

# Voltage Controlled Oscillator

## ROS-1455+

Wide Band 900 to 1455 MHz

### Features

- High power, +13dBm typ.
- Linear tuning characteristics
- Low pushing
- Low phase noise
- Aqueous washable

### Applications

- Frequency synthesizers
- Wireless communication
- CDMA
- TDMA
- GSM



CASE STYLE: CK605  
PRICE: \$ 24.95 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

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies, kHz				TUNING					NON HARMONIC SPURIOUS (dBc)	HARMONICS (dBc)		PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	DC OPERATING POWER		
	Min.	Max.		Typ.	1	10	100	1000	VOLTAGE RANGE (V)	SENSI-TIVITY (MHz/V)	PORT CAP (pF)	3 dB MODULATION BANDWIDTH (MHz)		Typ.	Typ.			Max.	Typ.	Vcc (volts)
ROS-1455+	900	1455	+13	-72	-100	-126	-146	0.5	12	60	71	30	75	-90	-15	-	18	0.5	12	40

### Pin Connections

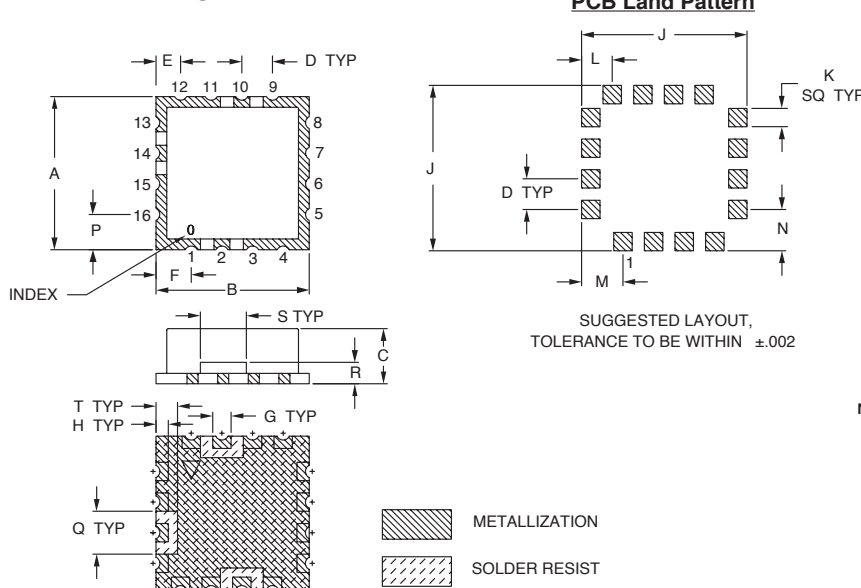
RF OUT	10
VCC	14
V-TUNE	2
GROUND	1,3,4,5,6,7,8,9,11,12,13,15,16

### Maximum Ratings

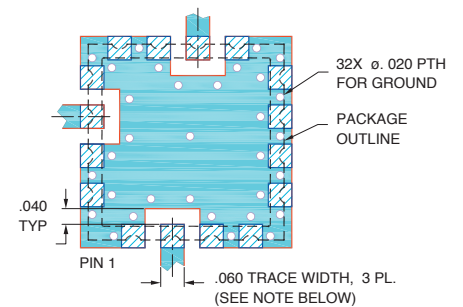
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	14V
Absolute Max. Tuning Voltage (Vtune)	14V
All specifications	50 ohm system

Permanent damage may occur if any of these limits are exceeded.

### Outline Drawing



### Demo Board MCL P/N: TB-10 Suggested PCB Layout (PL-012)



- NOTES:**
1. TRACE WIDTH IS SHOWN FOR RF4 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.
- 

### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt.
.500	.500	.180	.100	.080	.115	.060	.040	.540	.060	.100	.135	.135	.115	.140	.070	.150	.070	grams
12.70	12.70	4.57	2.54	2.03	2.92	1.52	1.02	13.72	1.52	2.54	3.43	3.43	2.92	3.56	1.78	3.81	1.78	1.0



