

SMD Voltage Controlled Oscillator

Frequency 1685-1805MHz

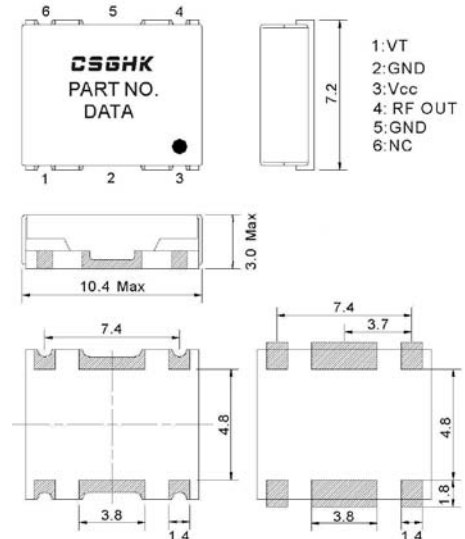
VP1745A

Features

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

Description

The VP1745A 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, $T_A = +25^\circ\text{C}$, $V_{CC} = +5\text{V}$ (unless otherwise stated)

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Frequency Rangs		MHz	1685		1805
Tuning Voltage (V)		V	0.5		4.5
RF Output Power	1685-1805MHz	dBm	1.0		5.0
Supply Voltage (VCC)		V	4.75		5.25
Supply Current (Icc)		mA		20	23
Phase Noise :					
	@10kHz Offset:	dBc/Hz		-102	-98
	@100kHz Offset:	dBc/Hz		-124	-120
Average Tuning Sensitivity	1685-1805MHz	MHz/V		45	
Harmonic Outputs		dBc		-15	
OperatingTemperature Range		$^\circ\text{C}$	-40		+85
Tune Input Capacitance		PF		18	

Comments

All specifications apply with a 50 ohm load impedance.

SMD Voltage Controlled Oscillator**Frequency 1685-1805MHz****VP1745A**

Tuning Voltage (v)	Output Frequency (MHz)	Tuning Sensitivity (MHz/V)	Output Power (dBm)	Harmonic Suppression (dBc)
-55℃				
0.5	1667.7	-	2.0	-
1.0	1694.3	-	2.0	-
1.5	1716.8	-	2.2	-
2.0	1741.1	-	2.3	-
2.5	1763.0	-	2.7	-
3.0	1785.9	-	2.8	-
3.5	1807.5	-	3.0	-
4.0	1827.9	-	3.3	-
4.5	1846.7	-	3.4	-
+25℃				
0.5	1653.8	-	1.2	-
1.0	1679.2	-	1.4	-
1.5	1703.5	-	1.7	-
2.0	1725.6	-	1.9	-
2.5	1749.0	-	2.2	-
3.0	1771.3	-	2.3	-
3.5	1793.0	-	2.6	-
4.0	1844.2	-	2.7	-
4.5	1833.4	-	2.9	-
+85℃				
0.5	1643.9	-	0.7	-
1.0	1669.8	-	1.1	-
1.5	1694.2	-	1.3	-
2.0	1716.5	-	1.5	-
2.5	1740.5	-	1.6	-
3.0	1761.8	-	1.9	-
3.5	1784.7	-	2.1	-
4.0	1805.0	-	2.4	-
4.5	1825.0	-	2.5	-