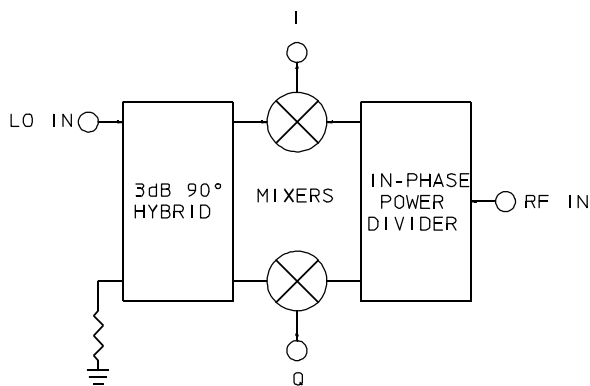


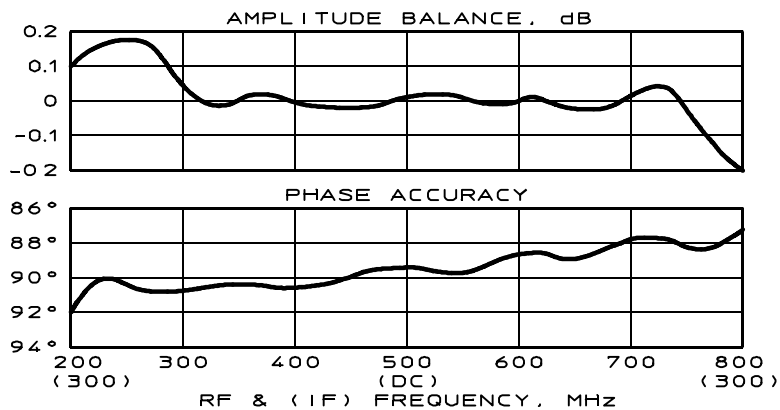
# IQP-20R Series

# I&Q NETWORKS

Units to 1 GHz / Precision Phase and Amplitude Balance / Hi-Rel Meri-Pac



### Performance over Video Bandwidth (LO at 500 MHz)



### PRINCIPAL SPECIFICATIONS

Model Number	LO Frequency, $f_0$ , MHz	Video Bandwidth
IQP-20R-60B	60	$\dagger$ 50 MHz
IQP-20R-***B	20 - 160	$\dagger$ 50 MHz
IQP-20R-***B	160 - 1000	$\dagger$ 100 MHz

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

### GENERAL SPECIFICATIONS

#### RF/LO Input Characteristics

$\dagger$ RF Bandwidth:	10% of $f_0$
Impedance:	50 $\Omega$ nom.
VSWR:	1.5:1 max.
RF Power Level:	0 dBm nom.
LO Power Level @ $f_0$ :	+10 dBm nom.

#### Conversion Loss

(RF to I or Q):	10 dB typ., 12 dB max.
-----------------	---------------------------

#### IF Quadrature Balance (I to Q) @ 100 kHz IF

Phase, @ $LO=f_0$ :	$\pm 1^\circ$ nom., $\pm 2^\circ$ max.
Phase, @ $LO=f_0 \pm 5\%$ :	$\pm 3^\circ$ nom., $\pm 5^\circ$ max.

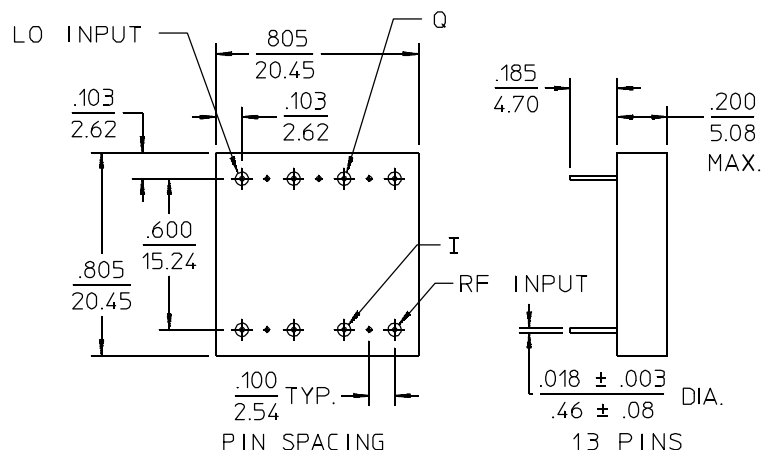
Ampl., @ $LO=f_0$ :	0.2 dB max.
Ampl., @ $LO=f_0 \pm 5\%$ :	0.5 dB max.

Weight, nominal: 0.32 oz (9 g)

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

$\dagger$ RF and Video Bandwidths are typically much greater than specified.

### Outline of R - Size Meri-Pac™



- 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.

#### 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-20R series are precision tuned at a specified LO to yield excellent phase and amplitude balance values across a 10% LO bandwidth.
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.

13Feb96