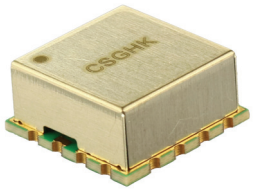
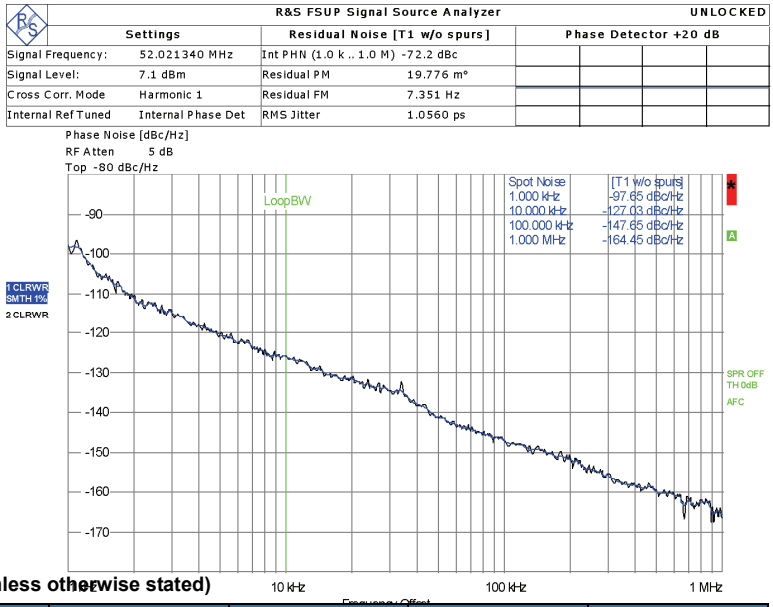
CSGHK

SURFACE MOUNT MODEL
VOLTAGE CONTROLLED OSCILLATOR

Frequency **42-61MHz** **VLN61M**





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

Electrical Specifications,T_A = +25℃,V_{CC} = +5.0V(unless otherwise stated)

Parameter	Test Conditions	Min	Typ	Max	Units
Frequency Rangs		42		61	MHz
Tuning Voltage (V)		2.0		9.0	V
RF Output Power	42-61MHz	5.0		9.0	dBm
Supply Voltage (Vcc)		4.75	5	5.25	V
Supply Current (Icc)			16	19	mA
Phase Noise：					
	@10kHz Offset:		-125	-122	dBc/Hz
	@100kHz Offset:		-146	-143	dBc/Hz
Average Tuning Sensitivity	42-61MHz		3.3		MHz/V
Harmonic Outputs			-20		dBc
OperatingTemperature Range		-55		+85	℃
Tune Input Capacitance			1000		PF
Output Impedance -			50		Ω
Package Type	SK605G(12.7X12.7X5.8mm)				

Comments

X Indicates parameter to be tested 100% in production

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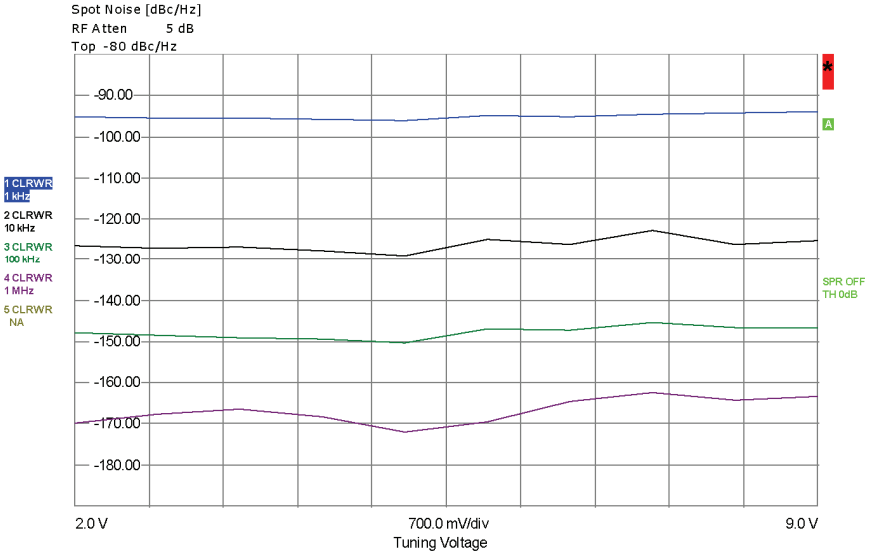
V TUNE	TUNING SENS. (MHz/V)	FREQUENCY(MHz) -55℃	+25℃	+85℃	POWER OUTPUT(dBm) -55℃	+25℃	+85℃	HARMONIC(dBc) 2^n -55℃	+25℃	+85℃
2.0	3.3	39.4	38.4	38.3	7.2	7.7	7.5	-20.6	-21.4	-22.6
3.0	3.1	42.4	41.5	41.5	7.0	7.5	7.3	-20.3	-21.5	-22.8
4.0	3.1	45.4	44.5	44.3	6.8	7.4	7.4	-20.3	-22.1	-23.6
5.0	3.2	48.6	47.6	47.5	6.7	7.3	7.2	-20.8	-23.0	-24.5
6.0	3.2	51.9	50.8	50.6	6.3	6.9	6.9	-21.3	-23.6	-25.5
7.0	3.6	55.3	54.4	54.0	5.9	6.7	6.7	-21.4	-25.9	-27.6
8.0	3.8	59.0	57.9	57.6	5.6	6.2	6.2	-22.5	-27.1	-29.3
9.0	3.9	62.9	61.9	61.5	5.1	5.8	5.8	-23.7	-32.1	-30.3

