

NON-CATALOG

Surface Mount

Voltage Controlled Oscillator

ROS-3200C-719+

Low Noise 3060 to 3200 MHz



CASE STYLE: CK1113

Features

- low phase noise
- low pushing
- low pulling
- aqueous washable

Applications

- wireless communications
- test equipment

+RoHS Compliant

The +Suffix identifies 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.	Max.			Typ.	Max.
ROS-3200C-719+	3060	3200	+4.7	-85	-113	-133	-152	0.5	18	8-13	30	65	-90	-15	-	1	1	8	36

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)	10V
Absolute Max. Tuning Voltage (Vtune)	20V
All specifications	50 ohm system

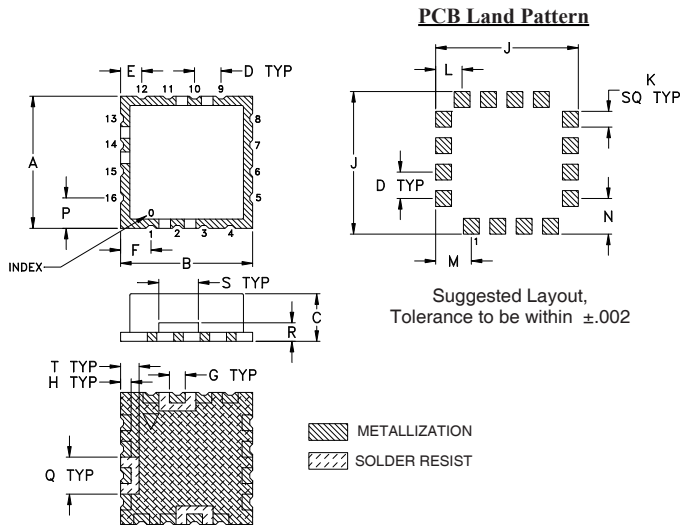
Permanent damage may occur if any of these limits are exceeded.

Tape & Reel: F37

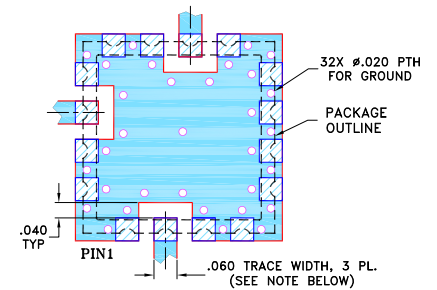
7" Reels with 10, 20, 50, 100 devices
13" Reels with 200, 500 devices

Environmental Ratings: ENV65

Outline Drawing



Demo Board MCL P/N: 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 BOTTOM 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	L	M	N	P	Q	R	S	T	wt.	
.500	.500	.220	.100	.080	.115	.060	.040	.540	.100	.060	.100	.135	.135	.115	.140	.070	.150	.070	grams
12.70	12.70	5.59	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	1.2	

Notes

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REV. B
M169213
EDR-9426F1
ROS-3200C-719+
RAV
180813
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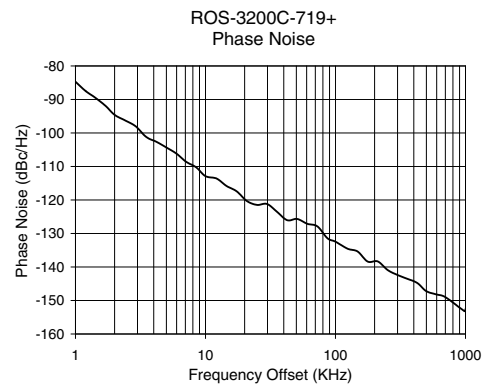
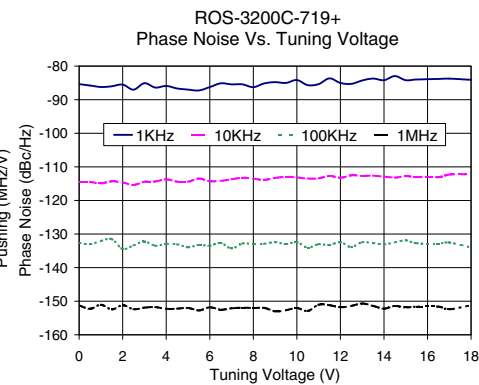
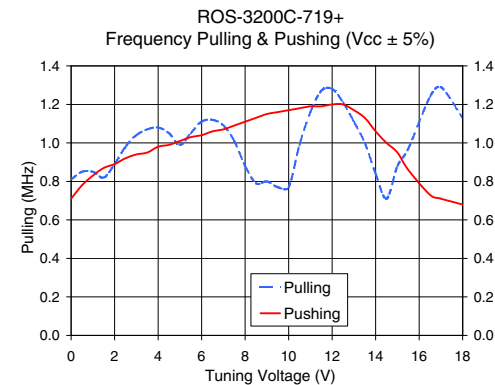
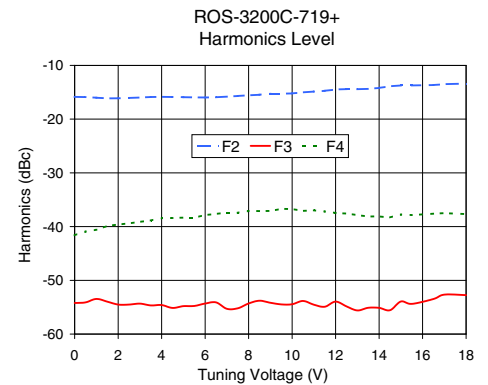
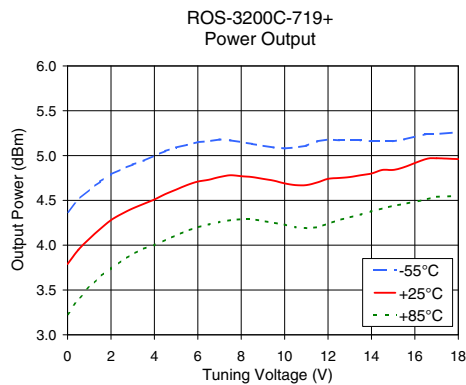
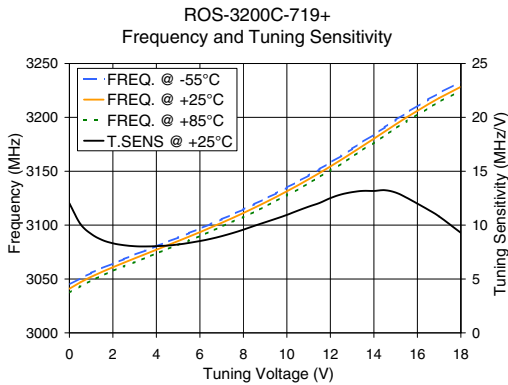
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Performance Data & Curves*

