

PRINCIPAL SPECIFICATIONS

Model Number	LO Frequency f_o , MHz	Video Bandwidth
IQF-24E-***B	20 - 300	\dagger 15 MHz

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

COMMON SPECIFICATIONS

RF/LO Input Characteristics

LO Bandwidth:	10%, centered at f_o [†]
Impedance:	50 Ω nom.
VSWR:	1.5:1 max.
RF Power Level:	0 dBm nom.
LO Power Level @ f_o :	+10 dBm nom.

I & Q Output Characteristics

Output Impedance:	50 Ω nom.
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Conversion Loss

(RF to I or Q):	10 dB typ., 12 dB max.
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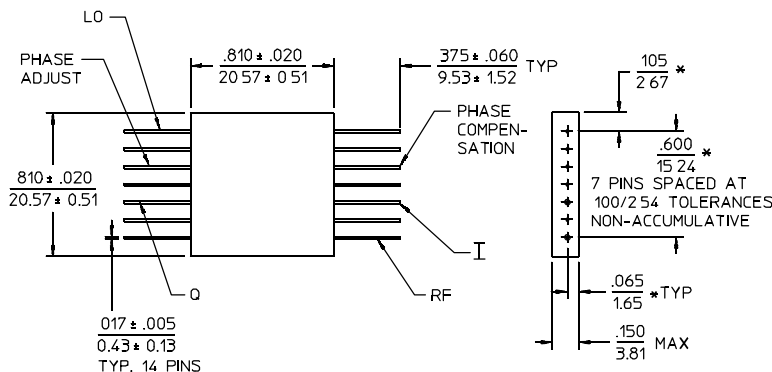
IF Quadrature Balance (I to Q), @ 100 kHz IF

Phase, @ $LO=f_o$:	$90^\circ \pm 5^\circ$ nom. (uncompensated)
Phase Variation:	$90^\circ \pm 1^\circ$, @ $LO=f_o$ (after compensation at 25°C) (over temperature range)
Ampl., @ $LO=f_o$:	0.3 dB max.

Weight, nominal:	0.32 oz (9 g)
Operating Temperature:	-55° to +85°C

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

Outline of E - Size Flatpack



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.
5. External capacitors in the range 1 to 10 pF required.

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-24E series I&Q networks are factory adjusted with a reference capacitor at a given LO frequency. Upon customer installation, the units may be fine tuned as required by selecting an appropriate external capacitor value.
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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