Frequency Mixers

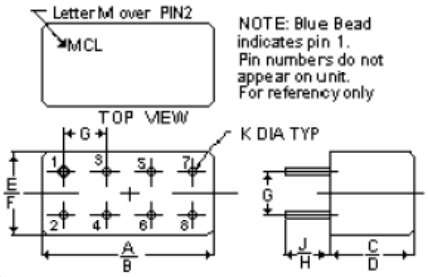
LO Power Level 7 dBm

Pin Configuration

Port LO	RF	IF	Gnd	Ext. Case Gnd	Not Used
j	8	3,4^	1	2,5,6,7	2,5,6,7	-

^ pins must be connected together externally.

Outline Drawing



Case Style - A06 (inch,mm) weight: 5.2 grams.

A	B	C	D	E	F	G	H	J
.770	.800	.285	.310	.370	.400	.200	.20	.14
19.558	20.320	7.239	7.874	9.398	10.160	5.080	5.080	3.556

K	L	M	N	P	Q	R	S	T
.031								
0.787								

Tolerance: .x ± .1 .xx ± .03 .xxx ± .015 inch.

Material and Finish:

Header material: C.R.S. Pin material: #52 alloy. Finish: electro tin, hot-oil flowed. Cover material:upro-nickel.

Mounting:

Insulated spacer available. Request P/N B14-045-01.

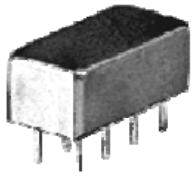
Pin's meniscus (of header): 0.015" max.

Special Tolerances:

Pin diameter ±.005 inch.

Notes:

- +7dBm LO, up to +1 dBm RF
- Absolute maximum power, voltage and current ratings:
  a. RF power, 50mW
  b. Peak IF current, 40mA
- Non-hermetic
-
- Prices and Specifications subjects to change without notice.



SBL-1X

Electrical Specifications

SBL-1X LO Power Level 7 dBm

Frequency MHz		Max. Conversion Loss dB		Min. LO-RF Isolation dB			Min. LO-IF Isolation dB		
LO/RF	IF	Mid-Band	Total Range	L	M	U	L	M	U
10.00-1000	5-500	7.5	8.0	40	30	20	45	35	25

L=low range(f_L to $10f_L$) M=mid range($10f_L$ to $f_U/2$) U=upper range($f_U/2$ to f_U)

Typical Performance Data

SBL-1X		Conversion Loss (dB)			ISO	Isolation L-R (dB)			Isolation L-I (dB)		
RF MHz	LO MHz	LO +4 dBm	LO +7 dBm	LO +10 dBm	LO (MHz)	LO +4 dBm	LO +7 dBm	LO +10 dBm	LO +4 dBm	LO +7 dBm	LO +10 dBm
10.000	40.000	6.29	5.91	5.70	10.000	50.68	52.58	54.27	55.71	57.65	58.94
20.000	50.000	6.55	6.07	5.85	20.000	50.33	51.57	52.78	55.05	56.10	56.31
50.000	80.000	6.34	5.97	5.76	50.000	48.45	48.88	48.88	51.91	51.40	50.84
100.000	70.000	6.32	6.02	5.79	100.000	45.57	44.82	44.29	47.39	46.42	45.36
160.320	130.320	6.46	6.05	5.84	160.320	42.61	42.05	41.40	43.63	42.49	41.59
200.000	170.000	6.59	6.14	5.89	200.000	41.43	40.99	39.98	41.84	40.75	39.77
253.500	223.500	6.71	6.19	5.95	253.500	40.54	40.18	38.99	40.75	39.56	38.54
315.630	285.630	6.66	6.25	6.01	315.630	39.31	38.29	37.09	39.48	37.94	37.02
377.760	347.760	6.83	6.34	6.11	377.760	36.67	35.80	35.11	38.56	36.81	35.91
439.880	409.880	6.97	6.56	6.34	439.880	34.91	33.93	33.09	37.98	35.80	34.50
500.000	470.000	6.99	6.55	6.31	500.000	32.30	31.47	30.75	37.04	35.23	34.36
564.130	534.130	6.57	6.24	6.01	564.130	30.82	30.58	30.10	34.75	33.53	33.09
626.260	596.260	6.26	5.86	5.67	626.260	29.12	29.34	29.13	35.60	34.86	33.59
657.320	627.320	6.35	5.95	5.71	657.320	29.01	29.13	29.15	36.32	35.78	34.99
719.450	689.450	6.31	5.84	5.60	719.450	28.83	28.51	28.62	35.42	35.11	35.80
781.580	751.580	6.26	5.77	5.51	781.580	28.12	28.01	27.67	35.25	34.75	34.77
812.640	782.640	6.43	5.92	5.59	812.640	27.51	27.68	27.45	34.28	33.85	33.92
874.760	844.760	6.30	5.87	5.58	874.760	26.96	27.52	27.88	32.62	32.09	32.28
936.890	906.890	6.25	5.87	5.63	936.890	26.56	27.40	28.21	30.70	30.31	30.84
1000.000	970.000	6.33	6.04	5.90	1000.000	26.20	27.28	28.39	30.15	30.12	30.53

RF/LO	VSWR RF port			VSWR LO port			IF	VSWR IF port		
FREQ. (MHz)	LO +4 dBm	LO +7 dBm	LO +10 dBm	LO +4 dBm	LO +7 dBm	LO +10 dBm	FREQ. (MHz)	LO +4 dBm	LO +7 dBm	LO +10 dBm
10.000	1.11	1.11	1.16	1.68	2.50	3.70	10.000	2.06	1.70	1.49
20.000	1.06	1.07	1.14	1.76	2.58	3.78	20.000	2.04	1.68	1.48
38.167	1.03	1.07	1.15	1.64	2.46	3.62	38.167	2.03	1.73	1.49
50.000	1.03	1.08	1.16	1.64	2.54	3.63	50.000	2.06	1.74	1.50
100.000	1.02	1.10	1.18	1.64	2.40	3.40	100.000	2.11	1.77	1.54
137.670	1.02	1.12	1.20	1.61	2.34	3.24	137.670	2.12	1.82	1.60
200.000	1.06	1.16	1.25	1.57	2.31	3.11	200.000	2.24	1.96	1.73