



IECQ QUALITY ASSESSMENT SYSTEM (IECQ)

For rules and details of the IECQ visit www.iecq.org

IECQ Certificate of Approval Independent Testing Laboratory

IECQ Certificate No.:	IECQ-L ULTW 16.0003-03	Issue No.:	7	Status:	Current
Additional Site to Certification: IECQ-L ULTW 16.0003		Originally Issued: 2016/07/28			
Supersedes:	IECQ-L ULTW 16.0003-03 Issue 6	Issue Date:	2024/08/07	Site Added:	2016/07/28
CB Reference No.:	20003649 ITL	Expiration:	2025/07/27		

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The organization, facilities and procedures have been assessed by the IECQ Certification Body in accordance with IECQ 03-1 and IECQ 03-6 for issuance of this certificate and found to be in conformity with the applicable requirements of the IECQ Independent Testing Laboratory Assessment Program Requirements Scheme and in respect of ISO/IEC 17025:2017 for the testing of component product under the IECQ.

Scope:

The materials analysis, failure analysis, ESD tests and wire bonding of semiconductors.
 See attached Schedule.

-- Attached Schedule: IECQ-L_ULTW_20003649 ITL_08-07-24.pdf --

Approved by Certification Body (CB): DQS Group - DQS Taiwan Inc.

8F, 23, Yuan Huan West Road,
 Feng Yuan Dist., Taichung City
 Taiwan

Authorized person:
Bob CHEN



The validity of this certificate is maintained through on-going surveillance audits by the IECQ CB issuing this certificate.
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Schedule of Scope to Certificate of Approval Independent Testing Laboratory

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

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Schedule Number: IECQ-L ULTW 16.0003-03-S Rev No.: 7 Revision Date: 2024/08/07 Page 1 of 2

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

Tests	Standards/Procedures
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
Emission Microscopy (EMMI)	T-EFA-3
Emission Microscopy (EMMI)-InGaAs	T-EFA-3
Optical Beam Induced Resistance Change (OBIRCH)	T-EFA-3
Optical Microscope (OM)	T-OMI-3
3D Optical Microscope (3D OM)	T-LAB-3
IC Layout Imaging	T-OMI-3
Circuitry analysis	T-OMI-3
Thermal Emission Microscope (THEMOS)	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

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





IEC QUALITY ASSESSMENT SYSTEM (IECQ)
covering Electronic Components,
Assemblies, Related Materials and Processes
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**Schedule of Scope to Certificate of Approval
Independent Testing Laboratory**

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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
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

Technical Reviewer of DQS: Paul Yang Date: 8/7/2024

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