

The ECS-2100 Series clock oscillator offers low current drain and is compatible with HCMOS/TTL logic. The metal package with pin #7 case ground acts as a shielding to minimize radiation and conforms to FCC EMI specifications.

FEATURES

- HCMOS/TTL logic compatible
- Wide frequency range
- Low power consumption
- Resistance weld package
- 3.3V operation (optional)

PART NUMBERING GUIDE

PART NUMBER*	FREQUENCY STABILITY
ECS-2100A	±100 PPM
ECS-2100B	±50 PPM
ECS-2100C	±25 PPM

* Complete part number to include frequency, i.e. ECS-2100A-100 (100 = 10,000MHz)

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE (f_o)	1.000 ~ 150.000		1.000		150.000	MHz
OPERATING TEMP. RANGE (T_{OPR})	1.000 ~ 150.000		0		+70	°C
STORAGE TEMP. RANGE (T_{STG})	1.000 ~ 150.000		-55		+125	°C
FREQUENCY STABILITY	1.000 ~ 150.000	All conditions*	-100		+100	PPM
INPUT CURRENT (I_{DD})	1.000 ~ 25.000			17	25	mA
	25.000 ~ 50.000			33	46	mA
	50.000 ~ 80.000			45	77	mA
	80.000 ~ 150.000			67	82	mA
OUTPUT SYMMETRY	1.000 ~ 80.000	50% V_{DD} level	45	50 ±3	55	%
	80.000 ~ 150.000	50% V_{DD} level	40	50 ±3	60	%
RISE TIME (T_r)	1.000 ~ 150.000	10% ~ 90% V_{DD} level			5	nS
FALL TIME (T_f)	1.000 ~ 150.000	90% ~ 10% V_{DD} level			5	nS
OUTPUT VOLTAGE (V_{OL} , V_{OH})	1.000 ~ 150.000	$I_{OL} = 16$ mA			0.5	V
	1.000 ~ 150.000	$I_{OH} = -16$ mA	4.5			V
OUTPUT CURRENT (I_{OL} , I_{OH})	1.000 ~ 100.000	$V_{OL} = 0.5$ V			16	mA
	1.000 ~ 150.000	$V_{OH} = 4.5$ V			-16	mA
OUTPUT LOAD	1.000 ~ 150.000	TTL			10	TTL
	1.000 ~ 80.000	HCMOS			50	pF
	80.000 ~ 150.000	HCMOS			30	pF
START-UP TIME (T_s)	1.000 ~ 150.000	0.0V TO 5.0V			10	mS
SUPPLY VOLTAGE (V_{DC})		+5.0 ±0.25				V _{DC}

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

PACKAGE DIMENSIONS (mm)

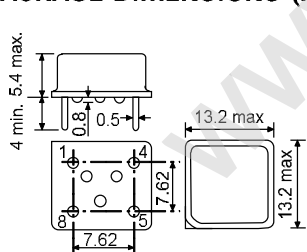


Figure 1) ECS-2100 Series - Side, Bottom and Top views

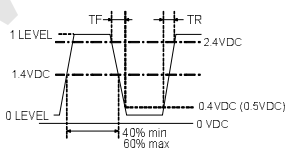


Figure 2) TTL Output Wave Form

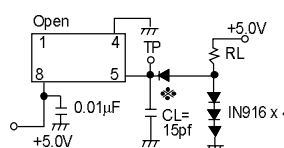


Figure 3) TTL Test Circuit

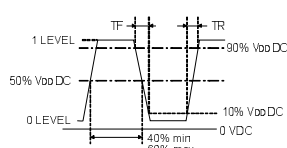


Figure 4) HCMOS Output Wave Form

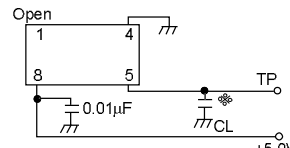


Figure 5) HCMOS Measurement Circuit ($C_L = 15$ pF)

PIN CONNECTIONS	
#1	NC
#4	Ground
#5	Output
#8	+5V DC