TELEDYNE e2V
Everywhereyoulook™

# Class-Q Flow

***Ceramic hermetic wired package ****

*In accordance with MIL-PRF-38535*

| # | Process Flow Steps | Method / Condition | Sampling |
|---|---|---|---|
| 1 | Wafer Lot Acceptance | QM plan | |
| 2 | Die Sawing and Select | Internal procedure and MIL-STD-883 TM2010 / B | 100% |
| 3 | Die attach | Internal procedure | 100% |
| 4 | Die shear or Stud pull | MIL-STD-883 TM2019 or TM2027 | Monitoring |
| 5 | Wire bonding | Internal procedure | 100% |
| 6 | Destructive Wire Bond pull | MIL-STD-883 TM2011 | Monitoring * |
| 7 | Wire Bond shear | Internal procedure / ASTM F 1269-06 | Monitoring if appl. |
| 8 | Internal Visual Inspection | Internal procedure and MIL-STD-883 TM2010 A | 100% |
| 9 | Lid attach / Sealing | Internal procedure | 100% |
| 10 | Constant acceleration | MIL-STD-883 TM2001 / E | 100% If appl. |
| 11 | Marking | Internal procedure / per Device Specification | 100% |
| 12 | Temperature Cycling | MIL-STD-883 TM1010 / C / 10 cycles | 100% |
| 13 | Pre-Burn-in electrical | Per Device Specification / +25°C / +datalog | 100% |
| 14 | Dynamic burn-In | MIL-STD-883, TM1015 cond. D 160Hrs / 125°C | 100% |
| 15 | Post-Burn-In (Interim) Electrical | Per Device Specification / +25°C / +datalog | 100% |
| 16 | PDA | 5% PDA (amb temp) / +datalog | By lot |
| 17 | Termination attach | Internal procedure or 6 Sigma assembly or n/a if LGA package | 100% If appl. |
| 18 | Fine & Gross leaks test | MIL-STD-883, TM1014 / A / C | 100% |
| 19 | Final Electrical (+Group A) | Per Device Specification / +25°C | 100% |
| 20 | Extreme temp. Electrical (+Group A) | Per Device Specification | 100% |
| 21 | Physical dimension control | Per Device Specification | 100% |
| 22 | External Visual | MIL-STD-883 TM2009 | 100% |
| 23 | Packing | Internal procedure | 100% |
| 24 | Certificate of Compliance | MIL-PRF-38535 | By delivery |

| Quality Conformance Inspection (QCI) | Method / Condition | Termination | Sampling |
|---|---|---|---|
| Group A - Ambient temp. Elect. test | MIL-PRF-38535 - Table III - in accordance with SMD | Yes | All lots |
| Group A - Extreme temp. Elect. test | MIL-PRF-38535 - Table III - in accordance with SMD | No | All lots |
| Group B – Assembly Capability | MIL-PRF-38535 - Table II - Subgroup 1, 2, 3, 4 | Yes | All lots |
| Group C - Steady-state life test | MIL-PRF-38535 - Table IV - Subgroup 1 | No | Per diffusion lot |
| Group D - Package related test | MIL-PRF-38535 - Table V - Subgroup 1, 2, 3, 4, 5, 6 | No | All lots |

| * Quality notes | Sampling |
|---|---|
| Screening for LGA / CCGA / CI-CGA packages | - |
| 100% Non Destructive Bond Pull test TM2023 substituted by monitoring Destructive Bond Pull test per TM2011 | All lots |

| Useful address / Link | |
|---|---|
| Mil Specs and Drawings | www.landandmaritime.dla.mil |
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| Visit teledyne-e2v website | www.Teledyne-e2v.com |