

The ECS-VXO-143X (Full Size) and ECS-VXO-83X (Half Size) 3.3V Voltage Controlled Crystal Oscillator offers a wide range of pull ranges from  $\pm 50$  ppm to  $\pm 150$  ppm. The ECS-VXO-83 is available with a gull wing option for surface mount applications.

## FEATURES

- 3.3V supply voltage
- Wide pull range
- Gull wing option
- PbFree/RoHS Compliant

## PART NUMBERING GUIDE "EXAMPLE"

PACKAGE TYPE*	FREQUENCY STABILITY	FREQUENCY CONTROL	FREQUENCY (27 MHz)
ECS-VXO-83X	- A -	2	270

\*Package Type options ECS-VXO-143X = Full Size (Figure 1), ECS-VXO-83X = Half Size (Figure 2)

## OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE		1.000		52.000	MHz
FREQUENCY STABILITY*	Option A			$\pm 25$	PPM
	Option B			$\pm 50$	PPM
OPERATING TEMPERATURE		0°		+70°	°C
STORAGE TEMPERATURE		-40°		+85°	°C
FREQUENCY CONTROL RANGE	Option 1	$\pm 50$			PPM
	Option 2	$\pm 100$			PPM
	Option 3**	$\pm 150$			PPM
INPUT VOLTAGE		+2.97	+3.3	+3.63	V DC
CONTROL VOLTAGE		+0.0	+1.65	+3.3	V DC
INPUT CURRENT				20	mA
ABSOLUTE CLOCK JITTER				$\pm 100$	ps
SYMMETRY	@ 1/2 Vcc Level	40/60		60/40	%
RISE AND FALL TIMES				5	ns
OUTPUT VOLTAGE	VOL			Vcc x 0.1V	V DC
	VOH	Vcc x 0.9V			V DC
LOAD			15	pF	
FREQUENCY LINEARITY				$\pm 20\%$	
START-UP TIME				10	ms

\*Inclusive of +25°C tolerance, operating temperature range, input voltage change and load change.

\*\*Not available at all frequencies

## PACKAGE DIMENSIONS (mm)

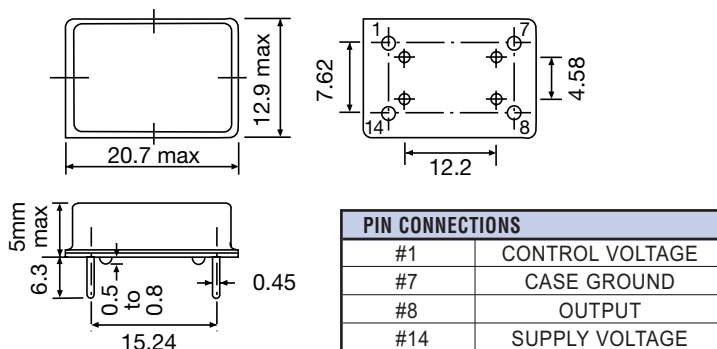


Figure 1) ECX-VXO-143X – Top, Bottom and Side views

PIN CONNECTIONS	
#1	CONTROL VOLTAGE
#4	CASE GROUND
#5	OUTPUT
#8	SUPPLY VOLTAGE

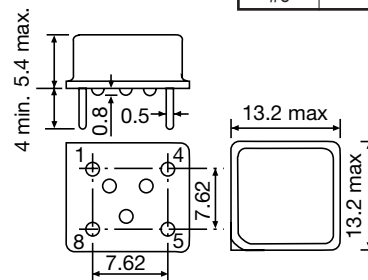


Figure 1) ECX-VXO-83X – Side, Bottom and Top views