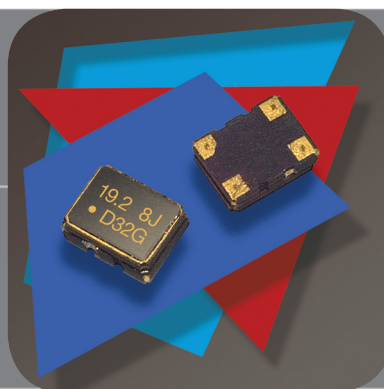


OSCILLATOR PRODUCT GUIDE

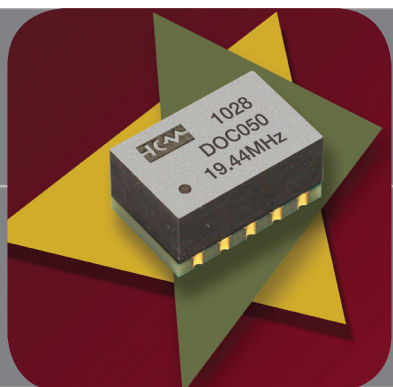
THE CONNOR-WINFIELD CORPORATION



VCXO



TCXO



OCXO



XO

At Connor-Winfield we take a consultative approach in providing solutions to your frequency control design requirements. Our engineers excel at working with your design team to ensure complete compatibility with your final design, from integrating and adapting existing products to designing new products to meet your specific needs.

Oscillator Products

We specialize in custom product design, boasting an extensive offering of proven, application tested oscillators that are already in production and readily available. Whatever your need is – simple crystal clocks or tight tolerance OCXOs – our oscillator division can meet your exacting requirements.

For a complete listing of Connor-Winfield's oscillator products, visit our website at www.conwin.com

Connor-Winfield Certifications and Compliances:

ISO Certification – Connor-Winfield's quality considerations begin in the early stages of development and continue all the way through design and production. By maintaining our ISO 9001:2008 Quality System Certification, we make a commitment to not only meet but exceed our customers' quality expectations.

WBE Certification – Connor-Winfield is proud to be a WBE Certified Company. A WBE Certification means that at least 51% of the company is owned and managed by one or more women who are US citizens, whose business formation and principal place of business is in the US or its territories and whose management and daily operation is controlled by one or more of the women owners.

ITAR Registered – Connor-Winfield is ITAR Registered.

Environmental Mission Statement and RoHS Compliance –

Connor-Winfield is committed to conduct corporate business in a globally responsible manner that is consistent with principles that are sensitive to the environment. We understand we have a vital role to play in sustaining our environment. Therefore, we take an active role in reducing the environmental impact of our operations and products. Further, we pledge to our stakeholders that we are in compliance with all local, state and federal environmental regulation, and that wherever possible, we strive to reduce the environmental impact of our business operations.

To demonstrate our commitment to these principles we:

- Have been CFC free in all of our manufacturing operations since 1994
- Have embraced RoHS principles and now offer a broad range of compliant products
- Meet all applicable environmental, health and safety-legal requirements to which we subscribe in the countries where we do business
- Have incorporated the principles outlined in the EICC (Electronic Industry Code of Conduct) as an internal company policy
- Maintain active programs to reduce our use of consumables (energy, water, materials, etc) and greenhouse gases
- Work with our employees to provide and maintain a safe and healthy workplace



Connor-Winfield Products are
Designed and Produced in the USA

Pure Spectrum is a trademark used by Connor-Winfield. Pure Spectrum products use only fundamental or 3rd overtone quartz crystal technology designed to give the lowest noise, lowest jitter and most monotonic frequency response without spurs or enharmonics.



New technologies, such as digital synthesizers and MEMs, have emerged to compete in the traditional crystal oscillator space. Digital synthesizers and MEMs use technology that does not have the best noise performance or the lowest jitter.

'Pure Spectrum' branding is to delineate between technologies and help define the position in the marketplace for each technology.

