中国认可
国际互认
检测
TESTING
CNAS L4892

TEST REPORT

REPORT NO.:	**UK220107085**
PRODUCT NAME:	**Stacked solid polymer aluminum electrolytic capacitor**
PRODUCT MODEL:	**MPD19**
APPLICANT:	**Shanghai Yongming Electronic Co. Ltd**
APPLICANT ADDRESS:	**No.258 Guangcun Rd. Yangwang Industrial Park, Nanqiao Town, Fengxian District, Shanghai, China**
DATE OF ISSUE:	**2022-11-03**
TESTING INSTITUTE:	**Guangdong U.K Standard Testing Co., Ltd.**

U.K STANDARD TESTING CO., LTD. UK APPROVED

U.K Standard Testing

NOTICE

1. The report is invalid without test report specialized stamp.
2. Without written approval of the laboratory, the test report shall not be copied (except for full-text copy).
3. The report is invalid without preparation/signature of the main inspection, examination and approval. The altered report is invalid.
4. We are only responsible for incoming samples. The client shall be responsible for the accuracy of the test data and results. The client shall be responsible for the authenticity of the samples and related information provided.
5. This report and the name of the organization shall not be used in product labeling, packaging, advertising and other publicity activities without prior consent.
6. The report without the qualification identification mark does not have the role of proof to the society.
7. Without the permission of the Entruster, it shall not disclose the Entruster's trade secrets and technical secrets to any third party.
8. The inspection conclusion is only valid for the tested sample and does not represent the quality of the batch of products to which the sample belongs.
9. If you have any objection to the inspection report, you should raise it to the inspection unit within 15 days after receiving the report, and it will not be handled after the deadline.
10. This report is only provided to the Principal and the Agency shall not assume any liability arising from the application of this report by other parties.
11. A "decision" or "result" of "P" in the report means that the test is "qualified"; "F" means the test "fails"; "N (N/A)" indicates that the test is not applicable.

Testing Institute:	Guangdong U.K Standard Testing Co., Ltd.
Address:	Building E, Nanpu Technology Innovation Center, Banshi, Changping, Dongguan, Guangdong, China
Zip Code:	523573
Tel:	0769-82327388
Fax:	0769-82828563
Email:	Eddie.ma@uk-st.com
Web Side:	http://www.uk-st.com

TEST REPORT

Product Name:	Stacked solid polymer aluminum electrolytic capacitor	Applicant:	Shanghai Yongming Electronic Co. Ltd
Product Model and Parameter:	MPD19	Address of Applicant:	No.258 Guangcun Rd. Yangwang Industrial Park, Nanqiao Town, Fengxian District, Shanghai, China
Sample Source:	Customer	Manufacturer:	Shanghai Yongming Electronic Co. Ltd
Sample Qty:	583pcs	Address of Manufacturer:	No.258 Guangcun Rd. Yangwang Industrial Park, Nanqiao Town, Fengxian District, Shanghai, China
Sample Date Received:	2022-07-01	Factory:	Shanghai Yongming Electronic Co. Ltd
Test Date:	From 2022-07-14 to 2022-08-30	Address of Factory:	No.258 Guangcun Rd. Yangwang Industrial Park, Nanqiao Town, Fengxian District, Shanghai, China

Test Standard:

AEC-Q200 REV D June 1, 2010: STRESS TEST QUALIFICATION FOR PASSIVE COMPONENTS TABLE 3 - Table of Methods Referenced Aluminum Electrolytic Capacitors.
* The tests according to customer requirements.

Test Result: Pass.

Test Description:

MPD19 was subjected to test of: TABLE 3 of AEC-Q200 REV D June 1, 2010.

Test Engineer: Fenghua Linn Signature: fenghua.linn

Date: 2022-09-02

Project Engineer: Peter Wang Signature: Peter Wang

Date: 2022-09-13

Authorized Signatory: Eddie Ma Signature: Eddie Ma

Date: 2022-11-03

Guangdong U.K Standard Testing Co., Ltd.

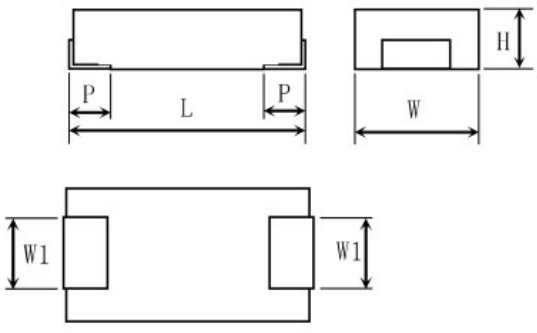
Note: the standards marked with "*" are normative requirements or qualified technical parameter standards, and do not involve test methods. This standard is not within the scope of CNAS approval and authorization.

Test Description

1. Model No. and parameter list

Model: MPD19			
No.	Test items	Rate of capacitance change (compared to the Initial value)	Rate of resistance change (compared to the specification value)
1	Pre-and Post-Stress Electrical Test	<±20%	<9mΩ
2	Operational Life	<±20%	<200%
3	High Temperature Exposure (Storage)	<±20%	<200%
4	Biased Humidity	<±20%	<200%
5	Temperature Cycling	<±20%	<200%
6	External Visual	/	
7	Physical Dimension	/	
8	Resistance to Solvents	<±20%	<200%
9	Mechanical Shock	<±20%	<200%
10	Vibration		
11	Resistance to Soldering Heat	<±20%	<200%
12	ESD	<±20%	<200%
13	Solderability	<±20%	<200%
14	Electrical Characterization(-40°C/+25°C/+105°C)	<±20%	<200%
15	Flammability	/	
16	Board Flex	<±20%	<200%
17	Terminal Strength (SMD)	<±20%	<200%
18	Surge voltage	<±20%	<200%

2. Configuration and dimensions



L	W	H	W1	P
7.3±0.3	4.3±0.2	1.9±0.1	2.4±0.2	1.3±0.2

Test Description

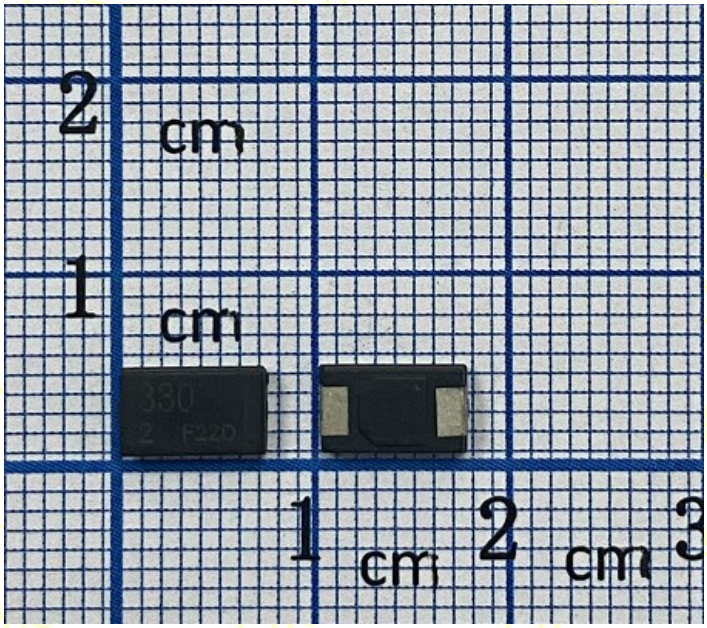
3.Test items

No.	Stress	Reference	Test Condition	Sample Size	Number failed
1	Pre- and Post-Stress Electrical Test	User Spec.	/	583	0
2	Operational Life	MIL-STD- 202 Method 108	1000 hours at 105°C Rated Voltage2.0V	77	0
3	High Temperature Exposure (Storage)	MIL-STD-202 Method108	1000 hours at 105°C	77	0
4	Biased Humidity	MIL-STD-202 Method103	1000 hours at 85°C /85%RH Rated Voltage2.0V	77	0
5	Temperature Cycling	JESD22 Method JA-104	1000 cycles (-40°C to 105°C)	77	0
6	External Visual	MIL-STD-883 Method 2009	Inspect device construction, marking and workmanship.	583	0
7	Physical Dimension	JESD22 Method JB-100	Verify the physical dimensions to the applicable user spec.	30	0
8	Resistance to Solvents	MIL-STD-202 Method 215	Immersion 3+0.5/-0 minutes in terpene defluxer. Brush 10 strokes(wet bristle)2 to 3 oz. Rinse in water. Air blow dry.	5	0
9	Mechanical Shock	MIL-STD-202 Method 213	Units are non-operating. Peak value (g's): 100 Normal duration (D) (ms):6 Velocity change (Vi) ft/sec:12.3 18 shocks.	30	0
10	Vibration	MIL-STD-202 Method 204	10-2000 Hz. 12 cycles each of 3 orientations.		

Test Description

No.	Stress	Reference	Test Condition	Sample Size	Number failed
11	Resistance to Soldering Heat	MIL-STD-202 Method 210	Condition B: Component Temperature: 260±5°C, Time: 10±1s, Temperature ramp/immersion and emersion rate: 25mm/s±6mm/s	30	0
12	ESD	AEC-Q200-002 or ISO/DIS10605	/	15	0
13	Solderability	J-STD-002	Electrical test not required. Test Method B @215℃, category 3	15	0
14	Electrical Characterization	User Spec.	/	30	0
15	Flammability	UL-94	V0 or V1	30	0
16	Board Flex	AEC-Q200-005	>60s	30	0
17	Terminal Strength (SMD)	AEC-Q200-006	Apply force 17.7 N (1.8 Kg) time: 60 +1 s.	30	0
18	Surge voltage	JIS-C-5101-1	Surge voltage2.5V.	30	0

Photo



User Spec.			Verdict
Pre- and Post-Stress Electrical Test			**P**
1	The Pre- and Post- Stress Electrical Test below were conducted in their respective order on each test sample prior to and following the applicable Stress Tests. Results for each Pre- and Post- Stress Electrical Test are recorded.	583pcs samples.	P
2	Before, the capacitance Initial test should not exceed ±20% deviation, and the resistance Initial test should not exceed 9mΩ deviation.	The test results are recorded in the data sheet of the conditional stress test.	P
3	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
4	After the test the capacitance should not exceed of the specification.	The test results are recorded in the data sheet of the conditional stress test.	P
5	After the test the resistance should not exceed of the specification.	The test results are recorded in the data sheet of the conditional stress test.	P

MIL-STD-202 Method 108			Verdict
Operational Life			**P**
1	Test Temperatures at 105°C, the voltage 2.0V was placed for 1000 h, and the rate of change of capacitance and resistance was measured 24±4 hours after the test. beginning; end .....:	77pcs samples. 2022-07-14 to 2022-08-26	P
2	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.		P
3	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
4	After the test the resistance should not exceed 200% of the specification.	See below table.	P

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
1	312.553	304.029	-2.727%	-7.870%	No
2	339.146	302.946	-10.674%	-8.198%	No
3	341.240	308.232	-9.673%	-6.596%	No
4	315.244	308.509	-2.136%	-6.512%	No
5	312.983	300.564	-3.968%	-8.920%	No
6	316.206	305.141	-3.499%	-7.533%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
7	320.596	318.321	-0.710%	-3.539%	No
8	330.888	317.280	-4.113%	-3.855%	No
9	323.659	319.730	-1.214%	-3.112%	No
10	329.496	325.789	-1.125%	-1.276%	No
11	323.899	301.505	-6.914%	-8.635%	No
12	314.993	299.148	-5.030%	-9.349%	No
13	329.632	322.417	-2.189%	-2.298%	No
14	342.097	320.316	-6.367%	-2.935%	No
15	340.026	313.131	-7.910%	-5.112%	No
16	311.387	297.340	-4.511%	-9.897%	No
17	331.727	310.629	-6.360%	-5.870%	No
18	313.975	302.899	-3.528%	-8.212%	No
19	331.443	311.759	-5.939%	-5.528%	No
20	317.352	312.875	-1.411%	-5.189%	No
21	328.720	302.711	-7.912%	-8.269%	No
22	312.570	310.455	-0.677%	-5.923%	No
23	333.514	331.320	-0.658%	0.400%	No
24	315.969	310.634	-1.688%	-5.868%	No
25	337.534	326.129	-3.379%	-1.173%	No
26	341.012	329.037	-3.512%	-0.292%	No
27	328.307	309.968	-5.586%	-6.070%	No
28	316.596	303.633	-4.094%	-7.990%	No
29	319.173	304.220	-4.685%	-7.812%	No
30	336.084	329.430	-1.980%	-0.173%	No
31	335.298	305.091	-9.009%	-7.548%	No
32	340.869	303.659	-10.916%	-7.982%	No
33	323.532	297.858	-7.936%	-9.740%	No
34	323.683	313.981	-2.997%	-4.854%	No
35	321.449	301.431	-6.227%	-8.657%	No
36	337.396	324.382	-3.857%	-1.702%	No
37	342.060	328.181	-4.057%	-0.551%	No
38	315.580	311.446	-1.310%	-5.622%	No
39	339.935	309.412	-8.979%	-6.239%	No
40	318.910	303.152	-4.941%	-8.136%	No

Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
41	334.220	322.459	-3.519%	-2.285%	No
42	318.939	302.907	-5.027%	-8.210%	No
43	341.214	325.468	-4.615%	-1.373%	No
44	320.776	303.491	-5.388%	-8.033%	No
45	324.039	315.665	-2.584%	-4.344%	No
46	337.998	319.836	-5.373%	-3.080%	No
47	334.412	331.093	-0.992%	0.331%	No
48	318.701	303.026	-4.918%	-8.174%	No
49	322.853	305.133	-5.489%	-7.535%	No
50	316.508	303.546	-4.095%	-8.016%	No
51	341.604	317.590	-7.030%	-3.761%	No
52	315.311	309.359	-1.888%	-6.255%	No
53	332.461	320.743	-3.525%	-2.805%	No
54	338.826	321.528	-5.105%	-2.567%	No
55	313.157	311.879	-0.408%	-5.491%	No
56	320.885	310.587	-3.209%	-5.883%	No
57	339.226	323.487	-4.640%	-1.974%	No
58	319.288	316.998	-0.717%	-3.940%	No
59	341.993	322.939	-5.571%	-2.140%	No
60	316.774	310.915	-1.850%	-5.783%	No
61	318.365	309.939	-2.647%	-6.079%	No
62	319.096	311.320	-2.437%	-5.661%	No
63	319.346	298.958	-6.384%	-9.407%	No
64	318.658	299.122	-6.131%	-9.357%	No
65	324.062	314.978	-2.803%	-4.552%	No
66	329.483	323.201	-1.907%	-2.060%	No
67	326.066	306.735	-5.929%	-7.050%	No
68	340.405	302.843	-11.035%	-8.229%	No
69	339.362	330.666	-2.562%	0.202%	No
70	319.827	318.631	-0.374%	-3.445%	No
71	340.034	305.127	-10.266%	-7.537%	No
72	316.847	306.748	-3.187%	-7.046%	No
73	328.983	310.360	-5.661%	-5.952%	No
74	337.426	328.845	-2.543%	-0.350%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
75	313.003	301.284	-3.744%	-8.702%	No
76	311.607	297.481	-4.533%	-9.854%	No
77	338.530	316.371	-6.546%	-4.130%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
1	7.22	7.37	102.078%	81.889%	No
2	6.74	8.01	118.843%	89.000%	No
3	7.37	7.86	106.649%	87.333%	No
4	7.80	7.99	102.436%	88.778%	No
5	7.72	7.95	102.979%	88.333%	No
6	6.55	6.86	104.733%	76.222%	No
7	6.25	6.37	101.920%	70.778%	No
8	6.43	6.89	107.154%	76.556%	No
9	6.94	7.11	102.450%	79.000%	No
10	6.58	6.86	104.255%	76.222%	No
11	7.22	7.78	107.756%	86.444%	No
12	6.54	8.15	124.618%	90.556%	No
13	6.74	7.70	114.243%	85.556%	No
14	6.71	7.96	118.629%	88.444%	No
15	7.20	7.57	105.139%	84.111%	No
16	7.23	7.42	102.628%	82.444%	No
17	7.46	7.64	102.413%	84.889%	No
18	7.14	7.83	109.664%	87.000%	No
19	6.83	7.63	111.713%	84.778%	No
20	7.62	7.94	104.199%	88.222%	No
21	7.12	7.26	101.966%	80.667%	No
22	7.32	7.51	102.596%	83.444%	No
23	7.63	7.81	102.359%	86.778%	No
24	7.19	7.67	106.676%	85.222%	No
25	6.78	7.96	117.404%	88.444%	No
26	6.90	7.47	108.261%	83.000%	No
27	7.46	7.95	106.568%	88.333%	No
28	6.78	8.17	120.501%	90.778%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
29	6.59	8.07	122.458%	89.667%	No
30	6.38	8.09	126.803%	89.889%	No
31	7.54	8.03	106.499%	89.222%	No
32	6.96	7.74	111.207%	86.000%	No
33	7.78	8.22	105.656%	91.333%	No
34	6.50	7.24	111.385%	80.444%	No
35	6.84	7.71	112.719%	85.667%	No
36	6.28	7.12	113.376%	79.111%	No
37	6.82	7.44	109.091%	82.667%	No
38	7.37	7.71	104.613%	85.667%	No
39	6.78	7.24	106.785%	80.444%	No
40	6.56	8.00	121.951%	88.889%	No
41	6.70	8.21	122.537%	91.222%	No
42	6.25	7.67	122.720%	85.222%	No
43	6.53	7.51	115.008%	83.444%	No
44	7.55	7.67	101.589%	85.222%	No
45	6.85	7.32	106.861%	81.333%	No
46	7.60	7.98	105.000%	88.667%	No
47	7.29	7.62	104.527%	84.667%	No
48	7.14	7.66	107.283%	85.111%	No
49	6.96	8.16	117.241%	90.667%	No
50	6.61	7.66	115.885%	85.111%	No
51	7.69	8.04	104.551%	89.333%	No
52	7.68	7.79	101.432%	86.556%	No
53	7.10	7.99	112.535%	88.778%	No
54	6.97	7.55	108.321%	83.889%	No
55	6.36	7.86	123.585%	87.333%	No
56	7.29	7.32	100.412%	81.333%	No
57	6.92	8.24	119.075%	91.556%	No
58	6.88	7.61	110.610%	84.556%	No
59	6.55	7.93	121.069%	88.111%	No
60	6.63	7.49	112.971%	83.222%	No
61	6.88	7.94	115.407%	88.222%	No
62	7.31	7.46	102.052%	82.889%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
63	6.57	8.16	124.201%	90.667%	No
64	7.55	7.81	103.444%	86.778%	No
65	6.50	7.55	116.154%	83.889%	No
66	7.14	7.76	108.683%	86.222%	No
67	6.58	7.77	118.085%	86.333%	No
68	6.91	8.26	119.537%	91.778%	No
69	7.34	7.53	102.589%	83.667%	No
70	6.91	7.67	110.999%	85.222%	No
71	7.57	8.02	105.945%	89.111%	No
72	7.61	7.88	103.548%	87.556%	No
73	7.44	7.93	106.586%	88.111%	No
74	7.34	7.65	104.223%	85.000%	No
75	7.36	7.43	100.951%	82.556%	No
76	6.36	7.53	118.396%	83.667%	No
77	6.46	7.43	115.015%	82.556%	No

MIL-STD-202 Method 108			Verdict
High Temperature Exposure (Storage)			**P**
1	1000 hrs. @ T=105°C. Unpowered. Measurement at 24±4 hours after test conclusion. beginning; end .....:	77pcs samples. 2022-07-14 to 2022-08-26	P
2	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
3	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
4	After the test the resistance should not exceed 200% of the specification.	See below table.	P

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
78	326.777	317.171	-2.940%	-3.888%	No
79	324.283	320.349	-1.213%	-2.925%	No
80	318.222	307.273	-3.441%	-6.887%	No

Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
81	328.080	300.862	-8.296%	-8.830%	No
82	320.170	311.469	-2.718%	-5.615%	No
83	317.612	308.759	-2.787%	-6.437%	No
84	324.144	320.429	-1.146%	-2.900%	No
85	337.656	333.077	-1.356%	0.932%	No
86	329.887	329.170	-0.217%	-0.252%	No
87	330.868	314.749	-4.872%	-4.622%	No
88	338.835	334.335	-1.328%	1.314%	No
89	319.768	310.830	-2.795%	-5.809%	No
90	334.814	314.867	-5.958%	-4.586%	No
91	320.258	315.382	-1.523%	-4.430%	No
92	322.460	307.078	-4.770%	-6.946%	No
93	329.695	311.451	-5.534%	-5.621%	No
94	337.545	314.257	-6.899%	-4.771%	No
95	330.003	316.118	-4.208%	-4.207%	No
96	337.059	325.404	-3.458%	-1.393%	No
97	333.892	322.055	-3.545%	-2.408%	No
98	332.514	324.112	-2.527%	-1.784%	No
99	332.915	322.293	-3.191%	-2.335%	No
100	322.832	314.200	-2.674%	-4.788%	No
101	337.041	317.439	-5.816%	-3.806%	No
102	318.292	301.958	-5.132%	-8.498%	No
103	316.281	304.574	-3.701%	-7.705%	No
104	324.064	316.626	-2.295%	-4.053%	No
105	336.004	325.047	-3.261%	-1.501%	No
106	341.461	325.687	-4.620%	-1.307%	No
107	327.232	318.472	-2.677%	-3.493%	No
108	325.751	317.722	-2.465%	-3.721%	No
109	336.768	320.999	-4.682%	-2.728%	No
110	328.600	320.029	-2.608%	-3.022%	No
111	312.552	298.512	-4.492%	-9.542%	No
112	317.364	299.608	-5.595%	-9.210%	No
113	333.227	321.057	-3.652%	-2.710%	No
114	340.352	329.748	-3.116%	-0.076%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
115	326.597	318.163	-2.582%	-3.587%	No
116	327.743	320.379	-2.247%	-2.915%	No
117	317.771	310.810	-2.191%	-5.815%	No
118	335.047	324.326	-3.200%	-1.719%	No
119	337.583	324.933	-3.747%	-1.535%	No
120	325.425	309.682	-4.838%	-6.157%	No
121	324.499	314.574	-3.059%	-4.675%	No
122	321.346	313.444	-2.459%	-5.017%	No
123	321.470	309.776	-3.638%	-6.128%	No
124	319.311	305.449	-4.341%	-7.440%	No
125	335.858	322.343	-4.024%	-2.320%	No
126	328.836	326.849	-0.604%	-0.955%	No
127	327.127	315.714	-3.489%	-4.329%	No
128	312.141	298.169	-4.476%	-9.646%	No
129	316.566	302.820	-4.342%	-8.236%	No
130	321.667	313.308	-2.599%	-5.058%	No
131	321.580	304.062	-5.447%	-7.860%	No
132	334.369	330.117	-1.272%	0.035%	No
133	335.467	310.147	-7.548%	-6.016%	No
134	318.919	304.584	-4.495%	-7.702%	No
135	326.440	320.553	-1.803%	-2.863%	No
136	331.327	326.348	-1.503%	-1.107%	No
137	338.737	331.147	-2.241%	0.348%	No
138	316.889	307.300	-3.026%	-6.879%	No
139	327.779	317.863	-3.025%	-3.678%	No
140	338.564	319.804	-5.541%	-3.090%	No
141	341.749	335.035	-1.965%	1.526%	No
142	315.201	310.744	-1.414%	-5.835%	No
143	335.828	329.207	-1.972%	-0.240%	No
144	321.645	303.151	-5.750%	-8.136%	No
145	318.963	314.825	-1.297%	-4.598%	No
146	339.511	327.191	-3.629%	-0.851%	No
147	324.110	320.378	-1.151%	-2.916%	No
148	332.398	329.573	-0.850%	-0.129%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
149	334.242	320.210	-4.198%	-2.967%	No
150	322.728	311.998	-3.325%	-5.455%	No
151	321.017	309.541	-3.575%	-6.200%	No
152	336.282	328.496	-2.315%	-0.456%	No
153	329.684	303.064	-8.074%	-8.162%	No
154	340.329	326.312	-4.119%	-1.118%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
78	6.64	7.41	111.596%	82.333%	No
79	6.45	7.09	109.922%	78.778%	No
80	7.19	7.28	101.252%	80.889%	No
81	6.96	7.68	110.345%	85.333%	No
82	6.57	7.13	108.524%	79.222%	No
83	6.70	7.04	105.075%	78.222%	No
84	6.68	7.00	104.790%	77.778%	No
85	7.66	7.74	101.044%	86.000%	No
86	7.29	7.46	102.332%	82.889%	No
87	7.22	7.53	104.294%	83.667%	No
88	6.37	7.08	111.146%	78.667%	No
89	6.56	6.95	105.945%	77.222%	No
90	7.82	8.03	102.685%	89.222%	No
91	6.90	7.27	105.362%	80.778%	No
92	7.43	7.70	103.634%	85.556%	No
93	7.09	7.40	104.372%	82.222%	No
94	7.53	7.65	101.594%	85.000%	No
95	7.53	7.86	104.382%	87.333%	No
96	6.52	7.07	108.436%	78.556%	No
97	6.81	7.53	110.573%	83.667%	No
98	6.99	7.53	107.725%	83.667%	No
99	7.69	7.95	103.381%	88.333%	No
100	7.59	7.81	102.899%	86.778%	No
101	6.74	7.22	107.122%	80.222%	No
102	7.56	7.79	103.042%	86.556%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
103	6.37	6.59	103.454%	73.222%	No
104	7.68	7.82	101.823%	86.889%	No
105	7.01	7.16	102.140%	79.556%	No
106	6.56	7.18	109.451%	79.778%	No
107	6.40	6.66	104.063%	74.000%	No
108	6.73	7.20	106.984%	80.000%	No
109	6.91	7.08	102.460%	78.667%	No
110	7.48	7.83	104.679%	87.000%	No
111	7.51	7.87	104.794%	87.444%	No
112	7.06	7.54	106.799%	83.778%	No
113	6.32	6.89	109.019%	76.556%	No
114	6.87	7.25	105.531%	80.556%	No
115	6.88	7.16	104.070%	79.556%	No
116	6.61	6.90	104.387%	76.667%	No
117	6.76	7.01	103.698%	77.889%	No
118	6.54	6.81	104.128%	75.667%	No
119	7.75	8.12	104.774%	90.222%	No
120	6.50	7.07	108.769%	78.556%	No
121	6.70	7.05	105.224%	78.333%	No
122	7.64	7.94	103.927%	88.222%	No
123	6.81	7.00	102.790%	77.778%	No
124	7.78	8.04	103.342%	89.333%	No
125	7.01	7.45	106.277%	82.778%	No
126	7.41	7.85	105.938%	87.222%	No
127	7.44	7.83	105.242%	87.000%	No
128	7.45	7.68	103.087%	85.333%	No
129	7.39	7.71	104.330%	85.667%	No
130	7.59	7.98	105.138%	88.667%	No
131	6.89	7.33	106.386%	81.444%	No
132	7.82	7.92	101.279%	88.000%	No
133	7.08	7.47	105.508%	83.000%	No
134	6.43	6.81	105.910%	75.667%	No
135	6.81	7.12	104.552%	79.111%	No
136	7.28	7.37	101.236%	81.889%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
137	7.59	7.86	103.557%	87.333%	No
138	7.04	7.36	104.545%	81.778%	No
139	7.14	7.30	102.241%	81.111%	No
140	6.63	7.04	106.184%	78.222%	No
141	7.02	7.41	105.556%	82.333%	No
142	7.37	7.52	102.035%	83.556%	No
143	6.65	6.92	104.060%	76.889%	No
144	6.64	7.03	105.873%	78.111%	No
145	6.49	6.86	105.701%	76.222%	No
146	7.14	7.38	103.361%	82.000%	No
147	7.82	7.99	102.174%	88.778%	No
148	6.65	6.73	101.203%	74.778%	No
149	6.91	7.31	105.789%	81.222%	No
150	7.75	7.89	101.806%	87.667%	No
151	6.40	6.78	105.938%	75.333%	No
152	6.60	7.04	106.667%	78.222%	No
153	6.33	6.72	106.161%	74.667%	No
154	7.22	7.53	104.294%	83.667%	No

MIL-STD- 202 Method 103			Verdict
Biased Humidity			**P**
1	At 85°C and 85%RH, the voltage 2.0V was placed for 1000 h, and the rate of change of capacitance and resistance was measured 24±4 hours after the test. beginning; end .....:	77pcs samples. 2022-07-14 to 2022-08-26	P
2	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
3	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
4	After the test the resistance should not exceed 200% of the specification.	See below table.	P

Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
155	328.347	308.762	-5.965%	-6.436%	No
156	320.879	307.505	-4.168%	-6.817%	No
157	321.841	304.524	-5.381%	-7.720%	No
158	341.675	318.148	-6.886%	-3.592%	No
159	326.826	305.982	-6.378%	-7.278%	No
160	326.498	306.610	-6.091%	-7.088%	No
161	323.828	311.655	-3.759%	-5.559%	No
162	314.108	302.601	-3.663%	-8.303%	No
163	321.355	310.634	-3.336%	-5.868%	No
164	329.398	318.111	-3.427%	-3.603%	No
165	331.980	313.970	-5.425%	-4.858%	No
166	321.625	301.636	-6.215%	-8.595%	No
167	320.396	309.939	-3.264%	-6.079%	No
168	316.325	303.219	-4.143%	-8.115%	No
169	318.049	303.206	-4.667%	-8.119%	No
170	313.082	304.326	-2.797%	-7.780%	No
171	333.063	318.035	-4.512%	-3.626%	No
172	315.699	307.699	-2.534%	-6.758%	No
173	323.313	312.556	-3.327%	-5.286%	No
174	318.605	302.044	-5.198%	-8.472%	No
175	326.820	313.223	-4.160%	-5.084%	No
176	311.543	300.187	-3.645%	-9.034%	No
177	340.992	331.412	-2.809%	0.428%	No
178	342.013	330.753	-3.292%	0.228%	No
179	312.090	304.673	-2.377%	-7.675%	No
180	332.073	316.120	-4.804%	-4.206%	No
181	316.792	305.924	-3.431%	-7.296%	No
182	328.180	318.799	-2.858%	-3.394%	No
183	318.057	302.221	-4.979%	-8.418%	No
184	313.419	302.731	-3.410%	-8.263%	No
185	338.344	329.490	-2.617%	-0.155%	No
186	321.810	303.752	-5.611%	-7.954%	No
187	322.456	307.915	-4.509%	-6.692%	No
188	324.884	305.928	-5.835%	-7.295%	No

Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
189	337.378	321.147	-4.811%	-2.683%	No
190	318.304	303.984	-4.499%	-7.884%	No
191	318.779	306.805	-3.756%	-7.029%	No
192	335.526	323.177	-3.680%	-2.068%	No
193	325.095	320.707	-1.350%	-2.816%	No
194	318.687	307.367	-3.552%	-6.858%	No
195	328.910	310.782	-5.512%	-5.824%	No
196	335.850	330.063	-1.723%	0.019%	No
197	314.930	301.190	-4.363%	-8.730%	No
198	323.335	305.513	-5.512%	-7.420%	No
199	323.323	311.351	-3.703%	-5.651%	No
200	323.113	317.777	-1.651%	-3.704%	No
201	324.302	310.990	-4.105%	-5.761%	No
202	331.773	316.084	-4.729%	-4.217%	No
203	333.024	313.261	-5.934%	-5.072%	No
204	338.397	322.903	-4.579%	-2.151%	No
205	328.352	310.174	-5.536%	-6.008%	No
206	314.667	308.719	-1.890%	-6.449%	No
207	334.929	320.160	-4.410%	-2.982%	No
208	324.615	311.202	-4.132%	-5.696%	No
209	323.898	310.874	-4.021%	-5.796%	No
210	323.544	311.234	-3.805%	-5.687%	No
211	324.982	316.788	-2.521%	-4.004%	No
212	324.647	312.609	-3.708%	-5.270%	No
213	322.850	305.672	-5.321%	-7.372%	No
214	318.591	308.176	-3.269%	-6.613%	No
215	342.049	326.251	-4.619%	-1.136%	No
216	336.286	319.110	-5.108%	-3.300%	No
217	312.347	304.656	-2.462%	-7.680%	No
218	339.821	322.388	-5.130%	-2.307%	No
219	316.587	303.204	-4.227%	-8.120%	No
220	329.228	319.260	-3.028%	-3.255%	No
221	338.137	327.183	-3.240%	-0.854%	No
222	326.586	311.561	-4.601%	-5.588%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
223	329.570	314.744	-4.499%	-4.623%	No
224	331.782	318.179	-4.100%	-3.582%	No
225	325.997	311.899	-4.325%	-5.485%	No
226	330.984	327.213	-1.139%	-0.845%	No
227	338.998	326.163	-3.786%	-1.163%	No
228	328.326	317.017	-3.444%	-3.934%	No
229	332.052	324.062	-2.406%	-1.799%	No
230	314.276	304.252	-3.190%	-7.802%	No
231	329.933	324.008	-1.796%	-1.816%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
155	6.53	7.21	110.413%	80.111%	No
156	7.52	7.97	105.984%	88.556%	No
157	7.65	8.26	107.974%	91.778%	No
158	6.95	7.33	105.468%	81.444%	No
159	7.63	8.11	106.291%	90.111%	No
160	6.97	8.02	115.065%	89.111%	No
161	7.48	7.80	104.278%	86.667%	No
162	7.35	8.02	109.116%	89.111%	No
163	6.46	7.42	114.861%	82.444%	No
164	6.37	6.98	109.576%	77.556%	No
165	7.81	8.39	107.426%	93.222%	No
166	7.35	8.03	109.252%	89.222%	No
167	7.08	7.73	109.181%	85.889%	No
168	6.58	7.29	110.790%	81.000%	No
169	7.79	8.40	107.831%	93.333%	No
170	7.35	7.96	108.299%	88.444%	No
171	6.83	7.41	108.492%	82.333%	No
172	7.26	8.04	110.744%	89.333%	No
173	7.82	8.51	108.824%	94.556%	No
174	7.09	7.87	111.001%	87.444%	No
175	7.63	8.12	106.422%	90.222%	No
176	7.40	7.97	107.703%	88.556%	No

Spec. No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
177	7.63	8.27	108.388%	91.889%	No
178	7.31	7.82	106.977%	86.889%	No
179	6.78	7.72	113.864%	85.778%	No
180	7.50	8.34	111.200%	92.667%	No
181	6.34	6.76	106.625%	75.111%	No
182	7.20	7.63	105.972%	84.778%	No
183	7.33	8.19	111.733%	91.000%	No
184	7.38	7.77	105.285%	86.333%	No
185	6.97	7.65	109.756%	85.000%	No
186	6.37	6.63	104.082%	73.667%	No
187	7.66	7.89	103.003%	87.667%	No
188	7.09	7.49	105.642%	83.222%	No
189	7.71	8.44	109.468%	93.778%	No
190	7.73	8.36	108.150%	92.889%	No
191	7.43	7.97	107.268%	88.556%	No
192	7.11	7.89	110.970%	87.667%	No
193	7.35	8.05	109.524%	89.444%	No
194	7.68	8.47	110.286%	94.111%	No
195	6.82	7.67	112.463%	85.222%	No
196	7.72	8.43	109.197%	93.667%	No
197	7.00	7.53	107.571%	83.667%	No
198	6.53	7.11	108.882%	79.000%	No
199	7.39	7.97	107.848%	88.556%	No
200	6.26	6.93	110.703%	77.000%	No
201	7.64	8.33	109.031%	92.556%	No
202	6.29	7.46	118.601%	82.889%	No
203	7.39	7.92	107.172%	88.000%	No
204	7.35	7.97	108.435%	88.556%	No
205	7.08	8.06	113.842%	89.556%	No
206	6.44	7.15	111.025%	79.444%	No
207	6.77	7.67	113.294%	85.222%	No
208	7.61	8.24	108.279%	91.556%	No
209	6.75	7.71	114.222%	85.667%	No
210	6.28	6.98	111.146%	77.556%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
211	6.92	7.66	110.694%	85.111%	No
212	7.43	7.93	106.729%	88.111%	No
213	7.51	7.89	105.060%	87.667%	No
214	6.89	8.14	118.142%	90.444%	No
215	7.32	7.81	106.694%	86.778%	No
216	6.85	7.36	107.445%	81.778%	No
217	6.88	7.57	110.029%	84.111%	No
218	6.70	6.99	104.328%	77.667%	No
219	7.38	7.86	106.504%	87.333%	No
220	6.87	7.95	115.721%	88.333%	No
221	6.65	7.14	107.368%	79.333%	No
222	7.19	7.73	107.510%	85.889%	No
223	7.01	7.30	104.137%	81.111%	No
224	7.56	7.88	104.233%	87.556%	No
225	7.30	7.89	108.082%	87.667%	No
226	6.25	6.52	104.320%	72.444%	No
227	7.47	7.89	105.622%	87.667%	No
228	7.81	8.35	106.914%	92.778%	No
229	6.27	6.64	105.901%	73.778%	No
230	7.10	7.72	108.732%	85.778%	No
231	6.87	7.43	108.151%	82.556%	No

JESD22 Method JA-104			Verdict
Temperature Cycling			**P**
1	1000 Cycles (-40°C to 105°C) , 1000 Cycles will be at that temperature rating. Tri-temperature Pre and post stress required. Post-stress measurements to start 1 to 24 hours after test conclusion. 30min maximum dwell time at each temperature extreme. 1 min. maximum transition time. beginning; end .....:	77pcs samples. -40°C: 30min 105°C: 30min 2022-07-14 to 2022-08-26	P
2	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
3	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
4	After the test the resistance should not exceed 200% of the specification.	See below table.	P

Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
232	336.947	312.975	-7.114%	-5.159%	No
233	333.107	331.450	-0.497%	0.439%	No
234	323.836	315.258	-2.649%	-4.467%	No
235	322.707	310.356	-3.827%	-5.953%	No
236	338.567	312.128	-7.809%	-5.416%	No
237	312.988	310.039	-0.942%	-6.049%	No
238	327.050	318.135	-2.726%	-3.595%	No
239	334.500	311.779	-6.793%	-5.522%	No
240	330.989	312.606	-5.554%	-5.271%	No
241	331.412	323.363	-2.429%	-2.011%	No
242	326.373	316.246	-3.103%	-4.168%	No
243	335.756	315.049	-6.167%	-4.531%	No
244	325.929	322.722	-0.984%	-2.205%	No
245	321.892	314.791	-2.206%	-4.609%	No
246	338.077	320.448	-5.214%	-2.895%	No
247	324.103	319.930	-1.288%	-3.052%	No
248	333.440	312.637	-6.239%	-5.262%	No
249	328.001	310.151	-5.442%	-6.015%	No
250	314.581	312.511	-0.658%	-5.300%	No
251	323.033	318.667	-1.352%	-3.434%	No
252	328.180	318.745	-2.875%	-3.411%	No
253	331.610	329.450	-0.651%	-0.167%	No
254	313.592	309.914	-1.173%	-6.087%	No
255	322.164	318.104	-1.260%	-3.605%	No
256	318.933	312.619	-1.980%	-5.267%	No
257	340.691	309.886	-9.042%	-6.095%	No
258	317.443	313.206	-1.335%	-5.089%	No
259	334.357	316.071	-5.469%	-4.221%	No
260	326.019	315.034	-3.369%	-4.535%	No
261	316.671	312.389	-1.352%	-5.337%	No
262	327.917	316.470	-3.491%	-4.100%	No
263	324.788	309.650	-4.661%	-6.167%	No
264	327.309	323.160	-1.268%	-2.073%	No
265	329.893	316.390	-4.093%	-4.124%	No

Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
266	341.078	311.490	-8.675%	-5.609%	No
267	316.987	311.987	-1.577%	-5.458%	No
268	320.308	313.250	-2.204%	-5.076%	No
269	328.738	322.746	-1.823%	-2.198%	No
270	315.819	309.665	-1.949%	-6.162%	No
271	335.816	314.873	-6.236%	-4.584%	No
272	312.400	306.020	-2.042%	-7.267%	No
273	320.778	316.862	-1.221%	-3.981%	No
274	323.911	319.789	-1.273%	-3.094%	No
275	338.038	325.183	-3.803%	-1.460%	No
276	335.878	328.102	-2.315%	-0.575%	No
277	337.311	320.545	-4.970%	-2.865%	No
278	340.331	326.362	-4.105%	-1.102%	No
279	325.002	312.526	-3.839%	-5.295%	No
280	335.092	313.292	-6.506%	-5.063%	No
281	334.304	328.421	-1.760%	-0.478%	No
282	317.942	310.138	-2.455%	-6.019%	No
283	320.199	311.754	-2.637%	-5.529%	No
284	339.062	311.498	-8.129%	-5.607%	No
285	338.540	310.756	-8.207%	-5.832%	No
286	337.970	312.783	-7.452%	-5.217%	No
287	336.804	309.272	-8.174%	-6.281%	No
288	331.141	324.447	-2.021%	-1.683%	No
289	327.617	317.892	-2.968%	-3.669%	No
290	316.545	314.544	-0.632%	-4.684%	No
291	324.509	320.386	-1.271%	-2.913%	No
292	334.231	328.462	-1.726%	-0.466%	No
293	325.434	322.143	-1.011%	-2.381%	No
294	335.587	331.715	-1.154%	0.520%	No
295	330.438	317.248	-3.992%	-3.864%	No
296	337.129	310.034	-8.037%	-6.050%	No
297	318.311	316.592	-0.540%	-4.063%	No
298	340.781	326.084	-4.313%	-1.187%	No
299	311.560	308.015	-1.138%	-6.662%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
300	323.222	317.759	-1.690%	-3.709%	No
301	335.635	317.016	-5.547%	-3.935%	No
302	323.855	314.694	-2.829%	-4.638%	No
303	330.936	321.406	-2.880%	-2.604%	No
304	324.083	323.235	-0.262%	-2.050%	No
305	326.959	322.255	-1.439%	-2.347%	No
306	328.687	313.582	-4.596%	-4.975%	No
307	323.983	318.419	-1.717%	-3.509%	No
308	314.279	312.909	-0.436%	-5.179%	No

