

SURFACE MOUNT MODEL VOLTAGE CONTROLLED OSCILLATOR

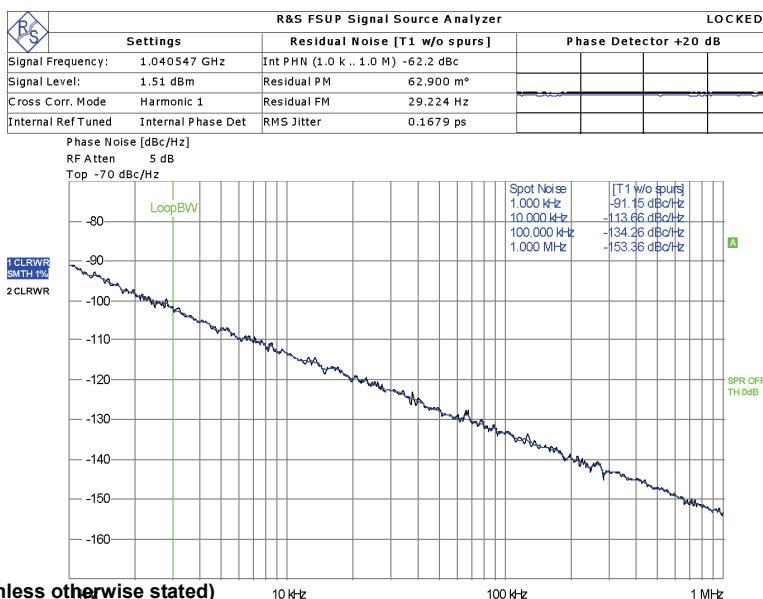
Frequency 1025-1055MHz

VT1040M



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)

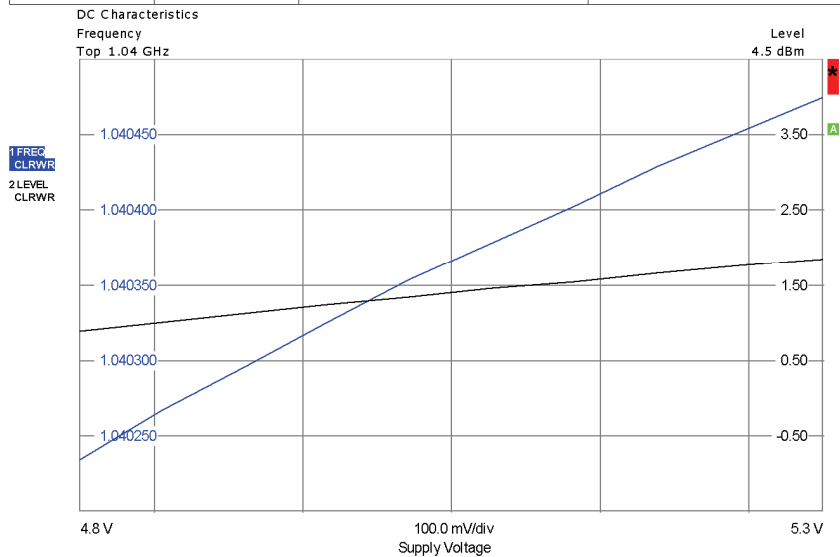
Parameter	Test Conditions	Min	Typ	Max	Units
Frequency Rangs		1025		1055	MHz
Tuning Voltage (V)		0.5		4.5	V
RF Output Power	1025-1055MHz	0.0		4.0	dBm
Supply Voltage (Vcc)		4.75		5.25	V
Supply Current (Icc)			14	17	mA
Phase Noise :					
	@10kHz Offset:		-112	-109	dBc/Hz
	@100kHz Offset:		-133	-130	dBc/Hz
Average Tuning Sensitivity	1025-1055MHz		15		MHz/V
Harmonic Outputs			-15		dBc
OperatingTemperature Range		-40		+85	°C
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

