



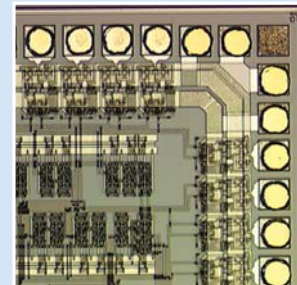
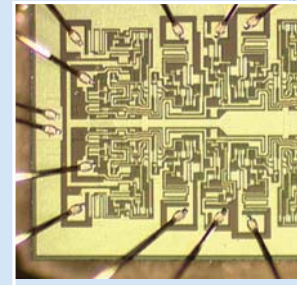
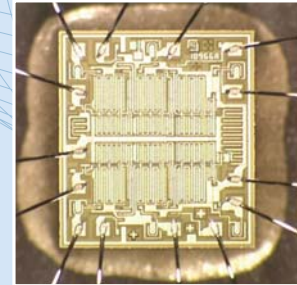
DPEM, a Total Solution for Costly Replacement of High Reliability Devices in Legacy Systems

DPACI offers a highly cost effective proprietary solution for obtaining obsolete or hard-to-find ICs that are no longer manufactured in the required pin-outs or hermetic packages. Our patented DPEM (Decapsulate Plastic Encapsulated Module) process allows us to remove a die from an existing plastic part and repackage it into a ceramic or metal package, or a hybrid.

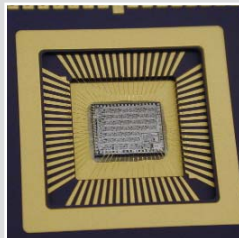
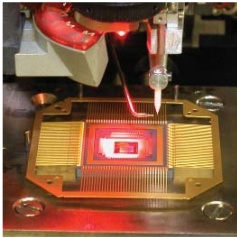
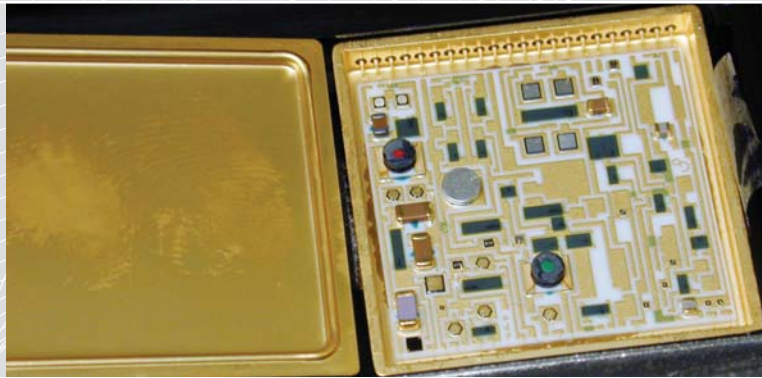
This new ceramic Hi-Rel package can be screened to MIL-STD-883 Class B or Class S procedures with complete 883/5004 and 883/5005 QCI. DPEM parts can satisfy form, fit, function, quality and reliability requirements for spare parts replacement of military and space components. These replacement parts can save millions of dollars over reinventing and manufacturing a military grade device for boards or assemblies. And delivery is virtually immediate if the plastic COTS part is readily available. We can provide engineering units within days as candidates for your evaluation.

DPACI can also remove die from some ceramic packages in a similar process called DCEM. These dice can also be used for hybrids or MCM needs.

The DPEM process can also be used for IC construction or failure analysis. We selectively etch and remove the top of a plastic IC leaving all bond wires intact and exposing the die for failure analysis.



DPEM & LEGACY PARTS



Our Total Solution DPEM process involves:

- ◆ Pre-Cap Visual Inspection
- ◆ Dissolving the plastic encapsulation of a semiconductor device
- ◆ Removing the die or chip
- ◆ Removing the bond wires from the chip, keeping bond pad integrity
- ◆ Mounting the chip in a high reliability ceramic or metal package
- ◆ Attaching the die to the package substrate
- ◆ Bonding new wires onto the chip and to the package lead frame
- ◆ Sealing the package maintaining package hermeticity
- ◆ Performing 100% testing and QCI to ensure reliability for aerospace and military applications.

See www.dpems.com for further details.

DPACI retains reliability test data and customer testimonials on this product and will share this information on a need to know basis.



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