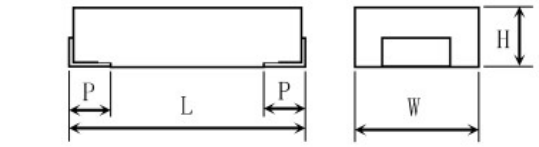
Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
232	6.99	7.26	103.863%	80.667%	No
233	7.79	8.08	103.723%	89.778%	No
234	6.40	7.32	114.375%	81.333%	No
235	7.53	7.81	103.718%	86.778%	No
236	7.82	8.16	104.348%	90.667%	No
237	6.48	7.29	112.500%	81.000%	No
238	7.19	7.69	106.954%	85.444%	No
239	7.36	7.63	103.668%	84.778%	No
240	6.70	7.55	112.687%	83.889%	No
241	6.85	7.93	115.766%	88.111%	No
242	6.41	7.25	113.105%	80.556%	No
243	7.71	7.99	103.632%	88.778%	No
244	7.03	7.42	105.548%	82.444%	No
245	7.71	7.92	102.724%	88.000%	No
246	7.77	7.98	102.703%	88.667%	No
247	6.45	6.99	108.372%	77.667%	No
248	6.79	7.35	108.247%	81.667%	No
249	7.09	7.61	107.334%	84.556%	No
250	6.66	7.35	110.360%	81.667%	No
251	6.39	7.19	112.520%	79.889%	No
252	7.33	7.56	103.138%	84.000%	No
253	6.59	7.16	108.649%	79.556%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
254	6.46	7.03	108.824%	78.111%	No
255	7.79	8.32	106.804%	92.444%	No
256	6.72	7.09	105.506%	78.778%	No
257	6.88	7.37	107.122%	81.889%	No
258	7.07	7.25	102.546%	80.556%	No
259	6.63	7.17	108.145%	79.667%	No
260	6.31	7.21	114.326%	80.156%	No
261	7.22	7.66	106.094%	85.111%	No
262	7.64	7.93	103.796%	88.111%	No
263	7.13	7.52	105.470%	83.556%	No
264	6.28	7.07	112.580%	78.556%	No
265	7.20	7.44	103.333%	82.667%	No
266	7.18	7.42	103.343%	82.444%	No
267	7.48	7.89	105.481%	87.667%	No
268	7.16	7.73	107.961%	85.889%	No
269	7.51	7.86	104.660%	87.333%	No
270	6.91	7.66	110.854%	85.111%	No
271	7.44	7.88	105.914%	87.556%	No
272	6.88	7.12	103.488%	79.111%	No
273	7.14	7.50	105.042%	83.333%	No
274	7.47	7.67	102.677%	85.222%	No
275	7.16	7.40	103.352%	82.222%	No
276	6.40	6.82	106.563%	75.778%	No
277	6.91	7.28	105.355%	80.889%	No
278	7.48	7.82	104.545%	86.889%	No
279	7.38	7.85	106.369%	87.222%	No
280	7.32	7.49	102.322%	83.222%	No
281	7.68	7.95	103.516%	88.333%	No
282	7.26	7.73	106.474%	85.889%	No
283	6.73	7.31	108.618%	81.222%	No
284	6.55	7.04	107.481%	78.222%	No
285	6.99	7.26	103.863%	80.667%	No
286	6.32	7.01	110.918%	77.889%	No
287	7.40	7.75	104.730%	86.111%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
288	7.25	7.70	106.207%	85.556%	No
289	6.39	6.82	106.729%	75.778%	No
290	7.77	8.01	103.089%	89.000%	No
291	7.33	7.83	106.821%	87.000%	No
292	7.32	7.65	104.508%	85.000%	No
293	6.44	6.78	105.280%	75.333%	No
294	6.85	6.98	101.898%	77.556%	No
295	7.50	7.86	104.800%	87.333%	No
296	6.69	7.02	104.933%	78.000%	No
297	6.89	7.21	104.644%	80.111%	No
298	7.75	8.13	104.903%	90.333%	No
299	7.20	7.43	103.194%	82.556%	No
300	7.75	8.10	104.516%	90.000%	No
301	6.52	6.97	106.902%	77.444%	No
302	7.29	7.65	104.938%	85.000%	No
303	6.25	6.62	105.920%	73.556%	No
304	6.36	6.81	107.075%	75.667%	No
305	6.93	7.13	102.886%	79.222%	No
306	6.79	7.03	103.535%	78.111%	No
307	6.64	7.06	106.325%	78.444%	No
308	7.54	7.85	104.111%	87.222%	No

MIL-STD-883 Method 2009			Verdict
External Visual			**P**
1	Inspect device construction, marking and workmanship. Electrical test not required.	all samples.	P
2	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P

JESD22 Method JB-100			Verdict
Physical Dimension			**P**
1	Inspect device construction, marking and workmanship. Electrical test not required.	30pcs samples.	P
2	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P

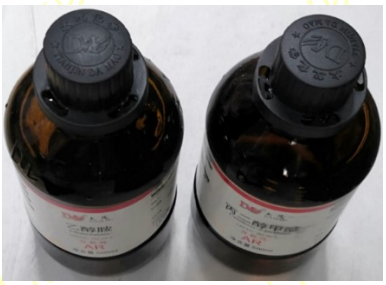


L	W	H	W1	P
7.3±0.3	4.3±0.2	1.9±0.1	2.4±0.2	1.3±0.2

Spec. / No.	Physical Dimension (mm):							Mechanical damage
	7.0~7.6	4.1~4.5	1.8~2.0	2.2~2.6		1.1~1.5		
				L	R	L	R	
309	7.26	4.31	1.90	2.37	2.34	1.36	1.28	No
310	7.24	4.39	1.90	2.37	2.36	1.35	1.41	No
311	7.24	4.26	1.91	2.31	2.34	1.35	1.34	No
312	7.24	4.38	1.92	2.37	2.33	1.35	1.33	No
313	7.23	4.25	1.90	2.36	2.36	1.34	1.33	No
314	7.23	4.39	1.90	2.34	2.39	1.32	1.34	No
315	7.19	4.23	1.90	2.35	2.36	1.36	1.36	No
316	7.23	4.37	1.91	2.37	2.34	1.39	1.41	No
317	7.25	4.32	1.91	2.33	2.40	1.35	1.31	No

Spec. / No.	Physical Dimension (mm):							Mechanical damage
	7.0~7.6	4.1~4.5	1.8~2.0	2.2~2.6		1.1~1.5		
				L	R	L	R	
318	7.18	4.36	1.90	2.34	2.34	1.35	1.36	No
319	7.26	4.28	1.89	2.35	2.34	1.35	1.34	No
320	7.18	4.28	1.90	2.31	2.37	1.36	1.36	No
321	7.19	4.24	1.92	2.36	2.38	1.39	1.33	No
322	7.17	4.26	1.91	2.34	2.35	1.38	1.33	No
323	7.22	4.21	1.91	2.36	2.36	1.35	1.34	No
324	7.18	4.35	1.92	2.37	2.39	1.38	1.29	No
325	7.15	4.27	1.92	2.31	2.37	1.38	1.36	No
326	7.17	4.22	1.92	2.34	2.36	1.39	1.29	No
327	7.17	4.34	1.91	2.35	2.39	1.35	1.37	No
328	7.17	4.20	1.89	2.37	2.36	1.32	1.29	No
329	7.16	4.32	1.92	2.36	2.36	1.39	1.38	No
330	7.24	4.33	1.92	2.33	2.38	1.36	1.39	No
331	7.23	4.27	1.92	2.38	2.38	1.36	1.28	No
332	7.20	4.25	1.92	2.32	2.36	1.39	1.41	No
333	7.25	4.35	1.91	2.34	2.34	1.35	1.42	No
334	7.17	4.36	1.92	2.32	2.39	1.35	1.37	No
335	7.16	4.25	1.90	2.38	2.35	1.38	1.39	No
336	7.19	4.30	1.89	2.32	2.34	1.36	1.37	No
337	7.19	4.27	1.91	2.31	2.34	1.39	1.37	No
338	7.26	4.22	1.91	2.36	2.38	1.39	1.32	No

MIL-STD-202 Method 215			Verdict
Resistance to Solvents			**P**
1	Also aqueous wash chemical - OKEM Clean or equivalent. Do not use banned solvents.	5pcs samples.	P
2	Marking resistance to solvents.		P
3	After subjection to the test, any specified markings which are missing in whole or in part, faded, smeared, blurred, or shifted (dislodged) to the extent that they cannot be readily identified from a distance of at least 6 inches with normal room lighting without the aid of magnification or with a viewer having a magnification no greater than 3X shall constitute failure.	Immersion 3+0.5/-0 minutes in Terpene defluxer. Brush 10 strokes (wet bristle) 2 to 3 oz. Rinse in water. Air blow dry.	P
4	Component protective coating, encapsulation material and sleeve material resistance.		P
5	After subjection to the test, the specimen shall be examined for cracks, separations, crazing, swelling, softening, and degradation of body material, end caps and seals if present, or any other damage or degradation that has occurred due to solvent exposure and which effects the mechanical integrity or reliability shall constitute a failure. The examination shall be made with a viewer having a magnification of 10X maximum.	No any damage on the component.	P
6	Check the sample with 10X magnifying glass for damage, and then check the sample label with 3X magnifying glass for tolerance.	No damage on the component and marking still identify.	P
7	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
8	After the test the resistance should not exceed 200% of the specification.	See below table.	P

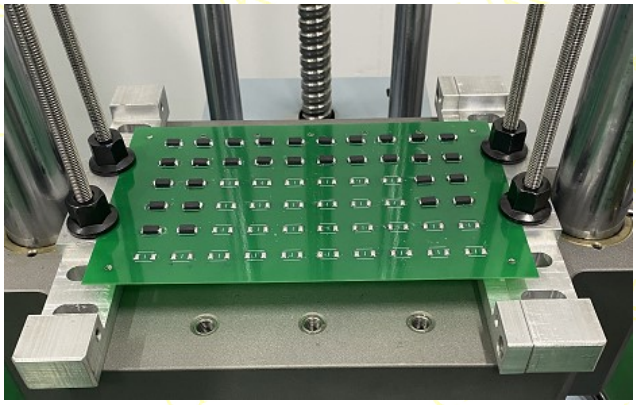
Solvent a)	Solvent c)	Solvent d)
		

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
339	336.799	324.475	-3.659%	-1.674%	No
340	314.758	338.446	7.526%	2.559%	No
341	320.378	328.269	2.463%	-0.525%	No
342	323.327	319.956	-1.043%	-3.044%	No
343	311.529	311.321	-0.067%	-5.660%	No

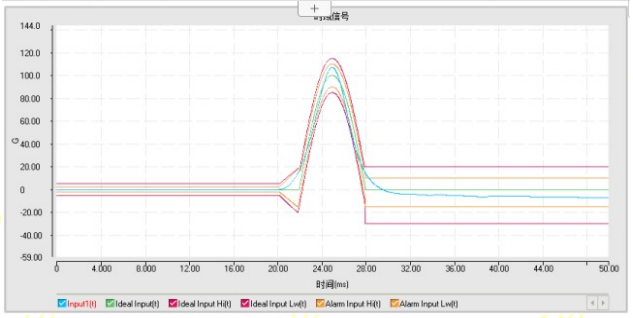
Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
339	6.28	6.44	102.548%	71.556%	No
340	7.51	7.60	101.198%	84.444%	No
341	6.93	6.93	100.000%	77.000%	No
342	7.66	7.64	99.739%	84.889%	No
343	6.76	6.99	103.402%	77.667%	No

MIL-STD-202 Method 213			Verdict
Mechanical Shock			**P**
1	Figure 1 of Method 213 Unit are non-operating Half-sine shock pulse.	30pcs samples.	P
2	Condition F	-	N
3	Condition C	Peak value (g's): 100 Normal duration (D) (ms):6 Velocity change (Vi) ft/sec:12.3 18 shocks	P
4	Measurements are to be made before and after the required number of shocks unless otherwise specified, and during the test if specified.		P
5	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
6	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
7	After the test the resistance should not exceed 200% of the specification.	See below table.	P

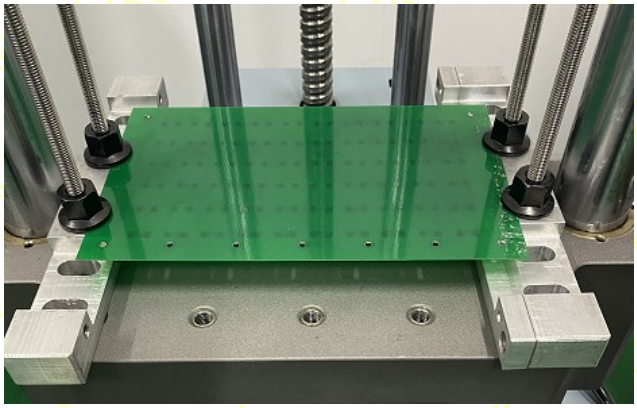
+Z



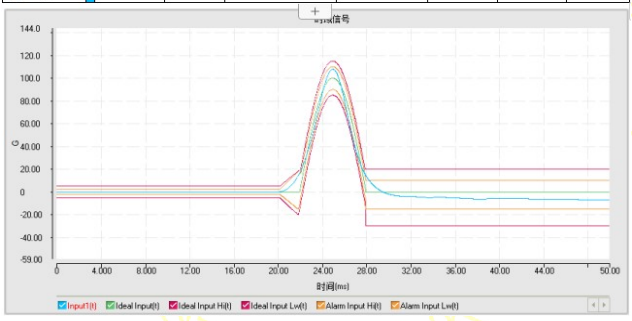
名称	加速度(G)	脉宽(ms)	速度变化量(m/s)	低通滤波(Hz)	最大值(G)	最小值(G)	状态描述
Ideal Input(t)	100.00	6.00	3.74	--	100.00	0.00	
Input1(t)	106.82	6.58	3.85	500.00	106.82	-7.09	



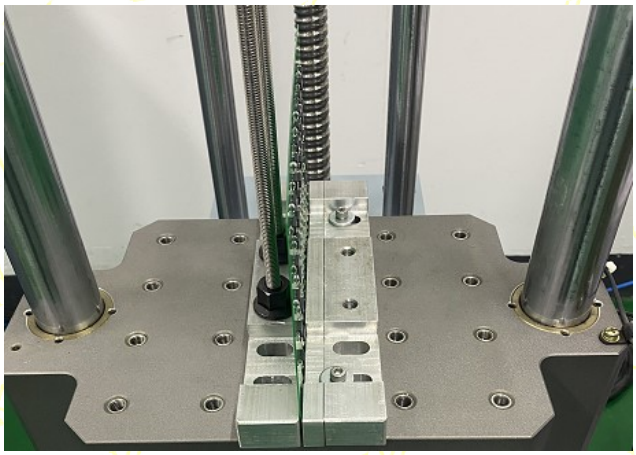
-Z



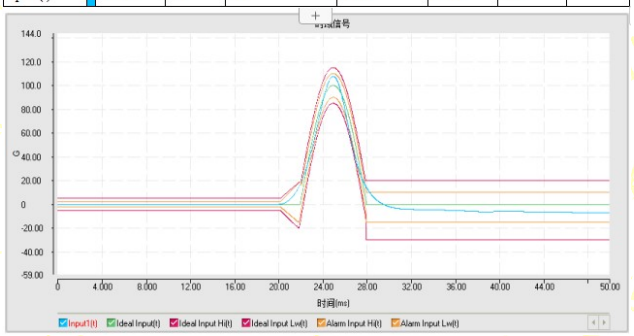
名称	加速度(G)	脉宽(ms)	速度变化量(m/s)	低通滤波(Hz)	最大值(G)	最小值(G)	状态描述
Ideal Input(t)	100.00	6.00	3.74	--	100.00	0.00	
Input1(t)	107.87	6.56	3.86	500.00	107.87	-7.09	



