

## ACTOCXO20

SC Cut OXCO Please Enquire

Compatible with Eu Directive  
2002/EC - RoHS



### FEATURES

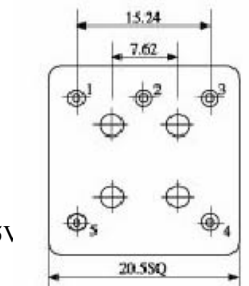
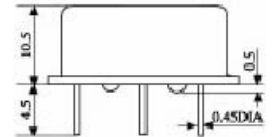
- Stability to  $\pm 0.02$ PPM
- Low Aging
- Voltage Controlled Frequency Adjustment
- Measurement Equipment

### APPLICATIONS

- PCS / Cellular Base Stations
- Digital Switching
- Synthesizer
- **SC Cut OXCO Please Enquire**

### SPECIFICATIONS

Frequency Range	1.0 ~ 160MHz
Frequency Accuracy (Adjustment 25°C)	$\pm 0.5$ PPM (centre control voltage)
Frequency Stability vs Temperature	See Table 1
Aging (AT Cut)	$\pm 0.002$ PPM/day, first year $\pm 0.3$ PPM, 10 years $\pm 2$ PPM
(SC Cut)	$\pm 0.001$ PPM/day, first year $\pm 0.1$ PPM, 10 years $\pm 0.5$ PPM
Output Type and Load Characteristics	See Table 2
Frequency Stability vs Load	$\pm 0.02$ PPM vs $\pm 10\%$ load change
Supply Voltage	+3.3VDC, +5.0VDC
Frequency Stability vs Voltage	$\pm 0.02$ PPM vs $\pm 5\%$ voltage change
Supply Consumption	3.6W (max.) warm-up; 1.2W (max.) static
Warm-up Time (AT Cut)	$\pm 0.1$ PPM, <1 min.
(SC Cut)	$\pm 0.03$ PPM, <1 min.
Adjustable Frequency Range (AT Cut)	AT Cut $\pm 7.0$ PPM, Control Voltage Range
Slope	Positive
Linearity	$\pm 10\%$
Phase Noise (10MHz SC-Cut)	10Hz, -120dBc/Hz 100Hz, -140dBc/Hz 1kHz, -145dBc/Hz 10kHz, -150dBc/Hz
Storage Temperature Range	-40~+100° C



0~5V

(Unit: mm)

**PIN FUNCTION:**  
**PIN1 – Power Supply**  
**PIN2 – Output**  
**PIN3 – GND**  
**PIN4 – Control Voltage**  
**PIN5 – Reference Voltage/NC**

#### FREQUENCY STABILITY vs TEMPERATURE – TABLE 1

(Applies to frequencies < 20MHz & to 5v0 supply. For frequencies > 20MHz & 3v3 stabilities will be lower –Please enquire)

Frequency Stability vs Temperature	Temperature Range
$\pm 0.020$ PPM (AT Cut)	0 - +50° C
$\pm 0.050$ PPM (AT Cut)	-20 - +70° C
$\pm 0.100$ PPM (AT Cut)	-40 - +75° C

#### OUTPUT TYPE AND LOAD CHARACTERISTICS – TABLE 2

Output Waveform	Frequency Range	Oscillation State	Output Characteristics
Clipped Sine Wave	8MHz - 30MHz 10MHz - 100MHz	F: Fundamental O: Overtone	Load: 10kΩ/10pF Output level: >1Vp-p
TTL	1MHz - 30MHz 10MHz - 100MHz	F: Fundamental O: Overtone	Load: Max. 10 low power consumption TTL gates “1” level: >+2.4VDC; “0” level: <+0.2VDC Duty cycle: 45/55 Rise/fall time: <6ns
HCMOS	1MHz - 30MHz 10MHz - 100MHz	F: Fundamental O: Overtone	Load: Max. 10 low power consumption TTL/HCMOS “1” level: >+4.3VDC; “0” level: <+0.5VDC Duty cycle: 45/55 Rise/fall time: <6ns
ACMOS	1MHz - 30MHz 10MHz - 100MHz	F: Fundamental O: Overtone	Load: Max. 10 low power consumption TTL/ACMOS “1” level: >+4.3 VDC; “0” level: <+0.5VDC Duty cycle: 45/55 Rise/fall time: <6ns

Please note that all parameters cannot necessarily be specified in one device.

Customer to specify: Frequency, Output, Voltage, Stability, and Operating Temperature

In line with our ongoing policy of product improvement and evolution the above specification may be subject to change without notice

**IS9001: 2000 Registered**

For quotations or further information, please contact us at:

3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY UK

<http://www.actcrystals.com>

Issue: 4 S8

Date: 14/09/06