

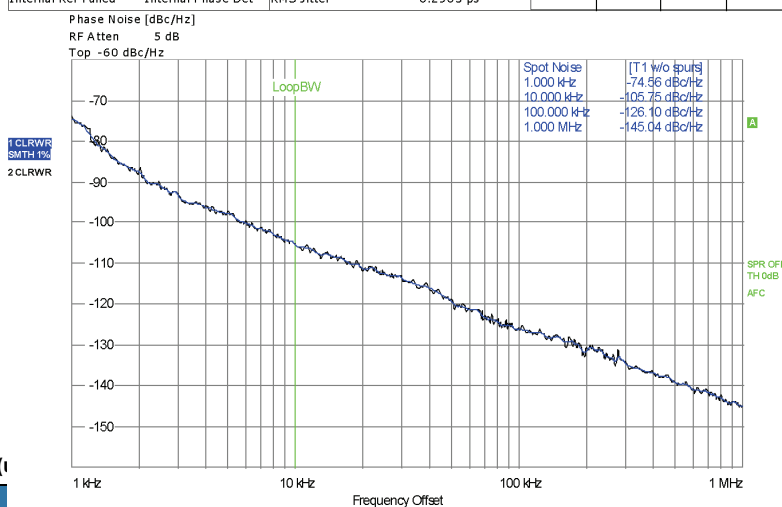
SURFACE MOUNT MODEL VOLTAGE CONTROLLED OSCILLATOR

Frequency

VT2500M



R&S FSUP Signal Source Analyzer				LOCKED
Settings		Residual Noise [T1 w/o spurs]		Phase Detector +20 dB
Signal Frequency:	2.500149 GHz	Int PHN (1.0 k .. 1.0 M)	-49.7 dBc	
Signal Level:	2.81 dBm	Residual PM	0.267 °	
Cross Corr. Mode	Harmonic 1	Residual FM	78.767 Hz	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	0.2963 ps	



FEATURES

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

Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{CC} = +5.0\text{V}$

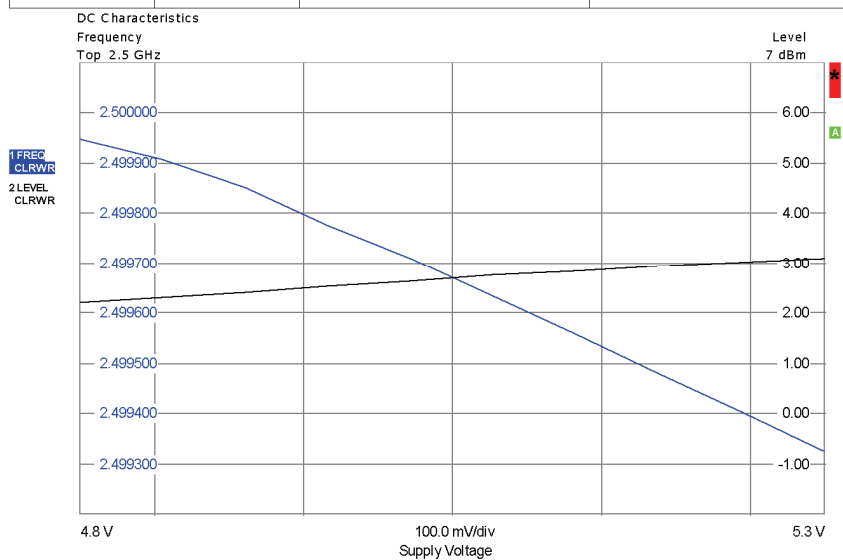
Parameter	Test Conditions				
Frequency Rangs			2500		MHz
Tuning Voltage (V)		0.5		4.5	V
RF Output Power		1.0		5.0	dBm
Supply Voltage (Vcc)		4.75	5	5.25	V
Supply Current (Icc)			24	27	mA
Phase Noise :					
	@10kHz Offset:		-105	-102	dBc/Hz
	@100kHz Offset:		-126	-123	dBc/Hz
Average Tuning Sensitivity			32.4		MHz/V
Harmonic Outputs			-20		dBc
OperatingTemperature Range		-40		+85	°C
Tune Input Capacitance			12		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℃
0.5	41.3	2446.6	2430.4	2419.9	3.0	2.0	0.3	-30.5	-17.2	-14.0
1.0	37.4	2466.6	2450.2	2439.5	3.1	2.2	0.5	-29.0	-18.2	-14.3
1.5	35.7	2484.2	2468.2	2457.0	3.2	2.3	0.7	-27.1	-18.9	-14.9
2.0	33.4	2501.4	2485.2	2474.3	3.3	2.4	0.9	-24.9	-19.6	-15.1
2.5	32.4	2518.4	2501.6	2490.1	3.4	2.5	0.9	-23.3	-19.5	-15.8
3.0	32.8	2535.6	2518.0	2506.7	3.5	2.7	1.1	-22.0	-20.8	-16.2
3.5	32.0	2551.8	2534.4	2522.7	3.7	2.7	1.1	-21.4	-21.3	-16.8
4.0	31.8	2568.0	2550.6	2538.7	3.8	2.9	1.2	-21.2	-22.6	-17.4
4.5	31.5	2583.2	2566.2	2554.5	3.9	3.0	1.2	-21.5	-23.3	-18.4

