

The ECS-1000X Series clock oscillator can drive both HCMOS and TTL logic. This oscillator also features tri-state enable/disable capabilities in a 14 pin DIP package.

Request a Sample

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- 50pF HCMOS/TTL logic
- Tri-State enable/disable
- Wide frequency range
- Resistance weld package
- PbFree/RoHS Compliant

Parameters	Frequency Range	Conditions	MIN	TYP	MAX	Units
Frequency (F <sub>o</sub> )	1.000 ~ 100.000		1.000		100.000	MHz
Operating Temperature Range (T <sub>opr</sub> )	1.000 ~ 100.000		0		+70	°C
Storage Temperature Range (T <sub>stg</sub> )	1.000 ~ 100.000		-55		+125	°C
Frequency Stability	1.000 ~ 100.000	All Conditions*	-100		+100	PPM
Input Current (I <sub>DD</sub> )	1.000 ~ 25.000			17	25	mA
	25.000 ~ 50.000			33	40	mA
	50.000 ~ 80.000			45	77	mA
	80.000 ~ 100.000			67	82	mA
Output Symmetry	1.000 ~ 80.000	50% V <sub>DD</sub> level	45	50 ± 3	55	%
	80.000 ~ 100.000	50% V <sub>DD</sub> level	40	50 ± 3	60	%
Rise Time (T <sub>r</sub> )	1.000 ~ 100.000	10% ~ 90% V <sub>DD</sub> level			5	nS
Fall Time (T <sub>f</sub> )	1.000 ~ 100.000	90% ~ 10% V <sub>DD</sub> level			5	nS
Output Voltage (V <sub>OL</sub> ) (V <sub>OH</sub> )	1.000 ~ 100.000	I <sub>OL</sub> = 16 mA			0.5	V
	1.000 ~ 100.000	I <sub>OH</sub> = -16 mA	4.5			V
Output Current (I <sub>OL</sub> ) (I <sub>OH</sub> )	1.000 ~ 100.000	V <sub>OL</sub> = 0.5V			16	mA
	1.000 ~ 100.000	V <sub>OH</sub> = 4.5V			-16	mA
Output Load	1.000 ~ 100.000	TTL			10	TTL
	1.000 ~ 80.000	HCMOS			50	pF
	80.000 ~ 100.000	HCMOS			30	pF
Start-Up Time (T <sub>s</sub> )	1.000 ~ 100.000				10	mS
Supply Voltage			+4.75	+5.0	+5.25	V

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

### Part Numbering Guide: Example ECS-1000AX-100

ECS - Series - Stability - Frequency Abbreviations

ECS

1000  
+5V HCMOS/TTL  
Full Size w/Tri-State

AX = ±100 PPM  
BX = ±50 PPM  
CX = ±25 PPM

100 = 10.000 MHz

### Package Dimensions (mm)

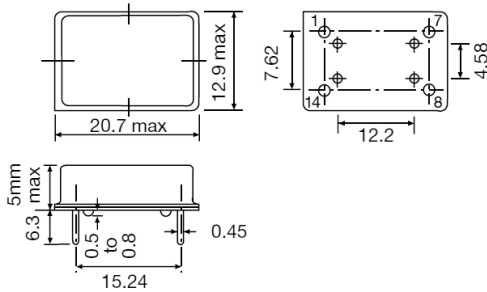


Figure 1) Top, Side, and Bottom views

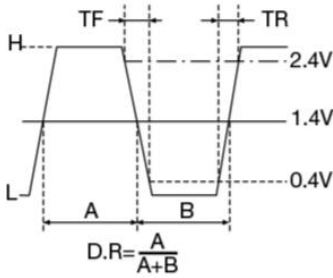


Figure 2) TTL Output Wave Form

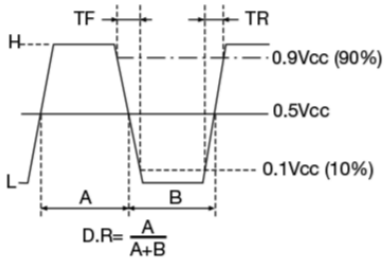


Figure 3) HCMOS Output Wave Form

Pin Connections	
#1	Tri-State
#7	Case GND
#8	Output
#14	+5V DC

Enable/ Disable Function**	
$\overline{\text{INH}}$ (Pin 1)	Output (Pin 8)
Open*	Active
1 Level $V_{\text{IH}} \geq 2.2\text{V}$ ( $V_{\text{IH}} \geq 2.0\text{V}$ Above 70 MHz)	Active
'0' Level $V_{\text{IL}} \leq 0.8\text{V}$	High Z

\* An internal pullup resistor from pin 1 to pin 14 allows active output if pin 1 is left open.