

Surface Mount Frequency Mixer

ASK-2-KK81+ ASK-2-KK81

Level 7 (LO Power +7 dBm) 1 to 1000 MHz



CASE STYLE: KK81

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

Features

- low conversion loss, 6.79 dB typ.
- wideband, 1 to 1000 MHz

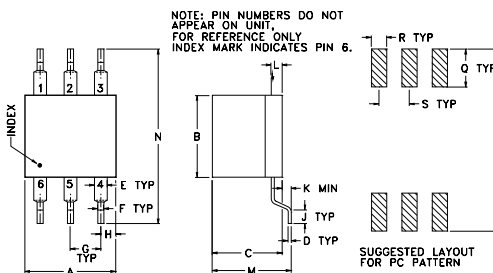
Applications

- HF/VHF/UHF
- cellular
- federal & defense communications

+RoHS Compliant

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

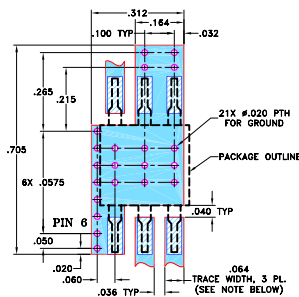
Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J
.30	.27	.23	.010	.042	.020	.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)



Electrical Specifications

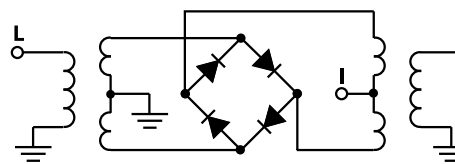
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			IP3 at center band (dBm)						
		L	M	U	L	M	U							
1-1000	DC-1000	60	40	35	18	26	16	50	30	25	17	15	10	12

1 dB COMPR.: +1 dBm typ.
For phase detection, DC output positive polarity with in-phase LO&RF
L = low range [f_1 to $10 f_1$]
M = mid range [$10 f_1$ to $f_1/2$]
U = upper range [$f_1/2$ to f_1]

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	LO +7dBm	LO +7dBm	LO +7dBm
1.00	31.00	7.37	83.47	91.97	1.38	2.66				
2.00	32.00	7.07	80.37	87.67	1.29	2.56				
5.00	35.00	6.73	72.27	82.47	1.24	2.67				
10.00	40.00	6.62	66.17	77.87	1.23	2.56				
20.00	50.00	6.55	61.04	73.34	1.23	2.51				
50.00	80.00	6.57	52.51	61.14	1.22	2.53				
97.68	67.68	6.59	47.22	54.12	1.23	2.51				
100.00	70.00	6.59	47.11	53.57	1.23	2.49				
194.36	164.36	6.53	41.80	49.32	1.24	2.49				
200.00	170.00	6.53	41.66	49.33	1.27	2.49				
291.03	261.03	6.57	38.25	47.35	1.32	2.44				
387.71	357.71	6.67	35.81	42.38	1.34	2.56				
484.39	454.39	6.68	33.54	37.69	1.35	2.55				
500.00	470.00	6.68	33.24	36.29	1.40	2.64				
581.07	551.07	6.87	31.64	32.31	1.52	3.03				
677.74	647.74	7.12	29.02	27.88	1.69	3.49				
774.42	744.42	7.40	26.95	24.13	1.93	3.33				
871.10	841.10	7.80	25.84	20.52	2.20	3.00				
967.77	937.77	8.22	25.87	17.33	2.45	2.97				
1000.00	970.00	8.38	25.95	16.29	2.58	2.98				

