

ECS-2200B-098 Datasheet



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DiGi Electronics Part Number	ECS-2200B-098-DG
Manufacturer	ECS Inc.
Manufacturer Product Number	ECS-2200B-098
Description	XTAL OSC XO 9.8304MHZ HCMOS TTL
Detailed Description	9.8304 MHz XO (Standard) HCMOS, TTL Oscillator 5 V Enable/Disable 8-DIP, 4 Leads (Half Size, Metal Can)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:

ECS-2200B-098

Series:

ECS-2200

Base Resonator:

Crystal

Frequency:

9.8304 MHz

Output:

HCMOS, TTL

Frequency Stability:

±50ppm

Operating Temperature:

0°C ~ 70°C

Current - Supply (Max):

25mA

Mounting Type:

Through Hole

Size / Dimension:

0.520" L x 0.520" W (13.20mm x 13.20mm)

Current - Supply (Disable) (Max):

-

Manufacturer:

ECS Inc.

Product Status:

Active

Type:

XO (Standard)

Function:

Enable/Disable

Voltage - Supply:

5V

Absolute Pull Range (APR):

-

Spread Spectrum Bandwidth:

-

Ratings:

-

Package / Case:

8-DIP, 4 Leads (Half Size, Metal Can)

Height - Seated (Max):

0.213" (5.40mm)

Environmental & Export classification

RoHS Status:

RoHS non-compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.39.0001

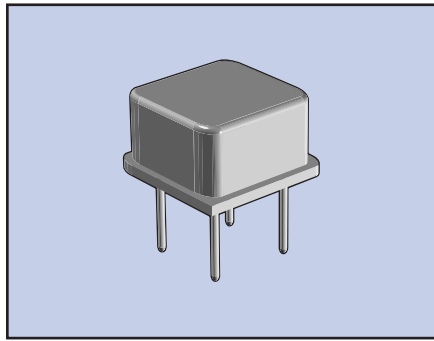
Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

ECS-2200 SERIES 8 PIN DIP CLOCK OSCILLATOR



The ECS-2200 Series clock oscillator can drive both HCMOS and TTL logic. This oscillator also features tri-state enable/disable capabilities in an 8 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-2200A	±100 PPM
ECS-2200B	±50 PPM
ECS-2200C	±25 PPM

* Complete part number to include frequency. i.e. ECS-2200A-100 (100 = 10.000MHz)

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE (f ₀)	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 ~ 150.000	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.

** An internal pullup resistor from pin 1 to pin 8 allows active output if pin 1 is left open.

PACKAGE DIMENSIONS (mm)

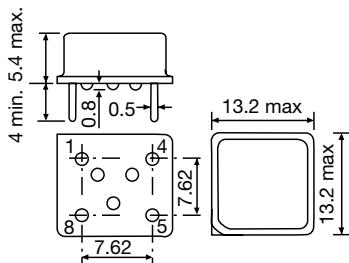


Figure 1) ECS-2200 Series – Side, Bottom and Top views

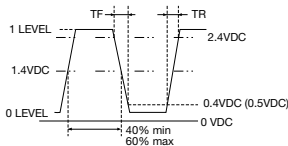


Figure 2) TTL Output Wave Form

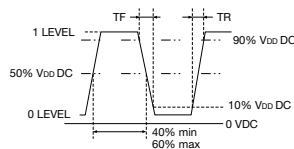


Figure 3) HCMOS Output Wave Form

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

ENABLE / DISABLE FUNCTION**	
INH (PIN 1)	OUTPUT (PIN 5)
OPEN**	ACTIVE
1 LEVEL V _{IH} ≥ 2.2 V (V _{IH} ≥ 2.0 V ABOVE 70MHz)	ACTIVE
'0' LEVEL V _{IL} ≤ 0.8 V	HIGH Z

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