# **Crystal Oscillator** SMD 3225 (3.2mm × 2.5mm × 1mm) multicomp PRO





### RoHS **Compliant**

#### **Application**

Used in Peripherals, Bluetooth, DSC, PC, Mobile phone, PDA, DVC, Telecommunications, NFC, etc.

#### **Features**

- 3225 size, 1mm high, ultra small SMD seam sealed clock oscillator unit
- Low voltage operation
- Frequency Range: 1MHz to 48MHz
- 3-state function
- Automatic mounting and reflow soldering
- Low current consumption

#### **Electrical Specifications**

**Output Type** : CMOS **Output Load** : 15pF

Oscillation Mode : Fundamental / 3rd Overtone

Supply Voltage : 3.3V Frequency Range : 1 ~ 48MHz

Frequency stability : ±25ppm, ±50ppm

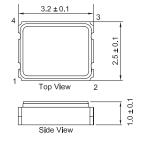
: -20°C ~ +70°C, -40°C ~ +85°C Operating Temperature Range

: -55°C ~ +125°C Storage Temperature Range Voltage Vol (Max.) / Voh (Min.) : 0.1VDD / 0.9VDD Rise(Tr) / Fall(Tf) Time : 8ns Max.

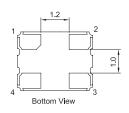
Supply Current : 15mA Max. Symmetry : 45 ~ 55% Start-up Time : 5ms Max. Phase Jitter (12kHz ~ 20MHz) : 1ps Max.

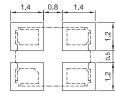
Aging (at 25°C) : ±3ppm/Year Max.

#### Diagram









Top View Suggested Layout

#### **PAD Function**

- 1. Enable Control
- 2. GND
- 3. Out
- 4. VDD

**Dimensions: Millimetres** 

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#### **Part Number Table**

Description	Part Number
Crystal Oscillator, 3225, 1.8432MHz, 3.3V, ±25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-1.8432-3.3-25-B
Crystal Oscillator, 3225, 1.8432MHz, 3.3V, ±25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-1.8432-3.3-25-C
Crystal Oscillator, 3225, 1.8432MHz, 3.3V, ±50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-1.8432-3.3-50-B
Crystal Oscillator, 3225, 1.8432MHz, 3.3V, ±50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-1.8432-3.3-50-C
Crystal Oscillator, 3225, 4MHz, 3.3V, ±25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-4.00-3.3-25-B
Crystal Oscillator, 3225, 4MHz, 3.3V, ±25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-4.00-3.3-25-C
Crystal Oscillator, 3225, 4MHz, 3.3V, ±50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-4.00-3.3-50-B
Crystal Oscillator, 3225, 4MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-4.00-3.3-50-C
Crystal Oscillator, 3225, 8MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-8.00-3.3-25-B
Crystal Oscillator, 3225, 8MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-8.00-3.3-25-C
Crystal Oscillator, 3225, 8MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-8.00-3.3-50-B
Crystal Oscillator, 3225, 8MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-8.00-3.3-50-C
Crystal Oscillator, 3225, 12MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-12.00-3.3-25-B
Crystal Oscillator, 3225, 12MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-12.00-3.3-25-C
Crystal Oscillator, 3225, 12MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-12.00-3.3-50-B
Crystal Oscillator, 3225, 12MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-12.00-3.3-50-C
Crystal Oscillator, 3225, 12.288MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-12.288-3.3-25-B
Crystal Oscillator, 3225, 12.288MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-12.288-3.3-25-C
Crystal Oscillator, 3225, 12.288MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-12.288-3.3-50-B
Crystal Oscillator, 3225, 12.288MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-12.288-3.3-50-C
Crystal Oscillator, 3225, 14.31818MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-14.31818-3.3-25-B
Crystal Oscillator, 3225, 14.31818MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-14.31818-3.3-25-C
Crystal Oscillator, 3225, 14.31818MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-14.31818-3.3-50-B
Crystal Oscillator, 3225, 14.31818MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-14.31818-3.3-50-C
Crystal Oscillator, 3225, 14.7456MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-14.7456-3.3-25-B
Crystal Oscillator, 3225, 14.7456MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-14.7456-3.3-25-C
Crystal Oscillator, 3225, 14.7456MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-14.7456-3.3-50-B
Crystal Oscillator, 3225, 14.7456MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-14.7456-3.3-50-C
Crystal Oscillator, 3225, 16MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-16.00-3.3-25-B
Crystal Oscillator, 3225, 16MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-16.00-3.3-25-C
Crystal Oscillator, 3225, 16MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-16.00-3.3-50-B
Crystal Oscillator, 3225, 16MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-16.00-3.3-50-C
Crystal Oscillator, 3225, 18.432MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-18.432-3.3-25-B
Crystal Oscillator, 3225, 18.432MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-18.432-3.3-25-C
Crystal Oscillator, 3225, 18.432MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-18.432-3.3-50-B
Crystal Oscillator, 3225, 18.432MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-18.432-3.3-50-C
Crystal Oscillator, 3225, 20MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-20.00-3.3-25-B
Crystal Oscillator, 3225, 20MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-20.00-3.3-25-C

