

NON-CATALOG

Surface Mount

Voltage Controlled Oscillator

JTOS-75P+

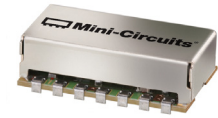
5V Tuning for PLL ICs 35 to 43 MHz

Features

- low phase noise
- 5V tuning voltage range
- linear tuning characteristics
- excellent harmonic suppression, -37 dBc typ.
- aqueous washable

Applications

- PLL circuitry
- measurement instrumentation
- frequency synthesizers



CASE STYLE: BK377

+RoHS Compliant

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

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)	SENSITIVITY (MHz/V)	PORT CAP (pF)		3 dB MODULATION BANDWIDTH (MHz)	Typ.			Max.	Typ.	Typ.
JTOS-75P+	35	43	+8	-94	-114	-133	-156	0.5	5	2.7 - 3.6	345	0.1	-90	-37	-20	0.02	0.11	12	20

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

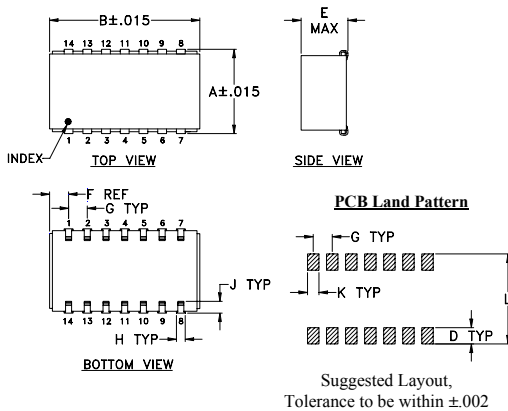
Permanent damage may occur if any of these limits are exceeded.

Tape & Reel: F107

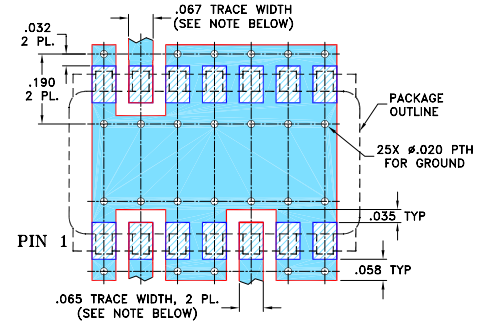
7" Reels with 10, 20, 50, 100 devices
13" Reels with 200 devices

Environmental Ratings: ENV65

Outline Drawing



Demo Board MCL PIN: TB-04
Suggested PCB Layout (PL-005)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350B 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

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

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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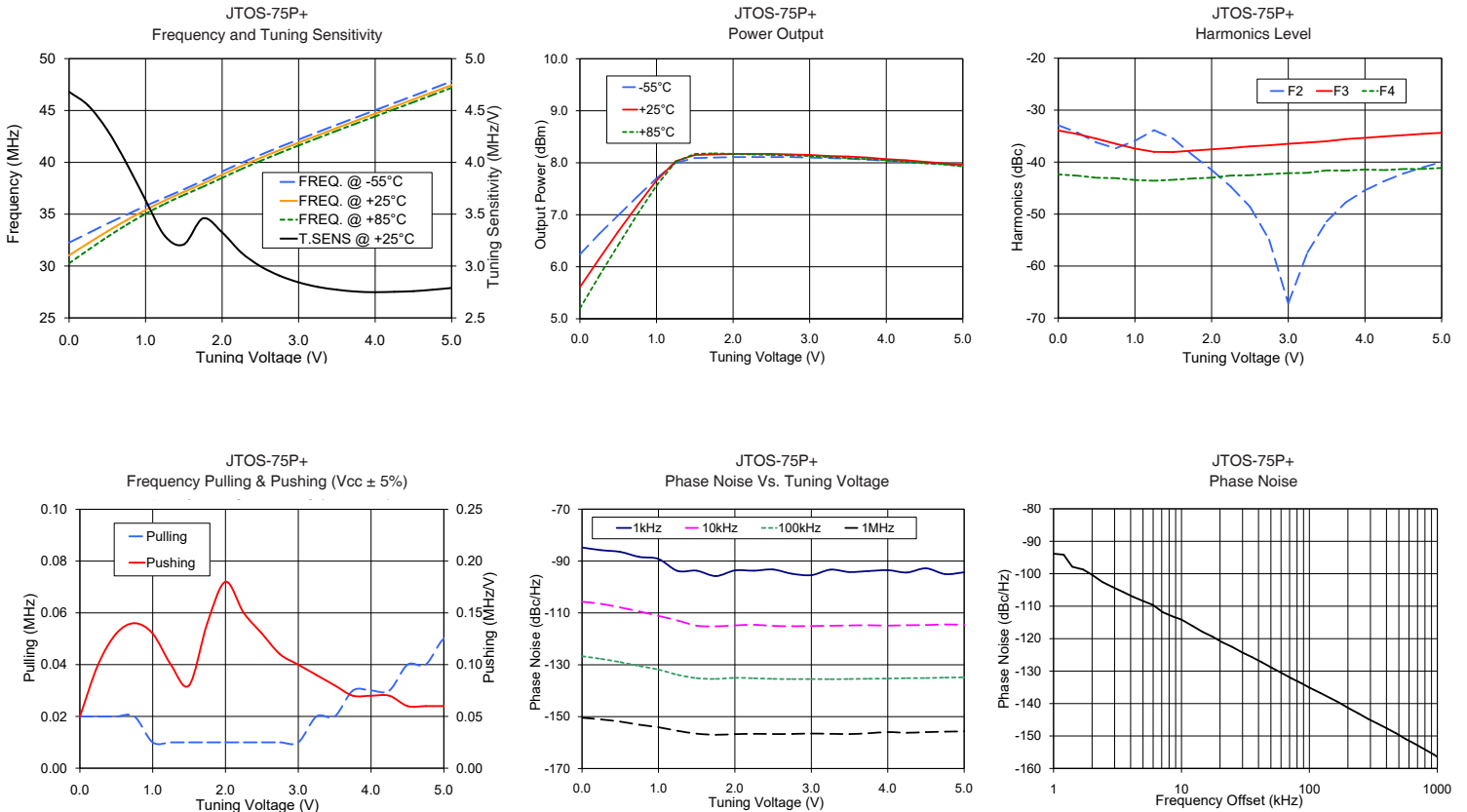
REV. F
M170946
JTOS-75P+
RAV/MCL
181111
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Performance Data & Curves *

