

Surface Mount Voltage Controlled Oscillator

MOS-1826PV+

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



Features

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

Applications

- DCS/GSM

CASE STYLE: CZ682
PRICE: \$19.95 ea. QTY (5-49)

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

The +Suffix has been added in order to identify 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.	V _{cc} (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

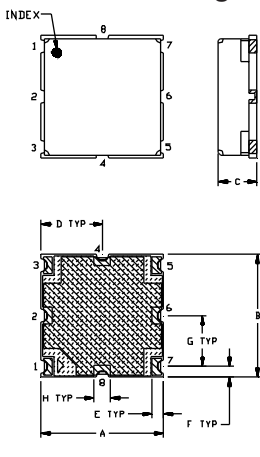
RF OUT	5
VCC	3
V-TUNE	1
GROUND	2,4,6,7,8

Maximum Ratings

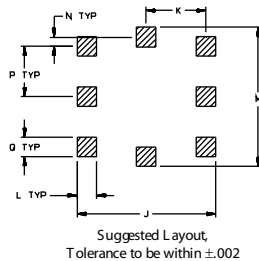
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (V _{cc})	+6V
Absolute Max. Tuning Voltage (V _{tune})	+6V

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

Outline Drawing

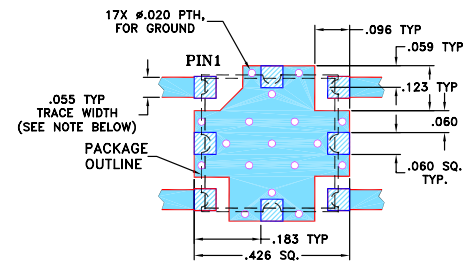


PCB Land Pattern



■ 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.
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
.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

Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

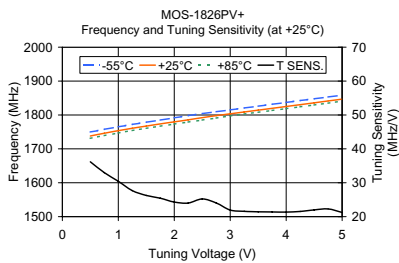
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

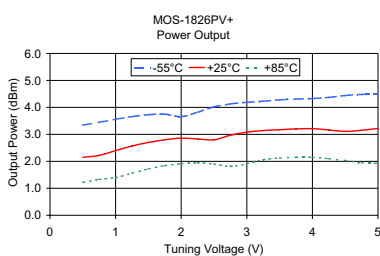
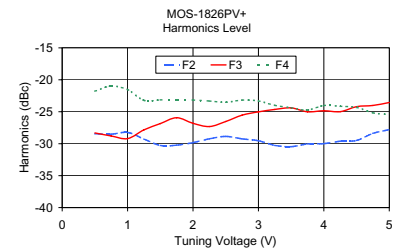
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MOS-1826PV+
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Performance Data & Curves

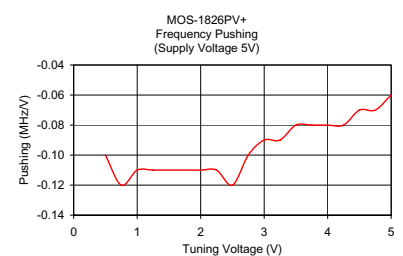
MOS-1826PV+



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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