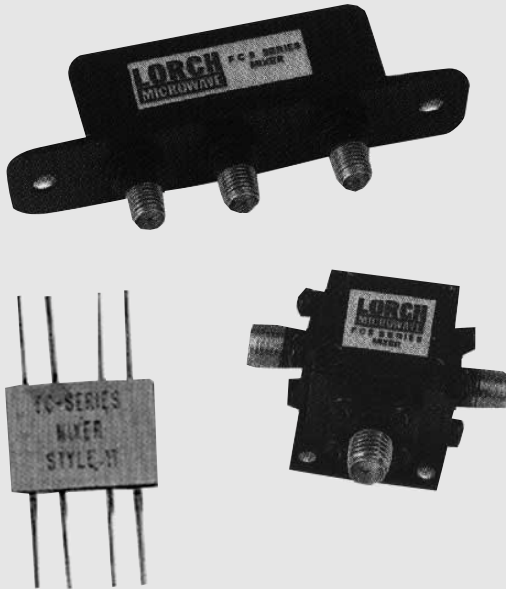


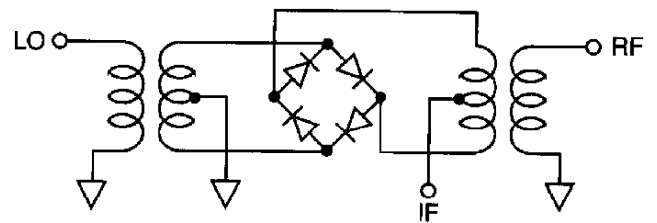
Broad Band Mixers



- 50 kHz - 4000 MHz Frequency Range
- Wide Range and Optimized Bands
- High Dynamic Range
- Low Insertion Loss
- High Isolation

Lorch Microwave's Broad Band Mixers, Series FC, are available in a wide range of LO drives. They are optimized to cover the frequency range from 0.05 to 4000 MHz. Low conversion loss and high isolation are achieved by the use of low-loss ferrite networks together with specially matched Schottky barrier diode quads.

FIGURE 1
SCHEMATIC, DOUBLE BALANCED MIXER



Part Number Description

FC	-	7	-	5	-	500	-	11
1		2		3		4		5

- 1 FC** Series, Mixer
- 2 7** Nominal LO Power in dBm
- 3 5** Lower Frequency Limit in MHz for LO/RF
- 4 500** Upper Frequency Limit in MHz for LO/RF
- 5 11** Package Style, See Outlines

Creating a Part Number

Lorch Microwave's FC-Series, Broad Band Mixers, have descriptive part numbers indicating the important characteristics that define the units. A list of standard Mixers are given in the following section. For custom designs, please contact the factory.

