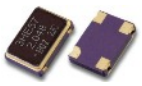
EUROQUARTZ

XOE32 Oscillators

3.2 x 2.5mm SMD Tight Tolerance Oscillator 20.0MHz to 60.0MHz

FEATURES

- **±1ppm tolerance, ±5ppm over -10° to +70°C**
- **A clock oscillator with close to TCXO performance**
- **Femto second phase jitter and -154dBc/Hz at 100kHz offset**
- **An economic solution for tight tolerance and stability clocks**



DESCRIPTION

XOE32 oscillators are high performance SMD clock oscillators with tight temperature stability. Frequency tolerance is ±1ppm at 25°C with stability of ±5ppm over -10° to +70°C. XOE32 oscillators exhibit superior phase noise performance: -154 dBc/Hz at 100kHz. Integrated phase jitter is 300fs typical, 12kHZ to 20MHz.

SPECIFICATION

Frequency Range:	20.0MHz to 60.0MHz
Output Logic:	LVCMOS
Frequency Tolerance:	±1ppm maximum at 25°C
Frequency Stability:	±5ppm over -20° to +70°C (*see part number information*)
Output Voltage HIGH '1':	Vdd * 0.9 minimum
Output Voltage LOW '0':	Vdd * 0.1 maximum
Load:	15pF
Current Consumption:	*Supply voltage dependent, see table*
Rise/FallTime	
Vdd 1.8V or 2.5V:	6ns maximum (10% to 90%Vdd)
Vdd 3.3V:	4ns maximum (10% to 90%Vdd)
Start-up Time:	0.6ms typical, 1.0ms maximum
Symmetry:	50%±5% measured at Vdd/2
Tristate Function (Pad 1):	Implemented as standard
Phase Jitter (rms):	300 fs typical, 12kHz to 20MHz
Phase Noise:	*See table*
Storage Temperature:	-55° to +150°C
Ageing:	±2ppm/year max. for first year

CURRENT CONSUMPTION

Frequency	Supply Voltage (±10%)		
	+1.8V	+2.5V	+3.3V
20.0~39.99MHz	3.0mA	3.5mA	4.0mA
40.0~5.0MHz	4.5mA	5.0mA	7.0mA

SSB PHASE NOISE

Offset	10Hz	100Hz	1kHz	10kHz	100kHz	1MHz	10MHz
dBc/Hz	-70	-101	-128	-148	-154	-156	-160

PART NUMBERING

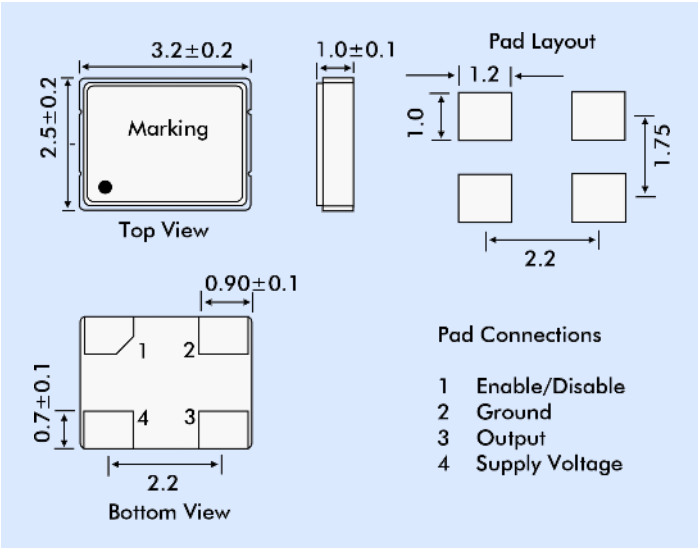
Example: 32.000MHz XOE32-5C-UTC

Frequency
Series Designation XOE32
Stability
Required stability over operating temperature range. e.g '5C' for ±5ppm over -10° to +70°C; or '5I' = ±5ppm over -40° to +85°C

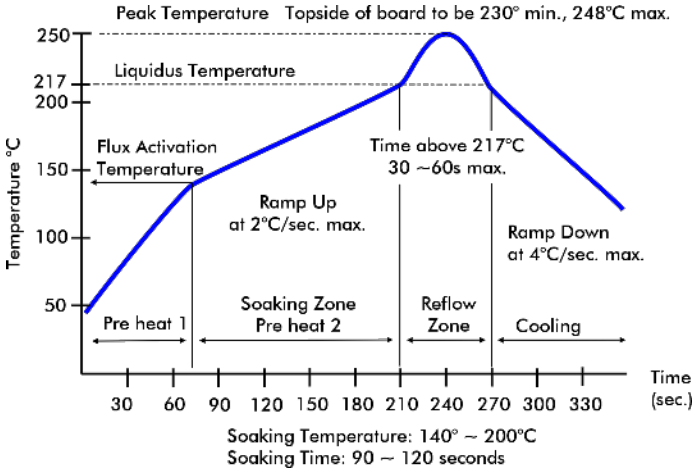
Output Universal (HCMOS)

Tristate (Enable/Disable) Function (Standard)
Supply Voltage
A = 3.3 Volts
B = 2.5 Volts
C = 1.8 Volts

OUTLINE & DIMENSIONS



SOLDER TEMPERATURE PROFILE



EUROQUARTZ LIMITED Blacknell Lane CREWKERNE Somerset UK TA18 7HE
Tel: +44 (0)1460 230000 Fax: +44 (0)1460 230001 info@euroquartz.co.uk www.euroquartz.co.uk