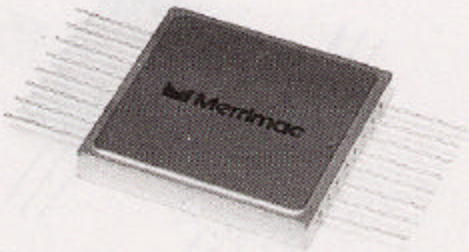
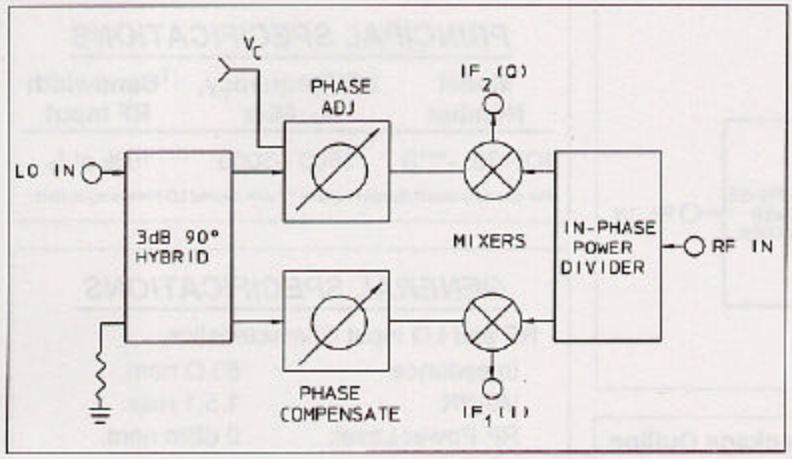
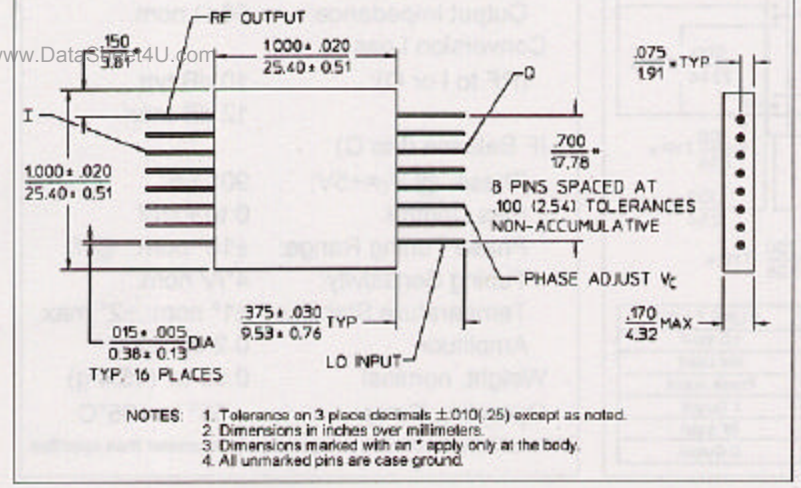




F-Package Outline



NOTES:
1. Tolerance on 3 place decimals ±.010(.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.

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.
	12 dB max.
IF Balance (I to Q)	
Phase, @ V_C=+5V:	90° ± 2°
Bias Control:	0 to +15V @1.5 mA max.
Adjustable Range:	± 10° nom.
Sensitivity:	5°/V nom.
Temperature Stability:	± 1° max.
Amplitude:	0.2 dB max.
Weight, nominal:	0.35 oz (10g)
Operating Temperature:	– 55° to +85°C

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

General Notes:

1. I & Q networks are integrated devices that produce two quadrature-phased, equal amplitude signals when fed RF and LO signals.
2. 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.
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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