

The ECS-1000 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.

## FEATURES

- 50pF HCMOS/ TTL logic
- Tri-State enable/disable
- Wide frequency range
- Resistance weld package
- 3.3V operation (optional)

## PART NUMBERING GUIDE

PART NUMBER *	FREQUENCY STABILITY
ECS-1000A	±100 PPM
ECS-1000B	±50 PPM
ECS-1000C	±25 PPM

\* Complete part number to include frequency. i.e. ECS-1000A-100 (100 = 10.000MHz)

## OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE (fo)	1.000 ~ 100.000		1.000		100.000	MHz
OPERATING TEMP. RANGE (TOPR)	1.000 ~ 100.000		0		+70	°C
STORAGE TEMP. RANGE (TSTG)	1.000 ~ 100.000		-55		+125	°C
FREQUENCY STABILITY	1.000 ~ 100.000	All conditions*	-100		+100	PPM
INPUT CURRENT (IDD)	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% VDD level	45	50 ±3	55	%
	80.000 ~ 100.000	50% VDD level	40	50 ±3	60	%
RISE TIME (TR)	1.000 ~ 100.000	10% ~ 90% VDD level			5	nS
FALL TIME (TF)	1.000 ~ 100.000	90% ~ 10% VDD level			5	nS
OUTPUT VOLTAGE (VOL)	1.000 ~ 100.000	IO L = 16 mA			0.5	V
	1.000 ~ 100.000	IO H = -16 mA	4.5			V
OUTPUT CURRENT (IOL)	1.000 ~ 100.000	VO L = 0.5 V			16	mA
	1.000 ~ 100.000	VO H = 4.5 V			-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 (TS)	1.000 ~ 100.000				10	mS
SUPPLY VOLTAGE		+5.0 ±0.25				V

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

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

## PACKAGE DIMENSIONS (mm)

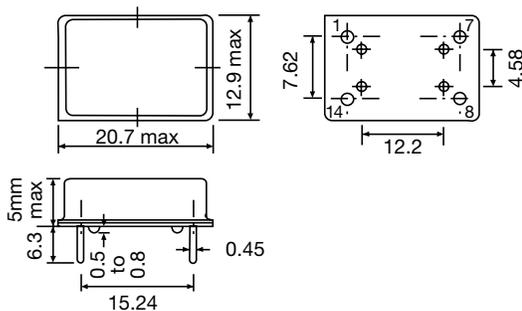


Figure 1) ECS-1000 Series – Top, Bottom and Side views

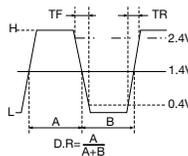


Figure 2) TTL Output Wave Form

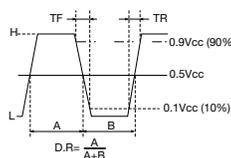


Figure 3) HCMOS Output Wave Form

PIN CONNECTIONS	
#1	TRI-STATE
#7	CASE GROUND
#8	OUTPUT
#14	+5V DC

ENABLE / DISABLE FUNCTION**	
INH (PIN 1)	OUTPUT (PIN 8)
OPEN**	ACTIVE
1 LEVEL VIH ≥ 2.2 V (VIH ≥ 2.0 V ABOVE 70MHz)	ACTIVE
'0' LEVEL VIL ≤ 0.8 V	HIGH Z