Schedule of Scope to Certificate of Approval

Independent Testing Laboratory

IECQ Certificate No.: IECQ-L CEP 25.0001-01
CB Certificate No.: IECQ-L 2025.007

Schedule Number: IECQ-L CEP 25.0001-01-S Rev No.: 1 Revision Date: 2025/01/03

№	Products, Materials	Items,Parameter		Title, Code of specification, standard or method used
		NO.	Name	
1	IC（MOS random access memories）	1	ALL “0 ”and“1 ”function test	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		2	Function test of calibration board	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		3	Output high level voltage V_{OH}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		4	Output low level Voltage V_{OL}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		5	Input load current I_{LI}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		6	Operative state power current I_{cc}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		7	Maintain state power current I_{ccs}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
2	IC（voltage regulators）	1	Output voltage V_o	Semiconductor integrated circuits.Measuring method of voltage regulators GB/T 4377-2018
		2	Voltage regulation rate S_V	Semiconductor integrated circuits.Measuring method of voltage regulators GB/T 4377-2018
		3	Current regulation Rate S_T	Semiconductor integrated circuits.Measuring method of voltage regulators GB/T 4377-2018
3	IC（analogue switch）	1	Analog switch operating range V_A	Semiconductor integrated circuits.Measuring method of analogue switch GB/T 14028-2018

4	IC（DC-DC Convertor）	1	Output voltage V_o	The measuring methods of DC/DC converters for hybrid integrated circuits SJ 20646-1997
		2	Output current I_o	The measuring methods of DC/DC converters for hybrid integrated circuits SJ 20646-1997
		3	Voltage regulation rate S_V	The measuring methods of DC/DC converters for hybrid integrated circuits SJ 20646-1997
		4	Current regulation rate S_I	The measuring methods of DC/DC converters for hybrid integrated circuits SJ 20646-1997
5	IC（microprocessors）	1	Input high level current I_{IH}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		2	Input low level current I_{IL}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		3	Static working current I_{SB}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		4	Dynamic working current I_A	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		5	Function test	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		6	Output high level voltage V_{OH}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		7	Output low level voltage V_{OL}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
		8	Iutput high level voltage V_{IH}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998

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		9	Iutput low level voltage V_{IL}	Semiconductor devices Integrated circuits Part 2:Digital integrated circuits GB/T 17574-1998
6	Resistance（Fixed resistor、Metalster、Film resistor、Wire-wound resistor、Potentiometer）	1	Resistance value	Finxed resistors for use in electronic equipment Part 1: Generic specification GB/T 5729-2003
		2	Terminal resistance	Potentiometers for electronic equipment Part 1: General specification GB/T 15298-1994
7	Diode（Zener diode、Switch-diode、Rectifier diode、Schottky Diode、TVS 、LED、Silicon power switching diode）	1	Forward voltage	Semiconductor devices discrete devices and integrated circuits Part 2:Rectifier diodes GB/T 4023-2015
		2	Reverse current	Semiconductor devices discrete devices and integrated circuits Part 2:Rectifier diodes GB/T 4023-2015
		3	Breakdown voltage	Semiconductor devices discrete devices and integrated circuits Part 2:Rectifier diodes GB/T 4023-2015
		4	Working voltage	Semiconductor devices-Discrete devices. part3:singal (including switching) and regulator diodes GB/T 6571-1995
		5	Differential resistance	Semiconductor devices-Discrete devices. part3:singal (including switching) and regulator diodes GB/T 6571-1995
8	Triode（Switching triode、Power Transisitor）	1	Collector- Base electrode breakdown voltage	Semiconductor discrete devices and dntegrated circuits. Part 7: Bipolar transistors GB/T 4587-2023

