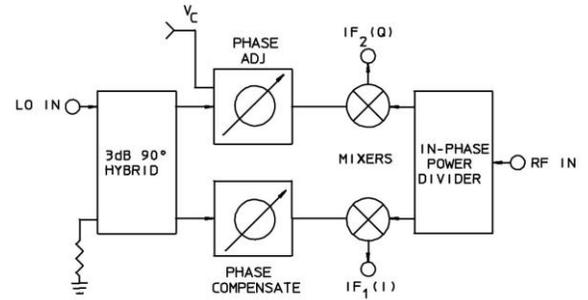


IQP-25S SERIES – I&Q NETWORKS

TECHNICAL FEATURE

FEATURES

- Units to 1 GHz
- 10% Bandwidth
- In-Circuit, Voltage Controlled Phase Balance
- Hi-Rel Hermetic



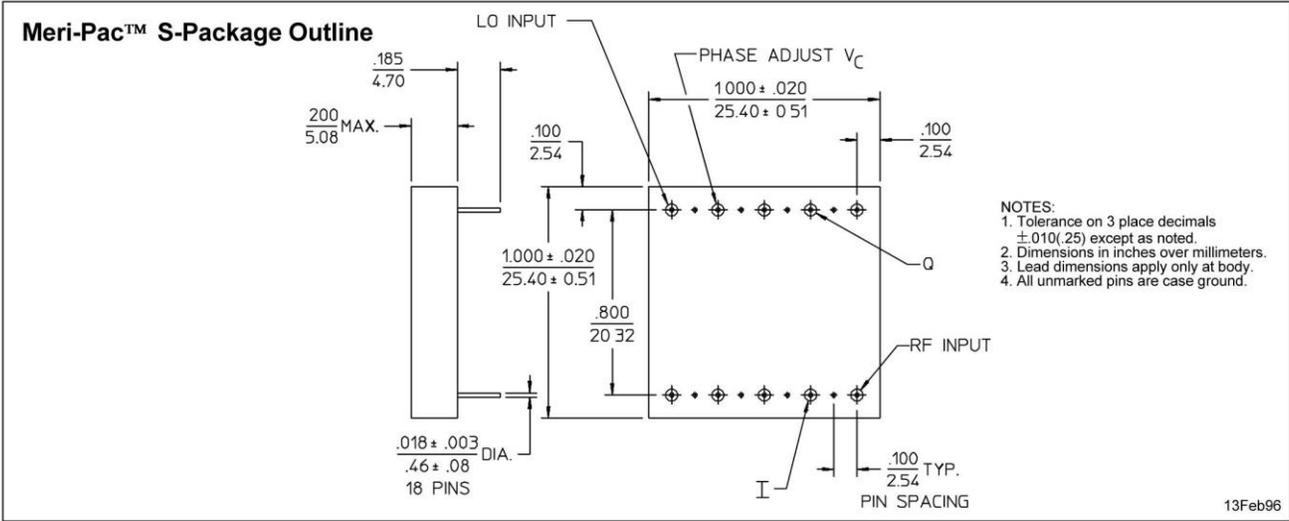
<u>PRINCIPAL SPECIFICATIONS</u>		
Model Number	Center Freq f_0 , MHz	\dagger Bandwidth RF Input
IQP-25S-***B	20 – 1000	10% of f_0
For complete model number replace ***with desired LO freq, f_0 in MHz.		

<u>GENERAL SPECIFICATIONS</u>	
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 \dagger 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, @ $V_C = +5V$:	$90^\circ \pm 2^\circ$
Bias Control:	0 to +15V
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 Temp:	-55° to $+85^\circ C$

\dagger 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 IQP-25S 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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