An example of the differences is: the line of digitally synthesized oscillators from Silicon Labs offers jitter in the range of .6 ps rms. Pure Spectrum oscillators have jitter numbers as low as 50 fs rms.

MEMs based oscillators, which make use of a special silicon electrostatic resonator built into the die, require a numerically controlled synthesizer to offset the wide frequency variation of each resonator and compensate the extreme temperature variations inherent in the MEMs resonator. Because quartz crystals are naturally high Q and inherently self-compensating by virtue of its well established and understood frequency versus temperature curve performance, Pure Spectrum products are inherently low noise, tightly calibrated, and temperature stable.

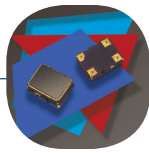
Additionally, synthesizers require thousands of gates to produce and generate much higher current draw. MEMs require external compensation just to achieve the level of an uncompensated quartz crystal. Compensation and synthesis requires memory typically in the form of electrically erasable memory, which due to its vulnerability to cosmic rays, eliminates certain markets such as space and related military. With the added current to support the synthesizer in a MEMs device, a typical TCXO using a MEMs resonator draws 32 mA whereas a Pure Spectrum TCXO will operate with as little as 1mA current. The design of a crystal oscillator is many times simpler and thus more reliable.

The intent with Pure Spectrum is to brand and identify that which the industry has assumed for over 50 years. Quartz crystal oscillators are the best frequency devices for low noise, low jitter, and reliability.

Connor-Winfield makes fundamental mode quartz crystals into the 600-700 MHz range for custom applications and up to 400 MHz for high volume applications, creating a competitive edge by providing high frequency and Pure Spectrum in one product.

Connor-Winfield makes these crystals in very small sizes, such as 3.2x2.5mm, thereby competing with MEMs in terms of size. Small size resonators can also withstand high shock levels, enough to be shot out of artillery.

TCXO Product Families




Connor-Winfield Temperature Compensated Crystal Oscillators (TCXOs) are designed for critical timing applications where high performance characteristics are required. Performance categories such as tight tolerance, low current, low phase noise and high frequency are addressed by CW TCXO's to perform at specification levels even equal to low end ovenized products—at approximately 90% lower current re-

quirements and substantially reduced costs. Even at frequencies to 156.25 MHz, our TCXOs can easily meet the telecom lifetime stability requirement of 4.6 ppm.

All Connor-Winfield's TCXOs are RoHS compliant and utilize fundamental mode crystals to produce the high frequency, tight tolerance, low phase noise TCXOs and Temperature Compensating Voltage Controlled Crystal Oscillators (TCVCXO).

TCXO Inherent Common Specs:

- RoHS Compliant Lead Free 
- Voltage Controlled (VCTCXO) or Fixed Frequency Output (TCXO)
- Low Phase Jitter: $\leq 1\text{pS RMS}$ maximum over the SONET Bandwidth
- Low Phase Noise
- Tape and Reel Packaging

TCXO Inherent Common Specs

- Clipped Sine, LVCMOS, HCMOS or Pure Sine
- 50 ppb to 1 ppm stability options
- Low Phase Noise, close in and floor
- Short Term Stability 1 x 10-10
- Sub 1ppb/day Aging Rates
- Frequencies 6.4-50MHz
- Voltage Control Option +/- 15ppm or less
- 2.5 - 5 Vdc Supply Options
- Pure Sine Output Options
- Multiple Package Options
- Low Aging < 4.6ppm over 20 years

Low Cost

2.5mm x 2.0mm

- B Series
- Clipped Sine 2.5 / 3.3V
- Frequency Range: 10 - 50M
- Stability over temp: .5ppm - 2ppm
- Commercial and Industrial Temp Range
- Low Current 1 mA consumption



3.2mm x 2.5mm

- C Series
- Clipped Sine 2.5 / 3.3V
- Frequency Range: 10 - 50M
- Stability over temp: .5ppm - 2ppm
- Commercial and Industrial Temp Range
- Low Current 1 mA consumption



