

Surface Mount Frequency Mixer

Level 7 (LO Power +7 dBm) 2000 to 4200 MHz

**SKY-42+
SKY-42**



Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	50mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

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

Features

- low conversion loss, 5.0 dB typ.
- good L-R isolation, 31 dB typ.
- J-leads for strain relief

Applications

- line of sight links
- fixed satellite

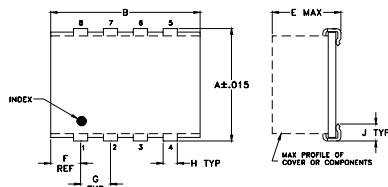
CASE STYLE: BJ398

PRICE: \$14.95 ea. QTY (1-9)

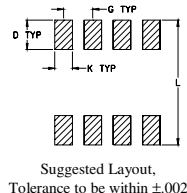
**+ RoHS compliant in accordance
with EU Directive (2002/95/EC)**

The +Suffix identifies RoHS Compliance. See our web site
for RoHS Compliance methodologies and qualifications.

Outline Drawing



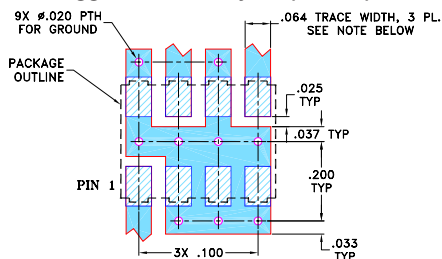
PCB Land Pattern



Outline Dimensions (inch)

A	B	C	D	E	F	G	
.305	.390	--	.100	.105	.045	.100	
7.75	9.91	--	2.54	2.67	1.14	2.54	
H	J	K	L				wt
.047	.065	.065	.325				grams
1.19	1.65	1.65	8.26				0.20

Demo Board MCL P/N: TB-11 Suggested PCB Layout (PL-056)



NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
 - DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Electrical Specifications

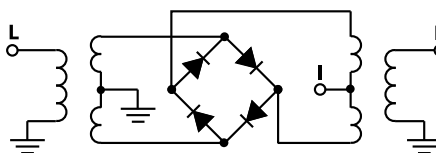
FREQUENCY (MHz)		CONVERSION LOSS (dB)			LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
LO/RF f_L - f_U	IF	Mid-Band		Total Range Max.	Typ.	Min.	Typ.	Min.	
		$\overline{X}$	σ						
2000-4200	DC-1200	5.0	.30	8.5	31	20	17	12	9

1 dB COMP.: +1 dBm typ.

Typical Performance Data

Frequency (MHz)		Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
RF	LO	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm	LO +7dBm
2000.1	2030.1	5.66	29.91	21.74	2.18	7.71
2100.1	2130.1	5.45	29.26	21.94	1.99	6.90
2200.1	2230.1	5.33	28.90	21.48	1.81	6.06
2300.1	2330.1	5.11	28.73	20.23	1.55	5.51
2400.1	2430.1	4.93	27.85	18.89	1.39	4.98
2500.1	2530.1	4.89	27.85	18.15	1.30	4.81
2600.1	2630.1	4.99	27.72	17.64	1.30	4.70
2700.1	2730.1	5.17	28.71	16.94	1.36	4.63
2800.1	2830.1	5.38	29.63	16.39	1.46	4.65
2900.1	2930.1	5.51	31.93	16.20	1.59	4.81
3000.1	3030.1	5.55	34.62	16.51	1.68	4.97
3100.1	3130.1	5.61	35.95	17.07	1.78	4.95
3200.1	3230.1	5.66	37.75	17.19	1.88	4.92
3300.1	3330.1	5.69	42.18	17.45	1.95	4.92
3400.1	3430.1	5.58	48.88	18.23	1.96	4.95
3500.1	3530.1	5.47	52.38	18.64	1.95	5.06
3600.1	3630.1	5.53	42.22	19.29	1.96	5.25
3800.1	3830.1	5.40	38.20	20.70	1.77	5.20
4000.1	4030.1	5.80	44.94	22.14	1.76	6.09
4200.1	4230.1	5.54	40.32	23.50	2.00	6.16

