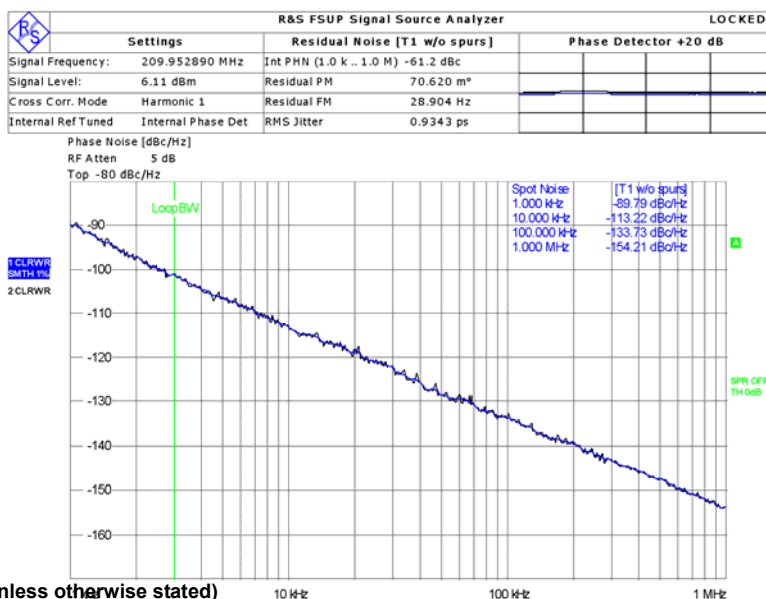


SURFACE MOUNT MODEL VOLTAGE CONTROLLED OSCILLATOR

Frequency 173-248MHz

VL248A



FEATURES

- ▶ Miniature Size
- ▶ Surface Mount Package
- ▶ Low Phase Noise Performance
- ▶ Electrically Shielded
- ▶ Highly Linear Tuning

Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{CC} = +5.0\text{V}$ (unless otherwise stated)

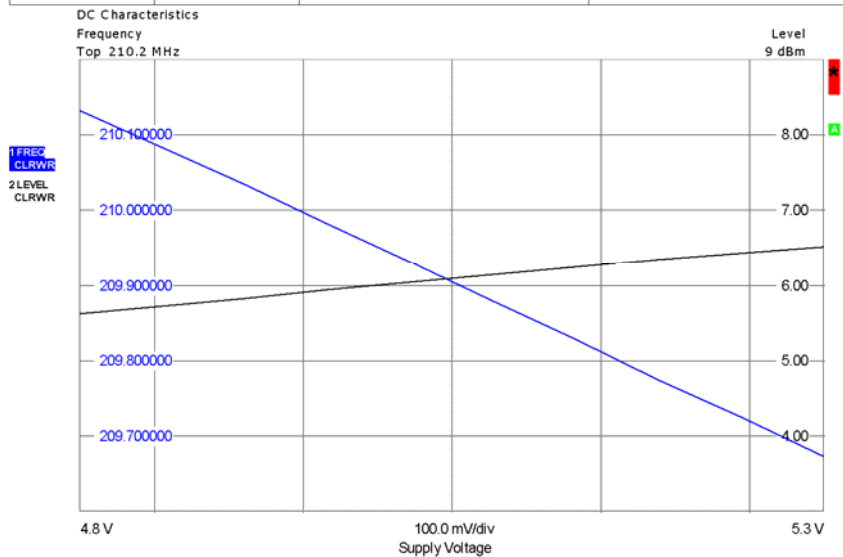
Parameter	Test Conditions	Min	Typ	Max	Units
Frequency Rangs		173		248	MHz
Tuning Voltage (V)		1.5		4.7	V
RF Output Power	173-248MHz	4.0		8.0	dBm
Supply Voltage (Vcc)		4.75		5.25	V
Supply Current (Icc)			16	19	mA
Phase Noise :					
	@10kHz Offset:		-112	-109	dBc/Hz
	@100kHz Offset:		-132	-129	dBc/Hz
Average Tuning Sensitivity	173-248MHz		28.7		MHz/V
Harmonic Outputs			-20		dBc
OperatingTemperature Range		-55		+85	°C
Tune Input Capacitance			-		PF
Output Impedance -			50		Ω
Package Type	SK605(12.7X12.7X4.3mm)				

