

Non-Catalog Model

Frequency Mixer

ROK-2500LH

Level 10 (LO Power +10 dBm)

Important Note

This is a non-catalog model and can be manufactured on specific request. Pricing and delivery information can be supplied upon request.



Please click "Back", and then click "Contact Us" for Applications support.

CASE STYLE : PP230

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C					
Parameter		Min.	Typ.	Max.	Units
Frequency	LO (fL to fU)	1		2500	MHz
	RF (fL to fU)	1		2500	MHz
	IF	0		500	MHz
Conversion Loss	mid band		6.4	8.4	dB
	Total Range			9.0	dB
LO-RF Isolation	Low Range	40	55		dB
	Mid Range	20	48		dB
	Upper Range	20	30		dB
LO-IF Isolation	Low Range	38	55		dB
	Mid Range	15	27		dB
	Upper Range	15	22		dB
1 dB Comp. Input Power			+5		dBm

Notes: Low Range = [fL to 10fL]
mid band = [2fL to fU/2]

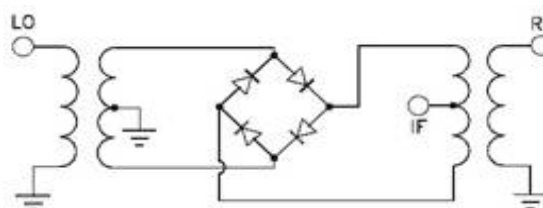
Mid Range = [10fL to fU/2]

Upper Range = [fU/2 to fU]

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

PIN CONNECTIONS	
LO	4
RF	2
IF	1
GROUND	3

Electrical Schematics



Frequency Mixer

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Typical Performance Data

RF (MHz)	LO (MHz)	CONVERSION LOSS (dB)			LO (MHz)	LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)		
		@LO (dBm)				@LO (dBm)			@LO (dBm)		
		+7	+10	+13		+7	+10	+13	+7	+10	+13
1.0	31.0	6.05	5.61	5.40	1.0	67.9	68.8	70.4	82.0	73.8	67.0
2.0	32.0	5.89	5.48	5.25	2.0	67.0	68.4	70.0	79.9	70.4	65.5
5.8	35.8	5.79	5.40	5.17	5.8	67.0	68.2	70.0	69.7	65.7	62.4
9.4	39.4	5.80	5.39	5.18	9.4	66.8	68.1	69.9	65.6	62.5	60.1
20.9	50.9	5.83	5.44	5.21	20.9	64.9	66.4	68.5	53.6	51.7	50.6
54.4	84.4	5.92	5.48	5.24	54.4	62.9	65.0	67.5	46.2	44.6	43.6
103.0	73.0	5.94	5.57	5.30	103.0	59.6	61.8	64.4	41.7	39.8	38.5
194.9	164.9	6.21	5.70	5.39	194.9	54.9	56.9	59.2	36.5	34.8	33.3
507.4	477.4	6.11	5.71	5.48	507.4	48.5	50.1	52.2	26.5	27.7	28.0
960.3	930.3	7.04	6.69	6.47	960.3	43.4	44.1	45.0	19.2	19.9	20.5
1126.3	1096.3	7.38	6.96	6.67	1126.3	38.7	39.6	40.7	17.3	17.9	18.5
1250.0	1220.0	7.61	7.16	6.86	1250.0	37.3	38.4	39.5	17.3	18.2	18.9
1400.0	1370.0	7.71	7.16	6.85	1400.0	36.5	38.0	39.0	17.8	18.8	19.9
1549.4	1519.4	7.90	7.27	6.87	1549.4	35.5	36.8	38.2	18.2	19.5	20.7
1700.0	1670.0	8.02	7.35	6.88	1700.0	34.9	36.1	37.0	18.9	20.2	21.5
1900.0	1870.0	8.55	7.52	6.96	1900.0	34.5	35.1	35.6	20.0	21.0	21.9
2131.5	2101.5	8.78	7.58	7.01	2131.5	34.8	35.8	36.3	23.1	23.8	24.8
2300.0	2270.0	9.01	7.76	7.19	2300.0	36.7	40.0	41.8	28.3	31.0	32.3
2400.0	2370.0	9.01	7.77	7.33	2400.0	38.8	44.0	46.4	36.3	36.3	30.5
2500.0	2470.0	9.05	7.98	7.55	2500.0	41.2	49.0	49.4	40.0	32.0	26.9

REV. X1
ROK-2500LH
060613
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Frequency Mixer

