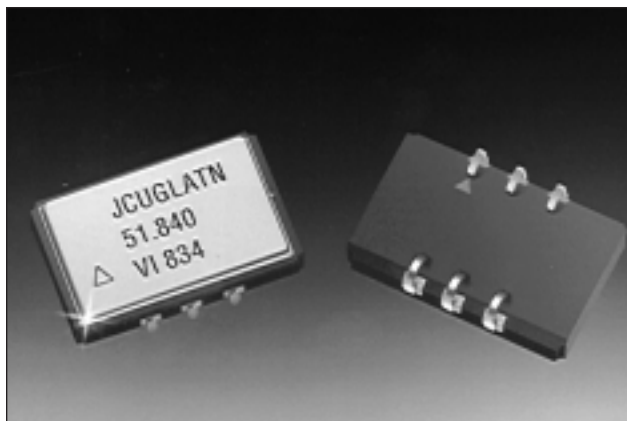


Voltage Controlled Crystal Oscillators (VCXO's)

J-Type PECL Output Option



Description:

Low jitter capable, PECL output VCXO in a 14mm x 9mm SMD package.

Features:

- Output Frequencies from 15 MHz to 180 MHz
- 3.3 or 5 volt options
- Small 14mm x 9mm J-Lead Package
- Complementary PECL Output
- Low phase noise and custom options
- 0/70°C or -40/85°C operating temperature
- Enable/Disable (PECL)

Performance Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Center Frequency, <i>see ordering information</i>	f_o	15		180	MHz
Supply Voltage ¹ , 5.0 volt option 3.3 volt option		4.5 3.0	5.0 3.3	5.5 3.6	Vdc Vdc
Maximum Supply Voltage				7	V
Supply Current				65	mA
Output Level High (0/70°C)	V_{OH}	$V_{CC}-1.025$	-	$V_{CC}-0.880$	V
Output Level Low (0/70°C)	V_{OL}	$V_{CC}-1.810$	-	$V_{CC}-1.620$	V
Output Level High (-40/+85°C)	V_{OH}	$V_{CC}-1.085$	-	$V_{CC}-0.880$	V
Output Level Low (-40/+85°C)	V_{OL}	$V_{CC}-1.830$	-	$V_{CC}-1.555$	V
Output Rise and Fall Time	t_R/t_F			1	ns
Symmetry (Duty Cycle)	SYM	45		55	%
Operating Temperature, <i>see ordering info</i>	T_{OP}	0/70, -40/85			°C
RMS Jitter, 155.52 MHz, 12 kHz to 20 MHz offset			0.5	1.0	ps
Absolute Pull Range over the operating temperature range, aging and power supply. $V_C = 0.5$ to 4.5 supply or 0.3 to 3.0V at 3.3 supply. <i>See ordering information for options</i>	APR	$\pm 32, \pm 50$			ppm
Maximum Control Voltage		0		V_{CC}	
Transfer Function: (Frequency vs. Control Voltage)	K_V	Positive			
Control Input Leakage	I_L			0.1	mA
Control Voltage Modulation Bandwidth	BW	10			kHz
Storage Temperature	T_S	-55	-	125	°C
Soldering Temp./Time	T_{LS}	-	-	220/10	°C/s
Package Size:	14mm x 9 mm x 4.5 mm				

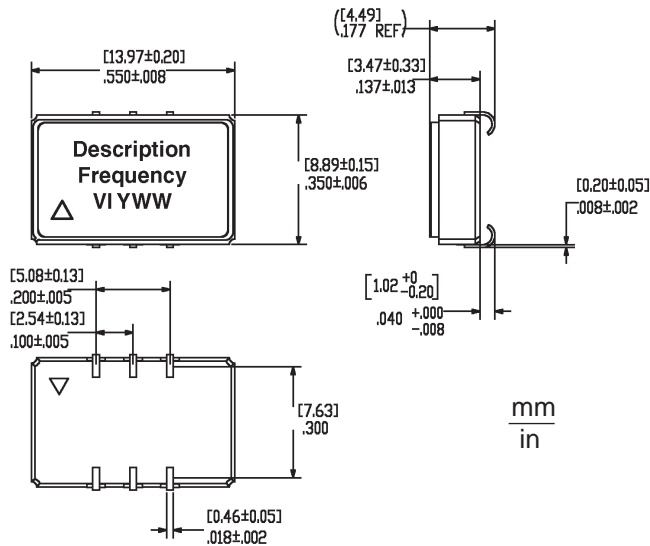
1. Power supply bypass is required and a 0.1uF in parallel with a 0.01uF high frequency capacitor is recommended.

2. Transition times are measured from 20% to 80% of a full 10K ECL level swing.

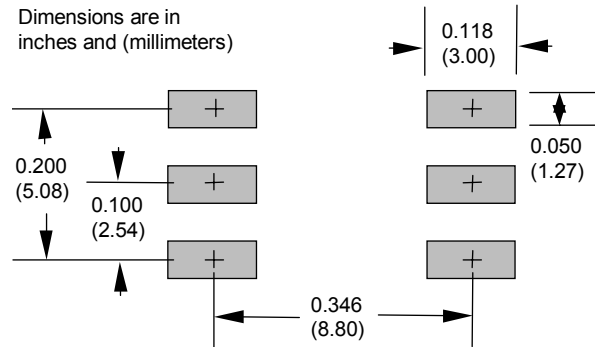
Voltage Controlled Crystal Oscillators (VCXO's)

J-Type

Outline Drawing



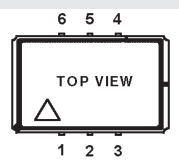
Recommended Solder Pad Layout



VCXO

Pin Out Information for the PECL output option

Pin	Symbol	Function
1	V _c	VCXO Control Voltage.
2	N/C or E/D ¹	No Connect or Output Disable option
3	GND	Case and electrical ground.
4	Output	VCXO Output
5	C _{Output}	VCXO Complementary Output
6	V _{CC}	Power Supply Voltage (5 V or 3.3V ±10%)



Standard Frequencies

77.76 MHz	82.944 MHz	139.264 MHz
155.52 MHz	161.1328 MHz	166.6286 MHz

- By setting pin 2 high, the outputs are disabled and output on pin 4 is held low while Complementary output on pin 5 is held high. Output is enabled by setting pin 2 at < V_{CC} -1.6V, See ordering information for enable/disable option.

Ordering Information