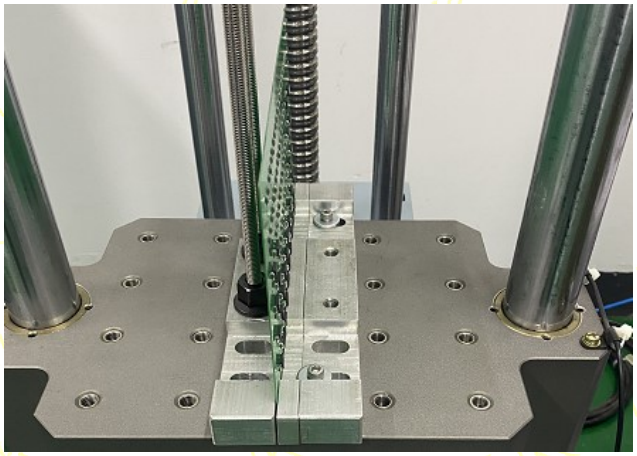
+X



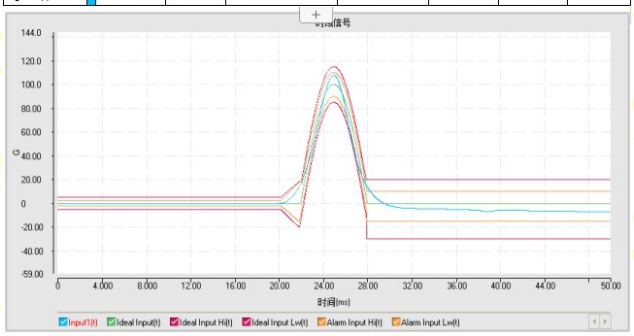
名称	加速度(G)	脉宽(ms)	速度变化量(m/s)	低通滤波(Hz)	最大值(G)	最小值(G)	状态描述
Ideal Input(t)	100.00	6.00	3.74	--	100.00	0.00	
Input1(t)	107.59	6.58	3.85	500.00	107.59	-7.22	

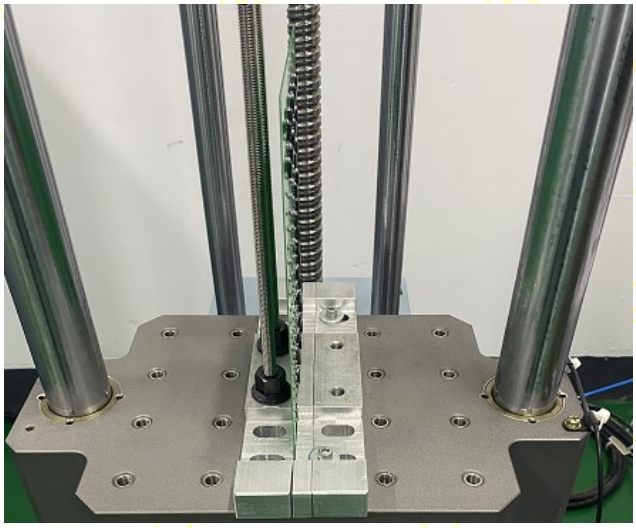
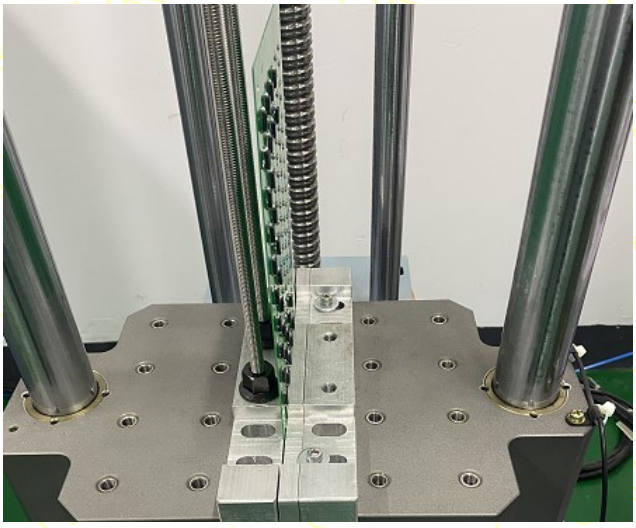


-X

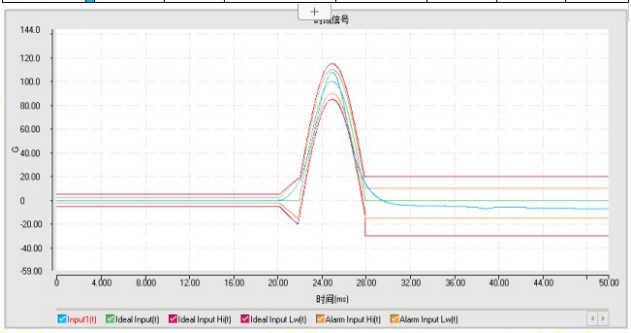


名称	加速度(G)	脉宽(ms)	速度变化量(m/s)	低通滤波(Hz)	最大值(G)	最小值(G)	状态描述
Ideal Input(t)	100.00	6.00	3.74	--	100.00	0.00	
Input1(t)	107.74	6.58	3.86	500.00	107.74	-7.15	

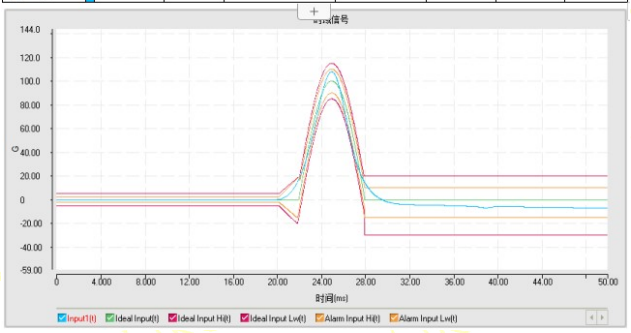


+Y	-Y
	

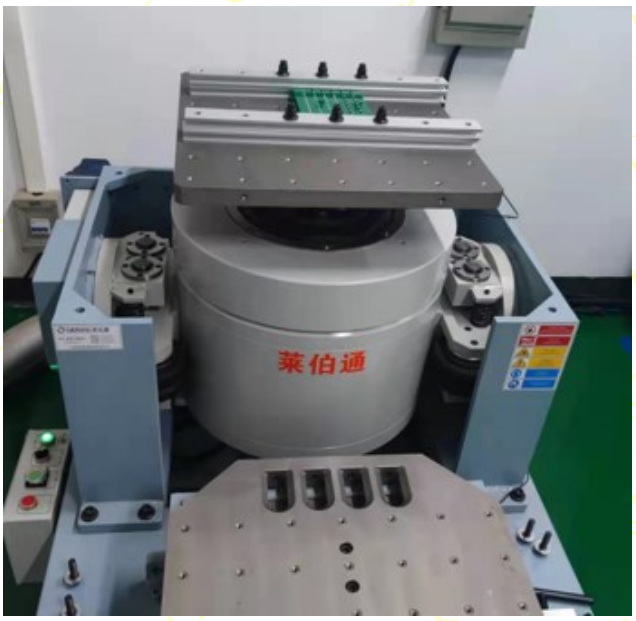
名称	加速度(G)	脉宽(ms)	速度变化量(m/s)	低通滤波(Hz)	最大值(G)	最小值(G)	状态描述
Ideal Input(t)	100.00	6.00	3.74	--	100.00	0.00	
Input1(t)	107.67	6.59	3.86	500.00	107.67	-7.15	

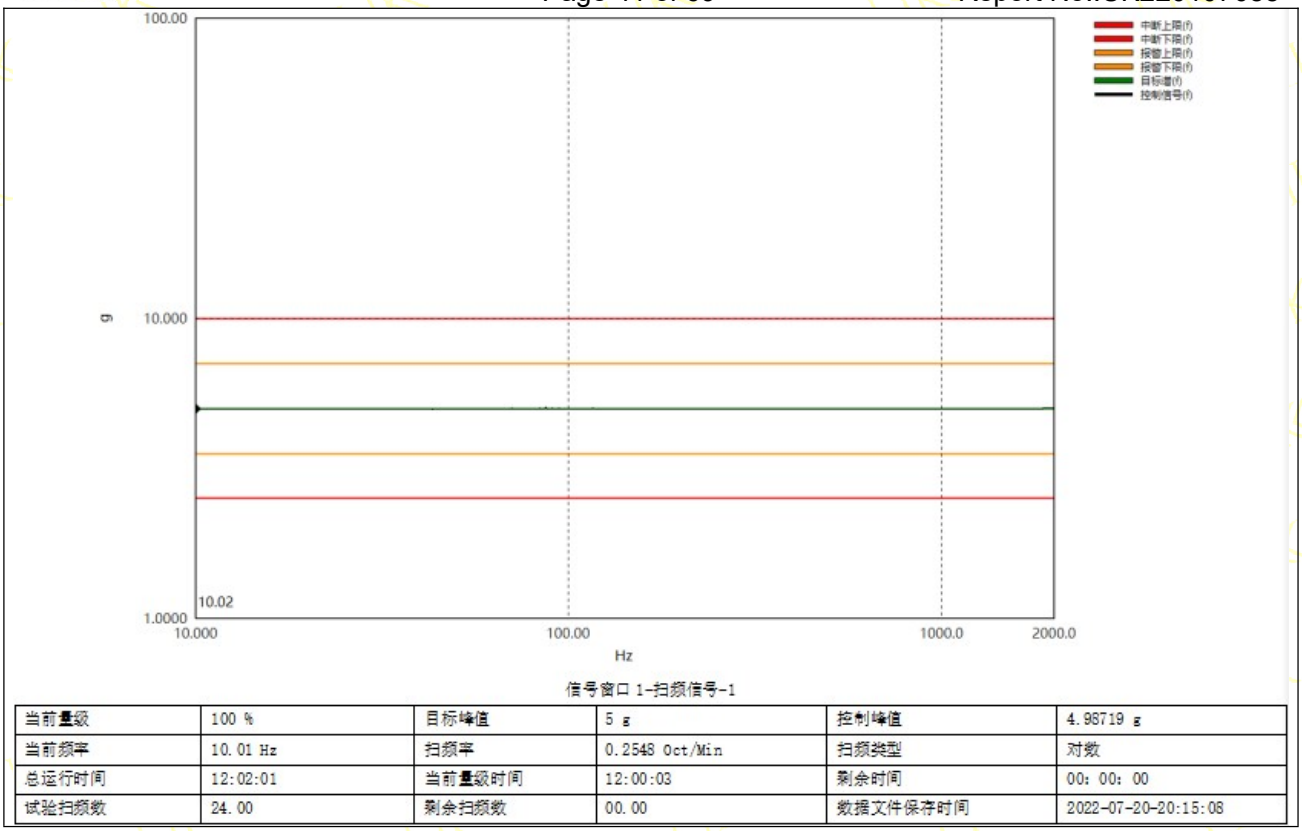


名称	加速度(G)	脉宽(ms)	速度变化量(m/s)	低通滤波(Hz)	最大值(G)	最小值(G)	状态描述
Ideal Input(t)	100.00	6.00	3.74	--	100.00	0.00	
Input1(t)	107.89	6.59	3.86	500.00	107.89	-7.16	



MIL-STD-202 Method 204			**Verdict**
Vibration			**P**
1	5 g's for 20 minutes, 12 cycles each of 3 orientations.	30pcs samples.	P
2	Test from 10-2000 Hz.	-	P
3	Measurements are to be made before and after the required number of shocks unless otherwise specified, and during the test if specified.		P
4	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
5	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
6	After the test the resistance should not exceed 200% of the specification.	See below table.	P

	
Vibration testing	Z-axis
	
X-axis	Y-axis



当前量级	100 %	目标峰值	5 g	控制峰值	4.98719 g
当前频率	10.01 Hz	扫频率	0.2548 Oct/Min	扫频类型	对数
总运行时间	12:02:01	当前量级时间	12:00:03	剩余时间	00：00：00
试验扫频数	24.00	剩余扫频数	00.00	数据文件保存时间	2022-07-20-20:15:08

