

Surface Mount WCS/WiMAX/LTE Antenna (2350MHz)

AMCA52-2R350G-S1F-T



RoHS / RoHS II Compliant



5.2 x 2.1 x 1.1mm

Moisture Sensitivity Level (MSL) – MSL = 1

FEATURES:

- 2350MHz, Bandwidth ≥ 150 MHz
- Suitable for RoHS compliant reflow
- Gain 2.5dBi (Peak) / 0.5dBi (Average)
- VSWR $< 2:1$
- Small size – 5.2 x 2.1 x 1.1mm (0.204 x 0.082 x 0.039inch)
- Non Ground Mounting type.
- Power Handling 3W Max
- Matched to 50 Ohm.

APPLICATIONS:

- Wireless application - WCS Band, LTE Band 40, and WiMax bands.
- User Equipments (UE), e.g. dongles, modems
- WCS Band supporting Fixed, Mobile, Computing, Cellular Telephone, Radiolocation, and Satellite Communications.
- User Equipments (EU) covering 2300MHz LTE TDD (Band 40)
- Alternative to larger PCB solution

STANDARD SPECIFICATIONS

Maximum Ratings

| Item | Value |
|-----------------------------|----------------------------------|
| Operating Temperature Range | -40°C to + 85°C |
| Storage Temperature Range | -10°C ~ +40 and RH °C 70% (Max.) |

Electrical Characteristics

| Item | Spec |
|------------------|----------------|
| Frequency | 2350MHz |
| Bandwidth | ≥ 150 MHz |
| Peak Gain | 2.5 dBi typ. |
| Average Gain | 0.5 dBi typ |
| VSWR | $< 2:1$ |
| Impedance | 50 Ohm |
| Power Capability | 3W max |

PART IDENTIFICATION:

AMCA52-2R350G-S1F-T4

Packaging

Blank: Bulk or Cut Tape
T4 : T/R 4000pcs per reel

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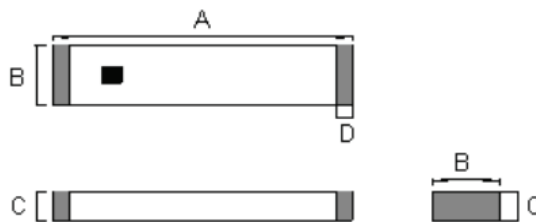
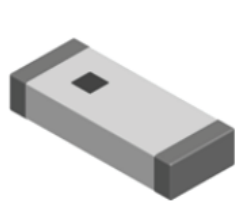


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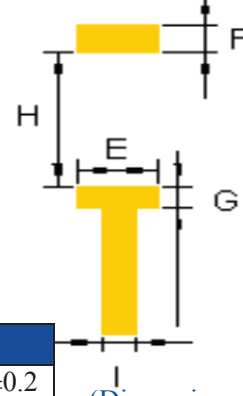


5.2 x 2.1 x 1.1mm

OUTLINE DIMENSIONS:



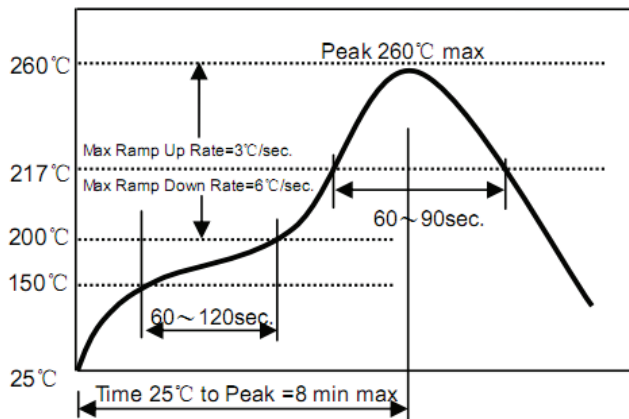
Recommended Land Pattern



| Series | A | B | C | D | E | F | G | H | I |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| AMCA52 | 5.2±0.2 | 2.1±0.2 | 1.1±0.2 | 0.5±0.2 | 2.0±0.2 | 1.5±0.2 | 1.0±0.2 | 4.0±0.2 | 1.4±0.2 |

(Dimensions: mm)

REFLOW PROFILE:

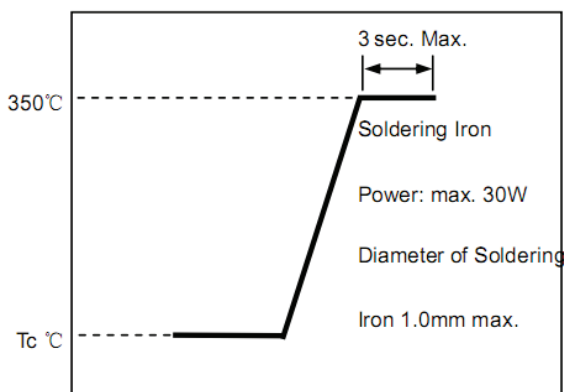


- Preheat condition: 150 ~200 /60~120°C sec.
- Allowed time above 217°C: 60~90sec.
- Max temp: 260°C
- Max time at max temp: 10sec.
- Solder paste: Sn/3.0Ag/0.5Cu
- Allowed Reflow time: 2x max

[Note: The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer's specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.]

