

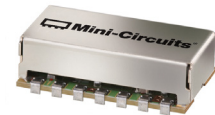
NON-CATALOG

Surface Mount

Voltage Controlled Oscillator

JTOS-1025P

5V Tuning for PLL IC's 680 to 755 MHz



CASE STYLE: BK377

Features

- low phase noise
- 5V tuning voltage range
- linear tuning characteristics
- aqueous washable

Applications

- PLL circuitry
- measurement instrumentation
- frequency synthesizers

Electrical Specifications

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER	
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Typ.	Max.
JTOS-1025P	680	755	+7	-73	-95	-115	-134	0.5	5	27 - 40	110	0.1	-90	-33	-20	1.5	1.3	12	22

Pin Connections

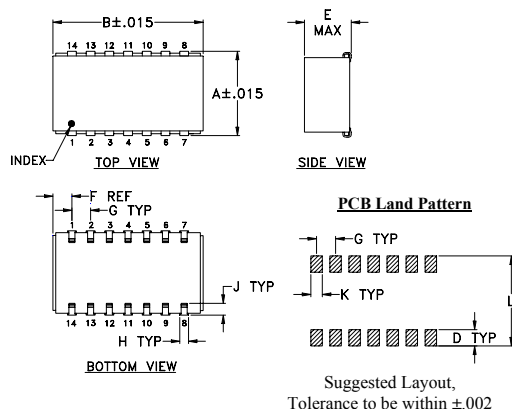
RF OUT	13
VCC	2
V-TUNE	5
GROUND	1,3,4,6,7,8,9,10,11,12,14

Maximum Ratings

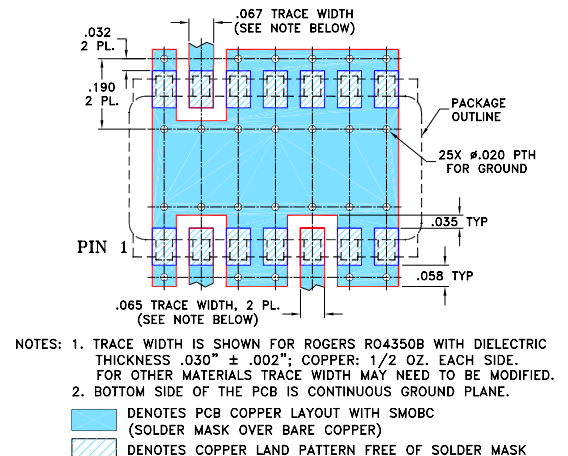
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+16V
Absolute Max. Tuning Voltage (Vtune)	+7V

all specifications: 50 ohm system
Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



Demo Board MCL P/N: TB-04 Suggested PCB Layout (PL-005)



Outline Dimensions (inch/mm)

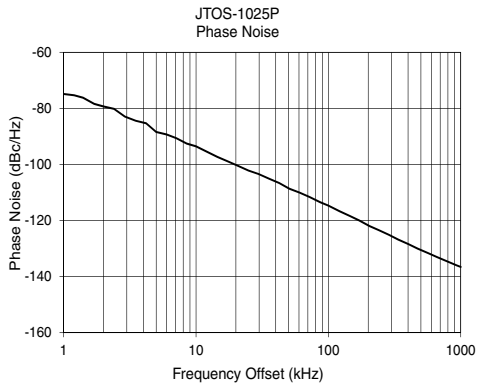
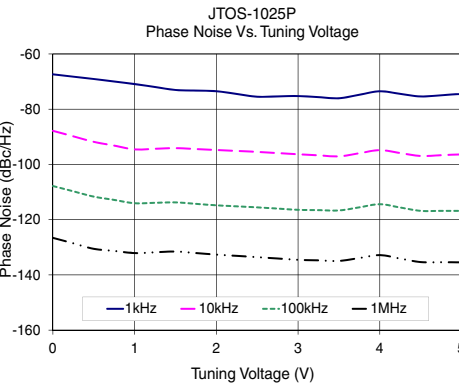
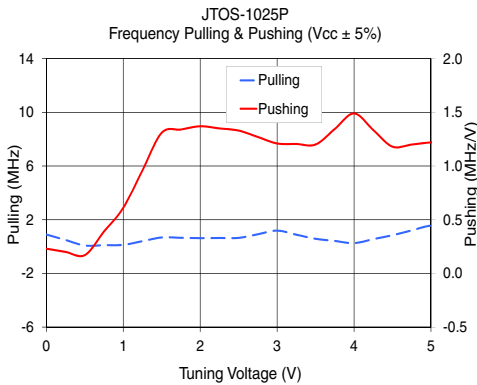
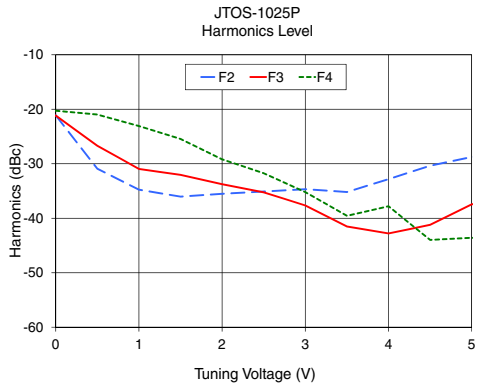
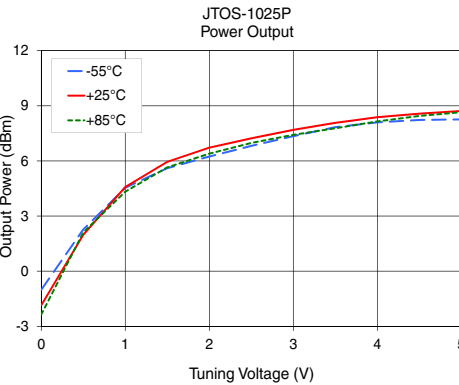
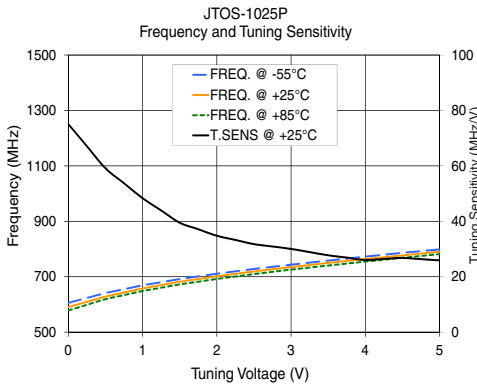
A	B	C	D	E	F	G	H	J	K	L	wt
.505	.800	--	.100	.250	.100	.100	.047	.065	.065	.525	grams
12.83	20.32	--	2.54	6.35	2.54	2.54	1.19	1.65	1.65	13.34	3.0