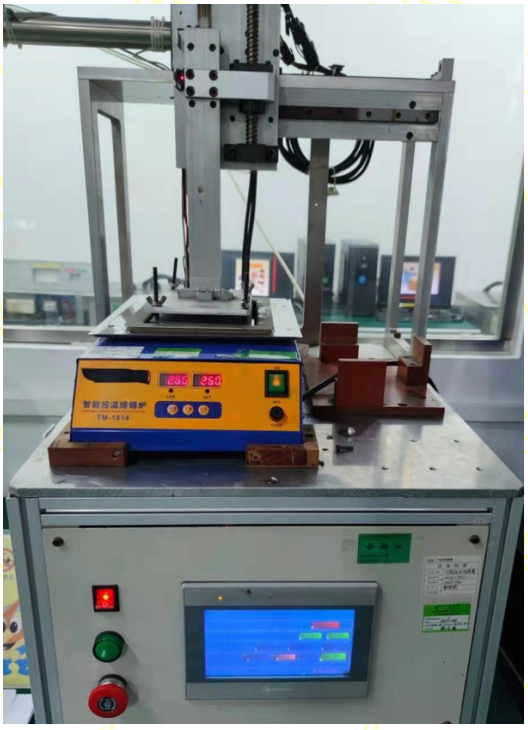
Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
344	324.613	328.585	1.224%	-0.429%	No
345	321.492	326.376	1.519%	-1.098%	No
346	331.194	335.604	1.332%	1.698%	No
347	341.483	339.850	-0.478%	2.985%	No
348	314.204	315.812	0.512%	-4.299%	No
349	327.235	326.255	-0.299%	-1.135%	No
350	322.847	325.372	0.782%	-1.402%	No
351	334.695	327.888	-2.034%	-0.640%	No
352	340.498	333.394	-2.086%	1.028%	No
353	336.087	339.617	1.050%	2.914%	No
354	321.182	317.283	-1.214%	-3.854%	No
355	337.857	336.884	-0.288%	2.086%	No
356	326.925	325.997	-0.284%	-1.213%	No
357	311.738	314.449	0.870%	-4.712%	No
358	336.935	329.108	-2.323%	-0.270%	No
359	332.511	338.809	1.894%	2.669%	No
360	313.208	321.522	2.654%	-2.569%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
361	316.608	317.736	0.356%	-3.716%	No
362	338.909	332.301	-1.950%	0.697%	No
363	334.355	338.463	1.229%	2.565%	No
364	326.300	318.501	-2.390%	-3.485%	No
365	315.187	320.016	1.532%	-3.025%	No
366	325.502	329.929	1.360%	-0.022%	No
367	339.622	337.835	-0.526%	2.374%	No
368	340.205	337.460	-0.807%	2.261%	No
369	324.185	328.406	1.302%	-0.483%	No
370	311.347	311.266	-0.026%	-5.677%	No
371	329.469	336.044	1.996%	1.832%	No
372	330.722	330.082	-0.194%	0.025%	No
373	311.585	318.562	2.239%	-3.466%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
344	7.69	7.70	100.130%	85.556%	No
345	6.89	7.02	101.887%	78.000%	No
346	6.99	7.15	102.289%	79.444%	No
347	6.53	6.34	97.090%	70.444%	No
348	7.50	7.74	103.200%	86.000%	No
349	6.71	6.69	99.702%	74.333%	No
350	7.10	7.37	103.803%	81.889%	No
351	7.35	7.39	100.544%	82.111%	No
352	6.84	7.05	103.070%	78.333%	No
353	7.36	7.32	99.457%	81.333%	No
354	6.67	6.80	101.949%	75.556%	No
355	6.84	6.91	101.023%	76.778%	No
356	7.20	7.34	101.944%	81.556%	No
357	7.79	7.68	98.588%	85.333%	No
358	6.36	6.58	103.459%	73.111%	No
359	7.56	7.85	103.836%	87.222%	No
360	6.80	6.77	99.559%	75.222%	No
361	7.56	7.56	100.000%	84.000%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
362	6.90	7.01	101.594%	77.889%	No
363	7.61	7.55	99.212%	83.889%	No
364	6.38	6.53	102.351%	72.556%	No
365	6.62	6.49	98.036%	72.111%	No
366	7.69	7.83	101.821%	87.000%	No
367	6.84	7.08	103.509%	78.667%	No
368	7.67	7.58	98.827%	84.222%	No
369	7.31	7.38	100.958%	82.000%	No
370	7.12	7.35	103.230%	81.667%	No
371	6.97	7.23	103.730%	80.333%	No
372	7.41	7.66	103.374%	85.111%	No
373	6.83	6.81	99.707%	75.667%	No

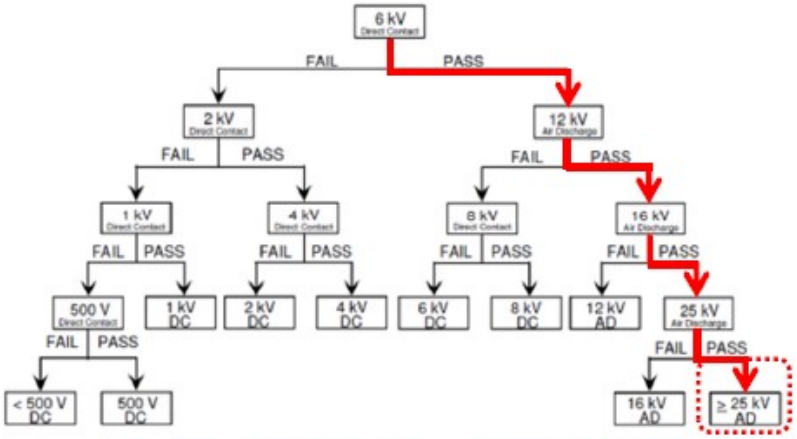
MIL-STD-202 Method 210			Verdict
Resistance to Soldering Heat			**P**
1	No pre-heat of samples.	30pcs samples.	P
2	Solder dip	Temperature: 260±5°C, Time: 10±1s, Temperature ramp/immersion and emersion rate: 25mm/s±6mm/s	P
3	Note: Single Wave solder - Procedure 2 for SMD.	-	P
4	Procedure 1 with solder within 1.5 mm of device body for Leaded.	-	N
5	Examinations and measurements to be made before and after the test, as applicable, shall be as specified in the individual specification. After the procedure, the specimens shall be allowed to cool and stabilize at room ambient conditions, for the time specified in the individual specification.		P
6	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
7	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
8	After the test the resistance should not exceed 200% of the specification.	See below table.	P



Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
374	335.392	337.906	0.750%	2.396%	No
375	328.615	325.857	-0.839%	-1.255%	No
376	322.381	326.801	1.371%	-0.969%	No
377	327.409	320.308	-2.169%	-2.937%	No
378	315.431	314.055	-0.436%	-4.832%	No
379	313.743	312.903	-0.268%	-5.181%	No
380	337.072	329.055	-2.378%	-0.286%	No
381	331.736	332.537	0.241%	0.769%	No
382	322.763	322.853	0.028%	-2.166%	No
383	326.745	329.278	0.775%	-0.219%	No
384	341.881	338.772	-0.909%	2.658%	No
385	324.520	321.313	-0.988%	-2.632%	No
386	321.691	330.329	2.685%	0.100%	No
387	341.860	336.644	-1.526%	2.013%	No
388	338.830	341.984	0.931%	3.632%	No
389	317.406	321.125	1.172%	-2.689%	No
390	336.453	328.300	-2.423%	-0.515%	No
391	316.417	318.916	0.790%	-3.359%	No
392	337.999	334.914	-0.913%	1.489%	No
393	340.538	339.193	-0.395%	2.786%	No
394	313.986	320.320	2.017%	-2.933%	No
395	322.720	322.101	-0.192%	-2.394%	No
396	319.750	321.094	0.420%	-2.699%	No
397	332.165	333.057	0.269%	0.926%	No
398	342.099	340.623	-0.431%	3.219%	No
399	336.120	330.824	-1.576%	0.250%	No
400	331.823	324.110	-2.324%	-1.785%	No
401	311.650	320.414	2.812%	-2.905%	No
402	321.703	325.491	1.177%	-1.366%	No
403	326.816	331.664	1.483%	0.504%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
374	7.61	7.65	100.526%	85.000%	No
375	6.49	6.47	99.692%	71.889%	No
376	7.34	7.56	102.997%	84.000%	No
377	6.50	6.67	102.615%	74.111%	No
378	6.26	6.51	103.994%	72.333%	No
379	7.54	7.48	99.204%	83.111%	No
380	7.78	7.71	99.100%	85.667%	No
381	6.64	6.82	102.711%	75.778%	No
382	6.53	6.72	102.910%	74.667%	No
383	7.13	7.39	103.647%	82.111%	No
384	7.04	6.99	99.290%	77.667%	No
385	6.27	6.33	100.957%	70.333%	No
386	7.08	7.28	102.825%	80.889%	No
387	6.51	6.83	104.916%	75.889%	No
388	7.36	7.65	103.940%	85.000%	No
389	6.41	6.68	104.212%	74.222%	No
390	6.64	6.59	99.247%	73.222%	No
391	7.42	7.54	101.617%	83.778%	No
392	6.80	6.93	101.912%	77.000%	No
393	7.07	7.31	103.395%	81.222%	No
394	6.95	6.95	100.000%	77.222%	No
395	6.71	6.91	102.981%	76.778%	No
396	6.83	7.05	103.221%	78.333%	No
397	6.97	7.01	100.574%	77.889%	No
398	6.58	6.56	99.696%	72.889%	No
399	6.88	6.88	100.000%	76.444%	No
400	7.47	7.66	102.544%	85.111%	No
401	6.86	6.91	100.729%	76.778%	No
402	6.40	6.37	99.531%	70.778%	No
403	6.81	7.01	102.937%	77.889%	No

AEC-Q200-002			Verdict
ESD			**P**
1	Each pair of pins and/or terminals and all combinations of pin and/or terminal pairs for each component shall be subjected to one (1) pulse at each stress voltage polarity following the ESD levels stated in Figure 4.	15pcs samples.	P
2	Any pin and/or terminal not under test shall be in an electrically open (floating) state.		P
3	Each component shall be subjected to ESD pulses at 22°C ± 5°C. For all Air Discharge testing, the relative humidity shall be 30% to 60%.	Test environment temperature and Relative humidity: 23.6℃, 45%RH.	P
4	A sufficient number of ESD levels must be tested to either:		P
5	a) The verification range of the ESD simulator contained direct contact discharge and air discharge, positive and negative in 500V, 1KV,2KV,4KV,8KV,12KV, 16KV and 25KV each voltage rang, or		P
6	b) determine the pass/fail transition region between two (2) consecutive ESD test levels. If an expected failure level cannot be estimated, the test flow diagram of Figure 4 may be used to minimize the amount of testing required.		P
7	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
8	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
9	After the test the resistance should not exceed 200% of the specification.	See below table.	P



Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
404	317.087	322.526	1.715%	-2.265%	No
405	337.517	333.718	-1.126%	1.127%	No
406	315.946	321.820	1.859%	-2.479%	No
407	333.788	333.029	-0.227%	0.918%	No
408	338.162	334.927	-0.957%	1.493%	No
409	315.546	314.443	-0.350%	-4.714%	No
410	332.200	323.444	-2.636%	-1.987%	No
411	318.117	323.545	1.706%	-1.956%	No
412	341.062	339.675	-0.407%	2.932%	No
413	332.079	336.472	1.323%	1.961%	No
414	324.120	331.483	2.272%	0.449%	No
415	335.154	329.020	-1.830%	-0.297%	No
416	320.850	326.260	1.686%	-1.133%	No
417	336.097	339.203	0.924%	2.789%	No
418	314.416	323.170	2.784%	-2.070%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
404	6.29	6.57	104.452%	73.000%	No
405	6.59	6.60	100.152%	73.333%	No
406	7.22	7.10	98.338%	78.889%	No
407	6.37	6.52	102.355%	72.444%	No
408	6.52	6.72	103.067%	74.667%	No
409	6.43	6.57	102.177%	73.000%	No
410	7.44	7.39	99.328%	82.111%	No
411	7.37	7.58	102.849%	84.222%	No
412	6.45	6.70	103.876%	74.444%	No
413	6.90	7.05	102.174%	78.333%	No
414	6.80	6.96	102.353%	77.333%	No
415	7.43	7.69	103.499%	85.444%	No
416	7.23	7.13	98.617%	79.222%	No
417	7.01	6.94	99.001%	77.111%	No
418	6.26	7.02	112.141%	78.000%	No

J-STD-002			Verdict
Solderability			**P**
1	For both Leaded & SMD. Electrical test not required.	15pcs samples.	P
2	Leaded: Method A @ 235°C, category 3. The two pins are tested separately.	Per-condition: Steam 8hr±15min@93±3℃.	N
3	SMD: a) Method B, 4 hrs @ 155°C dry heat @ 235°C.	-	N
4	b) Method B @ 215°C category 3.	-	P
5	c) Method D category 3 @ 260°C.	-	N
6	Check whether the solder coverage of pins is over 95% with a 10X magnifying glass (use a 50X magnifying glass when the spacing between pins is less than 0.5mm).	More than 95%.	P
7	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
8	After the test the resistance should not exceed 200% of the specification.	See below table.	P

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
419	338.387	337.096	-0.382%	2.150%	No
420	317.086	325.157	2.545%	-1.468%	No
421	311.772	311.177	-0.191%	-5.704%	No
422	323.249	330.146	2.134%	0.044%	No
423	325.105	323.226	-0.578%	-2.053%	No
424	313.702	319.183	1.747%	-3.278%	No
425	335.436	327.556	-2.349%	-0.741%	No
426	323.277	322.156	-0.347%	-2.377%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
427	316.878	316.230	-0.204%	-4.173%	No
428	314.040	320.826	2.161%	-2.780%	No
429	314.405	312.890	-0.482%	-5.185%	No
430	330.005	328.029	-0.599%	-0.597%	No
431	311.731	312.919	0.381%	-5.176%	No
432	330.124	330.550	0.129%	0.167%	No
433	313.323	316.511	1.017%	-4.088%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
419	7.08	6.98	98.588%	77.556%	No
420	7.40	7.47	100.946%	83.000%	No
421	7.53	7.46	99.070%	82.889%	No
422	6.84	6.91	101.023%	76.778%	No
423	7.19	7.12	99.026%	79.111%	No
424	7.26	7.46	102.755%	82.889%	No
425	6.76	6.88	101.775%	76.444%	No
426	7.08	6.97	98.446%	77.444%	No
427	7.33	7.42	101.228%	82.444%	No
428	7.29	7.35	100.823%	81.667%	No
429	6.91	7.07	102.315%	78.556%	No
430	6.97	7.08	101.578%	78.667%	No
431	7.16	7.31	102.095%	81.222%	No
432	7.04	7.23	102.699%	80.333%	No
433	7.19	7.25	100.834%	80.556%	No

User Spec.			Verdict
Electrical Characterization			**P**
1	Parametrically test per lot and sample size requirements, summary to show Min, Max, Mean and Standard deviation at room as well as Min and Max operating temperatures.	30pcs samples.	P
2	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
3	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
4	After the test the resistance should not exceed 200% of the specification.	See below table.	P

Test environment temperature： -40℃ ; Storage time:2h					
Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
434	334.512	319.247	-4.563%	-3.258%	No
435	334.314	314.032	-6.067%	-4.839%	No
436	328.096	309.542	-5.655%	-6.199%	No
437	337.868	319.139	-5.543%	-3.291%	No
438	339.104	312.225	-7.926%	-5.386%	No
439	316.349	303.226	-4.148%	-8.113%	No
440	322.177	306.507	-4.864%	-7.119%	No
441	331.114	311.867	-5.813%	-5.495%	No
442	314.532	295.067	-6.189%	-10.586%	No

