Frequency Mixers

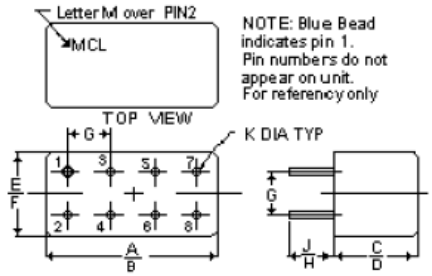
LO Power Level 7 dBm

Pin Configuration

Port	LO	RF	IF	Gnd	Ext. Case Gnd	Not Used
d	8	1	3,4^	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.

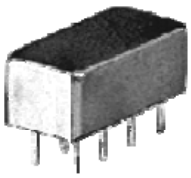
Pin's meniscus (of header): 0.015" max.

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-1

Electrical Specifications

SBL-1 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
1.000-500	DC-500	7.0	8.0	45	35	25	35	25	20

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-1		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
1.000	31.000	6.99	6.67	6.45	1.000	62.73	67.00	68.01	61.88	65.61	70.00
2.000	32.000	6.50	6.24	6.05	2.000	61.86	67.00	67.46	61.93	67.00	70.00
5.000	35.000	5.96	5.74	5.60	5.000	61.73	64.84	66.12	62.43	67.00	70.00
10.000	40.000	5.85	5.58	5.46	10.000	61.35	64.19	65.15	61.72	64.81	66.04
20.000	50.000	5.96	5.67	5.51	20.000	60.14	62.22	62.01	60.33	61.69	61.30
32.188	62.190	5.86	5.60	5.51	32.188	58.85	59.04	58.99	58.27	57.74	57.09
50.000	80.000	5.84	5.60	5.49	50.000	56.98	56.71	55.75	54.84	54.39	53.61
78.970	48.970	5.83	5.56	5.44	78.970	54.05	52.21	50.75	51.16	49.67	48.53
100.000	70.000	5.74	5.52	5.43	100.000	51.39	49.41	48.33	48.54	46.90	46.10
156.940	126.940	5.69	5.53	5.47	156.940	45.18	44.20	43.99	42.22	41.66	41.00
200.000	170.000	5.85	5.68	5.60	200.000	41.88	41.56	41.75	39.00	38.98	39.60
203.720	173.720	5.83	5.67	5.56	203.720	41.46	41.05	41.34	38.60	38.52	39.23
250.500	220.500	5.80	5.63	5.47	250.500	40.14	40.04	40.21	37.21	37.29	37.77
297.290	267.290	5.77	5.61	5.48	297.290	36.89	36.90	37.90	33.86	33.97	34.98
344.070	314.070	5.93	5.81	5.72	344.070	36.80	37.11	37.44	33.43	33.88	34.36
375.260	345.260	6.28	6.13	5.97	375.260	34.83	36.02	37.25	31.69	32.79	34.20
406.440	376.440	6.27	6.15	6.07	406.440	33.09	34.80	36.66	29.68	31.05	32.79
437.630	407.630	6.38	6.08	5.88	437.630	32.48	33.79	35.38	29.38	30.39	31.81
468.820	438.820	6.48	6.00	5.73	468.820	32.24	32.80	34.05	29.76	30.12	30.96
500.000	470.000	6.90	6.31	5.99	500.000	32.48	32.36	33.04	30.19	30.37	30.65

RF/LO	VSWR RF port			VSWR LO port			IF	VSWR IF port			Ø detection		
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	,FREQ. MHz	max.DC output mV	DC offset mV
1.001	1.83	1.80	1.86	2.45	3.75	5.47	1.001	1.67	1.44	1.30	10.00	-233.19	0.00
16.121	1.07	1.14	1.20	1.92	2.81	3.95	16.121	1.68	1.45	1.31	20.00	-230.80	-0.01
20.000	1.06	1.14	1.20	1.94	2.89	3.95	20.000	1.68	1.44	1.31	38.00	-225.55	0.00
31.242	1.06	1.14	1.20	1.93	2.83	3.88	31.242	1.68	1.44	1.32	50.00	-225.92	0.00
50.000	1.07	1.15	1.20	1.83	2.69	3.54	50.000	1.69	1.46	1.33	66.00	-226.43	0.00
76.605	1.08	1.16	1.21	1.84	2.72	3.70	76.605	1.71	1.48	1.36	80.00	-230.22	0.01
100.000	1.09	1.17	1.22	1.82	2.62	3.38	100.000	1.74	1.52	1.39	100.00	-231.28	0.03