

**PRINCIPAL SPECIFICATIONS**

Model Number	LO Center Frequency, $f_0$ , MHz	Usable Bandwidth, MHz	Outline Style
SSP-2S-*** /	10 - 1000	10% of $f_0$	S
SSP-2U-**** /	1000 - 4000	10% of $f_0$	U

A complete model number will be assigned with center frequency \*\*\*\* =  $f_0$  and slash number once a full specification is established with the factory.

**GENERAL SPECIFICATIONS\***

RF/IF Input Characteristics

- Impedance: 50  $\Omega$  nom..
- VSWR: 1.5:1 max.
- RF Power Level: +10 dBm
- IF Power Level: 0 dBm nom.
- IF Bandwidth: up to an octave
- RF Bandwidth: 10%

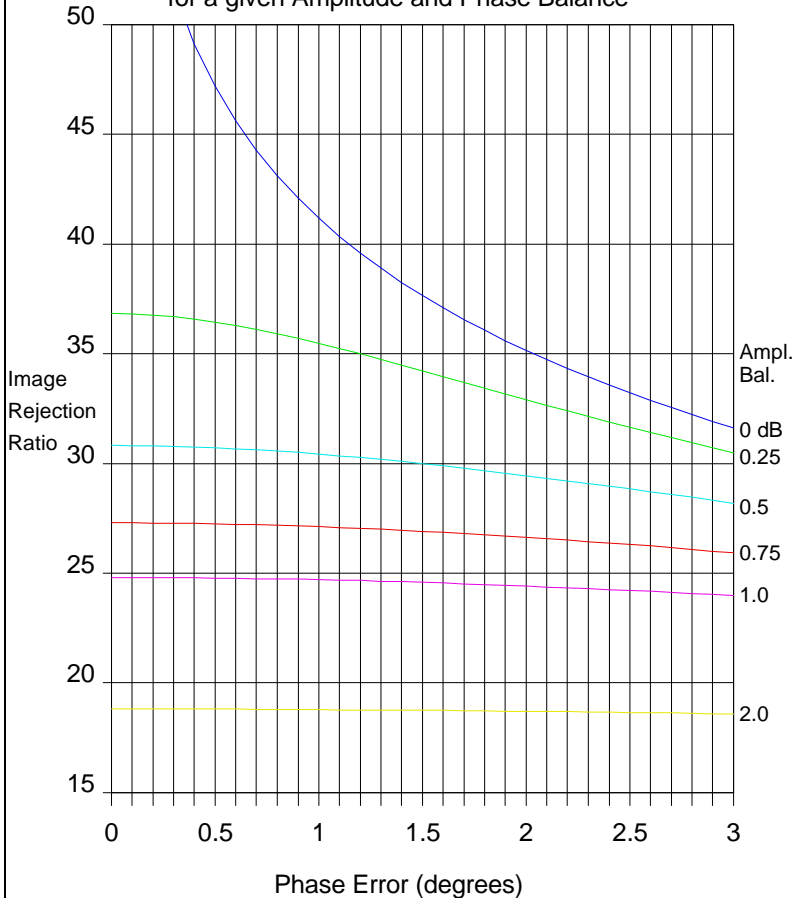
Output Characteristics

- Conversion Loss: 9 dB max.
- Sideband Suppression: 25 dB min.
- Weight: (See outlines)
- Temperature Range: -55° to +85°C

