

ORDERING GUIDE

CLOCK OSCILLATOR



This guide is a terms and definitions of crystal oscillator, it is used to assist anyone in your organizations to select or order Hosonic's crystal oscillator. Please enter your company information. Hosonic maintains a customer database so updated specifications and new product information can be noticed.

- 1. Nominal Frequency** - Is the number of cycles per second(Hz) of an alternating electric current. Enter the frequency in MHz or KHz.
- 2. Hosonic Model number** - As stated on catalogue page.
- 3. Package Style** - Determines types of layout, through-hole or surface mount(SMD). Pls see catalogue for your ideal package.
- 4. Output Load** - Is the capacity of the oscillator to drive other devices. TTL devices are specified in number of gates that can be driven e.g. 10 TTL gates. CMOS output is specified in picofarads(pF) e.g., 15pF or 50pF loads.
- 5. Tri-State** - Tri-state Enable/Disable is the ability to turn on or off the output using pin one for control. The output will go to a high impedance when disabled, which facilitates the use of Auto Test Equipment.
Note:Tri-state may be substituted for non-tri-state if pin #1 is left open or held high.
- 6. Frequency Stability** - Is how far the oscillator will drift from the desired frequency over a specified temperature range. Stability is inclusive of tolerance @ 25°C, operation temperature, voltage fluctuations, load changes, aging, shock and vibration, and is measured in parts per million(ppm)
- 7. Operating Temperature range** - The maximum and minimum temperatures that the crystal device can be exposed to during oscillation. Among this temperature range, all of the specified device operating parameters are guaranteed.
- 8. Supply Voltage** - The Maximum voltage which can safely be applied to the V_{CC} terminal with respect to ground.
- 9. Supply Current** - The amount of current consumption by an oscillator from the power supply, specified in milliamps(mA).
- 10. Output Symmetry** - This measure of output waveform uniformity. This term is also called duty cycle, is a measurement of the time that the output waveform is in a logic high state, expressed as a percentage(%). This parameter is measured at a specified voltage threshold or at a percentage of the output waveform amplitude.
- 11. Rise/Fall time** - Rise and fall time is defined as the transition time of the output wave form from low to high state and high to low state. The transition time is measured between 90% and 10% of the falling edge of the switching wave form for CMOS devices.
- 12. Start-up time** - The start-up time of an oscillator is defined as the time an oscillator takes to reach its specified RF output amplitude. The start-up time is determined by the closed loop time constant and the loading condition of its circuit.
- 13. Jitter** - The modulation in phase or frequency of the oscillator output.
- 14. Stand by** - A function that temporary turns off the oscillator and other devices to save power. Logic 0 level will enable stand by mode. The disable current at stand by mode varies from few micro-amperes to tens of micro-amperes(5μA typical). Because oscillation is halted, there is a maximum of 10ms(same amount of start-up time). Before output stabilizes.
- 15. Marking** - the marking in normal is Hosonic's standard marking, also customer can select the OEM marking then need to inform us the detiles.
- 16. Special Option** - Special option is our value add service and customer can add cut lead, gull wing, or other special options.
- 17. Please inform us what quantity you required**
- 18. Please inform us your required delivery time**
- 19.** Please enter all possible information for the use of the clock oscillator you are ordering. If you can attached the schematic that is very useful and our sales engineer will review the information and help you to select the appropriate oscillator for your need.

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Specifications are subject to change without notice