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4 QUALITY ASSURANCE REQUIREMENTS:

4.1 Quality Assurance Provisions:

TEST/REQUIREMENTS	STANDARD/METHOD	CONDITION	QUANTITY (ACCEPT NUMBER)
High Power Photomicrographs (Assembly Drawing)		QP Semi Drawing	N/A
Functional Diagram (Burn-in Circuit)		QP Semi Drawing	N/A
Physical Dimensions	MIL-STD-883 M2016		2(0)
Glassivation Integrity Testing (1)	MIL-STD-883 M2021		1(0)
SEM Inspection (2) & Current Density	MIL-STD-883 M2018	Current Density Calculations Worse Case Step Coverage and Die Photos	2(0)
Die Shear Strength (3)	MIL-STD-883 M2019	As Applicable	2(0)
ESD Characterization (4)	MIL-STD-883 M3015		9(0)
5 Piece Read & Record	DRO	- 55 C, +25 C & +125 C	5(0)
Group C A. Steady State Life Test B. End Point Electrical Parameters	MIL-STD-883 M1005	Test Condition to be Specified (496 hrs @ + 135 C) Individual Component Spec.	45(0)
Group D3 (5) A. Thermal Shock B. Temperature Cycle C. Moisture Resistance (6) D. Seal (Fine & Gross Leak)(7) E. Visual Examination F. Endpoint Electrical Parameters	MIL-STD-883 Method M1011 M1010 M1004 M1014 M1004 & M1010	Condition B, 15 Cycles min. Condition C, 100 Cycles min. As Applicable Per Visual Criteria in M1004 & M1010 Per Device Specification.	15(0)
Group D4 (5) A. Mechanical Shock B. Vibration Variable Frequency C. Constant Acceleration D. Seal (fine & Gross Leak) E. Visual Examination F. Endpoint Electrical Parameters	MIL-STD-883 Method M2002 M2007 M2001 M1014 M1010 & 1011	Condition B Minimum Condition A Minimum Condition E, Y1 Orientation. As Applicable Per Visual Criterial in M1010 & M1011. Per Device Specification	15(0)

See footnotes at end of table.



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Notes

1. **Current Density Test** may be performed in lieu of Glassivation Integrity Test.
2. **SEM Test** shall be performed if not provided by die manufacturer.
3. **Die Shear Strength Test** shall be performed as in-Process testing.
4. **ESD Characterization Test**, if required by customer and not supplied by die manufacturer, shall be performed per device type.
5. Devices used in Subgroup 3, "Thermal and Moisture Resistance" may be used in Subgroup 4, "Mechanical".
6. Lead bend stress initial conditioning is not required for leadless chip carrier packages. For fine pitch packages (≤ 25 Mil Pitch) using a nonconductive tie bar, preconditioning shall be required on 3 devices only prior to the moisture resistance test with no subsequent electrical test required on these 3 devices. The remaining 12 devices from the sample of 15 devices do not require preconditioning but shall be subjected to the required endpoint electrical tests.
7. After completion of the required visual examination and prior to submittal to method 1014 seal tests, the devices may have the corrosion by-products removed by using a bristle brush.

Table 1

Die Evaluation Requirements