Hi Precision

5.0mm x 3.2mm

- M Series
- Clipped Sine or LV/CMOS
- 2.5 / 3.3 / 5V supply options
- Frequency Range: 6.4 - 50M
- Stability over temp: .1ppm - 1ppm options
- Commercial and Industrial Temp Range
- Low Current 1 mA consumption



5.0mm x 7.0mm

- T Series
- Clipped Sine or LV/CMOS
- 2.5 / 3.3 / 5V supply options
- Frequency Range: 6.4-50M
- Stability over temp: 50ppb - 1ppm options
- Commercial and Industrial Temp Range
- Low Current 1 mA consumption



14.0mm x 9.0mmx8mm

- TF/TV Series
- Frequency Range: 10M - 180M
- 3.3 or 5 V Supply CMOS
- Fixed or Voltage Control versions
- Stability over temp: .25ppm - 1.0ppm
- Commercial and Industrial Temp Range



DOT Series

- CMOS or Clipped Sine
- 3.3V or 5V Supply options
- Frequency Range: 10M, 12.8M, 19.2M, 20M, 25M
- Stability over temp: 50 ppb - .1ppm
- Commercial and Industrial Temp Range
- High Temperature Plastic
- Dampened external thermal effect

Pure Sinewave Options

20.0mm x 12.5mm 14 Pin DIP

- HTF/HTV Series
- CMOS or Pure Sine
- 3.3V or 5V Supply options
- 14 Pin Dip Metal Through Hole Package
- Frequency Range: 10M - 180M
- Stability over temp: 0.5 - 2 ppm
- Commercial and Industrial Temp Range



TX14 Series

- Hermetically Sealed 14 pin DIP
- Frequency Range: 6.4M - 50M
- Stability over temp: .25 - 1 ppm
- Commercial and Industrial Temp Range
- 3.3V or 5V Supply
- Clipped Sine, CMOS or Pure Sine

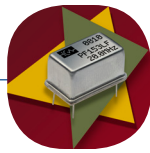
Cospas-Sarsat Compliant TCXOs

5.0 x 7.0mm or 5.0 x 3.2mm

- CSB Series
- Frequency Range: 10.0, 12.688656, 12.688795, 16.367M, and 20M
- 3.3V LVCMOS or Clipped Sine
- 1- 4 ma supply current
- Residual frequency variations below 3ppb
- Mean Slope less than 2 ppb per minute in temperature ramp
- Short term frequency variation <2ppb in 100 ms
- Stability over temp: .2ppm
- -20C to +55C; -40C to +55C



All Connor-Winfield
TCXO Oscillators
are RoHS Compliant



High precision clocking in communication systems has always been important but today's communication systems require ever higher precision offerings in smaller size configurations and lower cost solutions. Connor-Winfield understands the needs of the communication industry and is pleased to offer the type of solutions that meet those demanding requirements.

Originally designed to support SONET and SDH timing synchronization standards, Connor-Winfield's Oven Controlled Crystal Oscillator (OCXO) designs continually evolve to address new standards, e.g. IEEE 1588 and applications specifically to meet the needs of its customers. Connor-Winfield uses a variety of techniques to create high stability over both commercial and industrial temperature ranges, low

phase noise, excellent short term stability, and ultra low aging options in various packages and footprints.

Our unique OCXO heater design assures exceptional thermal performance within the package. Connor-Winfield's proprietary programming and final test systems allow for precise control of the internal oscillator and heating elements to ensure adherence to required specifications. This process eliminates any manual assembly operations, (e.g. manual setting components) which enhances the quality of the assembly and improves the long term reliability of the component. Connor-Winfield produces its own crystals in house, SC and AT, for predictable and dependable long term aging characteristics and rapid response to delivery requirements.

