www.SeCosGmbH.com

Headquarter Address:
8F.No.33, Lane 155, Sec.3, Bei-Shen Rd.,
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Product/Process Change Notification

PCN#	Effective Date	Issue Date
2017-12-08C-04	2018/3/8	2017/12/8

PCN Classification	Product Category
Major	Diode

Subject

Production process change from lead free to halogen free.

Affected Product(s)

WBFBP-02C Package of Small Signal Diode, Such as attachments.

Description of Change(s)

To meet EU environment requirement, we implement halogen free to our products.

Content of Change(s)

Adding “-C” to each part number.

Impact(s)

N/A

Attachment(s)

SGS report. Reliability report.

Approval		
Issue by	Alice Lai	e-mail: alice@secosgmbh.com
Development Engineer		Alice Lai
QA Manager		Peter Yang
General Manger		Mathew Liu

For more information, please contact us directly or visit our website http://www.secosgmbh.com

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Affected Product(s)

SCS715DSTN
SCS540DSTN
SCS40STN
SCS70DSTN
SCS4148DSTN
SCS2222DSTN
SCS400DS

SeCoS Corporation

Reliability Testing Summary Report

Date: 2017/11/30 Document No.: SK17 -11- 105

Test Item	P/N	Test Condition	(LTPD)	Sample Numbers	Allow Fall Numbers	Fall Numbers	Result
HTRB High Temp Reverse Bias	SCS40STN-C	150℃ ± 5℃, 80%VR, T = 1000 hrs		77	0	0	ACC
HTSL High Temperature Storage Life	SCS40STN-C	150℃, T = 1000 hrs		77	0	0	ACC
PCT Pressure Cooker Test	SCS40STN-C	121℃, 29.7PSIG, 168 hrs		77	0	0	ACC
TCT Temperature Cycle Test	SCS40STN-C	-55℃/30min, 150℃/30min, For 1000 Cycle		77	0	0	ACC
THT High Temperature High Humidity Test	SCS40STN-C	85 ± 2℃, RH=85±5%, 1000 hrs		77	0	0	ACC
H3TRB High Temper High Humidity Reverse Bies Test	SCS40STN-C	85 ± 2℃, RH=85±5%, 80%VR, 1000 hrs		77	0	0	ACC
Resistance to Solder Heat Test	SCS40STN-C	270℃±5℃, 7Sec +2/-0Sec		10	0	0	ACC

Judgment:

■ **qualified** □ **unqualified**

Testing Start Date: 2017.10.05 Testing End Date: 2017.11.30

Tester: King Huang Approval: Peter Yang

SeCoS Corporation

Electrical Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 25℃
Test Date: 2017.10.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	VF (mV)	VB (V)	IR (uA)
1	634.0mV	52.23V	2.112uA
2	598.4mV	52.53V	1.993uA
3	614.6mV	49.89V	2.402uA
4	596.4mV	54.21V	2.311uA
5	637.4mV	54.02V	1.720uA
6	635.3mV	52.19V	1.318uA
7	636.9mV	52.31V	2.250uA
8	629.9mV	53.24V	2.404uA
9	618.1mV	54.12V	1.946uA
10	599.7mV	52.63V	1.434uA
11	604.1mV	53.21V	1.436uA
12	613.8mV	51.64V	2.109uA
13	623.0mV	52.78V	1.899uA
14	616.2mV	51.84V	1.352uA
15	611.7mV	49.83V	1.202uA
16	616.3mV	50.10V	2.225uA
17	610.6mV	53.87V	1.732uA
18	615.5mV	53.40V	2.289uA
19	625.2mV	54.66V	1.525uA
20	621.1mV	53.70V	2.476uA
21	637.5mV	50.43V	2.281uA
22	621.0mV	51.10V	1.557uA
23	612.2mV	55.26V	1.924uA
24	619.2mV	55.24V	1.708uA
25	600.1mV	54.30V	1.558uA
26	621.4mV	54.47V	2.047uA
27	626.5mV	52.16V	1.160uA
28	633.5mV	54.05V	2.489uA
29	630.7mV	55.20V	2.356uA
30	596.9mV	52.93V	2.081uA
31	621.4mV	50.58V	2.134uA

SeCoS Corporation

Electrical Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 25℃
Test Date: 2017.10.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	VF (mV)	VB (V)	IR (uA)
32	622.8mV	54.28V	1.706uA
33	636.8mV	51.10V	2.298uA
34	625.3mV	50.18V	1.535uA
35	637.9mV	49.98V	2.182uA
36	613.5mV	55.51V	1.481uA
37	598.2mV	53.73V	1.867uA
38	634.5mV	54.35V	1.131uA
39	610.4mV	53.54V	1.645uA
40	624.1mV	50.24V	1.760uA
41	602.6mV	51.67V	1.360uA
42	596.7mV	55.15V	1.828uA
43	596.5mV	53.12V	1.473uA
44	635.2mV	55.16V	1.606uA
45	625.2mV	55.30V	1.259uA
46	613.0mV	51.24V	1.685uA
47	599.3mV	53.31V	1.688uA
48	632.0mV	53.47V	1.584uA
49	623.3mV	50.94V	2.014uA
50	618.7mV	55.45V	2.238uA
51	596.5mV	49.79V	1.577uA
52	606.2mV	53.58V	1.862uA
53	623.0mV	55.32V	2.216uA
54	601.5mV	51.43V	1.904uA
55	606.5mV	50.88V	1.933uA
56	614.5mV	50.16V	1.547uA
57	614.9mV	49.88V	1.986uA
58	626.2mV	54.23V	2.089uA
59	622.2mV	53.94V	1.978uA
60	626.9mV	51.24V	1.309uA
61	609.7mV	51.71V	2.383uA
62	634.0mV	50.81V	1.363uA

SeCoS Corporation

Electrical Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 25℃
Test Date: 2017.10.05
Test Standard : Specifications
Operator: Leo Hsia

Test Result: PASS

No	VF (mV)	VB (V)	IR (uA)
63	598.6mV	51.79V	1.539uA
64	632.4mV	54.13V	1.414uA
65	605.5mV	55.12V	2.031uA
66	611.3mV	55.23V	2.149uA
67	628.8mV	54.66V	2.264uA
68	637.1mV	54.91V	2.103uA
69	631.1mV	53.75V	2.265uA
70	621.9mV	52.00V	1.754uA
71	618.5mV	51.46V	2.306uA
72	620.3mV	53.26V	1.984uA
73	599.2mV	51.71V	1.186uA
74	605.2mV	53.76V	1.530uA
75	631.5mV	51.43V	1.471uA
76	637.5mV	50.60V	2.501uA
77	630.4mV	50.51V	1.382uA

