Dynamic Engineers, Inc.

PRODUCTS BROCHURE

FREQUENCY

OCXOs

TCXOs

XOs

CLOCK OSCILLATOR ICs

EXTREME TEMPERATURE CRYSTALS

CUSTOM CRYSTAL FILTERS

CUSTOM LC FILTER MODULES

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Dynamic Engineers, Inc.

COMPANY INTRODUCUTION

World Class Supplier of RF Devices

Since 1986 Dynamic Engineers, Inc. (DEI) has been providing custom RF component solutions to global customers in the SATCOM, land mobile communications, cellular infrastructure, and test instrument markets. With headquarters in Houston, Texas, DEI works to satisfy customers with a capable quality-assurance testing center in Guangzhou, China and two partnering business operations in greater Europe.

Custom RF component solutions include:

- **Quartz Crystals**
- **Quartz-based clock oscillators**
- **TCXOs & OCXOs**
- **Custom LC & Crystal filters**

Quality and Customer Service

Quality and customer service are the core values of Dynamic Engineers. We are diligently focused on exceeding customer expectations. DEI has invested extensively into processes which provide its customers with the highest quality products available throughout the industry. We regularly open ourselves up for customer audits. Our quality management system is constantly evolving to meet the ever-changing requirements of the electronics industry.

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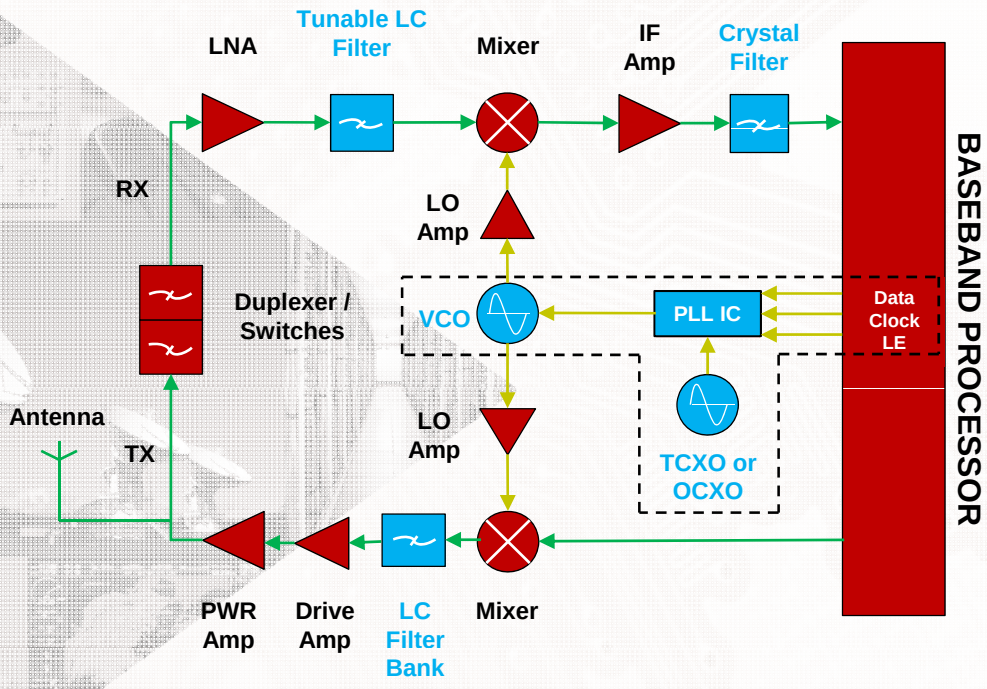
RADIO DIAGRAM

Basic Radio Architecture



Devices highlighted in blue can be provided by Dynamic Engineers.

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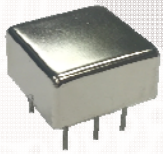
OCXO

+130°C Extreme Temperature OCXO

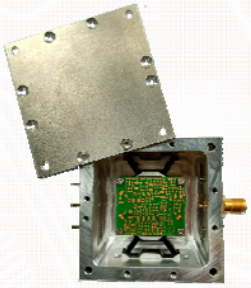
Dynamic Engineers' latest Extreme Temperature Oven-Controlled Crystal Oscillator (OCXO), the ETOCXO2020C-10MHz-A-V features ambient temperatures reaching as high as +130°C. Proprietary high temperature bonding materials and processing techniques allow this model to achieve ultra-stable output and superior long term reliability at extreme temperatures.



