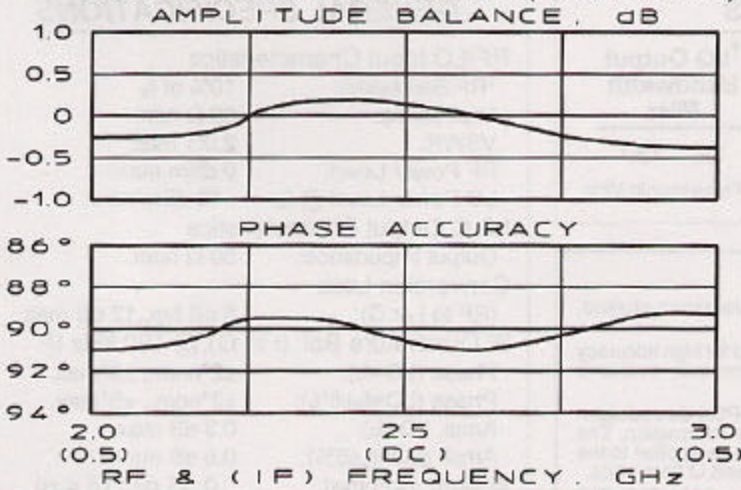


2.17

Performance over Video Bandwidth (LO at 2500 MHz)



PRINCIPAL SPECIFICATIONS

Model Number	LO Frequency
IQF-20F-***B	1200 to 3000 MHz

For complete model number replace ***with desired LO center freq. f_0 in MHz.

GENERAL SPECIFICATIONS

RF/LO Input Characteristics

- RF Bandwidth: 10% of f_0
- Impedance: 50 Ω nom.
- VSWR: LO 1.5:1 max., RF 2:1 max.
- RF Power Level: 0 dBm nom.
- LO Power Level, @ f_0 : +10 dBm nom.

I & Q Output Characteristics

- Video Bandwidth, nom.: DC to \uparrow 250 MHz
- Output Impedance: 50 Ω 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 : $\pm 1^\circ$ typ., $\pm 2^\circ$ max.
- Phase, @ LO = $f_0 \pm 5\%$: $\pm 3^\circ$ typ., $\pm 5^\circ$ max.
- Ampl., @ LO = f_0 : 0.2 dB max.
- Ampl., @ LO = $f_0 \pm 5\%$: 0.5 dB max.

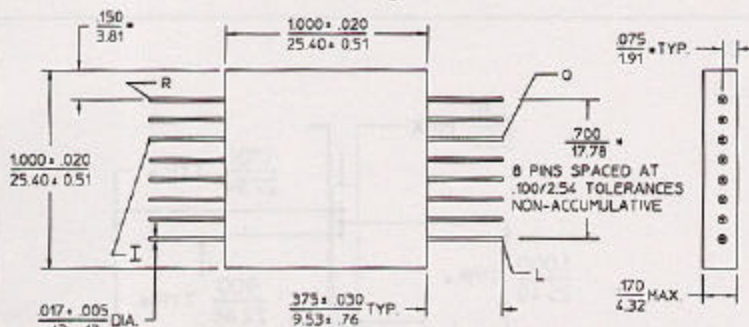
Weight, nominal: 0.35 oz (10 g)

Operating Temperature: -55° to +85°C

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

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F - Package Outline



- NOTES:
1. Tolerance on 3 place decimals $\pm 0.10(25)$ 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 devices that produce two quadrature-phase, equal amplitude signals when fed RF and LO signals.
2. 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.
3. 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.

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