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 150℃ ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2017.10.05 ~ 2017.11.17
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	627.7mV	54.10V	2.411uA	604.4mV	52.51V	2.177uA
2	623.4mV	55.56V	2.355uA	611.4mV	52.15V	2.339uA
3	603.0mV	54.13V	2.379uA	629.4mV	54.85V	2.387uA
4	615.9mV	51.81V	1.459uA	620.0mV	49.93V	2.083uA
5	598.9mV	49.84V	2.278uA	606.8mV	52.44V	1.927uA
6	626.6mV	52.81V	1.795uA	617.4mV	51.55V	2.144uA
7	616.8mV	50.55V	1.173uA	619.0mV	53.22V	1.286uA
8	606.3mV	54.89V	1.786uA	607.2mV	52.20V	1.267uA
9	623.3mV	49.82V	1.720uA	619.8mV	53.98V	1.295uA
10	618.8mV	54.70V	2.294uA	611.8mV	54.02V	1.632uA
11	616.4mV	52.58V	1.439uA	613.8mV	52.63V	1.246uA
12	599.9mV	50.00V	2.058uA	600.3mV	52.20V	1.382uA
13	624.9mV	53.56V	1.785uA	617.1mV	51.68V	1.380uA
14	605.1mV	51.25V	1.561uA	627.0mV	52.31V	1.198uA
15	616.0mV	51.40V	1.200uA	598.5mV	54.92V	2.132uA
16	615.4mV	53.62V	2.393uA	630.6mV	54.86V	2.494uA
17	621.6mV	50.40V	1.944uA	599.2mV	52.70V	1.446uA
18	632.0mV	55.08V	1.597uA	608.9mV	53.37V	1.724uA
19	616.2mV	54.47V	1.713uA	627.0mV	55.02V	1.996uA
20	629.9mV	55.62V	2.370uA	608.8mV	51.16V	2.500uA
21	633.4mV	53.69V	1.392uA	615.2mV	52.82V	2.009uA
22	629.3mV	55.34V	1.277uA	606.9mV	55.00V	1.163uA
23	620.6mV	53.68V	2.208uA	630.9mV	52.31V	1.734uA
24	636.6mV	55.56V	2.017uA	636.8mV	55.60V	1.586uA
25	601.1mV	54.89V	1.174uA	606.3mV	55.47V	1.417uA
26	628.6mV	54.03V	1.155uA	614.3mV	53.81V	1.209uA
27	611.9mV	50.06V	1.519uA	636.7mV	50.08V	2.055uA
28	614.5mV	53.29V	1.527uA	619.1mV	52.06V	2.409uA
29	633.5mV	54.32V	1.424uA	634.5mV	55.59V	1.437uA
30	608.6mV	55.54V	2.241uA	608.0mV	50.85V	2.223uA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 150℃ ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2017.10.05 ~ 2017.11.17
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	608.7mV	53.14V	1.756uA	636.7mV	50.99V	2.289uA
32	623.0mV	52.53V	2.408uA	631.1mV	52.25V	1.787uA
33	604.1mV	52.53V	1.260uA	599.4mV	50.62V	2.416uA
34	624.1mV	50.82V	1.416uA	617.9mV	53.98V	2.095uA
35	633.6mV	50.40V	1.478uA	616.8mV	52.09V	2.277uA
36	604.4mV	50.74V	1.498uA	603.1mV	52.06V	1.711uA
37	617.9mV	50.43V	1.136uA	596.1mV	53.59V	1.497uA
38	615.4mV	54.98V	1.577uA	618.7mV	51.80V	1.698uA
39	597.1mV	50.45V	2.411uA	635.0mV	49.94V	1.555uA
40	637.4mV	52.91V	1.871uA	596.1mV	49.71V	1.247uA
41	600.1mV	53.01V	1.485uA	599.0mV	55.10V	2.491uA
42	620.7mV	52.55V	2.483uA	603.7mV	55.32V	1.956uA
43	614.3mV	54.47V	1.764uA	600.3mV	52.70V	1.822uA
44	610.2mV	55.07V	2.283uA	623.7mV	53.23V	1.307uA
45	602.9mV	52.13V	1.679uA	625.7mV	51.17V	2.412uA
46	608.9mV	51.98V	1.728uA	600.7mV	50.14V	1.410uA
47	603.5mV	50.14V	2.159uA	633.3mV	52.34V	2.327uA
48	618.4mV	52.83V	1.753uA	602.3mV	52.37V	1.907uA
49	634.2mV	53.33V	2.342uA	625.8mV	50.53V	2.500uA
50	615.3mV	53.82V	1.569uA	625.1mV	51.47V	1.216uA
51	636.9mV	52.27V	2.412uA	625.9mV	50.71V	2.121uA
52	605.1mV	53.33V	2.268uA	624.1mV	53.47V	1.150uA
53	620.3mV	55.37V	1.742uA	617.7mV	51.79V	1.157uA
54	632.2mV	53.18V	2.240uA	612.4mV	53.45V	2.491uA
55	609.0mV	52.47V	1.560uA	627.4mV	51.42V	2.297uA
56	632.7mV	52.62V	1.221uA	632.0mV	55.63V	2.090uA
57	596.3mV	55.39V	1.315uA	604.6mV	55.10V	2.282uA
58	636.7mV	53.05V	1.183uA	636.3mV	49.76V	1.879uA
59	636.0mV	55.58V	2.199uA	627.9mV	52.59V	2.440uA
60	608.9mV	53.78V	1.548uA	621.9mV	51.84V	1.354uA

SeCoS Corporation

High Temperature Reverse Bias Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 150℃ ± 5℃, 80%VR, T = 1000 hrs
Test Date: 2017.10.05 ~ 2017.11.17
Test Standard : JESD22 STANDARD Method-A108
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	618.2mV	53.83V	1.415uA	608.0mV	50.95V	1.698uA
62	599.5mV	50.50V	1.284uA	633.9mV	50.74V	1.905uA
63	618.1mV	52.58V	1.806uA	617.0mV	54.86V	1.888uA
64	606.5mV	51.41V	1.630uA	628.3mV	52.32V	2.240uA
65	607.0mV	55.07V	2.419uA	625.2mV	54.24V	1.128uA
66	634.7mV	53.50V	1.472uA	620.6mV	54.76V	1.385uA
67	616.9mV	52.68V	2.209uA	621.8mV	55.49V	2.375uA
68	632.4mV	51.75V	1.535uA	615.4mV	53.82V	1.840uA
69	625.8mV	52.94V	1.399uA	605.5mV	53.66V	2.453uA
70	600.0mV	54.20V	1.264uA	635.3mV	55.08V	1.586uA
71	622.3mV	51.61V	1.930uA	607.4mV	50.42V	2.425uA
72	618.1mV	53.42V	1.427uA	613.1mV	50.59V	1.441uA
73	630.1mV	50.63V	2.276uA	619.6mV	55.10V	2.402uA
74	623.9mV	50.25V	2.081uA	601.3mV	54.74V	1.996uA
75	624.3mV	52.33V	2.288uA	597.9mV	55.10V	1.815uA
76	634.4mV	50.29V	2.151uA	618.3mV	52.10V	1.268uA
77	621.1mV	52.86V	2.398uA	616.6mV	54.72V	2.289uA

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 150℃, 1000Hrs
Test Date: 2017.10.05 ~ 2017.11.17
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	596.4mV	55.65V	2.038uA	637.5mV	55.50V	2.121uA
2	619.6mV	49.92V	2.248uA	612.1mV	52.43V	1.383uA
3	636.3mV	55.64V	2.469uA	618.9mV	50.20V	1.766uA
4	631.8mV	52.58V	1.294uA	631.7mV	55.67V	2.215uA
5	626.3mV	49.91V	1.610uA	602.8mV	55.53V	1.770uA
6	611.2mV	53.36V	1.411uA	606.6mV	53.18V	2.374uA
7	635.8mV	55.68V	1.170uA	621.1mV	55.27V	2.475uA
8	635.6mV	50.82V	2.193uA	607.9mV	51.56V	2.250uA
9	607.8mV	54.67V	1.854uA	609.9mV	51.51V	2.085uA
10	622.1mV	50.22V	2.152uA	623.6mV	53.44V	2.121uA
11	617.0mV	54.02V	1.731uA	633.5mV	53.56V	1.801uA
12	604.6mV	54.98V	1.179uA	635.4mV	52.12V	1.875uA
13	628.8mV	49.92V	1.424uA	612.5mV	54.53V	2.195uA
14	612.3mV	55.26V	2.373uA	603.0mV	54.27V	1.516uA
15	626.6mV	50.34V	2.113uA	613.1mV	54.75V	2.466uA
16	621.9mV	53.03V	1.528uA	601.7mV	51.14V	1.190uA
17	599.8mV	53.44V	1.997uA	625.5mV	53.75V	1.548uA
18	635.2mV	52.95V	1.688uA	598.4mV	51.42V	2.277uA
19	624.2mV	52.13V	1.195uA	635.3mV	51.11V	1.168uA
20	616.4mV	51.54V	2.402uA	633.3mV	51.86V	1.452uA
21	601.8mV	51.18V	2.102uA	602.3mV	51.43V	1.246uA
22	598.0mV	50.94V	1.877uA	617.8mV	49.89V	2.202uA
23	598.8mV	52.84V	1.382uA	620.0mV	54.51V	1.860uA
24	619.7mV	52.15V	2.432uA	634.6mV	51.91V	2.138uA
25	622.8mV	51.01V	1.255uA	596.1mV	52.06V	1.881uA
26	599.7mV	55.15V	1.674uA	632.5mV	49.85V	1.348uA
27	597.5mV	49.73V	2.425uA	626.3mV	51.48V	1.653uA
28	618.9mV	54.85V	1.194uA	598.6mV	52.53V	2.487uA
29	613.2mV	52.42V	1.766uA	596.3mV	52.47V	1.486uA
30	612.8mV	52.77V	1.533uA	617.2mV	50.92V	2.062uA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 150℃, 1000Hrs
Test Date: 2017.10.05 ~ 2017.11.17
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	629.2mV	54.73V	2.411uA	612.3mV	54.64V	2.073uA
32	598.7mV	51.30V	1.714uA	626.1mV	50.85V	1.683uA
33	606.9mV	52.29V	2.160uA	628.9mV	51.26V	2.097uA
34	630.3mV	55.48V	2.420uA	628.8mV	54.89V	2.131uA
35	625.1mV	55.33V	1.823uA	628.9mV	51.52V	2.050uA
36	618.8mV	54.94V	1.133uA	620.7mV	54.89V	1.892uA
37	627.5mV	54.39V	2.039uA	602.1mV	54.07V	1.977uA
38	608.0mV	53.58V	1.946uA	606.7mV	51.43V	2.053uA
39	611.5mV	53.67V	2.123uA	609.4mV	50.24V	1.774uA
40	627.2mV	52.95V	1.744uA	610.3mV	54.44V	1.796uA
41	621.8mV	51.27V	1.951uA	611.6mV	50.68V	1.863uA
42	636.1mV	51.30V	1.298uA	629.7mV	51.27V	2.453uA
43	635.8mV	50.16V	2.204uA	629.4mV	50.05V	2.455uA
44	635.6mV	51.90V	2.083uA	626.2mV	53.21V	1.928uA
45	613.1mV	52.97V	1.703uA	626.6mV	54.01V	2.307uA
46	598.2mV	54.18V	1.402uA	634.6mV	50.12V	2.461uA
47	604.3mV	50.95V	1.593uA	601.3mV	52.27V	1.967uA
48	598.8mV	51.38V	1.194uA	601.7mV	51.44V	1.936uA
49	602.7mV	55.03V	2.148uA	633.1mV	51.45V	1.822uA
50	614.1mV	52.68V	1.847uA	620.1mV	49.89V	2.051uA
51	609.8mV	51.80V	2.213uA	614.0mV	53.99V	2.029uA
52	635.7mV	52.27V	1.611uA	630.4mV	52.22V	1.884uA
53	611.3mV	50.11V	1.760uA	617.8mV	49.95V	1.409uA
54	612.6mV	50.25V	1.384uA	619.1mV	52.28V	1.905uA
55	615.6mV	55.34V	1.812uA	633.7mV	50.15V	2.112uA
56	607.8mV	51.01V	2.211uA	605.2mV	50.24V	1.670uA
57	637.6mV	51.00V	1.961uA	622.1mV	54.86V	1.940uA
58	614.0mV	53.95V	2.033uA	618.5mV	52.13V	1.582uA
59	633.8mV	51.52V	2.230uA	598.0mV	54.19V	1.878uA
60	621.5mV	51.22V	1.915uA	629.5mV	51.54V	1.294uA