Electrical Schematic



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

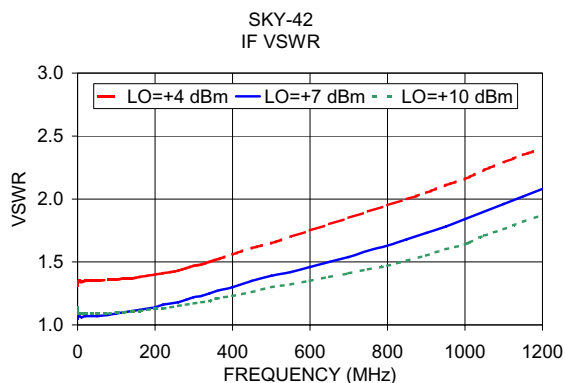
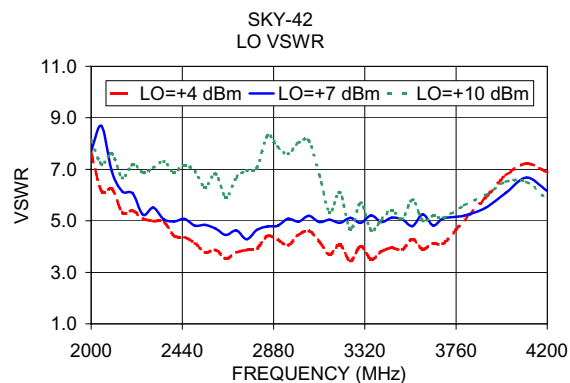
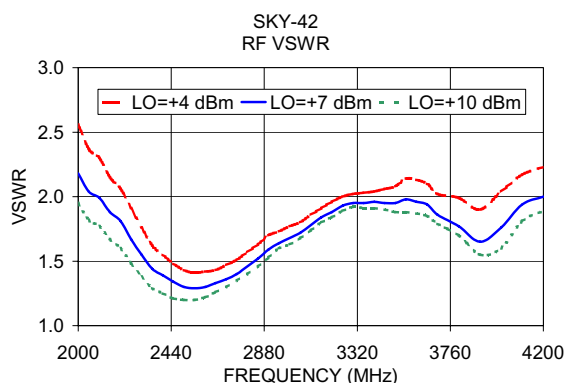
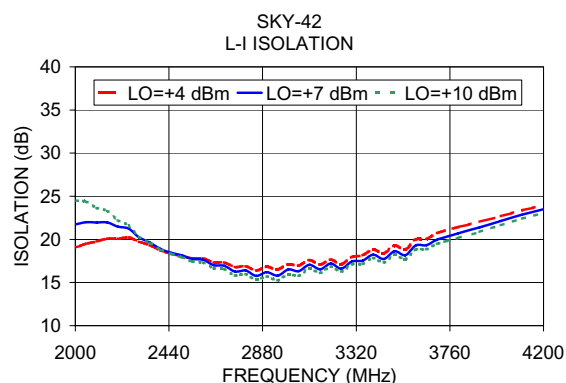
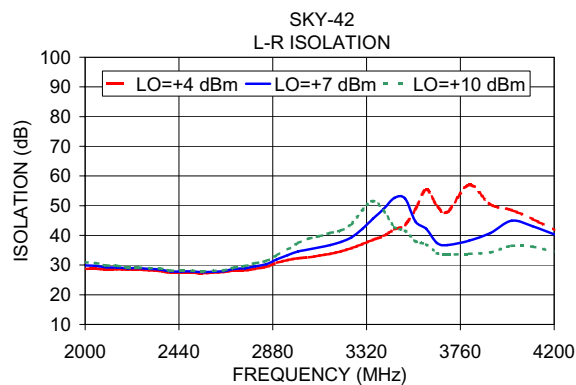
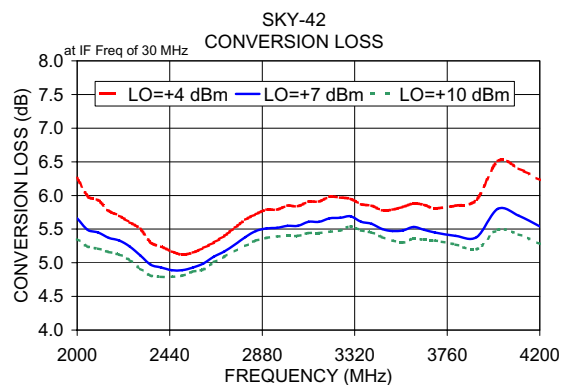
For detailed performance specs
& shopping online see web site

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Performance Charts

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IF/RF MICROWAVE COMPONENTS

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