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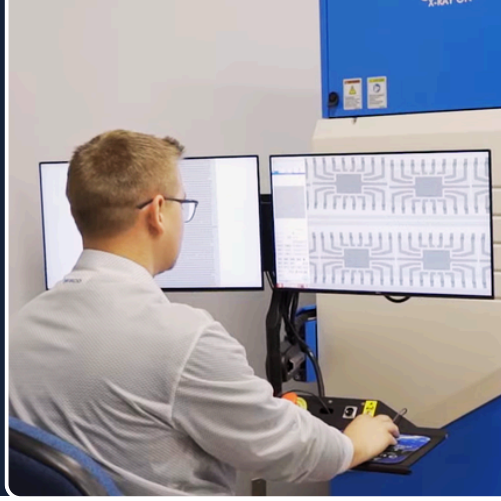
AS6171 Testing Services

Accredited inspection and testing processes verify component authenticity, reliability, and compliance with industry and defense standards, ensuring mission-critical performance in aerospace and defense applications.



AS6171/2 – External Visual Inspection

- Visual Inspection*
- Radiographic Examination / Inspection / 3D Radiography
- Resistance to Solvents (RTS) / Scrape Test*
- Scanning Electron Microscopy (SEM)*
- Packaging Configuration and Dimensions (MIL-STD-883 Method 2016)*
- Dynasolve / 1-Methyl-2-Pyrrolidinone*

AS6171/3 – X-Ray Fluorescence

- X-Ray Fluorescence (XRF) Material Analysis*

AS6171/4 – Delid/Decapsulation Physical Analysis

- Decapsulation*
- Die Verification*
- Bond Pull
- Die Shear

AS6171/5 – Radiological

- Radiographic Examination
- Inspection
- 3D Radiography

AS6171/7 – Electrical Full Functional and Performance Testing

- Fine and Gross Leak Hermetic Seal (MIL-STD-750 Method 1071 | MIL-STD-883 Method 1014)
- Temperature Cycling (MIL-STD-883 Method 1010.9 | MIL-STD-750 Method 1051.9)
- Constant Acceleration (MIL-STD-750 Method 2006 | MIL-STD-883 Method 2001)
- Burn-In Testing (MIL-STD-883, Method 1015 | MIL-STD-750, Methods 1038.5, 1039.4, 1040, 1042.4)
- Capacitance Measurement (MIL-STD-202 Method 305A)*
- Contact Resistance (MIL-STD-202 Method 307)*
- Forward Voltage Drop (MIL-STD-750 Method 4011)

Continued on reverse →

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AS6171 Testing Services

← Continued from front

AS6171/7 – Electrical Full Functional and Performance Testing

- Reverse Current Leakage (MIL-STD-750 Method 4016)
- Regulator (Breakdown) Voltage (MIL-STD-750 Method 4022)
- Propagation Delay (MIL-STD-883 Method 3003)
- Power Supply Current (MIL-STD-883 Method 3005)
- High-Level Output Voltage (MIL-STD-883 Method 3006)
- Low-Level Output Voltage (MIL-STD-883 Method 3007)
- Input Clamp Voltage (MIL-STD-883 Method 3022)
- Low-Level Input Current (MIL-STD-883 Method 3009)
- High-Level Input Current (MIL-STD-883 Method 3010)
- Output Short Circuit Current (MIL-STD-883 Method 3011)

AS6171/8 – Molecular and Structural Material Analysis

- Raman Spectroscopy

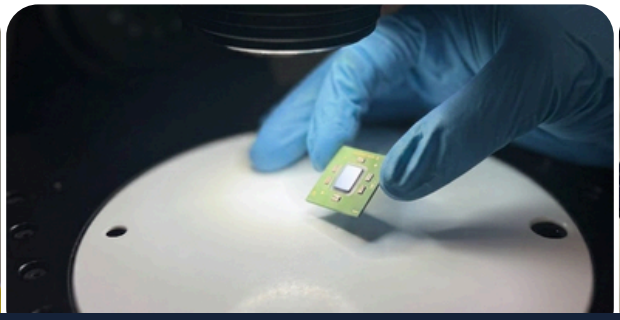
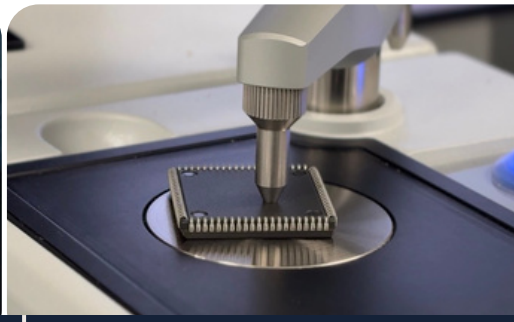
AS6171/9 – Chemical and Organic Material Identification

- Fourier Transform Infrared Spectroscopy (FTIR)

AS6171 – Accredited Methods

- Solderability Testing (MIL-STD-883 | MIL-STD-202)
- Particle Impact Noise Detection (PIND) (MIL-STD-750 Method 2052 | MIL-STD-883 Method 2020)
- Functional Testing (MIL-STD-883 Method 3014)

*Tests are also conducted at SMT's laboratory located in the United Kingdom.

Request an AS6171 Test Plan or Quote

SMT Corp. | 14 High Bridge Rd, Sandy Hook, CT 06482-1601 | +1 203-270-4700
SMT Labs UK Ltd. | 6 Stirling Park, Laker Road, Rochester, Kent ME1 3QR | +44 (0) 1342 360370
US Company CAGE Code: 3UCA5 | UK Company Registration No. 15615027

smtcorp.com
sales@smtcorp.com