For detailed performance specs & shopping online see web site

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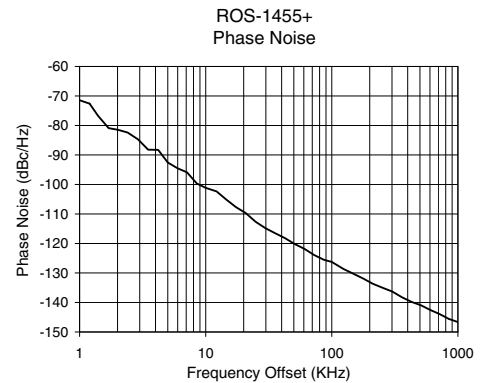
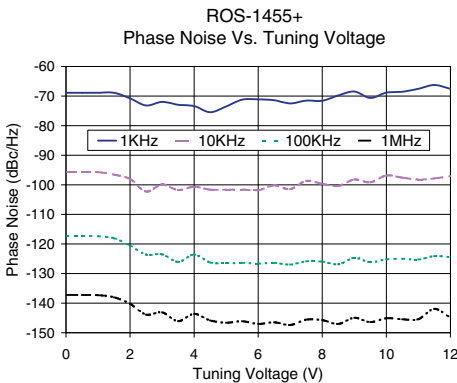
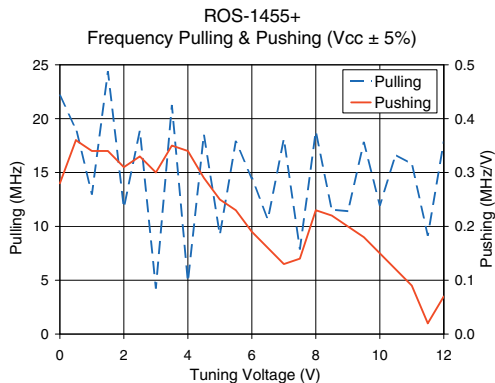
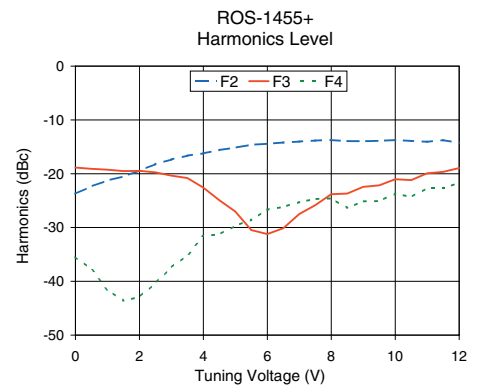
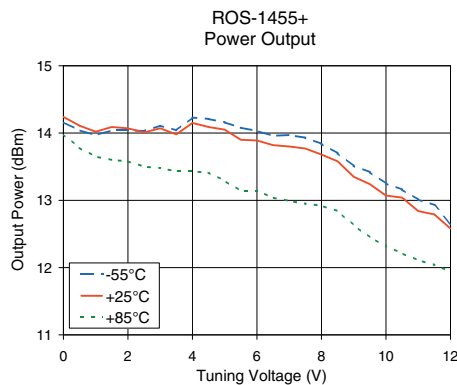
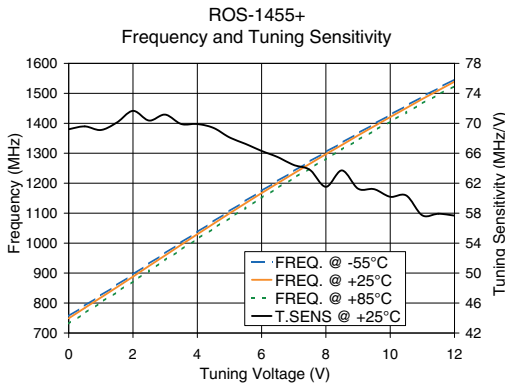
REV. OR  
M105224  
EDR-7730/2  
ROS-1455+  
RAV  
090820  
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# Performance Data & Curves\*