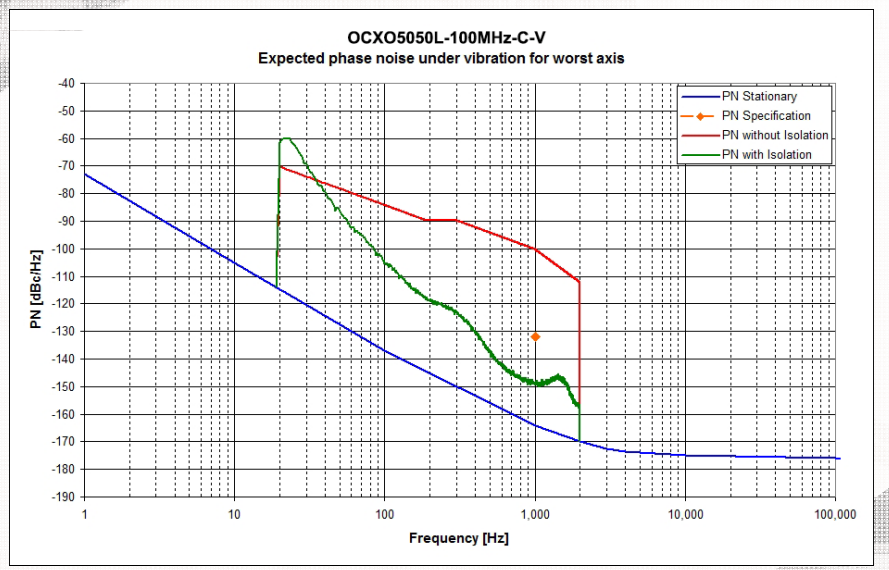
- **Stability: ±10 ppb over -40°C to +130°C**
- **Low Phase Noise: -170 dBc/Hz @ 100 kHz**
- **Low Aging: ±0.3 ppb per day aging**
- **Frequency Range: 5 to 30MHz**
- **Applications: Oil Drilling**

Vibration Isolated OCXO

DEI's OCXO5050L-100MHz-C-V features a 100MHz SC-cut crystal that is impedance matched to the oscillator and amplifier circuits to deliver ultra low phase noise in a vibration isolated enclosure.



- **Phase Noise: less than -132 dBc/Hz at 100Hz offset and -163 dBc/Hz at 1000Hz offset**
- **±100 ppb stability over -55°C to +85°C**



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OCXO

One of the world's smallest OCXO: only 8mm height!

New Generation Low Power & Low Noise OCXO

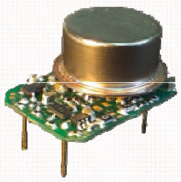
OCXO3306C (height: 8mm)

The OCXO3306C series offers a wide frequency range , outstanding frequency stability and low phase noise performance all with very fast warm-up and low power consumption. Despite its miniature size and minimal power consumption, this model features temperature stability, phase noise, and aging rate comparable to high-end OCXOs.

- Very low profile (8mm height packaging)
- Low power consumption (to 0.15W at +25°C)
- Low phase noise (-170 dBc/Hz floor at 100MHz)
- Fast warming-up (30s)

OCXO3307C (height: 9.3mm)

The OCXO3307C incorporates internal heating resonator technology with the entire oven control mechanical structure packaged inside the TO-8 vacuum holder. This design offers a drastic reduction in volume, power consumption, and warm-up time while still maintaining outstanding frequency stability and phase noise performance normally associated with devices in much larger enclosures.