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# **Crystal Oscillator** SMD 3225 (3.2mm × 2.5mm × 1mm) multicomp PRO



Description	Part Number
Crystal Oscillator, 3225, 20MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-20.00-3.3-50-B
Crystal Oscillator, 3225, 20MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-20.00-3.3-50-C
Crystal Oscillator, 3225, 24MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-24.00-3.3-25-B
Crystal Oscillator, 3225, 24MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-24.00-3.3-25-C
Crystal Oscillator, 3225, 24MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-24.00-3.3-50-B
Crystal Oscillator, 3225, 24MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-24.00-3.3-50-C
Crystal Oscillator, 3225, 24.576MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-24.576-3.3-25-B
Crystal Oscillator, 3225, 24.576MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-24.576-3.3-25-C
Crystal Oscillator, 3225, 24.576MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-24.576-3.3-50-B
Crystal Oscillator, 3225, 24.576MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-24.576-3.3-50-C
Crystal Oscillator, 3225, 25MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-25.00-3.3-25-B
Crystal Oscillator, 3225, 25MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-25.00-3.3-50-B
Crystal Oscillator, 3225, 25MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-25.00-3.3-50-C
Crystal Oscillator, 3225, 26MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-26.00-3.3-25-B
Crystal Oscillator, 3225, 26MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-26.00-3.3-25-C
Crystal Oscillator, 3225, 26MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-26.00-3.3-50-B
Crystal Oscillator, 3225, 26MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-26.00-3.3-50-C
Crystal Oscillator, 3225, 30MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-30.00-3.3-25-B
Crystal Oscillator, 3225, 30MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-30.00-3.3-25-C
Crystal Oscillator, 3225, 30MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-30.00-3.3-50-B
Crystal Oscillator, 3225, 30MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-30.00-3.3-50-C
Crystal Oscillator, 3225, 32MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-32.00-3.3-25-B
Crystal Oscillator, 3225, 32MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-32.00-3.3-25-C
Crystal Oscillator, 3225, 32MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-32.00-3.3-50-B
Crystal Oscillator, 3225, 32MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-32.00-3.3-50-C
Crystal Oscillator, 3225, 40MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-40.00-3.3-25-B
Crystal Oscillator, 3225, 40MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-40.00-3.3-25-C
Crystal Oscillator, 3225, 40MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-40.00-3.3-50-B
Crystal Oscillator, 3225, 40MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-40.00-3.3-50-C
Crystal Oscillator, 3225, 48MHz, 3.3V, ± 25ppm, -20 ~ +70°C, 15pF	MCSJK-3N-48.00-3.3-25-B
Crystal Oscillator, 3225, 48MHz, 3.3V, ± 25ppm, -40 ~ +85°C, 15pF	MCSJK-3N-48.00-3.3-25-C
Crystal Oscillator, 3225, 48MHz, 3.3V, ± 50ppm, -20 ~ +70°C, 15pF	MCSJK-3N-48.00-3.3-50-B
Crystal Oscillator, 3225, 48MHz, 3.3V, ± 50ppm, -40 ~ +85°C, 15pF	MCSJK-3N-48.00-3.3-50-C

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