R&S FSUP Signal Source Analyzer

Settings		Results			Spot Noise [Vtune 9 V] w/o spurs		
Signal Frequency:	38.240240 MHz	Tuning	Voltage	Frequency	1.000 kHz	-93.89 dBc/Hz	
Signal Level:	7.77 dBm	Vmin	2.00 V	38.246 MHz	10.000 kHz	-125.33 dBc/Hz	
Spot Noise Tuning	Harmonic 1	Vcurrent	2.50 V	39.841 MHz	100.000 kHz	-146.51 dBc/Hz	
	Internal Phase Det	Vmax	9.00 V	61.729 MHz	1.000 MHz	-163.46 dBc/Hz	



Measurement Aborted

Date: 18.AUG.2009 10:09:16

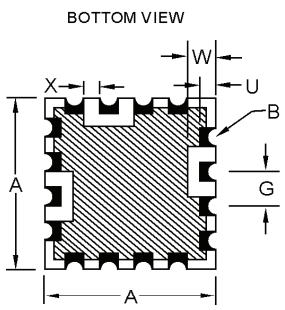
REVISIONS

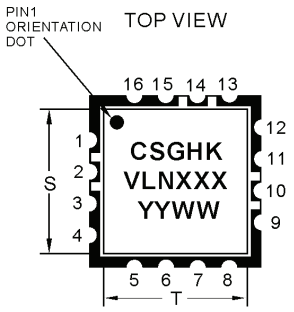
NOTE，UNLESS OTHERWISE SPECIF IED：

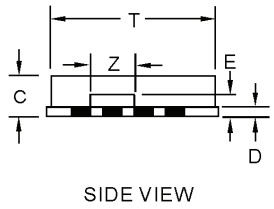
1. THE METAL CASE IS GROUND
2. ALL HALF VIA CONTACTS ARE PLATED THRU FOROM THE PAD ON THE TOP SIDE TO THE PAD ON THE BOTTOM SIDE OF THE BOARD.
3. HATCHED AREAS GROUND AND ARE COVERED WINTH LPI SOLDER MASK OVER BARE COPPER. ALL CONTACT AREAS ARE PLATED. SIGNAL VIAS MAY BE LOCATED WITHIN GROUND PLANE.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

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

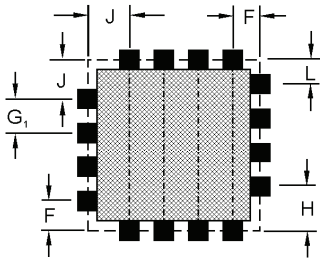
ALL OTHER PINS ARE GROUND







SIDE VIEW



RECOMMENDED
LAND PATTERN
(TOP VIEW)

SYMBOL	DIMENSION	
	MILLIMETERS	INCHES
A	12.7±0.25	0.50±0.010
B	R=0.50	R=0.019
C	5.80	0.228
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
DRAWN BY		
CHECKED BY		
PROCESS ENG		
QUALITY		

CSGHK

SK605G PACKAGE
MECHANICAL PCB OUTLINE

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