

SMD Voltage Controlled Oscillator

Frequency 815-855MHz

VT855A

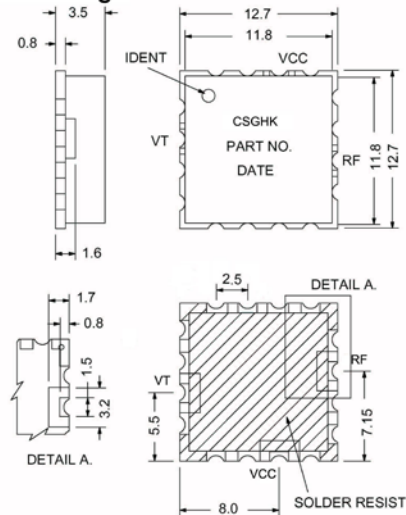
Features

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

Description

The VT855M 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	815		855
Tuning Voltage (V)		V	2.0		3.0
RF Output Power	815–855MHz	dBm	–2.0		+2.0
Supply Voltage (VCC)		V	4.75		5.25
Supply Current (Icc)		mA		15	18
Phase Noise :					
	@10kHz Offset:	dBc/Hz		–106	–102
	@100kHz Offset:	dBc/Hz		–126	–122
Average Tuning Sensitivity	815–855MHz	MHz/V		40	
Harmonic Outputs		dBc		–15	
OperatingTemperature Range		$^\circ\text{C}$	–40		+60
Tune Input Capacitance		PF		47	

Comments

All specifications apply with a 50 ohm load impedance.

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Frequency

Tuning Voltage (v)	Output Frequency (MHz)	Tuning Sensitivity (MHz/V)	Output Power (dBm)	Harmonic Suppression (dBc)
-55℃				
1.962	814.7		0.1	-14.4
2.114	819.2		0.2	-14.7
2.213	822.4		0.2	-14.7
2.310	825.7		0.3	-14.7
2.406	829.1		0.3	-14.9
2.501	832.6		0.3	-15.2
2.596	836.5		0.3	-15.2
2.689	840.2		0.3	-14.8
2.782	844.5		0.4	-14.6
2.875	848.9		0.4	-14.6
2.967	853.4		0.4	-14.8
3.059	857.7		0.5	-14.4
+25℃				
2.114	815.1	815	0.0	-18.3
2.213	818.1	819	0.2	-18.5
2.310	821.1	823	0.2	-18.6
2.406	824.3	827	0.2	-18.6
2.501	827.5	831	0.3	-18.8
2.596	831.1	835	0.3	-18.9
2.689	834.6	839	0.3	-19.2
2.782	838.7	843	0.4	-19.6
2.875	843.0	847	0.4	-19.8
2.967	847.3	851	0.4	-19.1
3.059	852.0	855	0.4	-18.9
3.122	855.2		0.4	-18.7
+85℃				
2.114	812.0		0.0	-23.1
2.213	814.9		0.0	-23.2
2.310	817.8		0.1	-23.5
2.406	820.6		0.1	-23.7
2.501	823.8		0.0	-23.8
2.596	826.9		0.1	-24.1
2.689	830.4		0.1	-24.5
2.782	833.8		0.1	-24.9
2.875	837.8		0.1	-25.5
2.967	841.9		0.1	-25.6
3.059	846.5		0.1	-25.1
3.225	855.1		0.1	-24.5