



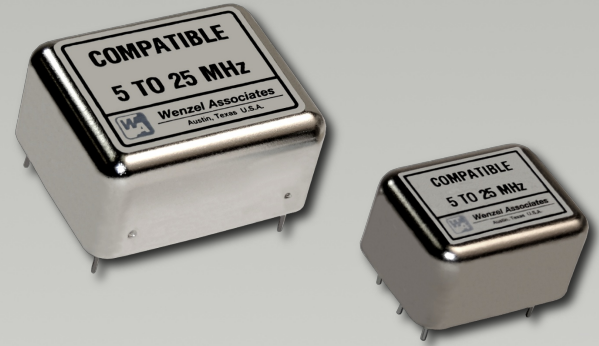
Low Noise Crystal Oscillators > Compatible

Features:

- Frequency: 5 MHz to 15 MHz, fixed
- Low Phase Noise
- Standard Euro Packages
- Internal Voltage Regulator

Applications:

- Test Equipment
- Synthesizers
- Base Stations
- Reference Oscillator



| Electrical Specifications | |
|---|---|
| Output Frequency (fixed; specify within range) | 5 MHz to 15 MHz |
| Output Level | +13 dBm ±2 dB into 50 ohms |
| Aging | (10 MHz model, typical) |
| Per day after 30 days operating, typical | 5×10^{-10} |
| Second year, typical | 5×10^{-8} |
| Per year thereafter, typical | 3×10^{-8} |
| Temperature Stability (consult factory for other ranges) | (10 MHz model, typical) |
| Range E: 0 to +50°C (Ref: +25°C) | $\leq \pm 1 \times 10^{-8}$ |
| Range F: -20 to +70°C (Ref: +25°C) | $\leq \pm 2 \times 10^{-8}$ |
| Range G: -55 to +85°C (Ref: +25°C) | $\leq \pm 1 \times 10^{-7}$ |
| Phase Noise | (Frequency Dependent: See Standard Specifications and Part Numbers table below for details) |
| Harmonics | ≤ -30 dBc |
| Spurious | ≤ -80 dBc |
| Tuning | |
| - Mechanical Tuning | N/A |
| - Electrical Tuning | |
| Tuning A: 0 to +10 VDC | $\geq \pm 1.5 \times 10^{-6}$, typical |
| Tuning B: ±5 VDC | $\geq \pm 1.5 \times 10^{-6}$, typical |
| Slope: Negative | (Positive Slope available on some models) |
| Supply Voltage | +15 VDC or +12 VDC (±5%) |
| Warm-up | ≤ 6 Watts for 5 minutes at +25°C |
| Total | ≤ 3 Watts at +25°C |
| Crystal Type | SC-cut |
| Mechanical | |
| Packaging | Solder sealed steel can |
| Dimensions | A: 1.44" x 1.13" x 0.75" or B: 2.01" x 1.62" x 0.98" |
| Connectors / Mounting | |
| - Package A | Solder pins on base Thru Hole PCB mount |
| - Package B | Solder pins on base Thru Hole PCB mount |

Description:

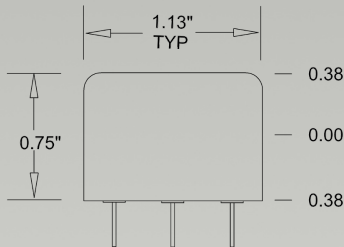
The Compatible Series crystal oscillators provide low phase noise in two standard PCB-mount Euro packages offering instrument designers a common footprint for various customer requirements. Available with temperature stability from $\pm 1E-7$ to $\pm 1E-8$ over various ranges, and SC-cut crystals offer excellent "close-in" phase noise. A low noise internal voltage regulator is included, which provides excellent power supply line rejection. Please consult the factory to discuss any custom specification modifications which may better suit your application.



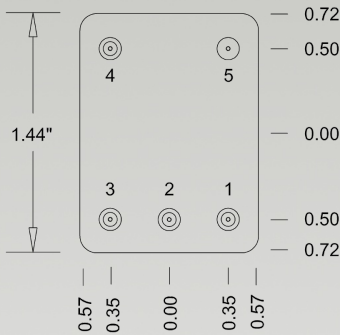


Low Noise Crystal Oscillators > Compatible

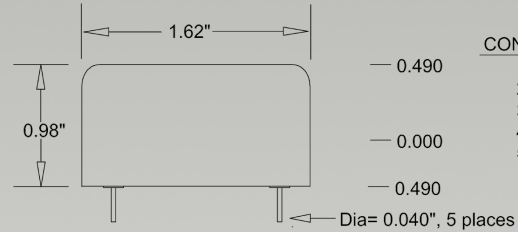
Package A



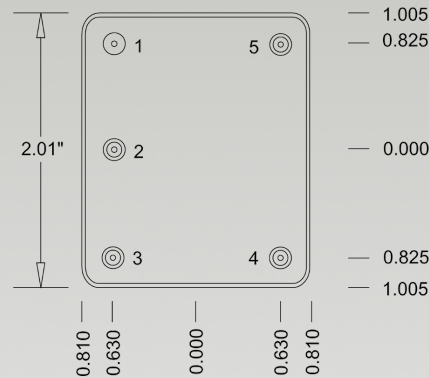
| Pin | Function |
|-----|-------------------|
| 1 | Electrical Tuning |
| 2 | N/C |
| 3 | Supply Voltage |
| 4 | RF Output |
| 5 | Ground, Case |



