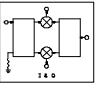
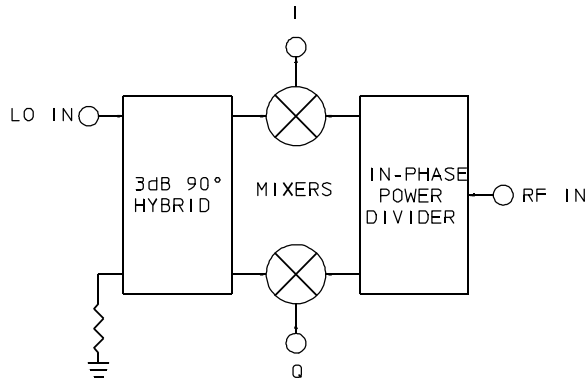


# IQF-4F-1500

# I&Q NETWORK

1.5 GHz Center Frequency / Full Octave LO Bandwidth / Hi-Rel, Hermetic Package



## PRINCIPAL SPECIFICATIONS

Model Number	RF/LO Center Frequency, $f_0$	RF/LO Bandwidth
IQF-4F-1500	1.5 GHz	1 to 2 GHz

## GENERAL SPECIFICATIONS

### RF/LO Input Characteristics

Impedance: 50  $\Omega$  nom.  
 VSWR: 1.8:1 max. at  $f_0$   
 2.0:1 max. over BW

RF Power Level: 0 dBm nom.  
 LO Power Level: +10 dBm nom.

### I & Q Output Characteristics

Video Bandwidth: DC to  $\dagger$ 100 MHz nom.  
 Output Impedance: 50  $\Omega$  nom.

Conversion Loss  
 (RF to I or Q): 10 dB typ.  
 12 dB max.

### IF Balance (I to Q)

Phase Quadrature:  $\pm 3^\circ$  typ.,  $\pm 5^\circ$  max.  
 Amplitude: 0.2 dB typ, 0.5 dB max.

Weight, nominal: 0.35 oz (10 g)

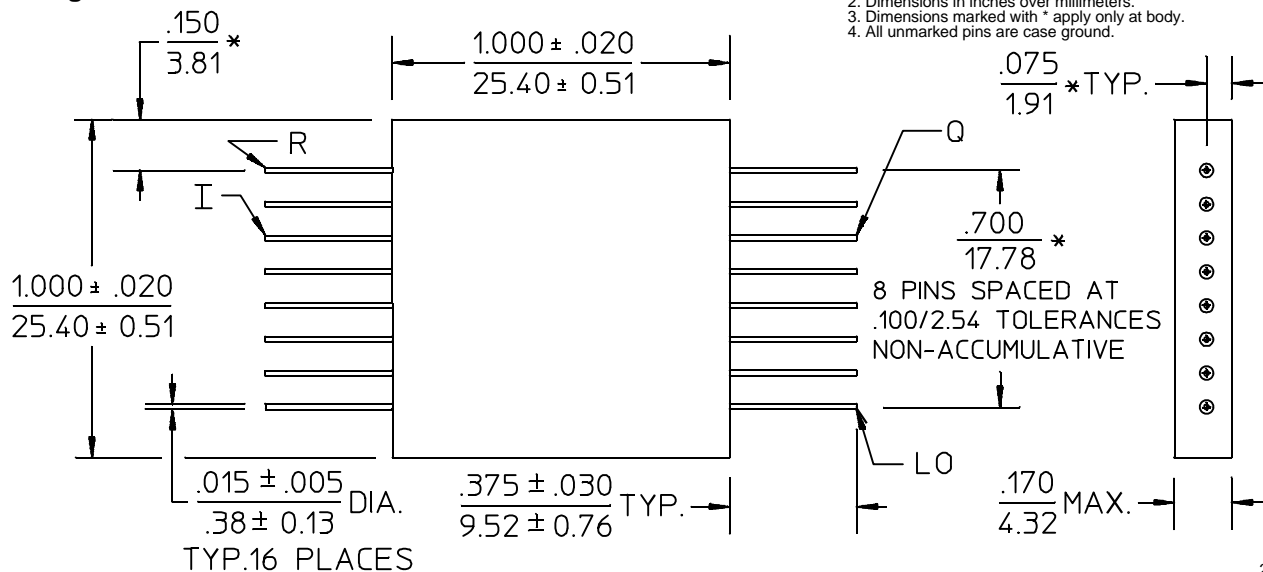
Operating Temp:  $-55^\circ$  to  $+85^\circ\text{C}$

$\dagger$ RF and Video Bandwidth is typically much greater than specified.

### General Notes:

- I & Q networks are integrated devices that produce two quadrature-phased, equal amplitude signals when fed RF and LO signals.
- The IQF-4F-1500 microwave I & Q network uses both lumped and distributed circuit technologies to minimize size and weight while maximizing high performance.
- Nominally centered at 1.5 GHz, this unit covers the full 1 to 2 GHz band. It is ideal for applications such as frequency agile systems that require extremely wide bandwidths.
- Merrimac I & Q networks comply with the relevant sections of MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space applications requiring the highest reliability.

## F - Package Outline



- NOTES: 1. Tolerance on 3 place decimals  $\pm .010(.25)$  except as noted.  
 2. Dimensions in inches over millimeters.  
 3. Dimensions marked with \* apply only at body.  
 4. All unmarked pins are case ground.