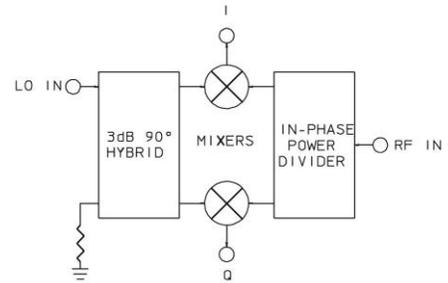


# IQP-4R SERIES – I&Q NETWORKS

## TECHNICAL FEATURE

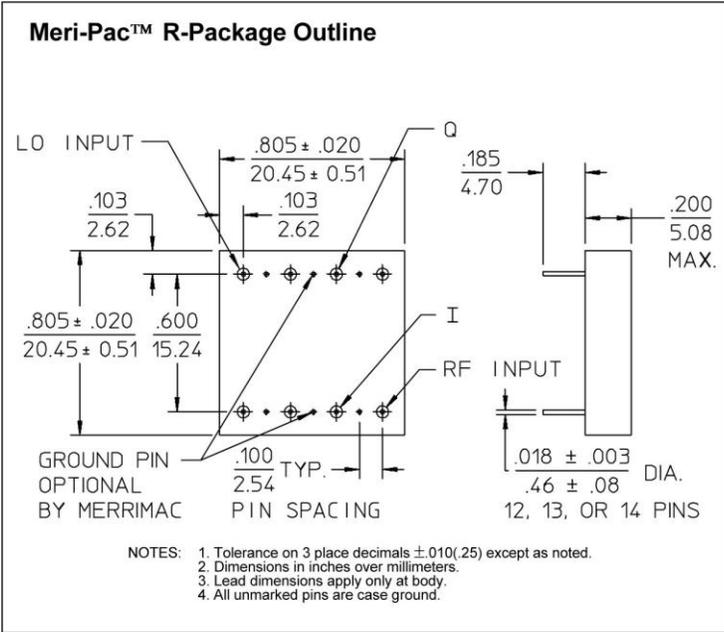
### FEATURES

- 10 to 300 MHz RF/LO Center Frequency
- Octave LO BW
- Hi-Rel Hermetic Package



<b><u>PRINCIPAL SPECIFICATIONS</u></b>		
Model Number	RF/LO Center Frequency, $f_0$	$\dagger$ Bandwidth MHz
IQP-4R-***B	10 – 300 MHz	67% of $f_0$
For complete Model Number replace *** with desired LO Center Frequency, $f_0$ in MHz.		

<b><u>GENERAL SPECIFICATIONS</u></b>	
<b>RF and LO Input Characteristics</b>	
Impedance:	50 $\Omega$ nom.
VSWR:	1.5:1 max.
RF Power Level:	0 dBm nom.
LO Power Level:	+10 dBm nom.
<b>I &amp; Q Output Characteristics</b>	
Video Bandwidth:	DC to $\dagger$ 50 MHz nom.
Output Impedance:	
<b>Conversion Loss</b>	
(RF to I or Q):	10 dB typ, 12 dB max.
<b>IF Balance (I to Q)</b>	
Phase:	90° $\pm$ 4° typ., $\pm$ 5° max.
Amplitude:	0.25 dB typ., 0.5 dB max.
Weight, nominal:	0.32 oz (9 g)
Operating Temp:	-55° to +85°C
$\dagger$ RF and Video Bandwidths are typically much greater than specified.	



<b><u>AVAILABLE OPTIONS</u></b>	
Higher Freq:	(See IQP-4S series)
Narrowband LO:	(See IQP-20R series)
Phase Balance:	90° $\pm$ 3° max.
Conversion Loss:	8 dB typ., 10 dB max.

**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 IQP-4R series of I&Q networks includes an octave band quadrature network to maintains a precise 90° relationship across a full octave of LO frequencies as may be required in some frequency agile communications systems.
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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