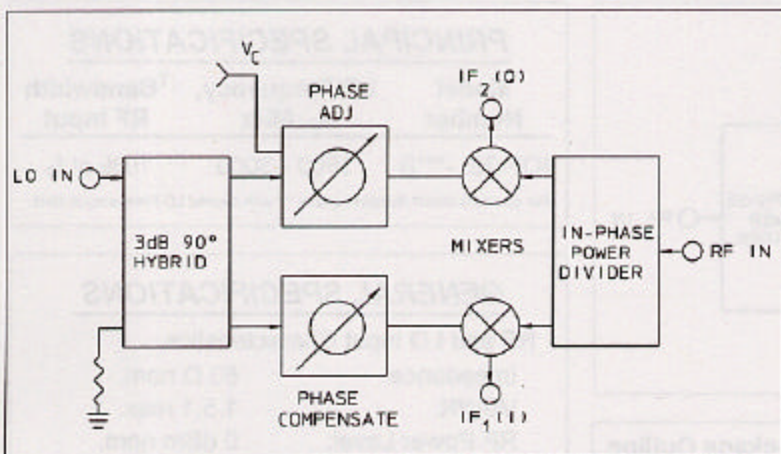


2.19



PRINCIPAL SPECIFICATIONS

Model Number	Center Freq f_0 , MHz	†Bandwidth RF Input
IQF-25F-***B	20 – 1000	10% of f_0

For complete Model Number replace *** with desired LO Frequency in MHz.

GENERAL SPECIFICATIONS

RF and LO Input Characteristics

Impedance:	50 Ω nom.
VSWR:	1.5:1 max.
RF Power Level:	0 dBm nom.
LO Power Level:	+10 dBm nom.

I & Q Output Characteristics

Video Bandwidth, nom:	DC to †50 MHz
Output Impedance:	50 Ω nom.

Conversion Loss (RF to I or Q): 10 dB typ.

IF Balance (I to Q): 12 dB max.

Phase, @ $V_c = +5V$:	$90^\circ \pm 2^\circ$
Bias Control:	0 to +15V @ 1.5 mA max.

Adjustable Range: $\pm 10^\circ$ nom.

Sensitivity: $5^\circ/V$ nom.

Temperature Stability: $\pm 1^\circ$ max.

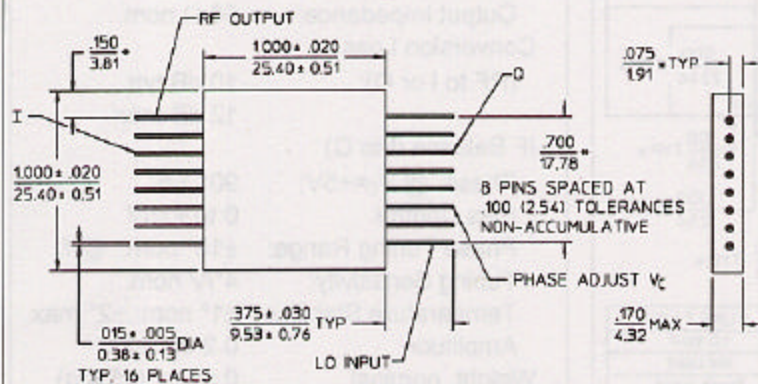
Amplitude: 0.2 dB max.

Weight, nominal: 0.35 oz (10g)

Operating Temperature: -55° to $+85^\circ C$

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

F-Package Outline



- NOTES: 1. Tolerance on 3 place decimals ± 0.10 (25) except as noted.
 2. Dimensions in inches over millimeters.
 3. Dimensions marked with an * apply only at the body.
 4. All unmarked pins are case ground.

General Notes:

- I & Q networks are integrated devices that produce two quadrature-phased, equal amplitude signals when fed RF and LO signals.
- The IQF-25F series features an in-circuit, voltage controlled phase balance that allows fine adjustment of phase. This feature provides accuracy not previously attainable in a comparably small package. In addition, the voltage controlled phase balance input facilitates closed loop, servo operation using the phase adjustment input as feedback.
- 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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