



Crystal Clock Oscillator (OSC-H, OSC-F Series) Crystal Clock Oscillator Part Numbering System

OSC Series : Half Size (8Pin) , Full Size (14Pin)

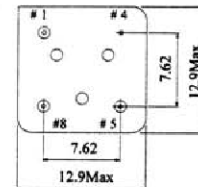
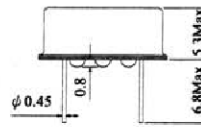
20.000KHz - 160.000MHz

● **SPECIFICATION**

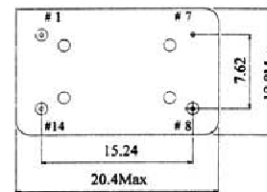
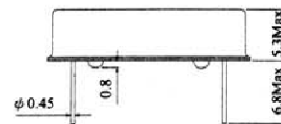
| | |
|----------------------------------|---|
| Frequency Range | 20K-150MHz |
| Input Voltage (V _{DD}) | 3.3V , 5V |
| Frequency Stability | ±25, ±50, ±100PPM |
| Operating Temperature | -10°C ~ +70°C -40°C ~ +85°C Available |
| Storage Temperature | -55°C ~ +125°C |
| Output Voltage | CMOS : V _{OH} =90%V _{DDmin} , V _{OL} =10%V _{DDmin} TTL : V _{OH} =2.4V _{min} , V _{OL} =0.4V _{min} |
| Symmetry | 40~60% typical, 45~55% Available |
| Output Load | 10 TTL/15pF or 30pF |
| Star-up Time | 10mSec. max(5mSec. Typical) |
| Rise/Fall Time | 10nSec. max(5mSec. Typical) |
| Current Consumption | 15~45mA max |
| Aging | ±5PPM/year |
| Enable / Disable of Pin1 | Enable: NC or High Disable: Low |

● **DIMENSIONS(mm)**

Half Size (8Pin)

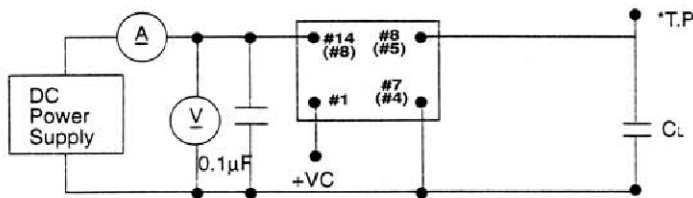


Full Size (14Pin)



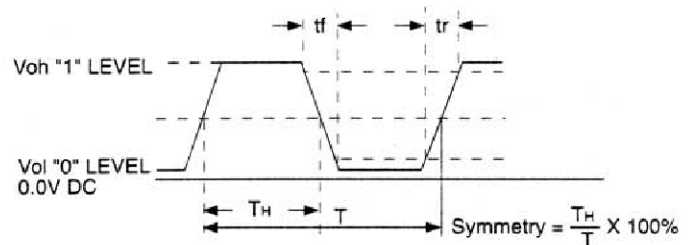
| Pin | Connection |
|---------|-------------------|
| #1 | N.C. or Tri-State |
| #4(#7) | GND |
| #5(#8) | Output |
| #8(#14) | +V _{DD} |

● **TEST CIRCUIT**



CL = 15pF (including fixture and probe capacitances)

● **OUTPUT WAVEFORM**



Crystal Clock Oscillator Part Numbering System

● **Package : OSC-S21 , OSC-S22 , OSC-S3 , OSC-S5 , OSC-S7 , OSCLD, OSCLP, OSC RTC, OSC-H , OSC-F**

| OSC | Output Type | Frequency in M/KHz | M K | Input Voltage (V _{DD}) | Operation Temp. | Package Code | Stability | Output Symmetry | Custom Speci. |
|-----|-----------------------|--------------------|--------|----------------------------------|---------------------|-------------------|-----------------|-----------------|---------------|
| | Blank : Standard CMOS | | M: MHz | Blank : +5V | 1: -10 ~ +60°C | H: Half | -10 : ± 10PPM | Blank : 40/60% | * |
| | LE : Low EMI | | K: KHz | -3.3 : +3.3V | Blank : -10 ~ +70°C | F: Full | -15 : ± 15PPM | T : 45/55% | |
| | LD : LVDS | | | -2.8 : +2.8V | 2: -20 ~ +70°C | S7 : 7*5 SMD | -20 : ± 20PPM | X : Custom | |
| | LP : LVPECL | | | -2.5 : +2.5V | 28: -20 ~ +85°C | S5 : 5*3.2 SMD | -25 : ± 25PPM | | |
| | | | | -1.8 : +1.8V | 3: -30 ~ +75°C | S3 : 3.2*2.5 SMD | -30 : ± 30PPM | | |
| | | | | | 38: -30 ~ +85°C | S22 : 2.5*2.0 SMD | Blank : ± 50PPM | | |
| | | | | | 1: -40 ~ +85°C | S21 : 2.0*1.6 SMD | -100 : ± 100PPM | | |
| | | | | | A: -40 ~ +105°C | | -150 : ± 150PPM | | |
| | | | | | B: -40 ~ +125°C | | : | | |
| | | | | | C: -55 ~ +125°C | | : | | |
| | | | | | X: Custom | | | | |