

Series: Ceramic Antenna

TECHNICAL DATA SHEET Description: Ceramic Single Feed GNSS/BT Antenna

PART NUMBER: W3056

Features:

• Frequency: 1558-1616/2400-2500MHz

- · Omni directional radiation
- Low profile
- Size W x L x H (10 x 3.2 x 1.5mm)
- · Lead free materials
- Fully SMD compatible
- MSL Level 3
- RoHS Compliant

Applications:

- Combo 2-in-1 Antenna
- Single feed point
- · GNSS L1 band
- Bluetooth, WLAN, WiFi (2.4 2.5GHz)

All dimensions are in mm / inches

Issue: 1837

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ELECTRICAL SPECIFICATIONS

| Antenna Type | Ceramic Chip | |
|--|----------------------------|--|
| Frequency | 1558-1616MHz/2.4-2.5GHz | |
| Nominal Impedance | 50 Ω | |
| Return Loss / Max (BD / GPS / GLONASS / BT) | -4/-5/-3/-7 (dB) | |
| Radiation Pattern – XY Plane & ZY Plane | Omni | |
| Radiation Pattern – ZX Plane | Directional | |
| Gain / Min (BD / GPS / GLONASS / BT) | -0.5 / 0.5 / 0 / 2 (dBi) | |
| Efficiency / Min (BD / GPS / GLONASS / BT) | 35% / 45% / 45% / 65% | |
| Polarization | Linear-Vertical | |
| Power Withstanding | 1W | |
| | | |

| Overall Length | 10mm |
|----------------|-------|
| Weight | 0.24g |
| Antenna Color | White |

| ENVIRONMENTAL SPECIFICATIONS | | | |
|------------------------------|--------------|--|--|
| Operating Temperature | -40 ~ +85° C | | |
| Storage Temperature | -40 ~ +85° C | | |
| RoHS Compliant | Yes | | |

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MECHANICAL DRAWING



| No. | Terminal Name | Terminal Dimensions |
|-----|---------------|---------------------|
| 1 | Feed | 1.34 x 0.80 mm |
| 2 | GND | 1.00 x 0.80 mm |
| 3 | GND | 2.75 x 1.20 mm |
| 4 | GND | 2.75 x 1.20 mm |

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Series: Ceramic Antenna

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Antenna

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TEST SETUP



Test board information

Note: Electrical characteristics are measured on test pwb with matching circuit (2.2 nH shunt matching inductor on feed).

Recommended Antenna Pad Dimensions on PWB Layout (top surface)

| PWB features | | |
|--------------|---------------|---------------------|
| No. | Terminal Name | Terminal Dimensions |
| 1 | Feed | 1.45 x 1.34 mm |
| 2 | GND | 1.45 x 1.00 mm |
| 3 | GND | 3.00 x 1.70 mm |
| 4 | GND | 3.00 x 1.70 mm |

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TEST SETUP

Recommended ground clearance area under antenna on PWB (top surface)



Recommended ground clearance area under antenna on PWB (bottom surface)



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Description: Ceramic Single Feed GNSS/BT Antenna

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CHARTS



Return Loss/ BT



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CHARTS

Peaking Gain/ GNSS



Rad Efficiency/ GNSS



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RóHS

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TECHNICAL DATA SHEET

Series: Ceramic Antenna

PART NUMBER: W3056

CHARTS

Typical Free Space Radiation Patterns / BeiDou



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TECHNICAL DATA SHEET Description: Ceramic Single Feed GNSS/BT

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Antenna PART NUMBER: W3056

CHARTS

Typical Free Space Radiation Patterns / GPS



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TECHNICAL DATA SHEET

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PART NUMBER: W3056

CHARTS

Typical Free Space Radiation Patterns / GLONASS



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CHARTS

Peaking Gain/ BT(2.4G-2.5G)



Rad Efficiency/ BT(2.4G-2.5G)



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ROHS 11



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CHARTS

Typical Free Space Radiation Patterns / BT(2.4G-2.5G)



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PACKAGING

1.Tape and reel packing with plastic vacuum bag. 1000 PCS/ REEL, 4 Reels/ BOX





2. MSL: Level 3

2.1 Calculated shelf life in sealed bag: 12 months at < 30° C and 60° relative humidity (RH)

2.2 Peak temperature in reflow: 260 °C

2.3 After bag is opened, devices that will be subjected to reflow solder or other temperature process must:

- a) Mount within: 168 hours of factory conditions \leq 30 °C/60%
- b) stored at < 20% RH
- 2.4 Devices require bake, before mounting, if:
 - a) Humidity Indicator Card is > 20% when read at 23 \pm 5 °C
 - b) 3a or 3b not met
- 2.5 If baking is required, devices may be baked for 24 hours at 125~130 °C







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- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;

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- Поставка сложных, дефицитных, либо снятых с производства позиций;
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- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;

- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком):

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