

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 09.0015

CB Certificate No.: 20004039 ITL

Schedule Number: IECQ-L ULTW 09.0015-S Rev No.: 10 Revision Date: 2023/06/16 Page 1 of 3

Appendix-1 (20004039 ITL) Schedule of Scope to Certificate of Approval

Description test	Standard
High temperature test	ASTM D4169; BELL Core GR-63; ETSI-300019
	IEC60068-2-2; ISO 16750; ISTA; MIL-STD-810
	IPC-TM-650; JESD22-A103; JESD22-A108
Low temperature test	ASTM D4169; BELL Core GR-63; ETSI-300019
	IEC60068-2-1; ISO 16750; ISTA; MIL-STD-810
	IPC-TM-650; JESD22-A108; JESD22-A119
Humidity storage test	ASTM D4169; BELL Core GR-63; ETSI-300019
	IEC60068-2-30; IEC60068-2-78; ISO 16750
	ISTA; MIL-STD-810; IPC-TM-650; JESD22-A101
Temperature cycling tests	BELL Core GR-63; ETSI-300019; IEC60068-2-14
	ISO 16750; MIL-STD-810; IPC-TM-650; JESD22- A104;
Thermal shock tests	JESD22 A106; BELL Core GR-63; ETSI-300019
	IEC60068-2-14; ISO 16750; MIL-STD-810; IPC-TM-650;
	MIL-STD-2164(EC)
Temperature and Humidity	IPC-TM-650; JESD22-A101; MIL-STD-883 Method
Bias Life test	1004.7; JESD22-A100
Bias and Operating Life test	JESD22-A108
Pressure Cooker test	JESD22-A102;

This schedule is only valid in conjunction with the referenced Certificate of Approval This approval and any schedule(s) may only be reproduced in full. This approval is not transferable and remains the property of the issuing body. The Status and authenticity of this approval and any schedule(s) may be verified by visiting the Official IECQ Website. www.iecq.org



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

IECQ-P Schedule of Scope Rev. 01



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 09.0015

CB Certificate No.: 20004039 ITL

Schedule Number: IECQ-L ULTW 09.0015-S Rev No.: 10 Revision Date: 2023/06/16 Page 2 of 3

Highly Accelerated Stress test	JESD22-A110; JESD22-A102; JESD22-A118 ;
Salt spray test	ETSI-300019; IEC60068-2-11; JESD22-A107B ;ISO 16750 MIL- STD-883 IEC60068-2-52; MIL-STD-202; MIL-STD-810; ASTM B117
Vibration test	ASTM D4169; BELL Core GR-63; ETSI-300019; ISTA IEC60068-2-6; IEC60068-2-64; ISO 16750;JESD22-B103 MIL-STD-202;MIL-STD-810;MIL-STD-883; MIL-STD-2164(EC)
Mechanical Shock test	ETSI-300019; IEC60068-2-27; ISO 16750; JESD22-B104 MIL-STD-202; MIL-STD-810; MIL-STD-883; MIL-STD-1344
Free fall test	ASTM D4169; ETSI-300019; IEC60068-2-31; ISTA ISO 16750; MIL-STD-810
LED reliability tests/ driver reliability tests	IEC-60810; AEC-Q-101; IES LM-80; AEC-Q-102; AEC-Q-104
Automotive reliability tests	AEC-Q-100; AEC-Q-101; AEC-Q-102; AEC-Q-104; AEC-Q-200
Power Cycling	JESD22-A122;JESD22-A105
Intermittent Operational Life	MIL-STD-750-1 Method 1037
Pre-conditioning test	JESD22-A113
Reflow test	J-STD-020
Solderability test	J-STD-002 ; JEDECJ-STD-002 JESD22-B102
Steam aging test	J-STD-002

This schedule is only valid in conjunction with the referenced Certificate of Approval This approval and any schedule(s) may only be reproduced in full. This approval is not transferable and remains the property of the issuing body. The Status and authenticity of this approval and any schedule(s) may be verified by visiting the Official IECQ Website. www.iecq.org



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



Ξ

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 09.0015

CB Certificate No.: 20004039 ITL

Schedule Number: IECQ-L ULTW 09.0015-S Rev No.: 10 Revision Date: 2023/06/16 Page 3 of 3

Resistance to Solder Heat	JESD22-A113;J-STD-020; AEC-Q005; JESD22-B106; J-STD-020
multi-function material test(Bending test)	JESD22-B113; IPC 9704; IPC 9702; IEC 60068-2-21
Conductive resistance test	IPC 9701
Resistance measurement at single through holes test	IEC 61189-3-719; IPC-TM-650
Surface Insulation Resistance measurement	Bell core GR-78; IPC-TM-650
Conductive Anodic. Filament (CAF) Resistance. Test Electrochemical Migration	Bell core GR-78; IPC-TM-650; IPC 9691

Technical Reviewer of DQS:

michael Chou

Date: 6/16/2023

This schedule is only valid in conjunction with the referenced Certificate of Approval This approval and any schedule(s) may only be reproduced in full. This approval is not transferable and remains the property of the issuing body. The Status and authenticity of this approval and any schedule(s) may be verified by visiting the Official IECQ Website. www.iecq.org



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

IECQ-P Schedule of Scope Rev. 01