

## Single Junction Drop-In Circulator 2090 MHz—2190 MHz

Rev. E

### Applications

- ◆ Wireless Infrastructure
- ◆ LTE

### Features

- ◆ RoHS Compliant
- ◆ BeO free

### Electrical Specifications

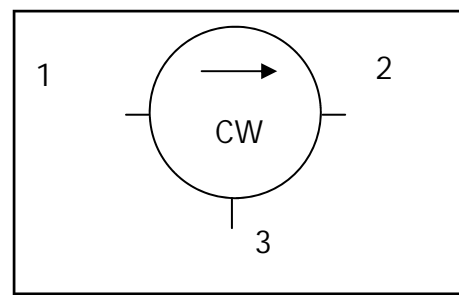
| Parameter                                | Conditions                     | Units    | Min  | Typ | Max   |
|--|--------------------------------|----------|------|-----|-------|
| Frequency Range                          |                                | MHz      | 2090 |     | 2190  |
| Impedance                                |                                | $\Omega$ |      | 50  |       |
| Insertion Loss                           | @25°C                          | dB       |      |     | 0.20  |
| Insertion Loss                           |                                | dB       |      |     | 0.23  |
| Isolation                                |                                | dB       | 22   |     |       |
| VSWR                                     |                                |          |      |     | 1.2:1 |
| Third Order Intermodulation <sup>2</sup> | 2 x 40W CW tones, 5MHz spacing | dBc      |      | -70 |       |

1. All specifications guaranteed over the operating temperature range unless otherwise stated.
2. See Application Note ANI-001 for further details.

### Pin Configuration

| Terminal | Designation | Function |
|----------|-------------|----------|
| 1        | Port 1      | In       |
| 2        | Port 2      | Out      |
| 3        | Port 3      | Out      |

### Functional Block Diagram



### Absolute Maximum Ratings

| Parameter                   | Conditions | Units | Min | Max  |
|-----------------------------|------------|-------|-----|------|
| Input Power                 |            | W     |     | 1000 |
| Reverse Power               |            | W     |     | 500  |
| Operating Temperature Range |            | °C    | -30 | +90  |
| Storage Temperature Range   |            | °C    | -55 | +125 |

### Application Notes Available

| Application Note | Description   |
|------------------|---|
| ANI-001          | IMD Measurement of Ferrite Isolators and Circulators        |
| ANI-003          | Maximum Peak Power of Ferrite Junctions                     |
| ANI-004          | Base Plate Temperature of Ferrite Isolators and Circulators |
| ANI-007          | Reflow Soldering Guidelines                                 |
| ANI-008          | Curie Temperature of Isolators and Circulators              |
| ANI-009          | Tape and Reel Information for Isolators and Circulators     |

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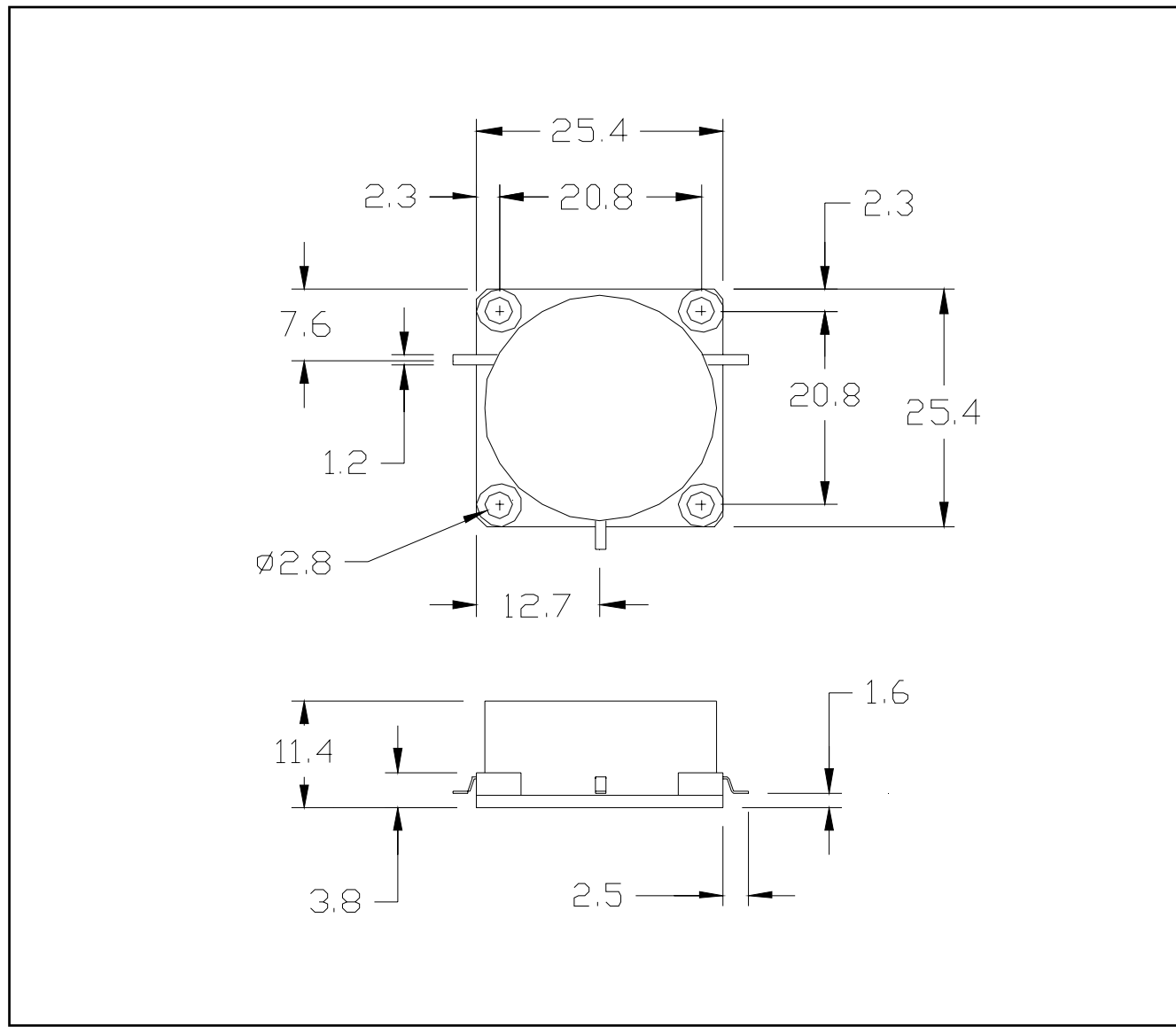
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## Outline Drawing



1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Lead thickness is 0.12mm.
4. Model number, lot code and port designation printed on top side of unit.

### Plating

| Section | Material | Plating |
|---------|----------|---------|
| Leads   | Copper   | Silver  |
| Housing | Steel    | Silver  |

### ECO History

| Rev | Date      | Description   | By |
|-----|-----------|---------------|----|
| E   | 23/9/2009 | Update format | BH |
|     |           |               |    |
|     |           |               |    |