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"e-news" The ecs Newsletter

Frequency Control Solutions That Meet The Needs Of The Future . . . Today!

Second Edition, March, 2001

We hope that you found the February issue of "The Ecs News Letter" helpful and informative

Please forward your concerns, suggestions and comments on the first email sent to you in February. Our goal is to make this communication device an important part of your marketing and sales efforts. For your convenience, you can respond to our [Subscription Form](#) with your input! We welcome your replies!



Product Feature of the Month "Extended Temperature range crystals have a place too!"

ECS, Inc. offers a full line of thru-hole and SMD crystals that meet the performance requirements of today's extended temperature range requirements, specifically automotive and industrial applications. Our consumer grade products are rated from -10C~+70C; however, our extended temperature rated crystals offer stable performance in an environment from -55C~+125C. The temperature variation and aging characteristics of the (ET) Extended Temperature grade crystals serve the market well, providing reliable start up and stable oscillation in microprocessor circuits across a wide variety of applications.



Please contact our piezo products engineering group to pursue characterization at the beginning of the design process.

There is no charge for engineering evaluation and we highly recommend all customers to pursue the characterization process, which will eliminate potential design issues and liability with regard to stability.

FAQ'S

Will a series crystal work in a parallel circuit and vice versa?

Market Watch What's on the horizon???

The overall market has retracted and it appears that it will be well into Q2 or Q3 before we see signs of an upturn.

If the likes of Intel and others continue to report poor earnings and layoffs this retraction could push well into Q4.

Looks as though the softness will be with us for the balance of 2001.

This is the time that we approach customers to obtain those all-important design wins on their next generation products. ECS can also help customer design groups to find cost saving solutions to existing designs.

Please contact our engineering group for assistance in new designs and re-engineering cost savings on existing designs.

How does the technology sector recover after big falls???

From September 20, 1995 through Jan 15th 1996 technology stocks lost 15%. Five years following the peak of 9/20/95, technology stocks grew at an annual rate of 39%.

In nine periods since 1987, tech stocks grew an average of 28.13% annually for the following five-year period. (Based upon Pacific Stock Exchange Tech Index, T. Rowe Price)

Tech Sector Are Ceramic Resonators Washable?

Customers are some times concerned about the wash ability of our thru-hole and SMD ceramic resonators.

Yes, these devices can be washed!!!

Solvents: Tap water, Demineralized water, HCFC, Isopropanol, Cleanthrough 750H, Pine Alpha 100S, and Technocare FRW.

Yes to both, but the crystal unit manufactured as a series resonant crystal will operate at a frequency higher than expected if used in a parallel resonant circuit. A crystal unit manufactured as a parallel resonant crystal will operate at a frequency lower than expected if used in a series resonant circuit.

Can I safely change from a conventional HC-49U crystal to a surface mount device (AT strip elements)?

Do not make the change without a thorough investigation. Some of the SMD crystal units are comparable to conventional crystal units, others are not. In general, SMD's have higher resistance, differing values of shunt and motional capacitances, and are more sensitive to drive level. The pullability characteristics of these devices may differ significantly from a conventional crystal. We recommend an extensive qualification sequence before making the change.

What new products will be introduced by ECS within this year?

ECS will introduce programmable clock oscillators as small as 3.2x5x1.0mm. 3.3 Volt, 5x7x1.7mm VCXO's with +/-2.0ppm frequency stabilities.

In 2002 a crystal which measures 1.5x2.5x0.9mm. WOW!!!!!!!!!!!!!! How much smaller can these devices get?

Conditions:

- **Ultrasonic Wash:** 1 minute max. in above solvent at 60C max. Ultrasonic frequency: 28Khz, Output: 20W/L
- **Immersion Wash:** 5 minutes max. in above solvent at 60C max.
- **Shower or Rinse Wash:** 5 minutes max. in above solvent at 60C max.
- **Drying:** 5 minutes max. 80C max.
- **Note:** Upon entering the washing stage of the process, the surface temperature of the component is to be less than the solvent temperature. For optimum conditions- the surface temperature of the component is equal to the room temperature when the component enters the washing process.
- The duration of total wash is to be no longer than 11 minutes.
- The component may be damaged if it is washed with chlorine, petroleum or alkali cleaning solvents.

NEW CATALOGS READY FOR DELIVERY ORDER NOW!!!!

Our "NEW MILLENIUM EDITION" catalog is ready for delivery!

Please fax or [email](#) your request to Diane Arterburn and be specific about the number of new catalogs you need for your sales efforts.

The new catalog has new products, enhanced application notes and the like. Or, visit our web site with new product information at www.ecsxtal.com.

Lead-times and Pricing>>>>Where do we go from here?

A table showing showing the latest in lead-times and pricing is [available on our website](#). Forecasted trends are for the next 2 quarters.

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