- Low power consumption (less than 0.18 Watts typ. at +25°C after 60 second warm up)
- Less than ±3 ppb over -40°C to +85°C at 10MHz
- Less than ±20 ppb per year aging at 10MHz
- 9.3mm max. height

Model	Supply Voltage (V)	Output Type	Frequency Range (MHz)	Frequency Stability (ppb)	Operating Temperature Range (°C)	Package (mm)
OCXO3307C	5.0	HCMOS or Sine	8 to 150	± 3	-40 to +85	20.5 x 15.1 x 9.3
OCXO3311C	5.0	HCMOS	8 to 100	± 50	-30 to +70	15.1 x 15.9 x 10.0
OCXO3312C	5.0	HCMOS or Sine	8 to 150	± 5	-40 to +85	15.1 x 15.9 x 8.8
OCXO3306C	5.0	HCMOS	8 to 120	± 50	-30 to +70	20.5 x 15.1 x 8.0

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OCXO

Low Power Miniature OCXO

OCXO3309

- Fast warm-up (15 to 60 seconds depending on maximum ambient temperature required)
- Low Power (0.15W at +25°C)
- Very small package

Model	Supply Voltage (V)	Output Type	Frequency Range (MHz)	Frequency Stability (ppb)	Operating Temperature Range (°C)	Package (mm)
OCXO3305	3.3, 5.0	Sine or HCMOS	5 to 250	± 100	-40 to +80	20.50 x 15.10 x 10.00
OCXO3305-20MHz-A	3.3	Sine or HCMOS	20.000000	± 50	-40 to +85	15.10 x 20.50 x 10.00
OCXO3309	3.3, 5.0	HCMOS	8 to 100	± 100 @ 10 MHz	-40 to +85	15.90 x 15.10 x 10.00

Ultra-Stable DOCXO

OCXO3182-X39

The OCXO3182 series use combined advantages of the double-oven and internal heated resonator technologies (IHR) resulting in one of the world's smallest in volume (6 cm^3) with very high stability and aging. The OCXO3182 oscillators are excellent to use in a Stratum II clock system, instrumentations, and other high-end applications.

- High Stability (±3 ppb over -40°C to +85°C)
- Ultra miniature packaging (20.20mm x 20.20mm x 14.53mm)
- Low Aging (±0.2 ppb/day)
- Low Phase Noise level (-163 dBc/Hz, typ., floor)

Model	Supply Voltage (V)	Output Type	Frequency Range (MHz)	Frequency Stability (ppb)	Operating Temperature Range (°C)	Package (mm)
OCXO3307-10MHz-F-V	5.0	Sine	10.000000	± 0.1	-10 to +60	35.40 x 26.70 x 15.80
OCXO3307-10MHz-B	5.0	Sine	10.000000	± 1.0	-40 to +85	35.40 x 26.70 x 15.80
OCXO3182-X39	5.0	Sine	10.000000	± 3.0	-40 to +85	20.20 x 20.20 x 14.53
DOCXO3627S-10MHz-A-V	5.0	HCMOS	10.000000	± 0.2	-40 to +85	36.30 x 27.20 x 18.72

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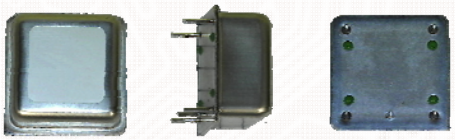
Ultra-Low Phase Noise OCXO: 10 MHz to 120 MHz

Best Noise @ 10 MHz (dBc/Hz): Less than -105 @ 1 Hz; -135 @ 10 Hz; -157 @ 100 Hz; -170 @ 1 kHz; -175 @ 10 kHz; -178 @ 100 KHz

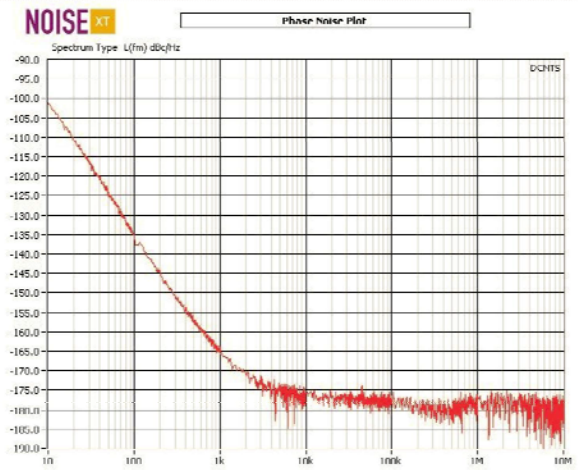
Best Noise @ 100 MHz (dBc/Hz): Less than -100 @ 10 Hz; -130 @ 100 Hz; -160 @ 1 kHz; -175 @ 10 kHz; -180 @ 100 KHz

