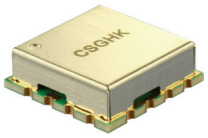
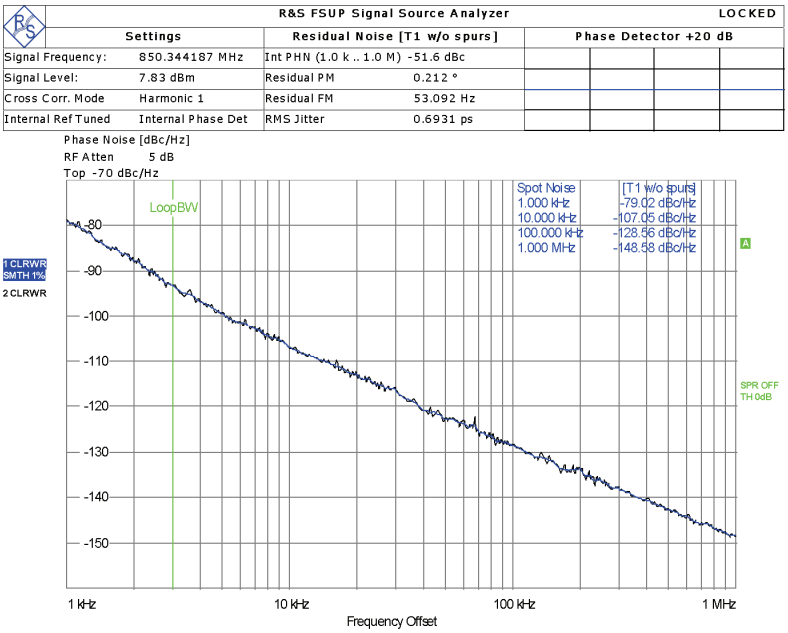
SURFACE MOUNT MODEL
VOLTAGE CONTROLLED OSCILLATOR

Frequency **700-1000MHz** **VL1000A**





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		700		1000	MHz
Tuning Voltage (V)		0.5		7.5	V
RF Output Power	700-1000MHz	6.0		10.0	dBm
Supply Voltage (Vcc)		4.75		5.25	V
Supply Current (Icc)			26	30	mA
Phase Noise：					
	@10kHz Offset:		-106	-103	dBc/Hz
	@100kHz Offset:		-127	-124	dBc/Hz
Average Tuning Sensitivity	700-1000MHz		56.4		MHz/V
Harmonic Outputs			-15	-10	dBc
OperatingTemperature		-40		+85	℃
Tune Input Capacitance			33		PF
Output Impedance -			50		Ω
Package Type	SK605(12.7X12.7X4.3mm)				