V TUNE	TUNING SENS. (MHz/V)	FREQUENCY(MHz)			POWER OUTPUT(dBm)			HARMONIC(dBc)		
		-40℃	+25℃	+85℃	-40℃	+25℃	+85℃	-40℃	+25℃	+85℃
0.5	13.8	1015.5	1010.5	1008.0	1.9	1.3	0.6	-14.0	-15.0	-15.7
1.0	13.8	1022.5	1017.5	1014.8	2.2	1.6	0.9	-13.9	-14.7	-15.6
1.5	13.9	1029.5	1024.5	1021.5	2.3	1.9	1.3	-14.3	-14.8	-15.4
2.0	14.5	1037.0	1034.5	1028.8	2.2	2.0	1.4	-14.8	-15.1	-15.4
2.5	15.1	1045.0	1039.0	1036.3	2.0	1.9	1.4	-14.9	-15.6	-15.9
3.0	15.6	1053.0	1047.0	1044.0	1.7	1.7	1.3	-14.0	-15.5	-16.3
3.5	16.0	1061.0	1055.0	1052.0	1.5	1.5	1.1	-13.1	-14.8	-15.9
4.0	16.1	1069.0	1063.0	1059.5	1.5	1.3	0.8	-13.0	-13.9	-15.9
4.5	16.2	1077.0	1071.0	1067.8	1.6	1.3	0.7	-13.8	-13.7	-14.4

BS	R&S FSUP Signal Source Analyzer					
	Settings		Results			
	Supply	Voltage	Frequency		Level	
	Vmin	4.75 V	1.040	GHz	0.88	dBm
	Vcurrent	5.00 V	1.040	GHz	1.40	dBm
	Vmax	5.25 V	1.040	GHz	1.85	dBm



Measurement Aborted

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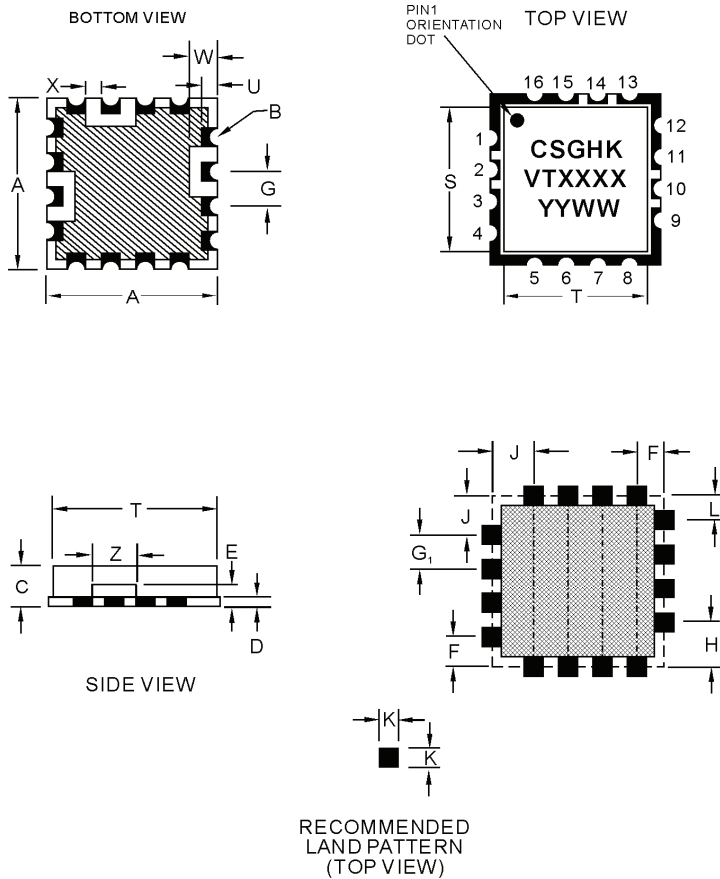
REVISIONS

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			