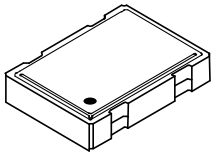
Pletronics, Inc.
19013 36th Ave. West • Suite H • Lynnwood, WA 98036, USA

SM7745D Series

- 4 Pad 7 x 5mm Leadless Surface Mount Ceramic Clock Oscillator
- CMOS with Enable/ Disable, 3rd Overtone Crystal Used
- Low Jitter



70.00 MHz – 170.00 MHz
Consult factory for higher frequencies

Standard Specifications

Overall Frequency Stability	SM7745D: ±50 PPM, SM7744D: ±25 PPM, SM7720D: ±20 PPM over Operating Temp. Range
Operating Temperature Range	0 to +70°C is standard, but can be extended to −40 to +85°C for certain frequencies
Supply Voltage (Vcc)	5.0 volts, 3.3 volts and 2.5 volts available, .01 µF bypass cap recommended
Symmetry (Duty Cycle)	40/60 to 60/40% is standard, but 45/55% at 50% of Vcc is also available (see Waveform 1)
Logic Levels	Logic "1" 90% of Vcc MIN; Logic "0" 10% of Vcc MAX
Jitter	1 pS RMS maximum, from 12 kHz to 20 MHz from carrier
Output Load	Standard load is 15pF maximum, see Test Circuit 2 (consult factory for heavier loads)
Enable/Disable Option (E/D)	Output enabled when Pin #1 is open or at Logic "1"; Output disabled when Pin #1 is at Logic "0".

Frequency Range (MHz)	Supply Current Icc (mA) w/ 15pF load		Rise and Fall Time Tr & Tf (nS) w/ 15pF load	
	Typical	Maximum	Typical	Maximum
70.000 – 79.999	40.0	45.0	2.0	3.0
80.000 – 110.000	75.0	80.0	0.5	1.0
110.001 – 119.999	80.0	90.0	0.5	1.0
120.000 – 170.000	90.0	95.0	0.5	1.0

Part Numbering Guide

SM77 45 D Y -- 70.0M - 30

Packaging
Tray or
16mm tape
8mm pitch

Model

Frequency Stability
45 = ± 50 PPM
44 = ± 25 PPM
20 = ± 20 PPM

Special Specifications (choose all that apply)
Y: Std Specs (5.0V ± 10%, 0 to +70 °C, 40/60% Symmetry)
E: Extended Operating Temperature Range (- 40 to +85°C)
S: 45/55% Symmetry at 50% of Vcc
V: Supply Voltage of 3.3 volts ±10%
W: Supply Voltage of 2.5 volts ±5%

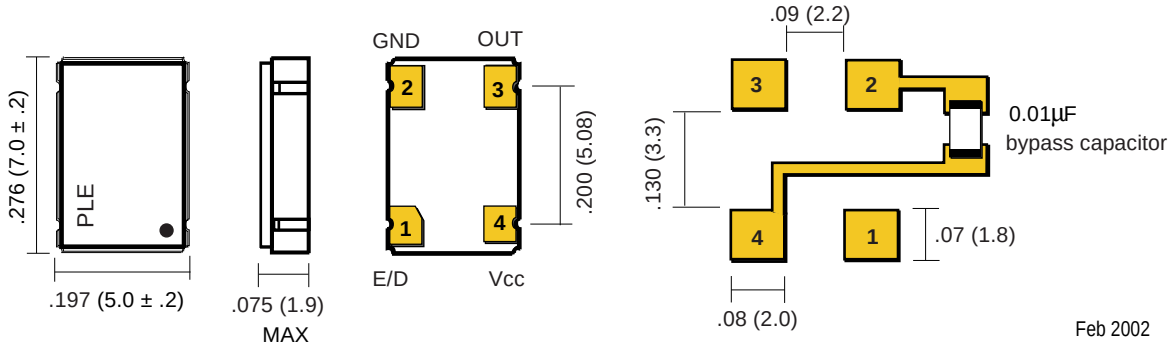
Frequency in MHz

Non-Std Output Load
Blank = 15 pF max, 30 = 30 pF max, 50 = 50 pF max

Consult factory for available frequencies and specs. Not all options available for all frequencies. A special part number may be assigned.
Frequency Stability is inclusive of frequency shifts due to calibration, temperature, supply voltage, shock, vibration and load

Mechanical: inches (mm) not to scale Solder Pads

Due to part size and factory abilities, part marking may vary from lot to lot and may contain our part number or an internal code.



Feb 2002