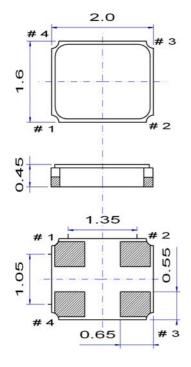
# SMX-7S



## Miniature SMD Crystal

Features	<ul> <li>Applications: telecommunications, automotive, medical</li> </ul>
i eatures	<ul><li>Super small package (2.0 x 1.6 x 0.45 mm)</li></ul>
	<ul> <li>Wide frequency range: 19.2 to 66 MHz</li> </ul>
	<ul> <li>High shock and vibrational resistivity</li> </ul>
	<ul> <li>Reflow soldering @ 260 °C</li> </ul>

Parameter	Specification	
Frequency range	19.2 ~ 66 MHz	fundamental
Mode of oscillation	AT-cut	
Standard frequencies	20.0, 24.0, 24.576, 26.0, 27.0, 32.0, 44.0, 48.0 & 66.0 MHz	
Frequency tolerance	±10 ~ ±50 ppm	@ +25 °C
Frequency stability	±10 ~ ±50 ppm	vs. operating temperature range
Aging	±2 ppm	1 <sup>st</sup> year
Load capacitance	series or parallel resonance (CL = 8 ~ 32 pF)	
Equivalent series resistance (ESR)	< 35 Ω	@ 26 MHz
	< 20 Ω	@ 48 MHz
Drive level	10 ~ 100 μW	
Operating temperature range	-20 ~ +70 °C	commercial application
	-40 ~ +85 °C	industrial application
	-40 ~ +125 °C	automotive & avionic application
Storage temperature range	-55 ~ +125 °C	
Packaging unit	tape & reel	1'000 or 3'000 pieces
Customer specifications on request		



#### Pin function

# 1 crystal connection

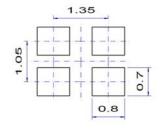
#2 GND

#3 crystal connection

#4 GND



### Example for soldering pattern



#### Do not design any conductive path between the pattern

Example for IR reflow soldering temperature

