

附表 3-2:

批准证书附件

Lab: Testing Center of the 58th Research Institute of China Electronics Technology Corporation

Add: No. 5, HuiHe Road, Binhu District, Wuxi, Jiangsu Province, China, Building No. 301&102

No	Products, Materials	Items, Parameter		Title, Code of specification, standard or method used	Restriction or limitation	measuring capacity	Note
		No	Items, Parameter				
1	Integrated Circuits (MCU, Memory, Controller)	1	Input Clamping Voltage V_{IK}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 6, Section 2, Part IV	Current Range: -200mA~+200mA;	Voltage Measure Range: -24V~+24V;	
		2	Output High Level Voltage V_{OH}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 1, Section 2, Part IV	Current Range: -200mA~+0mA;	Voltage Measure Range: -1V~+6V	
		3	Output Low Level Voltage V_{OL}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 1, Section 2, Part IV	Current Range: -0mA~+200mA;	Voltage Measure Range: -1V~+6V	
		4	Input High Level Current I_{IH}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 2, Section 2, Part IV	Voltage Range: -24V~+24V	Current Measure Range: -200mA~+200mA;	
		5	Input Low Level Current I_{IL}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 2, Section 2, Part IV	Voltage Range: -24V~+24V	Current Measure Range: -200mA~+200mA;	
		6	Power Supply Current I_{CC}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 1, Section 3, Part IV	Voltage Range: -30V~+30V	Current Measure Range: -0A~+15A Current Measure Range: -200mA~+200mA;	
		7	Output Low Level Power Supply Current I_{CCL}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 4, Section 2, Part IV	Voltage Range: -30V~+30V	Current Measure Range: -0A~+15A Current Measure Range: -200mA~+200mA;	

		8	Output High Level Power Supply Current I_{CCH}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 4, Section 2, Part IV	Voltage Range: -30V~+30V	Current Measure Range: -0A~+15A Current Measure Range: -200mA~+200mA;	
		9	Output transmission delay time from low level to high level t_{PLH}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 4.1.2, Section 3, Part IV	Frequency Range: 0~800Mhz Voltage Range: -0V~+7.0V	Current Measure Range: $\geq 30ps$	
		10	Output transmission delay time from high level to low level t_{PHL}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 4.1.2, Section 3, Part IV	Frequency Range: 0~800Mhz Voltage Range: -0V~+7.0V	Current Measure Range: $\geq 30ps$	
		11	Output transmission delay time from high resistance state to high level t_{PZH}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 4.5, Section 3, Part IV	Frequency Range: 0~800Mhz Voltage Range: -0V~+7.0V	Current Measure Range: $\geq 30ps$	
		12	Output transmission delay time from high resistance state to low level t_{PZL}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 4.5, Section 3, Part IV	Frequency Range: 0~800Mhz Voltage Range: -0V~+7.0V	Current Measure Range: $\geq 30ps$	
		13	Output transmission delay time from high level to high resistance state t_{PHZ}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 4.5, Section 3, Part IV	Frequency Range: 0~800Mhz Voltage Range: -0V~+7.0V	Current Measure Range: $\geq 30ps$	
		14	Output transmission delay time from low level to high resistance state t_{PLZ}	Semiconductor Devices Integrated Circuits Part2: Digital Integrated Circuits GB/T 17574-1998 Article 4.5, Section 3, Part IV	Frequency Range: 0~800Mhz Voltage Range: -0V~+7.0V	Current Measure Range: $\geq 30ps$	
2	Integrated Circuits (Voltage comparator)	1	Input Offset Voltage V_{IO}	Basic Principle of Voltage Comparator Test Method SJ/T 10805-2018 Section 5.1	Current Range: -2A~+2A; Voltage Range: -50V~+50V	Voltage Measure Range: -50V~+50V	

