

The ECS-3951M (5V) and ECS 3953M (3.3V) Series are miniature, crystal controlled, low current clock oscillators in a ceramic SMD package. Package is seam welded with a metal lid. The low profile package is ideal for today's advanced portable PC and instrumentation designs.

Request a Sample

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- 3.3 or 5.0V version
- Low Power Consumption
- Standby function
- Seam welded package
- Tape & Reel (1,000 pcs)
- PbFree/RoHS Compliant

Parameters	Conditions	ECS-3951M (5V)			ECS-3953M (3.3V)*			Units
		MIN	TYP	MAX	MIN	TYP	MAX	
Frequency Range		1.000		125.0	1.000		125.0	MHz
Temperature Range	Operating	-10		+70	-10		+70	°C
	Storage	-55		+125	-55		+125	°C
Supply Voltage		+4.5	+5.0	+5.5	+3.0	+3.3	+3.6	V DC
Frequency Stability**	Standard	-100	±40	+100	-100	±40	+100	PPM
	Option (B)	-50		+50	-50		+50	PPM
	Option (C)	-25		+25	-25		+25	PPM
Input Current	1.0 ~ 36.0 MHz			20			15	mA
	36.1 ~ 70.0 MHz			55			25	mA
	70.1 ~ 100.0 MHz			60			30	mA
	100.1 ~ 125.0 MHz			65			30	mA
Output Symmetry	@ ½ VCC Level	40/60		60/40	40/60		60/40	%
	@ ½ VCC Level (T Option)			45/55			45/55	%
Rise and Fall Times	1.0 ~ 70.0 MHz			15			5	nS
	70.1 ~ 125.0 MHz			5			5	nS
Logic "0" Level	VCC x 0.1V max.							
Logic "1" Level	VCC x 0.9V min.							
Load	HCMOS			30			15	pF
Start-Up Time	1.0 ~ 36.0 MHz			5			5	ms
	36.1 ~ 70.0 MHz			10			10	ms
	70.1 ~ 125.0 MHz			15			15	ms
Output Current (IOL) (IOH)	VOL=0.5V/0.33			4			4	mA
	VOL=4.5V/2.97V			-4			-4	mA
Enable/Disable Time				100			100	ns

*ECS-3953M is also compatible with a supply voltage of +3.0V DC ±0.3V
 **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 4 allows active output if pin 1 is left open.
 Note: A 0.01 µF bypass capacitor should be placed between VCC (Pin 4) and GND (Pin2) to minimize power line noise.

Part Numbering Guide: Example ECS-3951M-500-B-TR

ECS -	Series -	Frequency Abbreviation -	Stability Tolerance -	Temperature -	Output Symmetry -	Packaging
ECS	3951M +5V 3953M +3.3V	500 = 50 MHz	A = ±100 ppm B = ±50 ppm C = ±25 ppm D = ±20 ppm	Blank = -10 ~ 70°C M = -20 ~ +70°C N = -40 ~ +85°C U = -55 ~ +125°C	Blank = 60/40 T = 45/55	TR = Tape & Reel 1K/Reel

Package Dimensions (mm)

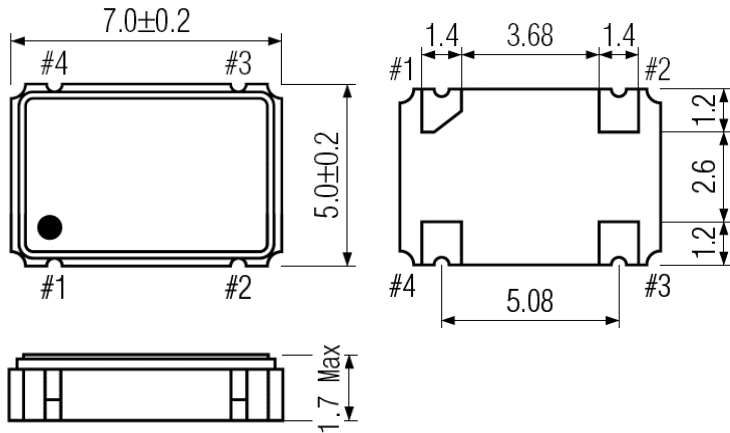


Figure 1) Top, Side, and Bottom views

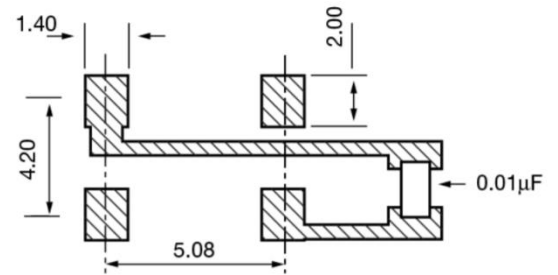


Figure 2) Land Pattern

Pin Connections	
#1	Tri-State***
#2	Ground
#3	Output
#4	VCC

ECS-3951M/3953M Standby Control Voltage	
Pin #1 = Open***	#3 = Oscillation
Pin #1 = +2.2V Min.	#3 = Oscillation
Pin #1 = 0.8V Max	#3 = High Impedance

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Standard Clock Oscillators](#) category:

Click to view products by [ECS Inc](#) manufacturer:

Other Similar products are found below :

[601252](#) [F335-25](#) [F535L-33.333](#) [F535L-50](#) [ASV-20.000MHZ-LR-T](#) [ECS-2018-160-BN-TR](#) [MXO45HS-2C-66.6666MHZ](#) [SiT1602BI-22-33E-50.000000E](#) [SiT8209AI-32-33E-125.000000](#) [SIT8918AA-11-33S-50.000000G](#) [SM4420TEV-40.0M-T1K](#) [F335-24](#) [F335-40](#) [F535L-10](#) [F535L-12](#) [F535L-16](#) [F535L-24](#) [F535L-27](#) [F535L-48](#) [PE7744DW-100.0M](#) [CSX-750FCC14745600T](#) [ASF1-3.686MHZ-N-K-S](#) [XO57CTECNA3M6864](#) [ECS-2100A-147.4](#) [601251](#) [EP16E7E2H26.000MTR](#) [SIT8918AA-11-33S-16.000000G](#) [XO3003](#) [9120AC-2D2-33E212.500000](#) [9102AI-243N25E100.00000](#) [8208AC-82-18E-25.00000](#) [ASDK2-32.768KHZ-LR-T3](#) [8008AI-72-XXE-24.545454E](#) [8004AC-13-33E-133.33000X](#) [AS-4.9152-16-SMD-TR](#) [ASFL1-48.000MHZ-LC-T](#) [SIT8920AM-31-33E-25.0000](#) [DSC1028DI2-019.2000](#) [9121AC-2C3-25E100.00000](#) [9102AI-233N33E100.00000X](#) [9102AI-233N25E200.00000](#) [9102AI-232H25S125.00000](#) [9102AI-133N25E200.00000](#) [9102AC-283N25E200.00000](#) [9001AC-33-33E1-30.000](#) [3921AI-2CF-33NZ125.000000](#) [5730-1SF](#) [PXA000010](#) [8003AI-12-33S-40.00000Y](#) [1602BI-13-33S-19.200000E](#)