Third Overtone SC Crystal Based

OH100, OH200, OH300 Series

OCXO Inherent Common Specs

- Low fundamental frequency
- 3.0 ppb - 10 ppb stability over temp range
- Lowest 1Hz - 100Hz phase noise
- Short term stability to 5 x 10⁻¹²
- Sub 1ppb/day aging rates
- Frequencies 10 - 100MHz
- Voltage control range 1ppm or less
- Requires larger package/footprints
- Highest Precision capability
- 3.3 / 5 / 12 V
- Sine Output or CMOS

OH100

- 25.0mm x 25.0mm x 12.5mm
- Metal Through Hole Package
- Hermetically Sealed
- Frequency Range: 5M - 100M
- Stability over temp: 3ppb - 10ppb
- Commercial and Industrial Temp Range



OH200

- 36.0mm x 26.0mm x 12.5mm
- Metal Through Hole Package
- Hermetically Sealed
- Frequency Range: 5M - 100M
- Stability over temp: .5ppb - 10ppb
- Commercial and Industrial Temp Range



OH300

- 25.0mm x 22.0mm x 12.5mm
- High Temperature Plastic
- Surface Mount
- Frequency Range: 5M - 100M
- Stability over temp: 2ppb - 10ppb
- Commercial and Industrial Temp Range



Third Overtone AT Crystal Based

PF1, OH100 and OH300 Low Cost Option Series

OCXO Inherent Common Specs

- 10 - 50 ppb stability over temp range
- Low 1Hz - 100Hz phase noise
- Short term stability to 1 x 10⁻¹¹
- 1ppb/day aging rates
- Frequencies 10 - 100MHz
- Voltage control range 5ppm or less
- Requires larger package/footprints
- Low cost for good for Hi Frequency/ low phase noise
- 3.3 / 5 / 12 V
- Sine Output or CMOS

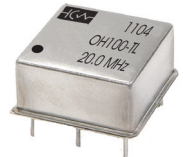
PF1 Series

- 20.0mm x 12.5mm x 10.0mm
- 14 Pin Dip Metal Through Hole Package
- Hermetically Sealed
- Frequency Range: 25M - 100M
- Stability over temp: 50ppb - 100ppb
- Commercial and Industrial Temp Range



OH100 Low Cost option

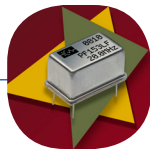
- 25.0mm x 25.0mm x 12.5mm
- Metal Through Hole Package
- Hermetically Sealed
- Frequency Range: 25M - 100M
- Stability over temp: 20ppb - 50ppb
- Commercial and Industrial Temp Range



OH300 Low Cost Option

- 22.0mm x 25.0mm x 12.5mm
- High Temperature Plastic
- Surface Mount
- Frequency Range: 25M - 100M
- Stability over temp: 20ppb - 50ppb
- Commercial and Industrial Temp Range





OCXO Specification Considerations:

OCXO specifications are tied inherently to the style and mode of the crystal used in each specific design. Phase noise, short term stability and aging are affected and managed by the size and thickness of the quartz wafer. Stability over temperature is affected and managed by the “cut” of the crystal which maximizes the flattest range of the frequency response curve of the crystal at which the oven temperature is set. The OCXO package dimensions will affect the amount of insulation from the outside ambient environment that in turn affects stability performance. These factors must be considered in choosing design options to address application requirements for performance optimization as well as cost considerations. Performance tradeoffs must be anticipated in attempting to maximize

one specification or another. For instance, driving a crystal at a very high level is a technique to improve phase noise, but doing so tends to impact aging performance negatively. Aging of a crystal is impacted by temperature as well so a higher maximum temperature can result in higher aging rates over time. There are many more examples of these types of trade off considerations so a thorough analysis of the end requirement should be undertaken to identify the best design approach to maximize performance in areas that require it, but minimize cost in areas that do not.

Connor-Winfield’s OCXO product line is designed and organized in a manner that allows for the stratification of performance characteristics and cost factors to provide our customers exactly what they require in both performance and cost.