		2	Input Offset Current I_{IO}	Basic Principle of Voltage Comparator Test Method SJ/T 10805-2018 Section 5.3	Current Range: -2A ~ +2A; Voltage Range: -50V ~ +50V	Current Measure Range: -50uA ~ +50uA;	
		3	Input Bias Current I_{IB}	Basic Principle of Voltage Comparator Test Method SJ/T 10805-2018 Section 5.5	Current Range: -2A ~ +2A; Voltage Range: -50V ~ +50V	Current Measure Range: -50uA ~ +50uA;	
		4	Output High Level Voltage V_{OH}	Basic Principle of Voltage Comparator Test Method SJ/T 10805-2018 Section 5.13	Current Range: -2A ~ +2A; Voltage Range: -50V ~ +50V	Voltage Measure Range: -50V ~ +50V	
		5	Output Low Level Voltage V_{OL}	Basic Principle of Voltage Comparator Test Method SJ/T 10805-2018 Section 5.14	Current Range: -2A ~ +2A; Voltage Range: -50V ~ +50V	Voltage Measure Range: -50V ~ +50V	
3	Integrated Circuits (Operational Amplifier)	1	Input Offset Voltage V_{IO}	Test Methods for Operational Amplifiers of Semiconductor Integrated Circuits QJ 2491/1993 Section 5.1	Current Range: -2A ~ +2A; Voltage Range: -50V ~ +50V	Voltage Measure Range: -50V ~ +50V	
		2	Input Offset Current I_{IO}	Test Methods for Operational Amplifiers of Semiconductor Integrated Circuits QJ 2491/1993 Section 5.4	Current Range: -2A ~ +2A; Voltage Range: -50V ~ +50V	Current Measure Range: -50uA ~ +50uA;	
		3	Input Bias Current I_{IB}	Test Methods for Operational Amplifiers of Semiconductor Integrated Circuits QJ 2491/1993 Section 5.7	Current Range: -2A ~ +2A; Voltage Range: -50V ~ +50V	Current Measure Range: -50uA ~ +50uA;	
		4	Open-loop gain A_{VD}	Test Methods for Operational Amplifiers of Semiconductor Integrated Circuits QJ 2491/1993 Section 5.10	Current Range: -2A ~ +2A; Voltage Range: -50V ~ +50V	Voltage Measure Range: -50V ~ +50V	

		5	Commo Mode Rejection Ratio K_{CMR}	Test Methods for Operational Amplifiers of Semiconductor Integrated Circuits QJ 2491/1993 Section 5.11	Current Range: -2A~+2A; Voltage Range: -50V~+50V	Voltage Measure Range: -50V~+50V	
		6	Output Voltage Conversion Rate SR	Test Methods for Operational Amplifiers of Semiconductor Integrated Circuits QJ 2491/1993 Section 5.21	Current Range: -2A~+2A; Voltage Range: -0V~+6.5V Frequency Range: 0~800Mhz	SR \leq 4000V/us	
		7	Gain Bandwidth G.BW	Test Methods for Operational Amplifiers of Semiconductor Integrated Circuits QJ 2491/1993 Section 5.32	Current Range: -2A~+2A; Voltage Range: -0V~+6.5V Frequency Range: 0~800Mhz	G.BW \leq 1000*800Mhz	
4	Integrated Circuits (Voltage Regulator)	1	Output Votage V_o	Test Methods for Voltage Regulators of Semiconductor Integrated Circuits GB/T 4377-2018 Section 4.17	Current Range: -2A~+2A; Voltage Range: -50V~+50V	Voltage Measure Range: -50V~+50V	
		2	Votage Regulation SV	Test Methods for Voltage Regulators of Semiconductor Integrated Circuits GB/T 4377-2018 Section 4.1	Current Range: -2A~+2A; Voltage Range: -50V~+50V	Voltage Measure Range: -50V~+50V	
		3	Current Regulation ST	Test Methods for Voltage Regulators of Semiconductor Integrated Circuits GB/T 4377-2018 Section 4.2	Current Range: -2A~+2A; Voltage Range: -50V~+50V	Voltage Measure Range: -50V~+50V	
5	Integrated Circuits (Analog Switch)	1	Analog Voltage Operating Range V_A	Test Methods for Analog Switch of Semiconductor Integrated Circuits GB/T 14028-2018 Section 2.1	Current Range: -2A~+2A; Voltage Range: -50V~+50V	Voltage Measure Range: -50V~+50V	

