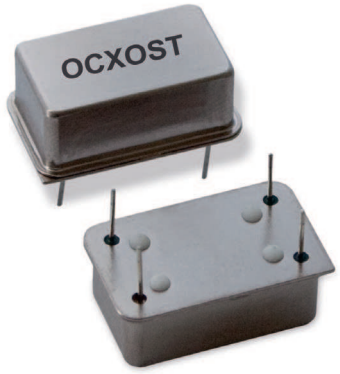
MICRO CRYSTAL SWITZERLAND

OCXOST family package Dil 14

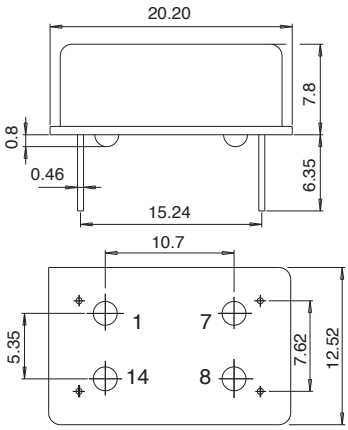
HC-MOS output Up to 54 MHz STRATUM 3 compliant



RoHScompliant:

DIMENSIONS

Package:



Pin out
Pin 1 = GND
Pin 7 = GND
Pin 8 = Fout
Pin 14 = Vdd

All dimensions in mm typical

Oven control quartz crystal oscillator
Fundamental mode frequency
High shock and vibration resistance
Wide temperature range
Low aging (sealed under vaccum)
Customer specification on request
Very fast warm up
Low power consumption
Swiss made quality

DESCRIPTION:

This DIL 14 package has been specially designed for the applications:
- Digital switching
- Telecom transmission
- Sonet / SDH / DWDM / FDM/36 / WIMAX
- Airbone equipments
- Instrumentation
- Radio Transceiver
- Battery operated systems

The OCXO are supplied on trays (50 pcs/tray).

ELECTRICAL CHARACTERISTICS AT 25°C

Frequency versus temperature D: 0 to +70°C C: -40 to +85°C	ΔF/F	see table 1 (without air flow)		
Frequency long term aging 15 years, Overall Frequency Stability	ΔF/F	< ± 4.6		ppm
Frequency calibration (pin 1 to GND)	ΔF/F	≤ ± 1		ppm
Supply voltage	Vdd	3.3 / 5		V
Input current	Idd	see table 2		
Output signal		HC MOS compatible		
Symmetry at Vdd/2		45 / 55		%
Rise & fall time (without load)		≤7		ns
Level "0" & "1"		<0.4> Vcc-0.5		V
Start-up time	t	<5		ms
Load min / max		3/47		pF
Frequency stability versus load ± 10%	ΔF/F	≤ ± 10		ppb
Warm-up within ± 0.1 ppm at 25°C	Vdd	3.3	5	V
	t	120	60	s
Stability versus Vdd	ΔF/F	≤ ± 0.1		ppm
Short term stability 0.1 to 30s 5E-11 typ at 1s	Tau	< 5		E-10
Phase noise typical at 10 MHz Static conditions BW = 1Hz 10Hz 100Hz 1 kHz 10 kHz		 -100 -130 -140 -145		dBc/ Hz

TABLE 1: Vdd = 3.3V

Operating Temperature range	Vdd = 3.3V ± 0.15V
D = 0 to +70°C	< ± 280 ppb < 560 ppb peak to peak
C = -40 to +85°C	

TABLE 1: Vdd = 5V

Operating Temperature range	Vdd = 5V ± 0.2V
D = 0 to +70°C	≤ ± 280 ppb < 560 ppb peak to peak
C = -40 to +85°C	

TABLE 2: Idd

Temperature	Vdd = 3.3V	Vdd = 5V
+25°C -20°C	120 mA 170 mA	80 mA 120 mA
start-up current at +25°C ≤ 250mA, duration	30 s	10s

STANDARD FREQUENCIES:

Frequency «MHz»						
12.8	20	25.6	40	51.2		
Other frequencies from 10 kHz up to 54 MHz on request						

ENVIRONMENTAL CHARACTERISTICS:

Storage temp. range	-55 to +125°C
Vibration resistance	10 to 2000Hz / 20g
Shocks resistance	5000g / 0.3ms / ½ sine

TERMINATIONS AND PROCESSING:

Pins soldering	+235°C / 10s max +260°C / 5s max
SMD version option D1 or D2 see application notes	Dil 14.4 pins GND to case height = 8mm

PRODUCT DESCRIPTION AND ORDERING INFORMATION:

OCXO V ST C 20MHz XXX

W = Vdd 3.3V
V = Vdd 5V

ST = Stratum 3

D = 0 to +70°C
C = -40 to +85°C
X = custom

customer spec N°

Frequency

A unique part number will be generated for each product specification, i.e:
20xxxx-EA00 (in ESD plastic tray)
Please contact us.

MICRO CRYSTAL SWITZERLAND

Micro Crystal AG
Mühlestrasse 14
CH-2540 Grenchen
Switzerland

Tel. +41 32 655 82 82
Fax +41 32 655 80 90
sales@microcrystal.com
www.microcrystal.com