Test environment temperature： -40℃ ; Storage time:2h					
Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
443	332.278	316.009	-4.896%	-4.240%	No
444	337.876	324.817	-3.865%	-1.571%	No
445	340.903	330.434	-3.071%	0.132%	No
446	315.211	289.210	-8.249%	-12.361%	No
447	332.367	316.130	-4.885%	-4.203%	No
448	342.153	322.571	-5.723%	-2.251%	No
449	320.634	302.084	-5.785%	-8.459%	No
450	335.490	308.300	-8.105%	-6.576%	No
451	317.068	295.494	-6.804%	-10.456%	No
452	332.134	303.897	-8.502%	-7.910%	No
453	339.425	331.427	-2.356%	0.432%	No
454	322.095	304.797	-5.370%	-7.637%	No
455	328.971	303.683	-7.687%	-7.975%	No
456	341.400	313.277	-8.238%	-5.068%	No
457	333.863	325.375	-2.542%	-1.402%	No
458	329.790	320.199	-2.908%	-2.970%	No
459	324.534	307.179	-5.348%	-6.915%	No
460	312.001	300.757	-3.604%	-8.862%	No
461	324.113	302.242	-6.748%	-8.412%	No
462	333.956	315.980	-5.383%	-4.248%	No
463	319.055	296.625	-7.030%	-10.114%	No

Test environment temperature： -40℃ ; Storage time:2h					
Spec. No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
434	7.55	8.09	107.152%	89.889%	No
435	7.56	8.07	106.746%	89.667%	No
436	7.09	8.52	120.169%	94.667%	No
437	7.04	7.86	111.648%	87.333%	No
438	6.41	7.79	121.529%	86.556%	No
439	6.48	7.13	110.031%	79.222%	No
440	7.79	8.52	109.371%	94.667%	No

Test environment temperature: -40℃ ; Storage time:2h					
Spec. No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
441	6.37	7.81	122.606%	86.778%	No
442	7.14	7.87	110.224%	87.444%	No
443	7.77	8.34	107.336%	92.667%	No
444	7.22	8.08	111.911%	89.778%	No
445	7.66	8.23	107.441%	91.444%	No
446	6.32	7.17	113.449%	79.667%	No
447	6.67	7.61	114.093%	84.556%	No
448	6.74	7.48	110.979%	83.111%	No
449	7.52	8.42	111.968%	93.556%	No
450	7.44	7.85	105.511%	87.222%	No
451	7.10	7.89	111.127%	87.667%	No
452	7.02	8.52	121.368%	94.667%	No
453	6.90	7.65	110.870%	85.000%	No
454	6.27	7.62	121.531%	84.667%	No
455	6.61	7.39	111.800%	82.111%	No
456	6.72	7.2	107.143%	80.000%	No
457	6.80	7.54	110.882%	83.778%	No
458	6.40	7.07	110.469%	78.556%	No
459	6.48	7.95	122.685%	88.333%	No
460	6.61	7.85	118.759%	87.222%	No
461	6.71	8.18	121.908%	90.889%	No
462	6.54	7.66	117.125%	85.111%	No
463	6.75	8.12	120.296%	90.222%	No

Test environment temperature: 25℃ ; Storage time:2h					
Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
434	334.512	334.357	-0.046%	1.320%	No
435	334.314	336.624	0.691%	2.007%	No
436	328.096	324.218	-1.182%	-1.752%	No
437	337.868	338.350	0.143%	2.530%	No
438	339.104	338.890	-0.063%	2.694%	No

Test environment temperature：25℃；Storage time:2h					
Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
439	316.349	314.848	-0.474%	-4.592%	No
440	322.177	324.433	0.700%	-1.687%	No
441	331.114	326.521	-1.387%	-1.054%	No
442	314.532	315.875	0.427%	-4.280%	No
443	332.278	333.952	0.504%	1.198%	No
444	337.876	336.341	-0.454%	1.922%	No
445	340.903	339.681	-0.358%	2.934%	No
446	315.211	318.205	0.950%	-3.574%	No
447	332.367	330.643	-0.519%	0.195%	No
448	342.153	339.727	-0.709%	2.948%	No
449	320.634	322.074	0.449%	-2.402%	No
450	335.490	334.346	-0.341%	1.317%	No
451	317.068	319.907	0.895%	-3.058%	No
452	332.134	335.342	0.966%	1.619%	No
453	339.425	336.711	-0.800%	2.034%	No
454	322.095	317.654	-1.379%	-3.741%	No
455	328.971	331.421	0.745%	0.431%	No
456	341.400	343.085	0.494%	3.965%	No
457	333.863	331.983	-0.563%	0.601%	No
458	329.790	328.120	-0.506%	-0.570%	No
459	324.534	326.655	0.654%	-1.014%	No
460	312.001	312.320	0.102%	-5.358%	No
461	324.113	321.447	-0.823%	-2.592%	No
462	333.956	330.789	-0.948%	0.239%	No
463	319.055	316.404	-0.831%	-4.120%	No

Test environment temperature：25℃；Storage time:2h					
Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
434	7.55	7.58	100.397%	84.222%	No
435	7.56	7.54	99.735%	83.778%	No
436	7.09	7.15	100.846%	79.444%	No

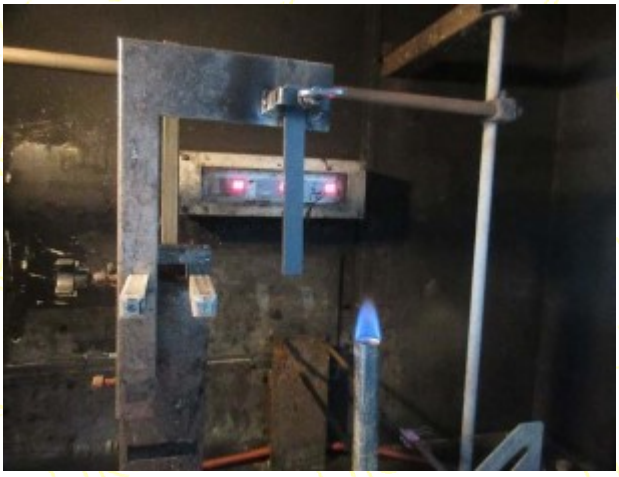
Test environment temperature：25℃；Storage time:2h					
Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
437	7.04	6.98	99.148%	77.556%	No
438	6.41	6.42	100.156%	71.333%	No
439	6.48	6.62	102.160%	73.556%	No
440	7.79	7.81	100.257%	86.778%	No
441	6.37	6.43	100.942%	71.444%	No
442	7.14	7.22	101.120%	80.222%	No
443	7.77	7.81	100.515%	86.778%	No
444	7.22	7.43	102.909%	82.556%	No
445	7.66	7.63	99.608%	84.778%	No
446	6.32	6.39	101.108%	71.000%	No
447	6.67	6.73	100.900%	74.778%	No
448	6.74	6.85	101.632%	76.111%	No
449	7.52	7.50	99.734%	83.333%	No
450	7.44	7.45	100.134%	82.778%	No
451	7.10	7.06	99.437%	78.444%	No
452	7.02	6.96	99.145%	77.333%	No
453	6.90	6.91	100.145%	76.778%	No
454	6.27	6.36	101.435%	70.667%	No
455	6.61	6.78	102.572%	75.333%	No
456	6.72	6.70	99.702%	74.444%	No
457	6.80	6.77	99.559%	75.222%	No
458	6.40	6.49	101.406%	72.111%	No
459	6.48	6.38	98.457%	70.889%	No
460	6.61	6.65	100.605%	73.889%	No
461	6.71	6.68	99.553%	74.222%	No
462	6.54	6.51	99.541%	72.333%	No
463	6.75	6.73	99.704%	74.778%	No

Test environment temperature：105℃；Storage time:2h					
Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
434	334.512	336.959	0.732%	2.109%	No

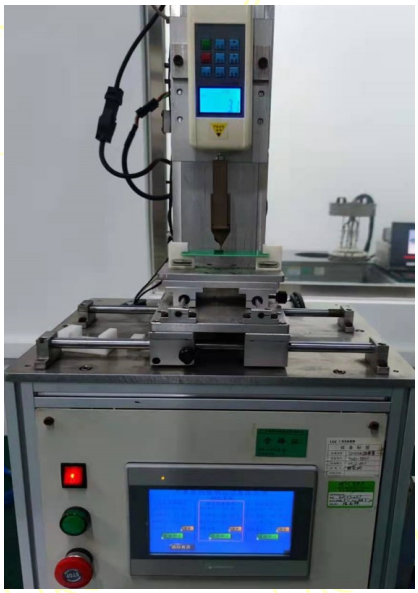
Test environment temperature: 105℃ ; Storage time:2h					
Spec. No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
435	334.314	334.821	0.152%	1.461%	No
436	328.096	333.832	1.748%	1.161%	No
437	337.868	341.425	1.053%	3.462%	No
438	339.104	340.423	0.389%	3.158%	No
439	316.349	319.922	1.129%	-3.054%	No
440	322.177	325.983	1.181%	-1.217%	No
441	331.114	329.915	-0.362%	-0.026%	No
442	314.532	314.987	0.145%	-4.549%	No
443	332.278	338.277	1.805%	2.508%	No
444	337.876	332.443	-1.608%	0.740%	No
445	340.903	338.140	-0.810%	2.467%	No
446	315.211	321.348	1.947%	-2.622%	No
447	332.367	334.996	0.791%	1.514%	No
448	342.153	341.983	-0.050%	3.631%	No
449	320.634	323.090	0.766%	-2.094%	No
450	335.490	333.716	-0.529%	1.126%	No
451	317.068	323.270	1.956%	-2.039%	No
452	332.134	334.896	0.832%	1.484%	No
453	339.425	335.178	-1.251%	1.569%	No
454	322.095	323.340	0.387%	-2.018%	No
455	328.971	333.996	1.527%	1.211%	No
456	341.400	342.292	0.261%	3.725%	No
457	333.863	333.978	0.034%	1.205%	No
458	329.790	329.908	0.036%	-0.028%	No
459	324.534	330.461	1.826%	0.140%	No
460	312.001	313.290	0.413%	-5.064%	No
461	324.113	329.729	1.733%	-0.082%	No
462	333.956	332.420	-0.460%	0.733%	No
463	319.055	323.927	1.527%	-1.840%	No

Test environment temperature: 105℃ ; Storage time:2h					
Spec. No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
434	7.55	7.51	99.470%	83.444%	No
435	7.56	7.55	99.868%	83.889%	No
436	7.09	7.07	99.718%	78.556%	No
437	7.04	7.05	100.142%	78.333%	No
438	6.41	6.40	99.844%	71.111%	No
439	6.48	6.48	100.000%	72.000%	No
440	7.79	7.73	99.230%	85.889%	No
441	6.37	6.35	99.686%	70.556%	No
442	7.14	7.15	100.140%	79.444%	No
443	7.77	7.69	98.970%	85.444%	No
444	7.22	7.17	99.307%	79.667%	No
445	7.66	7.62	99.478%	84.667%	No
446	6.32	6.32	100.000%	70.222%	No
447	6.67	6.64	99.550%	73.778%	No
448	6.74	6.73	99.852%	74.778%	No
449	7.52	7.46	99.202%	82.889%	No
450	7.44	7.28	97.849%	80.889%	No
451	7.10	7.07	99.577%	78.556%	No
452	7.02	6.96	99.145%	77.333%	No
453	6.90	7.01	101.594%	77.889%	No
454	6.27	6.25	99.681%	69.444%	No
455	6.61	6.57	99.395%	73.000%	No
456	6.72	6.71	99.851%	74.556%	No
457	6.80	6.82	100.294%	75.778%	No
458	6.40	6.34	99.063%	70.444%	No
459	6.48	6.53	100.772%	72.556%	No
460	6.61	6.59	99.697%	73.222%	No
461	6.71	6.66	99.255%	74.000%	No
462	6.54	6.63	101.376%	73.667%	No
463	6.75	6.67	98.815%	74.111%	No

UL-94			Verdict
Flammability			**P**
1	V-0 or V-1 are acceptable. Electrical test not required.	30pcs samples. (No.464~No.493)	P
2	Specimens are to be preconditioned at 23 ±2°C and 50±10 percent relative humidity for a minimum of 48 hours.		P
3	Specimens for certain tests are to be preconditioned in an air-circulating oven for 168 ±2 hours at 70±2°C and then cooled in the desiccator for at least 4 hours at room temperature, prior to testing.		P



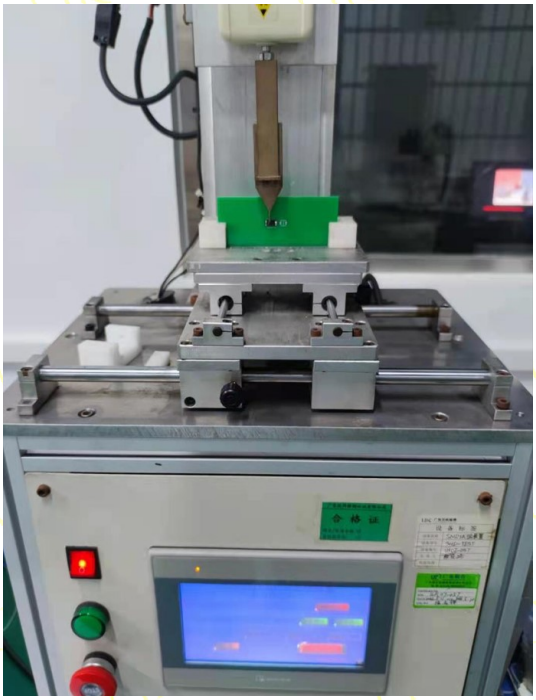
AEC Q200-005			Verdict
Board Flex			**P**
1	60 sec minimum holding time.	30pcs samples.	P
2	Part mounted on an FR4 board provided by the Supplier for the part being tested with the following requirements.	Preheat temperature (125°C ± 25°C) max 120 sec. Time above 183°C, 60 sec. – 150 sec. Max. ramp up (183°C to peak) _ 3°C / sec. Peak temperature 235°C + 5°C Time in peak temperature 10 sec. – 20 sec. Ramp down rate _ 6°C / sec.	P
3	Place the 100mm X 40mm board into a fixture with the component facing down.		P
4	The apparatus shall consist of mechanical means to apply a force which will bend the board (D) x = 2 mm minimum (or as defined in the customer specification or Q200).	2mm	P
5	The duration of the applied forces shall be 60 (+ 5) Sec. The force is to be applied only once to the board.	60s	P
6	A failure is when a part cracks or causes a change in the parametric being monitored.		P
7	Under 20 X magnifying glass observation or monitoring, no rupture or peeling phenomenon.	No any damage on the component.	P
8	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
9	After the test the resistance should not exceed 200% of the specification.	See below table.	P



Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
494	318.305	326.147	2.464%	-1.168%	No
495	341.994	336.895	-1.491%	2.089%	No
496	339.935	330.748	-2.703%	0.227%	No
497	316.299	321.585	1.671%	-2.550%	No
498	317.052	320.214	0.997%	-2.965%	No
499	338.260	338.664	0.119%	2.625%	No
500	336.027	332.816	-0.956%	0.853%	No
501	312.067	311.894	-0.055%	-5.487%	No
502	329.677	328.241	-0.436%	-0.533%	No
503	336.600	329.911	-1.987%	-0.027%	No
504	324.622	319.228	-1.662%	-3.264%	No
505	314.094	322.539	2.689%	-2.261%	No
506	315.659	321.143	1.737%	-2.684%	No
507	340.522	335.601	-1.445%	1.697%	No
508	340.154	337.328	-0.831%	2.221%	No
509	319.849	318.410	-0.450%	-3.512%	No
510	324.042	327.460	1.055%	-0.770%	No
511	318.568	316.034	-0.795%	-4.232%	No
512	336.169	337.994	0.543%	2.422%	No
513	333.672	334.000	0.098%	1.212%	No
514	336.914	330.605	-1.873%	0.183%	No
515	338.871	332.880	-1.768%	0.873%	No
516	333.817	338.487	1.399%	2.572%	No
517	329.342	328.795	-0.166%	-0.365%	No
518	328.288	324.051	-1.291%	-1.803%	No
519	324.434	324.726	0.090%	-1.598%	No
520	328.082	323.583	-1.371%	-1.945%	No
521	338.599	335.567	-0.895%	1.687%	No
522	327.968	321.911	-1.847%	-2.451%	No
523	315.253	315.520	0.085%	-4.388%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
494	6.33	6.46	102.054%	71.778%	No
495	6.60	6.57	99.545%	73.000%	No
496	7.14	7.38	103.361%	82.000%	No
497	7.25	7.11	98.069%	79.000%	No
498	7.33	7.34	100.136%	81.556%	No
499	7.01	7.21	102.853%	80.111%	No
500	7.63	7.89	103.408%	87.667%	No
501	7.44	7.49	100.672%	83.222%	No
502	6.69	6.93	103.587%	77.000%	No
503	7.75	7.84	101.161%	87.111%	No
504	6.56	6.44	98.171%	71.556%	No
505	7.16	7.33	102.374%	81.444%	No
506	7.37	7.47	101.357%	83.000%	No
507	7.25	7.26	100.138%	80.667%	No
508	6.67	6.82	102.249%	75.778%	No
509	7.60	7.72	101.579%	85.778%	No
510	6.82	6.69	98.094%	74.333%	No
511	7.31	7.35	100.547%	81.667%	No
512	7.06	7.24	102.550%	80.444%	No
513	7.62	7.78	102.100%	86.444%	No
514	6.88	7.07	102.776%	78.567%	No
515	7.54	7.64	101.326%	84.889%	No
516	7.78	7.72	99.229%	85.778%	No
517	7.19	7.26	100.974%	80.667%	No
518	7.14	7.17	100.420%	79.667%	No
519	7.13	7.14	100.140%	79.333%	No
520	7.81	7.70	98.592%	85.556%	No
521	7.46	7.41	99.330%	82.333%	No
522	6.28	6.35	101.115%	70.556%	No
523	7.25	7.26	100.138%	80.667%	No

AEC Q200-006			Verdict
Terminal Strength (SMD)			**P**
1	With the component mounted on a PCB obtained from the Supplier with the device to be tested, apply a 17.7 N (1.8 Kg) force to the side of a device being tested. This force shall be applied for 60 +1 seconds.	30pcs samples.	P
2	Also the force shall be applied gradually as not to apply a shock to the component being tested.		P
3	Magnification of 20X or greater may be employed for inspection of the mechanical integrity of the device body, terminals and body/terminal junction.	No any damage on the component.	P
4	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
5	After the test the resistance should not exceed 200% of the specification.	See below table.	P



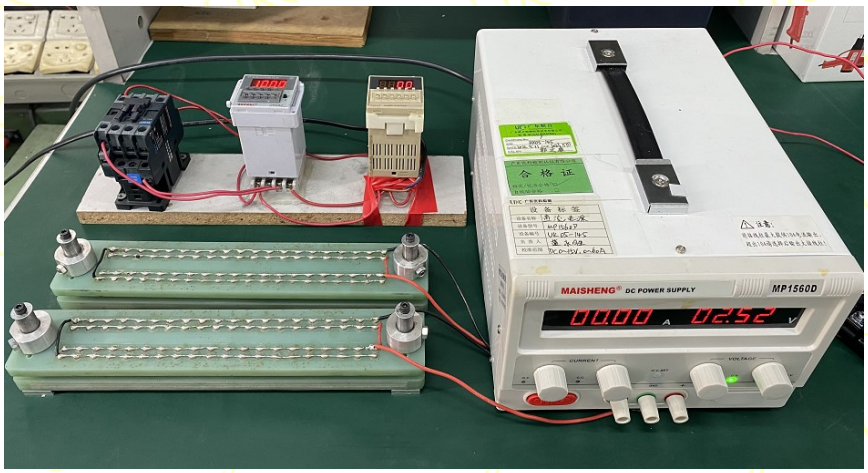
Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
524	334.743	336.148	0.420%	1.863%	No
525	314.928	313.324	-0.509%	-5.053%	No
526	339.431	312.689	-7.878%	-5.246%	No
527	330.310	322.185	-2.460%	-2.368%	No
528	327.547	311.735	-4.827%	-5.535%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
529	316.210	340.780	7.770%	3.267%	No
530	333.456	326.691	-2.029%	-1.003%	No
531	314.117	327.299	4.197%	-0.818%	No
532	342.201	338.704	-1.022%	2.638%	No
533	334.513	325.821	-2.598%	-1.266%	No
534	341.126	337.476	-1.070%	2.265%	No
535	312.091	331.433	6.198%	0.434%	No
536	315.382	339.932	7.784%	3.010%	No
537	317.340	320.835	1.101%	-2.777%	No
538	315.323	334.398	6.049%	1.333%	No
539	328.353	338.549	3.105%	2.591%	No
540	315.126	326.414	3.582%	-1.087%	No
541	315.316	312.241	-0.975%	-5.382%	No
542	326.907	314.417	-3.821%	-4.722%	No
543	328.007	327.545	-0.141%	-0.744%	No
544	312.728	338.588	8.269%	2.602%	No
545	319.172	332.356	4.131%	0.714%	No
546	334.056	311.541	-6.740%	-5.594%	No
547	338.552	325.878	-3.744%	-1.249%	No
548	312.811	318.704	1.884%	-3.423%	No
549	320.132	339.561	6.069%	2.897%	No
550	340.481	328.242	-3.595%	-0.533%	No
551	336.860	329.032	-2.324%	-0.293%	No
552	342.143	329.613	-3.662%	-0.117%	No
553	341.206	319.419	-6.385%	-3.206%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
524	6.73	6.93	102.972%	77.000%	No
525	7.18	7.23	100.696%	80.333%	No
526	7.08	7.15	100.989%	79.444%	No
527	7.55	7.59	100.530%	84.333%	No
528	7.42	7.34	98.922%	81.556%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
529	6.24	6.37	102.083%	70.778%	No
530	7.00	6.98	99.714%	77.556%	No
531	7.16	7.41	103.492%	82.333%	No
532	7.43	7.58	102.019%	84.222%	No
533	7.02	7.14	101.709%	79.333%	No
534	6.77	7.04	103.988%	78.222%	No
535	6.75	6.73	99.704%	74.778%	No
536	6.42	6.66	103.738%	74.000%	No
537	7.73	7.72	99.871%	85.778%	No
538	6.92	7.13	103.035%	79.222%	No
539	6.98	7.09	101.576%	78.778%	No
540	6.81	6.69	98.238%	74.333%	No
541	7.68	7.74	100.781%	86.000%	No
542	7.47	7.46	99.866%	82.889%	No
543	6.37	6.58	103.297%	73.111%	No
544	6.57	6.75	102.740%	75.000%	No
545	6.59	6.62	100.455%	73.556%	No
546	6.94	6.84	98.559%	76.000%	No
547	7.21	7.23	100.277%	80.333%	No
548	7.80	7.72	98.974%	85.778%	No
549	7.49	7.68	102.537%	85.333%	No
550	7.24	7.15	98.757%	79.444%	No
551	6.50	6.46	99.385%	71.778%	No
552	7.22	7.39	102.355%	82.111%	No
553	6.76	6.68	98.817%	74.222%	No

JIS-C-5101-1			Verdict
Surge Voltage			**P**
1	The required per-test shall be carried out in accordance with the specifications.	30pcs samples.	P
2	Test according to surge voltage and rated voltage specified by customer.	Surge voltage:2.5V 1000 Cycles	P
3	After the test, the appearance inspection should be carried out, the sample should have no cracking, peeling, bulging, damage phenomenon, the product appearance should be normal.	No any damage on the component.	P
4	After the test the capacitance should not exceed ±20% of the Initial value.	See below table.	P
5	After the test the resistance should not exceed 200% of the specification.	See below table.	P



Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
554	322.460	321.749	-0.220%	-2.500%	No
555	321.385	320.044	-0.417%	-3.017%	No
556	313.096	309.545	-1.134%	-6.198%	No
557	327.938	328.878	0.287%	-0.340%	No
558	340.601	334.342	-1.838%	1.316%	No
559	341.532	331.628	-2.900%	0.493%	No
560	341.207	336.842	-1.279%	2.073%	No
561	339.279	337.138	-0.631%	2.163%	No
562	322.050	320.274	-0.551%	-2.947%	No
563	330.252	322.008	-2.496%	-2.422%	No
564	322.852	319.353	-1.084%	-3.226%	No
565	312.083	310.994	-0.349%	-5.759%	No
566	316.019	302.815	-4.178%	-8.238%	No

Spec. / No.	Capacitance (@120Hz,μF):				Mechanical damage
	Initial Measured	After Measured	Deviation (<20%)	Change (<20%)	
567	317.749	316.857	-0.281%	-3.983%	No
568	314.972	311.034	-1.250%	-5.747%	No
569	332.488	326.499	-1.801%	-1.061%	No
570	331.580	328.500	-0.929%	-0.455%	No
571	322.413	321.575	-0.260%	-2.553%	No
572	317.501	309.767	-2.436%	-6.131%	No
573	334.699	327.233	-2.231%	-0.838%	No
574	325.118	325.105	-0.004%	-1.483%	No
575	332.410	327.328	-1.529%	-0.810%	No
576	323.431	324.313	0.273%	-1.723%	No
577	318.892	316.775	-0.664%	-4.008%	No
578	328.592	327.094	-0.456%	-0.881%	No
579	315.031	314.062	-0.308%	-4.830%	No
580	318.854	317.112	-0.546%	-3.905%	No
581	317.649	314.784	-0.902%	-4.611%	No
582	323.070	321.871	-0.371%	-2.463%	No
583	318.641	313.593	-1.584%	-4.972%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
554	7.60	7.74	101.842%	86.000%	No
555	7.40	7.45	100.676%	82.778%	No
556	7.13	7.36	103.226%	81.778%	No
557	7.49	7.48	99.866%	83.111%	No
558	6.56	6.75	102.896%	75.000%	No
559	6.89	7.15	103.774%	79.444%	No
560	7.74	7.85	101.421%	87.222%	No
561	7.35	7.57	102.993%	84.111%	No
562	6.37	6.53	102.512%	72.556%	No
563	7.63	7.64	100.131%	84.889%	No
564	7.59	7.69	101.318%	85.444%	No
565	6.95	6.98	100.432%	77.556%	No
566	7.37	7.41	100.543%	82.333%	No
567	6.65	6.68	100.451%	74.222%	No

Spec. / No.	Equivalent Series Resistance(@100KHz,mΩ):				Mechanical damage
	Initial Measured	After Measured	Deviation (<200%)	Change (<200%)	
568	7.16	7.38	103.073%	82.000%	No
569	6.74	6.92	102.671%	76.889%	No
570	7.15	7.24	101.259%	80.444%	No
571	6.49	6.62	102.003%	73.556%	No
572	6.76	6.99	103.402%	77.667%	No
573	6.29	6.53	103.816%	72.556%	No
574	6.81	7.07	103.818%	78.556%	No
575	7.49	7.78	103.872%	86.444%	No
576	6.65	6.94	104.361%	77.111%	No
577	6.30	6.48	102.857%	72.000%	No
578	7.50	7.87	104.933%	87.444%	No
579	6.87	7.06	102.766%	78.444%	No
580	7.69	7.90	102.731%	87.778%	No
581	7.69	7.85	102.081%	87.222%	No
582	7.32	7.75	105.874%	86.111%	No
583	7.34	7.45	101.499%	82.778%	No

List of Measurement Equipment:

Number	Equipment	Equipment No.	Model	Calibration due date	Use(√)
1	Ambient meter	UK07-014	VC230A	2023/9/1	√
2	LCR Tester	UK02-204	TH2829C	2023/3/16	√
3	Oven	UK02-092	DHG-9203A	2023/3/16	√
4	DC Power supply	UK05-131	MP1530D	2023/9/1	√
5	Digital multimeter	UK05-102	UT890C+	2023/3/16	√
6	Oven	UK08-030	GX-3020-M	2023/5/10	√
7	Ambient meter	UK05-142	VC230A	2023/5/10	√
8	Constant temperature chamber	UK02-034	CZ-A-80D	2023/3/8	√
9	DC Power supply	UK05-147	MP1530D	2023/5/10	√
10	Thermal shock chamber	UK05-134	GX-3000-100CH	2023/9/1	√
11	Mechanical Shock apparatus	UK08-011	HSKT10	2023/5/10	√
12	Vibration tester	UK08-010	EV206H0505	2023/5/10	√
13	Solder Bath	UK02-103	YH-1814	2023/3/15	√
14	Stop watch	UK01-009	PC396	2023/3/15	√
15	Clock	UK04-005	QUARTZ	2023/9/1	√
16	Steam conditioning equipment	UK08-017	BX-Z-4	2023/5/10	√
17	Soldering test device	UK07-056	KHX-TEST	2023/5/10	√
18	Ambient meter	UK05-125	VC230A	2023/3/15	√
19	ESD Simulator	UK08-001	ESD-30V	2023/5/10	√
20	UL combustion test chamber	UK02-066	HD-5010	2023/3/15	√
21	Image measurement tester	UK01-008	YVM-2010CSPC	2023/3/15	√
22	Constant temperature chamber	UK04-042	CZ-A-80G	2023/1/3	√
23	Terminal Strength tester	UK07-057	SMD-TEST	2023/5/10	√

====== END OF REPORT ======