OCXO2525L-100MHz-LG-XX

- **+13 dBm min. ultra low noise sine wave output**
- **±100 ppb max. from 0°C to +80°C**
- **Vibration isolated package**

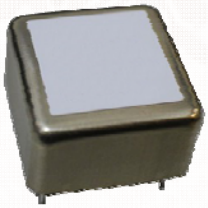


Typical Noise for OCXO2525L-100MHz-LG-XX @ 100 MHz Operating Frequency



OCXO2525S-10MHz-A

- **Very low phase noise:**
  - **Less than -110 dBc/Hz at 1Hz**
  - **Less than -170 dBc/Hz at 10 kHz**
- **Tight frequency stability (±20 ppb from -40°C to +85°C)**
- **2.3W steady state power**



Model	Supply Voltage (V)	Output Type	Frequency Range (MHz)	Frequency Stability (ppb)	Operating Temperature Range (°C)	Package (mm)
OCXO2525L-100MHz-LG-XX	11.5	Sine	100.000000	± 10	0 to +80	25.80 x 25.80 x 12.70
~~OCXO2020MC-3305-80MHz-A~~	5.0	Sine	80.000000	± 100	-55 to +85	20.20 x 20.20 x 14.03
OCXO2522MC-100MHz-A	5.0	Sine	30 to 120	± 20	-40 to +85	22.00 x 25.40 x 12.70
OCXO2525AX-100MHz-A-V	10.0	Sine	100.000000	± 100	-20 to +60	25.80 x 25.80 x 12.70
OCXO2525KLN-10MHz-X	12.0	Sine	10.000000	± 20	-20 to +70	25.80 x 25.80 x 14.80
OCXO5050B-LN-10MHz	15.0	Sine	10.000000	± 25	-40 to +80	51.94 x 51.94 x 26.21
OCXO3305-100MHz-A	5.0	Sine	100.000000	± 100	-40 to +85	21.85 x 15.10 x 10.00
OCXO5050L-100MHz-A-V	15.0	Sine	100.000000	± 100	-55 to +85	50.00 x 50.00 x 30.00
OCXO2525S-10MHz-A	12.0	Sine	10.000000	± 20	-40 to +85	25.78 x 25.78 x 14.80

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OCXO

One of World's Smallest OCXOs

- **Fast warm up from 45s to 70s (typ.)**
- **Temperature range from -40° C to +85° C**
- **Output waveforms available in HCMOS or Sine Wave**

Model	Size (mm)	Frequency Range (MHz)	Power	Stability (ppb)	Phase Noise (typ.)	Vibration
OCXO3310C OCXO3314C	15.9 x 15.1 x 10.0	8 to 100	0.15W (Steady State)	± 5	-145@100Hz -155@1KHz -165@10KHz	10G Swept sine 10 to 2000Hz
OCXO3312C OCXO3313C	15.9 x 15.1 x 8.8	8 to 150	0.15W (Steady State)	± 5	-145@100Hz -155@1KHz -165@10KHz	10G Swept sine 10 to 2000Hz
OCXO3311C	15.9 x 15.1 x 10.0	8 to 100	0.23W (Steady State)	± 50	--152@100Hz -162@1KHz -166@10KHz	30G Swept sine 10 to 2000Hz

One of World's Lowest Profile OCXOs

- **Fast warm up from 45s to 60s (typ.)**
- **Temperature range from -40° C to +85° C**
- **Output waveforms available in HCMOS or Sine Wave**

Model	Height (mm)	Frequency Range (MHz)	Power	Stability (ppb)	Phase Noise (typ.)	Vibration
OCXO3305C OCXO3309C	10	8 to 150	0.15W (Steady State)	± 5	-145@100Hz -155@1KHz -165@10KHz	10G Swept sine 10 to 2000Hz
OCXO3307C OCXO3308C	9.3	8 to 150	0.18W (Steady State)	± 3	-159/-128@100Hz -166/-155@1KHz -170/-170@10KHz (10MHz/100MHz have utmost Phase Noise)	10G Swept sine 10 to 2000Hz
OCXO3306C	8	8 to 120	0.15W (Steady State)	± 50	-152/-127@100Hz -162/-153@1KHz -166/-165@10KHz (10MHz/100MHz have utmost Phase Noise)	10G Swept sine 10 to 2000Hz

