

OCXOST family package Dil 14 HC-MOS output Up to 54 MHz STRATUM 3 compliant



Package:

20.20

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

ELECTRICAL CHARACTERISTICS AT 25°C

DESCRIPTION:

DIMENSIONS

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).

Frequency versus temperature D: 0 to +70°C C: -40 to +85°C		see table 1 (without air flow)		
Frequency long term aging 15 years, Overall Frequency Stability		< ± 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		<5		ms
Load min / max		3/47		pF
Frequency stability versus load ± 10%		≤ ± 10		ppb
Worm up within 1 0.1 ppm at 25°C		3.3	5	V
Warm-up within ± 0.1 ppm at 25°C	t	120	60	S
Stability versus Vdd		≤ ± 0.1		ppm
Short term stability 0.1 to 30s 5E-11 typ at 1s		< 5		E-10
Phase noise typical at 10 MHz Static conditions BW = 1Hz 10Hz 100Hz 1 kHz 10 kHz		-1 -1	00 30 40 45	dBc/ Hz

TABLE 1: Vdd = 3.3V

Operating Temperature range	Vdd = 3.3V ± 0.15V
$D = 0 \text{ to } +70^{\circ}\text{C}$	< ± 280 ppb
$C = -40 \text{ to } +85^{\circ}C$	< 560 ppb peak to peak

TABLE 1: Vdd = 5V

Operating Temperature range	Vdd = 5V ± 0.2V
$D = 0 \text{ to } +70^{\circ}\text{C}$	≤ ± 280 ppb
$C = -40 \text{ to } +85^{\circ}C$	< 560 ppb peak to peak

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 ≤ 300mA, 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						

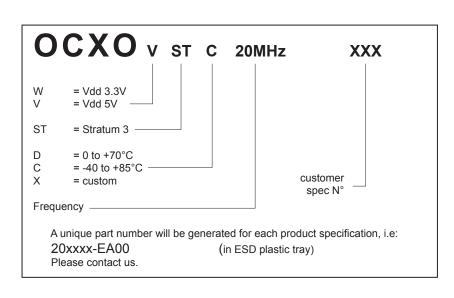
ENVIRONMENTAL CHARACTERISTICS:

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:





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