

Ecliptek New Product Release

Ecliptek Introduces Multi Voltage Quartz Crystal Clock Oscillator EB19E2 Series, CMOS 1.62Vdc to 3.63Vdc 4 Pad 2.5mm x 3.2mm Ceramic Surface Mount

June 27, 2018

Reno, NV – This multi-voltage quartz crystal oscillator from Ecliptek LLC has a compact footprint of 2.5mm x 3.2mm, plus tight frequency stabilities and extended operating temperature ranges. However, it can also operate with a supply voltage between 1.62Vdc to 3.63Vdc which provides customers with cost effective design flexibility. The variable supply voltage feature allows customers to use the [EB19E2 Series](#) across multiple platforms with a range of supply voltages. This single clocking solution gives the customer the opportunity to capitalize on the economies of scale for cost, lead time, and BOM management.

Product Highlights:

- 2.5mm x 3.2mm x 0.90mm Ceramic SMD package size with four pads
- Frequency Range of 1MHz to 50MHz
- Frequency Stabilities down to ± 20 ppm
- Superior RMS Phase Jitter and Phase Noise performance
- RoHS and REACH Compliant

Additional Applications:

- Medical Equipment
- Gigabit Ethernet
- Fibre Channel
- Routers, Servers, Hubs and Network Switches
- Set Top Boxes

Part number specific information for this product series is integrated into Ecliptek's interactive website tools, including the [Smart Search](#) and [My Parts List apps](#). Ecliptek's advanced self-service documentation tools provide easy access to [Data Sheets](#), [REACH](#), [RoHS](#), [China RoHS](#), [IPC-1752 Material Declarations](#), [Qualification and Reliability Reports](#), and [Conflict Mineral](#) documentation on all Ecliptek part numbers.

About Ecliptek

Ecliptek LLC, an ILSI America Company and a leader in frequency control product solutions, continues to raise the bar for quality and excellence in the frequency control industry. Since our inception in 1987, we remain focused on unparalleled customer support as well as delivering innovative frequency control product solutions to every customer, from new designs to full scale production. We offer a wide range of quartz and MEMS frequency control products, including surface mount and thru-hole solutions that serve every aspect of the global timing market.



Global Support



Efficiency & Quality



Product Solutions

EB19E2 CMOS OSCILLATOR SERIES



Ecliptek's new SMD EB19E2 Series Quartz Crystal Clock Oscillator with package dimensions of 2.5mm x 3.2mm x 0.90mm, are being offered with a continuous Supply Voltage range between 1.62V to 3.63V to provide customers with cost effective design flexibility. This product also includes stabilities as tight as ± 20 ppm over an industrial temperature range of -40°C to $+85^{\circ}\text{C}$. The EB19E2 Series was designed for applications such as medical equipment, gigabit ethernet, fiber channel, routers, servers, and hubs.

ELECTRICAL SPECIFICATIONS

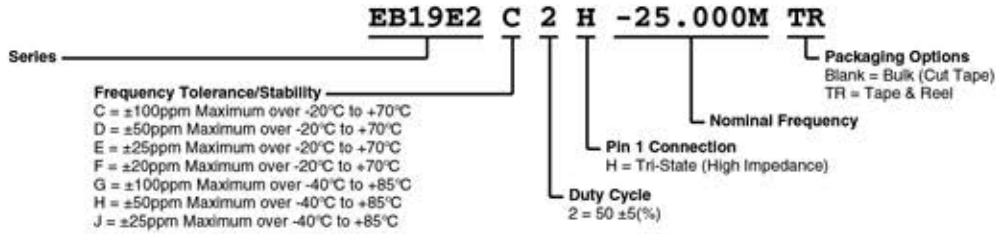
Frequency	1MHz to 50MHz
Frequency Tolerance/Stability	± 20 ppm, ± 25 ppm, ± 50 ppm, or ± 100 ppm Maximum
Operating Temperature Range	-20°C to $+70^{\circ}\text{C}$ or -40°C to $+85^{\circ}\text{C}$
Supply Voltage	1.62Vdc to 3.63Vdc
Input Current	3mA (< 10 MHz), 4mA (< 40 MHz), or 5mA (≥ 40 MHz) Maximum
Rise Time / Fall Time	5nSec (≤ 24 MHz) or 4nSec (> 24 MHz) Maximum
Duty Cycle	50 \pm 5(%)
Load Drive Capability	15pF Maximum
Output Logic Type	CMOS
Pin 1 Connection	Tri-State (High Impedance)
Standby Current	10 μ A Maximum (Disabled Output: High Impedance)
RMS Phase Jitter	1pSec Maximum (Fj = 12kHz to 20MHz)

ENVIRONMENTAL SPECIFICATIONS

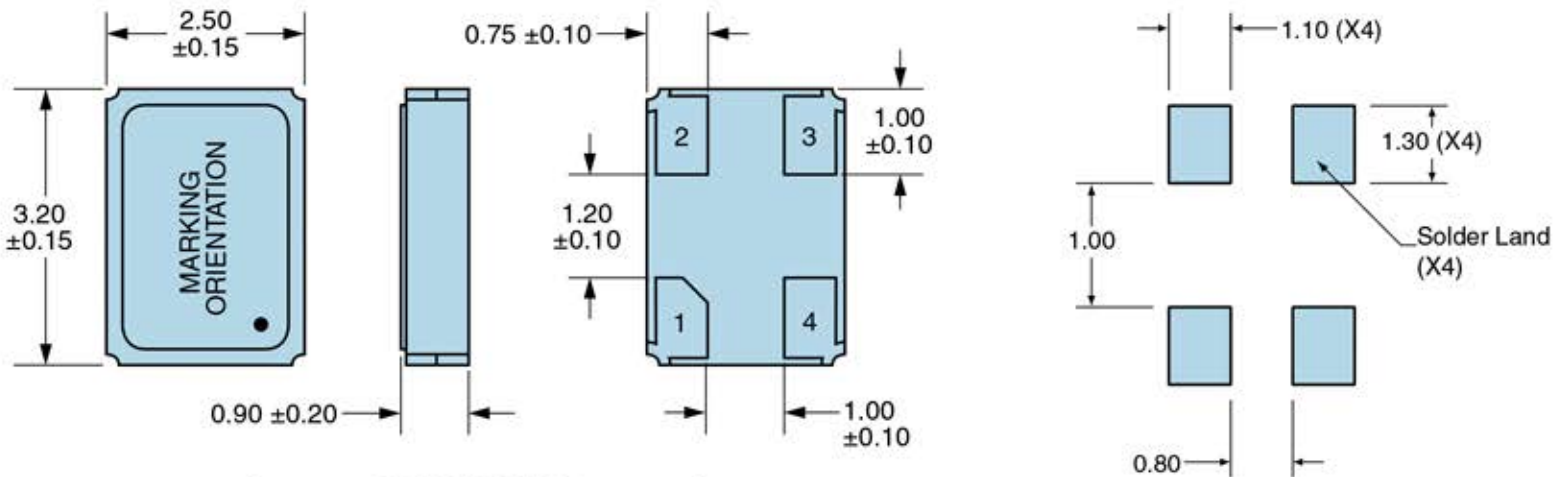
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Solderability	MIL-STD-883, Method 2003
Vibration	MIL-STD-883, Method 2007, Condition A

EB19E2 CMOS OSCILLATOR SERIES

PART NUMBERING GUIDE



MECHANICAL & SOLDER PAD DIMENSIONS (all dimensions in millimeters)



PIN CONNECTIONS			
1	Tri-State	3	Output
2	Case/Ground	4	Supply Voltage