Vibration and Low Phase Noise Series OCXO

- **Frequency range: 100MHz**
- **Voltage range: 10V to 15V**
- **Output: 50ohms sine wave**
- **Stability: ±100 ppb**
- **Temperature range from -55° C to +85° C**
- **Packages available in DIP SMA connector**

Model	Size (mm)	Power	Phase Noise (typ.)	Vibration
OCXO5050AX-100MHz-A-V	50 x 50 x 21	6W (warm-up) 3.6W (Steady State)	-130 @ 100Hz -165 @ 1KHz -172 @ 10KHz -100 @ 100 to 199Hz -143 @ 1KHz to 10KHz (under random vibration profile see environmental)	Mechanical shock: Test Each, 3x per 6 axes 50G, 11msec, half-sine pulse. Random vibration profile: 0.02g*g/Hz @ 20 to 178Hz +4dB/Octave @ 178 to 300Hz 0.04g*g/Hz @ 300 to 1000Hz -6dB/Octave @ 1000 to 2000Hz 0.01g*g/Hz @ 2000Hz
OCXO5050L-100MHz-C-V	50 x 50 x 30	6W (warm-up) 2.25W (Steady State)	-132 @ 100Hz -163 @ 1KHz -175 @ ≥10KHz -100 @ 100Hz -145 @ 1KHz -170 @ 10KHz (under random vibration profile see environmental)	Vibration 1: Random test without powering to the OCXO Test conditions (without powering the OCXO): Random test in 3 directions of X/Y/Z Axes, each test lasts for more than 15 minutes. 50~100Hz, 1000~2000Hz, tolerance: ±1.5dB. Vibration 2: Vibration test when OCXO powered Test in 3 directions X/Y/Z Axes, each test lasts 1hr 20~300Hz, 1000~2000Hz, tolerance: ±1.5dB.

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Dynamic Engineers, Inc.

TCXO

Custom Made!

BeiDou Satellite Communication TCXO

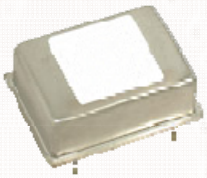
Model	Supply Voltage	Output Type	Frequency Range (MHz)	Frequency Stability (ppb)	Operating Temperature Range (°C)	Package (mm)
TCXO7500T-10MHz-B	3.3	LVCMOS	10.000000	± 500	-40 to +85	5.0 x 7.0 SMD
TCXO5300THP-10.000000-1-1-1-1	3.3	CMOS	10.000000	± 280	-40 to +85	5.0 x 3.2 SMD
T5300TMP-16.32MHz-A-V	3.3	CMOS	16.320000	± 500	-40 to +85	5.0 x 3.2 SMD
TCXO5300Z-10MHz-A-V	3.3	HCMOS	10.000000	± 280 ppb over -40°C to +85°C ± 1000 ppb over -55°C to -40°C	-40 to +85	5.0 x 3.2 SMD
TCXO3403-10.000MHz-A	3.3	Clipped Sine Wave	10.000000	± 500	-40 to +85	5.0 x 7.0 SMD
TCXO3225T-10MHz-B-V	3.3	Clipped Sine Wave	10.000000	± 500	-40 to +85	3.2 x 2.5 SMD

High Stability Mini-SMD TCXO

Model	Supply Voltage	Output Type	Frequency Range (MHz)	Frequency Stability (ppb)	Operating Temperature Range (°C)	Package (mm)
TCXO5300S-20MHz-A-V	3.3	CMOS	20.000000	± 100	-25 to +70	5.0 x 3.2 SMD
TCXO5300THP-10MHz-D-V	3.3	Clipped Sine Wave	10.000000	± 280	-40 to +85	5.0 x 3.2 SMD
TCXO7500S-12.8MHz-A	3.3	CMOS	12.8000000	± 280	-40 to +85	7.0 x 5.0 SMD
TCXO7500T-10MHz-B	3.3	LVCMOS	10.000000	± 500	-40 to +85	7.0 x 5.0 SMD
TCXO7500T-25.600MHz-A	3.3	CMOS	25.600000	± 300	-40 to +75	7.0 x 5.0 SMD

New Generation High Stability TCXO

Dynamic Engineers' New Generation TCXO, the TCXO3627GR-20MHz-A, features a proprietary compensation technology developed to further bridge the stability gap between OCXOs and TCXOs. Using the latest advances in precision crystal manufacturing and software compensation algorithms, this TCXO model is able to achieve OCXO-type stability.



