

## Surface Mount Voltage Controlled Oscillator

### VCO2-1750 1300-2300 MHz

#### Features

- Surface Mount / Tape & Reel
- Small .50 in. x .50 in. x .10 in. size
- Linear Wideband Tuning Range
- Low Cost

#### Description

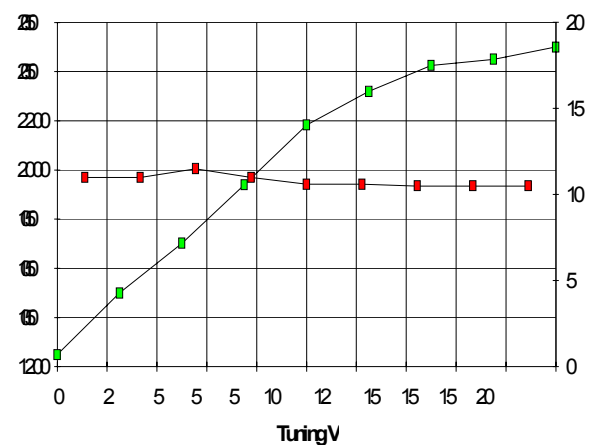
The VCO2-1750 is a fundamental mode reflection oscillator that utilizes a silicon bipolar transistor and hyper-abrupt silicon varactor diodes to create a highly linear VCO with wideband tuning characteristics. The device is useful for many wireless applications where high frequency and linear modulation is required.

The device is very repeatable from unit to unit and assembled in ISO 9000 qualified manufacturing facility with the latest surface mount equipment. Every unit is DC and RF tested with our fully automated computerized test stands to provide the highest reliability and guaranteed performance.

#### Absolute Maximum Ratings

Parameter	Maximum
Supply Voltage	+15V
Tuning Voltage	+22V
Storage Temp.	-45C to +95C
Operating Temp.	-40C to +85C

Freq&Pwr vs. TuningV

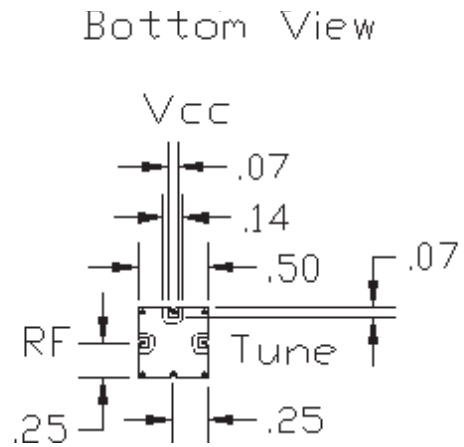


#### Electrical Specifications

Parameter	Test Condition	Units	Min	Typ	Max
Frequency Range		MHz	1300		2300
Tuning Voltage	V <sub>t</sub>	V	0		+20
RF Output Power	1400-2200 MHz	dBm		+12	
Supply Voltage	V <sub>cc</sub>	V		+12	
Supply Current	I <sub>cc</sub>	mA	32		
Phase Noise	ssb @100 KHz	dBc/Hz		-110	
Modulation Sensitivity	V <sub>t</sub> =1-12v	MHz/V	75		
Tuning Linearity		ratio		2	3
Modulation BW	3 dB BW	MHz		20	
Harmonics	2nd	dBc		-15	
Frequency Pushing	V <sub>cc</sub> =11.75 - 12.25	MHz/V		3	
Frequency Pulling	1.5:1 VSWR	MHz			5
Frequency Drift	0 to +70 C	MHz/C			6
Tuning Input Capacitance		pF		27	

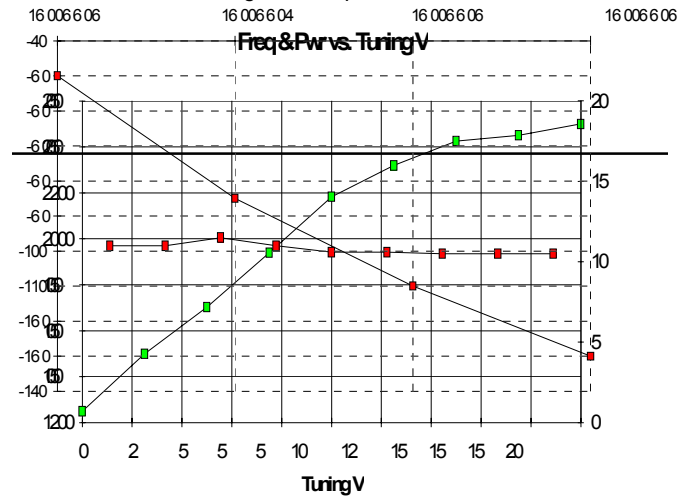
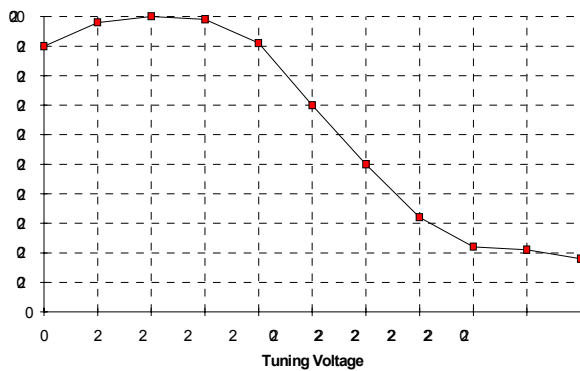
Typical Performance @ +25 C

Phase Noise



- 1) Exceeding limits may cause permanent damage.
- 2) External bypassing of both Vcc and Vt can improve phase noise performance and power supply decoupling.
- 3) This device is designed to operate over 0 to +70 C.

Modulation Sensitivity



www.AABroadBand.com

Specifications subject to change without notice.