MIXERS
SUB-HARMONIC

LO = +7 dBm

EXCELLENT L.O. REJECTION

EVEN-HARMONIC MIXERS

An even-harmonic mixer will, by its inherent design, convert the fundamental input L.O. frequency into its even harmonics (m=2,4 or 8 etc.). These even harmonics will mix with the fundamental R.F. frequency to basically produce m L.O. ± R. F. mixing results. Synergy specifies the 2 L.O. and 4 L.O. mixing products, as the higher L.O. even harmonics result in much higher conversion losses. The best conversion loss is achieved at the 2 L.O. x 1 R.F. mixing condition.

These models allow for lower frequency local oscillators to be used, therefore reducing costs.

CLick on package to view outline drawing

134J 

159 

SURFACE MOUNT

FREQUENCY RANGE (MHz)			CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	PACKAGE	PIN OUT	MODEL
RF	LO	IF	2LO-RF TYP/MAX	4LO-RF TYP/MAX	TYP/MIN	TYP/MIN			
280-800	140-400	DC-100	11.5/13.5	17.0/26	45/33	30/22	159	1	**XLD-K1**
280-800	140-400	DC-100	11.5/13.5	17.0/26	45/33	30/22	134J	1	**XMZ-K1**
500-1800	250-900	DC-200	11.5/14.5	17.0/26	40/30	25/18	159	1	**XLD-K2**
500-1800	250-900	DC-200	11.5/14.5	17.0/26	40/30	25/18	134J	1	**XMZ-K2**
800-2400	400-1200	DC-300	12.5/16.5	18.0/27	30/25	25/16	159	1	**XLD-K3**
800-2400	400-1200	DC-300	12.5/16.5	18.0/27	30/25	25/16	134J	1	**XMZ-K3**

THROUGH HOLE

106 

108 

120 

FREQUENCY RANGE (MHz)			CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)	LO-IF ISOLATION (dB)	PACKAGE	PIN OUT	MODEL
RF	LO	IF	2LO-RF TYP/MAX	4LO-RF TYP/MAX	TYP/MIN	TYP/MIN			
900-2400	450-1200	DC-300	12.5/16.5	18.0/24	30/25	25/16	120	2	**CXP-237**
900-2400	450-1200	DC-300	12.5/16.5	18.0/24	30/25	25/16	106	3	**CXP-337**
900-2400	450-1200	DC-300	12.5/16.5	18.0/24	30/25	25/16	108	2	**CXP-437**

NOTES:

1. 1dB Compression Point = -7 dBm (Typ.)
2. IP3 (Input) = +4 dBm (Typ.)
3. Maximum Input Power without damage = 100 mW ave. cw

PIN-OUT TABLE

	RF	LO	IF	GND	No Conn.
#1	4	1	5	2,3,6	--
#2	1	3	8	2,5,6,7	4
#3	1	2	4	3	--

GND = Ground externally

For pin location and package outline drawings, see back pages.

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