- **±50 ppb from -55°C to 95°C**
- **Standard frequency 20MHz**
- **3.3V supply; 15 mA max current**
- **Rugged package design for shock & vibration**
- **Acceleration less than ±2.5 ppb per G**
- **Less than ±0.7 ppb per G option available**

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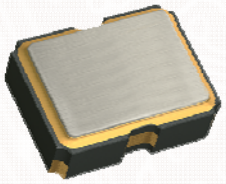
Extended Temperature Range XO (-55°C to +125°C)

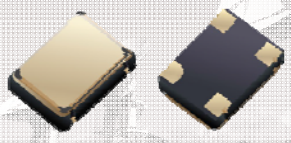
Dynamic Engineers' latest Crystal Oscillator (XO), the XO3225S series, features an extended operating temperature range of -55°C to +125°C with low jitter and phase noise. This model is perfect for harsh environments such as oil drilling, geothermal, or industrial instrumentation.



- **Extended Operating Temperature Range -55°C to +125°C**
- **Operation voltage: 1.8V, 2.5V, 3.3V**
- **Low jitter and phase noise (25 picoseconds Pk-Pk period jitter, typ.)**
- **Tight symmetry (45% to 55%) available**

Extreme Temperature Crystal Oscillators (ETXO) (-100°C to +300°C)

We provide High-Reliability solutions to meet all crystal oscillator needs. Our Extreme Temperature XOs are capable of operating in the range of -100°C to +300°C and are resistant to shock and vibration. Our XOs offer a broad selection of supply voltages, frequency ranges, and packaging options.



Model	Supply Voltage	Output Type	Frequency Range (MHz)	Frequency Stability (ppm)	Operating Temperature Range (°C)	Package (mm)
ETXO3225I	1.8 to 5.5	CMOS	0.032768	± 300	-55 to +150	3.2 x 2.5 SMD
ETXO7500I	1.8 to 5.5	CMOS	80 (max)	± 60 to ± 250	-100 to +240	5.0 x 7.2 SMD
ETXOI-A	1.2 to 18	CMOS	110 (max)	± 100, ± 250, ± 300	-100 to +300	12.95 x 12.95 Half-Dip Leaded
ETXOI-B	1.2 to 18	CMOS	110 (max)	± 100, ± 250, ± 300	-100 to +300	12.83 x 22.35 Full-Dip Leaded
ETXOI-C	1.2 to 18	CMOS	110 (max)	± 100, ± 250, ± 300	-100 to +300	6.60 height 8-pin TO-5 leaded
ETXOI-D	1.2 to 18	CMOS	110 (max)	± 100, ± 250, ± 300	-100 to +300	4.45 height 8-pin TO-5 leaded

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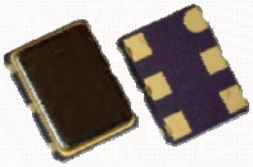
48 hour Fast Delivery!

Fast Delivery, Low Jitter XO

Dynamic Engineers' newest product platform of Fast Delivery Crystal Oscillators (XO), the XO-5-7-series, is designed for quick Time to Market applications with delivery to China customers within 48 hours (for orders of 5 to 10 pieces). The XO-5-7-series can be configured to any output frequency with accuracy up to six decimal places in the frequency range of 10MHz to 1450MHz.



