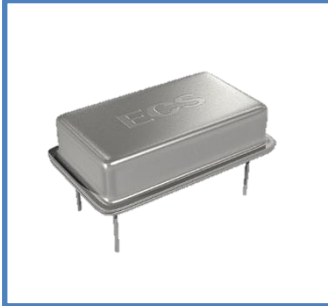


Request a Sample

The ECS-500X temperature compensated oscillator covers a wide frequency range and offers a highly stable output over temperature. An internal trimmer is a standard feature to tune the TCXO to its nominal frequency.

## OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

ECS-500X



- High stable output over temperature
- Wide frequency range
- RoHS Compliant (Pb Free)
- TTL/CMOS Compatible

Parameters	Conditions	ECS-500X			Units
		MIN	TYP	MAX	
Frequency Range		8.000		80.000	MHz
Operating Temperature		-20		+70	°C
Storage Temperature		-30		+80	°C
Input Voltage (V <sub>CC</sub> )		4.5V	5.0V	5.5V	VDC
Frequency Stability	Option A	-7.0		+7.0	PPM
	Option B	-5.0		+5.0	PPM
	Option C	-3.5		+3.5	PPM
Input Current	8.0 ~ 30.0 MHz			15	mA
	30.0 ~ 80.0 MHz			60	mA
Symmetry	At 1.4 VDC Level	40/60	50 ±4	60/40	%
	At ½ V <sub>CC</sub> Level	45/55	50 ±2	55/45	%
Rise Time	8.0 ~ 30.0 MHz			13	ns
	30.0 ~ 80.0 MHz			8	ns
Fall Time	8.0 ~ 30.0 MHz			11	ns
	30.0 ~ 80.0 MHz			6	ns
"0" Level	TTL			+0.4	V
	CMOS			+0.5	V
"1" Level	TTL	+2.4			V
	CMOS	V <sub>CC</sub> -0.5			V
Output Load	TTL			10	TTL gates
	CMOS			15	pF
Start-up Time	8.0 ~ 30.0 MHz			10	ns
	30.0 ~ 80.0 MHz			7	ns
Frequency Adjustment	Internal Trimmer	±5			PPM

### Part Numbering Guide: Example ECS-500X-144-B

ECS - Series - Frequency Abbreviations - Frequency Stability

ECS

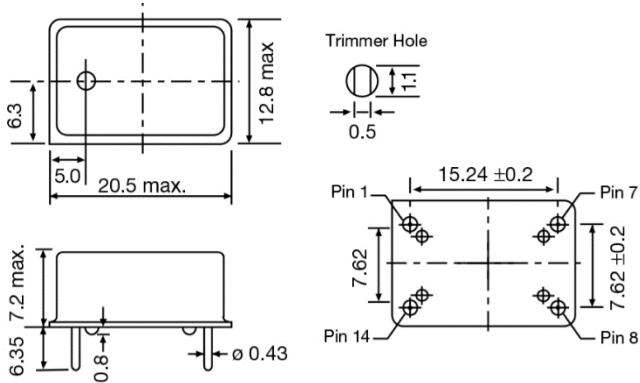
500X

144 = 14.4 MHz

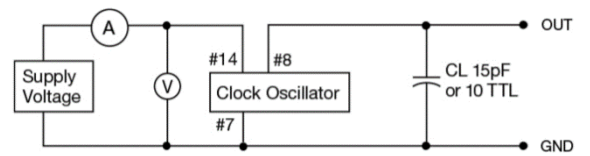
B = ± 5.0 PPM

\* Consult Factory for availability of ±1 ppm -40 ~ 85°C

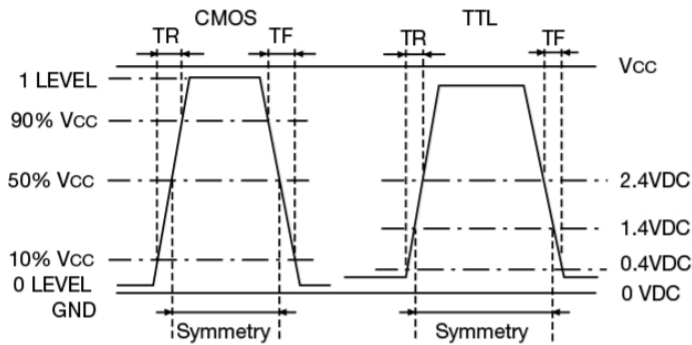
**Package Dimensions (mm)**



**Figure 1) Top, Side, and Bottom views**



**Figure 2) Test Circuit**



**Figure 3) Output Waveform**

Pin Connections	
#1	N/C
#7	Ground
#8	Output
#14	+V <sub>CC</sub>