Comments

X Indicates parameter to be tested 100% in production

V TUNE	TUNING SENS. (MHz/V)	FREQUENCY(MHz)			POWER OUTPUT(dBm)			HARMONIC(dBc) 2 ⁿ		
		-55℃	+25℃	+85℃	-55℃	+25℃	+85℃	-55℃	+25℃	+85℃
1.5	22.3	169.1	166.9	165.6	5.7	6.4	6.6	-15.9	-15.6	-15.1
2.0	25.1	181.1	178.5	176.8	5.4	6.1	6.4	-16.2	-15.5	-15.8
2.5	28.8	195.2	192.1	189.7	5.0	5.7	6.1	-18.3	-20.3	-18.4
3.0	29.1	209.8	206.5	203.8	4.9	5.6	5.9	-20.7	-21.6	-21.0
3.5	31.0	224.3	220.8	218.7	5.4	5.7	6.0	-18.3	-19.5	-19.8
4.0	31.9	240.3	237.1	234.9	5.3	5.8	5.9	-18.9	-20.7	-20.0
4.5	29.5	256.4	253.0	250.3	5.2	5.7	6.0	-20.3	-21.7	-22.4
4.7	27.1	262.4	258.8	255.8	5.1	5.7	6.1	-20.1	-21.6	-22.4

R&S	R&S FSUP Signal Source Analyzer				
	Settings		Results		
	Supply	Voltage	Frequency		Level
	Vmin	4.75 V	210.132	MHz	5.61 dBm
	Vcurrent	5.00 V	209.906	MHz	6.09 dBm
	Vmax	5.25 V	209.672	MHz	6.51 dBm



Measurement Aborted

Date: 17.NOV.2009 13:55:43

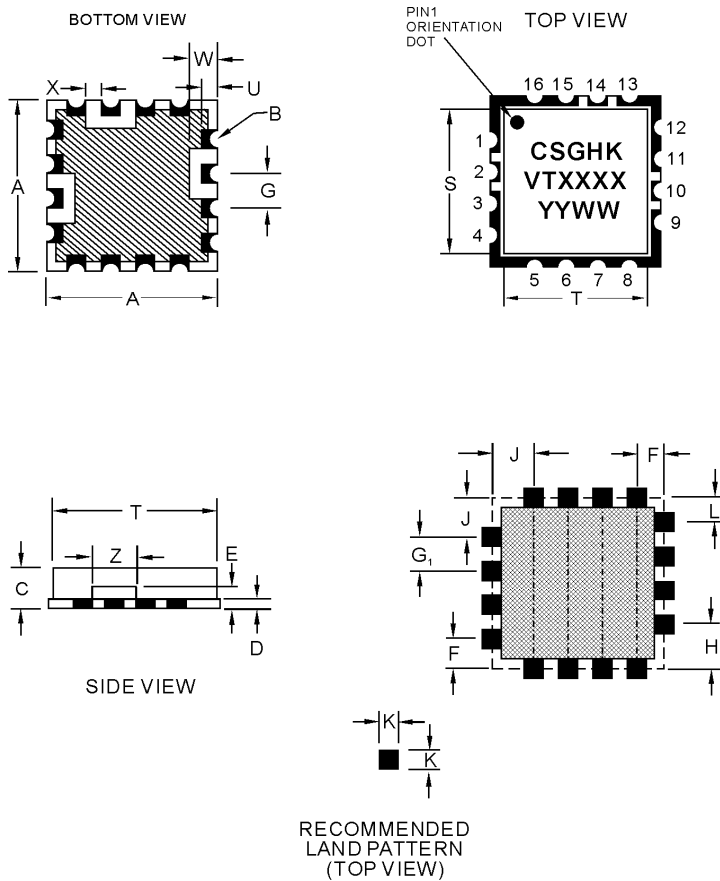
REVISIONS

NOTE. UNLESS OTHERWISE SPECIFIED:

1. THE METAL CASE IS GROUND
2. ALL HALF VIA CONTACTS ARE PLATED THRU FORM THE PAD ON THE TOP SIDE TO THE PAD ON THE BOTTOM SIDE OF THE BOARD.
3. HATCHED AREAS GROUND AND ARE COVERED WITH LPI SOLDER MASK OVER BARE COPPER. ALL CONTACT AREAS ARE PLATED. SIGNAL VIAS MAY BE LOCATED WITHIN GROUND PLANE.
4. SUBSTRATE MATERIAL: FR-4
5. XXXX REPRESENTS THE MODEL NUMBER.
6. YYWW IS THE DATA CODE.

PIN OUT FOR PLL	
PIN	APPLICATION
2	VT
10	RF OUT
14	VCC

ALL OTHER PINS ARE GROUND



SYMBOL	DIMENSION	
	MILLIMETERS	INCHES
A	12.7±0.25	0.50±0.010
B	R=0.50	R=0.019
C	4.3	0.169
D	0.99MAX	0.039MAX
E	1.75MAX	0.069MAX
F	2.16	0.085
G	2.54±0.08	0.100±0.003
G ₁	2.54	0.100
H	3.07	0.121
J	2.92	0.115
K	1.52	0.060
L	2.00	0.079
S	11.68	0.460
T	11.81	0.465
U	1.10	0.043
W	1.78	0.188
X	1.02	0.040
Z	3.49	0.137

	APPROVALS	DATA	 SK605 PACKAGE MECHANICAL PCB OUTLINE
DRAWN BY			
CHECKED BY			
PROCESS ENG			
QUALITY			