		2	On-resistance R_{ON}	Test Methods for Analog Switch of Semiconductor Integrated Circuits GB/T 14028-2018 Section 2.2	Current Range: $-2A \sim +2A$; Voltage Range: $-50V \sim +50V$	Resistance Measure Range: $1\Omega \sim 999K\Omega$	
		3	Cut-off State Drain Current $I_{D(OFF)}$	Test Methods for Analog Switch of Semiconductor Integrated Circuits GB/T 14028-2018 Section 2.4	Current Range: $-2A \sim +2A$; Voltage Range: $-50V \sim +50V$	Current Measure Range: $-2A \sim +2A$;	
6	Discrete Semiconductor Devices -Diodes (Voltage regulation diodes, switching diodes, current regulation diodes, transient suppression diodes)	1	Forward Voltage V_F	Discrete Semiconductor Devices Part3: Signal (including switch) and Adjustment Diodes GB/T 6571-1995 Article 2, Section 1, Part IV	Current Range: $0 \sim 200A$	Voltage Measure Range: $0 \sim 2KV$	
		2	Reverse Current I_R	Discrete Semiconductor Devices Part3: Signal (including switch) and Adjustment Diodes GB/T 6571-1995 Article 1, Section 1, Part IV	Voltage Range: $0 \sim 2KV$	Current Measure Range: $0A \sim 10A$	
		3	Operating Voltage V_Z	Discrete Semiconductor Devices Part3: Signal (including switch) and Adjustment Diodes GB/T 6571-1995 Article 1, Section 2, Part IV	Current Range: $0 \sim 10A$	Voltage Measure Range: $0 \sim 2KV$	
		4	Differential Resistance r_z	Discrete Semiconductor Devices Part3: Signal (including switch) and Adjustment Diodes GB/T 6571-1995 Article 2, Section 2, Part IV	Current Range: $0 \sim 10A$ Voltage Range: $0 \sim 1KV$	Resistance Measure Range: $1m\Omega \sim 999K\Omega$	
		5	Breakdown Voltage $V_{(BR)}$	Semiconductor Devices Discrete Devices and Integrated Circuits Part2: Rectifiers GB/T 4023-2015 Article 7.1.3	Current Range: $0 \sim 10mA$	Voltage Measure Range: $0 \sim 2KV$	
7	Discrete Semiconductor Devices -Bipolar transistor	1	Collector-base cut-off Current I_{CBO}	Semiconductor Devices Discrete Devices and Integrated Circuits Part7: Bipolar transistor GB/T4587-1994 Article 2.1, Section 1, Part IV	Voltage Range: $0 \sim 2KV$	Current Measure Range: $0A \sim 10A$	
		2	Emitter-base cut-off current I_{EBO}	Semiconductor Devices Discrete Devices and Integrated Circuits Part7: Bipolar transistor GB/T4587-1994 Article 2.2, Section 1, Part IV	Voltage Range: $0 \sim 2KV$	Current Measure Range: $0A \sim 10A$	