Notes

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V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (kHz)	PHASE NOISE at 720 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	75.07	605.6	590.5	578.3	-1.01	-1.86	-2.36	16.96	-21.1	-21.2	-20.3	0.23	0.90	-67.39	-87.8	-107.8	-126.6	1.0	-74.87
0.50	59.14	641.1	628.0	618.9	2.27	1.98	2.11	17.12	-30.9	-26.7	-21.0	0.17	0.08	-69.07	-91.8	-111.7	-130.6	2.0	-79.32
0.75	53.74	654.9	642.8	633.7	3.41	3.28	3.22	17.17	-32.8	-28.8	-22.0	0.39	0.11	-69.99	-93.2	-112.8	-131.3	3.5	-84.42
1.00	48.34	668.8	657.6	648.4	4.54	4.58	4.33	17.22	-34.8	-31.0	-23.1	0.61	0.13	-70.90	-94.6	-114.0	-132.1	6.0	-89.33
1.25	43.91	680.1	669.7	660.3	5.08	5.27	4.99	17.27	-35.4	-31.5	-24.3	0.96	0.41	-71.98	-94.3	-113.9	-131.8	8.5	-92.55
1.50	39.49	691.5	681.8	672.2	5.61	5.95	5.65	17.32	-36.0	-32.0	-25.5	1.31	0.68	-73.05	-94.1	-113.7	-131.5	10.0	-93.54
1.75	37.13	701.1	691.7	682.1	5.93	6.34	6.03	17.34	-35.8	-32.9	-27.3	1.34	0.66	-73.27	-94.4	-114.3	-132.1	20.8	-100.51
2.00	34.78	710.8	701.5	691.9	6.24	6.72	6.40	17.35	-35.5	-33.8	-29.2	1.37	0.63	-73.49	-94.8	-114.8	-132.7	35.5	-105.05
2.25	33.27	719.4	710.2	700.7	6.53	6.98	6.69	17.34	-35.3	-34.5	-30.5	1.35	0.64	-74.49	-95.1	-115.2	-133.1	60.7	-110.05
2.50	31.77	727.9	718.9	709.6	6.82	7.23	6.98	17.33	-35.1	-35.3	-31.7	1.33	0.65	-75.49	-95.5	-115.5	-133.6	86.7	-113.46
2.75	30.90	735.7	726.9	717.6	7.09	7.46	7.20	17.31	-34.9	-36.5	-33.5	1.27	0.92	-75.37	-95.9	-116.0	-134.1	100.0	-114.68
3.00	30.03	743.4	734.8	725.7	7.35	7.69	7.42	17.29	-34.7	-37.7	-35.2	1.21	1.19	-75.25	-96.3	-116.4	-134.5	145.5	-118.39
3.25	28.88	750.8	742.3	733.0	7.60	7.88	7.60	17.27	-34.9	-39.6	-37.4	1.21	0.89	-75.65	-96.7	-116.5	-134.7	170.8	-119.96
3.50	27.73	758.2	749.8	740.4	7.84	8.07	7.78	17.25	-35.2	-41.5	-39.6	1.20	0.58	-76.04	-97.1	-116.7	-134.9	204.2	-121.97
3.75	26.89	765.3	756.8	747.4	7.97	8.23	7.97	17.22	-34.0	-42.2	-38.7	1.35	0.42	-74.78	-95.9	-115.5	-133.9	286.7	-125.09
4.00	26.04	772.4	763.7	754.5	8.10	8.38	8.15	17.18	-32.8	-42.8	-37.8	1.49	0.26	-73.52	-94.8	-114.4	-132.8	336.6	-126.78
4.25	26.41	779.3	770.2	761.4	8.17	8.48	8.30	17.14	-31.6	-42.0	-40.9	1.34	0.56	-74.46	-95.9	-115.6	-134.1	472.5	-130.01
4.50	26.78	786.1	776.7	768.3	8.23	8.57	8.45	17.10	-30.4	-41.2	-44.0	1.18	0.85	-75.39	-96.9	-116.8	-135.4	564.9	-131.58
4.75	26.35	792.3	783.4	774.9	8.25	8.65	8.55	17.07	-29.6	-39.3	-43.8	1.20	1.21	-74.97	-96.7	-116.8	-135.4	931.1	-135.98
5.00	25.93	798.6	790.1	781.5	8.26	8.72	8.65	17.03	-28.8	-37.5	-43.6	1.22	1.56	-74.54	-96.4	-116.8	-135.5	1000.0	-136.53



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