



Schedule of Scope to Certificate of Approval
Independent Testing Laboratory
 IECQ Certificate No.: IECQ-L DEKRA 17.0003
 CB Certificate No.: DEKRA-C09-001

Schedule Number: IECQ-L DEKRA 17.0003-S Rev No.: 1 Revision Date: 2017/11/15 Page 1 of 3

1. Environmental and Reliability Testing of Electronic Components, Assemblies, and Related Materials

Description test	Standard	Remarks
Compression test	ISTA 2A;ASTM D4169	Or customer specified test
Highly accelerated temperature and humidity stress test	GMW 3172	Or customer specified test
Highly Accelerated Life test	GMW 3172;GB/T29309	Or customer specified test
High temperature test	ASTM D4169;BELL Core GR-63;GB 2423.2;IEC 60068-2-2;ISO 16750;VW 80000;GMW 3172;ISO 9022;PSA B21 7130;IPC-TM-650;JESD22-A103;JESD22-A108;MGRES:62.21.001	Or customer specified test
Free fall test	ASTM D4169;IEC 60068-2-31;ISTA;ISO 16750;MIL-STD-810;GB 2423.8;ISO 12097;VW 80101;GMW 3172;MGRES:62.21.001;ISO 9022	Or customer specified test
Humidity test	GB 2423.9;IEC 60068-2-30/78;ISO 16750;ISO 12097;VW 80101;GMW 3172;TL-226;MGRES:62.21.001;ISO 9022;PSA B21 7130;BELL Core GR-63;ISTA;MIL-STD-810;IPC-TM-650;JESD22-A101	Or customer specified test
Low air pressure(altitude) test	IEC 60068-2-13/40/41;GMW 3172;ISO 9022;EIA-364;MIL-STD-810	Or customer specified test
Low temperature test	ISTA;GB 2423.1;IEC 60068-2-1;ISO 1675;VW 80000;GMW 3172;TL-226;MGRES:62.21.001;ISO 9022;MIL-STD-202;PSA B21 7130;IPC-TM-650;JESD22-A103;JESD22-A108	Or customer specified test
Flowing mixed gas corrosion test	GB 2423.51;IEC 60068-2-42/43/60;ISO 16750;MGRES:62.21.001;EIA-364-65;IEC-60810;JIS C 0092;AEC-Q-101	Or customer specified test
Salt spray test	ISO 9227;GB 2423.17/18;IEC 60068-2-11/52;52;ISO 16750;MIL-STD-883;GB 10485;GB/T19949;ISO 7253;VW 80000;GMW 3172;TL-226;MGRES:62.21.001;JIS H8502 ;ISO 9022;MIL-STD-202;MIL-STD-810;ASTM B117	Or customer specified test
Degrees of protection(dust and rain) test	DIN 40050-9;ISO 20653;IEC 60529;ISO 16750;GB 10485;GB/T19949;VW 80000;GMW 3172;JIS D 0203;PSA B21 7130	Or customer specified test
Dew test	GMW 3172;TL-226/MGRES:62.21.001;ISO 9022	Or customer specified test
Shock test	GB 2423.5/57;IEC 60068-2-27;ISO 12097;GMW 3172;EIA-364;MIL-STD-202;JESD22-B104;MIL-STD-810;MIL-STD-883	Or customer specified test

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





Schedule of Scope to Certificate of Approval
Independent Testing Laboratory
 IECQ Certificate No.: IECQ-L DEKRA 17.0003
 CB Certificate No.: DEKRA-C09-001

Schedule Number: IECQ-L DEKRA 17.0003-S Rev No.: 1 Revision Date: 2017/11/15 Page 2 of 3

