CSGHK

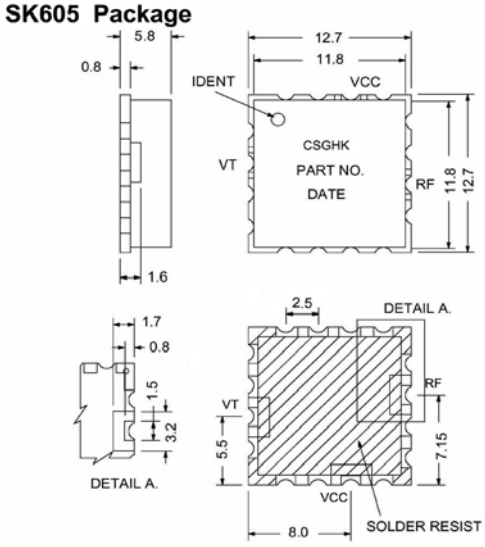
SMD Voltage Controlled Oscillator

Frequency 50.7-60.7MHz VLN56M

Features

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

SK605 Package



Description

The VLN56M 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.

Electrical Specifications, T_A = +25℃, V_{CC} = +5V(unless otherwise stated)

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Rangs		MHz	50.7		60.7
Tuning Voltage (V)		V	0.3		4.7
RF Output Power	50.7-60.7MHz	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		-133	-130
	@100kHz Offset:	dBc/Hz		-153	-150
Average Tuning Sensitivity	50.7-60.7MHz	MHz/V		2.8	
Harmonic Outputs		dBc		-20	-15
OperatingTemperature Range		℃	-55		+85
Tune Input Capacitance		PF		1000	

Comments

All specifications apply with a 50 ohm load impedance.

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Frequency 50.7-60.7MHZ VLN56M

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)
0.3	49.98	9.2	-14.6	49.70	8.9	-18.3	49.43	8.4	-22.3
0.5	50.67	9.3	-15.2	50.38	9.0	-18.7	50.09	8.5	-23.0
1.0	52.25	9.6	-16.9	51.99	9.2	-20.1	51.79	8.8	-24.9
1.5	53.74	9.7	-18.7	53.55	9.4	-22.1	53.37	8.8	-26.6
2.0	55.26	9.8	-20.3	55.03	9.5	-23.8	54.77	8.9	-29.1
2.5	56.67	9.9	-21.3	56.37	9.5	-25.1	56.06	9.0	-31.0
3.0	58.02	9.9	-22.0	57.67	9.5	-25.9	57.30	8.9	-32.4
3.5	59.34	10.0	-22.9	58.93	9.5	-26.9	58.53	8.9	-33.7
4.0	60.62	10.0	-23.7	60.17	9.5	-27.8	59.75	8.9	-34.7
4.5	61.92	9.9	-23.0	61.41	9.4	-28.3	60.95	8.7	-35.5
4.7	62.44	9.9	-23.3	61.90	9.3	-28.6	61.44	8.7	-36.4