SeCoS Corporation

High Temperature Storage Life Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 150℃, 1000Hrs
Test Date: 2017.10.05 ~ 2017.11.17
Test Standard : JESD22 STANDARD Method-A103
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	623.6mV	50.18V	1.367uA	607.5mV	49.92V	2.109uA
62	597.7mV	54.66V	1.905uA	619.9mV	49.74V	2.118uA
63	635.1mV	51.03V	2.450uA	621.3mV	49.93V	2.464uA
64	627.2mV	52.47V	2.441uA	626.4mV	50.79V	2.220uA
65	621.2mV	52.91V	2.311uA	599.4mV	50.24V	2.082uA
66	614.2mV	55.09V	2.261uA	625.8mV	50.87V	2.412uA
67	599.3mV	55.56V	1.201uA	607.8mV	54.61V	1.716uA
68	606.1mV	55.03V	1.360uA	618.0mV	50.95V	2.427uA
69	634.2mV	54.80V	1.519uA	621.9mV	51.67V	1.262uA
70	613.0mV	50.15V	1.870uA	598.6mV	51.48V	1.938uA
71	637.4mV	54.28V	2.073uA	637.1mV	52.83V	1.990uA
72	598.4mV	55.48V	1.744uA	621.6mV	52.50V	1.808uA
73	601.8mV	49.93V	2.057uA	619.3mV	55.35V	2.179uA
74	596.1mV	52.75V	1.887uA	635.7mV	50.04V	2.337uA
75	629.6mV	51.65V	1.210uA	629.0mV	51.59V	1.986uA
76	602.7mV	54.13V	2.031uA	601.0mV	52.29V	1.383uA
77	600.1mV	54.92V	2.091uA	613.8mV	52.64V	1.557uA

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Pressure Cooker Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2017.10.05 ~ 2017.10.13
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	620.0mV	53.66V	2.385uA	622.5mV	51.20V	1.461uA
2	624.4mV	50.01V	1.134uA	609.4mV	52.18V	2.121uA
3	609.3mV	53.59V	1.530uA	620.8mV	49.79V	2.257uA
4	611.3mV	50.56V	1.380uA	607.9mV	54.14V	1.932uA
5	617.7mV	50.77V	2.101uA	622.9mV	51.88V	1.443uA
6	627.6mV	54.55V	1.445uA	617.2mV	51.17V	1.435uA
7	611.0mV	50.57V	1.942uA	598.9mV	51.77V	2.494uA
8	612.8mV	50.79V	2.156uA	635.5mV	55.65V	2.175uA
9	602.6mV	51.32V	1.724uA	632.6mV	50.09V	2.256uA
10	602.5mV	53.24V	1.689uA	629.0mV	50.85V	1.581uA
11	600.6mV	55.22V	2.424uA	604.8mV	50.43V	2.265uA
12	611.5mV	50.00V	1.588uA	631.9mV	52.33V	1.973uA
13	632.6mV	52.73V	1.622uA	632.2mV	54.88V	1.807uA
14	631.4mV	49.74V	1.280uA	630.8mV	52.14V	2.380uA
15	620.0mV	55.13V	2.494uA	613.6mV	51.57V	1.307uA
16	633.6mV	52.20V	2.431uA	630.9mV	52.42V	1.858uA
17	617.2mV	53.00V	1.362uA	614.7mV	53.52V	2.077uA
18	630.4mV	49.71V	1.628uA	601.8mV	50.70V	1.396uA
19	600.5mV	52.10V	2.216uA	617.0mV	49.74V	1.183uA
20	629.5mV	54.90V	2.008uA	635.1mV	52.88V	2.420uA
21	623.9mV	53.22V	1.734uA	605.1mV	53.45V	1.790uA
22	615.4mV	50.51V	2.044uA	624.2mV	52.87V	2.054uA
23	600.4mV	50.12V	1.903uA	635.9mV	55.56V	2.329uA
24	627.5mV	53.27V	1.406uA	602.7mV	54.59V	2.426uA
25	608.8mV	50.62V	2.137uA	600.3mV	50.89V	1.758uA
26	637.7mV	52.84V	1.867uA	635.7mV	53.95V	1.786uA
27	606.6mV	52.74V	1.665uA	612.5mV	52.21V	2.302uA
28	616.1mV	51.85V	2.263uA	601.6mV	53.95V	2.497uA
29	617.4mV	52.99V	2.227uA	611.5mV	54.84V	2.363uA
30	609.1mV	50.47V	1.697uA	609.8mV	54.27V	2.100uA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2017.10.05 ~ 2017.10.13
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	626.5mV	51.27V	1.448uA	628.7mV	50.53V	1.338uA
32	631.1mV	50.58V	1.327uA	622.6mV	51.78V	2.411uA
33	630.9mV	49.76V	2.194uA	630.8mV	54.84V	2.474uA
34	599.0mV	52.40V	1.189uA	622.6mV	50.52V	2.170uA
35	610.3mV	50.87V	1.198uA	614.9mV	53.09V	1.572uA
36	608.6mV	52.54V	2.099uA	596.9mV	52.08V	2.058uA
37	622.3mV	53.85V	2.090uA	615.7mV	51.46V	2.342uA
38	622.0mV	51.49V	1.221uA	635.5mV	51.14V	2.167uA
39	608.9mV	51.21V	1.454uA	606.1mV	54.00V	1.309uA
40	623.3mV	54.38V	1.986uA	609.2mV	50.01V	1.265uA
41	627.8mV	53.38V	1.456uA	618.9mV	51.36V	1.770uA
42	605.8mV	51.88V	2.216uA	629.7mV	55.60V	2.493uA
43	602.2mV	52.31V	1.560uA	599.7mV	50.77V	2.336uA
44	616.3mV	49.94V	2.218uA	622.9mV	54.69V	1.657uA
45	609.6mV	54.52V	1.961uA	606.7mV	54.88V	1.149uA
46	629.7mV	54.61V	1.346uA	625.0mV	51.86V	2.350uA
47	614.5mV	54.08V	1.127uA	622.7mV	51.93V	1.933uA
48	636.6mV	53.10V	1.334uA	607.9mV	55.64V	2.293uA
49	619.0mV	50.72V	2.149uA	610.0mV	51.79V	1.538uA
50	603.9mV	50.86V	2.047uA	625.1mV	55.30V	2.460uA
51	625.3mV	50.20V	1.783uA	632.0mV	55.56V	1.586uA
52	605.7mV	52.39V	2.228uA	627.7mV	52.65V	1.785uA
53	599.7mV	50.87V	2.395uA	630.6mV	50.27V	2.362uA
54	633.8mV	52.60V	1.995uA	627.4mV	55.52V	1.304uA
55	614.5mV	52.29V	1.753uA	634.2mV	50.86V	1.887uA
56	630.4mV	54.02V	1.820uA	609.5mV	54.19V	1.796uA
57	627.5mV	50.83V	1.313uA	614.4mV	52.88V	2.003uA
58	603.8mV	54.39V	1.613uA	605.0mV	50.58V	1.449uA
59	608.2mV	55.41V	2.087uA	629.7mV	55.20V	1.471uA
60	635.9mV	54.63V	2.299uA	603.4mV	55.31V	1.767uA

