

# Surface Mount WiMAX Antenna (2540MHz)

**AMCA52-2R540G-S1F-T**



RoHS / RoHS II Compliant



5.2 x 2.1 x 1.0mm

**Moisture Sensitivity Level (MSL) – MSL = 1**

## FEATURES:

- 2540MHz, Bandwidth  $\geq 200$ MHz
- Suitable for RoHS compliant reflow
- Gain 2.5dBi (Peak) / 0.5dBi (Average)
- VSWR  $< 2:1$
- Small size – 5.2 x 2.1 x 1.0mm (0.204 x 0.082 x 0.039inch)
- Non Ground Mounting type.
- Power Handling 3W Max
- Matched to 50 Ohm.

## APPLICATIONS:

- Wireless application - WiMax bands.
- User Equipments (UE), e.g. dongles, modems
- User Equipments applications covering 2540MHz WiMax bands.
- 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        | 2540MHz        |
| Bandwidth        | $\geq 200$ 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:

**AMCA52-2R540G-S1F-T4**

### Packaging

Blank: Bulk or Cut Tape

T4 : T/R 4000pcs per reel

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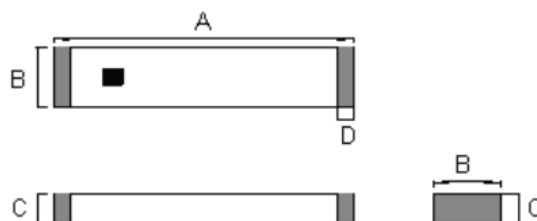
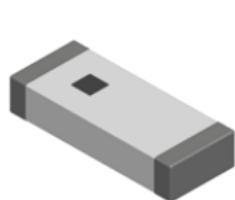


RoHS / RoHS II Compliant

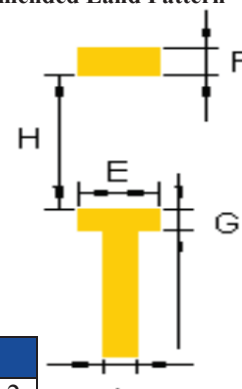


5.2 x 2.1 x 1.0mm

## OUTLINE DIMENSIONS:



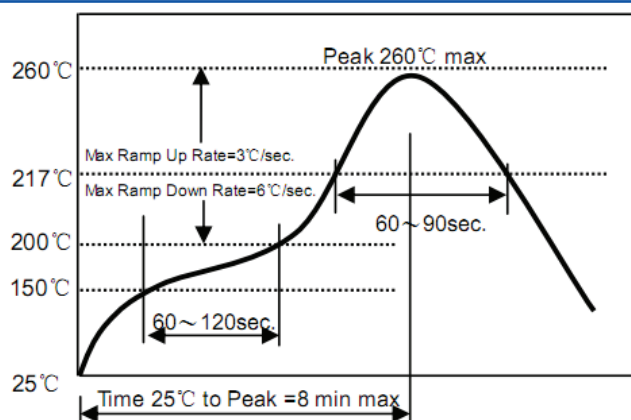
### Recommended Land Pattern



(Dimensions: mm)

| Series | A       | B       | C       | D       | E       | F       | G       | H       | I       |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| AMCA52 | 5.2±0.2 | 2.1±0.2 | 1.0±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 |

## REFLOW PROFILE:

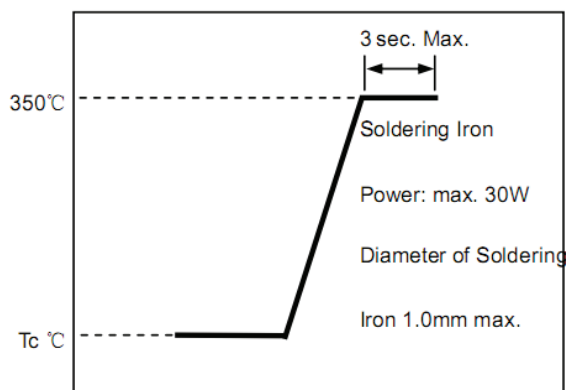


- Preheat condition: 150 ~200 /60~120°C sec.
- Allowed time above 217°C: 60~90sec.
- Max temp: 260°C
- Max time at max temp: 10sec.
- Solder paste: Sn/3.0Ag/0.5Cu
- Allowed Reflow time: 2x max

[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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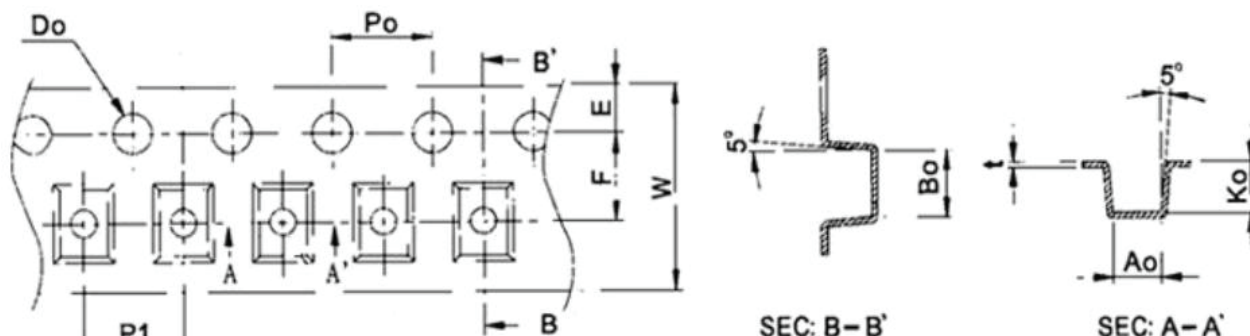
RoHS / RoHS II Compliant



5.2 x 2.1 x 1.0mm

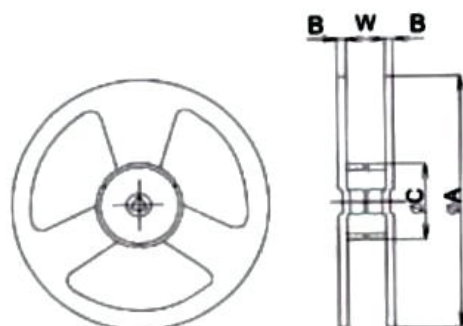
## TAPE & REEL:

**Packaging:** 4000 Units per reel



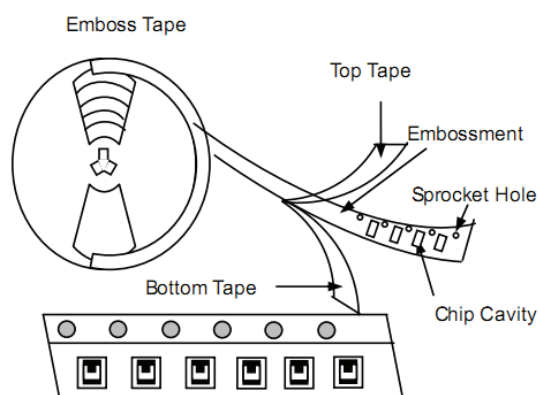
|    |           |    |                    |
|----|-----------|----|--------------------|
| W  | 12.0±0.10 | D0 | 1.50 +0.10 / - 0.0 |
| P1 | 8.0±0.10  | P0 | 4.0±0.10           |
| E  | 1.75±0.10 | K0 | 1.20±0.10          |
| F  | 5.50±0.15 | A0 | 2.35±0.10          |

## 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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