

FEATURES

- Very low power consumption
- Tight frequency tolerance
- CMOS Output
- Optional output Enable/Disable with Tri-state
- Low EMI emission
- Full military testing available

DESCRIPTION

The 32.7368kHz LFXO oscillator has been designed especially for applications requiring low power consumption, as low as 500nA. The oscillator consists of a miniature tuning fork quartz crystal and a CMOS/TTL compatible hybrid circuit. Each crystal is pre-qualified before assembly by electrical tests and temperature characterization.

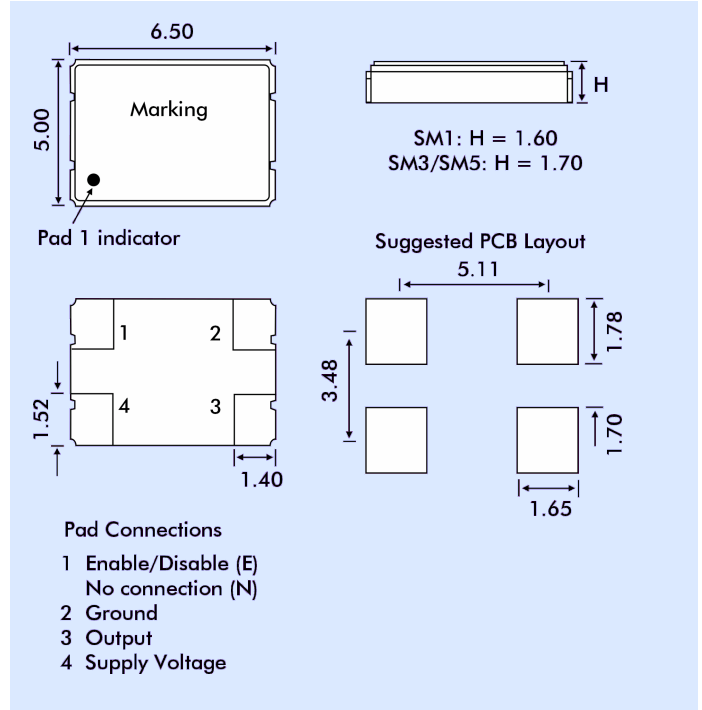
SPECIFICATION

Specifications are typical at 25°C unless otherwise indicated.
Specifications are liable to change without notice.

Frequency:	32.768kHz
Supply Voltage:	1.8V to +5.0 Volts ±10%
Calibration Tolerance:	±10, ±50 or ±100ppm
Frequency Stability over Operating Temperature Range	
0° ~ +50°C:	±25ppm
-40° ~ +85°C:	±100ppm
-55° ~ +125°C:	±100ppm
Ageing:	±1ppm year typical ±3ppm per year maximum.
Shock, Survival:	5000g, 0.3ms, ½ sine
Vibration Survival:	20g, 10~2000Hz swept sine
Frequency Change vs. 10% Output Load Change:	±1ppm maximum.
Operating Temperature Range	
Commercial:	-10° to +70°C
Industrial:	-40° to +85°C
Military:	-55° to +125°C
Typical Current Consumption	
Vdd = 1.8V:	0.5µA
Vdd = 2.5V:	0.6µA
Vdd = 3.3V:	0.7µA
Vdd = 5.0V:	1.3µA
Output:	CMOS
Rise/Fall Times:	12ns typical, 25ns maximum
Duty Cycle:	45/55%
Process Temperature:	260°C, 20 seconds
Storage Temperature:	-55° to +125°C



OUTLINE & DIMENSIONS



ENABLE/DISABLE OPTIONS

There are two Enable/Disable options available, 'E' and 'N'. The 'E' option stops oscillating when the output is put into the High Z state. The 'N' version does not have Pad 1 connected internally. The table below describes the 'E' Enable/Disable option.

	Enable (Pad 1 High)	Disable (Pad 1 Low)
Output	Frequency Output	High Z state
Oscillator	Oscillates	Stops
Current	Normal	Very Low

When Pad 1 is allowed to float it is held high (output enabled) by an internal pull-up resistor.

HOW TO ORDER LFXO SMD CRYSTAL OSCILLATORS

