

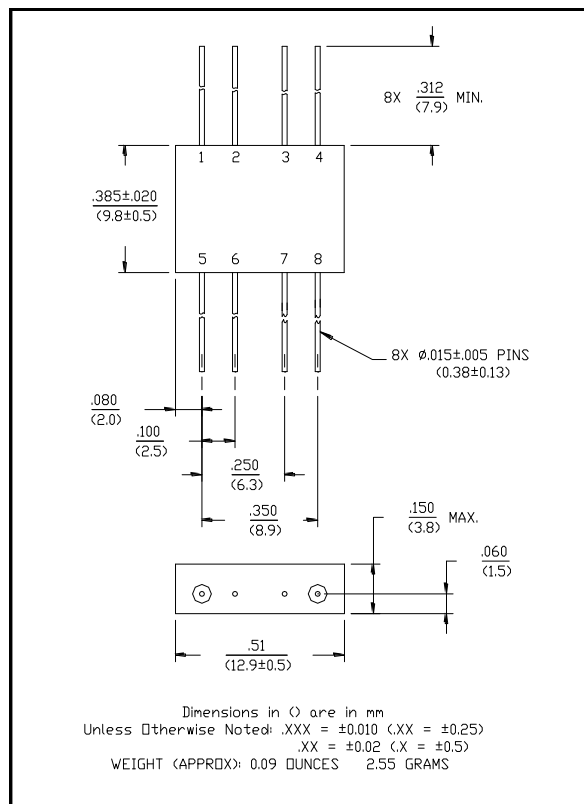
Features

- Usable to 4 GHz
- Impedance: 50 Ohms Nominal
- Maximum Input Power: 600 mW max. @ 25°C, Derated linearly to 85°C @ 3.2 mW/°C
- IF Port Current: 50 mA Max.
- MIL-STD Screening Available

Description

Transformers convert the LO and RF paths to balanced lines connecting to a low barrier, Schottky diode ring quad. These transformers help provide excellent isolation between ports.

FP-2



Pin Configuration

| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| 1 | GND | 5 | LO |
| 2 | GND | 6 | GND |
| 3 | GND | 7 | GND |
| 4 | IF | 8 | RF |

Electrical Specifications¹: T_A = -55°C to +85°C

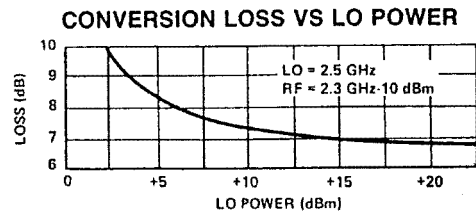
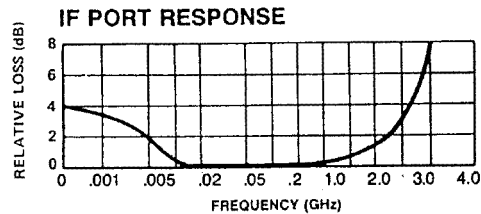
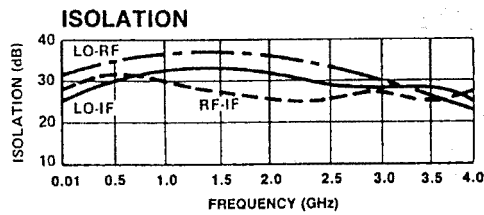
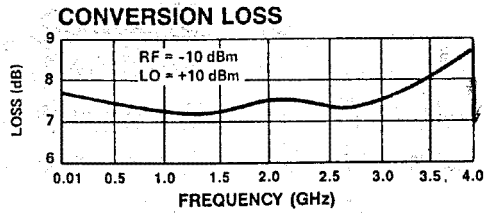
| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
|------------------------------|--|-----------------|-------|-----|-----|-----|
| Frequency Range | RF, LO Ports IF Port | 0.01 - 3 GHz | GHz | — | — | — |
| | | 0.01 - 3 GHz | GHz | — | — | — |
| Conversion Loss | | | dB | — | — | 8.0 |
| Isolation | LO to RF | 10 - 500 MHz | dB | 25 | — | — |
| | | 500 - 1000 MHz | dB | 30 | — | — |
| | | 1000 - 3000 MHz | dB | 25 | — | — |
| | LO to IF | 10 - 500 MHz | dB | 20 | — | — |
| | | 500 - 1000 MHz | dB | 25 | — | — |
| | | 1000 - 3000 MHz | dB | 25 | — | — |
| RF to IF | 10 - 500 MHz | dB | 20 | — | — | |
| | 500 - 1000 MHz | dB | 25 | — | — | |
| | 1000 - 3000 MHz | dB | 20 | — | — | |
| DC Polarity | Negative | — | — | — | — | — |
| DC Offset | | | mV | — | ≤ 7 | — |
| RF Input | 1 dB Compression 1 dB Desensitization | | dBm | — | +7 | — |
| | | | dBm | — | +5 | — |
| SSB Noise Figure | Within 1 dB of Conversion Loss Max. | — | — | — | — | — |
| Typical Two Tone IM Ratio | With -10 dBm input, each input 25 MHz and 35 MHz IF | 100 - 2000 MHz | dB | — | >56 | — |

1. All specifications apply when operated at +10 to +13 dBm available LO power with 50 ohm source and load impedance.
2. Conversion Loss is specified for IF frequency of 10 MHz to 2 GHz. See IF port bandwidth graph.

Typical Performance Curves

Ordering Information

| Part Number | Package |
|-------------|---------|
| MD-123 PIN | FP-2 |



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