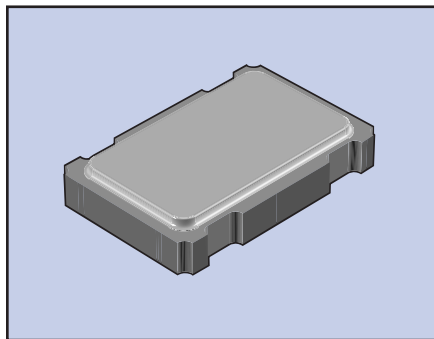


# ECS-P53/P55 SERIES PROGRAMMABLE SMD CLOCK OSCILLATOR



The ECS-P53 (3.3V) and ECS-P55 (5V) is our smallest programmable crystal controlled oscillator. This sub-miniature, very low profile package is ideal for today's SMD manufacturing environment.

## FEATURES

- Programmable (2 time)
- 3.3V & 5V options
- PLL technology
- Extended temp range
- 3.2 x 5 mm footage
- PbFree/RoHS Compliant

## PART NUMBERING GUIDE "EXAMPLE"

MANUFACTURER	SERIES	FREQUENCY (MHz)	STABILITY	EXTENDED TEMP (OPTION)
ECS	- P53	- 16.312	- A	- N

Sample Part Number: ECS-P53-16.312-AN

## OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-P53 (3.3V)			ECS-P55 (5V)			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	
FREQUENCY RANGE		1.000		125.000	1.000		125.000	MHz
FREQUENCY STABILITY*	Option A			±100			±100	PPM
	Option B			±50			±50	PPM
OPERATING TEMPERATURE	Standard	-10		+70	-10		+70	°C
	Extended (Option N)	-40		+85	-40		+85	°C
STORAGE TEMPERATURE		-55		+125	-55		+125	°C
INPUT VOLTAGE (Vcc)		+3.0	+3.3	+3.6	+4.5	+5.0	+5.5	VDC
INPUT CURRENT	1.0 ~ 40.0 MHz			15			25	mA
	40.1 ~ 70.0 MHz			22			40	mA
	0.1 ~ 125.0 MHz			30			50	mA
OUTPUT SYMMETRY at 1/2 Vcc Level	1.0 ~ 70.0 MHz	45/55		55/45	45/55		55/45	%
	70.1 ~ 125.0 MHz	40/60		60/40	40/60		60/40	%
RISE AND FALL TIMES	20% Vcc to 80% Vcc			4			4	ns
JITTER	1.0 ~ 33.0 MHz			250			250	pS p-p
	33.1 ~ 125.0 MHz			250			200	pS p-p
"0" LEVEL				Vcc x 0.1			Vcc x 0.1	VDC
"1" LEVEL		Vcc x 0.9			Vcc x 0.9			VDC
LOAD				15			15	pF
ENABLE/DISABLE TIME				150			100	ns
START-UP TIME				10			10	ms

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

## PACKAGE DIMENSIONS (mm)

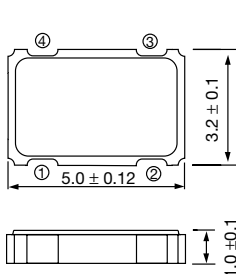


Figure 1) Top, Bottom and Side views

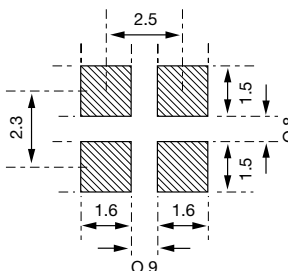


Figure 2) Land Pattern

ECS-P53 (3.3 V) TRI-STATE CONTROL VOLTAGE	
PIN #1 = OPEN	#3 = OUTPUT
PIN #1 = +0.7V MIN	#3 = OUTPUT
PIN #1 = +0.2V MAX	#3 = HIGH IMPEDANCE

ECS-P55 (5 V) TRI-STATE CONTROL VOLTAGE	
PIN #1 = OPEN	#3 = OUTPUT
PIN #1 = +2.0V MIN	#3 = OUTPUT
PIN #1 = +0.8V MAX	#3 = HIGH IMPEDANCE

PIN CONNECTIONS	
#1	TRI-STATE
#2	GND
#3	OUTPUT
#4	VCC