

**PRINCIPAL SPECIFICATIONS**

Model Number	LO Frequency, $f_0$ , MHz	Bandwidth RF Input
IQF-25L-***B	1500 - 3000	10% of $f_0$

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

**GENERAL SPECIFICATIONS**

**RF and LO Input Characteristics**

Impedance:	50 $\Omega$ 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 $\dagger$ 100 MHz
Output Impedance:	50 $\Omega$ nom.

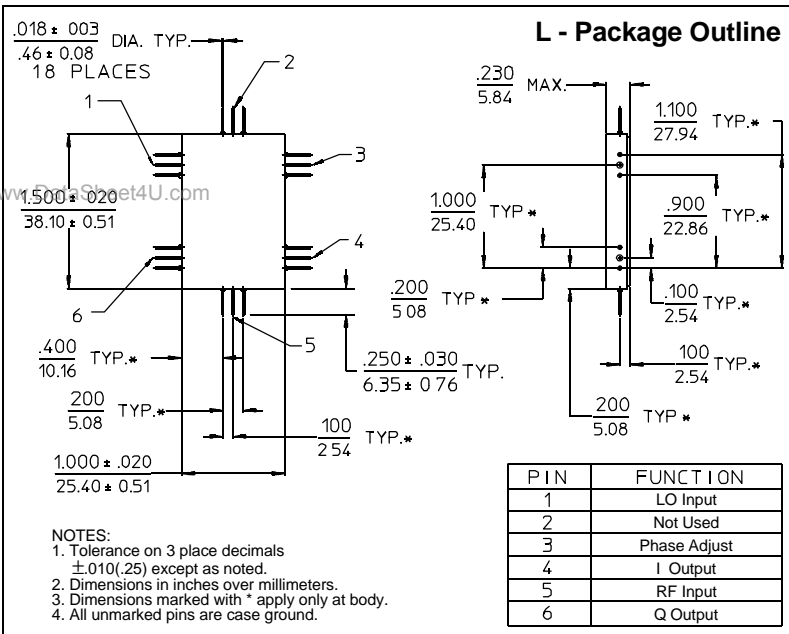
**Conversion Loss**

(RF to I or Q):	10 dB typ., 12 dB max.
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**IF Balance (I to Q)**

Phase, @ $V_c$ =+5V:	$90^\circ \pm 5^\circ$
Bias Control:	0 to +15V
Phase Tuning Range:	$\pm 10^\circ$ nom., @ $f_0$
Tuning Sensitivity:	$4^\circ/V$ nom.
Temperature Stability:	$\pm 1^\circ$ nom., $\pm 2^\circ$ max.
Amplitude:	0.2 dB max.
Weight, nominal	0.55 oz (15.4 g)
Operating Temp:	-55° to +85°C

$\dagger$ RF and Video Bandwidths are typically much greater than specified.



**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.

**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-25L 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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