Fundamental SC Crystal Based

- Low Cost OH300 Series**
- BOC 14-pin DIP SMD/TH Series**
- DOC 14x9mm SMD Series**

OCXO Inherent Common Specs

- 1-10 ppb Stability over Temp range
- Good overall phase noise
- Short term stability to 1x10⁻¹⁰
- 1.0 ppb/day aging rates
- Frequencies 10-60MHz
- Voltage control range 10ppm or less
- 14pin DIP and 9x14 Package options
- Low cost/excellent performance
- 3.3/5/12 V
- Sine Output or CMOS

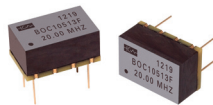
OH300 Low Cost Version

- 25.0mm x 22.0mm x 12.5mm
- High Temperature Plastic
- Surface Mount
- Frequency Range: 10M - 38.880M
- Stability over temp: 5ppb - 20ppb
- Commercial and Industrial Temp Range



BOC Series

- 20.0mm x 14.0mm x 10.0mm
- High Temperature Plastic
- Surface Mount
- Frequency Range: 10M - 38.880M
- Stability over temp: 5ppb - 20ppb
- Commercial and Industrial Temp Range



DOC / DOX Series

- 14.0mmx9.0mm x 8.0mm
- High Temperature Plastic
- Surface Mount
- Frequency Range: 10M - 38.880M
- Stability over temp: 5ppb - 20ppb
- Commercial and Industrial Temp Range



Fundamental AT Crystal Based

DOC, BOC, OX14 Series

OCXO Inherent Common Specs

- 10 - 50 ppb stability over temp range
- Low 1Hz - 100Hz phase noise
- Short term stability to 1 x 10⁻¹¹
- 5.0 ppb/day aging rates
- Frequencies 10 - 100MHz
- Voltage control range 5ppm or less
- Requires larger package/footprints
- Low cost for good for Hi Frequency/ low phase noise
- 3.3 / 5 / 12 V
- Sine Output or CMOS

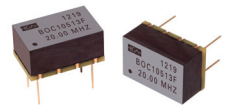
DOC Series

- 14.0mmx9.0mm x 8.0mm
- High Temperature Plastic
- Surface Mount
- Frequency Range: 10M - 50M
- Stability over temp: 20ppb - 100ppb
- Commercial and Industrial Temp Range



BOC Series

- 20.0mm x 14.0mm x 10.0mm
- High Temperature Plastic
- Surface Mount
- Frequency Range: 10M - 50M
- Stability over temp: 20ppb - 100ppb
- Commercial and Industrial Temp Range



OX14 Series

- 20.0mm x 12.5mm x 10.0mm
- 14 Pin Dip Metal Through Hole Package
- Hermetically Sealed
- Frequency Range: 10M - 50M
- Stability over temp: 50ppb - 100ppb



**All Connor-Winfield
OCXO Oscillators
are RoHS Compliant**

VCXO Product Families



Connor-Winfield Voltage Controlled Crystal Oscillators (VCXOs) have become the benchmark for quality, tight tolerance, low jitter and high frequency performance for phase lock loop applications. All VCXO products are RoHS compliant.

CW VCXOs use primarily high frequency fundamental mode crystals. This design approach produces the best phase noise and jitter performance relative to frequency synthesis products. CW is known for its capability in producing crystals using its proprietary “inverted mesa” process technique to deliver very high frequency fundamental mode resonators.

In cases where jitter requirements are relaxed, CW offers lower cost models based on frequency synthesis integrated circuit designs that reach 1.5 GHz in frequency and provide very good jitter performance.

CW's broad product offering providing solutions in many package size options and performance characteristics allow it to competitively address any application requirement our customers may have. Providing the right solution for the unique applications is where CW adds value to its customers equipment design efforts.

