



# 3.3V SMD LV-PECL OSCILLATOR MODEL: VCP6\_AXT SERIES



## FEATURES

- 3.3V Operation
- LV-PECL
- Enable/Disable
- Tape and Reel (2,000 pcs. STD)

## OPTIONS

- -40°C ~ +85°C Option ('R' Version)



## PRELIMINARY



Learn more about:  
**Part Marking Identification**  
**Tape and Reel Specification**

Internet required

### • PART NUMBER SELECTION Learn More - Internet Required

Part Number	Model Number	APR <sup>1</sup>	Operating Temperature	Frequency Range (MHz)
628-Frequency-xxxxx	VCP65AXT	±30PPM	-10 ~ +70 (°C)	50.000 ~ 600.000
678-Frequency-xxxxx	VCP65AXTR	±30PPM	-40 ~ +85 (°C)	50.000 ~ 600.000
627-Frequency-xxxxx	VCP62AXT	±55PPM	-10 ~ +70 (°C)	50.000 ~ 600.000

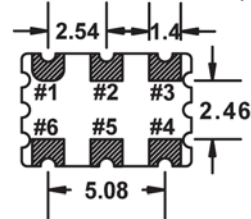
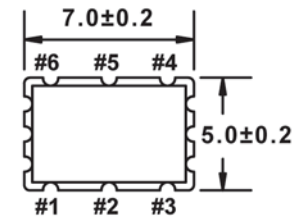
### • ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	50.000 ~ 600.000 MHz
Storage Temperature Range (T <sub>STG</sub> )	-55°C ~ +125°C
Supply Voltage (V <sub>DD</sub> )	3.3V ± 5%
Input Current (I <sub>DD</sub> )	120mA
Output Symmetry (50% V <sub>p-p</sub> )	40% ~ 60%
Rise Time (20% ~ 80% V <sub>p-p</sub> ) (T <sub>R</sub> )	0.5nS
Fall Time (80% ~ 20% V <sub>p-p</sub> ) (T <sub>F</sub> )	0.5nS
Output Voltage (V <sub>OL</sub> )	1.7V
(V <sub>OH</sub> )	2.2V Min
Output Load	See Recommended Circuit
Start-up Time (T <sub>s</sub> )	10mS
Output Disable Time	100nS
Output Enable Time	10mS
Frequency Linearity	±10%
Modulation Bandwidth	20 kHz Min
Phase Noise (@ 10kHz)	-120dBc/Hz
Phase Jitter (12kHz ~ 20MHz)	1pS RMS

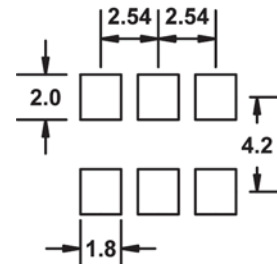
<sup>1</sup> Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock, vibration and V<sub>c</sub> = 1.65V ± 1.5V.

<sup>2</sup> An internal pulldown resistor from pin 2 to pin 3 allows active output if pin 2 is left open. Note: A 0.01µF bypass capacitor should be placed between V<sub>DD</sub> (Pin 6) and GND (Pin 3) to minimize power supply line noise.

All specifications subject to change without notice. Rev. 3/28/05



### Recommended Solder Pad Layout

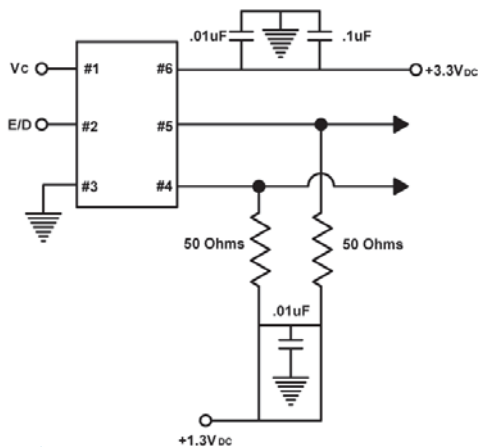


### Pin Connections

- #1 V<sub>c</sub>
- #2 E/D or NC
- #3 GND
- #4 Output 1
- #5 Output 2
- #6 V<sub>DD</sub>

All dimensions are in millimeters.

VCP6\_AXT Series Recommended Circuit



### • ENABLE / DISABLE FUNCTION <sup>2</sup>

(Pin 2)	OUTPUT (Pin 4, Pin 5)
OPEN	ACTIVE
'1' Level V <sub>IH</sub> ≥ V <sub>DD</sub> -1.1V	High Z
'0' Level V <sub>IL</sub> ≤ V <sub>DD</sub> -1.6V	ACTIVE