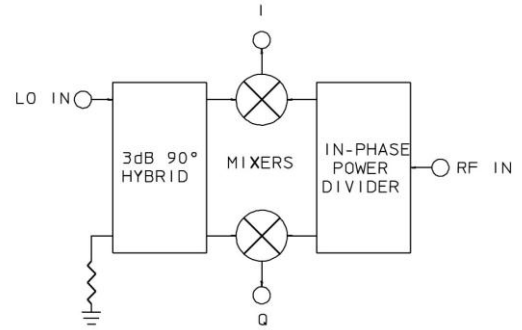


# IQM-A SERIES – I&Q NETWORKS

## TECHNICAL FEATURE

### FEATURES

- Units up to 1 GHz
- 10% and Octave Bandwidths
- IF Balance to 1° and 0.1 dB
- Low Loss
- SMA

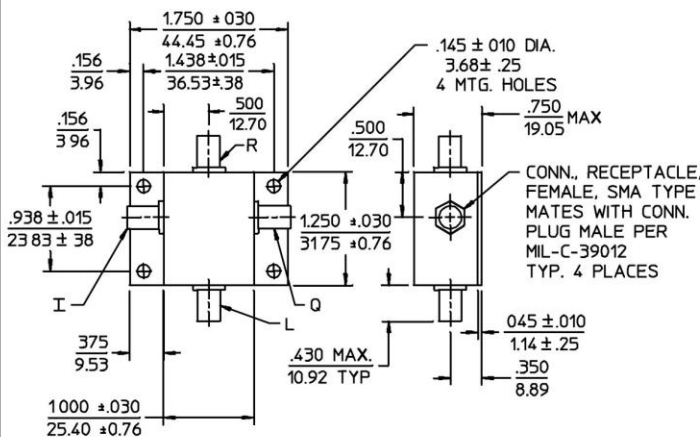


### PRINCIPAL SPECIFICATIONS

Model Number	RF/LO Center Frequency, $f_0$ , MHz	LO Bandwidth (LO Port) Min.	Conversion Loss, dB		Quadrature Bal., (I to Q) LO at $f_0$				Amplitude Balance, LO at $f_0$ , dB, Max.		
			Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	dB, Max.
IQM-20A-***B	5 - 1000	10% of $f_0$	12	10	$\pm 2^\circ$	$\pm 1^\circ$	$\pm 5^\circ$	$\pm 3^\circ$	0.2	0.1	0.5
IQM-4A-***B	5 - 300	67% of $f_0$	12	10	$\pm 5^\circ$	$\pm 3^\circ$	$\pm 5^\circ$	$\pm 3^\circ$	0.5	0.3	0.5

For complete Model Number replace \*\*\* with desired LO Center Frequency,  $f_0$  in MHz

### Package Outline



NOTES: 1. Tolerance on 3 place decimals  $\pm .020(.51)$  except as noted.  
2. Dimensions in inches over mm.

### GENERAL SPECIFICATIONS

#### RF and LO Input Characteristics

- Impedance: 50  $\Omega$  nom.
- VSWR: 1.5:1 max.
- RF Power Level: 0 dBm nom.
- LO Power Level: +10 dBm nom.
- Video Bandwidth, nom: DC to  $\uparrow$ 50 MHz
- Output Impedance: 50  $\Omega$  nom.
- Weight, nominal: 2 oz (57 g)
- Operating Temperature:  $-55^\circ$  to  $+85^\circ$ C

$\uparrow$ RF and Video Bandwidths are dependent on the center frequency, and are typically much greater than specified.

### AVAILABLE OPTIONS

Higher Frequencies, alternate bandwidths and different packages also available.

#### General Notes:

1. I & Q networks are integrated networks that produce two quadrature phased, equal amplitude signals when fed RF and LO signals.
2. The IQM-A series uses lumped element circuits for small size and high performance.
3. 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.

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