Electrical Schematic

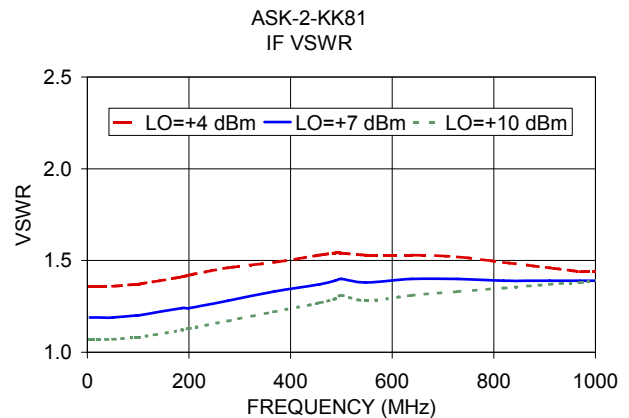
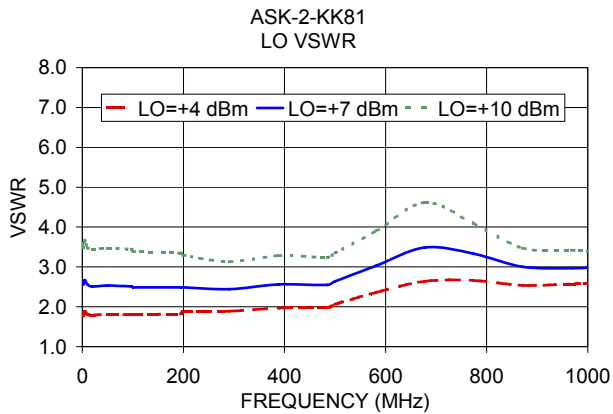
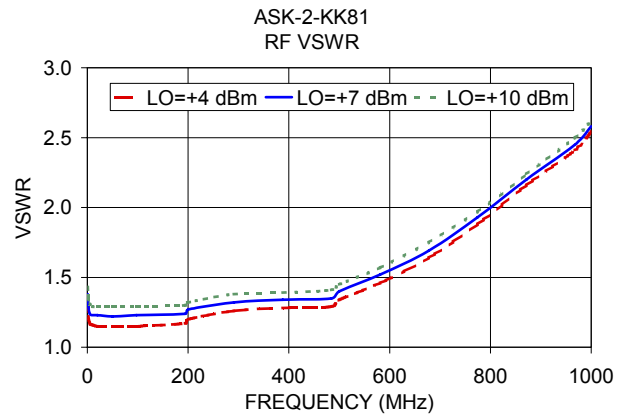
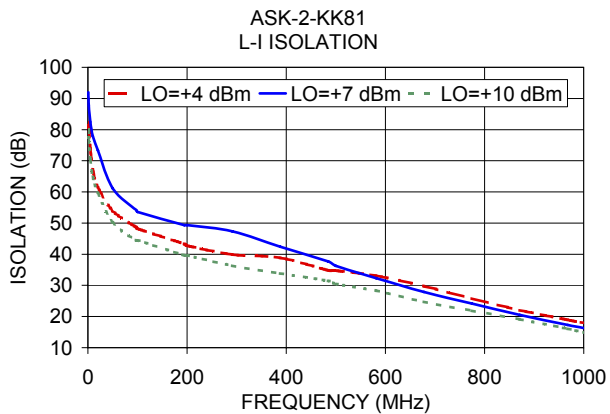
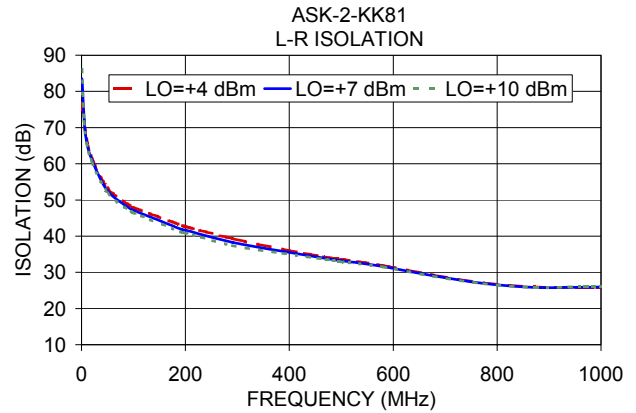
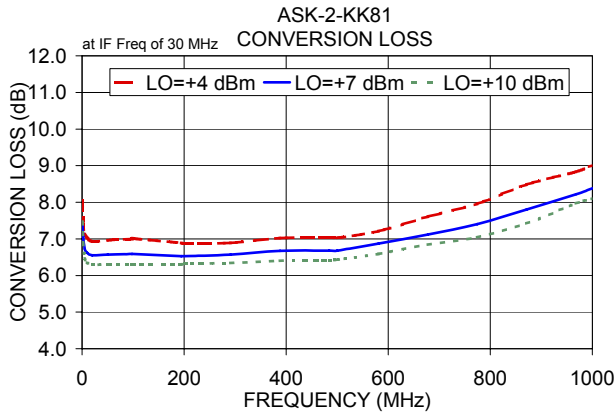


Notes

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Performance Charts



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