

2-26.5 GHz

## MULTI-OCTAVE MIXER/PREAMPLIFIER

- Broad IF – 20 to 500 MHz
- Wideband – 2 to 26.5 GHz RF/LO
- Low Cost – Uses MMIC Amplifier
- Down Converter

MODEL 4427

### SPECIFICATIONS

PARAMETER	LIMITS			CONDITIONS	
	MIN	TYP	MAX	F <sub>RF</sub> (GHz)	F <sub>LO</sub> (GHz)
IF Frequency, MHz	20		500	2.0-26.5	2.0-26.5
Fundamental Mode Conversion Loss, dB	20.0 20.0			2.0-18.0 18.0-26.5	2.0-18.0 18.0-26.5
3rd Harmonic Mode Conversion Loss, dB	8.0 8.0			6.0-18.0 18.0-26.5	2.0-6.0 6.0-9.0
VSWR R Port		– 4.0:1	3.5:1 –	2.0-18.0 18.0-26.5	
L Port		– 4.0:1	3.5:1 –		2.0-18.0 18.0-26.5
I Port			2.5:1	2.0-26.5	2.0-26.5
Noise Figure, dB max			11.0	2.0-26.5	2.0-26.5
Output Power @ 1 dB Compression, dBm		+8.0		2.0-26.5	2.0-26.5
Isolation, dB L/R	18.0 16.0				2.0-18.0 18.0-26.5
L/I	12.2 12.5 23.0	13.0 18.0			2.0-3.0 3.0-18.0 18.0-26.5
R/L	21.0 14.0			2.0-18.0 18.0-26.5	
LO Power, dBm	10		13	2.0-26.5	2.0-26.5
Supply Voltage, Vdc	12	15	18	2.0-26.5	2.0-26.5
Supply Circuit, mA @15V		35	50	2.0-26.5	2.0-26.5

Note:  
Specifications are with +10 dBm LO power, 100 MHz IF at 25°C

### MAXIMUM RATINGS

Storage Temperature . . . . . -65° to +100°C  
 Operating Temperature . . . . . -54°C to +100°C  
 RF Input Power . . . . . 200 mW at 25°C  
 100 mW at 100°C

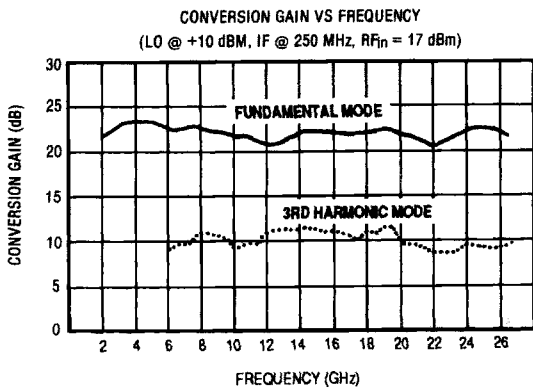
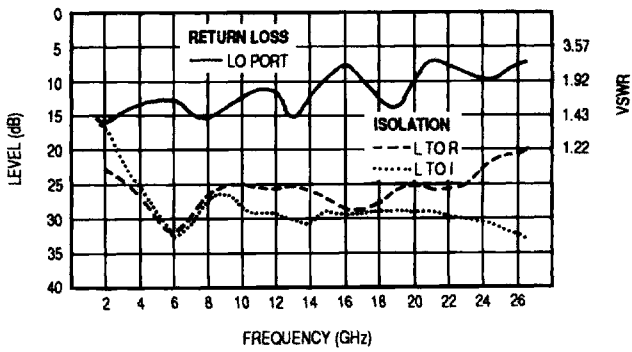
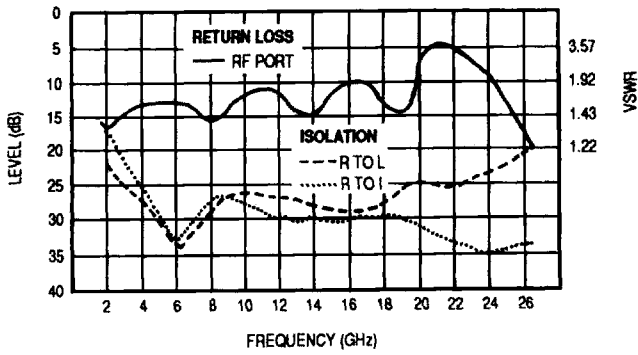
### WEIGHT

1.4 oz (41 grams), max

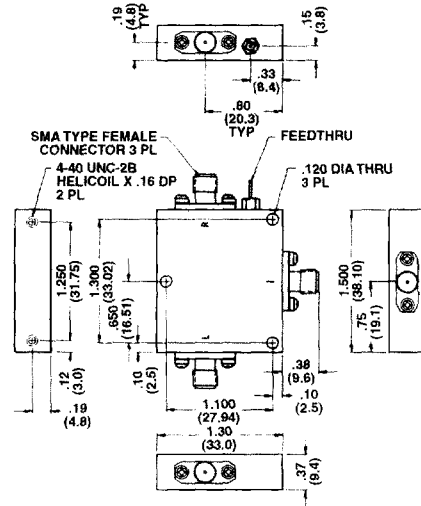
### CONNECTORS

RF . . . . . SMA Female  
 Power Supply . . . . . Solder Pin

## TYPICAL PERFORMANCE



## OUTLINE DRAWINGS



TOL: XX ±.02  
XXX ±.010

Dimensions in parentheses are in millimeters and for reference only.