

Voltage Controlled Oscillator

JTOS-1025+ JTOS-1025

Linear Tuning 685 to 1025 MHz

Features

- wide frequency range, 685 to 1025 MHz
- linear tuning characteristics
- excellent harmonic suppression, -28 dBc typ.
- low phase noise, -134 dBc/Hz at 1 MHz offset, typ.
- aqueous washable

Applications

- cellular
- instrumentation
- catv



CASE STYLE: BK377

PRICE: \$18.95 ea. QTY (5-49)

**+ RoHS compliant in accordance
with EU Directive (2002/95/EC)**

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

Electrical Specifications

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	TUNING VOLTAGE (V)		PHASE NOISE dBc/Hz SSB at offset frequencies: Typ.				PULLING pk-pk @ 12 dBc (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	POWER SUPPLY	
	Min.	Max.		Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz				Typ.	Max.		Voltage (V)	Current (mA)
JTOS-1025	685	1025	+8.6	1	16	-70	-94	-114	-134	5.0	0.6	21-36	-28	-20	0.1	12	22

Pin Connections

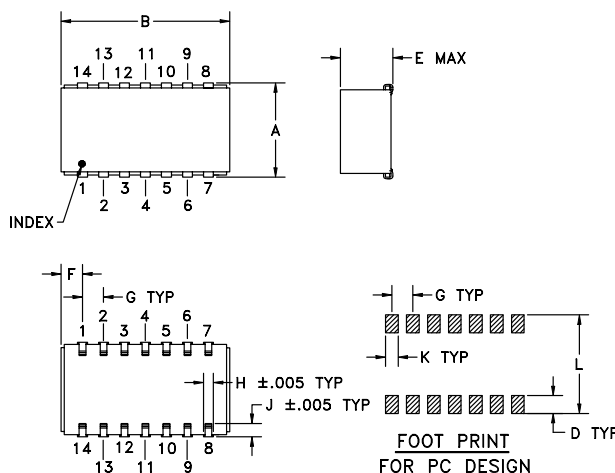
RFOUT	13
VCC	2
V-TUNE	5
GROUND	1,3,4,6,7,8,9,10,11,12,14

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)	+18V

all specifications: 50 ohm system

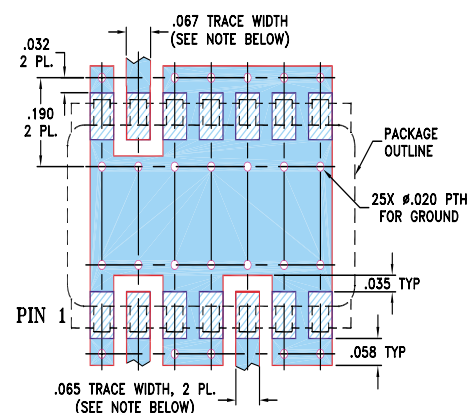
Outline Drawing



Outline Dimensions (inch)

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

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

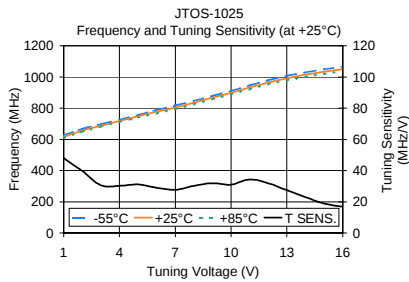


- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE BOTTOM IS CONTINUOUS GROUND PLANE.

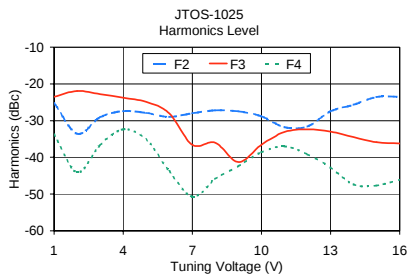
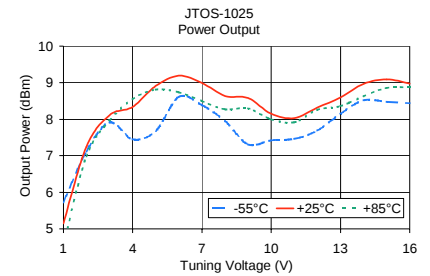
■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Performance Curves

JTOS-1025+ JTOS-1025



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
1.0	48.00	626.90	616.50	609.08	5.72	5.15	4.56
2.0	39.90	667.15	656.40	649.63	7.12	7.25	6.98
3.0	30.60	697.26	686.95	681.65	7.91	8.11	7.97
4.0	30.30	725.92	717.23	711.85	7.45	8.34	8.55
5.0	31.20	755.70	748.42	739.97	7.68	8.91	8.81
6.0	29.00	788.73	777.42	766.42	8.61	9.19	8.74
7.0	27.70	816.86	805.13	793.90	8.39	8.99	8.50
8.0	30.30	846.70	835.47	824.70	7.95	8.64	8.27
9.0	31.90	878.96	867.33	856.78	7.31	8.58	8.30
10.0	31.00	910.30	898.35	888.22	7.42	8.15	8.00
11.0	34.40	946.17	932.78	922.00	7.46	8.03	7.92
12.0	31.90	979.23	964.68	952.73	7.69	8.32	8.26
13.0	27.50	1007.05	992.13	978.85	8.15	8.60	8.36
14.0	23.00	1029.60	1015.10	1001.43	8.52	8.97	8.63
15.0	18.90	1048.83	1034.03	1020.18	8.48	9.09	8.86
16.0	16.90	1065.93	1050.93	1036.63	8.44	8.98	8.87



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.0	-25.20	-23.50	-33.80	0.51
2.0	-33.60	-21.90	-44.10	-0.07
3.0	-29.10	-22.80	-36.70	0.08
4.0	-27.40	-23.80	-32.40	0.60
5.0	-27.90	-24.90	-35.10	-0.38
6.0	-29.00	-28.00	-43.80	-0.42
7.0	-28.00	-36.60	-50.70	-0.27
8.0	-27.20	-36.00	-45.90	0.38
9.0	-27.50	-41.30	-42.40	0.07
10.0	-28.80	-36.60	-38.70	1.33
11.0	-31.80	-33.10	-37.00	0.92
12.0	-31.60	-32.40	-39.20	-0.05
13.0	-27.50	-33.00	-42.80	-0.90
14.0	-25.70	-34.50	-47.40	-1.08
15.0	-23.60	-35.90	-47.70	-1.22
16.0	-23.50	-36.20	-46.10	-1.32

