

PRODUCT CHANGE NOTICE PCN Form (D4-E000-73)

PCN#18-047

NOTIFICATION DATE: April 26, 2018

MODEL(S) AFFECTED:

ROS-3000-619+

EXTENT OF CHANGE:

1. Replacement of supplied transistor and varactor diode based on discontinuation of supply with alternate, qualified components.
2. Change of internal component values to optimize replacement parts

EFFECT OF CHANGE:

No change in FIT or FORM, shift in performance per table below:

Parameters	Original Performance	New Performance
DC Current	28.4 to 28.6 mA	30.7 to 31.1 mA
2nd Harmonic	-24.29 to -20.35 dBc	-38.95 to -30.46 dBc
3rd Harmonic	-38.79 to -27.64 dBc	-32.5 to -21.66 dBc

No change in specs. No change in internal or external layout.

REASON FOR CHANGE:

Obsolescence of supplied components

EFFECTIVE DATE OF CHANGE:

Pending stock depletion. Last date code of old design **DC 1742**

ATTACHMENTS:

Data available to support the change
See updated datasheets below for change in performance.

QUESTIONS?

[PLEASE CONTACT US.](#)

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Surface Mount Voltage Controlled Oscillator

ROS-3000-619+

5V Tuning for PLL ICs 2800 to 2970 MHz



CASE STYLE: CK605

Features

- high power output, +10 dBm typ.
- linear tuning characteristics
- low phase noise, -101 dBc/Hz typ. @ 10kHz offset
- low pushing, 1.5 MHz/V typ.
- aqueous washable

Applications

- wireless communications
- satellite systems

+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)		PORT SENSITIVITY (MHz/V)		3 dB CAP MODULATION BANDWIDTH (MHz)	Typ.			Typ.	Typ.	Typ.	Vcc	Current (mA)
									Min.	Max.											
ROS-3000-619+	2800	2970	+10	-72	-101	-123	-144	0.5	5	50-70	13	150	-90	-25	-15	4	1.5	5	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)	7V
Absolute Max. Tuning Voltage (Vtune)	7V
All specifications	50 ohm system

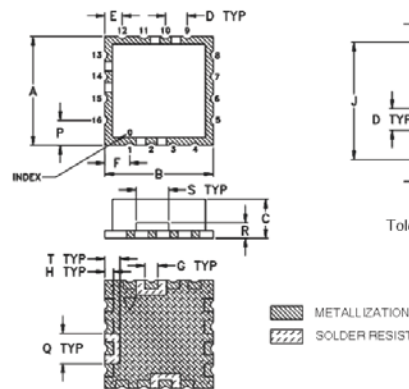
Permanent damage may occur if any of these limits are exceeded.

Tape & Reel: F37

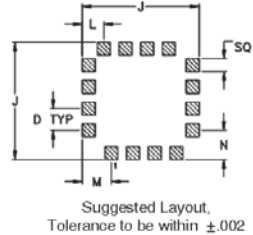
7" Reels with 10, 20, 50, 100 devices
 13" Reels with 200, 500 devices

Environmental Ratings: ENV65

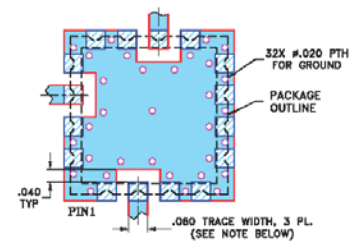
Outline Drawing



PCB Land Pattern



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	.180	.100	.080	.115	.060	.040	.540	.080	.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

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PRODUCT CHANGE NOTICE

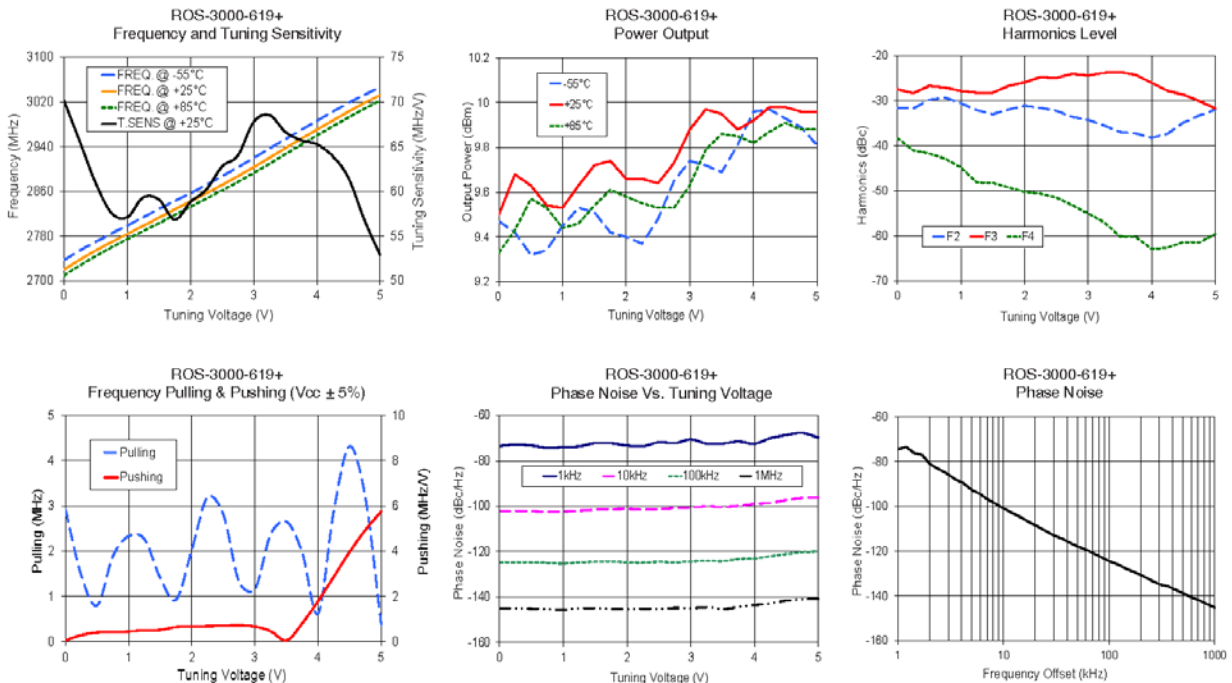
PCN Form (D4-E000-73)