JTOS-75P+

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 39 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	4.68	32.2	31.0	30.3	6.24	5.61	5.20	14.99	-32.9	-33.9	-42.4	0.05	0.02	-84.79	-105.7	-126.7	-150.4	1.0	-93.84
0.50	4.31	34.1	33.3	32.8	6.99	6.68	6.42	14.84	-36.2	-35.5	-43.0	0.13	0.02	-86.47	-107.9	-129.0	-151.9	2.0	-100.34
0.75	3.99	34.9	34.4	34.0	7.35	7.18	7.01	14.74	-37.3	-36.5	-43.1	0.14	0.02	-88.40	-109.5	-130.5	-153.1	3.5	-105.63
1.00	3.64	35.8	35.4	35.0	7.70	7.66	7.56	14.63	-35.9	-37.4	-43.5	0.13	0.01	-89.19	-111.1	-131.9	-154.1	6.0	-109.65
1.25	3.29	36.6	36.3	36.0	8.00	8.03	8.02	14.52	-33.9	-38.0	-43.6	0.10	0.01	-93.81	-112.9	-133.9	-155.5	8.5	-113.14
1.50	3.21	37.4	37.1	36.8	8.09	8.15	8.17	14.43	-35.5	-38.1	-43.4	0.08	0.01	-93.71	-114.9	-135.2	-156.6	10.0	-114.12
1.75	3.46	38.2	37.9	37.6	8.10	8.16	8.18	14.40	-38.6	-37.8	-43.2	0.14	0.01	-95.78	-115.2	-135.5	-157.0	20.8	-121.12
2.00	3.32	39.1	38.8	38.5	8.11	8.17	8.17	14.41	-41.5	-37.6	-43.0	0.18	0.01	-93.61	-114.8	-135.0	-156.8	35.6	-125.72
2.25	3.13	39.9	39.6	39.3	8.11	8.17	8.16	14.42	-44.7	-37.3	-42.6	0.15	0.01	-93.71	-114.6	-135.2	-156.6	60.8	-130.60
2.50	3.00	40.7	40.4	40.1	8.11	8.17	8.15	14.43	-48.6	-37.0	-42.5	0.13	0.01	-93.26	-115.0	-135.4	-156.7	86.9	-133.78
2.75	2.91	41.5	41.2	40.9	8.11	8.16	8.14	14.44	-54.9	-36.8	-42.3	0.11	0.01	-94.90	-115.1	-135.5	-156.7	100.0	-135.08
3.00	2.84	42.2	41.9	41.6	8.10	8.15	8.13	14.45	-67.2	-36.5	-42.1	0.10	0.01	-95.43	-115.1	-135.5	-156.5	145.8	-138.33
3.25	2.80	42.9	42.6	42.3	8.09	8.13	8.11	14.45	-57.4	-36.2	-42.1	0.09	0.02	-93.31	-115.0	-135.5	-156.6	171.2	-139.72
3.50	2.77	43.6	43.3	43.0	8.08	8.12	8.09	14.45	-51.4	-36.0	-41.6	0.08	0.02	-94.22	-114.9	-135.5	-156.7	204.6	-141.53
3.75	2.75	44.3	44.0	43.7	8.06	8.10	8.07	14.46	-47.8	-35.6	-41.6	0.07	0.03	-93.85	-114.8	-135.4	-156.4	287.3	-144.72
4.00	2.75	45.0	44.7	44.4	8.04	8.07	8.05	14.46	-45.4	-35.3	-41.4	0.07	0.03	-93.51	-114.9	-135.3	-156.0	337.4	-146.07
4.25	2.75	45.7	45.4	45.1	8.02	8.05	8.02	14.46	-43.7	-35.1	-41.5	0.07	0.03	-94.42	-114.7	-135.2	-156.2	473.6	-149.13
4.50	2.76	46.4	46.1	45.8	8.00	8.02	7.99	14.46	-42.2	-34.8	-41.3	0.06	0.04	-92.80	-114.7	-135.1	-156.0	566.2	-150.93
4.75	2.77	47.1	46.8	46.5	7.97	7.99	7.97	14.47	-41.0	-34.6	-41.3	0.06	0.04	-95.02	-114.4	-134.9	-155.8	933.4	-155.65
5.00	2.79	47.8	47.4	47.2	7.94	7.96	7.93	14.47	-40.0	-34.4	-41.1	0.06	0.05	-94.33	-114.5	-134.8	-155.7	1000.0	-156.42

*at 25°C unless mentioned otherwise



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