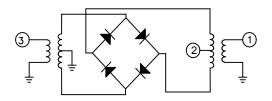
SPM6-1000M LOW COST MINIATURE DOUBLE BALANCED MIXER 10-1000 MHz

## COMMERCIAL SIGNAL PROCESSING RF COMPONENTS

## **DESCRIPTION**

The SPM6-1000M is a low cost, double balanced mixer offering excellent performance to 1000 MHz in a miniature package. The performance/cost ratio of this mixer makes the application of advanced mixer technology available to equipment designers who previously were cost-restricted to compromise designs.

# **FUNCTIONAL SCHEMATIC**



### **SPECIFICATIONS**

| PARAMETER               | MIN. | TYP. | MAX. | UNITS |
|-------------------------|------|------|------|-------|
| Frequency Range, L-Port | 10   |      | 1000 | MHz   |
| Frequency Range, R-Port | 10   |      | 1000 | MHz   |
| Frequency Range, X-Port | DC   |      | 500  | MHz   |
| LO Power Range          |      | +13  |      | dBm   |
| Temperature Range       | -40  |      | +85  | °C    |
| Conversion Loss*        |      | 6.0  | 8.50 | dB    |
| Isolation L - R         | 30   | 40   |      | dB    |
| Isolation L - X         | 20   | 30   |      | dB    |
| Isolation R - X         | 15   | 30   |      | dB    |
| Input IP3               |      | +20  |      | dBm   |

<sup>\*</sup> X = 100 MHz, LO > RF

# **PACKAGE**

#### **COVER MATERIAL:**

Plastic

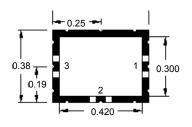
### **BASE MATERIAL:**

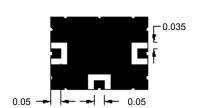
FR-4

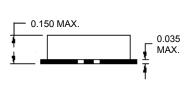
Note: All half via contacts are plated through from the pad on the top side to the pad on the bottom side of the board.

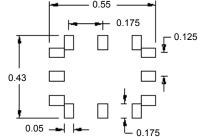
| Pinout Chart |          |  |
|--------------|----------|--|
| Pin          | Function |  |
| 1            | RF Port  |  |
| 2            | IF Port  |  |
| 3            | LO Port  |  |

#### ALL DIMENSIONS ARE IN INCHES.









TOLERANCES: .XX = ±.01 .XXX = ±.005

Recommended Land Pattern

1.27.05 Rev B