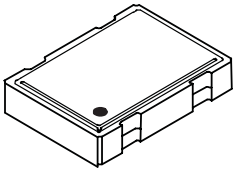
**Pletronics, Inc.**
19013 36th Ave. W, Suite H ▪ Lynnwood, WA 98036 USA
Manufacturer of High Quality Frequency Control Products

# SM7745H CMOS Series



- CMOS with Enable/ Disable or Optional Stand By Mode (3.3 V)
- Fundamental or 3rd Overtone Crystal Used
- 4 Pad 7 x 5mm Leadless Surface Mount Ceramic Clock Oscillator

**1.500 MHz – 69.999 MHz**



## Standard Specifications

| | |
|---|---|
| Overall Frequency Stability | SM7745H: ±50 PPM, SM7744H: ±25 PPM, SM7720H: ±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 |
| Output Load | Standard load is 15 pF (typ. 1 ASIC) 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) | Max. Supply Current Icc (mA) w/ 15pF load | | Max. Rise and Fall Time Tr & Tf (nS) w/ 15pF load |
|---|---|---|---|
| | 2.5V, 3.3V | 5.0V | 2.5V to 5.0V |
| 1.500 – 10.999 | 7 | 10 | 5.0 |
| 11.000 – 23.999 | 15 | 15 | 5.0 |
| 24.000 – 29.999 | 15 | 20 | 5.0 |
| 30.000 – 45.999 | 20 | 30 | 5.0 |
| 46.000 – 69.999 | 25 | 45 | 4.5 |

## Part Numbering Guide

Portions of the part number that appear after the frequency may not be marked on part (C of C provided)

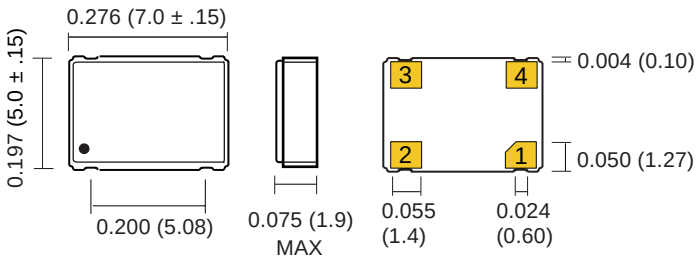
**SM77 45 H V - 50.0M - SB - 30 - XXX** (Internal Code or blank)

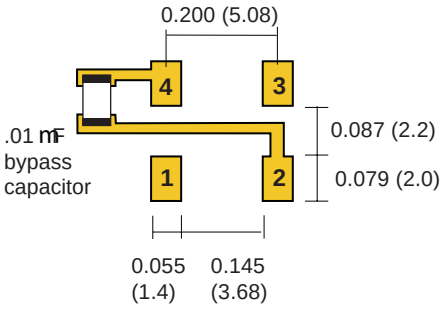
- Packaging: Tray or 16mm tape 8mm pitch
- Model
- Frequency Stability
  - 45 = ± 50 PPM
  - 44 = ± 25 PPM
  - 20 = ± 20 PPM
- Special Specifications (choose all that apply)
  - Y: Std Specs (5.0V ± 10%, 0 to +70°C, 40/60% Symmetry)
  - E: Extended Operating Temperature Range (- 40 to +85 ℃)
  - S: 45/55% Symmetry at 50% of Vcc
  - V: Supply Voltage of 3.3 volts ±10%
  - W: Supply Voltage of 2.5 volts ± 5%
- Frequency in MHz
- Optional Stand By Mode (3.3 volt only)
- Non-Std Output Load Blank = 15 pF max, 30 = 30 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.




| PIN | SIGNAL |
|---|---|
| 1 | E/D or SB |
| 2 | GND |
| 3 | OUT |
| 4 | Vcc |

Lead Free

Aug 2005