

## XO90 SERIES Plastic Encapsulated 14 x 9.8mm SMD Oscillators

### DESCRIPTION

The Euroquartz range of XO90, plastic encapsulated oscillators have stabilities from  $\pm 25$ ppm over  $-40^{\circ}$  to  $85^{\circ}$ C. In addition to the stability over operating temperature range customers may also choose from supply voltages of 3.3 and 5.0 Volts, An Enable/Disable function is available.

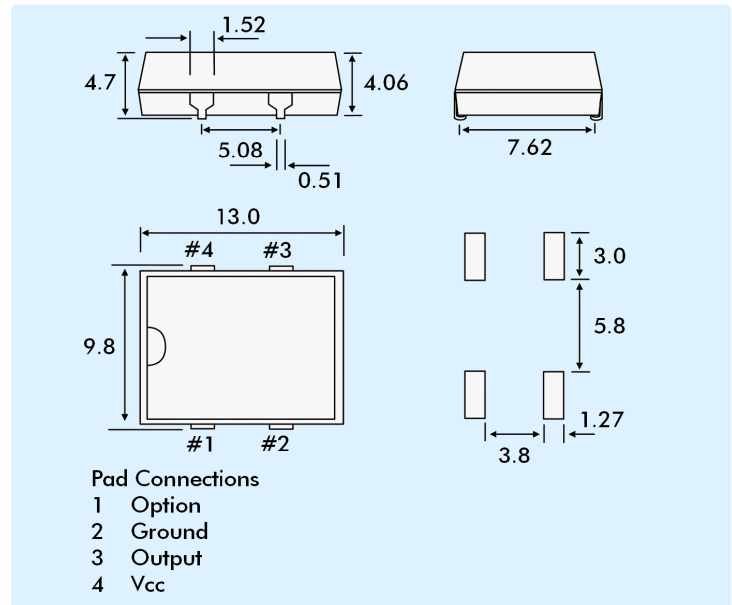
### FEATURES

- Industry-standard 14 x 9.8mm SMD package
- Frequency range 1MHz to 133MHz
- Supply Voltages 3.3 Volts or 5.0 Volts
- Enable/Disable function option.

### GENERAL SPECIFICATION

<b>Package Type:</b>	Plastic (Resin)encapsulated
<b>Frequency Range:</b>	1.0MHz to 100.0MHz
<b>Frequency Stability*:</b>	$\pm 25$ ppm to $\pm 100$ ppm (over operating temperature range)
<b>Operating Temperature Range:</b>	$0^{\circ}$ ~ $+70^{\circ}$ C, Part code: 'C' $-40^{\circ}$ ~ $+85^{\circ}$ C, Part code: 'I'
<b>Storage Temperature Range:</b>	$-55^{\circ}$ to $+125^{\circ}$ C
<b>Ageing:</b>	$\pm 5$ ppm/year maximum ( $T_a=25^{\circ}$ C, $V_{dd}=2.7V, 3.3V$ or $5.0V$ )
<b>Packaging:</b>	Bulk pack or tubed
<b>Output Levels:</b>	TTL or CMOS
<b>Maximum Output Loads</b>	
< 40MHz:	30pF
> 40MHz:	15pF
<b>Duty Cycle</b>	
CMOS < 40MHz:	45/55% maximum
CMOS > 40MHz:	40/60% maximum
<b>Output Clock Rise/Fall Times:</b>	4ns maximum
<b>Power Supply Current:</b>	25mA (unloaded)
<b>Start-up Time:</b>	10ms maximum (from power-on)
<b>Output Disable Time</b>	
Synchronous:	T/2ns typical, T+10ns maximum
Asynchronous:	10ns typical, 15ns maximum (T = frequency period)
<b>Output Enable Time:</b>	100ns maximum

### OUTLINE & DIMENSIONS



### PRODUCT SELECTION

Model Number	Frequency Stability (ppm)	Operating Temperature Range
XO90100UC	$\pm 100$	$0^{\circ}$ ~ $+70^{\circ}$
XO90050UC	$\pm 50$	$0^{\circ}$ ~ $+70^{\circ}$
XO90025UC	$\pm 25$	$0^{\circ}$ ~ $+70^{\circ}$
XO90100UI	$\pm 100$	$-40^{\circ}$ ~ $+85^{\circ}$
XO90050UI	$\pm 50$	$-40^{\circ}$ ~ $+85^{\circ}$
XO90025UI	$\pm 25$	$-40^{\circ}$ ~ $+85^{\circ}$

### PART NUMBER GENERATION

Frequency	Model No.	Supply Voltage	Output Option
Nominal Frequency (MHz)	See table above	Blank = 5.0 Volts A = 3.3 Volts	T = Tristate (Enable/Disable)

EXAMPLE: 24.8920MHz XO90050UCTA

Frequency = 24.8920MHz, XO90 package,  $\pm 50$ ppm  $0^{\circ}$  ~  $+70^{\circ}$ C, Tristate, supply voltage 3.3 Volts

\* The frequency stability parameter is an inclusive figure and includes adjustment tolerance at  $25^{\circ}$ C, stability over operating temperature range, variations due to load change  $\pm 10\%$ , supply voltage change  $\pm 10\%$ , first year ageing, shock and vibration.