# ROS-1455+

V TUNE	TUNE SENS (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)			Icc (mA)	HARMONICS (dBc)			FREQ. PUSH (MHz/V)	FREQ. PULL (MHz)	PHASE NOISE (dBc/Hz) at offsets				FREQ OFFSET (KHz)	PHASE NOISE at 1188 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	69.21	756.3	749.1	731.1	14.16	14.24	13.98	33.44	-23.7	-18.9	-35.5	0.28	22.13	-68.9	-95.6	-117.3	-137.2	1.0	-71.45
0.50	69.59	791.1	783.7	766.6	14.04	14.11	13.78	33.45	-22.4	-19.1	-37.8	0.36	19.07	-68.9	-95.6	-117.3	-137.2	2.0	-81.45
1.00	69.11	825.6	818.5	802.3	13.97	14.02	13.65	33.48	-21.3	-19.3	-41.6	0.34	13.03	-68.9	-95.7	-117.4	-137.3	3.5	-88.21
1.50	70.11	860.3	853.1	836.9	14.04	14.09	13.60	33.52	-20.5	-19.5	-43.6	0.34	24.33	-68.9	-96.6	-118.1	-138.0	6.0	-94.55
2.00	71.66	895.3	888.1	872.4	14.04	14.07	13.58	33.59	-19.4	-19.5	-42.9	0.31	11.78	-70.8	-98.0	-120.5	-140.2	8.5	-99.68
2.50	70.36	931.5	923.9	907.5	14.03	14.01	13.50	33.65	-18.2	-19.8	-40.3	0.33	18.83	-73.2	-102.3	-123.6	-143.9	10.0	-101.16
3.00	71.15	966.4	959.1	943.5	14.11	14.07	13.48	33.74	-17.4	-20.4	-37.4	0.30	4.32	-72.0	-99.9	-123.5	-143.1	20.8	-109.72
4.00	69.91	1036.8	1029.7	1014.3	14.23	14.15	13.43	33.92	-16.2	-22.6	-31.6	0.34	4.93	-73.4	-100.7	-123.6	-143.6	35.5	-116.51
5.00	68.12	1106.7	1099.3	1083.5	14.16	14.05	13.29	34.13	-15.2	-27.0	-29.7	0.25	9.27	-73.5	-101.6	-126.6	-146.6	60.7	-121.84
6.00	66.31	1174.4	1167.0	1151.3	14.03	13.89	13.14	34.34	-14.4	-31.2	-26.7	0.19	14.48	-71.1	-101.9	-126.6	-147.0	86.7	-125.53
7.00	64.43	1240.2	1232.9	1217.4	13.97	13.80	12.99	34.55	-14.0	-27.5	-25.3	0.13	18.07	-72.5	-101.5	-126.9	-147.4	100.0	-126.26
8.00	61.52	1304.2	1297.0	1281.8	13.84	13.68	12.92	34.76	-13.7	-23.8	-24.6	0.23	18.76	-71.6	-99.7	-126.0	-145.7	148.1	-130.26
8.50	63.71	1335.2	1327.8	1312.8	13.70	13.58	12.84	34.83	-13.9	-23.7	-26.4	0.22	11.55	-69.8	-100.4	-126.9	-147.0	177.0	-131.86
9.00	61.26	1367.0	1359.6	1344.4	13.51	13.35	12.63	34.93	-14.0	-22.4	-25.1	0.20	11.41	-68.5	-98.2	-124.7	-145.0	211.6	-133.67
9.50	61.20	1397.6	1390.2	1375.5	13.42	13.24	12.45	35.03	-13.9	-22.2	-25.1	0.18	17.75	-70.7	-99.2	-126.2	-146.4	302.4	-136.32
10.00	60.19	1428.4	1420.8	1405.9	13.25	13.07	12.32	35.09	-13.7	-21.0	-23.7	0.15	12.00	-68.9	-96.8	-125.2	-145.1	361.5	-138.27
10.50	60.35	1458.6	1450.9	1436.2	13.16	13.04	12.21	35.16	-13.9	-21.2	-24.3	0.12	16.64	-68.6	-97.6	-125.0	-145.5	507.5	-140.91
11.00	57.70	1488.7	1481.1	1466.3	13.01	12.84	12.11	35.24	-14.1	-19.9	-22.7	0.09	15.77	-67.6	-98.2	-125.3	-145.4	606.7	-142.60
11.50	57.93	1517.4	1510.0	1495.8	12.93	12.79	12.04	35.31	-13.8	-19.7	-22.7	0.02	9.21	-66.3	-97.8	-124.1	-141.9	851.6	-145.61
12.00	57.67	1546.8	1538.9	1524.3	12.65	12.58	11.94	35.30	-14.3	-19.0	-21.7	0.07	17.81	-67.5	-97.1	-124.4	-144.9	1000.0	-146.63

\*at 25°C unless mentioned otherwise



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