

# ECX-1210

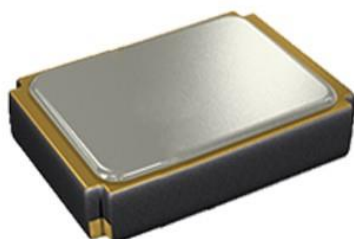
## 32.768 KHz

### SMD Tuning Fork Crystal

The ultra-miniature 2-Pad ECX-1210 is a very compact SMD Tuning Fork Crystal. The 1.2 x 1.0 x 0.5 mm **smallest** in it's class ceramic package is ideal for LoRa Wan, wearable devices, IoT, and medical applications.

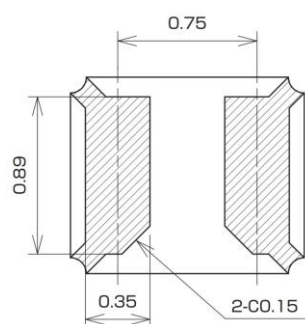
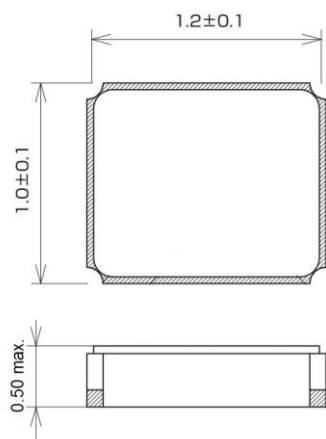
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#### ECX-1210 SMD CRYSTAL



- Low Power RTC Applications such as STM32 [AN2867](#)
- 1.2 x 1.0 mm Footprint
- Extended Temp. Range
- RoHS Compliant
- Applications: Automotive, COTS, Industrial, IOT

#### DIMENSIONS (mm)



#### PAD CONNECTIONS

1	In/Out
2	Out/In

Figure 1) Top, Side, and Bottom views

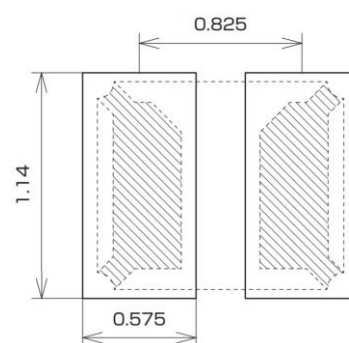


Figure 2) Suggested Land Pattern

#### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECX-1210			UNITS
		MIN	TYP	MAX	
Frequency			32.768		KHz
Frequency Tolerance	@ +25°C			± 20 *	ppm
Load Capacitance	Specify in P/N		12.5		pF
Drive Level	DL		0.1	0.5	μW
Equivalent Series Resistance	R1			90K	Ω
Turnover Temperature		+20	+25	+30	°C
Temperature Coefficient		-0.02	-0.03	-0.040	ppm/°C <sup>2</sup>
Shunt Capacitance	Co		1.1		pF
Aging (First Year)	@ +25°C ±3°C			±3	ppm
Operating Temperature	Topr	-40		+85	°C
Storage Temperature	Tstg	-40		+85	°C

#### PART NUMBERING GUIDE: Example ECS-.327-12.5-1210-TR

ECS - FREQUENCY ABBREVIATION		LOAD CAPACITANCE	PACKAGE	CUSTOM OPTIONS Tolerance	PACKAGING
ECS	.327 = 32.768 KHz	12.5 = 12.5 pF 9 = 9 pF 7 = 7 pF 6 = 6 pF	-1210 = ECX-1210	Blank = ±20 ppm * C = ± 10 ppm	TR = Tape & Reel 5K/Reel

\*Contact ECS for availability

Rev.2021



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ECS:

[ECS-.327-12.5-1210-TR](#) [ECS-.327-9-1210-TR](#) [ECS-.327-7-1210-TR](#)