

**PRINCIPAL SPECIFICATIONS**

Model #	LO Frequency
IQF-20F-***B	1200 to 3000 MHz
For complete model number replace *** with desired LO center freq., $f_0$ in MHz.	

**TECHNICAL DESCRIPTION / APPLICATION**

I&Q Networks are integrated devices that produce two quadrature-phase, equal amplitude signals when fed RF and LO signals. Comprised of standard components, these units are optimized for high accuracy at a given LO frequency and maintain specified performance across 10% of the LO bandwidth. Merrimac I&Q Demodulators comply with the applicable sections of MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space applications requiring the highest reliability.

**GENERAL SPECIFICATIONS**

**RF/LO Input Characteristics**

† RF bandwidth	Impedance	VSWR	RF Power Level	LO Power Level, @ $F_0$
10% of $f_0$	50 $\Omega$ nom.	LO: 1.5:1 max. RF: 2:1 max.	0 dBm nom.	+10 dBm nom.

**I & Q Output Characteristics**

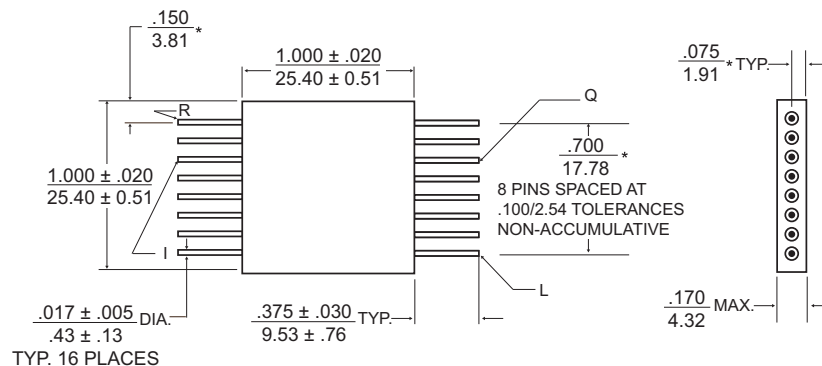
Video Bandwidth, nom.	Output Impedance	Conversion Loss
DC to †250 MHz	50 $\Omega$ nom.	(RF to I or Q): 10 dB typ. 12 dB max.

**IF Quadrature Balance (I to Q), @ 100 kHz IF**

Phase, @ $LO = f_0$	Phase, @ $LO = f_0 \pm 5\%$	Ampl., @ $LO = f_0$	Ampl., @ $LO = f_0 \pm 5\%$	Weight, nominal	Operating Temp.
$\pm 1^\circ$ typ., $\pm 2^\circ$ max.	$\pm 3^\circ$ typ., $\pm 5^\circ$ max.	0.2 dB max.	0.5 dB max.	0.35 oz. (10 g)	-55° to +85°C

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

**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.