		2	Emitter -Base electrode breakdown voltage	Semiconductor discrete devices and dntegrated circuits. Part 7: Bipolar transistors GB/T 4587-2023
		3	Collector-Base electrode cutoff current	Semiconductor discrete devices and dntegrated circuits. Part 7: Bipolar transistors GB/T 4587-2023
		4	Collector-Emitter Saturation voltage	Semiconductor discrete devices and dntegrated circuits. Part 7: Bipolar transistors GB/T 4587-2023
		5	Emitter-Base electrode cutoff current	Semiconductor discrete devices and dntegrated circuits. Part 7: Bipolar transistors GB/T 4587-2023
		6	Collector-Emitter Cutoff current	Semiconductor discrete devices and dntegrated circuits. Part 7: Bipolar transistors GB/T 4587-2023
		7	Forward current transfer ratio of common-emitter	Semiconductor discrete devices and dntegrated circuits. Part 7: Bipolar transistors GB/T 4587-2023
9	Field effect transistor （JFET、JGFET）	1	Drain-source breakdown voltage	Transistor Electrical Test Methods For Semiconductor Devices Part 3: Test Methods 3000 Through 3999 MIL-STD-750-3-2019 Method 3407.1
		2	Threshold voltage	Semiconductor devices.Discrete devices. Part 8:Field-effect transistors GB/T 4586-1994 Chapter IV Article 6

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		3	Gate cutoff current	Semiconductor devices.Discrete devices. Part 8:Field-effect transistors GB/T 4586-1994 Chapter IV Article 2
		4	Drain current	Semiconductor devices.Discrete devices. Part 8:Field-effect transistors GB/T 4586-1994 Chapter IV Article 3
		5	On-state-drain source resistance	Semiconductor devices.Discrete devices. Part 8:Field-effect transistors GB/T 4586-1994 Chapter IV Article 16
10	AEC-Q100 Integrated circuits Test	1	Preconditioning	Moisture/Reflow Sensitivity Classification fot Nonhermetic Surface Mount Devices JEDEC J-STD-020F-2022
				Preconditioning of Nonhermetic Surface Mount Devices Prior to Reliability Testing JEDEC JESD22-A113I-2020
		2	Biased steady-state damp heat	Steady-state temperature-humidity bias life test JEDEC JESD22-A101D.01-2021
		3	Biased-HAST	Highly Accelerated Temperature and Humidity Stress Test(HAST) JEDEC JESD22-A110E.01-2021
		4	Autoclave	Acccelerated Moisture Resistance-Unbiased Autoclave JEDEC JESD22-A102E-2015
		5	Unbiased-HAST	Acccelerated Moisture Resistance-Unbiased HAST JEDEC JESD22-A118B.01-2021
		6	Temperature-Humidity （without Bias）	Steady-State Temperature-Humidity Bias Life Test JEDEC JESD22-A101D.01-2021
		7	Temperature Cycling	Temperature Cycling JEDEC JESD22-A104F.01-2023

		8	High Temperature Storage Life	High Temperature Storage Life JEDEC JESD22-A103E.01-2021
		9	High Temperature operating Life	Temperatue,Bias,and Operating Life JEDEC JESD22- A108G-2022
		10	Early Life Failure Rate	Early Life Failure Rate AEC-Q100-008A-2003
		11	NVM Endurance,Data Retention,and Operational Life	Non-Volatile Memory Program/Erase Endurance, Data Retention,and Operational life test AEC-Q100-005D1-2012
		12	Wire Bond Shear	Wire Bond Shear Test AEC-Q100-001C-1998
		13	Wire Pond Pull	Test Method Standard Microcircuits MIL-STD-883L-2019 Method 2011.10
		14	Solderability	Solderability Tests for Component Leads,Terminations，Lugs,Terminals and Wires J-STD-002E-2017
		15	Physical Dimensions	Physical Dimensions JEDEC JESD22-B100B-2003
		16	Solder Ball Shear	Solder Ball Shear Test AEC-Q100-010A-2003
		17	Lead Integrity	Lead Integrity JEDEC JESD22-B105E-2017
		18	Mechanical Shock	Mechanical Shock-Device and Subassembly JEDEC JESD22-B110B.01-2019
		19	Variable Frequency Vibration	Vibration,Variable Frequency JEDEC JESD22-B103B.01-2016
		20	Constant Acceleration test	Test Method Standard Microcircuits MIL-STD-883L-2019 Method 2001.4

