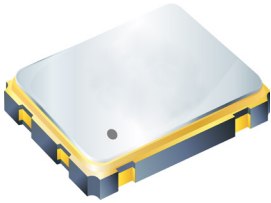


Crystal Resonator

SMD 3225 (3.2mm × 2.5mm × 7mm)



RoHS
Compliant



Application

Used in PDA, DSC, DVC, Wireless communication, Mobile phone, PC, and more.

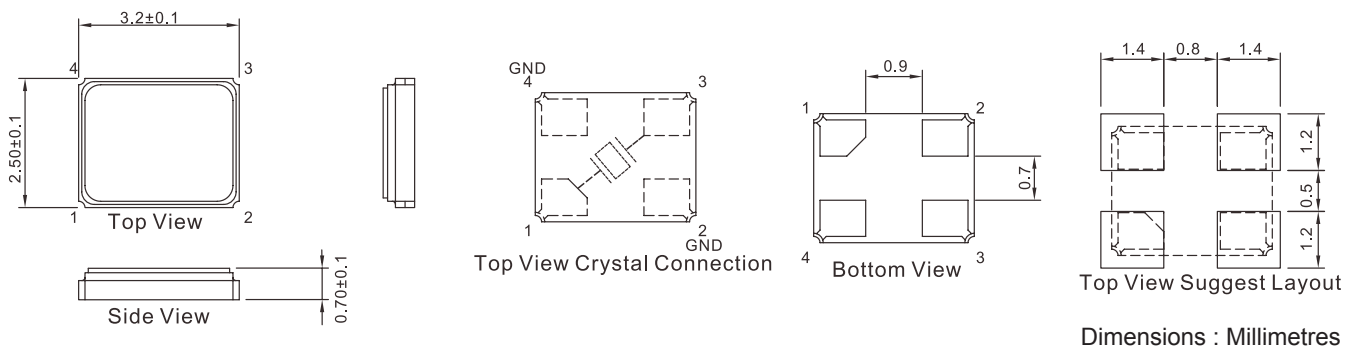
Features

- 3225 size miniature and light SMD crystal resonator with a low profile of 0.7mm
- Wide frequency range from a comparatively low 12MHz up to 48MHz
- High precision and high frequency stability
- Excellent heat resistance and environmental characteristics
- Automatic mounting and reflow soldering

Electrical Specifications

Frequency Range	: 12 ~ 48MHz
Frequency Tolerance (at 25°C)	: ±10ppm, ±30ppm
Frequency Stability Over Operating Temperature Range	: ±10ppm ~ ±30ppm
Operating Temperature Range	: -20°C ~ +70°C
Shunt Capacitance(C ₀)	: 3pF Max.
Drive Level	: 1~200µW Max. (100µW Typical)
Load Capacitance	: 10pF, 12pF
Equivalent Series Resistance (ESR)	: 60Ω & 80Ω
Aging (at 25°C)	: ±3ppm / year Max.
Storage Temperature Range	: -55°C ~ +125°C

Diagram



Crystal Resonator

SMD 3225 (3.2mm × 2.5mm × 7mm)



