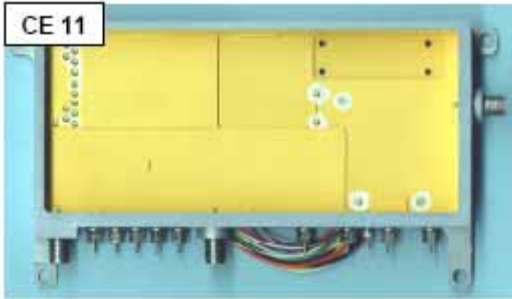


PA&E, your partner for hermetic electronic packaging introduces the new Aluminum-Silicon Controlled Expansion alloys from Osprey



The new controlled expansion materials from Osprey offer unique combinations of thermal and mechanical properties, enabling housing designs with tailored expansion coefficients, good thermal transfer characteristics, and exceptionally low weight.

PA&E has developed optimized fabrication, plating, and welding technologies for these materials, enabling us to offer complete controlled expansion solutions.

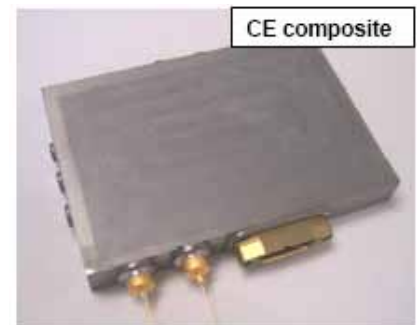
PA&E fabricates turnkey packages in CE11 utilizing our well-established explosion bonding technology for a completely welded hermetic assembly, incorporating both our laser-weldable DC Kryoflex connectors as well as our laser-weldable glass seal RF connectors. CE11 should be considered as an alternative for titanium and composite Titanium-CuMo packages.



Material	Thermal Expansion	Thermal Conductivity	Density
	ppm/°C	W/mK	G/cm ³
Kovar	5.3	17.0	8.4
AlSi CE7	7.4	120.0	2.4
Titanium (CP)	8.4	11.4	4.5
AlSi CE11	11.0	149.0	2.5
Aluminum 6061	23.4	180.0	2.7

We also fabricate turnkey packages in CE7 using solder-in connector technology. These products target the market position usually held by Kovar, but provide an enormous weight advantage.

NEW We have combined the best of both worlds to produce a package with a low expansion CE7 floor and laser-weldable sidewalls, allowing for the first time an extremely lightweight package with a low expansion for substrate attach in a completely weldable design the ultimate for both reliability as well as rework ability.



Contact us with your hermetic electronic packaging needs!



ELECTRONIC PACKAGES FOR EXTREME ENVIRONMENTS

434 Olds Station Road Wenatchee, Washington 98801

TEL 509.664.8000 FAX 509.663.5039



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