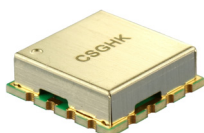




SURFACE MOUNT MODEL VOLTAGE CONTROLLED OSCILLATOR

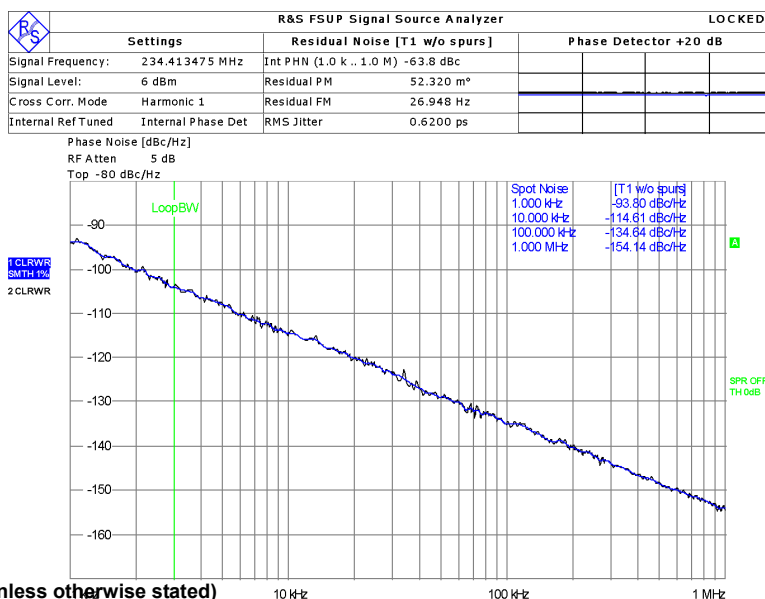
Frequency 221-248MHz

VT248B



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		221		248	MHz
Tuning Voltage (V)		0.5		4.5	V
RF Output Power	221-248MHz	5.0		9.0	dBm
Supply Voltage (Vcc)		4.75		5.25	V
Supply Current (Icc)			18	21	mA
Phase Noise :					
	@10kHz Offset:		-114	-110	dBc/Hz
	@100kHz Offset:		-135	-131	dBc/Hz
Average Tuning Sensitivity	221-248MHz		10.9		MHz/V
Harmonic Outputs			-20		dBc
OperatingTemperature Range		-55		+85	°C
Tune Input Capacitance			47		PF
Output Impedance -			50		Ω
Package Type	SK605(12.7X12.7X4.3mm)				

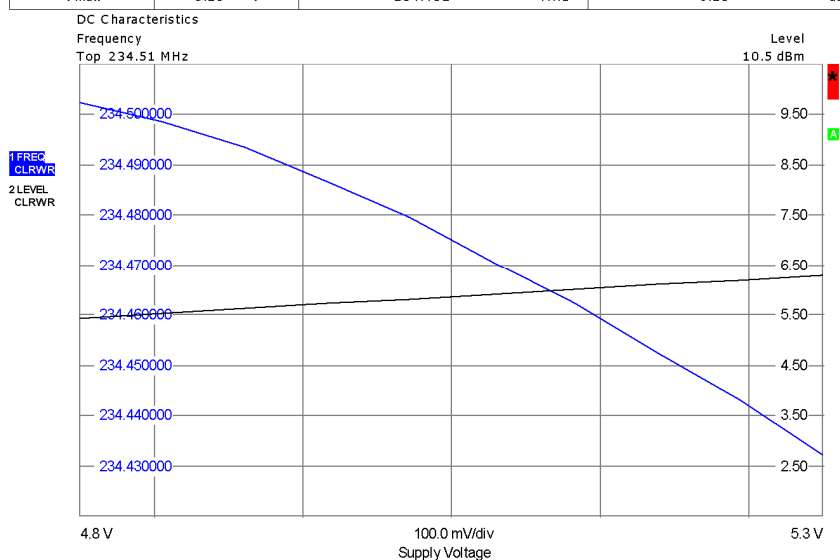
MTBF of over 500000 hours.

