

## Ceramic Surface Mount Crystal

The SM7 series incorporates a sub-miniature AT-cut strip crystal resonator housed in a miniature 5.0x3.2x0.9mm ceramic package. These compact crystals are ideal for surface mount, densely-populated PCB applications.

- Rugged AT-cut crystal construction
- Ultra miniature for maximum spacing saving
- Ideally suited for disc driver, PCMCIA, PC'S and hand-held products
- Tight specifications available
- Complies with Directive 2002/95/EC (RoHS Compliant)

**SM7**

**RoHS Compliant**

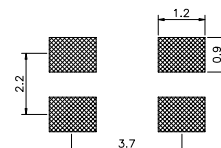
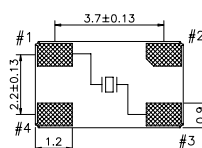
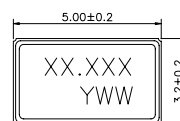
### Specifications:

<b>Frequency Range:</b>	12 MHz ~ 45 MHz	Fundamental
	36 MHz ~ 121 MHz	Overtone
<b>Operating Temperature:</b>	0°C ~ +50°C	-A
	-10°C ~ +60°C	-B
	-20°C ~ +70°C	-C
	-40°C ~ +85°C	-L
<b>Storage Temperature:</b>	-55°C ~ +125°C	
<b>Frequency Tolerance:</b>	± 50 ppm	-50
(at 25°C)	± 30 ppm	-30
	± 20 ppm	-20
	± 10 ppm	-10
<b>Frequency Stability:</b>	± 50 ppm	-50
(over temperature range)	± 30 ppm	-30
	± 20 ppm	-20
	± 10 ppm	-10
<b>Circuit Condition:</b>	6 pF ~ 50 pF or series	
<b>Equivalent Series Resistance:</b>	Maximum resistance corresponds to frequency. Please see ESR table. Typically 50Ω.	
<b>Drive Level:</b>	10 μW Typical	
<b>Shunt Capacitance:</b>	7 pF max	
<b>Aging:</b>	± 2 ppm max per year	
<b>Optional Features:</b>	Fundamental	- F
	3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> O.T.	- 3, 5, 7
	Tape & Reel	- T

Note:

1. Other frequencies, tolerances, stabilities, and operating temperature ranges available. Consult VTC Support for specific requirements.
2. Not all combinations of the above tolerances, stabilities, and temperature ranges are available. Consult VTC Support if your requirement is not standard.
3. All specifications subject to change without notice.

### SM7



All dimensions are in mm

#### Marking:

- Line 1 : XX.XXX - Frequency in MHz (6 digit)  
Line 2 : YWW - Year and Week No.

### Ordering Information

#### Frequency Stability Vs. Temperature Range

Temperature Range \ PPM	± 5	± 10	± 15
A 0°C ~ +50°C	□	○	○
B -10°C ~ +60°C	□	○	○
C -20°C ~ +70°C	X	○	○
L -40°C ~ +85°C	X	X	○

○ Standard X N/A □ Available Upon Request

Product name + CL + Operating Temperature Range + Tolerance + Stability + Other Code + Frequency.

i.e. SM7-20-C-10-10-F-T-16.000MHz