

# Surface Mount Voltage Controlled Oscillator

# MOS-1826PV+

## 5V Tuning for PLL IC's 1766 to 1826 MHz



CASE STYLE: CZ682  
PRICE: \$19.95 ea. QTY. (20)

### Features

- wide modulation bandwidth, 10 MHz typ.
- small package, 0.375"X0.375"
- aqueous washable

### Applications

- DCS/GSM

### +RoHS Compliant

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 dB (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	DC OPERATING POWER	
Min.	Max.	Typ.	Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Vcc (volts)	Current (mA) Max.
1766	1826	+2	0.5	5	-75	-101	-122	-142	8.0	1.0	21-35	-28	-15	10	5	25

### Pin Connections

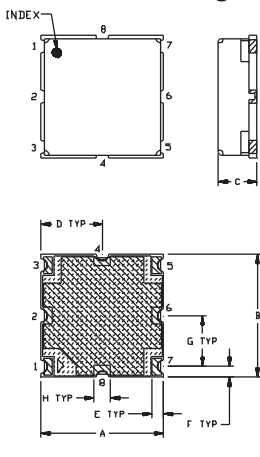
RF OUT	5
VCC	3
V-TUNE	1
GROUND	2,4,6,7,8

### Maximum Ratings

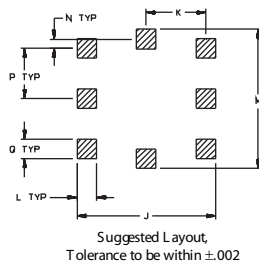
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+6V
Absolute Max. Tuning Voltage (Vtune)	+6V

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

### Outline Drawing

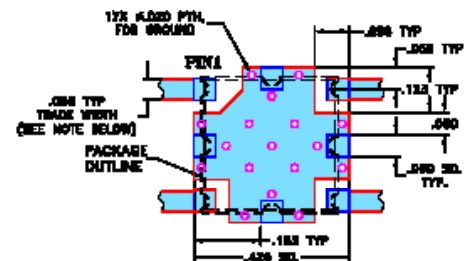


### PCB Land Pattern



Metallization  
Solder Resist

Demo Board MCL P/N: TB-128  
Suggested PCB Layout (PL-023)



NOTE 1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS 0.030" ± 0.002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.  
NOTE 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

Denotes PCB Copper Layout with Solder Mask (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
.375	.375	.131	.188	.035	.033	.154	.050
9.52	9.52	3.33	4.77	0.89	0.84	3.91	1.27
J	K	L	M	N	P	Q	wt
.425	.183	.060	.425	.028	.154	.060	grams
10.80	4.65	1.52	10.80	0.71	3.91	1.52	0.60

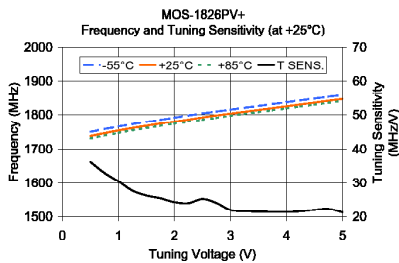
### Notes

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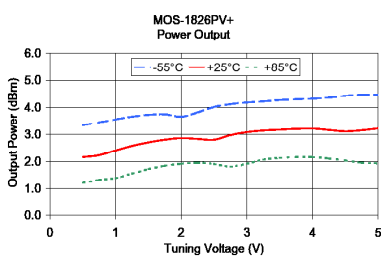
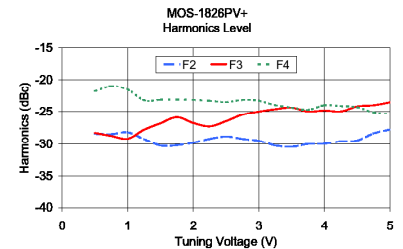


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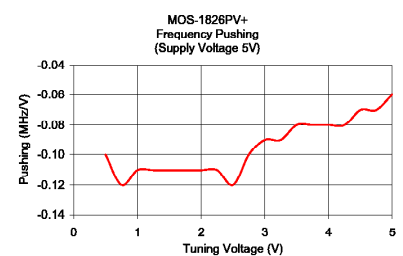
REV. D  
M149186  
MOS-1826PV+  
RVN/CP/AM  
141205  
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V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
0.50	36.17	1749.75	1737.92	1731.10	3.34	2.15	1.22
0.75	32.98	1757.76	1746.17	1739.27	3.45	2.22	1.33
1.00	30.44	1765.12	1753.78	1746.90	3.56	2.40	1.40
1.25	27.68	1772.07	1760.70	1754.08	3.66	2.57	1.56
1.50	26.25	1778.66	1767.26	1760.70	3.73	2.70	1.72
1.75	25.44	1785.01	1773.62	1767.03	3.75	2.80	1.84
2.00	24.30	1791.56	1779.69	1773.23	3.66	2.86	1.91
2.25	24.02	1798.31	1785.70	1779.17	3.82	2.83	1.95
2.50	25.22	1804.06	1792.01	1785.01	4.02	2.80	1.90
2.75	24.04	1809.62	1798.01	1791.06	4.13	2.97	1.81
3.00	21.96	1815.12	1803.50	1797.22	4.19	3.08	1.91
3.25	21.57	1820.60	1808.90	1802.74	4.23	3.14	2.06
3.50	21.43	1826.06	1814.25	1808.08	4.28	3.17	2.12
3.75	21.38	1831.52	1819.60	1813.40	4.31	3.20	2.15
4.00	21.36	1837.03	1824.94	1818.73	4.33	3.21	2.15
4.25	21.54	1842.55	1830.32	1824.11	4.37	3.16	2.10
4.50	22.00	1847.86	1835.82	1829.52	4.44	3.11	2.03
4.75	22.28	1853.07	1841.39	1835.01	4.48	3.15	1.95
5.00	21.24	1858.27	1846.70	1840.64	4.48	3.22	1.93



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
0.50	-28.44	-28.32	-21.77	-0.10
0.75	-28.51	-28.79	-20.98	-0.12
1.00	-28.23	-29.20	-21.54	-0.11
1.25	-29.27	-27.83	-23.21	-0.11
1.50	-30.27	-26.85	-23.14	-0.11
1.75	-30.23	-25.93	-23.11	-0.11
2.00	-29.82	-26.81	-23.16	-0.11
2.25	-29.23	-27.32	-23.32	-0.11
2.50	-28.85	-26.52	-23.51	-0.12
2.75	-29.23	-25.53	-23.17	-0.10
3.00	-29.53	-25.02	-23.31	-0.09
3.25	-30.26	-24.64	-23.99	-0.09
3.50	-30.46	-24.40	-24.37	-0.08
3.75	-30.04	-25.01	-24.73	-0.08
4.00	-29.98	-24.85	-24.01	-0.08
4.25	-29.61	-24.99	-24.14	-0.08
4.50	-29.49	-24.20	-24.32	-0.07
4.75	-28.38	-24.01	-25.16	-0.07
5.00	-27.79	-23.55	-25.43	-0.06



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