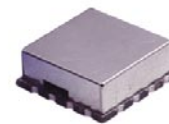


Surface Mount Voltage Controlled Oscillator

ROS-1720+ ROS-1720

Linear Tuning 1550 to 1720 MHz



Features

- linear tuning sensibility, 28-34 MHz/V typ.
- low phase noise, -141 dBc/Hz at 1 MHz offset, typ.
- aqueous washable

Applications

- PCS
- DCS
- communication systems

CASE STYLE: CK605
PRICE: \$19.95 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 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.
1550	1720	7.0	0.5	12	-73	-101	-121	-141	11	1.3	28-34	-17	-10	18	12	25

Pin Connections

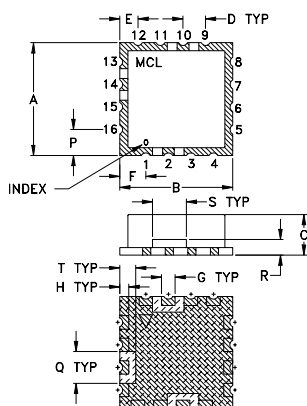
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

Maximum Ratings

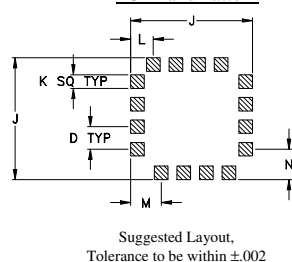
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+13V
Absolute Max. Tuning Voltage (Vtune)	+14V

all specifications: 50 ohm system

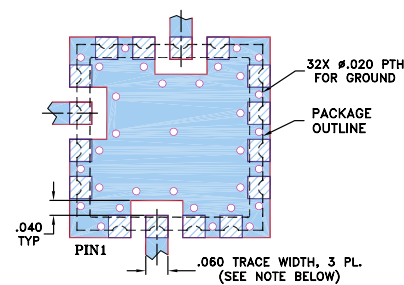
Outline Drawing



PCB Land Pattern



Demo Board MCL PIN: TB-10 Suggested PCB Layout (PL-012)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR FR4 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
.500	.500	.180	.100	.080	.115	.060	.040	.540	.060
12.70	12.70	4.57	2.54	2.03	2.92	1.52	1.02	13.72	1.52
L	M	N	P	Q	R	S	T	wt.	
.100	.135	.135	.115	.140	.070	.150	.070	grams	
1.50	3.43	3.43	2.92	3.56	1.78	3.81	1.78	1.0	



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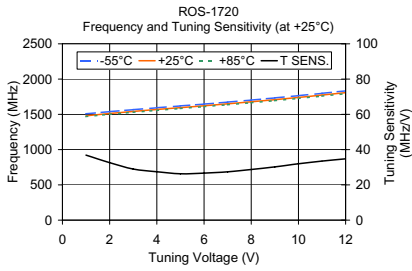
Mini-Circuits ISO 9001 & ISO 14001 Certified



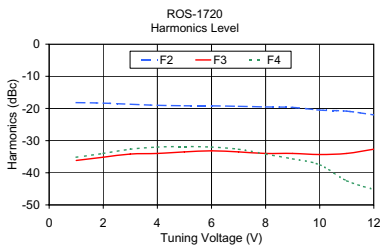
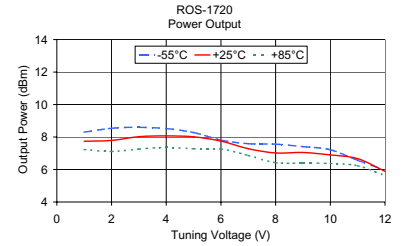
REV. B
M98898
ED-7613A/2
ROS-1720
MM/TD/CP/AM
061027
Page 1 of 2

ROS-1720+ ROS-1720

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
1.00	36.89	1508.43	1479.48	1469.47	8.30	7.74	7.23
2.00	32.60	1539.52	1512.07	1500.76	8.54	7.79	7.11
3.00	28.99	1567.28	1541.06	1529.70	8.60	8.02	7.26
4.00	27.45	1593.75	1568.51	1556.82	8.52	8.07	7.36
5.00	26.29	1619.89	1594.80	1583.20	8.28	8.01	7.28
6.00	26.66	1646.52	1621.46	1609.60	7.81	7.75	7.26
7.00	27.42	1673.97	1648.88	1636.90	7.59	7.28	6.87
8.00	28.74	1702.65	1677.62	1665.07	7.56	7.02	6.42
9.00	30.20	1733.14	1707.83	1694.74	7.41	7.05	6.40
10.00	31.98	1765.19	1739.81	1726.16	7.22	6.90	6.37
11.00	33.49	1798.68	1773.30	1759.13	6.57	6.67	6.23
12.00	34.79	1833.43	1808.09	1793.21	5.97	5.89	5.63



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.00	-18.17	-36.17	-35.17	1.39
2.00	-18.33	-35.17	-34.00	1.47
3.00	-18.67	-34.17	-32.67	1.82
4.00	-19.00	-34.00	-32.00	1.45
5.00	-19.16	-33.50	-31.83	1.46
6.00	-19.17	-33.17	-32.00	1.35
7.00	-19.33	-33.50	-32.66	1.29
8.00	-19.50	-34.00	-34.17	1.19
9.00	-19.66	-34.00	-35.66	1.04
10.00	-20.50	-34.33	-37.50	0.80
11.00	-20.83	-34.00	-42.50	0.52
12.00	-22.00	-32.67	-45.17	0.23

