

RF Ceramic Chip Antenna

2.4GHz 1W 9.5x2.0mm

AT95202G41221Y

MERITEK

FEATURE

- Operating Temperature: -40°C ~ +105°C
- Omni-directional Radiation
- Tape and Reel for Automatic Surface Mounting
- Reflow Process Compatible
- Application: 2.4 GHz WiFi device, Bluetooth gadget, Zigbee Device, ISM band equipment



PART NUMBERING SYSTEM

AT 9520 2G4 1 2 21Y
 (1) (2) (3) (4) (5) (6)

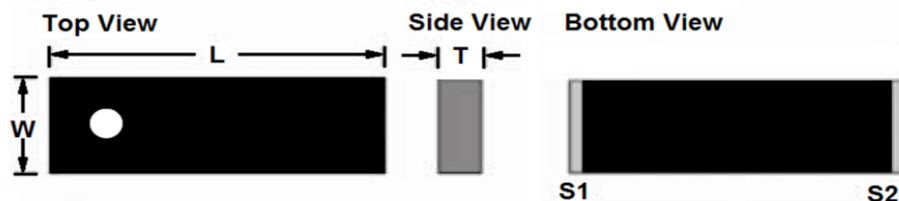


| No | Item | Code | Description | Series Reference |
|-----|-------------------|------|---------------------------|---------------------------------------|
| (1) | Meritek Series | AT | RF Antenna | SMD Ceramic Chip type |
| (2) | Size Code | 9520 | 9520: 9.5 x 2.0 x 1.10 mm | Length x Width x Height mm |
| (3) | Working Frequency | 2G4 | 2G4: 2.4 GHz | M: MHz, G:GHz |
| (4) | Maximum Power | 1 | 1: 1W | At -40°C ~ +105°C |
| (5) | Terminal | 2 | 2: 2 terminals | Number of terminals |
| (6) | Internal Code | 21Y | Internal Reference | Internal Control or Project Reference |

ELECTRICAL CHARACTERISTICS

| Item | Characteristic |
|-------------------------------|---|
| Center Frequency | 2.45 GHz |
| Bandwidth | 340 MHz (Typ.) |
| Return Loss | 7.36 dB min |
| Polarization | Linear |
| Azimuth Bandwidth | Omni-Directional |
| Peak Gain | 2.85 dBi (Typ.) |
| Impedance | 50Ω |
| Operating Temperature | - 40 ~ 105°C |
| Maximum Power | 1W |
| Termination | Ni / Sn (Environmentally-Friendly Leadless) |
| Resistance to Soldering Heats | 260°C / 10 sec |

DIMENSION



Unit: mm

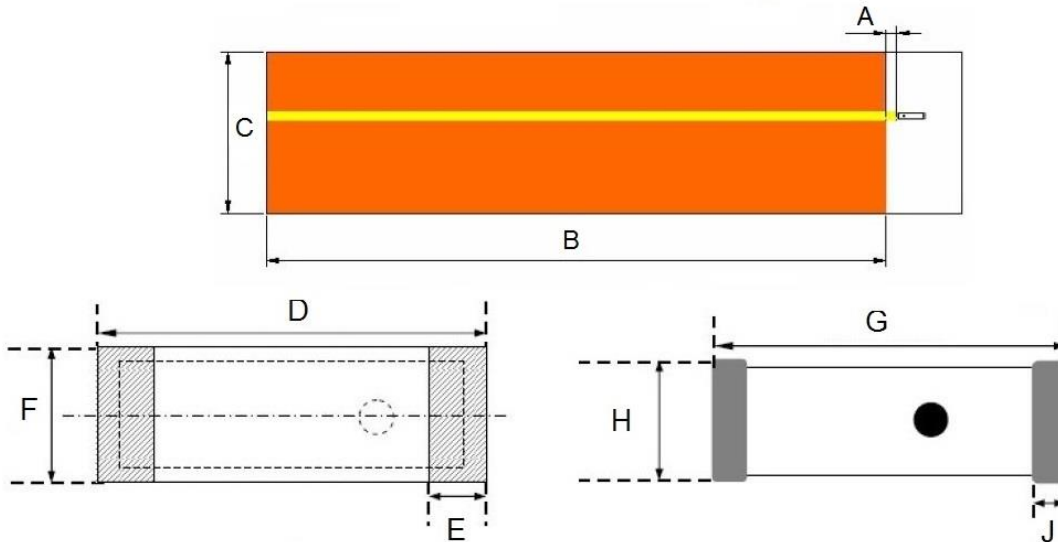
| Size Code | L | W | T | S1 | S2 |
|-----------|-------------|------------|-------------|---------------|-----------------|
| 9520 | 9.50 ± 0.20 | 2.0 ± 0.20 | 1.10 ± 0.20 | Feeding Point | Soldering Point |

