



ShaanXi DongXin HengKe Electronics Co., LTD

陕西东芯恒科电子有限公司

**AUTOMOTIVE CLASS CRYSTAL RESONATORS**

**SMD X'TAL 2.0×1.6×0.5mm**

**Applications**

GPS Auto Monitoring electronics

**Features**

Dimensions: 2.00 x 1.60 x 0.50 mm.  
 Reflow soldering is available  
 Extremely good for reducing EMI effect  
 High resolution frequency tolerance is obtained.



**Specifications**

Project	项目	SPECIFICATION 规格
Frequency Range	频率范围	16M~100MHz
Operation Mode	振动模式	Fundamental
Loading Capacitance	负载电容	20pF Std. 8 to 22pF , Series available
Drive Level	激励电平	10μW ( 100μW Max)
Frequency Tolerance	频率偏差	±10ppm ~±30PPM ( at 25°C)
Equivalent Resistance	谐振电阻	See Below
Frequency Stability	频率稳定性	±10ppm ~±50PPM
Operating Temp. Range	工作温度范围	-40~+125°C
Storage Temp. Range	储存温度范围	-55 ~ +125°C

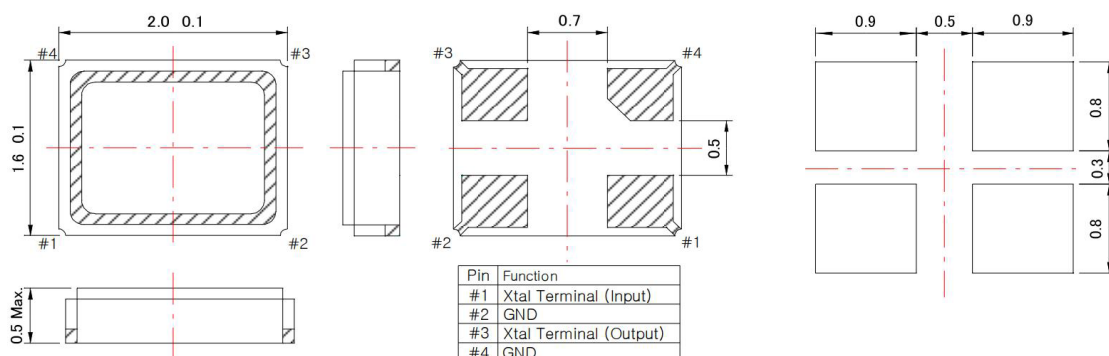
■ Table 1: Operating temperature range and frequency stability

Operation Temperature Range	Frequency Stability				
	±10PPM	±15PPM	±20PPM	±30PPM	±50PPM
-20°C~+70°C	●	●	●	●	●
-40°C~+85°C	○	○	○	●	●
-40°C~+125°C	○	○	○	○	●

■ Table 2: Equivalent series resistance

Frequency (MHz)	Overtone Order	ESR (Ω MAX)
16-25.999MHz	Fundamental	100Ω(MAX)
26-31.999MHz	Fundamental	70Ω(MAX)
32-59.999MHz	Fundamental	60Ω(MAX)
40-100MHz	Fundamental	50Ω(MAX)

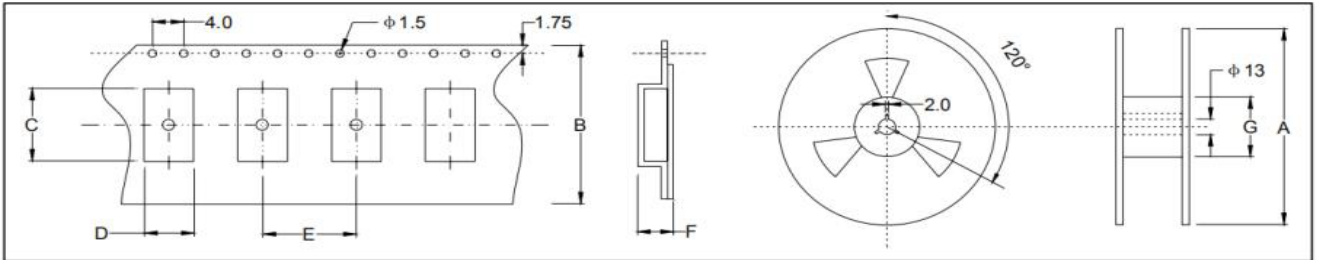
**Dimensions and Patterns [unit:mm]**



**SMD QUARTZ CRYSTAL RESONATOR**

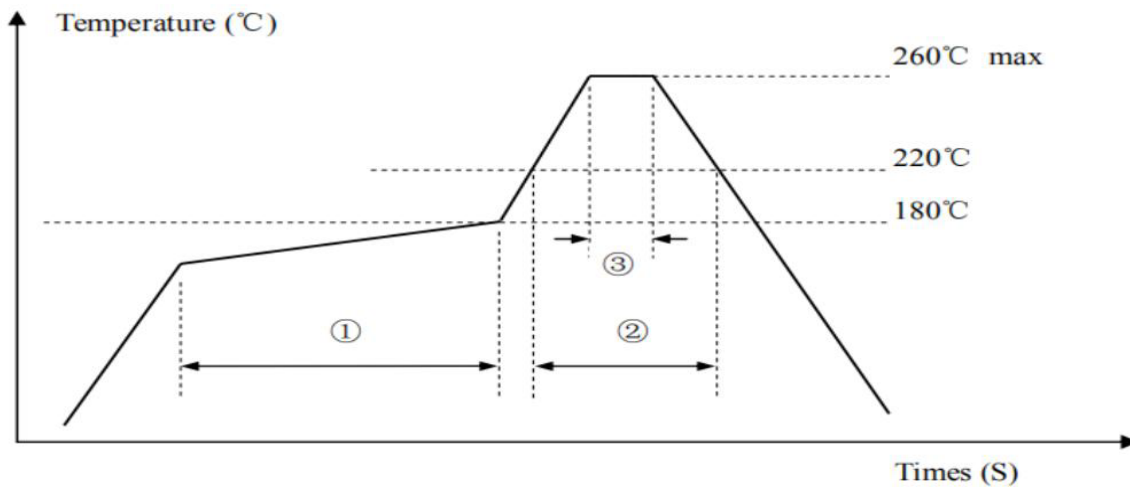
**SMD X'TAL 2.0×1.6×0.5mm**

Taping Specification(Unit: mm)



	A	B	C	D	E	F	G
SMD2016	178 ± 2.0	8.0 ± 0.3	2.25 ± 0.05	1.85 ± 0.05	4.0 ± 0.1	0.65 ± 0.05	60.5 ± 1.0
3000 pcs per reel							

REFLOW SOLDERING PROFILE



Pb free reflow A	①	Preheat	160~180°C	120sec. max
	②	Primary heat	220°C	60sec. max
	③	Peak	260°C	10sec. max.