

The ECS-P53 (3.3V) and ECS-P55 (5V) is our smallest programmable crystal controlled oscillator. This 5.0 x 3.2mm low profile SMD package is ideal is ideal for small run, quick delivery projects.

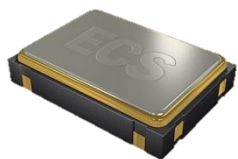
ECS-P53/P55

Programmable SMD Clock Oscillator

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OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

ECS-P53/P55



- Programmable (1 Time)
- 3.3V & 5V Options
- PLL Technology
- Extended temp range
- 3.2 x 5 mm Footprint
- PbFree/RoHS Compliant

Parameters	Conditions	ECS-P53 (+3.3V)			ECS-P55 (+5V)			Units
		MIN	TYP	MAX	MIN	TYP	MAX	
Frequency Range		1.000		125.00	1.000		125.00	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 ½ 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.

Part Numbering Guide: Example ECS-P53-16.312-AN

ECS	-	Series	-	Frequency MHz	-	Stability	Temperature Range
ECS		P53 = +3.3V P55 = +5.0V		16.312 = 16.312 MHz		A = ±100 PPM B = ±50 PPM	Blank = -10 ~ +70°C N = -40 ~ +85°C

Package Dimensions (mm)

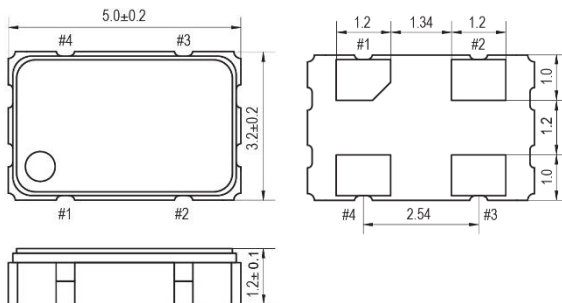


Figure 1) Top, Side, and Bottom views

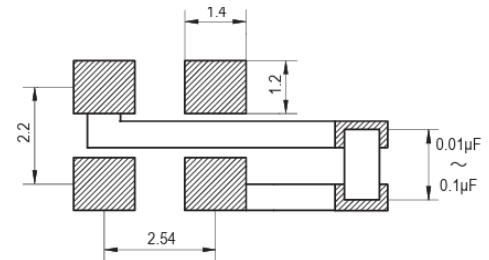


Figure 2) Land Pattern

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

ECS-P53 (3.3V) 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 (5V) Tri-State Control Voltage	
Pin # 1 = Open	#3 = Output
Pin # 1 = +2.0V Min	#3 = Output
Pin # 1 = +0.8V Max	#3 = High Impedance