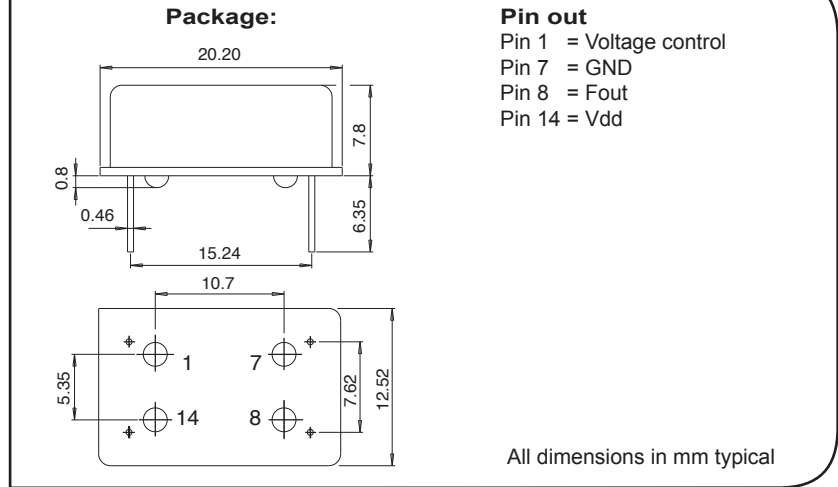




DIMENSIONS



Oven control quartz crystal oscillator
 Fundamental mode frequency
 High shock and vibration resistance
 Wide temperature range
 Low aging
 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
- Battery operated systems
- Instrumentation
- Radio Transceiver

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

ELECTRICAL CHARACTERISTICS AT 25°C

Frequency versus temperature A: 0 to +60°C B: -20 to +70°C C: -40 to +85°C	$\Delta F/F$	see table 1 (without air flow)		
Frequency long term aging 1) long term aging 10 years long term aging 1 st year	$\Delta F/F$	$\leq 40\text{MHz}$ $< \pm 2.5$ $\leq \pm 0.3$	$> 40\text{MHz}$ $< \pm 4$ $\leq \pm 1$	ppm
Frequency control range see table 3	Vc	$\leq 40\text{MHz}$ $\geq \pm 2.5$	$> 40\text{MHz}$ $\geq \pm 4$	ppm
Supply voltage	Vdd	3.3 / 5		V
Input current	Idd	see table 2		
Output signal sine wave		see table 4		
Start-up time	t	<5		ms
Frequency stability versus load $\pm 5\%$	$\Delta F/F$	$\leq \pm 10$		ppb
Warm-up within ± 0.1 ppm at 25°C	Vdd	3.3	5	V
	t	≤ 120	≤ 60	s
Stability versus Vdd	$\Delta F/F$	$< \pm 0.1$		ppm
Short term stability 0.1 to 30s 5E-11 typ at 1s	Tau	< 1		E-10
Phase noise typical Static conditions BW = 1Hz		10MHz	100MHz	dBc/ Hz
	10Hz	-110	-90	
	100Hz	-140	-120	
	1 kHz	-155	-140	
	10 kHz	-160	-150	
	100kHz	-160	-155	

1) $< \pm 1$ E-9 / day after 30 days operating 10MHz
 $< \pm 3$ E-9 / day after 30 days operating 100MHz

TABLE 1: Vdd = 3.3V

Operating Temperature range	Vdd = 3.3V ± 0.15V	
	Version standard	Version high stability
A = 0 to +60°C	≤ ± 75 ppb	≤ ± 50 ppb
B = -20 to +70°C	≤ ± 150 ppb	≤ ± 75 ppb
C = -40 to +85°C	≤ ± 250 ppb	≤ ± 100 ppb

TABLE 1: Vdd = 5V

Operating Temperature range	Vdd = 5V ± 0.2V	
	Version standard	Version high stability
A = 0 to +60°C	≤ ± 50 ppb	≤ ± 25 ppb
B = -20 to +70°C	≤ ± 100 ppb	≤ ± 50 ppb
C = -40 to +85°C	≤ ± 150 ppb	≤ ± 100 ppb

TABLE 2: Idd

Temperature	Vdd = 3.3V	Vdd = 5V
+25°C	≤ 120 mA	≤ 80 mA
-20°C	≤ 170 mA	≤ 120 mA
start-up current at 25°C duration	≤ 350mA 30s	≤ 250mA 10s

TABLE 3: VC

Frequency control adjustment response slope positive	Vdd = 3.3V	Vdd = 5V
Voltage control input impedance > 47kΩ	0 to 3.3V	0.5 to 5V
Resistor control R connect pin 1 to ground (Input impedance > -4,7kΩ)	0 to 10kΩ	0 to 10kΩ
No frequency control YA or YB	Pin 1 connect to GND	

TABLE 4: OUTPUT SIGNAL

Vdd	3.3V	5V
Load	50Ω	50Ω
Level ≤20MHz	≥ 2dBm	≥ 4dBm
Level >20MHz	≥ -6dBm	≥ -4dBm
Harmonics (typ)	-15dBc	-15dBc
Spurious	-70dBc	-70dBc



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STANDARD FREQUENCIES:

Frequency «MHz»			
10	20	40	50
54	100	108	120
Other frequencies from 10 MHz up to 120 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
Package SMD version option D1 or D2 see application notes	Dil 14.4 pins GND to case height = 8mm

PRODUCT DESCRIPTION AND ORDERING INFORMATION:

SCOCXOHS V T - C V5 20MHz XXX

W = Vdd 3.3V
V = Vdd 5V

T = high stability
blank = standard stability

A = 0 to +60°C
B = -20 to +70°C
C = -40 to +85°C
X = custom

R1 = R = 0 to 10kΩ
V3 = Vc = 0 to 3.3V
V5 = Vc = 0.5 to 5V

YA internal accuracy= ± 1ppm
YB internal accuracy= ± 0.5ppm
Y = 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.

All specifications subject to change without notice.



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