SeCoS Corporation

Pressure Cooker Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 121℃, 100%RH, 29.7PSIG, 168Hrs
Test Date: 2017.10.05 ~ 2017.10.13
Test Standard : JESD22 STANDARD Method-A102
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	626.5mV	53.06V	2.019uA	617.5mV	50.00V	1.694uA
62	605.9mV	55.10V	2.363uA	628.9mV	50.73V	1.970uA
63	608.8mV	52.23V	2.465uA	630.2mV	53.77V	1.821uA
64	611.4mV	51.56V	1.422uA	610.7mV	51.63V	2.185uA
65	610.0mV	50.66V	1.819uA	614.2mV	54.19V	1.604uA
66	620.0mV	55.65V	2.358uA	610.5mV	50.14V	2.203uA
67	628.8mV	53.75V	1.868uA	622.7mV	50.77V	2.328uA
68	618.6mV	54.54V	1.435uA	627.6mV	50.93V	1.587uA
69	610.5mV	51.68V	2.092uA	608.6mV	50.70V	1.380uA
70	625.8mV	51.02V	1.871uA	633.1mV	51.78V	1.171uA
71	614.8mV	50.99V	2.166uA	625.4mV	54.48V	1.149uA
72	637.4mV	50.16V	2.319uA	612.9mV	53.10V	1.667uA
73	609.3mV	54.91V	1.291uA	621.1mV	53.75V	1.203uA
74	605.1mV	50.39V	1.152uA	607.5mV	53.22V	1.973uA
75	606.0mV	50.50V	2.405uA	605.7mV	53.62V	1.334uA
76	603.5mV	54.87V	1.339uA	627.6mV	51.49V	1.337uA
77	627.3mV	55.06V	1.315uA	635.7mV	54.45V	1.985uA

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Temperature Cycle Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2017.10.06 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	606.2mV	49.97V	1.367uA	596.3mV	50.39V	1.722uA
2	619.5mV	50.35V	2.377uA	601.4mV	54.38V	1.208uA
3	625.4mV	51.25V	2.084uA	631.9mV	50.34V	2.019uA
4	634.6mV	54.97V	2.416uA	599.4mV	54.11V	2.011uA
5	622.3mV	52.70V	1.530uA	637.4mV	53.86V	1.883uA
6	631.7mV	51.05V	2.436uA	618.3mV	50.14V	1.237uA
7	618.0mV	52.24V	2.227uA	634.9mV	51.76V	1.309uA
8	609.3mV	51.06V	1.949uA	627.6mV	50.95V	1.927uA
9	629.9mV	50.40V	2.310uA	632.8mV	50.61V	1.598uA
10	616.6mV	52.34V	1.634uA	597.3mV	50.00V	2.434uA
11	634.5mV	55.14V	1.824uA	607.5mV	54.20V	1.379uA
12	615.1mV	51.11V	1.855uA	621.8mV	53.74V	2.192uA
13	634.2mV	54.16V	1.477uA	628.8mV	52.80V	2.178uA
14	624.3mV	50.90V	1.187uA	618.8mV	53.39V	2.370uA
15	636.6mV	53.15V	2.280uA	601.5mV	55.17V	1.279uA
16	603.6mV	54.35V	1.942uA	626.5mV	55.42V	2.162uA
17	611.4mV	50.01V	1.534uA	599.6mV	55.03V	2.041uA
18	599.7mV	50.15V	2.054uA	637.9mV	50.40V	1.485uA
19	597.5mV	55.40V	1.541uA	604.5mV	55.60V	1.753uA
20	633.9mV	53.28V	2.252uA	634.2mV	50.39V	2.411uA
21	636.3mV	53.88V	1.370uA	624.6mV	51.67V	1.220uA
22	631.2mV	53.25V	1.786uA	621.4mV	51.50V	1.751uA
23	621.7mV	51.75V	1.563uA	608.4mV	51.66V	2.324uA
24	615.2mV	51.07V	2.501uA	617.7mV	50.85V	1.135uA
25	598.5mV	50.36V	2.425uA	626.0mV	53.32V	1.391uA
26	610.8mV	54.89V	1.404uA	627.9mV	51.16V	1.211uA
27	625.7mV	55.57V	2.016uA	627.7mV	51.20V	2.462uA
28	598.9mV	50.19V	1.298uA	605.5mV	54.51V	2.489uA
29	627.4mV	54.51V	1.351uA	636.2mV	50.67V	1.213uA
30	614.0mV	51.18V	1.128uA	627.5mV	52.58V	1.453uA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2017.10.06 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	623.8mV	51.58V	2.433uA	631.5mV	53.47V	1.893uA
32	629.3mV	54.23V	1.479uA	631.3mV	53.14V	2.373uA
33	623.9mV	50.87V	1.442uA	604.8mV	50.80V	1.850uA
34	611.0mV	50.74V	2.112uA	627.6mV	51.61V	2.281uA
35	618.0mV	51.81V	1.700uA	627.3mV	50.82V	1.489uA
36	635.4mV	54.43V	1.499uA	628.0mV	51.31V	2.119uA
37	628.1mV	50.32V	1.714uA	629.8mV	55.65V	2.272uA
38	623.8mV	50.84V	1.377uA	628.9mV	51.72V	1.646uA
39	617.7mV	54.87V	1.399uA	629.8mV	55.15V	1.678uA
40	636.5mV	55.68V	1.781uA	635.0mV	49.71V	2.274uA
41	610.2mV	51.75V	1.571uA	597.4mV	50.65V	2.101uA
42	610.1mV	50.40V	1.162uA	601.7mV	55.45V	1.177uA
43	633.7mV	53.76V	2.379uA	618.2mV	52.89V	2.303uA
44	617.1mV	51.54V	2.388uA	604.3mV	52.89V	2.203uA
45	610.7mV	52.80V	1.925uA	619.5mV	51.44V	1.839uA
46	603.0mV	52.22V	1.739uA	610.6mV	51.66V	2.037uA
47	624.8mV	53.25V	1.247uA	602.9mV	49.81V	1.477uA
48	620.1mV	50.83V	1.927uA	617.1mV	53.22V	2.245uA
49	622.8mV	50.09V	1.699uA	628.9mV	53.08V	2.457uA
50	600.2mV	52.74V	2.435uA	625.4mV	52.66V	2.234uA
51	622.9mV	53.43V	1.162uA	610.0mV	55.10V	1.431uA
52	616.5mV	54.65V	1.723uA	615.6mV	55.18V	2.271uA
53	631.8mV	54.50V	2.089uA	633.0mV	51.27V	2.076uA
54	599.2mV	53.26V	1.340uA	610.6mV	51.65V	1.980uA
55	636.7mV	53.31V	1.213uA	610.0mV	51.83V	1.432uA
56	621.8mV	54.66V	1.928uA	637.1mV	54.41V	2.338uA
57	612.7mV	52.17V	2.094uA	603.8mV	49.98V	1.775uA
58	604.1mV	55.25V	1.182uA	629.0mV	50.71V	1.697uA
59	634.6mV	53.43V	1.454uA	617.2mV	51.45V	1.411uA
60	620.6mV	55.15V	2.387uA	601.6mV	54.63V	2.445uA

