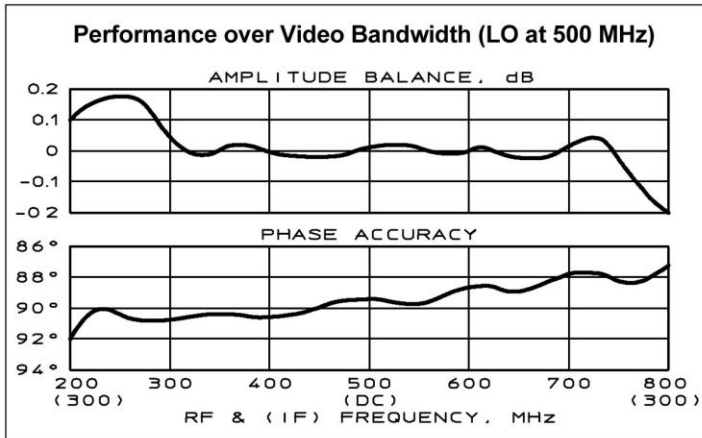
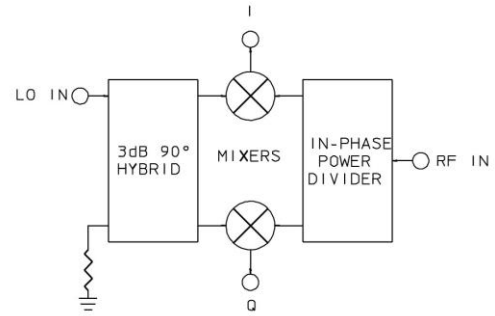


# IQP-20R SERIES – I&Q NETWORKS

## TECHNICAL FEATURE

### FEATURES

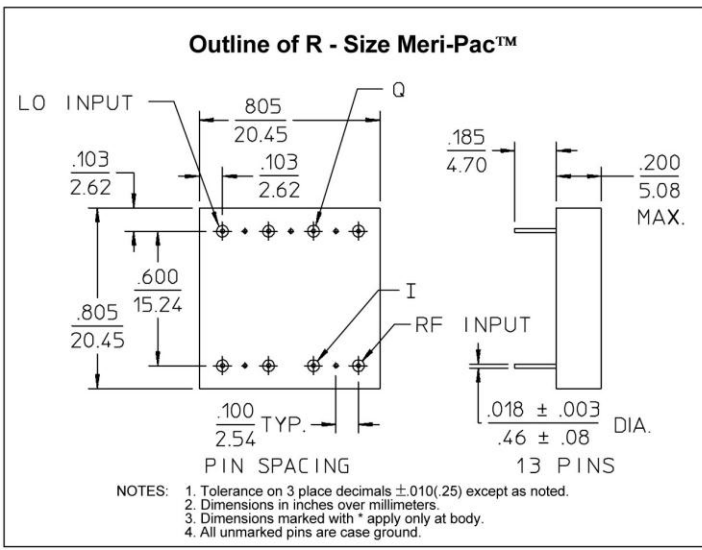
- Units to 1 GHz
- Precision Phase and Amplitude Balance
- Hi-Rel Meri-Pac



**PRINCIPAL SPECIFICATIONS**

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

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



**GENERAL SPECIFICATIONS**

**RF/LO Input Characteristics**

†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  $+85^\circ$ C

†RF and Video Bandwidths are typically much greater than specified.

**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.

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