VCXO Inherent Common Specs:

- Available Frequency Stabilities:
±20 ppm ±25 ppm
±50 ppm ±100 ppm
- Available Temperature Ranges:
0 to 70°C, 0 to 85°C. -40 to 85°C
- Tri-State Enable / Disable Function
- Phase Jitter: 1pS RMS maximum over the SONET Bandwidth
- Low Phase Noise
- Hermetically sealed ceramic package
- RoHS Compliant
- Standard pull ranges: 50ppm and 100ppm APR

Fundamental Crystal – Pure Spectrum

VCXO Inherent Common Specs

- 20 - 100 ppm stability over temp range
- Lowest 1Hz - 100Hz phase noise
- Variable pull range options
- Best aging rate capability
- Frequencies 1 - 200MHz
- Voltage control range 150ppm or less
- Various package/footprints
- Highest Precision capability
- 2.5V / 3.3 / 5V
- CMOS / LVPECL / LVDS
- Commercial and Industrial Temp Range
- Phase Jitter <1 ps over Sonet Bandwidth



5.0mm x 3.2mm SMD

V7123/V7125

- CMOS/LVCMOS
- Frequency Range: 2M - 52M



5.0mm x 7.0mm SMD

VKA series/VKB series

- 3.3V / 5V
- LVCMOS / CMOS
- Frequency Range: 2M - 52M

V70x, V80x, V90x Series

- 3.3V
- LVPECL, LVCMOS, LVDS
- V702 LVPECL 65M - 200M
- V803 LVCMOS 27M - 200M
- V902 LVDS 65M - 200M

V301, V401, V501 Series

- 3.3V
- LVPECL, LVCOMS, LVDS
- Stability to +/- 20 PPM
- V301 LVPECL 65M - 200M
- V401 LVCMOS 65M - 130M
- V501 LVDS 65M - 200M

Low Jitter Synthesized Frequency

VCXO Inherent Common Specs

- 20 - 100 ppm stability over temp range
- Low noise floor phase noise and jitter
- Wide pull range
- Low aging rates
- Frequencies 10.0MHz - 1.5 GHz
- Voltage control range 100ppm or less
- Various package/footprints
- Highest Precision capability
- 2.5V / 3.3 / 5V
- CMOS / LVPECL / LVDS
- Commercial and Industrial Temp Range
- Phase Jitter <1 ps over Sonet Bandwidth

5.0mm x 3.2mm SMD

VGLxxx Series

- 2.5 and 3.3V LVCMOS, LVPECL or LVDS
- Typical <0.6ps to <1.0ps RMS Jitter

5.0mm x 7.0mm SMD

VL7xx Series

- 3.3V LVPECL
- Frequency Range: 65M - 800M
- <0.7ps RMS Jitter (12k-20M)

V77x, V97x Series

- 3.3V LVPECL or LVDS
- <0.25ps RMS Jitter
- V778 LVPECL 300 to 710MHz
- V975 LVDS 300 to 710MHz

VGxxx Series

- 2.5 and 3.3V LVCMOS, LVPECL or LVDS
- Typical <0.6ps to <1.0ps RMS Jitter



Check online
for the most up
to date RoHS
compliant
VCXO products



XO Clock Crystal Products



Our proven expertise in sophisticated system design fittingly qualifies Connor-Winfield to supply the most reliable, stable and accurate clocks available today.

Internally controlled crystal processing ensures tight angle control that provides low ppm stability in tight tolerance clocks. This also gives CW the ability to produce clocks over a very wide frequency range — 1 Hz to 1.5 GHz.

Our standard clocks are designed for applications requiring low phase noise and jitter less than 1pS – even down to as little as 50 fs. These models utilize fundamental and overtone crystals exclusively. If your application is

less demanding, ask your Connor-Winfield rep for clocks with relaxed jitter specs that use frequency multiplication schemes at a lower cost.

Connor-Winfield clocks are available in low Voltage versions as well as a variety of logic families including HCMOS, PECL, and ECL, and in a wide range of package styles including surface mount types down to 2.5 x 2.0mm.

Most clocks are available in a RoHS package.