SeCoS Corporation

Temperature Cycle Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: -55℃/30min, 150℃/30min, for1000 Cycle
Test Date: 2017.10.06 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A104
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	629.1mV	54.94V	2.352uA	637.3mV	53.77V	2.289uA
62	616.2mV	52.32V	2.005uA	596.7mV	52.58V	1.282uA
63	598.6mV	51.93V	2.062uA	625.7mV	52.14V	1.305uA
64	596.4mV	50.61V	1.175uA	624.3mV	53.53V	1.257uA
65	626.6mV	53.12V	2.228uA	603.5mV	52.08V	2.290uA
66	630.6mV	52.58V	1.605uA	605.5mV	50.93V	2.325uA
67	620.1mV	53.38V	1.595uA	599.4mV	50.47V	1.726uA
68	612.7mV	50.61V	1.574uA	611.7mV	54.23V	1.718uA
69	608.4mV	52.87V	2.125uA	612.9mV	50.62V	2.451uA
70	607.5mV	53.88V	1.871uA	620.4mV	54.08V	1.748uA
71	605.8mV	53.59V	1.524uA	604.6mV	51.53V	1.442uA
72	626.1mV	52.91V	1.650uA	611.6mV	51.17V	2.194uA
73	610.6mV	54.51V	2.395uA	601.7mV	51.11V	1.534uA
74	600.7mV	52.85V	1.765uA	609.2mV	54.94V	1.894uA
75	634.6mV	54.43V	1.986uA	622.0mV	51.80V	1.288uA
76	601.9mV	52.97V	2.012uA	615.0mV	52.40V	2.146uA
77	621.9mV	51.57V	1.824uA	605.2mV	52.39V	1.228uA

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2017.10.16 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	614.2mV	53.76V	1.472uA	603.6mV	51.42V	2.491uA
2	617.3mV	53.47V	1.368uA	618.5mV	53.59V	1.525uA
3	613.3mV	50.26V	2.111uA	630.5mV	54.90V	1.932uA
4	600.1mV	55.19V	1.582uA	619.2mV	50.27V	1.908uA
5	616.5mV	52.51V	1.927uA	635.0mV	52.78V	1.442uA
6	600.0mV	53.81V	1.962uA	623.7mV	51.85V	1.466uA
7	603.6mV	49.79V	2.135uA	623.2mV	52.83V	1.952uA
8	600.1mV	50.90V	1.603uA	597.3mV	54.79V	2.032uA
9	618.4mV	53.67V	1.156uA	627.9mV	51.92V	1.367uA
10	626.9mV	50.21V	1.454uA	636.5mV	53.72V	1.603uA
11	623.7mV	50.52V	2.264uA	628.8mV	49.81V	1.810uA
12	621.1mV	51.02V	2.253uA	624.4mV	50.07V	1.229uA
13	610.6mV	54.92V	1.579uA	600.3mV	55.55V	1.282uA
14	597.9mV	54.28V	2.046uA	619.6mV	52.50V	1.861uA
15	624.1mV	50.03V	1.661uA	597.2mV	55.18V	1.500uA
16	604.8mV	53.20V	2.001uA	612.9mV	53.01V	2.050uA
17	623.9mV	51.73V	1.924uA	623.0mV	53.53V	1.469uA
18	618.9mV	54.84V	2.212uA	626.2mV	52.85V	1.990uA
19	612.4mV	53.67V	2.079uA	610.6mV	55.61V	1.363uA
20	614.2mV	49.73V	1.896uA	616.9mV	54.12V	1.528uA
21	596.1mV	51.67V	2.344uA	605.6mV	52.84V	1.254uA
22	610.8mV	55.12V	1.437uA	602.3mV	52.66V	2.493uA
23	608.5mV	51.70V	1.352uA	614.1mV	50.77V	1.719uA
24	622.7mV	51.67V	1.375uA	607.1mV	53.64V	1.211uA
25	603.7mV	51.90V	1.766uA	634.6mV	53.96V	2.490uA
26	632.1mV	52.20V	1.914uA	607.8mV	54.38V	1.498uA
27	596.4mV	54.13V	2.284uA	607.6mV	51.50V	1.810uA
28	613.8mV	54.96V	2.229uA	619.5mV	53.96V	1.833uA
29	611.3mV	52.62V	1.868uA	616.2mV	51.15V	1.629uA
30	600.6mV	53.78V	1.903uA	614.9mV	51.16V	2.145uA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2017.10.16 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	619.2mV	50.74V	2.020uA	635.6mV	55.24V	1.527uA
32	621.1mV	51.12V	1.406uA	624.7mV	51.06V	2.085uA
33	611.1mV	50.37V	1.820uA	622.9mV	52.12V	1.283uA
34	606.6mV	51.58V	1.545uA	635.7mV	53.88V	1.478uA
35	610.8mV	51.92V	1.762uA	618.5mV	52.70V	1.349uA
36	596.1mV	49.98V	1.840uA	617.5mV	51.36V	2.322uA
37	607.8mV	50.76V	2.387uA	630.2mV	52.65V	2.394uA
38	601.5mV	55.19V	2.002uA	603.6mV	52.15V	1.166uA
39	637.0mV	53.82V	1.941uA	632.5mV	52.37V	1.993uA
40	604.7mV	54.98V	1.196uA	604.1mV	53.32V	1.356uA
41	601.2mV	55.28V	2.043uA	629.7mV	54.65V	1.358uA
42	613.6mV	49.72V	1.827uA	596.5mV	55.57V	1.823uA
43	632.2mV	53.09V	2.000uA	598.4mV	54.84V	1.210uA
44	626.4mV	52.37V	1.947uA	600.9mV	53.79V	2.020uA
45	612.9mV	54.71V	1.236uA	608.5mV	53.41V	1.429uA
46	618.4mV	55.32V	2.390uA	635.2mV	51.41V	1.630uA
47	617.6mV	51.55V	1.753uA	625.4mV	52.80V	1.780uA
48	609.5mV	52.18V	1.685uA	622.1mV	54.72V	2.436uA
49	633.6mV	54.26V	1.226uA	619.3mV	51.23V	1.612uA
50	636.8mV	55.10V	1.596uA	611.4mV	51.65V	2.117uA
51	608.2mV	55.52V	1.834uA	634.0mV	54.05V	1.827uA
52	610.3mV	51.56V	2.127uA	616.3mV	51.64V	1.248uA
53	609.9mV	50.76V	1.259uA	596.3mV	51.24V	2.289uA
54	623.2mV	54.11V	2.253uA	618.1mV	50.58V	1.517uA
55	629.2mV	52.87V	1.830uA	619.2mV	55.07V	2.033uA
56	617.1mV	50.54V	2.384uA	632.4mV	53.44V	2.347uA
57	625.2mV	50.56V	1.697uA	616.5mV	51.22V	2.032uA
58	620.8mV	51.07V	2.332uA	634.5mV	52.59V	1.379uA
59	617.3mV	50.35V	2.381uA	608.6mV	51.43V	2.472uA
60	605.6mV	53.33V	1.997uA	635.6mV	52.39V	1.810uA

SeCoS Corporation

High Temperature High Humidity Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 1000Hrs
Test Date: 2017.10.16 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	629.8mV	51.44V	2.206uA	637.4mV	50.90V	1.228uA
62	597.8mV	54.94V	1.156uA	610.7mV	53.72V	1.613uA
63	618.1mV	55.34V	1.362uA	614.4mV	53.54V	1.219uA
64	606.5mV	51.89V	1.893uA	606.5mV	50.81V	1.915uA
65	620.9mV	54.53V	1.301uA	617.6mV	50.77V	2.219uA
66	603.8mV	52.24V	2.014uA	606.7mV	51.69V	1.484uA
67	617.3mV	54.60V	1.913uA	626.8mV	50.71V	2.116uA
68	629.2mV	51.32V	2.393uA	596.7mV	52.76V	2.147uA
69	602.2mV	54.25V	1.815uA	596.5mV	49.70V	1.896uA
70	633.1mV	54.18V	1.620uA	622.3mV	53.87V	1.585uA
71	625.5mV	49.70V	1.764uA	623.4mV	50.15V	1.620uA
72	636.2mV	55.09V	1.398uA	633.2mV	53.62V	2.129uA
73	620.6mV	52.06V	2.126uA	598.6mV	50.93V	1.922uA
74	612.5mV	54.54V	2.319uA	636.6mV	55.22V	2.275uA
75	618.6mV	55.17V	1.665uA	618.8mV	55.65V	2.272uA
76	631.3mV	54.58V	1.603uA	606.0mV	50.50V	2.393uA
77	621.0mV	54.92V	1.284uA	600.0mV	54.59V	2.328uA