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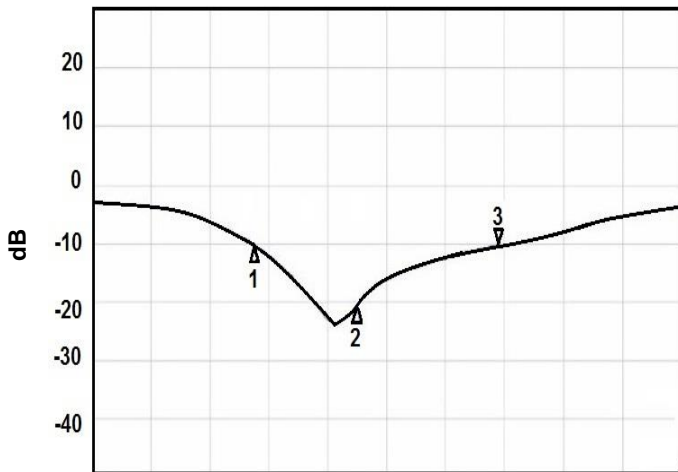
TESTING BOARD AND LAND PATTERN



Unit: mm

| Size | A | B | C | D | E | F | G | H | J |
|------|-----|------|------|----------|---------|---------|---------|---------|---------|
| 9520 | 2.0 | 90.0 | 40.0 | 10.5±0.2 | 0.7±0.2 | 2.6±0.2 | 9.5±0.2 | 2.0±0.2 | 0.4±0.2 |

ELECTRICAL PERFORMANCE



Frequency (GHz)
Fig.4 Return Loss Data

1. 2.274GHz/-10.131dB
2. 2.450GHz/-20.745dB
3. 2.690GHz/-10.268dB

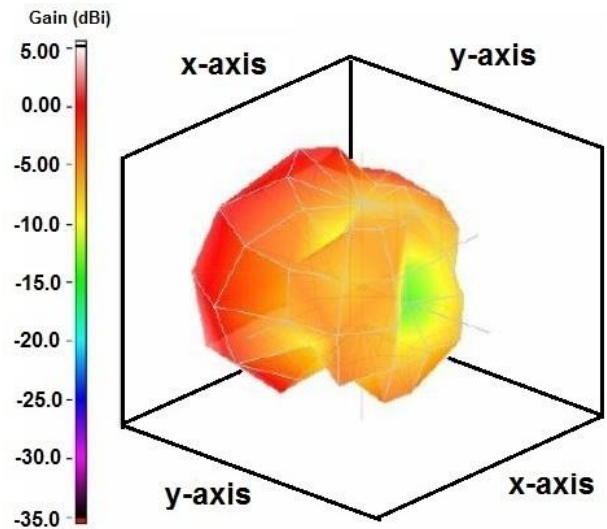


Fig.5 XYZ Direction and Radiation Pattern

Max Gain 2.85dBi
MEG -3.89dBi
Directivity(dB) 6.74
Efficiency -2.66dB, 54.19%

*Specifications subject to change without notice.