MANUAL SOLDERING

Pre-heating Temperature: 120°C, 60°C ~ 300 sec.



- Iron soldering power: Max.30W.
- Pre-heating: 150 / 60 sec. °C.
- Soldering Tip temperature: 350 Max. °C.
- Soldering time: 3 sec Max.
- Solder paste: Sn/3.0Ag/0.5Cu.
- Max 1 times for iron soldering.
- Soldering Temperature: 340°C±5°C, 5sec max per each terminal.

[Note: Take care not to apply the tip of the soldering iron to the terminal electrodes.]

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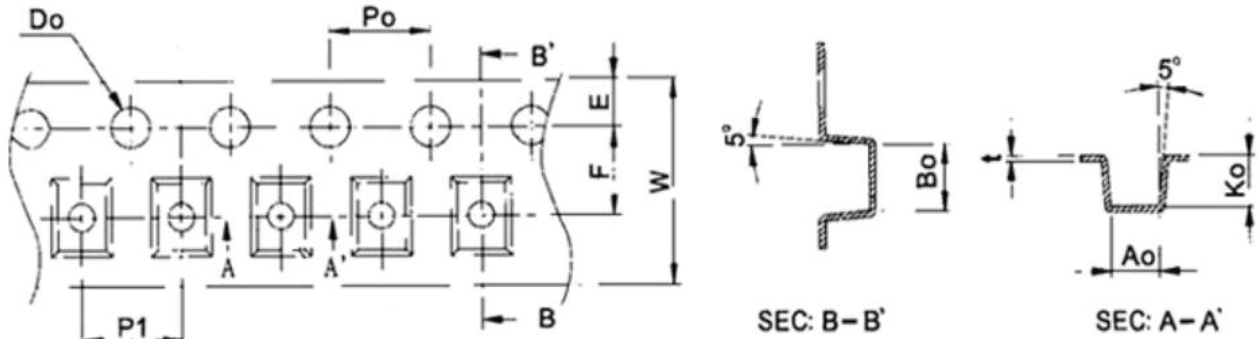
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5.2 x 2.1 x 1.1mm

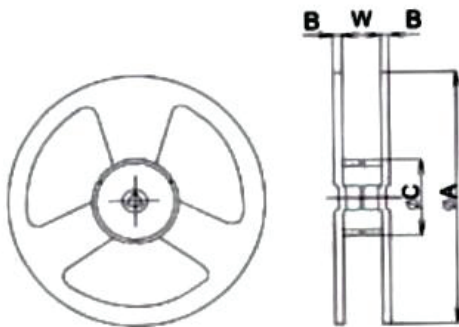
TAPE & REEL:

Packaging: 4000 Units per reel



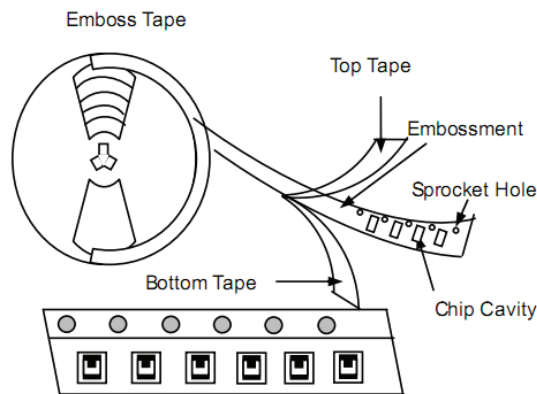
| | | | |
|----|-----------|----|--------------------|
| W | 12.0±0.10 | D0 | 1.50 +0.10 / - 0.0 |
| P1 | 8.0±0.10 | P0 | 4.0±0.10 |
| E | 1.75±0.10 | K0 | 1.20±0.10 |
| F | 5.50±0.15 | A0 | 2.35±0.10 |
| B0 | 5.50±0.10 | t | 0.3±0.05 |

Reel Dimensions



| Type | Spec | Dimensions (mm) | | | |
|--------|----------|-----------------|----------|---------|---------|
| | | A | W | C | B |
| AMCA52 | 13"*12mm | 330±1 | 12.5±0.2 | 100±0.5 | 2.3±0.2 |

Mounting Direction of Tape on Reel



Note: The sprocket holes are to the right as the tape is pulled toward the user.

(Dimensions: mm)

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