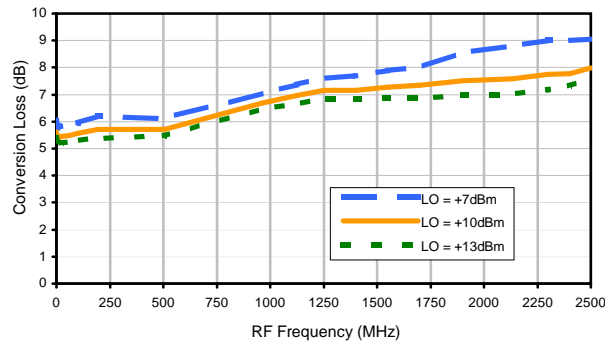
ROK-2500LH

Typical Performance Data

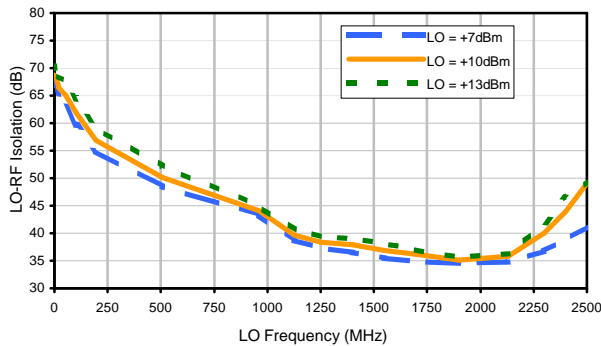
RF/LO (MHz)	RF VSWR (:1)			LO VSWR (:1)			IF (MHz)	IF VSWR (:1)			LO/RF (MHz)	max. DC output (mV)	DC Offset (mV)
	@LO (dBm)			@LO (dBm)				@LO (dBm)			@LO (dBm)		
	+7	+10	+13	+7	+10	+13		+7	+10	+13	+10		
1.0	1.39	1.24	1.24	1.93	2.54	3.56	0.3	1.72	1.29	1.05	1	-335.0	-0.33
2.0	1.37	1.17	1.13	1.65	2.37	3.41	0.7	1.72	1.29	1.05	10	-345.6	-0.29
5.8	1.37	1.14	1.05	1.51	2.27	3.35	1.2	1.73	1.29	1.05	20	-351.4	-0.29
9.4	1.38	1.14	1.03	1.49	2.24	3.32	1.6	1.72	1.29	1.05	50	-360.7	-0.27
20.9	1.38	1.14	1.02	1.51	2.25	3.29	2.0	1.73	1.29	1.05	100	-346.3	-0.19
54.4	1.40	1.16	1.05	1.48	2.18	3.13	3.0	1.73	1.29	1.05	200	-338.8	-0.76
103.0	1.41	1.19	1.12	1.47	2.14	3.05	4.8	1.73	1.29	1.05	300	-332.1	-0.52
194.9	1.49	1.30	1.26	1.54	2.11	2.93	6.5	1.73	1.29	1.05	400	-293.0	-0.07
507.4	1.79	1.59	1.53	1.97	1.83	2.12	8.3	1.73	1.29	1.05	500	-287.2	-1.06
960.3	2.89	2.51	2.29	1.46	1.06	1.37	10.0	1.73	1.29	1.05	750	-182.4	-1.07
1126.3	3.76	3.25	2.91	1.11	1.31	1.76	30.0	1.72	1.29	1.05	1000	-151.1	2.16
1250.0	4.54	3.88	3.41	1.29	1.62	2.10	60.0	1.74	1.31	1.08	1200	-79.3	2.34
1400.0	4.27	3.75	3.38	1.85	2.14	2.60	90.0	1.69	1.27	1.04	1400	-24.5	-0.32
1549.4	3.35	2.92	2.63	2.64	2.77	3.16	120.0	1.63	1.23	1.07	1600	33.3	-1.28
1700.0	2.92	2.49	2.21	3.74	3.40	3.52	150.0	1.67	1.27	1.09	1800	78.2	-1.34
1900.0	2.56	2.20	1.97	5.35	4.07	3.57	200.0	1.49	1.13	1.11	2000	126.2	-1.21
2131.5	1.95	1.71	1.56	5.90	4.15	3.21	275.0	1.39	1.06	1.16	2150	140.2	-3.18
2300.0	1.62	1.49	1.41	4.72	3.46	2.68	350.0	1.27	1.03	1.24	2250	139.8	-4.93
2400.0	1.52	1.46	1.45	3.91	2.98	2.37	425.0	1.13	1.16	1.39	2400	201.5	-6.22
2500.0	1.54	1.52	1.55	3.01	2.50	2.10	500.0	1.15	1.27	1.49	2500	219.2	-6.44

