

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 for small run, quick delivery projects.

Request a Sample

## 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

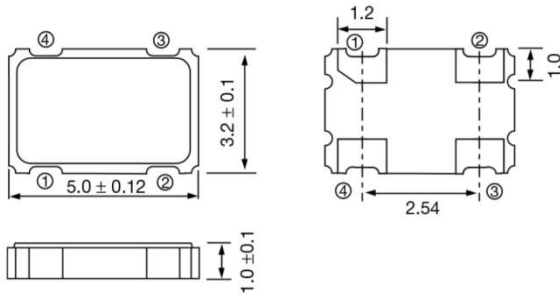
Parameters	Conditions	ECS-P53 (+3.3V)			ECS-P55 (+5V)			Units
		MIN	TYP	MAX	MIN	TYP	MAX	
<b>Frequency Range</b>		1.000		125.00	1.000		125.00	MHz
<b>Frequency Stability*</b>	Option A			±100			±100	PPM
	Option B			±50			±50	PPM
<b>Operating Temperature</b>	Standard	-10		+70	-10		+70	°C
	Extended (Option N)	-40		+85	-40		+85	°C
<b>Storage Temperature</b>		-55		+125	-55		+125	°C
<b>Input Voltage (VCC)</b>		+3.0	+3.3	+3.6	+4.5	+5.0	+5.5	VDC
<b>Input Current</b>	1.0 ~ 40.0 MHz			15			25	mA
	40.1 ~ 70.0 MHz			22			40	mA
	0.1 ~ 125.0 MHz			30			50	mA
<b>Output Symmetry at ½ VCC Level</b>	1.0 ~ 70.0 MHz			45/55			55/45	%
	70.1 ~ 125.0 MHz			40/60			60/40	%
<b>Rise and Fall Times</b>	20% VCC to 80% VCC			4			4	ns
<b>Jitter</b>	1.0 ~ 33.0 MHz			250			250	pS p-p
	33.1 ~ 125.0 MHz			250			200	pS p-p
<b>"0" Level</b>				VCC x 0.1			VCC x 0.1	VDC
<b>"1" Level</b>			VCC x 0.9			VCC x 0.9		VDC
<b>Load</b>				15			15	pF
<b>Enable/Disable Time</b>				150			100	ns
<b>Start-up Time</b>				10			10	ms

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

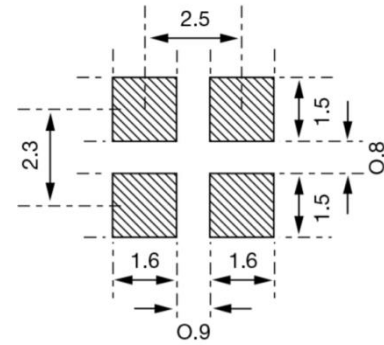
### Part Numbering Guide: Example ECS-P53-16.312-AN

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