EUROQUARTZ

OCXO - OC22E12A

AT-Cut Crystal - Sine Wave - 12.0 Volts — 12.0MHz ~ 20.0MHz

- **Frequency Range 5.0MHz to 20.0MHz**
- **50.8 x 50.8 x 16.0mm 7 pin metal, solder-sealed package**
- **Supply Voltage 12.0 Volts**
- **AT-Cut Crystal**
- **Sine Wave Output**
- **EFC (Voltage control) as standard**

DESCRIPTION

OC22E12A series oven-controlled crystal oscillators are close tolerance OCXOs with good phase noise performance.

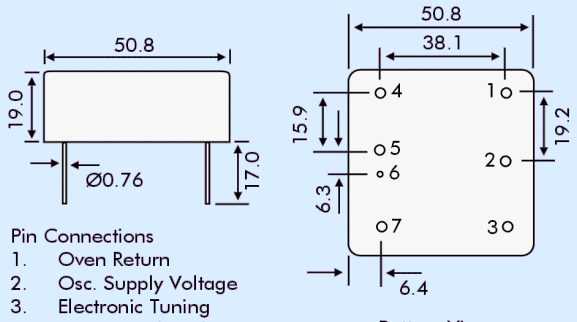
SPECIFICATION

Crystal Cut:	AT-cut
Output Waveform:	Sine Wave
Supply Voltage:	+12.0 VDC ±0.2V
Frequency Range:	12.0MHz to 20.0MHz
Initial Calibration Tolerance:	±0.1ppm max.(at Vcon +2.5V)
Frequency Stability	
over 0° to +60°C:	±0.05ppm
over -20° to +70°C:	±0.1ppm
over -40° to +85°C:	±0.2ppm
vs. Voltage Change:	<±1.0ppb for ±5% change
vs. Ageing:	±3.0ppb max per day ±0.5ppm per first year ±3.0ppm over 10 years
vs. Load Change:	<±1.0ppb for ±5% change
Warm-up Time:	1 minutes max. to within ±0.2ppm of nominal freq.
Voltage Control	
Control Voltage Centre:	+2.5 Volts (Vcon)
Freq. Deviation Range:	±5.0ppm min., ±20ppm max. ref. to 25°C and O.T.R.
Control Voltage Range:	2.5V ±2.0Volts
Transfer Function:	Positive: Increasing control voltage increases output frequency
Input Impedance:	100kΩ minimum
EFC Linearity:	±10% maximum
Power Dissipation:	2.0W max. steady state 6.0W max. at turn on
Output	
Output level:	+2dBm typ., +8dBm max into 50Ω load
Harmonics:	-30dBc min.
Spurious:	-75dBc min.
Reference Voltage:	+4.0±0.3VDC or custom
Envionmental	
Storage Temperature:	-55° to +125°C
Shock:	2000g, 0.3ms ½ sine
Vibration:	10 ~2000Hz / 10g

PHASE NOISE (at 10MHz)

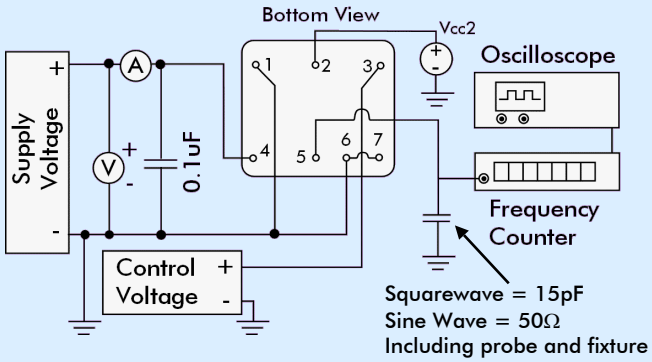
Offset	dBc/Hz
1Hz	-75
10Hz	-100
100Hz	-130
1kHz	-140
10kHz	-150

OUTLINE & DIMENSIONS



Pin Connections
1. Oven Return
2. Osc. Supply Voltage
3. Electronic Tuning
4. Oven Supply Voltage
5. Output
6. RF Ground
7. Ground/case

TEST CIRCUIT



PART NUMBER FORMAT

Example: **OC22GE12A-10.000-0.10/-20+70**

OCXO Package: OC22
RoHS Compliance
G: RoHS Compliant
Blank: Non-compliant
E: Output Sine Wave
12: Supply Voltage 12.0Volts
A: AT-Cut Crystal
Nominal Frequency 10.0MHz
Stability in ±ppm
Operating Temperature Range °C
Lowest Temperature/Highest Temperature

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