ROS-3200C-719+

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 3130 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	12.02	3044.8	3040.9	3037.2	4.37	3.79	3.23	30.61	-15.9	-54.2	-41.6	0.71	0.81	-85.4	-114.5	-132.6	-151.3	1.0	-84.72
0.50	10.12	3050.6	3046.9	3043.5	4.51	3.95	3.40	30.72	-15.9	-54.1	-40.9	0.78	0.85	-85.8	-114.5	-133.0	-152.3	2.0	-94.59
1.00	9.18	3055.5	3052.0	3048.6	4.62	4.07	3.53	30.80	-16.0	-53.5	-40.6	0.83	0.85	-86.2	-114.9	-132.1	-151.1	3.5	-101.19
2.00	8.31	3064.3	3060.9	3057.5	4.79	4.28	3.74	30.92	-16.1	-54.5	-39.6	0.89	0.89	-85.5	-114.6	-134.4	-151.2	6.0	-106.19
3.00	8.04	3072.5	3069.1	3065.7	4.90	4.41	3.90	31.01	-16.0	-54.3	-39.1	0.94	1.04	-85.1	-114.4	-132.2	-151.9	8.5	-110.29
4.00	8.05	3080.5	3077.1	3073.7	5.00	4.51	4.00	31.07	-15.9	-54.6	-38.4	0.98	1.08	-85.9	-113.7	-133.0	-152.3	10.0	-112.90
5.00	8.20	3088.5	3085.2	3081.7	5.09	4.62	4.11	31.12	-15.9	-54.8	-38.3	1.01	0.99	-87.0	-114.4	-133.9	-152.0	20.8	-120.31
6.00	8.52	3096.8	3093.5	3089.9	5.15	4.71	4.20	31.16	-16.0	-54.3	-37.9	1.04	1.11	-86.2	-114.3	-133.5	-151.8	35.5	-123.54
7.00	8.97	3105.4	3102.1	3098.5	5.18	4.76	4.26	31.18	-15.8	-55.3	-37.4	1.07	1.09	-85.4	-113.7	-134.3	-152.1	60.7	-127.12
8.00	9.58	3114.6	3111.2	3107.6	5.15	4.77	4.29	31.17	-15.6	-54.3	-37.1	1.11	0.88	-86.3	-113.5	-133.0	-152.0	86.7	-131.43
9.00	10.26	3124.4	3121.0	3117.3	5.11	4.74	4.27	31.18	-15.3	-54.2	-37.1	1.15	0.80	-84.8	-113.3	-132.4	-153.0	100.0	-132.44
10.00	10.95	3134.9	3131.4	3127.7	5.08	4.69	4.23	31.20	-15.2	-54.5	-36.7	1.17	0.77	-84.2	-113.1	-132.4	-152.0	148.1	-135.38
10.50	11.34	3140.4	3136.9	3133.2	5.09	4.67	4.20	31.21	-15.0	-53.8	-37.1	1.18	0.99	-85.7	-113.5	-134.1	-152.9	177.0	-138.38
11.00	11.71	3146.1	3142.6	3138.8	5.11	4.67	4.19	31.21	-14.9	-54.5	-37.0	1.19	1.16	-85.4	-113.4	-133.0	-151.1	211.6	-138.34
12.00	12.51	3158.0	3154.4	3150.7	5.18	4.74	4.24	31.22	-14.5	-54.0	-37.5	1.20	1.28	-85.0	-113.3	-132.4	-151.8	302.4	-142.45
13.00	13.06	3170.8	3167.1	3163.4	5.17	4.76	4.31	31.16	-14.4	-55.6	-37.9	1.17	1.11	-84.3	-112.7	-132.4	-150.7	355.1	-143.49
14.00	13.17	3184.1	3180.2	3176.5	5.16	4.80	4.38	31.08	-14.2	-55.1	-38.1	1.06	0.84	-84.2	-112.9	-133.1	-152.2	498.5	-147.20
15.00	13.03	3197.6	3193.4	3189.7	5.16	4.84	4.44	30.99	-13.7	-53.9	-37.8	0.95	0.88	-84.2	-112.7	-131.9	-151.8	595.9	-148.19
17.00	10.80	3222.5	3217.9	3214.3	5.24	4.97	4.54	30.90	-13.5	-52.7	-37.5	0.71	1.29	-83.7	-112.3	-132.5	-152.4	982.3	-153.16
18.00	9.29	3233.0	3228.4	3224.7	5.26	4.96	4.55	30.86	-13.4	-52.8	-37.7	0.68	1.13	-84.1	-112.3	-134.0	-151.2	1000.0	-152.51

*at 25°C unless mentioned otherwise



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