



PRESS RELEASE

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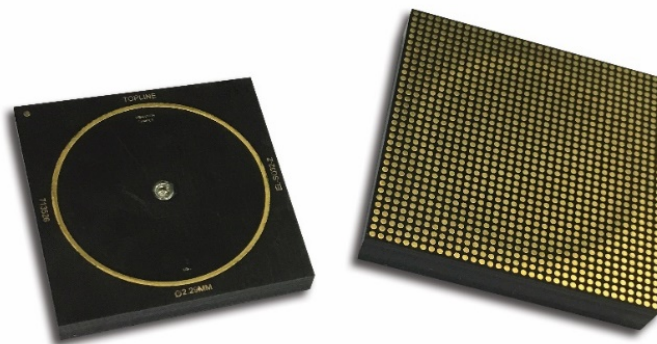
Productronica Hall A4 Booth 504

TopLine CCGA, PID Vibration Damping Technology to Highlight Exhibit at Productronica

Irvine California, USA – TopLine's CCGA Column Grid Array IC packages and new Particle Impact Dampers (PID) that reduce random vibration will highlight the company's exhibit at Productronica 2017. TopLine will exhibit in Hall A4 Booth 504, where a PID informational video and demonstration will be held continuously in the booth over the 4-day show.

In making the announcement, Martin Hart, President, stated, "We're reaching out especially to international customers at the show to introduce them to these enabling technologies. In fact, we've been continuously active in promoting our products in the global market for 28 years.

We're especially excited about the benefits of CCGAs, as well as new PID technology that reduces harmful vibrations and extends hardware life and reliability."



TopLine's CCGA Column Grid Array IC packages are made with non-collapsible solder columns for surface mount soldering on printed circuit boards (PCBs), and provide more compliancy than solder balls (Ball Grid Arrays or BGAs) to absorb stress and increase solder joint reliability under harsh operating conditions.

PID is a COTS commercially-available standard solution, suitable for retrofitting and hardening heritage hardware in the field. PIDs can be solder attached like ordinary components, or attached to the board using permanent epoxy adhesive. TopLine's new series of Particle Impact Dampers were invented at NASA's Marshall Space Flight Center.

For more information and to see a demonstration, visit Hall A4 Booth 504 at Productronica; those interested are also encouraged to visit a new web site showing a 2-minute YouTube video showing how the PID works; Please visit www.Vibration.Engineering, Tel 1-800-776-9888, or email: info@TopLine.tv for more information.

About TopLine

TopLine manufactures a wide range of daisy chain semiconductor packages for process development, experimentation, machine evaluation, solder training, and SMT assembly practice. TopLine products provide hands-on learning for engineers. Contact TopLine Corporation, Tel (800) 776-9888; Email: info@TopLine.tv.

Photo Caption: *TopLine PID*

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