Part Number Table

Description	Part Number
Crystal Resonator, 3225, 12MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-12.00-10-10-80-B-10
Crystal Resonator, 3225, 12MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-12.00-10-30-80-B-30
Crystal Resonator, 3225, 12MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-12.00-12-10-80-B-10
Crystal Resonator, 3225, 12MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-12.00-12-30-80-B-30
Crystal Resonator, 3225, 12.288MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-12.288-10-10-80-B-10
Crystal Resonator, 3225, 12.288MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-12.288-10-30-80-B-30
Crystal Resonator, 3225, 12.288MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-12.288-12-10-80-B-10
Crystal Resonator, 3225, 12.288MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-12.288-12-30-80-B-30
Crystal Resonator, 3225, 13.56MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-13.56-10-10-80-B-10
Crystal Resonator, 3225, 13.56MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-13.56-10-30-80-B-30
Crystal Resonator, 3225, 13.56MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-13.56-12-10-80-B-10
Crystal Resonator, 3225, 13.56MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-13.56-12-30-80-B-30
Crystal Resonator, 3225, 14.31818MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-14.31818-10-10-80-B-10
Crystal Resonator, 3225, 14.31818MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-14.31818-10-30-80-B-30
Crystal Resonator, 3225, 14.31818MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-14.31818-12-10-80-B-10
Crystal Resonator, 3225, 14.31818MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-14.31818-12-30-80-B-30
Crystal Resonator, 3225, 14.7456MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-14.7456-10-10-80-B-10
Crystal Resonator, 3225, 14.7456MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-14.7456-10-30-80-B-30
Crystal Resonator, 3225, 14.7456MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-14.7456-12-10-80-B-10
Crystal Resonator, 3225, 14.7456MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-14.7456-12-30-80-B-30
Crystal Resonator, 3225, 16MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-16.00-10-10-80-B-10
Crystal Resonator, 3225, 16MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-16.00-10-30-80-B-30
Crystal Resonator, 3225, 16MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-16.00-12-10-80-B-10
Crystal Resonator, 3225, 16MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-16.00-12-30-80-B-30
Crystal Resonator, 3225, 16.384MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-16.384-10-10-80-B-10
Crystal Resonator, 3225, 16.384MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-16.384-10-30-80-B-30
Crystal Resonator, 3225, 16.384MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-16.384-12-10-80-B-10
Crystal Resonator, 3225, 16.384MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-16.384-12-30-80-B-30
Crystal Resonator, 3225, 16.934MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-16.934-10-10-80-B-10
Crystal Resonator, 3225, 16.934MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-16.934-10-30-80-B-30
Crystal Resonator, 3225, 16.934MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-16.934-12-10-80-B-10
Crystal Resonator, 3225, 16.934MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-16.934-12-30-80-B-30
Crystal Resonator, 3225, 18.432MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-18.432-10-10-80-B-10
Crystal Resonator, 3225, 18.432MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-18.432-10-30-80-B-30
Crystal Resonator, 3225, 18.432MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-18.432-12-10-80-B-10
Crystal Resonator, 3225, 18.432MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-18.432-12-30-80-B-30
Crystal Resonator, 3225, 19.2MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-19.20-10-10-80-B-10
Crystal Resonator, 3225, 19.2MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-19.20-10-30-80-B-30

Crystal Resonator

SMD 3225 (3.2mm × 2.5mm × 7mm)