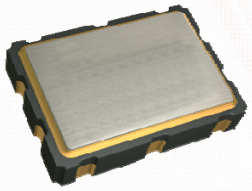
- **Quick Delivery (within 48 hours to China customers for orders of 5 to 10 pieces)**
- **Good phase jitter (1 to 1.5 picoseconds for 12kHz to 20MHz)**
- **Output Frequency to six decimal places (examples: 12.688375 MHz ; 1250.345678 MHz)**
- **2.5V or 3.3V supply**

Model	Supply Voltage (V)	Output Type	Frequency Range (MHz)	Frequency Stability (ppm)	Operating Temperature Range (°C)	Package (mm)
XO-5-7-2.5V-LVPECL-xMHz	2.5	LVPECL	10 to 1450	± 50	-40 to +85	7.0 x 5.0 x 1.8
XO-5-7-3.3V-LVPECL-xMHz	3.3	LVPECL	10 to 1450	± 50	-40 to +85	7.0 x 5.0 x 1.8
XO-5-7-2.5V-LVCMOS-xMHz	2.5	LVCMOS	10 to 245	± 50	-40 to +85	7.0 x 5.0 x 1.8
XO-5-7-3.3V-LVCMOS-xMHz	3.3	LVCMOS	10 to 245	± 50	-40 to +85	7.0 x 5.0 x 1.8
XO-5-7-2.5V-LVDS-xMHz	2.5	LVDS	10 to 1450	± 50	-40 to +85	7.0 x 5.0 x 1.8
XO-5-7-3.3V-LVDS-xMHz	3.3	LVDS	10 to 1450	± 50	-40 to +85	7.0 x 5.0 x 1.8

Low Phase Jitter XO:

Less than 1 picosecond integrated over 12kHz to 20MHz bandwidth

The XO7500L-G2 features the use of high frequency fundamental crystals in non-PLL based circuitry to achieve the lower possible jitter and phase noise performance. LVDS outputs exceed the requirements for SONET, XDSL, and other telecommunication standards.



- **0.3 picosecond phase jitter typ.**
- **Compact and lightweight (7.0mm x 5.0mm 1.8mm ceramic SMD)**
- **Differential LVDS outputs**
- **2.5V or 3.3V supply**

Model	Supply Voltage (V)	Output Type	Frequency Range (MHz)	Frequency Stability (ppm)	Operating Temperature Range (°C)	Package (mm)
XO7500L-G2	3.3	LVDS	40 to 200	± 25	-40 to +85	7.0 x 5.0
XO3001	2.5 or 3.3V	LVDS or LVPECL	19.44 to 320	± 20	-40 to +85	7.0 x 5.0

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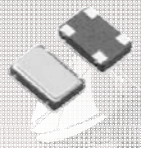
CLOCK OSCILLATOR IC, CRYSTALS

Oscillator IC Driver (-60°C to +230°C)

Model	Supply Voltage (V)	Output Type	Frequency Range (MHz)	Frequency Stability (ppm)	Operating Temperature Range (°C)	Package (mm)
XOIC-1	2.5 to 5.5	CMOS	32KHz to 25MHz	± 100, ± 250, ± 300	-60 to +230	Bare Die Tested Bare Die Ceramic Side-Brazed DIP Ceramic SOIC Gull-Wing Flat Pack w/ ePad
XOIC-2	2.5 to 5.5	CMOS	1MHz to 50MHz	± 100, ± 250, ± 300	-60 to +230	Bare Die Tested Bare Die Ceramic Side-Brazed DIP Ceramic SOIC Gull-Wing Flat Pack w/ ePad

Extreme Temperature Crystals (-55°C to +220°C)

Dynamic Engineers not only offers complete clock oscillator modules for extreme temperature environments, but is also able to sell the individual crystal plus IC driver chip to those manufacturers able to build their own clock oscillator products in their established oscillator operations. Customers are free to select various IC packaging options based on the assembly technology present in their assembly operations. Our crystal products in 3.2 mm x 5.0 mm SMD can maintain high reliability over -55°C to +220°C under high shock and vibration. Frequencies currently in production include: 12 MHz, 16 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz & 50 MHz.



Parameter	Specification
Frequency Range	12 MHz to 100.00MHz
Load Capacitance (CL)	18pf Std, 8 - 60pF and Series available
Frequency Tolerance	±50ppm @ 25°C, Custom Options available
Temperature Tolerance	±250ppm Std, ±200ppm to ±300ppm available
Operating Temperature	0 to +200°C Std, Custom Options available
Storage Temperature	-55°C to +220°C
Shunt Capacitance (CO)	7pF max

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Dynamic Engineers, Inc.

