

The ECS-VX0-97 offers the frequency control of a VCXO in a SMD, ceramic package. Frequency can be pulled up to  $\pm 100$  ppm by varying the control voltage of 2.5V by up to  $\pm 2.0$ V.

## FEATURES

- 2.0 mm low profile
- Waveform symmetry of 40/60%
- SMD version
- 3.3V operation (optional)
- Tape & Reel (1000 pcs)
- PbFree/RoHS Compliant



## PART NUMBERING GUIDE "EXAMPLE"

PART NUMBER	FREQUENCY (16.0 MHz)	FREQUENCY CONTROL RANGE
ECS-VX0-97	- 160	- A

## OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS	
FREQUENCY RANGE	$F_0$	8.000		40.000	MHz	
FREQUENCY STABILITY	All conditions	-30		+30	PPM	
FREQUENCY CONTROL RANGE	(A)	$VC = +2.5 \text{ VDC} \pm 2.0\text{V}$	-50	+50	PPM	
	(B)	$VC = +2.5 \text{ VDC} \pm 2.0\text{V}$	-75	+75	PPM	
	(C)	$VC = +2.5 \text{ VDC} \pm 2.0\text{V}$	-100	+100	PPM	
OPERATING TEMPERATURE	$T_{OPR}$	-10		+60	$^{\circ}\text{C}$	
STORAGE TEMPERATURE	$T_{STG}$	-30		+85	$^{\circ}\text{C}$	
INPUT VOLTAGE ( $V_{CC}$ )		+4.75	+5	+5.25	V DC	
CONTROL VOLTAGE ( $V_C$ )		+0.5	+2.5	+4.5	V DC	
INPUT CURRENT				25	mA	
OUTPUT (-10 $^{\circ}$ TO +70 $^{\circ}$ C)	SYMMETRY	at 1/2 $V_{CC}$ Level	40/60	50 $\pm$ 10	60/40	%
	RISE AND FALL TIMES				10	ns
	"0" LEVEL				$V_{CC} \times 0.1\text{V}$	V
	"1" LEVEL		$V_{CC} \times 0.9\text{V}$			V
	LOAD	HCMOS			15	pF
FREQUENCY LINEARITY		-10		+10	%	
RISE AND FALL TIMES				10	ms	

## PACKAGE DIMENSIONS (mm)

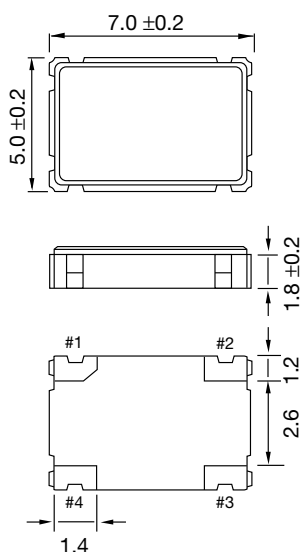


Figure 1) ECS-VX0-97 – Top, Side and Bottom views

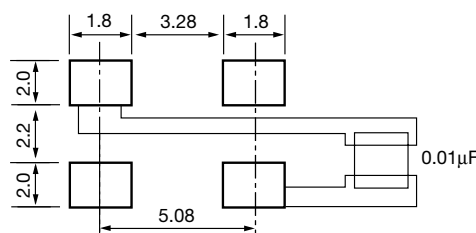
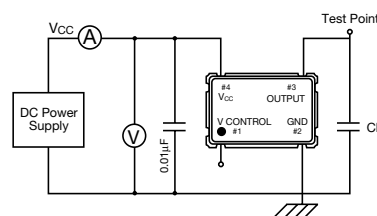


Figure 2) Land Pattern



CL: Including fixture and probe capacitance.

Figure 3) Test Circuit

PIN CONNECTIONS	
#1	V CONTROL
#2	GND
#3	OUTPUT
#4	VCC

PACKAGE DATA	
COVER	METAL
BASE	CERAMIC
SEALING	SEAM-WELD
TERMINAL PLATING	GOLD

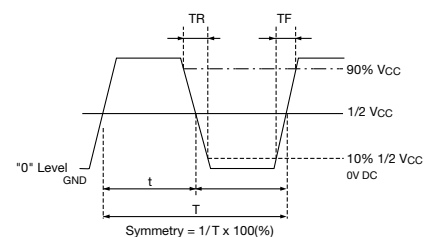


Figure 4) Output Wave Form