Broad Band Mixers

TYPICAL PERFORMANCE SPECIFICATIONS

Part Number	LO Power	Frequency Range, MHz		Performance Bandwidth, MHz Ports LO & RF	Conversion Loss, dB (MAX.)	Isolation		1-dB Input Comp. Level	Third Order Intercept Point
		Ports LO & RF	Port IF			LO - RF, dB (MIN.)	LO - IF, dB (MIN.)		
FC-7-0.05-100	+7 dBm	0.05 - 100	DC - 100	0.05 - 0.1	7.5	50	50	0 dBm	+13 dBm
				0.1 - 10	6.0	50	50		
				10 - 60	6.0	35	30		
				60 - 100	7.5	35	30		
FC-7-0.2-600	+7 dBm	0.2 - 600	DC - 600	0.2 - 0.4	8.0	50	50	0 dBm	+13 dBm
				0.4 - 40	6.0	50	45		
				40 - 150	6.0	50	35		
				150 - 600	8.0	40	30		
FC-7-2-1200	+7 dBm	2 - 1200	DC - 1200	2 - 500	8.0	35	30	0 dBm	+13 dBm
				500 - 1000	8.0	30	30		
				1000 - 1200	8.5	25	25		
FC-10-10-2000	+10 dBm	10 - 2000	10 - 2000	10 - 50	7.5	40	30	+3 dBm	+15 dBm
				50 - 500	7.5	35	25		
				500 - 1000	8.0	30	20		
				1000 - 2000	8.5	25	20		
FC-10-10-3000	+10 dBm	10 - 3000	10 - 2000	10 - 500	8.0	25	20	+3 dBm	+15 dBm
				500 - 1000	8.5	30	25		
				1000 - 3000	9.0	25	18		
FC-13-10-4000	+13 dBm	10 - 4000	10 - 2000	10 - 1000	8.0	30	25	+6 dBm	+17 dBm
				1000 - 2500	8.5	25	20		
				2500 - 4000	9.5	20	17		
FC-20-0.05-100	+20 dBm	0.05 - 100	DC - 100	0.05 - 10	6.5	45	40	+13 dBm	+27 dBm
				10 - 60	6.5	35	25		
				60 - 100	7.5	35	25		
FC-20-0.2-500	+20 dBm	0.2 - 500	DC - 500	0.2 - 25	7.0	50	40	+13 dBm	+27 dBm
				25 - 50	7.0	45	35		
				50 - 150	7.0	30	25		
				150 - 500	8.0	30	25		
FC-20-2-1000	+20 dBm	2 - 1000	DC - 500	2 - 400	8.0	35	30	+13 dBm	+27 dBm
				400 - 500	8.5	35	30		
				500 - 1000	8.5	25	20		
FC-25-1-50	+25 dBm	1 - 50	DC - 25	1 - 50	7.0	50	45	+18 dBm	+32 dBm
FC-25-10-300	+25 dBm	10 - 300	DC - 90	10 - 100	7.5	45	40	+18 dBm	+32 dBm
				100 - 300	7.5	40	35		
FC-25-30-700	+25 dBm	30 - 700	DC - 175	25 - 300	7.5	40	35	+18 dBm	+32 dBm
				300 - 700	7.5	27	25		

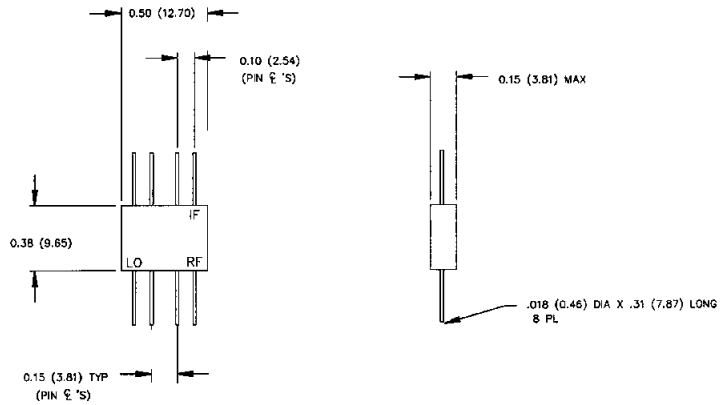
Notes:

- 1) Nominal impedance is 50 Ohms.
- 2) DC polarity is negative.

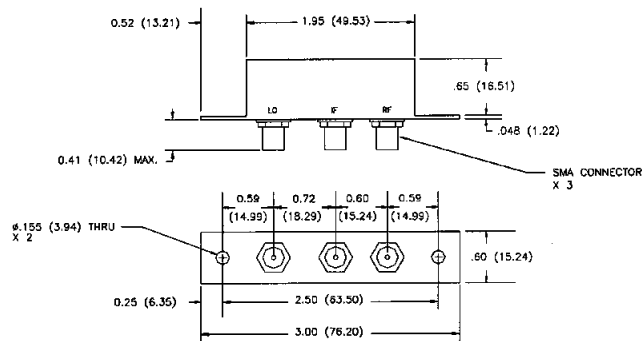
Standard units are designed to provide optimum performance over the full frequency range listed. If the band of interest is narrower, it should be indicated when ordering (See "Creating a Part Number"). Performance will be optimized over the band of interest and improved performance may be offered at no extra cost.

Broad Band Mixers

Flatpack, Style 11



SMA Connectorized



PC Mount, Style 22

