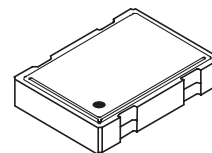




## SM7745D CMOS Series



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

**70.00 MHz – 170.00 MHz**  
Consult factory for **higher** frequencies

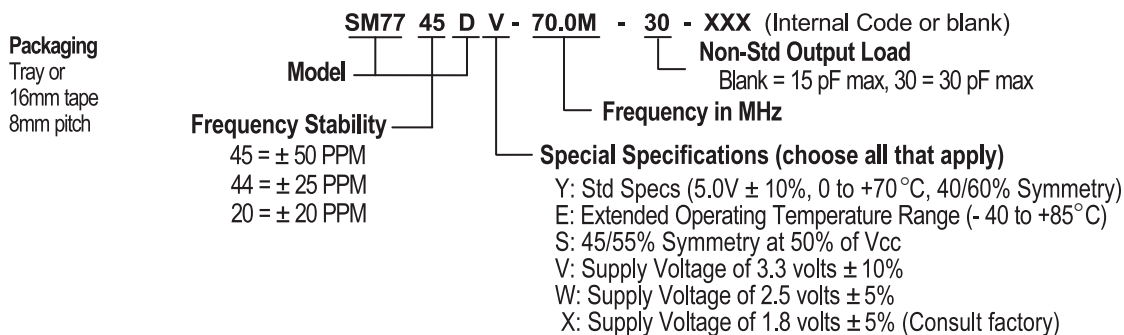
### Standard Specifications

<b>Overall Frequency Stability</b>	SM7745D: $\pm 50$ PPM, SM7744D: $\pm 25$ PPM, SM7720D: $\pm 20$ PPM over Operating Temp. Range
<b>Operating Temperature Range</b>	0 to +70°C is standard, but can be extended to - 40 to +85°C for certain frequencies
<b>Supply Voltage (Vcc)</b>	5.0, 3.3, and 2.5 volts available, .01 $\mu$ F bypass cap recommended, consult factory for 1.8 volts
<b>Symmetry (Duty Cycle)</b>	40/60 to 60/40% is standard, but 45/55% at 50% of Vcc is also available (see Waveform 1)
<b>Logic Levels</b>	<b>Logic "1"</b> 90% of Vcc MIN; <b>Logic "0"</b> 10% of Vcc MAX
<b>Jitter</b>	1 pS RMS maximum, from 12 kHz to 20 MHz from carrier
<b>Output Load</b>	Standard load is 15 pF (typ. 1 ASIC) maximum, see Test Circuit 2 (consult factory for <b>heavier</b> loads)
<b>Enable/Disable Option (E/D)</b>	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	3.3V, 5.0V
70.000 – 79.999	30	45	3.5	3.0
80.000 – 110.000	40	80	2.5	1.5
110.001 – 119.999	50	90	2.5	1.0
120.000 – 170.000	60	95	1.5	1.0

### Part Numbering Guide

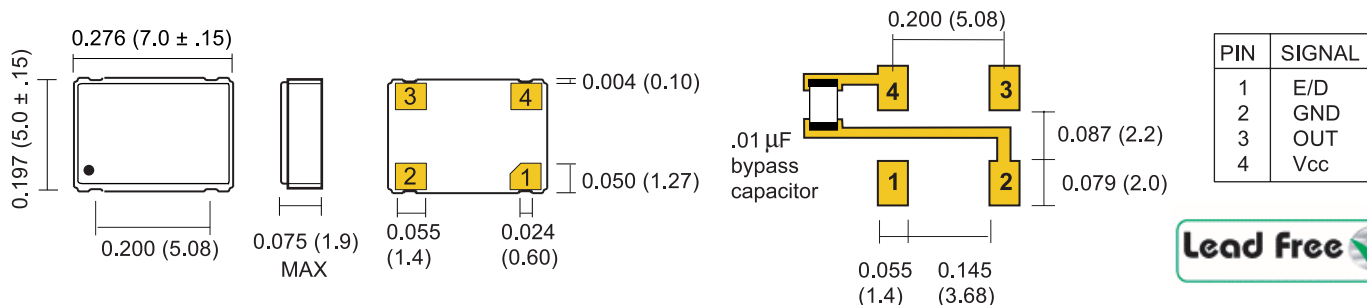
Portions of the part number that appear after the frequency may not be marked on part (C of C provided)



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.



Mar 2004