		3	Collector-emitter cut-off current I_{CEO}	Semiconductor Devices Discrete Devices and Integrated Circuits Part7: Bipolar transistor GB/T4587-1994 Article 3, Section 1, Part IV	Voltage Range: 0~2KV	Current Measure Range: 0A~10A	
		4	Collector-emitter saturation voltage V_{CEsat}	Semiconductor Devices Discrete Devices and Integrated Circuits Part7: Bipolar transistor GB/T4587-1994 Article 4, Section 1, Part IV	Current Range: 0~200A	Voltage Measure Range: 0V~2KV	
		5	Base-emitter saturation voltage V_{BEsat}	Semiconductor Devices Discrete Devices and Integrated Circuits Part7: Bipolar transistor GB/T4587-1994 Article 5, Section 1, Part IV	Current Range: 0~200A	Voltage Measure Range: 0V~2KV	
		6	Common emitter forward current transmission h_{fe}	Semiconductor Devices Discrete Devices and Integrated Circuits Part7: Bipolar transistor GB/T4587-1994 Article 9.6, Section 1, Part IV	Current Range: 0~40A Voltage Range: 0~30V	Measure Range: 0~9999	
		7	Collector-base breakdown voltage $V_{(BR)CBO}$	Semiconductor Devices Discrete Devices and Integrated Circuits Part7: Bipolar transistor GB/T4587-1994 Article 10.2, Section 1, Part IV	Current Range: 0~10mA	Voltage Measure Range: 0V~2KV	
		8	Emitter-base breakdown voltage $V_{(BR)EBO}$	Semiconductor Devices Discrete Devices and Integrated Circuits Part7: Bipolar transistor GB/T4587-1994 Article 10.2, Section 1, Part IV	Current Range: 0~10mA	Voltage Measure Range: 0V~2KV	
8	Discrete Semiconductor Devices -Field effect transistor	1	Gate cut-off current I_{GSS}	Semiconductor Devices Discrete Devices and Integrated Circuits Part8: Field effect transistor GB/T 4586-1994 Article 2, Part IV	Voltage Range: 0~2KV	Current Measure Range: 0A~10A	
		2	Drain cut-off current I_{DSS}	Semiconductor Devices Discrete Devices and Integrated Circuits Part8: Field effect transistor GB/T 4586-1994 Article 4, Part IV	Voltage Range: 0~2KV	Current Measure Range: 0A~10A	
		3	Gate-source threshold voltage $V_{GS(th)}$	Semiconductor Devices Discrete Devices and Integrated Circuits Part8: Field effect transistor GB/T 4586-1994 Article 6, Part IV	Current Range: 0~40A	Voltage Measure Range: 0V~2KV	
		4	Small signal short circuit forward transconductance g_{fs}	Semiconductor Devices Discrete Devices and Integrated Circuits Part8: Field effect transistor GB/T 4586-1994 Article 10, Part IV	Current Range: 0~40A Voltage Range: 0~30V	Measure Range: 0~9999S	

		5	Static source-leakage on-state resistance $r_{DS(on)}$	Semiconductor Devices Discrete Devices and Integrated Circuits Part8: Field effect transistor GB/T 4586-1994 Article 15, Part IV	Current Range: 0~200A Voltage Range: 0~30V	Resistance Measure Range: 1mΩ~999KΩ	
		6	Drain-source breakdown voltage $V_{(BR)DSS}$	Test methods for discrete semiconductor devices Part3 MIL-STD-750-3-2019 Method: 3407.1	Current Range: 0~10mA	Voltage Measure Range: 0V~2KV	
9	AEC-Q100 Reliability Test	1	Preconditioning (PC)	Muisture/Reflow Sensitivity Classification for Nonhermetic Surface Mount Devices JEDEC J-STD-020F-2022 Preconditioning of Nonhermetic Surface Mount Devices Prior to Reliability Testing JEDEC JESD22-A113I-2020	All items	Maximun Volume: H×L×W:1000mm×980mm×800mm; Temperature: ≤85℃; Humidity: 60%RH~95%RH	
		2	Temperature-Humidity-Bias (THB)	Steady-State Temperature-Humidity Bias Life Test JEDEC JESD22-A101D.01-2021	All items	Maximun Volume: H×L×W:1000mm×980mm×800mm; Temperature: ≤85℃; Humidity: 60%RH~95%RH。	
		3	Biased HAST (HAST)	Highly Accelerated Temperature and Humidity Stress Test JEDEC JESD22-A110E.01-2021	All items	Maximun Volume: W×H×D: 355mm×355mm×426mm	
		4	Autoclave (AC)	Accelerated Moisture Resisitance-Unbiased Autoclave JEDEC JESD22-A102E-2015	All items	Maximun Volume: W×H×D: 355mm×355mm×426mm	
		5	Unbiased HAST (UHAST)	Accelerated Moisture Resisitance-Unbiased HAST JEDEC JESD22-A118B.01-2021	All items	Maximun Volume: W×H×D: 355mm×355mm×426mm	