\*Unit operated as upconverter

**IMAGE REJECTION**

for a given Amplitude and Phase Balance



**General Notes:**

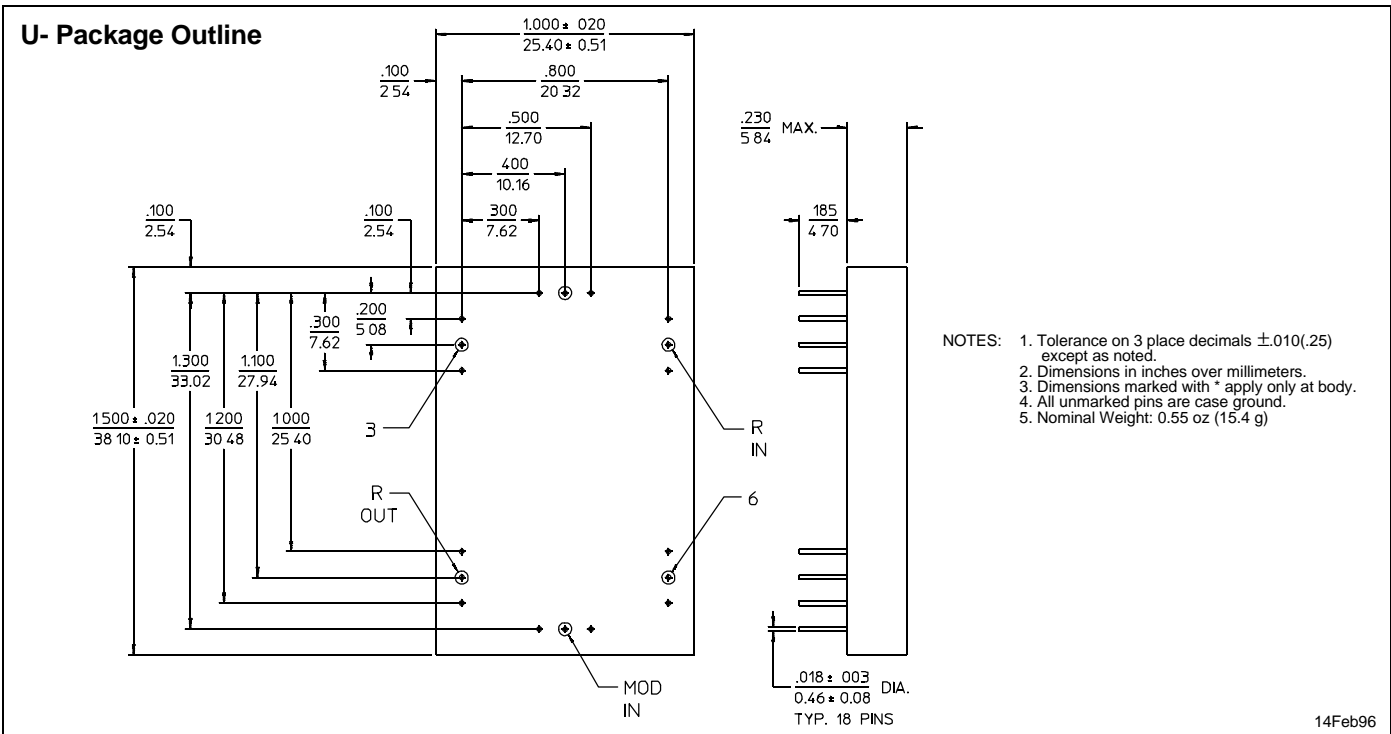
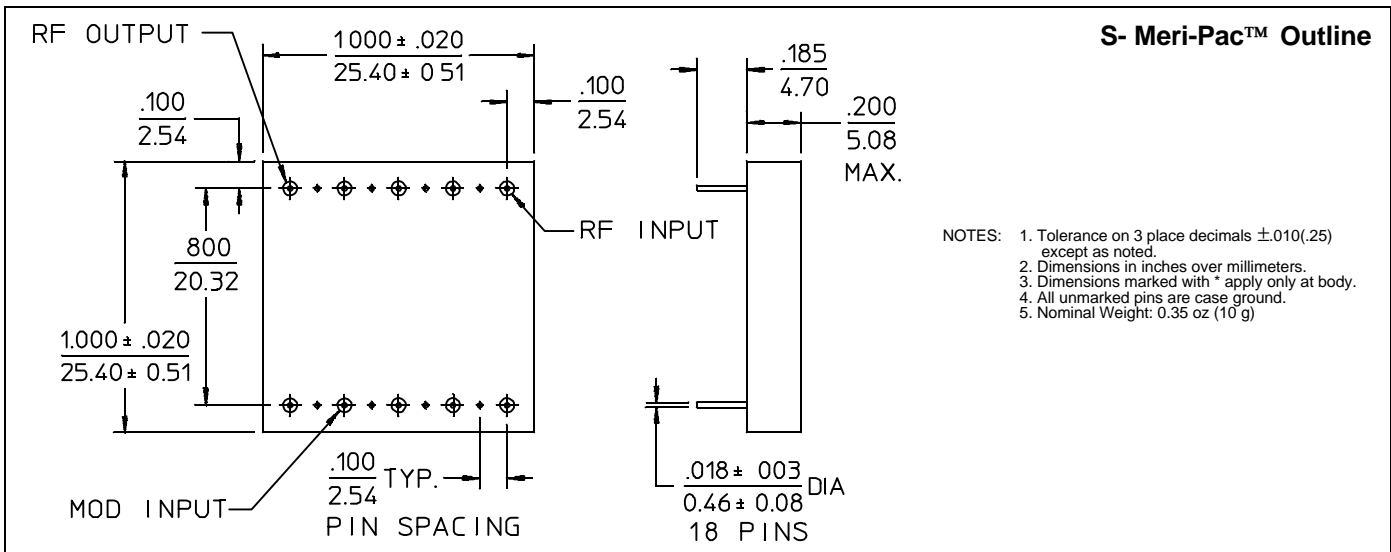
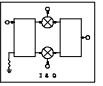
1. Single Sideband Modulators are integrated networks composed of an in-phase power divider, two double balanced mixers and at least one 90° quadrature hybrid.
2. The SSP-2 series is suitable for applications where the modulating signal is provided together with one in phase quadrature to it. This permits operation down to DC and eliminates the need for a second 90° quadrature hybrid.
3. Units in the SSP-2 series are suitable where the desired and undesired RF sidebands are too close to be effectively separated with a simple bandpass filter or where minimum group delay is required.
4. Merrimac Single Sideband Modulators are available in various package options.
5. Merrimac Single Sideband Modulators 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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# SSP-2 Series

# SINGLE SIDEBAND MODULATORS

10 to 4000 MHz / Image Rejection up to 30 dB / Two Quad Hybrids / Choice of Packages



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