Package B



| CONN | FUNCTION |
|------|-------------------|
| 1 | Ground, Case |
| 2 | Electrical Tuning |
| 3 | N/C |
| 4 | Supply Voltage |
| 5 | RF Output |



Standard Specifications and Part Numbers **

| Part Number | Output Frequency * (MHz) | Typical Phase Noise (dBc/Hz), Static * | | | | | Output Level * (dBm) into 50 ohms | Temperature Stability * (Ref: +25°C) | Supply Voltage (VDC) | Package / Connectors | Package Size (inches) |
|--------------|--------------------------|--|--------|-------|--------|---------|-----------------------------------|--------------------------------------|----------------------|----------------------|-----------------------|
| | | 10 Hz | 100 Hz | 1 kHz | 10 kHz | 100 kHz | | | | | |
| 501-27554-01 | 10 | -120 | -140 | -150 | -158 | -158 | +13 ±2 | ±1E-8, 0° to +50°C | +15 | Solder Pins on Base | 1.44 x 1.13 x 0.75 |
| 501-27554-02 | 10 | -120 | -140 | -150 | -158 | -158 | +13 ±2 | ±2E-8, -20° to +70°C | +15 | Solder Pins on Base | 1.44 x 1.13 x 0.75 |
| 501-27554-04 | 10 | -120 | -140 | -150 | -158 | -158 | +13 ±2 | ±1E-8, 0° to +50°C | +15 | Solder Pins on Base | 2.01 x 1.62 x 0.98 |
| 501-27554-05 | 10 | -120 | -140 | -150 | -158 | -158 | +13 ±2 | ±2E-8, -20° to +70°C | +15 | Solder Pins on Base | 2.01 x 1.62 x 0.98 |
| 501-27554-11 | 10 | -130 | -150 | -160 | -165 | -165 | +13 ±2 | ±1E-8, 0° to +50°C | +15 | Solder Pins on Base | 1.44 x 1.13 x 0.75 |
| 501-27554-12 | 10 | -130 | -150 | -160 | -165 | -165 | +13 ±2 | ±2E-8, -20° to +70°C | +15 | Solder Pins on Base | 1.44 x 1.13 x 0.75 |
| 501-27554-14 | 10 | -130 | -150 | -160 | -165 | -165 | +13 ±2 | ±1E-8, 0° to +50°C | +15 | Solder Pins on Base | 2.01 x 1.62 x 0.98 |
| 501-27554-15 | 10 | -130 | -150 | -160 | -165 | -165 | +13 ±2 | ±2E-8, -20° to +70°C | +15 | Solder Pins on Base | 2.01 x 1.62 x 0.98 |
| 501-27554-21 | 10 | -120 | -140 | -150 | -158 | -158 | +13 ±2 | ±1E-8, 0° to +50°C | +12 | Solder Pins on Base | 1.44 x 1.13 x 0.75 |
| 501-27554-22 | 10 | -120 | -140 | -150 | -158 | -158 | +13 ±2 | ±2E-8, -20° to +70°C | +12 | Solder Pins on Base | 1.44 x 1.13 x 0.75 |
| 501-27554-24 | 10 | -120 | -140 | -150 | -158 | -158 | +13 ±2 | ±1E-8, 0° to +50°C | +12 | Solder Pins on Base | 2.01 x 1.62 x 0.98 |
| 501-27554-25 | 10 | -120 | -140 | -150 | -158 | -158 | +13 ±2 | ±2E-8, -20° to +70°C | +12 | Solder Pins on Base | 2.01 x 1.62 x 0.98 |
| 501-27554-31 | 10 | -130 | -150 | -160 | -165 | -165 | +13 ±2 | ±1E-8, 0° to +50°C | +12 | Solder Pins on Base | 1.44 x 1.13 x 0.75 |
| 501-27554-32 | 10 | -130 | -150 | -160 | -165 | -165 | +13 ±2 | ±2E-8, -20° to +70°C | +12 | Solder Pins on Base | 1.44 x 1.13 x 0.75 |
| 501-27554-34 | 10 | -130 | -150 | -160 | -165 | -165 | +13 ±2 | ±1E-8, 0° to +50°C | +12 | Solder Pins on Base | 2.01 x 1.62 x 0.98 |
| 501-27554-35 | 10 | -130 | -150 | -160 | -165 | -165 | +13 ±2 | ±2E-8, -20° to +70°C | +12 | Solder Pins on Base | 2.01 x 1.62 x 0.98 |

* Consult factory for custom frequency, phase noise performance, output level and temperature stability options.

** See website for additional Standard Specifications and Part Numbers.

