

BLUE CELL™ Surface Mount Frequency Mixer



MBA-9

Level 7 (LO Power +7 dBm) 800 to 1000 MHz

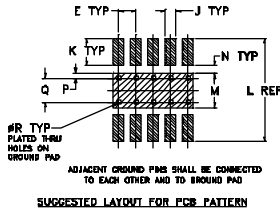
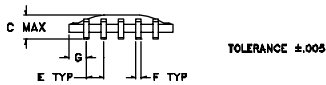
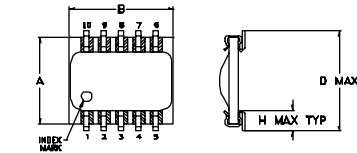
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA

Pin Configuration

LO	10
RF	5
IF	3
GROUND	1,4,7,8,9
ISOLATE	2,6

Outline Drawing



Outline Dimensions (inch mm)

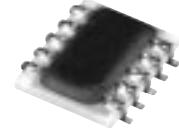
A	B	C	D	E	F	G	H	J	
.250	.300	.070	.290	.050	.015	.050	.060	.030	
6.35	7.62	1.78	7.37	1.27	.38	1.27	1.52	.76	
K	L	M	N	P	Q	R		wt.	
.080	.300	.100	.020	.015	.070	.014		grams	
2.03	7.62	2.54	.51	.38	1.78	.36		.3	

Features

- excellent temperature stability
- performance repeatability
- solder plated leads with strain relief
- very low cost
- ultra low height, 0.07"

Applications

- cellular
- WLAN
- satellite communication
- ISM band
- PCMCIA



CASE STYLE: SM2
PRICE: \$5.95 ea.
QTY.: (10-49)

Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3@ center band Typ. (dBm)
	LO/RF $f_c - f_u$	IF	Mid-Band \bar{x}	m σ	Total Range Max.	Max.	L Typ. Min.	M Typ. Min.	U Typ. Min.	L Typ. Min.	M Typ. Min.	U Typ. Min.	
MBA-9	800-1000	DC-200	7.3	0.2	—	9.0	22(typ.)	20(min.)		17(typ.)	12(min.)		10

¹ dB COMP.: +1 dBm typ.
L = low range [f_c to $10 f_c$]
M = mid band [$2f_c$ to $f_c/2$]
U = upper range [$f_c/2$ to f_c]

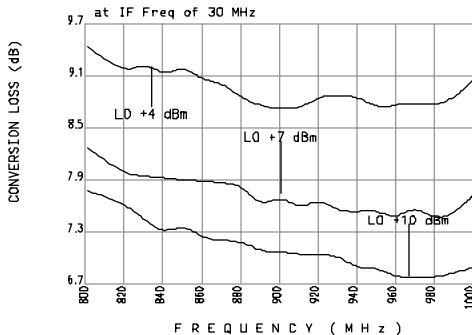
Typical Performance Data

Frequency		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR LO port (:1)	VSWR RF port (:1)
RF MHz	LO MHz	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
800.00	830.00	8.28	24.17	16.67	3.18	3.81
820.00	850.00	7.96	24.16	16.67	3.01	3.82
830.00	860.00	7.94	24.00	16.66	3.01	3.69
840.00	870.00	7.94	24.16	16.83	2.86	3.82
850.00	880.00	7.89	24.16	16.83	2.80	3.95
860.00	890.00	7.89	24.16	16.83	2.80	3.81
870.00	900.00	7.87	24.00	16.83	2.67	3.81
880.00	910.00	7.86	24.00	16.83	2.56	3.69
890.00	920.00	7.58	23.84	16.66	2.56	3.68
900.00	930.00	7.74	23.99	16.66	2.51	3.68
910.00	940.00	7.55	23.83	16.83	2.51	3.81
920.00	950.00	7.70	23.84	16.83	2.46	3.81
930.00	960.00	7.54	23.99	17.00	2.51	3.81
940.00	970.00	7.53	23.99	17.00	2.46	3.82
950.00	980.00	7.56	23.99	17.00	2.46	4.09
960.00	990.00	7.44	23.83	16.84	2.41	3.95
970.00	1000.00	7.62	23.84	16.66	2.41	3.95
980.00	1010.00	7.44	24.00	16.83	2.37	4.25
990.00	1020.00	7.50	23.99	16.66	2.37	3.81
1000.00	1030.00	7.73	24.00	16.83	2.28	4.09

BLUE CELL™ is protected by U.S. Patents 5,534,830 5,640,132 5,640,134 5,640,699

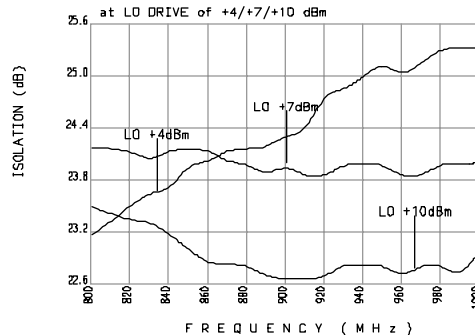
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CONVERSION LOSS



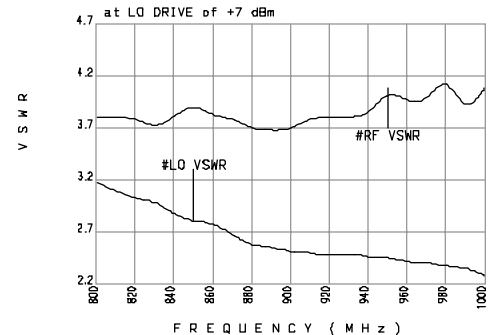
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ISOLATION L-R



MBA-9

VSWR



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P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

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