

# Surface Mount Voltage Controlled Oscillator

# JTOS-765P+ JTOS-765P

5V Tuning for PLL IC's 486 to 510 MHz

## Features

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

## Applications

- PLL circuitry
- measurement instrumentation
- frequency synthesizers



CASE STYLE: BK377  
PRICE: \$17.95 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

FREQUENCY (MHz)		POWER OUTPUT (dBm)	TUNING VOLTAGE (V)		PHASE NOISE (dBc/Hz) SSB at offset frequencies: Typ.				PULLING pk-pk @ 12 dBz (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	POWER SUPPLY	
Min.	Max.	Typ.	Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Voltage (V)	Current (mA) Max.
486	510	+9	0.5	5.0	-75	-98	-118	-138	2.0	0.5	20-30	-30	-20	0.1	12	20

## Pin Connections

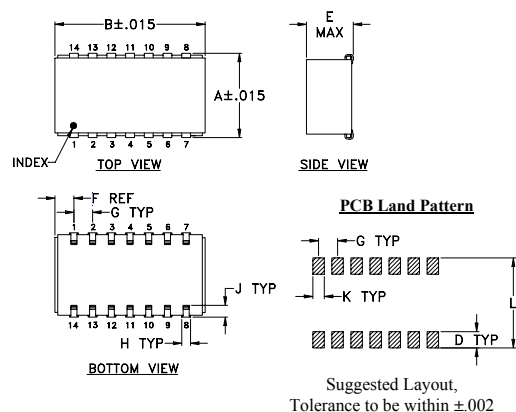
RF OUT	13
VCC	2
V-TUNE	5
GROUND	1,3,4,6,7,8,9,10,11,12,14

## Maximum Ratings

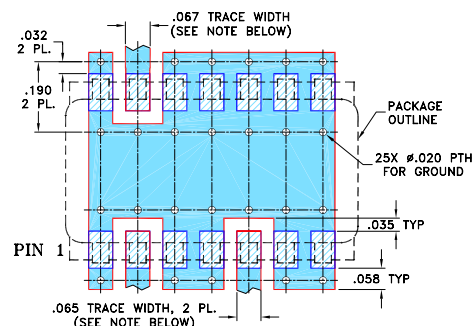
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+16V
Absolute Max. Tuning Voltage (Vtune)	+7V

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

## Outline Drawing



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

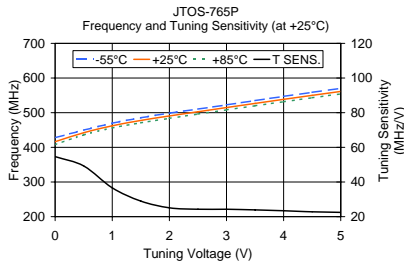


## Outline Dimensions (inch/mm)

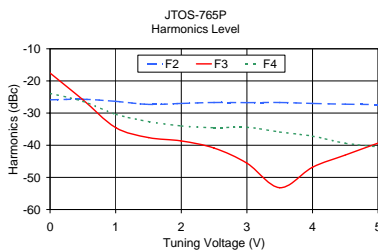
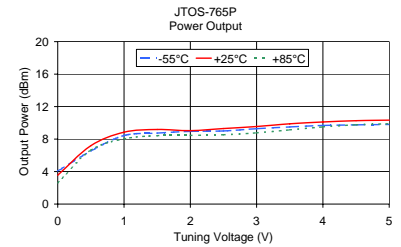
A	B	C	D	E	F	G	H	J	K	L	wt
.505	.800	--	.100	.250	.100	.100	.047	.065	.065	.525	grams
12.83	20.32	--	2.54	6.35	2.54	2.54	1.19	1.65	1.65	13.34	3.0

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## Performance Data & Curves



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
0.00	54.63	427.70	416.18	407.58	4.07	3.55	2.63
0.50	49.27	449.76	442.16	436.07	6.54	7.19	6.64
1.00	36.64	469.81	462.17	455.87	8.44	8.85	8.03
1.50	28.99	485.44	477.47	470.87	8.74	9.18	8.42
2.00	25.11	498.69	490.47	483.76	8.96	9.04	8.46
2.50	24.28	510.52	502.62	496.03	9.01	9.30	8.54
3.00	24.29	522.70	514.74	508.14	9.28	9.55	8.77
3.50	23.93	535.01	526.77	520.09	9.50	9.88	9.14
4.00	23.43	547.10	538.57	531.78	9.68	10.11	9.51
4.50	22.81	558.87	550.08	543.16	9.76	10.27	9.77
5.00	22.46	570.45	561.39	554.32	9.81	10.33	9.90



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
0.00	-25.87	-17.54	-23.87	0.64
0.50	-25.69	-25.85	-26.35	1.02
1.00	-26.35	-34.51	-30.35	0.70
1.50	-27.29	-37.62	-32.62	0.32
2.00	-27.00	-38.67	-34.00	0.19
2.50	-26.71	-40.88	-34.54	0.26
3.00	-26.75	-45.59	-34.42	0.45
3.50	-26.71	-53.21	-35.88	0.32
4.00	-27.00	-46.83	-37.17	0.38
4.50	-27.22	-43.05	-39.39	0.38
5.00	-27.34	-39.34	-40.51	0.51