		21	Sealing test	Test Method Standard Microcircuits MIL-STD-883L-2019 Method 1014.17
		22	Die Shear	Test Method Standard Microcircuits MIL-STD-883L-2019 Method 2019.10
11	AEC-Q101 Discrete devices Test	1	Preconditioning	Preconditioning of Nonhermetic Surface Mount Devices Prior to Reliability Testing JEDEC JESD22-A113I-2020
				Moisture/Reflow Sensitivity Classification fot Nonhermetic Surface Mount Devices JEDEC J-STD-020F-2022
		2	Visual	External Visual JEDEC JESD22- B101D-2022
		3	High Temperature Revere Bias test	Test Method Standard Environmental Test Methods For Semiconductor Devices. Part 1:Test Methods 1000 Through 1999 MIL-STD-750-1A -2016 Method 1038.5、1039.4
		4	High Temperature Gate Bias test	Temperatue,Bias,and Operating Life JEDEC JESD22 A108G-2022
		5	Temperature Cycling	Temperature Cycling JEDEC JESD22-A104F.01-2023
		6	Unbiased Highly Accelerated Stress Test	Acccelerated Moisture Resistance-Unbiased HAST JEDEC JESD22-A118B.01-2021
		7	Highly Accelerated Stress Test	Highly Accelerated Temperature and Humidity Stress Test(HAST) JEDEC JESD22-A110E.01-2021

		8	High Humidity High Tem. Reverse Bias	Steady-State Temperature-Humidity Bias Life Test JEDEC JESD22-A101D.01-2021
		9	Intermittent Operational Life	Test Method Standard Environmental Test Methods For Semiconductor Devices. Part 1:Test Methods 1000 Through 1999 MIL-STD-750-1A-2016 Method 1037.3
		10	Physical Dimension	Physical Dimensions JEDEC JESD22-B100B-2003
		11	Terminal Strength	Test Method Standard Mechanical Test Methods For Semiconductor Devices Part 2: Test Methods 2001 Through 2999 MIL-STD-750-2A-2018 Method 2036.5
		12	Resistance to Solvents	Mark Permanency JEDEC JESD22-B107D-2011
		13	Constant Acceleration	Test Method Standard Mechanical Test Methods For Semiconductor Devices Part 2: Test Methods 2001 Through 2999 MIL-STD-750-2A-2018 Method 2006.2
		14	Variable Frequency Vibration	Vibration,Variable Frequency JEDEC JESD22-B103B.01-2016
		15	Mechanical Shock	Mechanical Shock-Device and Subassembly JEDEC JESD22-B110B.01-2019
		16	Sealing test	Hermiticity JEDEC JESD22-A109B-2011
		17	Resistance to Solder Heat	Evaluation Procedure for Determing Capability Bottom Side Board Attach by Full Body Solder Immersion of Small Surface Mount SOLID state Devices JEDEC JESD22-A111B-2018

				Resistance to Solder Shock for Through-Hole Mounted Devices JEDEC JESD22-B106E-2016
		18	Solderrability	Solderability Tests for Component Leads,Terminations，Lugs,Terminals and Wires J-STD-002E-2017
		19	Wire Bond pull	Test Method Standard Mechanical Test Methods For Semiconductor Devices Part 2: Test Methods 2001 Through 2999 MIL-STD-750-2A-2018 Method 2037.1
		20	Wire Bond Shear	Wire Bond Shear Test AEC-Q101-003A-2005
		21	Die Shear	Test Method Standard Mechanical Test Methods For Semiconductor Devices Part 2: Test Methods 2001 Through 2999 MIL-STD-750-2A-2018 Method 2017.3