		6	Temperature-Humidity (without Bias) (TH)	Steady-State Temperature-Humidity Bias Life Test JEDEC JESD22-A101D.01-2021	All items	Maximun Volume: H×L×W:1000mm×98 0mm×800mm; Temperature: ≤85℃; Humidity: 60%RH~95%RH。	
		7	Temperature Cycling(TC)	Temperature Cycling JEDEC JESD22-A104F-2020	All items	Maximun Volume: H×L×W:410mm×470 mm×650mm; Temperature: -68℃~175℃。	
		8	High Temperature Storage Life (HTSL)	High Temperature Storage Life JEDEC JESD22-A103E.01-2021	All items	Temperature:≤200℃ , Maximun Volume: H×L×W:600mm×60 0mm×600mm	
		9	High Temperature Operating Life (HTOL)	Temperature, Bias, and Operating Life JEDEC JESD22-A108G-2022	All items	Temperature:25℃~ 150℃	
		10	Early Life Failure Rate (ELFR)	Early Life Failure Rate AEC Q100-008A-2003	All items	Temperature:25℃~ 150℃	
		11	NVM Endurance, Data Retention, and Operational Life (EDR)	NVM Endurance, Data Retention, and Operational Life AEC Q100-005D1-2012	All items	Temperature:25℃~ 150℃	
		12	Wire Bond Shear (WBS)	Wire Bond Shear AEC Q100-001C-1998	All items	Shear force≤100kg	
		13	Wire Bond Pull (WBP)	Test Methods for Microelectronic Devices MIL-STD-883L-2019 Method2011.10	Only for Condition D	Pull Force≤100g	
		14	Solderability(SD)	Solderability JESD22-B102E-2007	Only for Immersion and Reflow	TemperatureRange:2 5℃-350℃	

		15	Physical Dimensions(PD)	Physical Dimensions JEDEC JESD22-B100B-2003	All items	measureRange: ≤400mm Accuracy: 0.0001mm	
		16	Solder Ball Shear(SBS)	Solder Ball Shear AEC Q100-010A-2003	All items	Shear force≤100kg	
		17	Lead Integrity(LI)	Lead Integrity JESD22-B105E-2017	Only for Condition A、B	Pull Force≤4Kg	
		18	Mechanical Shock(MS)	Mechanical Shock-Component and Subassembly JEDEC JESD22-B110B.01-2019	Only for Condition A、 B、 F	Acceleration≤5000g	
		19	Variable Frequency Vibration(VFV)	Variable Frequency Vibration JEDEC JESD22-B103B.01-2016	Only for Condition 1	FrequencyRange: 5HZ~2000HZ Acceleration≤50g	
		20	Constant Acceleration(CA)	Test Methods for Microelectronic Devices MIL-STD-883L-2019 Method 2001	Only for Condition A-EF	Acceleration≤50000 g	
		21	Gross/Fine Leak(GFL)	Test Methods for Microelectronic Devices MIL-STD-883L-2019 Method 1014	Only for Condition H、 C	Fine leak detection: He; Rough leak detection: fluorocarbon	
		22	Die Shear(DS)	Test Methods for Microelectronic Devices MIL-STD-883L-2019 Method 2019	All items	Shear force≤100kg	
		23	Electrostatic Discharge Charged Devices Mode (CDM)	Electrostatic Discharge Charged Devices Mode AEC Q100-011-2019	All items	Voltage Range: 0~2KV	

10	AEC-Q101 Reliability Test	1	Preconditioning (PC)	Muisture/Reflow Sensitivity Classification for Nonhermetic Surface Mount Devices JEDEC J-STD-020F-2022 Preconditioning of Nonhermetic Surface Mount Devices Prior to Reliability Testing JEDEC JESD22-A113I-2020	All items	Temperature: 25°C -150°C; Humidity: 30%RH-98%RH Reflow Temperature: 25°C -300°C
		2	Biased HAST (HAST)	Highly Accelerated Temperature and Humidity Stress Test JEDEC JESD22-A110E.01-2021	All items	Maximun Volume: W×H×D: 355mm×355mm×42 6mm
		3	High Humidity, High Temperature Reverse Bias (H ³ TRB)	High Humidity, High Temperature Reverse Bias JEDEC JESD22-A101D.01-2021	All items	Maximun Volume: H×L×W:1000mm×98 0mm×800mm; Temperature: ≤85°C; Humidity: 60%RH~95%RH。
		4	Unbiased HAST (UHAST)	Accelerated Moisture Resisitance-Unbiased HAST JEDEC JESD22-A118B.01-2021	All items	Maximun Volume: W×H×D: 355mm×355mm×42 6mm
		5	Autoclave (AC)	Accelerated Moisture Resisitance-Unbiased Autoclave JEDEC JESD22-A102E-2015	All items	Maximun Volume: W×H×D: 355mm×355mm×42 6mm
		6	Temperature Cycling (TC)	Temperature Cycling JEDEC JESD22-A104F-2020	All items	Maximun Volume: H×L×W:410mm×470 mm×650mm; Temperature: -68°C~175°C。

