

Surface Mount Frequency Mixer

Level 7 (LO Power +7 dBm) 1 to 600 MHz

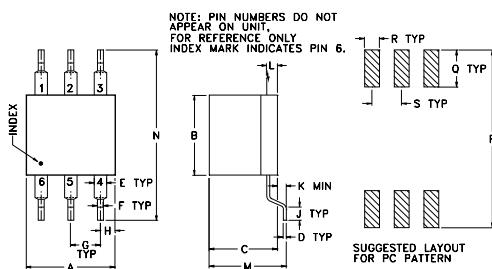
Maximum Ratings

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	4
IF	5
GROUND	2,3,6

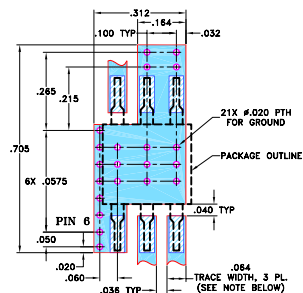
Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J
.30	.27	.23	.010	.042	.100	.100	.05	.05
7.62	6.86	5.84	0.25	1.07	0.51	2.54	1.27	1.27
K	L	M	N	P	Q	R	S	wt
.020	.036	.26	.575	.600	.125	.050	.100	grams
0.51	0.91	6.60	14.61	15.24	3.18	1.27	2.54	0.50

Demo Board MCL P/N: TB-174 Suggested PCB Layout (PL-082)



Features

- low conversion loss, 5.58 dB typ.
- good L-R isolation, 35 dB typ.

Applications

- HF/VHF/UHF
- FM radio
- federal & defense communications

ASK-1-KK81+ ASK-1-KK81



CASE STYLE: KK81
PRICE: \$6.95 ea. QTY (1-9)

+RoHS Compliant

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

Electrical Specifications

FREQUENCY (MHz)		CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)
LO/RF	IF	Mid-Band		Total Range	Max.	L	M		U	L	M		U	L	M		U	
		$\bar{X}$	σ				Typ.	Min.			Typ.	Min.			Typ.	Min.		
f_L - f_U						Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	
1-600	DC-600	5.58	.06	7.0	8.5	50	30	35	25	30	20	45	35	30	20	25	15	14

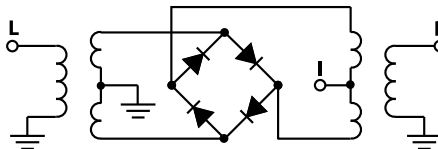
1 dB COMPR.: +1 dBm typ.

L = low range [f_L to 10 f_L]
M = mid range [$10 f_L$ to $f_U/2$]
U = upper range [$f_U/2$ to f_U]

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
1.00	31.00	5.34	41.73	40.78	1.15	3.01
5.00	35.00	5.14	43.83	48.03	1.12	2.92
10.00	40.00	5.10	44.31	49.23	1.10	2.87
20.00	50.00	5.10	43.27	47.31	1.09	2.86
50.00	80.00	5.07	41.89	43.53	1.08	2.67
100.00	70.00	4.98	41.22	41.32	1.08	2.75
124.93	94.93	5.07	40.40	38.91	1.06	2.68
166.24	136.24	5.14	40.04	37.11	1.04	2.68
207.55	177.55	5.19	39.72	36.06	1.03	2.64
228.21	198.21	5.11	39.43	34.77	1.01	2.61
269.52	239.52	5.17	39.11	33.40	1.03	2.72
310.83	280.83	5.34	38.68	32.44	1.06	2.70
352.14	322.14	5.31	36.90	31.98	1.10	2.84
372.79	342.79	5.36	34.94	31.09	1.15	3.08
414.10	384.10	5.33	33.57	31.83	1.20	3.20
455.41	425.41	5.57	32.53	31.14	1.26	3.16
496.72	466.72	5.67	30.97	29.46	1.31	3.29
538.03	508.03	5.75	30.78	28.57	1.34	3.28
558.69	528.69	5.72	29.47	27.11	1.40	3.48
600.00	570.00	5.82	28.98	25.59	1.47	3.57

