

PRESS RELEASE

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PCB West Booth #210

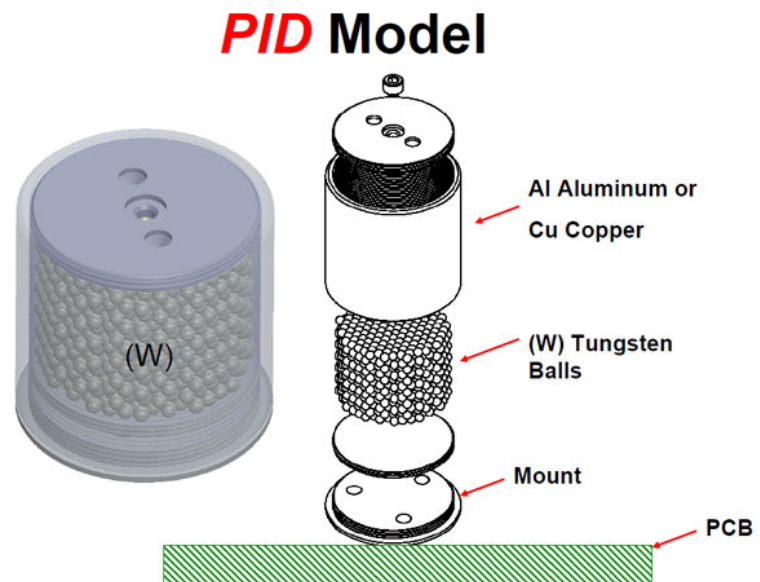
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TopLine and NASA to Jointly Present Particle Damping (PID) Paper at PCB West

Irvine California, USA – TopLine and NASA will present a joint paper, titled “Practical Design Considerations for Particle Impact Dampers (PID) to Prevent Random Vibration Failures in Printed Circuit Boards,” at the PCB West Conference, Sept 12 – 14, 2017, in Santa Clara, California.

TopLine was recently granted an exclusive worldwide license by NASA to manufacture “Particle Damping for Vibration Mitigation for Circuit Cards.”

Presenters will be Ron Hunt from the NASA Marshall Space Flight Center, and Martin Hart, President of TopLine Corporation. Ron Hunt is the inventor of this new PID technology that attenuates destructive vibratory forces to reduce damage in PCBAs. This innovation extends the life of the assembly, including IC packages that operate under harsh environmental conditions including thermal stress and vibration.



The presentation will explain a novel way to attenuate vibrations in PCBs by using a simple component known as a PID (Particle Impact Damper) that is attached directly to the PC board. The PID itself is filled with Tungsten spheres that deflect the board in the opposite direction while the board is vibrating. The PID helps keep the board remain stable during massive random vibration. NASA made a technology transfer of the Patent US9521753 B1 to TopLine in September 2016.

The Particle Impact Damper (PID) is mounted near the geometric center of the PCB where vibratory forces are the greatest. The kinetic energy is transferred to the PID to dampen vibration in the circuit assembly. PID provides better reduction in vibration than alternative methods such as adding heavy metal supports, bumpers or increasing the thickness of the PCB.

PIDs are commercially-available COTS components. Mounting methods include surface mount soldering, snap-in through-hole, screw mounting, and epoxy mounting with permanent adhesives. Engineering development kits are currently under development. To learn more, visit http://www.topline.tv/vibration_damping.html, and visit the TopLine booth #210 at PCB West.

About TopLine

TopLine Corporation is a leading provider of test vehicle components and packaging solutions for Circuit Assemblies. TopLine manufactures CCGA Column Grid Arrays, solder columns, and a wide range of daisy chain semiconductor packages. TopLine offers a complete range of daisy chain test chips for process development, experimentation, machine evaluation, solder training, and SMT assembly practice. TopLine products provide hands-on learning for engineers. TopLine is a one-stop source for all dummy components. For more information, contact TopLine Corporation, Tel (800) 776-9888; Email: sales@TopLine.tv.

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