		7	Intermittent Operational Life(IOL)	Test Methods for Discrete Semiconductor Devices MIL-STD-750-1A-2019 Method 1037	All items	Voltage Range: 0~60V Current Range: 0~8A	
		8	High Temperature Reverse Bias (HTRB)	Test Methods for Discrete Semiconductor Devices MIL-STD-750-1A-2019 Method 1038、1039	Only for Condition A	Voltage≤1500V Temperature: 25~175℃	
		9	Steady State Operational (SSOP)	Test Methods for Discrete Semiconductor Devices MIL-STD-750-1A-2019 Method 1038	Only for Condition B	VoltageRange: 0~60V CurrentRange: 0~8A	
		10	High Temperature Gate Bias (HTGB)	Temperature, Bias, and Operating Life JEDEC JESD22-A108G-2022	All items	Voltage≤1500V Temperature: 25~175℃	
		11	Physical Dimensions(PD)	Physical Dimensions JEDEC JESD22-B100B-2003	All items	Size≤400mm Accuracy: 0.0001mm	
		12	Wire Bond Shear Strength (WBS)	Wire Bond Shear Strength AEC Q101-003A-2005 JEDEC JESD22-B116B-2017	All items	Shear force≤100kg	
		13	Wire Bond Pull Strength (WBP)	Test Methods for Discrete Semiconductor Devices MIL-STD-750-2A-2020 Method 2037.1 Qualification Requirements For Components Using Copper (Cu) Wire Interconnections AEC Q006-2015	All items	Pull Force≤100g	
		14	Die Shear (DS)	Test Methods for Discrete Semiconductor Devices MIL-STD-750-2A-2020 Method 2017.3	All items	Shear force≤100kg	
		15	Terminal Strength (TS)	Test Methods for Discrete Semiconductor Devices MIL-STD-750-2A-2020 Method 2036.5	Only for Condition A、E	Pull Force≤4Kg	
		16	Resistance to Solvents (RTS)	Mark Permanency JEDEC JESD22-B107D-2011	Only for ink marking	Mixed solvent1、2、 3	

		17	Resistance to Solder Heart (RSH)	Evaluation Procedure for Determining Capability to Bottom Side Board Attach by Full Body Solder Immersion of Small Surface Mount Solid State Devices JEDEC JESD22-A111B-2018	Only for Immersion and Reflow	Temperature \leq 350 $^{\circ}$ C	
				Resistance to Soldering Temperature for Through-Hole Mounted Devices JEDEC JESD22-B106E-2016	Only for Immersion and Reflow	Temperature \leq 350 $^{\circ}$ C	
		18	Solderability(SD)	Solderability Tests for Component Leads, Terminations, Lugs, Terminals and Wires J-STD-002E-2017	Only for Immersion and Reflow	TemperatureRange2 5 $^{\circ}$ C-350 $^{\circ}$ C	
		19	Constant Acceleration(CA)	Test Methods for Discrete Semiconductor Devices MIL-STD-750-2A-2020 Method 2006	Only for Condition A-E	Acceleration \leq 50000 g	
		20	Vibration, Variable Frequency(VVF)	Vibration, Variable Frequency JEDEC JESD22-B103B.01-2016	Only for Condition 1	FrequencyRange: 5HZ~2000HZ Acceleration \leq 50g	
		21	Mechanical Shock(MS)	Mechanical Shock-Component and Subassembly JEDEC JESD22-B110B.01-2019	Only for Condition A、 B、 F	Acceleration \leq 50000 g	
		22	Hermeticity(HER)	Hermeticity JEDEC JESD22-A109B-2011	Only for Condition H、 C	Fine leak detection: He; Rough leak detection: fluorocarbon	
		23	External Visual (EV)	External Visual JEDEC JESD22-B101D-2022	All items	Magnification: 7.5~100X	
		24	ESD HBM Characterization (ESDC)	ESD HBM Characterization AEC Q101-005-2019	All items	VoltageRange: 0~2KV	