Description	Part Number
Crystal Resonator, 3225, 19.2MHz/ ±10ppm, 80Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-19.20-12-10-80-B-10
Crystal Resonator, 3225, 19.2MHz/ ±30ppm, 80Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-19.20-12-30-80-B-30
Crystal Resonator, 3225, 20MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-20.00-10-10-60-B-10
Crystal Resonator, 3225, 20MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-20.00-10-30-60-B-30
Crystal Resonator, 3225, 20MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-20.00-12-10-60-B-10
Crystal Resonator, 3225, 20MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-20.00-12-30-60-B-30
Crystal Resonator, 3225, 24MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-24.00-10-10-60-B-10
Crystal Resonator, 3225, 24MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-24.00-10-30-60-B-30
Crystal Resonator, 3225, 24MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-24.00-12-10-60-B-10
Crystal Resonator, 3225, 24MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-24.00-12-30-60-B-30
Crystal Resonator, 3225, 24.576MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-24.576-10-10-60-B-10
Crystal Resonator, 3225, 24.576MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-24.576-10-30-60-B-30
Crystal Resonator, 3225, 24.576MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-24.576-12-10-60-B-10
Crystal Resonator, 3225, 24.576MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-24.576-12-30-60-B-30
Crystal Resonator, 3225, 25MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-25.00-10-10-60-B-10
Crystal Resonator, 3225, 25MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-25.00-10-30-60-B-30
Crystal Resonator, 3225, 25MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-25.00-12-10-60-B-10
Crystal Resonator, 3225, 25MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-25.00-12-30-60-B-30
Crystal Resonator, 3225, 26MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-26.00-10-10-60-B-10
Crystal Resonator, 3225, 26MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-26.00-10-30-60-B-30
Crystal Resonator, 3225, 26MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-26.00-12-10-60-B-10
Crystal Resonator, 3225, 26MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-26.00-12-30-60-B-30
Crystal Resonator, 3225, 27MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-27.00-10-10-60-B-10
Crystal Resonator, 3225, 27MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-27.00-10-30-60-B-30
Crystal Resonator, 3225, 27MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-27.00-12-10-60-B-10
Crystal Resonator, 3225, 27MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-27.00-12-30-60-B-30
Crystal Resonator, 3225, 27.12MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-27.12-10-10-60-B-10
Crystal Resonator, 3225, 27.12MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-27.12-10-30-60-B-30
Crystal Resonator, 3225, 27.12MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-27.12-12-10-60-B-10
Crystal Resonator, 3225, 27.12MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-27.12-12-30-60-B-30
Crystal Resonator, 3225, 28.63636MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-28.63636-10-10-60-B-10
Crystal Resonator, 3225, 28.63636MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-28.63636-10-30-60-B-30
Crystal Resonator, 3225, 28.63636MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-28.63636-12-10-60-B-10
Crystal Resonator, 3225, 28.63636MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-28.63636-12-30-60-B-30
Crystal Resonator, 3225, 30MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-30.00-10-10-60-B-10
Crystal Resonator, 3225, 30MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-30.00-10-30-60-B-30
Crystal Resonator, 3225, 30MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-30.00-12-10-60-B-10
Crystal Resonator, 3225, 30MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-30.00-12-30-60-B-30

Crystal Resonator

SMD 3225 (3.2mm × 2.5mm × 7mm)



Description	Part Number
Crystal Resonator, 3225, 32MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-32.00-10-10-60-B-10
Crystal Resonator, 3225, 32MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-32.00-10-30-60-B-30
Crystal Resonator, 3225, 32MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-32.00-12-10-60-B-10
Crystal Resonator, 3225, 32MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-32.00-12-30-60-B-30
Crystal Resonator, 3225, 36MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-36.00-10-10-60-B-10
Crystal Resonator, 3225, 36MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-36.00-10-30-60-B-30
Crystal Resonator, 3225, 36MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-36.00-12-10-60-B-10
Crystal Resonator, 3225, 36MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-36.00-12-30-60-B-30
Crystal Resonator, 3225, 38.4MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-38.4-10-10-60-B-10
Crystal Resonator, 3225, 38.4MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-38.4-10-30-60-B-30
Crystal Resonator, 3225, 38.4MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-38.4-12-10-60-B-10
Crystal Resonator, 3225, 38.4MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-38.4-12-30-60-B-30
Crystal Resonator, 3225, 40MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-40.00-10-10-60-B-10
Crystal Resonator, 3225, 40MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-40.00-10-30-60-B-30
Crystal Resonator, 3225, 40MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-40.00-12-10-60-B-10
Crystal Resonator, 3225, 40MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-40.00-12-30-60-B-30
Crystal Resonator, 3225, 48MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 10pF	MCSJK-7U-48.00-10-10-60-B-10
Crystal Resonator, 3225, 48MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 10pF	MCSJK-7U-48.00-10-30-60-B-30
Crystal Resonator, 3225, 48MHz/ ±10ppm, 60Ω, ±10ppm, -20 ~ +70°C, 12pF	MCSJK-7U-48.00-12-10-60-B-10
Crystal Resonator, 3225, 48MHz/ ±30ppm, 60Ω, ±30ppm, -20 ~ +70°C, 12pF	MCSJK-7U-48.00-12-30-60-B-30

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