Comments

X Indicates parameter to be tested 100% in production

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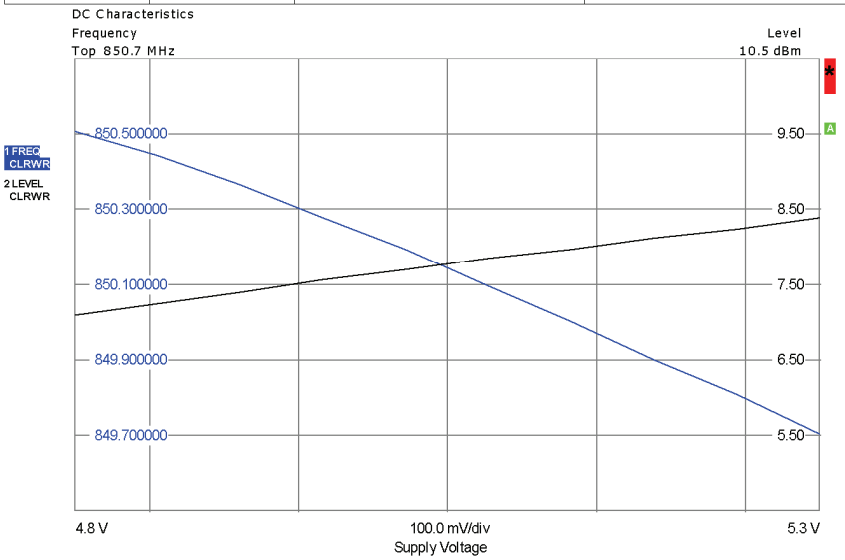
V TUNE	TUNING SENS. (MHz/V)	FREQUENCY(MHz) -40℃	+25℃	+85℃	POWER OUTPUT(dBm) -40℃	+25℃	+85℃	HARMONIC(dBc) 2^n -40℃	+25℃	+85℃
0.5	74.7	651.6	642.3	637.8	9.7	9.4	7.2	-7.6	-10.4	-24.7
1.0	66.0	685.5	676.7	673.5	9.7	9.2	7.2	-7.3	-11.0	-20.8
1.5	63.4	715.9	709.7	707.0	9.7	9.0	6.8	-6.9	-10.2	-21.2
2.0	60.4	746.3	740.6	737.7	9.6	8.5	6.7	-6.5	-10.3	-21.7
2.5	58.4	775.9	771.8	768.4	9.4	7.8	6.2	-6.1	-11.5	-23.9
3.0	57.9	804.9	800.3	794.8	9.3	7.8	6.9	-7.4	-13.9	-22.3
3.5	56.4	834.7	828.7	823.8	8.2	7.5	6.9	-9.2	-15.7	-23.4
4.0	55.5	862.7	857.0	851.6	7.7	7.4	6.9	-11.8	-18.3	-24.0
4.5	52.7	892.1	884.9	878.7	7.3	7.4	7.1	-17.6	-23.4	-25.8
5.0	52.5	919.4	911.0	905.5	7.4	7.5	7.2	-22.0	-26.5	-27.4
5.5	51.2	946.1	937.8	930.9	7.6	7.7	7.3	-22.3	-28.4	-29.2
6.0	51.8	972.8	964.6	957.2	7.5	7.8	7.5	-18.9	-26.2	-30.9
6.5	50.7	998.2	989.8	982.4	7.9	8.0	7.5	-17.7	-24.7	-34.5
7.0	51.1	1023.8	1014.8	1006.6	7.9	8.1	7.7	-15.3	-24.1	-32.3
7.5	48.7	1048.9	1040.1	1031.7	8.2	8.2	7.7	-14.5	-22.8	-34.8

R&S FSUP Signal Source Analyzer

Settings		Results			
Supply	Voltage	Frequency		Level	
Vmin	4.75 V	850.507	MHz	7.09	dBm
Vcurrent	5.00 V	850.148	MHz	7.76	dBm
Vmax	5.25 V	849.704	MHz	8.38	dBm



Measurement Aborted

Date: 28.MAY.2009 07:14:00

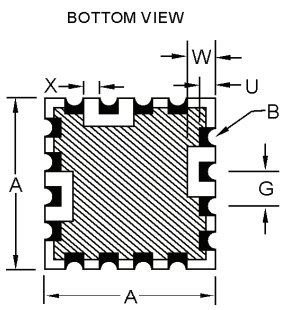
REVISIONS

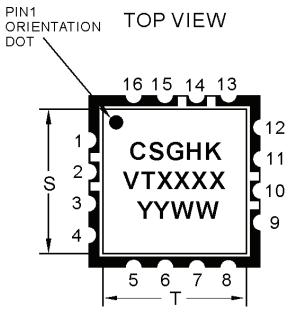
NOTE，UNLESS OTHERWISE SPECIF IED：

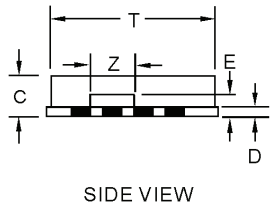
1. THE METAL CASE IS GROUND
2. ALL HALF VIA CONTACTS ARE PLATED THRU FOROM THE PAD ON THE TOP SIDE TO THE PAD ON THE BOTTOM SIDE OF THE BOARD.
3. HATCHED AREAS GROUND AND ARE COVERED WINTH LPI SOLDER MASK OVER BARE COPPER. ALL CONTACT AREAS ARE PLATED. SIGNAL VIAS MAY BE LOCATED WITHIN GROUND PLANE.
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

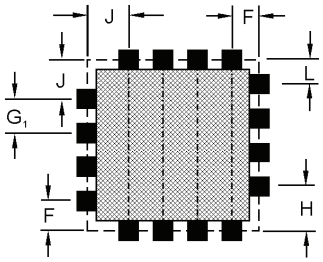
ALL OTHER PINS ARE GROUND







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	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
DRAWN BY		
CHECKED BY		
PROCESS ENG		
QUALITY		

CSGHK

SK605 PACKAGE
MECHANICAL PCB OUTLINE

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