



IECQ Certificate of Approval Independent Testing Laboratory

IECQ Certificate No.:	IECQ-L ULTW 18.0001	Issue No.:	6	Status:	Current
Supersedes:	IECQ-L ULTW 18.0001 Issue 5	Issue Date:	2023/06/15	Org Issue:	2018/05/30
CB Reference No.:	20002839 ITL	Expiration:	2024/05/29		

Winstek Semiconductor Co., Ltd. Reliability and Failure Analysis Laboratory
No. 176-5, 6 Ling,
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Taiwan

The organization, facilities and procedures have been assessed and found to comply with the applicable requirements for Independent Testing Laboratory organization approval, in support of the IECQ system, which is in accordance with the Basic Rules IECQ 01 and Rules of Procedure IECQ 03-6 "Independent Testing Laboratory Assessment Program Requirements" of the IEC Quality Assessment System for Electronic Components (IECQ) and applicable requirements of ISO/IEC 17025:2017 for the testing of electronic components under the IECQ.

Scope:
Reliability Testing and Failure Analysis of semiconductor IC, electronic components.
See attached schedule.

-- Attached Schedule: IECQ-L_ULTW_20002839 ITL. Schedule 06-15-23.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 Conformity
Independent Testing Laboratory
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Appendix-1 (20002839 ITL)
Schedule of Scope to Certificate of Approval

Description test	Standard
Electrostatic Discharge test (ESD-CDM)	ANSI/ESDA/JEDEC JS-002 AEC-Q100-011
Electrostatic Discharge test (ESD-HBM/MM)	MIL-STD-883H Method 3015.8(HBM), ANSI/ESDA/JEDEC JS-001 AEC-Q100-002(HBM) JESD22-A115
Electrostatic Discharge test (Latch-up)	JESD78D
High Temp Operating Life (HTOL)	JESD22-A108 AEC-Q100;AEC-Q101;AEC-Q200
Precondition test / Moisture Sensitivity Level (MSL)	IPC/JEDEC J-STD-020
Reflow	IPC/JEDEC J-STD-020
High Temperature Storage test (HTST)	JESD22-A103
Low Temperature Storage test (LTST)	JESD22-A119 IEC 60068-series MIL-STD-810/883 AEC-Q100;AEC-Q101;AEC-Q200
Accelerated Moisture Resistance-Unbiases (Unbiased HAST)	JESD22-A110 MIL-STD-810/883 AEC-Q100;AEC-Q101;AEC-Q200
Highly Accelerated Stress test (HAST)	JESD22-A118 MIL-STD-810/883 AEC-Q100;AEC-Q101;AEC-Q200
Pressure Cooker test (PCT)	JESD22-A102
Temperature Cycle test (TC)	JESD22-A104 MIL-STD-810/883 AEC-Q100;AEC-Q101;AEC-Q200
Temperature and Humidity test (THT)	IEC 60068-series

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



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Description test	Standard
	MIL-STD-810/883 AEC-Q100;AEC-Q101;AEC-Q200
Temperature and Humidity with Bias test (THB)	JESD22-A101 MIL-STD-810/883 AEC-Q100;AEC-Q101;AEC-Q200
Surface Mount Technology (SMT)	IPC/JEDEC J-STD-020 IPC-A-610;IPC-7525
Scanning Electron Microscope (SEM)	B-QA-LAB0-CM-09
Energy-Dispersive Spectroscopy (EDS)	B-QA-LAB0-CM-09
Scanning Acoustic Microscopy (SAM)	B-QA-LAB0-OI-17
Atomic Force Microscopr (AFM)	B-QA-LAB0-OI-14
X-ray	B-QA-LAB0-OI-18
Sample Preparation	B-QA-LAB0-OI-21

Technical Reviewer of DQS: Michael Chou Date: 6/15/2023

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