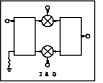
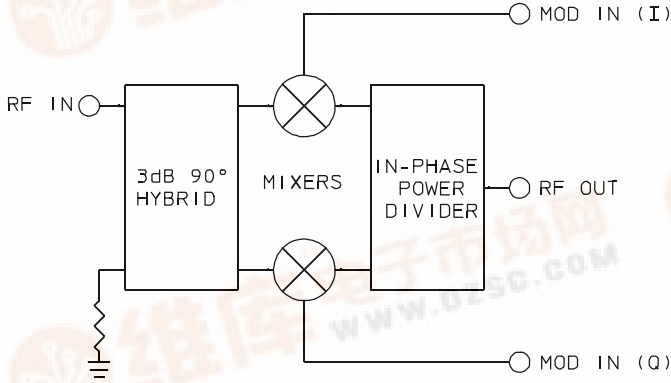


# SSF-1E Series

# SINGLE SIDEBAND MODULATORS

10 to 1000 MHz / 30 dB Sideband Rejection / Quadrature-Phased Baseband Inputs



## PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency, $f_0$ , MHz	Usable Bandwidth, MHz
SSF-1E-***B	10 - 1000	10% of $f_0$

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

## GENERAL SPECIFICATIONS\*

### RF Input Characteristics

Impedance: 50  $\Omega$  nom.  
 VSWR: 1.5:1 max.  
 RF Power Level: +10 dBm nom.

### I & Q Modulation Inputs

Power Level: - 3 dBm  
 Bandwidth: DC to 10% of RF

### Output Characteristics

Conversion Loss: 9 dB max.  
 Sideband Rejection: 30 dB min.  
 Carrier Suppression: 25 dB min.  
 Weight, nominal: 0.32 oz (9 g)  
 Operating Temp: - 55° to +85°C

\*Device used as upconverter

### 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 SSF-1E 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 SSF-1E 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.

## E- Flatpack Outline