CUSTOM CRYSTAL FILTERS, LC FILTER MODULES

CUSTOM CRYSTAL FILTER: NARROW BAND

Model	Center Frequency (MHz)	Passband (± kHz)	Passband Attenuation (dB)	Stopband (± kHz)	Stopband Attenuation (dB)	Package (mm)
XF-3	9.000	2.8	6	10	50	41.7 x 19.3
XF-6	12.500	10.5	3	28	60	41.5 x 16.2
XF-7	17.000	25	3	62.5	30	25.4 x 15.8
XF-8	20.000	1.8	6	20	70	57.2 x 19.5
XF-9	27.021	2.5	3	10	30	50.3 x 17.2
XF-10	32.768	3.8	6	16	40	28.0 x 15.2
XF-11	40.040	10.5	3	40	50	23.6 x 15.3
XF-13	56.960	16	1	85	30	38.0 x 25.0
XF-16	70.250	12.5	1	110	45	32.0 x 12.7
XF-17	75.000	11	6	100	40	36.0 x 13.0
XF-19	109.350	5	1	45	50	36.0 x 11.5
XF-20	141.558	8	3	50	40	43.2 x 16.5

CUSTOM CRYSTAL FILTER: WIDE BAND

Model	Center Frequency (MHz)	Passband (± kHz)	Passband Attenuation (dB)	Stopband (± kHz)	Stopband Attenuation (dB)	Package (mm)
XF-2	4.300	20	6	35	60	42.0 x 22.5
XF-12	43.500	180	1	430	40	38.0 x 16.5
XF-14	69.500	175	3	500	20	32.0 x 12.7
XF-15	70.000	100	3	200	28	39.0 x 15.5
XF-18	94.050	65	3	450	50	56.0 x 19.0

CUSTOM LC FILTER DESIGNS

Model	Center Frequency (MHz)	Passband (+/- MHz)	Passband Attenuation (dB)	Stopband (+/- kHz)	Stopband Attenuation (dB)	Package (mm)
LCF1000	21.400	0.500	3	2	60	44.5 x 16.0
LCF1001	113.000	5	3	78 to 165	50	36.8 x 12.7
LCF1002	220.000	25	0.6	280 to 1000	40	22.9 x 10.2
LCF1003	125.000	5	3	250	60	22.9 x 10.2
LCF1005	400 to 470	400 to 470	0.5	800 to 900	50	135.0 x 25.0
LCF1006	121.500	3	3	Fo -78.7	65	25.4 x 13.5

XF-2

Top View **Side View** **Bottom View**

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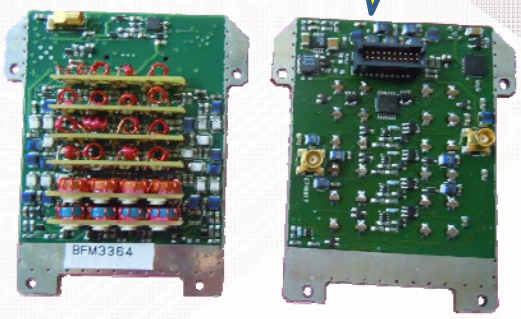
CUSTOM LC FILTER MODULES

30- 512MHz !

Filter Bank Module

Dynamic Engineers' new line of Filter Bank Modules, the BFM3364 series, operate in a frequency range of 30 to 512 MHz which can be used both in Transmitting and Receiving mode. In Transmitting mode, the BFM3364 works as a 6 Channel Harmonic Filter where each band is selected automatically with a PIN Diode switch. In Receiving mode the module operates as a Gain Block providing High Linearity and Low Noise operation.



- **10 Watt max. Power Handling**
- **Less than 50 usec switching time between channels**
- **Number of channels and bandwidth each can be negotiated based on your needs**

Tunable LC Filter

The TLCF-225-512MHz-A is a tunable LC filter module that features 250 channels with a frequency range of 225MHz to 512MHz, but can also have custom frequency ranges and bandwidths upon request.

- **Tuning Speed: less than 10 usec max**
- **Operating Temperature: -45°C to +80°C**
- **Frequency Range: 225MHz to 512MHz in 250 channels**

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NOTES:

***DISCLAIMERS*: 1) All sales subject to U.S. Export Regulations. 2) This brochure represents a sampling of available models. Please consult our sales department for a more detailed and complete listing of all our products.**

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