Comments

X Indicates parameter to be tested 100% in production

V TUNE	TUNING SENS. (MHz/V)	FREQUENCY(MHz)			POWER OUTPUT(dBm)			HARMONIC(dBc)		
		-55℃	+25℃	+85℃	-55℃	+25℃	+85℃	-55℃	+25℃	+85℃
0.5	9.3	216.4	214.5	213.5	6.2	6.4	6.2	-20.8	-19.7	-20.2
1.0	9.7	221.0	219.4	218.4	6.1	6.2	6.1	-23.0	-22.5	-22.8
1.5	10.4	225.8	224.4	223.3	6.1	6.0	6.0	-23.6	-23.1	-24.4
2.0	10.4	231.0	229.4	228.0	5.7	5.9	6.0	-22.4	-21.9	-22.8
2.5	10.5	236.5	234.4	233.1	5.6	5.8	5.8	-21.3	-21.0	-21.7
3.0	11.6	241.8	239.8	238.5	5.6	5.7	5.7	-21.8	-21.2	-21.9
3.5	12.4	247.5	245.7	244.1	5.8	5.7	5.6	-20.6	-19.8	-20.6
4.0	13.0	253.8	251.7	250.1	6.0	5.8	5.7	-20.0	-19.1	-19.7
4.5	13.4	260.5	258.2	256.4	6.1	5.8	5.8	-19.1	-18.2	-18.9

	R&S FSUP Signal Source Analyzer				
	Settings		Results		
	Supply	Voltage	Frequency		Level
	Vmin	4.75 V	234.502	MHz	5.43 dBm
	Vcurrent	5.00 V	234.475	MHz	5.86 dBm
	Vmax	5.25 V	234.432	MHz	6.28 dBm



Measurement Aborted

Date: 6.NOV.2009 10:14:09

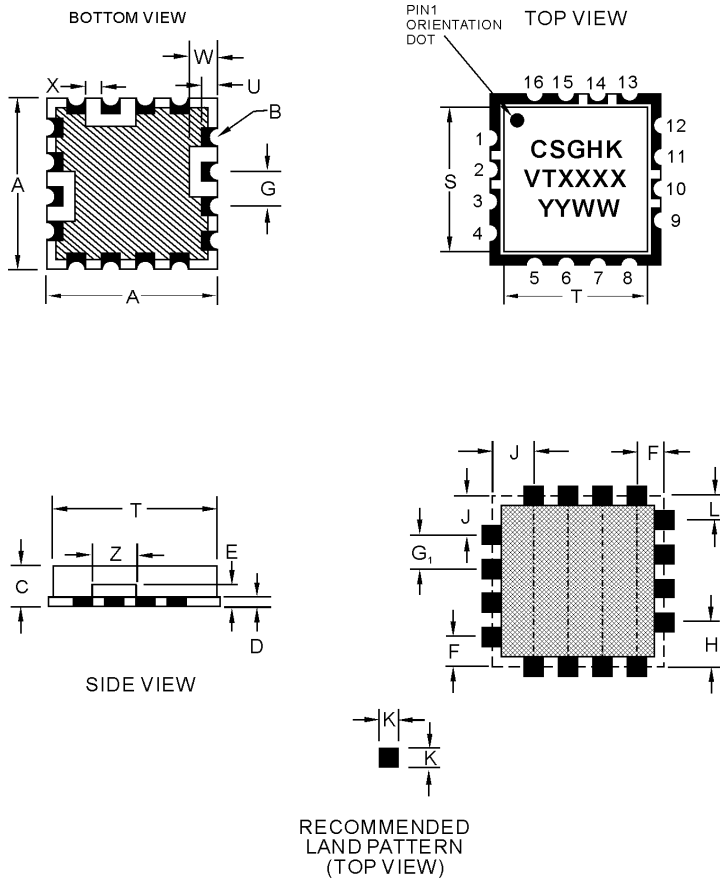
REVISIONS

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 ^{+0.1} _{-0.1}	0.169 ^{+0.004} _{-0.004}
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			