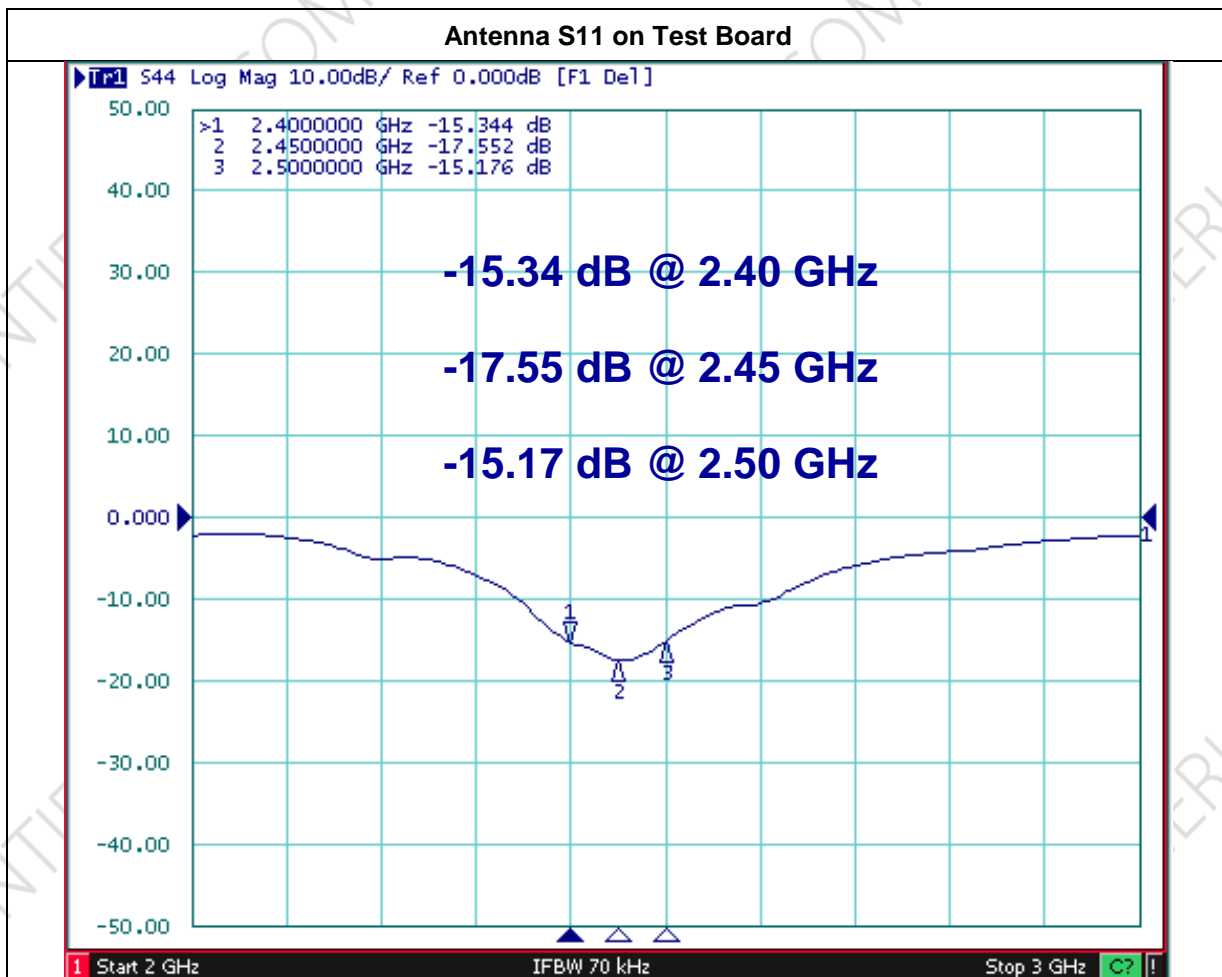
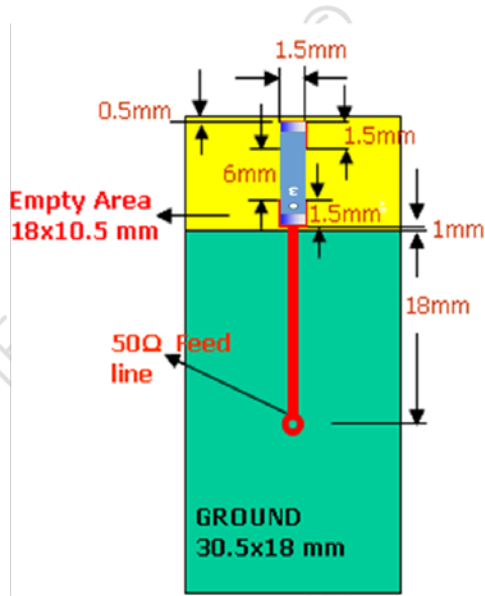
PCB DESIGN/LAYOUT CONSIDERATION



Unit : mm

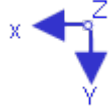
- Soldering Pad
- Ground
- 50 Ω Transmission Line

TEST BOARD DESIGN



RADIATION PATTERNS

The test board orientation is defined as:



| | Vertical | Horizontal |
|--|---|--|
| Y - Z Plane Average Gain= 1.136 dBi | <p>Peak Gain = 3.25 dBi Average Gain = 0.44 dBi</p> | <p>Peak Gain= -0.06 dBi Average Gain=-7.16 dBi</p> |
| X - Z Plane Average Gain= -1.750dBi | <p>Peak Gain= -2.68 dBi Average Gain= -9.30dBi</p> | <p>Peak Gain= 3.12 dBi Average Gain= -2.59 dBi</p> |
| X - Y Plane Average Gain= -2.322 dBi | <p>Peak Gain= -2.43 dBi Average Gain= -7.10dBi</p> | <p>Peak Gain= 0.96 dBi Average Gain= -4.08 dBi</p> |