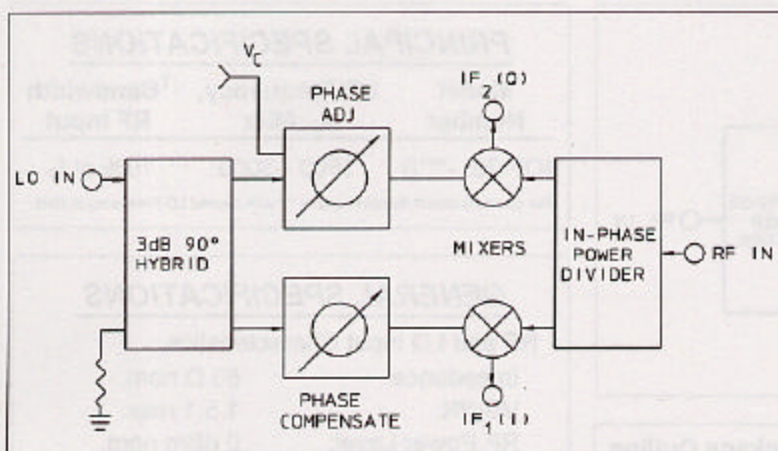




2.19

**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.
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IF Balance (I to Q):	12 dB max.
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Phase, @ $V_c = +5V$:	$90^\circ \pm 2^\circ$
Bias Control:	0 to +15V @1.5 mA max.

Adjustable Range:	$\pm 10^\circ$ nom.
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Sensitivity:	5°/V nom.
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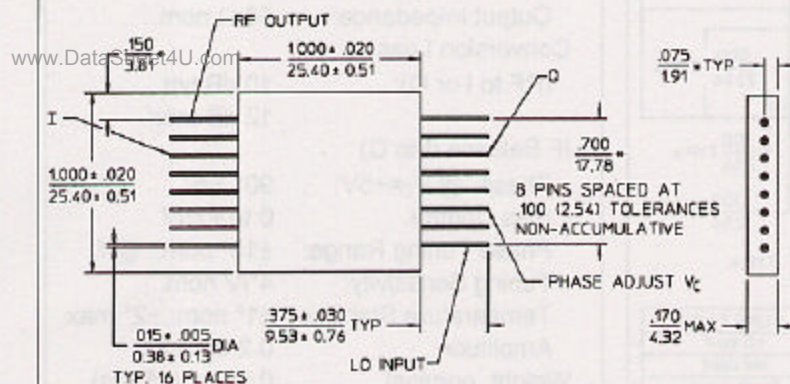
Temperature Stability:	$\pm 1^\circ$ max.
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Amplitude:	0.2 dB max.
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Weight, nominal:	0.35 oz (10g)
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Operating Temperature:	-55° to $+85^\circ C$
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[†]RF and Video Bandwidths typically much greater than that specified.

F-Package Outline

- NOTES: 1. Tolerances 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:

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.

13Feb96