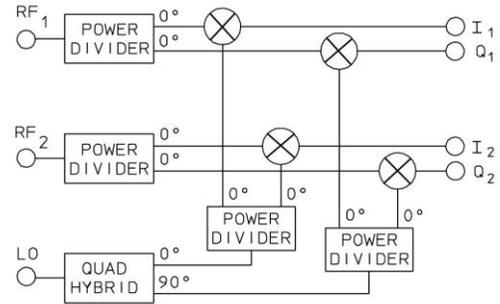


IMF-2 SERIES – IMAGE REJECT MIXERS

TECHNICAL FEATURE

FEATURES

- 10 to 3000 MHz
- Rejection Ratios up to 30 dB
- Internal Summing Quadrature
- Hi-Rel Package



PRINCIPAL SPECIFICATIONS

Model Number	RF/LO Center Frequency, f_0	[†] Bandwidth MHz
IDP-2S-***B	20 to 500 MHz	10% of f_0

[†]RF and video bandwidths are typically much greater than specified.
 *** Insert center 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: +14 dBm nom.

I & Q Output Characteristics
 Video Bandwidth: DC to [†]50 MHz nom.
 Output Impedance: 50 Ω nom.

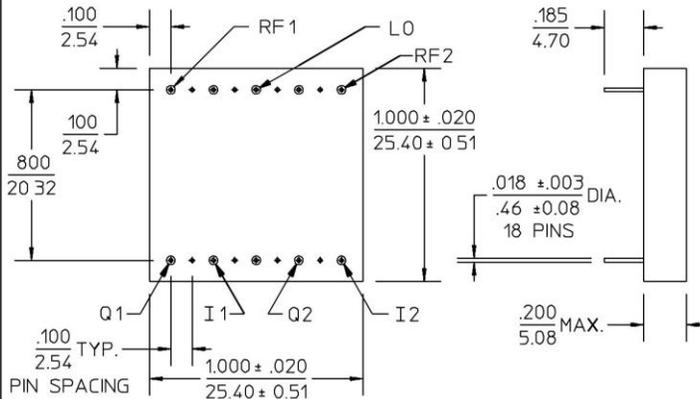
Conversion Loss
 (RF to I or Q): 10 dB typ.

IF Balance
 12 dB max.

Phase:
 $0 \pm 5^\circ$ max. (I₁ - I₂ or Q₁ - Q₂)
 $90 \pm 5^\circ$ max. (I₁ - Q₁ or I₂ - Q₂)

Amplitude: 0.5 dB typ., 1 dB max.
Weight, nominal: 0.35 oz (10 g)
Operating Temp: -55° to +85°C

Meri-Pac™ S-Package Outline



- NOTES: 1. Tolerance on 3 place decimals $\pm 0.10(.25)$ except as noted.
 2. Dimensions in inches over millimeters.
 3. Lead dimensions apply only at body.
 4. All unmarked pins are case ground.

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AVAILABLE OPTIONS

Phase Balance: $90^\circ \pm 2^\circ$ max.
Amplitude Balance: 0.5 dB max.
Wider Bandwidth: Customized units

General Notes:

1. Dual I & Q networks are integrated devices that produce two pairs of quadrature-phased, equal amplitude signals when fed by two IF signals and an LO signal as shown in the schematic above.
2. Merrimac's IDP-2S series combines two matched circuits in one package. Both lumped and distributed circuit technologies are used to minimize size and weight while maintaining excellent overall performance.
3. Merrimac's I & Q networks comply with the relevant sections of MIL-M-28837 and may be screened for compliance with additional specifications for military and space applications requiring the highest reliability.