BS	R&S FSUP Signal Source Analyzer				
	Settings		Results		
	Supply	Voltage	Frequency	Level	
	V min	4.75 V	2.500 GHz	2.20	dBm
	V current	5.00 V	2.500 GHz	2.69	dBm
	V max	5.25 V	2.499 GHz	3.10	dBm



Measurement Aborted

Date: 6.JUN.2009 04:51:30

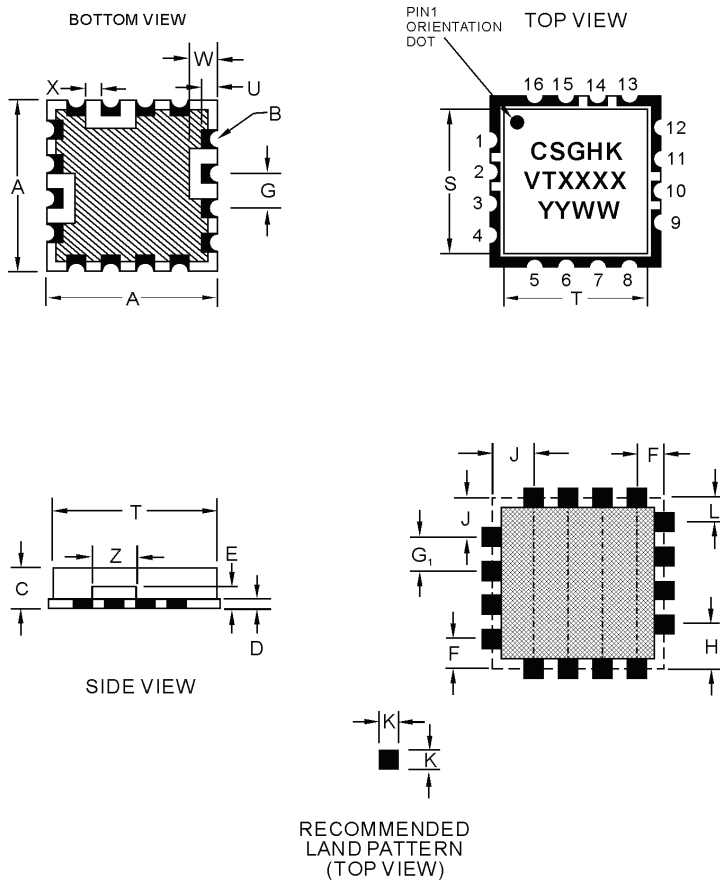
REVISIONS

NOTE. UNLESS OTHERWISE SPECIFIED:

1. THE METAL CASE IS GROUND
2. ALL HALF VIA CONTACTS ARE PLATED THRU FROM 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			