

SMD Voltage Controlled Oscillator

Frequency 40-60MHz

VLN60M

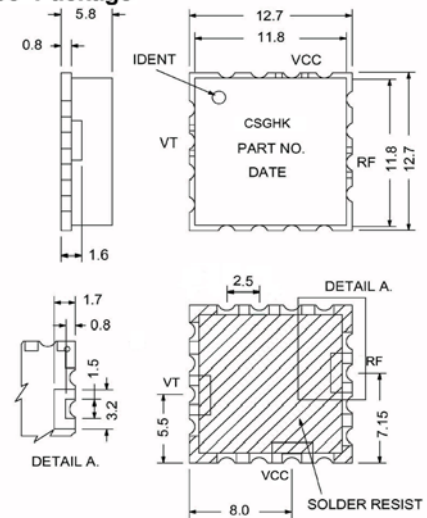
Features

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

Description

The VLN60M is a fundamental single ended oscillator designed for use in cost sensitive wireless and telemetry applications. The device has been optimized by careful selection of the bipolar transistor and varactor diode for low phase noise and high linearity tuning characteristics.

SK605 Package



Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{CC} = +5\text{V}$ (unless otherwise stated)

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Rangs		MHz	40		60
Tuning Voltage (V)		V	3.0		15.0
RF Output Power	40-60MHz	dBm	7.0		10.0
Supply Voltage (VCC)		V	4.75	5	5.25
Supply Current (Icc)		mA		23	27
Phase Noise :					
	@10kHz Offset:	dBc/Hz		-137	-133
	@100kHz Offset:	dBc/Hz		-157	-152
Average Tuning Sensitivity	40-60MHz	MHz/V		1.9	
Harmonic Outputs		dBc		-15	
Operating Temperature Range		$^\circ\text{C}$	-55		+85
Tune Input Capacitance		PF		1000	

Comments

All specifications apply with a 50 ohm load impedance.

SMD Voltage Controlled Oscillator

Frequency 40-60MHz

VLN60M

Tuning Voltage (V)	-55℃			+25℃			+85℃		
	Frequency (MHz)	Power (dBm)	2 ⁿ (dBc)	Frequency (MHz)	Power (dBm)	2 ⁿ (dBc)	Frequency (MHz)	Power (dBm)	2 ⁿ (dBc)
0.0	34.5	7.3	-5.5	34.3	7.3	-10.5	34.2	6.9	-14.0
3.0	39.2	7.4	-10.2	38.9	7.4	-13.0	38.6	7.1	-16.3
4.0	40.8	7.5	-11.5	40.5	7.5	-13.9	40.1	7.1	-17.1
5.0	42.3	7.6	-12.7	41.9	7.7	-15.1	41.6	7.3	-18.1
6.0	44.1	7.9	-14.0	43.6	8.0	-16.2	43.3	7.5	-19.5
7.0	45.8	8.1	-15.6	45.5	8.2	-17.5	45.1	7.8	-20.8
8.0	47.8	8.5	-17.1	47.3	8.5	-19.2	46.9	8.0	-22.3
9.0	49.8	8.8	-19.0	49.3	8.8	-21.1	48.9	8.3	-24.5
10.0	51.9	9.1	-21.2	51.3	9.0	-23.3	51.1	8.5	-27.1
11.0	53.9	9.3	-23.1	53.5	9.2	-26.0	53.1	8.5	-29.6
12.0	56.2	9.3	-15.0	55.6	9.1	-27.7	55.2	8.4	-32.4
13.0	58.3	9.2	-26.4	57.8	9.0	-29.7	57.3	8.3	-35.2
14.0	60.3	9.0	-27.0	59.9	8.7	-31.3	59.5	8.0	-38.0
15.0	62.5	8.7	-27.6	62.1	8.3	-21.9	61.6	7.5	-39.1