XO Inherent Common Specs:

- Tri-State Enable / Disable Function
- Low Phase Jitter: <1pS RMS maximum over the SONET Bandwidth
- Low Phase Noise

Fundamental or 30T Crystal – Pure Spectrum

XO Inherent Common Specs

- 20 - 100 ppm stability over temp range
- Lowest 1Hz-100Hz phase noise
- Best aging rate capability
- Frequencies 1 - 312.50MHz
- Stability options: 25ppm, 50ppm, 100 ppm
- Various package/footprints
- Highest Precision capability
- 2.5V / 3.3/5V
- LVCMOS / LVPECL / LVDS
- Commercial and Industrial Temp Range
- Phase Jitter <1 ps over Sonet Bandwidth



2.5mm x 2.0 mm

CW2 Series

- LVCMOS
- Frequency Range: 4M - 54M



3.2mm x 2.5mm SMD

CW3 Series

- LVCMOS
- Frequency Range: 1M - 160M
- 1.8V, 2.5V, 2.8V, 3.3V options



5.0mm x 3.2mm SMD

Series 71/72

- LVCMOS: 2M - 160M
- HCMOS: 2M - 50MHz
- 3.3V or 5 V Supply
- Commercial / Industrial Temp Range



5.0mm x 7.0mm SMD

X Series

- 2.5 / 3.3V CMOS
- Frequency Range: 10M - 200MHz
- <0.3ps RMS Jitter (12k-20M)

XH Series (Hi-Reliability)

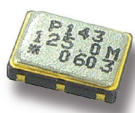
- 2.5 / 3.3V CMOS
- Frequency Range: 10M - 200MHz
- <0.3ps RMS Jitter (12k-20M)

P Series PURE SPECTRUM

- 2.5V / 3.3V LVPECL
- Frequency Range: 25M - 312.5M
- <.3ps rms jitter (12KHz to 20 MHz)
- Excellent Phase Noise Characteristics

L Series PURE SPECTRUM

- 2.5V / 3.3V LVDS
- Frequency Range: 25M - 312.5M
- <.3ps rms jitter (12KHz to 20 MHz)
- Excellent Phase Noise Characteristics



Low Jitter Synthesized Frequency

XO Inherent Common Specs

- 20 - 100 ppm stability over temp range
- Low noise floor phase noise and jitter
- Low aging rates
- Frequencies 10MHz - 1.5 GHz
- Various package/footprints
- Highest Precision capability
- 2.5V / 3.3 / 5V
- LVCMOS / LVPECL / LVDS
- Commercial and Industrial Temp Range
- Phase Jitter <1 ps over Sonet Bandwidth

For all clock products, check data sheets for frequency stability options at www.conwin.com.

5.0mm x 3.2mm SMD

GL Series

- 2.5 / 3.3V LVDS
- Frequency Range: 50M-1.5GHz
- <0.7ps RMS Jitter (12k-20M)



5.0mm x 7.0mm SMD

PM Series

- 2.5V / 3.3V LVPECL
- Frequency Range: 100M-700M
- <1ps rms jitter (12KHz to 20 MHz)



LM Series

- 2.5V / 3.3V LVDS
- Frequency Range: 100M - 700M
- <1ps rms jitter (12KHz to 20 MHz)

XG Series

- 2.5 / 3.3V CMOS
- Frequency Range: 10M - 200MHz
- <0.7ps RMS Jitter (12k-20M)

LG Series

- 2.5 / 3.3V LVPECL
- Frequency Range: 10M - 1.5GHz
- <0.7ps RMS Jitter (12k-20M)

PG Series

- 2.5 / 3.3V LVPECL
- Frequency Range: 10M - 1.5GHz
- <0.7ps RMS Jitter (12k-20M)

OSCILLATOR PRODUCT GUIDE

THE CONNOR-WINFIELD CORPORATION

Our Partnership Philosophy

Connor-Winfield talks about partnerships, but how do we follow through?

From design to delivery, we are committed to providing the right product when you need it to get your product to market. But the process is circular. We also track emerging developments in our customers' markets to ensure that we have the tools and data required to support your next product development effort



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Committed to
RoHS Compliant
Oscillator Products

*For specific product data,
performance specifications,
RoHS Compliancy, dimensions
and ordering information, please
refer to our website at
www.conwin.com*

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