Typical Performance Curves

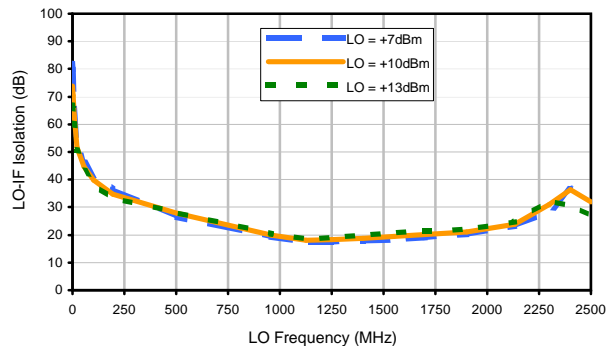
Conversion Loss



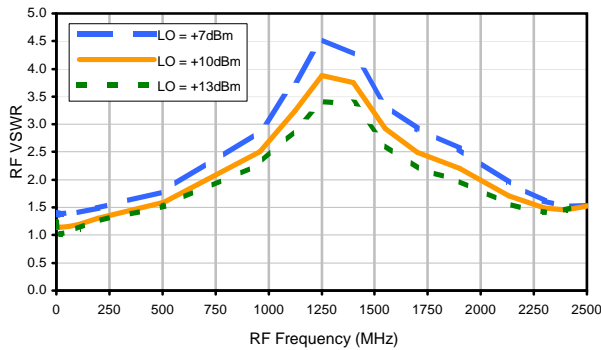
LO-RF Isolation



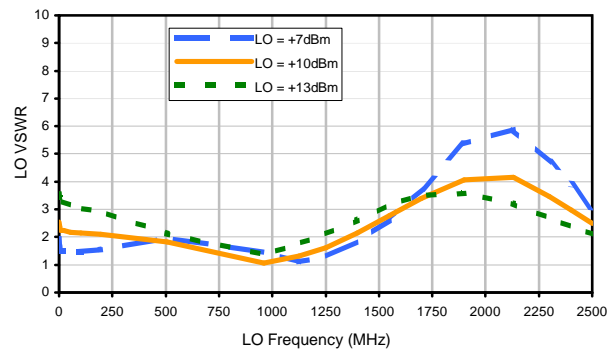
LO-IF Isolation



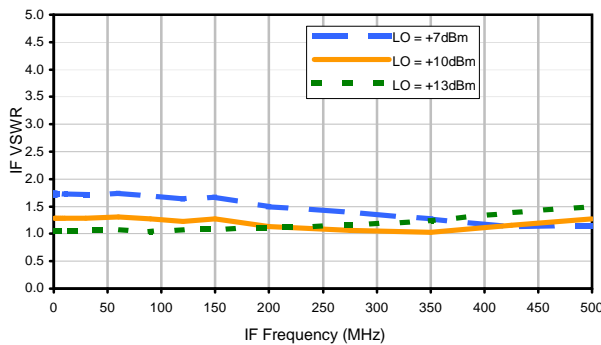
RF VSWR



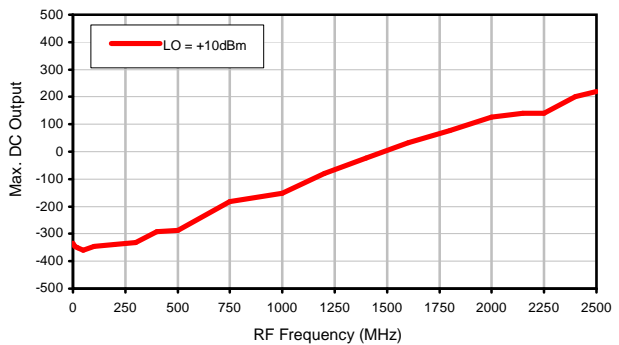
LO VSWR



IF VSWR

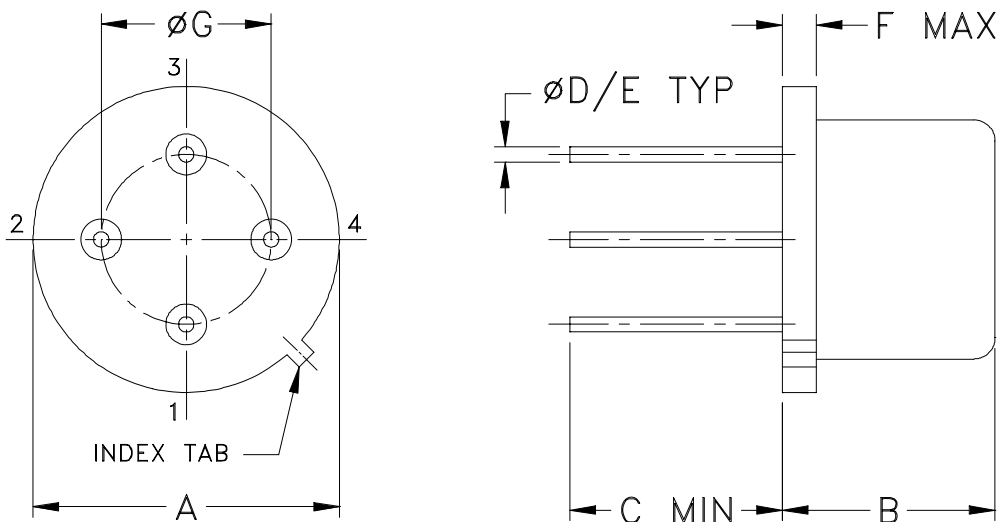


Max. DC Output



Outline Dimensions

PP120
PP230



CASE#	A	B	C	D	E	F	G	WT, GRAM
PP120	.50 (12.70)	.21 (5.33)	.15 (3.81)	.016 (.41)	.020 (.51)	.04 (1.02)	.300 (7.62)	1.5
PP230		.250 (6.35)	.24 (6.10)					1.8

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Header material: C.R.S. or kovar.
Pin material: # 52 alloy or kovar.
Cover material: Nickel.
- Pin finish: Gold plate 25 μ inches (.64 microns) min.
- For pin designations see specifications data sheet.
- Pin numbers do not appear on unit, for reference only.



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