Electrical Schematic



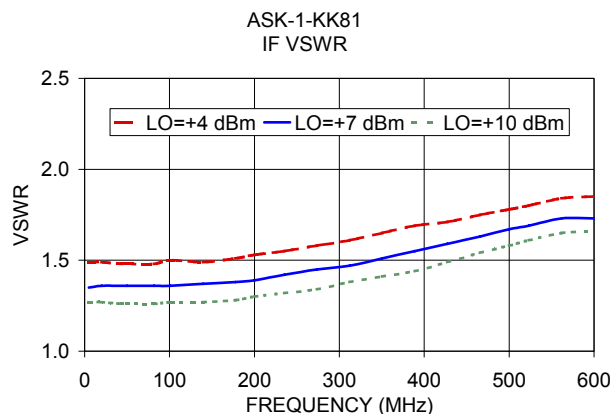
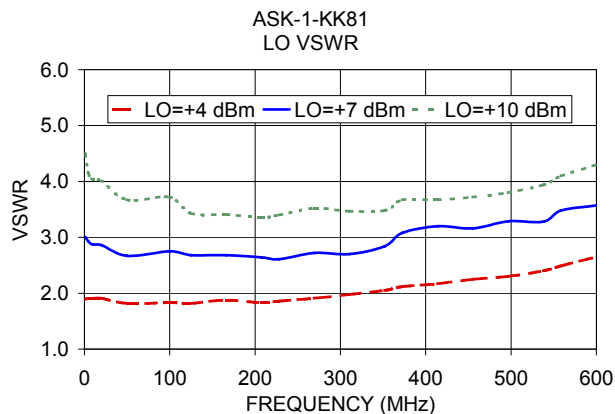
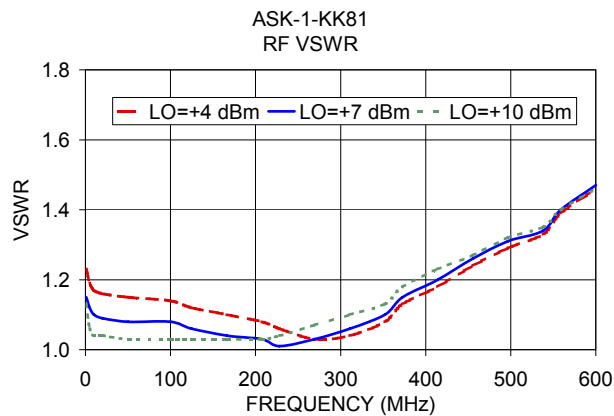
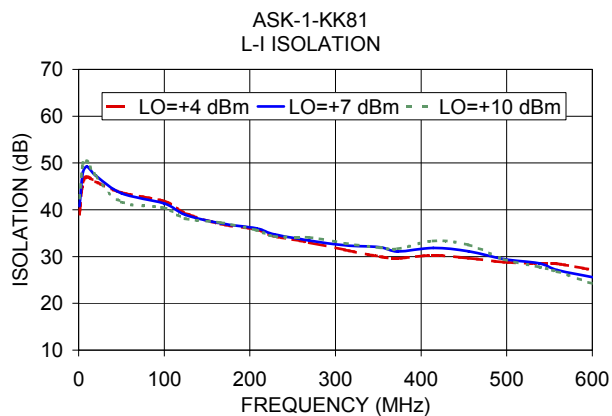
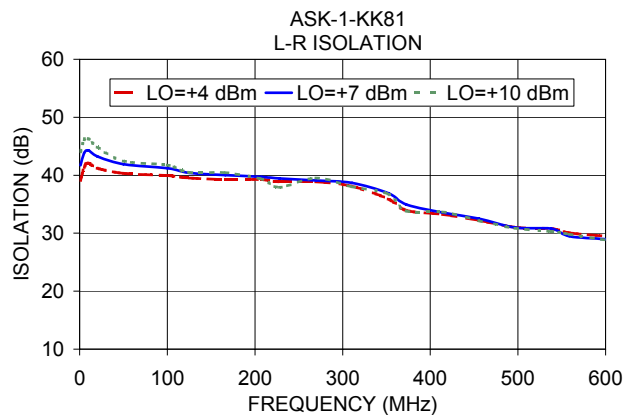
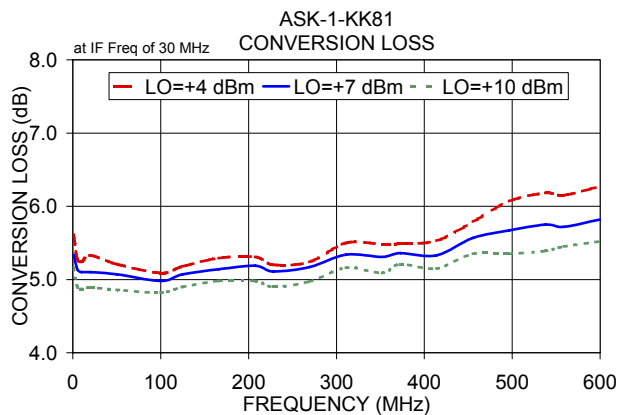
Notes

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Performance Charts

ASK-1-KK81+ ASK-1-KK81



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