

## AlSiC Hermetic Packaging Advantages

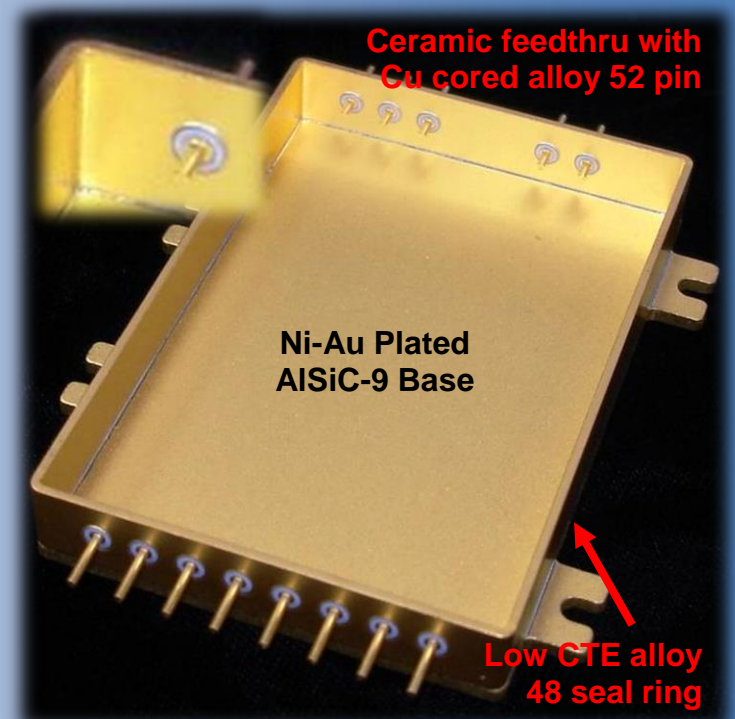
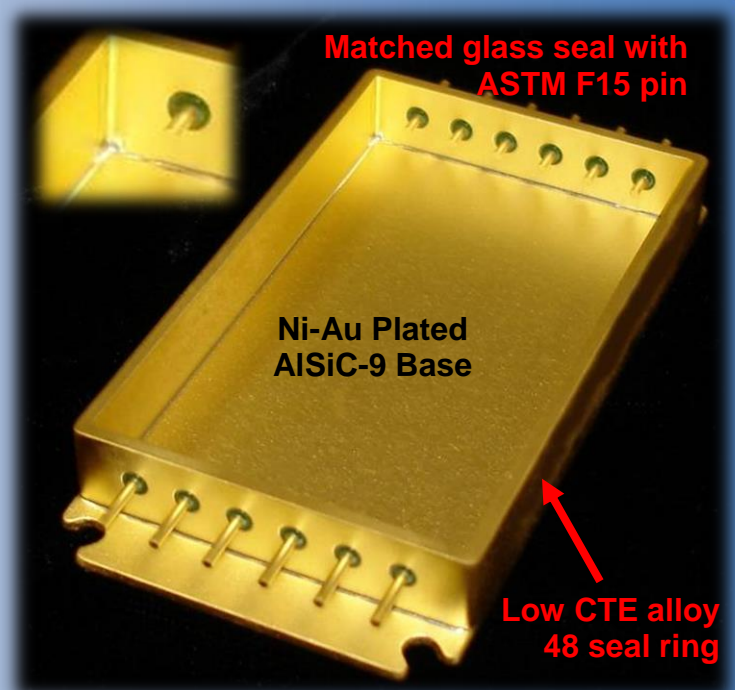
- 40 – 60% lighter weight than CuMo and CuW
- Lower cost than CuMo and CuW
- Thermal expansion matching for direct attachment of GaAs and substrates
- High thermal conductivity
  - AlSiC-9: 180 W/mK minimum
- Readily available material
  - Standard and non-standard base thicknesses
  - Complex shapes without machining
- Meets MIL-PRF-38534, Appendix C, Table-VI

## Applications

- Military, aerospace and communications applications
- Systems subject to shock and vibration
- Weight sensitive applications

## Hermetic Seals

- Thermal expansion matched seal
  - CPS matched seals are produced by the “Two Step Sealing Process” for the most robust hermetic seal
- Brazed ceramic feedthrus for high power applications





## **CPS Certified to ISO 9001:2008 Standard**

CPS provides quality assurance testing to MIL-STD 883 and MIL-STD 202; CPS is compliant to DFARS clause 252.225-7014 ALT.1, RoHS and REACH.

## **CPS Matched Hermetic Seals**

CPS matched seals are produced by the “Two Step Sealing Process” for the most robust hermetic seal.

## **CPS Plating Capabilities**

- Electroless Nickel per MIL-C-26074, ASTM B-733 and AMS 2404
- Electrolytic Nickel per QQ-N-290 and ASTM B-689
- Gold per ASTM B-488 and MIL-DTL-45204
- Chromate per MIL-DTL-5541

## **CPS Test Capabilities**

- Air to Air temperature cycle/shock per MIL-STD-883, method 1010
  - Steam age/solderability testing per MIL-STD-883, method 2003
  - Liquid to Liquid per MIL-STD-883, method 1011
  - Lead Fatigue per MIL-STD-883, method 2004
  - Hermeticity validation to  $1 \times 10^{-10}$  cc/sec of helium per MIL-STD-883, method 1014, condition A4
  - Insulation resistance to 10 GΩ at 500 VDC per MIL-STD-883, method 1003
  - Salt spray per MIL-STD-883, method 1009
  - Compliance to JEDEC Std. 9 and MIL-STD-883
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- DUNS # 12-099-8661
  - CAGE Code 46613
  - Registered with the U.S. Dept. of State Trade Directorate of Defense (ITAR)