

XO5040 Series DOCXO

Applications

Cellular Base Stations
GPS Timing Systems
Test Equipment
Wireless Base Stations



Features

Double Oven OCXO
Exceptional Stability
Ultra Low Aging
SC-cut Resonator

Typical Specifications

Model	Frequency (MHz)	Temperature Range (°C)	Temperature Stability (referenced to 35 °C)	Aging Over 1 year	Supply Voltage
XO5040					
SC-cut	10	0° to +70	$\pm 2.0 \times 10^{-10}$	$\pm 1.0 \times 10^{-8}$	+15 Vdc $\pm 5\%$
AT-cut	10	0° to +70	$\pm 5.0 \times 10^{-10}$	$\pm 3.0 \times 10^{-8}$	+15 Vdc $\pm 5\%$
Options	5 to 15 Available	Consult Factory			+12 Vdc $\pm 5\%$

Additional Specifications

Aging per day
Current

Start-up time
Warm-up time @ 0 °C

Electronic frequency control
Input impedance
Tuning voltage range
Center frequency voltage
Frequency tuning range
Short term stability

Phase Noise @

1 Hz
10 Hz
100 Hz
1 kHz
10 kHz

Sinewave Version

Spurious & subharmonics
Harmonics
Output level into 50 Ω

HCMOS Version

Duty cycle
Load

SC-cut

$\pm 2.0 \times 10^{-10}$
180 mA max @ 25 °C steady state
750 mA max @ Turn on, all temps
5 sec max
Freq. within $\pm 3.5 \times 10^{-8}$
in 20 min max

>30 k Ω
0 - 10 V
5 ± 0.5 V
 ± 0.25 to $\pm 0.5 \times 10^{-6}$
 1.0×10^{-11} /sec

10MHz

-90 dBc/Hz
-120 dBc/Hz
-140 dBc/Hz
-145 dBc/Hz
-150 dBc/Hz

15 MHz

-80 dBc/Hz
-120 dBc/Hz
-130 dBc/Hz
-135 dBc/Hz
-140 dBc/Hz

<-85 dBc
<-40 dBc
+7 ± 2 dBm

40/60
2 Gates

AT-cut

$\pm 5.0 \times 10^{-10}$
180 mA max @ 25 °C steady state
750 mA max @ Turn on, all temps
5 sec max
Freq. within $\pm 5.0 \times 10^{-8}$ in 20 min max

>30 k Ω
0 - 10 V
5 ± 0.5 V
 ± 0.5 to $\pm 1.0 \times 10^{-6}$
 2×10^{-11} /sec

10MHz

-80 dBc/Hz
-115 dBc/Hz
-135 dBc/Hz
-145 dBc/Hz
-145 dBc/Hz

<-85 dBc
<-40 dBc
+7 ± 1 dBm

Dimensions are in inches (mm)

STD: PIN CONNECTIONS

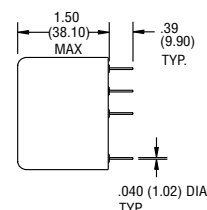
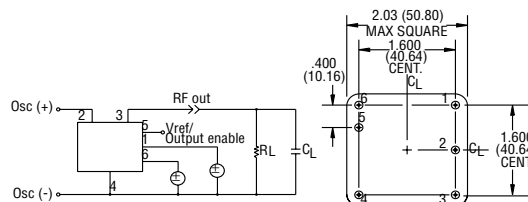
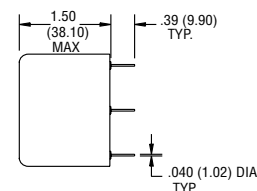
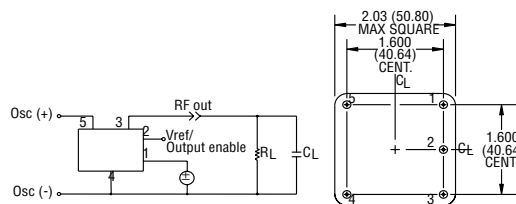
1. FREQUENCY ADJUST
2. Vref/OUTPUT ENABLE
3. RF OUTPUT
4. CASE GROUND & SUPPLY RETURN
5. SUPPLY (+)

Pin numbers shown for ref. only.
Numbers are not marked on unit.

OPTION: PIN CONNECTIONS

1. FREQUENCY ADJUST (COARSE)
2. SUPPLY (+)
3. RF OUTPUT
4. CASE GROUND & SUPPLY RETURN
5. Vref/OUTPUT ENABLE
6. FREQUENCY ADJUST (FINE)

Pin numbers shown for ref. only.
Numbers are not marked on unit.



Specifications are subject to change without notice.

Visit our web site at <http://www.piezotech.com>

2525 Shader Road, Orlando, FL 32804 PH: (407) 298-2000 / FAX: (407) 293-2979