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2017.10.16 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	618.2mV	51.93V	2.084uA	613.0mV	54.08V	1.904uA
2	619.0mV	55.35V	1.869uA	596.3mV	52.61V	2.195uA
3	610.9mV	54.87V	2.382uA	635.8mV	51.72V	1.543uA
4	620.6mV	50.92V	1.379uA	602.5mV	50.85V	1.216uA
5	607.8mV	54.54V	1.153uA	633.1mV	50.94V	1.406uA
6	610.5mV	52.47V	2.196uA	600.7mV	51.97V	1.721uA
7	629.1mV	55.68V	2.112uA	617.8mV	51.32V	2.015uA
8	603.8mV	51.20V	1.248uA	610.4mV	54.30V	1.863uA
9	598.2mV	49.89V	2.409uA	622.3mV	53.73V	1.205uA
10	619.0mV	55.69V	1.281uA	624.9mV	55.20V	1.628uA
11	601.9mV	50.91V	1.682uA	631.3mV	52.32V	1.407uA
12	633.7mV	50.70V	1.938uA	627.2mV	51.89V	1.614uA
13	609.5mV	51.16V	1.784uA	596.7mV	54.92V	1.166uA
14	636.4mV	49.72V	1.541uA	620.6mV	53.69V	2.409uA
15	597.6mV	55.64V	1.399uA	605.5mV	55.17V	1.759uA
16	630.2mV	50.86V	1.755uA	616.5mV	53.76V	2.492uA
17	608.6mV	53.16V	1.828uA	608.0mV	53.36V	1.127uA
18	623.5mV	54.79V	2.283uA	624.2mV	51.07V	1.858uA
19	622.5mV	50.51V	1.934uA	607.0mV	53.22V	2.423uA
20	615.2mV	53.21V	2.253uA	599.2mV	54.93V	1.244uA
21	605.4mV	51.02V	1.163uA	605.7mV	50.84V	2.402uA
22	637.0mV	51.89V	1.280uA	606.9mV	52.94V	1.837uA
23	613.8mV	54.54V	1.373uA	625.5mV	51.86V	2.473uA
24	619.9mV	53.24V	1.399uA	624.5mV	55.17V	1.216uA
25	632.9mV	53.97V	2.128uA	596.2mV	51.63V	2.355uA
26	633.6mV	50.90V	1.131uA	628.1mV	55.62V	1.574uA
27	607.6mV	55.05V	2.420uA	621.2mV	53.33V	2.202uA
28	632.1mV	55.20V	1.502uA	620.5mV	49.99V	1.143uA
29	611.8mV	53.78V	2.431uA	607.3mV	52.01V	1.352uA
30	615.7mV	50.53V	1.380uA	606.2mV	51.06V	1.907uA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2017.10.16 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
31	622.4mV	54.57V	1.926uA	624.5mV	52.52V	1.411uA
32	602.4mV	52.68V	1.438uA	628.3mV	51.26V	2.077uA
33	611.8mV	52.87V	2.193uA	630.1mV	51.39V	1.440uA
34	634.9mV	52.37V	1.679uA	631.8mV	52.44V	2.314uA
35	633.7mV	52.25V	1.877uA	634.9mV	53.32V	1.960uA
36	610.5mV	51.06V	2.122uA	626.0mV	51.76V	1.200uA
37	605.6mV	50.80V	2.373uA	631.2mV	54.37V	1.405uA
38	608.0mV	53.41V	2.484uA	599.9mV	53.24V	1.565uA
39	603.8mV	52.15V	1.775uA	636.9mV	51.56V	2.477uA
40	631.9mV	53.38V	2.202uA	616.2mV	52.95V	2.486uA
41	637.6mV	55.29V	1.356uA	606.8mV	51.77V	2.145uA
42	602.6mV	51.61V	1.209uA	623.7mV	54.97V	1.322uA
43	616.1mV	52.04V	1.774uA	602.1mV	55.14V	1.588uA
44	623.2mV	54.82V	1.787uA	630.4mV	54.48V	2.030uA
45	605.4mV	52.88V	1.252uA	619.9mV	51.99V	1.468uA
46	612.1mV	52.37V	1.153uA	604.4mV	50.34V	1.250uA
47	621.0mV	53.86V	2.251uA	601.4mV	51.85V	2.306uA
48	596.7mV	51.41V	2.438uA	613.1mV	50.73V	2.121uA
49	608.6mV	50.90V	1.438uA	601.3mV	55.63V	2.225uA
50	631.1mV	50.19V	1.720uA	620.0mV	53.25V	1.582uA
51	630.0mV	53.68V	1.714uA	596.0mV	49.81V	1.640uA
52	621.2mV	53.58V	2.105uA	622.2mV	54.17V	1.140uA
53	622.7mV	51.41V	1.974uA	632.2mV	50.66V	2.006uA
54	614.3mV	55.43V	1.567uA	610.2mV	49.96V	1.595uA
55	608.4mV	50.35V	2.321uA	610.6mV	54.33V	1.907uA
56	628.4mV	51.47V	1.218uA	635.5mV	53.21V	1.726uA
57	625.0mV	52.16V	2.111uA	616.9mV	51.39V	1.765uA
58	596.7mV	51.13V	2.436uA	599.1mV	53.92V	2.390uA
59	603.9mV	52.24V	1.614uA	603.0mV	50.18V	1.127uA
60	620.4mV	54.82V	2.422uA	612.0mV	49.82V	1.273uA

SeCoS Corporation

High Temper High Humidity Reverse Bies Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 85±2℃, 85±5%RH, 80%VR, 1000Hrs
Test Date: 2017.10.16 ~ 2017.11.28
Test Standard : JESD22 STANDARD Method-A101
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
61	610.0mV	51.19V	2.123uA	598.5mV	51.58V	2.295uA
62	618.8mV	50.17V	1.276uA	623.8mV	55.04V	1.818uA
63	618.8mV	53.10V	1.516uA	620.0mV	52.64V	1.958uA
64	623.2mV	51.51V	1.351uA	607.4mV	54.69V	1.579uA
65	625.0mV	53.62V	1.607uA	615.2mV	52.44V	1.812uA
66	611.5mV	54.04V	1.764uA	618.4mV	52.41V	1.782uA
67	622.0mV	51.31V	1.280uA	634.8mV	51.50V	2.290uA
68	611.2mV	51.83V	1.340uA	599.9mV	51.36V	1.372uA
69	597.4mV	52.51V	1.138uA	598.7mV	55.42V	1.720uA
70	637.1mV	54.88V	1.902uA	633.3mV	51.53V	1.950uA
71	597.1mV	52.01V	1.806uA	596.5mV	50.68V	1.816uA
72	610.1mV	50.20V	1.741uA	601.9mV	52.79V	2.229uA
73	628.7mV	53.71V	1.329uA	624.2mV	53.21V	2.156uA
74	607.4mV	50.06V	1.819uA	618.3mV	55.35V	1.262uA
75	630.0mV	51.98V	1.627uA	630.3mV	52.87V	1.281uA
76	596.2mV	52.27V	1.989uA	600.6mV	52.50V	2.424uA
77	609.4mV	55.68V	1.153uA	624.7mV	54.95V	1.938uA

Made By: King Huang

Approval: Peter Yang

SeCoS Corporation

Resistance to Solder Heat Test Data

Report No : T171130-105
Part No : SCS40STN-C
Test Equipment: JUNO Test System DTS-1000
Test Condition : VF<1000mV@IF=40mA, VB>40V@I=1mA, IR<10uA@VR=40V
Test Condition: 270℃ ± 5℃, 7Sec + 2Sec/-0Sec
Test Date: 2017.11.29
Test Standard : JESD22 STANDARD Method-B106
Operator: Leo Hsia

Test Result: PASS

	Before			After		
No	VF (mV)	VB (V)	IR (uA)	VF (mV)	VB (V)	IR (uA)
1	633.9mV	51.05V	2.130uA	597.7mV	52.10V	1.825uA
2	610.3mV	52.57V	1.793uA	616.8mV	53.33V	1.722uA
3	626.1mV	51.91V	1.678uA	621.3mV	51.94V	2.454uA
4	611.9mV	54.56V	1.638uA	611.2mV	54.08V	2.087uA
5	615.7mV	50.23V	1.450uA	615.4mV	55.47V	1.134uA
6	606.3mV	50.02V	1.972uA	598.7mV	50.14V	1.974uA
7	596.0mV	51.38V	1.266uA	599.6mV	50.30V	1.685uA
8	620.7mV	50.60V	1.636uA	609.1mV	53.86V	1.191uA
9	629.9mV	53.69V	2.345uA	635.4mV	50.53V	1.272uA
10	606.0mV	53.60V	1.393uA	613.4mV	49.73V	1.717uA

Made By: King Huang

Approval: Peter Yang

化學實驗室-高雄 Chemical Laboratory - Kao., SGS Taiwan Ltd.

