

IEC QUALITY ASSESSMENT SYSTEM (IECQ) covering Electronic Components, Assemblies, Related Materials and Processes

For rules and details of the IECQ visit <u>www.iecq.org</u>

Schedule of Scope to Certificate of Approval

Independent Testing Laboratory

IECQ Certificate No.: IECQ-L ULTW 16.0003-03

CB Certificate No.: 20003649 ITL

Schedule Number: IECQ-L ULTW 16.0003-03-S Rev No.: 6 Revision Date: 2023/08/15 Page 1 of 3

Appendix-1 (20003649 ITL) Schedule of Scope to Certificate of Approval

| Tests | Standards/Procedures |
|--|----------------------|
| Scanning Electron Microscope (SEM) | T-SEM-3 |
| Transmission Electron Microscope - Electron Energy Loss Spectroscopy (TEM-EELS) | T-TEM-3 |
| Energy Dispersive Spectrometry of X-ray (EDS) | T-SEM-3, T-TEM-3 |
| Focused Ion Beam microscope (FIB) | T-FIB-3 |
| Secondary Ion Mass Spectrometry (SIMS) | T-SIM-3 |
| Atomic Force Microscope (AFM) | T-SIM-3 |
| Spreading Resistance Probe (SRP) | T-SIM-3 |
| Alpha-step stylus profiler | T-SIM-3 |
| X-Ray Diffraction (XRD) | T-SIM-3 |
| X-Ray Photoelectron Spectroscopy (XPS) | T-SIM-3 |
| X-Ray imaging | T-EFA-3 |
| Emission Microscopy (EMMI) | T-EFA-3 |
| Emission Microscopy (EMMI)-InGaAs | T-EFA-3 |
| Optical Beam Induced Resistance Change (OBIRCH) | T-EFA-3 |

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DQS-Group - DQS Taiwan Inc., Feng Yuan Dist., Taichung City, Taiwan

IECQ-P Schedule of Scope Rev. 01



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| Conductive atomic force microscopy (C-AFM) | T-EFA-3 |
|--|---|
| Scanning Acoustic Tomography (SAT) | T-EFA-3 |
| Optical Microscope (OM) | T-OMI-3 |
| 3D Optical Microscope (3D OM) | T-LAB-3 |
| Optical Profiler (OP) | T-SIM-3 |
| IC Layout Imaging | T-OMI-3 |
| Circuitry analysis | T-OMI-3 |
| Auger Electron Spectroscopy (AES) | T-SIM-3 |
| Thermal Emission Microscope (THEMOS) | T-EFA-3 |
| 3D X-Ray microscopy | T-EFA-3 |
| Latch-up test | JESD78 |
| Human Body Mode (HBM) | ANSI/ESDA/JEDEC JS-001, ANSI/ESD STM 5.1, JESD22-A114, MIL-STD-883, AEC-Q100-002 |
| Machine Mode (MM) | ANSI/ESD S5.2, JESD22-A115, AEC-Q100-003 |
| Charge Device Mode (CDM) | ANSI/ESD SP5.3.2, ANSI/ESD S5.3.1, JESD22-C101, ANSI/ESDA/JEDEC JS-002, AEC-Q100-011, |
| Electrostatic discharge immunity test | IEC 61000-4-2 |
| Electrical Overstress (EOS) | IEC 61000-4-5 |

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| Transmission Line Pulse (TLP) | ANSI/ESD STM5.5.1, ANSI/ESD SP5.5.2 |
|-------------------------------|--|
| Wire Bonding | T-EFA-3 |
| IC Package | T-EFA-3 |
| Pull and shear test | MIL-STD-883 method 2011.9 MIL-STD-883 method 2023.7 AEC-Q100-001, EIA/JESD22-B116, JESD22-B117 |
| Electro-migration test | IPC TM650 2.6.25 |
| Conductive resistance test | IPC 9701 |
| Nano Probe | T-EFA-3 |

michael Chou Technical Reviewer of DQS: Date: 8/15/2023

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