Description test	Standard	Remarks
Thermal shock test	GB 2423.22;IEC 60068-2-14/41;GB/T19949;VW 80000;GMW 3172;MGRES:62.21.001;MIL-STD-202;IPC-TM-650;MIL-STD-810;JESD22 A 106	Or customer specified test
Vibration test	GB 2423.10/56;IEC 60068-6/64;ISO 12097;DELL spec;VW 80000;GMW 3172;MGRES:62.21.001;EIA-364;JESD22-B103;MIL-STD-202;MIL-STD-810;MIL-STD-883	Or customer specified test
Temperature/humidity cyclic test	ISO 16750;GMW 3172	Or customer specified test
Temperature cyclic test	IEC 60068-2-14;GB 2423.22;GB 10485;GMW 3172;PSA B21 7130;;MIL-STD-810;IPC-TM-650;JESD22-A104	Or customer specified test
Solar radiation test	DIN 75220;IEC 60068-2-5;ISO 9022;MIL-STD-810	Or customer specified test
Insulation resistance test	VW 80101;IPC-A-600;J-STD-004	Or customer specified test
Xenon arc lamp test	ISO 105;ISO 11341;TL-226;SAE J2412;SAE J1960;SAE J2527;AATCC 16-3;AATCC 169-1	Or customer specified test
Ozone resistance test	MGRES:62.21.001;EIA-364;GB/T 7762;DIN 53509-1;ASTM D1149	Or customer specified test
Dye penetration	IPC-7095;Dell D4559	Or customer specified test
Microscopy inspection by SEM	ASTM B748;JY/T 010;J-STD-035	Or customer specified test
Moisture sensitivity levels	J-STD-020	Or customer specified test
Shear and Pull testing	JEDEC JESD 22;MIL STD 883;JIS Z3198-7;EIA-364	Or customer specified test
Electrochemical migration test	J-STD-004	Or customer specified test
Preparation using micro section	IPC TM 650;IPC - MS-810	Or customer specified test
Optical microscopy inspection	IPC A-610/600	Or customer specified test
Wetting balance / Solderability testing	GB/T 9491;J-STD-002;J-STD-003;J-STD-004	Or customer specified test
Radiography(X-ray) inspection	MIL-STD-883;GJB 1187A	Or customer specified test
Chemical resistance testing	GB 10485;VW 80101	Or customer specified test
External visual inspection	IPC-A-610;IPC-A-600;ES90000-01/02/03	Or customer specified test
Abrasion behaviour test	GB7706;ASTM D5264;ISO105 X12	Or customer specified test
Preparation using Crosscut	GB 9286;ISO2409;ASTM D3359	Or customer specified test
Scratch resistance test	ISO 1518-1;VW TL226	Or customer specified test
Flammability test	GB 8410;MGRES:62.21.001;FMVSS 571.302;GB 2048;IEC 60695;UL 94/SAE J369	Or customer specified test
Rockwell hardness test	GB 230;ISO 6508;ASTM E18;GB 9342;GB 3398.2;ASTM D785	Or customer specified test

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





Schedule of Scope to Certificate of Approval
Independent Testing Laboratory
IECQ Certificate No.: IECQ-L DEKRA 17.0003
CB Certificate No.: DEKRA-C09-001

Schedule Number: IECQ-L DEKRA 17.0003-S Rev No.: 1 Revision Date: 2017/11/15 Page 3 of 3

Description test	Standard	Remarks
Vicker hardness test	GB 4340;ASTM E384;ISO 6507	Or customer specified test
Shore hardness test	GB 531;ASTM D2240;GB 2411;ISO 868	Or customer specified test
RCA Abrasion test	ASTM F2357	Or customer specified test
Table Abrasion test	ASTM F2495;ISO 1518-1;ASTM D3884;ASTM D1044;ASTM D4060;ISO 9652;DIN 53109;DIN 53754	Or customer specified test
Film Hardness by Pencil test	GB 6739;ISO 15184;ASTM D3363	Or customer specified test
Tensile properties test	GB 1040;ISO 527;ASTM 638;GB 228;ISO 6892-1	Or customer specified test
Chip resistance test	SAE J400;ASTM D3170;GMW 14700;ISO 20567-1;FLTM BI157-06	Or customer specified test
Material analysis by Energy Dispersive Spectrometry	GB/T 17359	Or customer specified test
Environmental Stress Screening; Temperature /Humidity / Vibration testing	IEC 60068-2-53,VW80000, ISO 16750-3	Or customer specified test

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