Performance Data & Curves*

ROS-3000-619+

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 2885 MHz (dBc/Hz)
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C		F2	F3	F4			1kHz	10kHz	100kHz	1MHz		
0.00	70.14	2737.3	2720.4	2709.8	9.47	9.50	9.33	30.78	-31.5	-27.4	-38.3	0.06	2.92	-73.48	-102.2	-124.7	-144.9	1.0	-74.51
0.50	60.94	2770.0	2754.3	2744.3	9.32	9.63	9.57	30.76	-29.8	-26.7	-41.7	0.41	0.80	-73.29	-102.2	-124.7	-145.2	2.0	-81.10
0.75	57.59	2784.6	2769.6	2760.0	9.34	9.54	9.53	30.82	-29.3	-27.0	-42.9	0.43	1.89	-74.25	-102.5	-125.0	-145.4	3.5	-88.00
1.00	57.12	2799.1	2784.0	2774.8	9.45	9.53	9.44	30.84	-30.5	-27.8	-44.8	0.45	2.33	-73.93	-102.4	-125.3	-145.7	6.0	-94.49
1.25	59.33	2813.9	2798.2	2789.0	9.53	9.63	9.46	30.80	-32.1	-28.2	-48.2	0.51	2.26	-73.61	-102.0	-124.7	-144.9	8.5	-99.00
1.50	59.09	2828.7	2813.1	2803.3	9.51	9.72	9.54	30.77	-33.0	-28.2	-48.3	0.52	1.41	-72.22	-101.5	-124.5	-144.9	10.0	-100.91
1.75	56.86	2842.8	2827.8	2818.2	9.42	9.74	9.61	30.74	-31.9	-26.7	-49.3	0.65	0.93	-72.25	-101.4	-124.3	-145.2	20.8	-108.90
2.00	58.82	2857.1	2842.1	2832.6	9.40	9.66	9.58	30.75	-31.1	-25.9	-50.3	0.68	2.03	-73.29	-101.2	-124.8	-145.4	35.5	-114.38
2.25	60.22	2871.9	2856.8	2847.2	9.37	9.66	9.55	30.78	-31.5	-24.7	-50.6	0.69	3.20	-73.54	-101.5	-124.9	-145.3	60.7	-119.42
2.50	62.80	2887.4	2871.8	2862.1	9.48	9.64	9.53	30.79	-32.2	-24.9	-51.5	0.71	2.81	-71.85	-101.3	-124.5	-145.3	86.7	-123.02
2.75	64.05	2903.3	2887.5	2877.4	9.65	9.73	9.53	30.77	-33.5	-24.0	-53.2	0.73	1.31	-72.22	-100.8	-124.7	-144.8	100.0	-124.46
3.00	67.78	2920.0	2903.5	2893.4	9.74	9.88	9.63	30.71	-34.2	-24.4	-55.0	0.67	1.16	-70.57	-100.7	-124.3	-145.0	148.1	-128.06
3.25	68.54	2936.9	2920.5	2909.7	9.72	9.97	9.79	30.67	-35.5	-23.8	-57.0	0.46	2.38	-72.44	-100.1	-124.1	-144.5	177.0	-129.48
3.50	66.67	2953.6	2937.6	2926.9	9.69	9.95	9.86	30.71	-36.9	-23.6	-60.1	0.06	2.65	-72.37	-100.4	-124.2	-145.3	211.6	-131.26
3.75	65.72	2970.1	2954.3	2943.9	9.81	9.88	9.85	30.73	-37.2	-24.2	-60.2	0.82	1.96	-71.55	-99.8	-123.3	-144.4	302.4	-134.94
4.00	65.28	2986.6	2970.7	2960.4	9.96	9.92	9.82	30.68	-38.2	-26.0	-62.9	1.80	0.62	-72.47	-99.0	-123.0	-143.6	361.5	-135.68
4.25	63.96	3002.8	2987.0	2976.6	9.97	9.98	9.87	30.62	-37.3	-27.8	-62.6	2.88	2.91	-70.01	-98.6	-122.1	-142.9	507.5	-138.84
4.50	61.50	3018.5	3003.0	2992.7	9.93	9.98	9.91	30.58	-34.8	-28.6	-61.4	3.97	4.32	-68.61	-97.3	-121.1	-141.6	606.7	-140.64
4.75	56.83	3033.1	3018.4	3008.2	9.89	9.96	9.88	30.57	-33.3	-30.1	-61.5	4.94	3.17	-67.71	-96.3	-120.3	-141.0	851.6	-143.68
5.00	52.89	3047.0	3032.6	3022.8	9.81	9.96	9.88	30.57	-32.0	-31.7	-59.6	5.76	0.38	-69.73	-96.1	-120.0	-140.7	1000.0	-143.68

*at 25°C unless mentioned otherwise



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