試驗報告

號碼(No.) : KA/2017/61160 日期(Date) : 2017/06/15

Test Report

義典科技股份有限公司
E'DALE TECHNOLOGY CO., LTD.
72242 台南市佳里區六安里六安130號/江蘇省無錫市錫山區東港鎮錫港東路35號
NO. 130, LIOUAN, LIOUAN LI, JIALI DIST., TAINAN CITY, TAIWAN
NO. 35, XIGANG EAST ROAD, DONGGANG TOWN, XISHAN DIST., WUXI CITY, JIANG SU, CHINA

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as)：

樣品名稱(Sample Description)	:	EPOXY MOLDING COMPOUND
樣品型號(Style/Item No.)	:	ELER-8-SERIES
收件日期(Sample Receiving Date)	:	2017/06/13
測試期間(Testing Period)	:	2017/06/13 TO 2017/06/15
送樣廠商(Sample Submitted By)	:	義典科技股份有限公司 (E'DALE TECHNOLOGY CO., LTD.)

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測試需求(Test Requested) :

(1) 依據客户指定，參考RoHS2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP. (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample.)

(2) 其他測試項目請見下一頁 . (Please refer to next pages for the other item(s).)

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

結　論(Conclusion) :

(1) 根據客户所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS指令暨(EU) 2015/863之限值要求. (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS and amending Directive (EU) 2015/863.)

報告簽署人/Ray Chang, Ph.D./Manager -Tech
Signed for and on behalf of
SGS Taiwan Limited

試驗報告

Test Report

義典科技股份有限公司
E'DALE TECHNOLOGY CO., LTD.
72242 台南市佳里區六安里六安130號/江蘇省無錫市錫山區東港鎮錫港東路35號
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測試結果(Test Results)

測試部位(PART NAME)No.1 : 黑色 EPOXY MOLDING COMPOUND
(BLACK EPOXY MOLDING COMPOUND)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5:2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5:2013 and performed by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5:2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5:2013 and performed by ICP-AES.	2	n.d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4:2013方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4:2013 and performed by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321-7-2:2017，以UV-VIS檢測. / With reference to IEC 62321-7-2:2017 and performed by UV-VIS.	8	n.d.	1000

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321-6: 2015方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6: 2015 and performed by GC/MS.	-	n.d.	1000
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n.d.	-
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n.d.	-
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n.d.	-
四溴聯苯 / Tetrabromobiphenyl	mg/kg		5	n.d.	-
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n.d.	-
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n.d.	-
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n.d.	-
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n.d.	-
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n.d.	-
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n.d.	-
多溴聯苯醚總和 / Sum of PBDEs	mg/kg	參考IEC 62321-6: 2015方法, 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6: 2015 and performed by GC/MS.	-	n.d.	1000
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n.d.	-
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n.d.	-
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n.d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n.d.	-
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n.d.	-
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n.d.	-
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n.d.	-
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n.d.	-
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg		5	n.d.	-
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg		5	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg	參考IEC 62321-8:2017, 以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8:2017. Analysis was performed by GC/MS.	50	n.d.	1000
鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg		50	n.d.	1000
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg		50	n.d.	1000
鄰苯二甲酸二 (2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n.d.	1000
鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0, 68515-49-1)	mg/kg		50	n.d.	-
鄰苯二甲酸二異壬酯 / DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0, 68515-48-0)	mg/kg		50	n.d.	-
鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	mg/kg		50	n.d.	-
鄰苯二甲酸二(2-甲氧基乙基)酯 / DMEP (Bis (2-methoxyethyl) phthalate) (CAS No.: 117-82-8)	mg/kg		50	n.d.	-
鄰苯二甲酸二正戊酯/ DNPP(Di-n-pentyl phthalate) (CAS No.: 131-18-0)	mg/kg		50	n.d.	-
鄰苯二甲酸二己酯 / DNHP (Di-n-hexyl phthalate) (CAS No.: 84-75-3)	mg/kg		50	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
銻 / Antimony (Sb)	mg/kg	參考US EPA 3052方法，用感應藕合電漿原子發射光譜儀檢測銻含量. / With reference to US EPA Method 3052 for Antimony Content. Analysis was performed by ICP-AES.	2	n.d.	-
鈹 / Beryllium (Be)	mg/kg	參考US EPA 3052方法，用感應藕合電漿原子發射光譜儀檢測鈹含量. / With reference to US EPA Method 3052 for Beryllium Content. Analysis was performed by ICP-AES.	2	n.d.	-
砷 / Arsenic (As)	mg/kg	參考US EPA 3052方法，用感應藕合電漿原子發射光譜儀檢測砷含量. / With reference to US EPA Method 3052 for Arsenic Content. Analysis was performed by ICP-AES.	2	n.d.	-
磷 / Phosphorus (P)	mg/kg	參考US EPA 3052方法，用感應藕合電漿原子發射光譜儀檢測磷含量. / With reference to US EPA Method 3052 for Phosphorus Content. Analysis was performed by ICP-AES.	10	115	-
六溴環十二烷及所有主要被辨別出的異構物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β- HBCDD, γ- HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	參考IEC 62321: 2008方法，以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 method. Analysis was performed by GC/MS.	5	n.d.	-
四溴雙酚-A / Tetrabromobisphenol A (TBBP-A) (CAS No.: 79-94-7)	mg/kg	參考RSTS-E&E-121方法，以液相層析/質譜儀分析. / With reference to RSTS-E&E-121. Analysis was performed by LC/MS.	10	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
紅磷 / Red phosphorus	**	本測試以熱裂解-氣相層析/質譜儀分析. / Analysis was performed by Pyrolyzer-GC/MS.	-	Negative	-
聚氯乙烯 / PVC	**	以紅外光譜分析及焰色法檢測. / Analysis was performed by FTIR and FLAME Test.	-	Negative	-
全氟辛酸(銨) / PFOA (CAS No.: 335-67-1)	mg/kg	參考US EPA 3550C: 2007方法, 以液相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	-
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS)	mg/kg	參考US EPA 3550C: 2007方法, 以液相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n.d.	-
鹵素 / Halogen					
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 014762-94-8)	mg/kg	參考BS EN 14582:2016，以離子層析儀分析. / With reference to BS EN 14582:2016. Analysis was performed by IC.	50	n.d.	-
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 022537-15-1)	mg/kg		50	104	-
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 010097-32-2)	mg/kg		50	n.d.	-
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 014362-44-8)	mg/kg		50	n.d.	-

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
多環芳香烴 / Polynuclear Aromatic Hydrocarbons (PAHs)					
苊 / Acenaphthene (CAS No.: 83-32-9)	mg/kg	參考AfPS GS 2014:01 PAK方法，以氣相層析/質譜儀檢測. / With reference to AfPS GS 2014:01 PAK method. Analysis was performed by GC/MS.	0.2	n.d.	-
苊烯 / Acenaphthylene (CAS No.: 208-96-8)	mg/kg		0.2	n.d.	-
蒽 / Anthracene (CAS No.: 120-12-7)	mg/kg		0.2	n.d.	-
苯駢蒽 / Benzo[a]anthracene (CAS No.: 56-55-3)	mg/kg		0.2	n.d.	-
苯駢(a)芘 / Benzo[a]pyrene (CAS No.: 50-32-8)	mg/kg		0.2	n.d.	-
苯(b)苯駢芴 / Benzo[b]fluoranthene (CAS No.: 205-99-2)	mg/kg		0.2	n.d.	-
苯駢苝 / Benzo[g,h,i]perylene (CAS No.: 191-24-2)	mg/kg		0.2	n.d.	-
苯(k)苯駢芴 / Benzo[k]fluoranthene (CAS No.: 207-08-9)	mg/kg		0.2	n.d.	-
Chrysene (CAS No.: 218-01-9)	mg/kg		0.2	n.d.	-
二苯駢蒽 / Dibenzo[a,h]anthracene (CAS No.: 53-70-3)	mg/kg		0.2	n.d.	-
苯駢芴 / Fluoranthene (CAS No.: 206-44-0)	mg/kg		0.2	n.d.	-
芴 / Fluorene (CAS No.: 86-73-7)	mg/kg		0.2	n.d.	-
茚酮芘 / Indeno[1,2,3-c,d] pyrene (CAS No.: 193-39-5)	mg/kg		0.2	n.d.	-
萘 / Naphthalene (CAS No.: 91-20-3)	mg/kg		0.2	n.d.	-
菲 / Phenanthrene (CAS No.: 85-01-8)	mg/kg		0.2	n.d.	-
芘 / Pyrene (CAS No.: 129-00-0)	mg/kg		0.2	n.d.	-
苯(j)苯駢芴 / Benzo[j]fluoranthene (CAS No.: 205-82-3)	mg/kg		0.2	n.d.	-
苯駢(e)芘 / Benzo[e]pyrene (CAS No.: 192-97-2)	mg/kg		0.2	n.d.	-
多環芳香烴18項總和 / Sum of 18 PAHs	mg/kg		-	n.d.	-

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備註(Note)：

1. mg/kg = ppm；0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)
5. **= Qualitative analysis (No Unit) 定性分析(無單位)
6. Negative = Undetectable 陰性(未偵測到); Positive = Detectable 陽性(已偵測到)
7. 聚氯乙烯測試由SGS其他實驗室執行 (The PVC test was subcontracted to other SGS Laboratory.)
8. 紅磷定性分析測試由SGS其他實驗室執行
   (The Red Phosphorus test was subcontracted to other SGS Laboratory.)

PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm)，在半成品、成品或零部件中不得超過0.1%(1000ppm)，在紡織品或塗層材料中不得超過1μg/m^2。(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above 1μg/m^2.)

全氟辛烷磺酸指全氟辛烷磺酸和它的衍生物包括全氟辛烷磺酸, 全氟辛基磺醯胺, N-甲基全氟辛烷磺酰胺, N-乙基全氟辛烷磺酰胺, N-甲基全氟辛基磺酰基氨基乙醇, N-乙基全氟辛基磺酰基氨基乙醇。(PFOS refer to Perfluorooctanesulfonic acid and its derivatives including Perfluorooctanesulfonic acid, Perfluoroctane sulfonamide, N-Methylperfluoroctane sulfonamide, N-Ethylperfluoroctane sulfonamide, N-Methylperfluoroctane sulfonamidoethanol and N-Ethylperfluoroctane sulfonamidoethanol.)

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德國產品安全委員會(AfPS) GS PAHs 要求 /
AfPS (German commission for Product Safety): GS PAHs requirements

項目 (Parameter)	第1類 (Category 1)	第2類 (Category 2)		第3類 (Category 3)	
	意圖放入嘴內的材料或玩具會與皮膚有所接觸(超過30秒). (Material indented to be put in the mouth or toys with intended skin contact (longer than 30 s).)	不屬於第1類的材料並可預見與皮膚接觸逾30秒(長期或經常與皮膚接觸). (Materials not falling under category 1 with foreseeable contact to skin for longer than 30 seconds (long-term skin or frequent contact).)		可預見與皮膚接觸短於30秒(短期與皮膚接觸), 以及不屬於第1類或第2類的材料. (Materials not falling under category 1 or 2 with foreseeable contact to skin for less than 30 seconds (short-term skin contact).)	
		列於2009/48/EC之玩具 (Toy under 2009/48/EC)	列於德國產品安全法之其他產品 (Other products under ProdSG)	列於2009/48/EC之玩具 (Toy under 2009/48/EC)	列於德國產品安全法之其他產品 (Other products under ProdSG)
Naphthalene	< 1	< 2		< 10	
Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d] pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
18項PAH總濃度 (Sum of 18 PAH)	< 1	< 5	< 10	< 20	< 50

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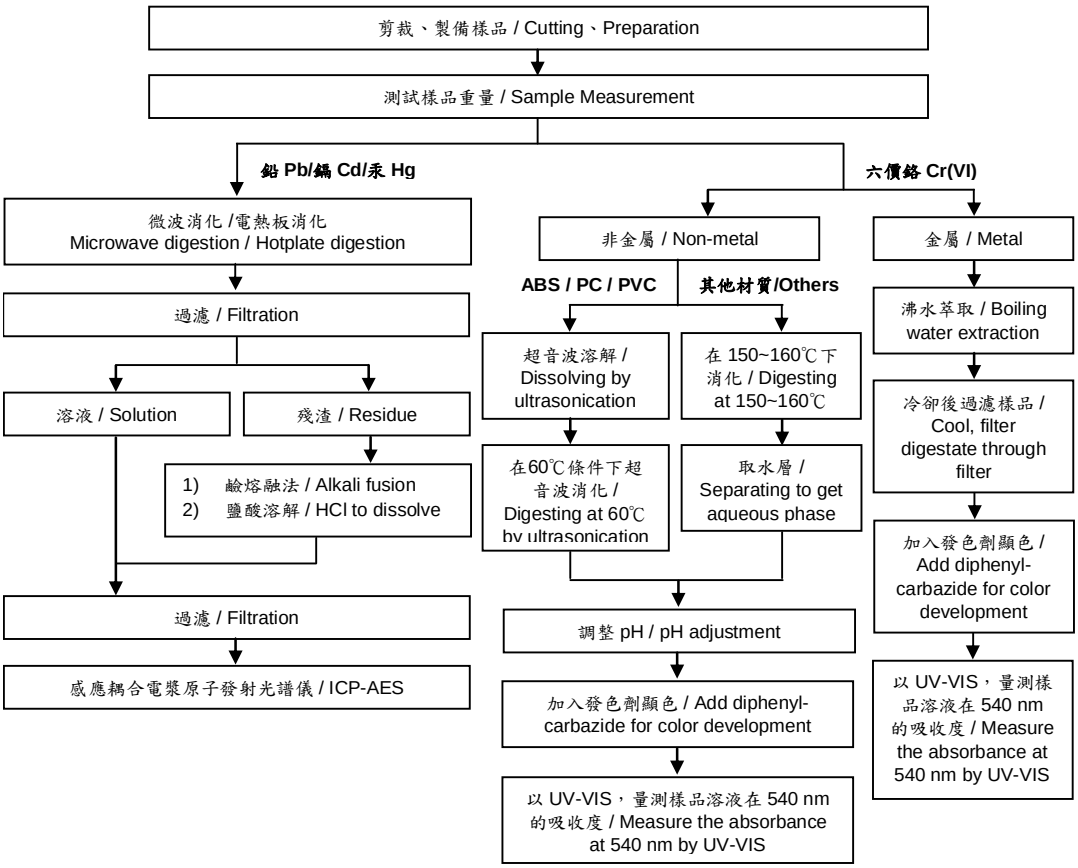
重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）
These samples were dissolved totally by pre-conditioning method according to below flow chart.（Cr^{6+} test method excluded）

- 測試人員：劉俊宏/ Technician : Jony Liu
- 測試負責人：張伯睿/ Supervisor: Ray Chang



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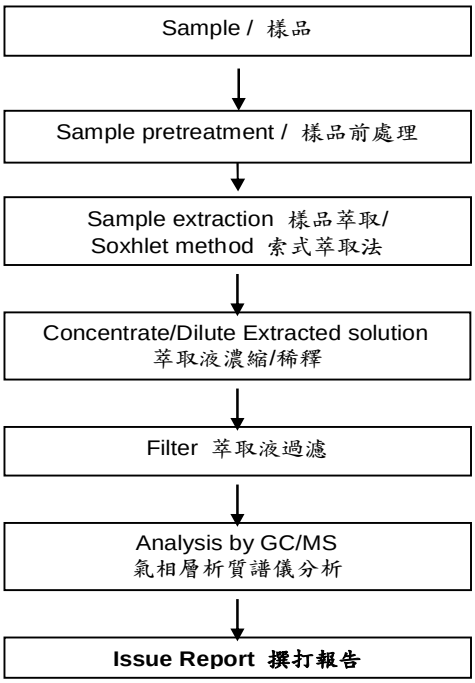
多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART

1)測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen
2)測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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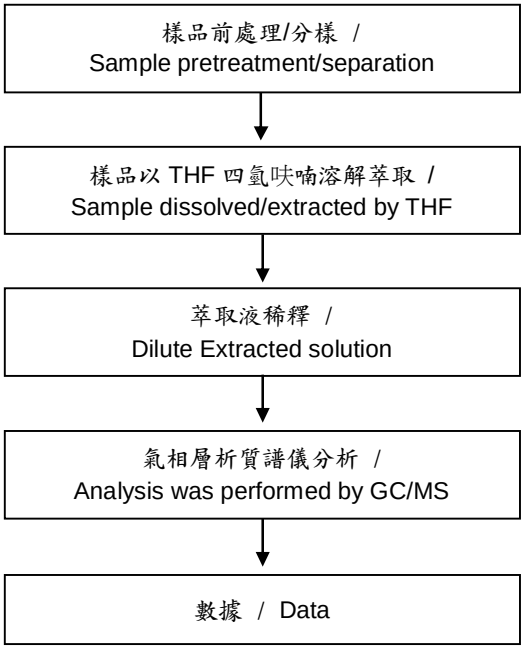
NO. 35, XIGANG EAST ROAD, DONGGANG TOWN, XISHAN DIST., WUXI CITY, JIANG SU, CHINA

可塑劑分析流程圖 / Analytical flow chart of phthalate content

- 測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen
- 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang

【測試方法/Test method: IEC 62321-8】



試驗報告

Test Report

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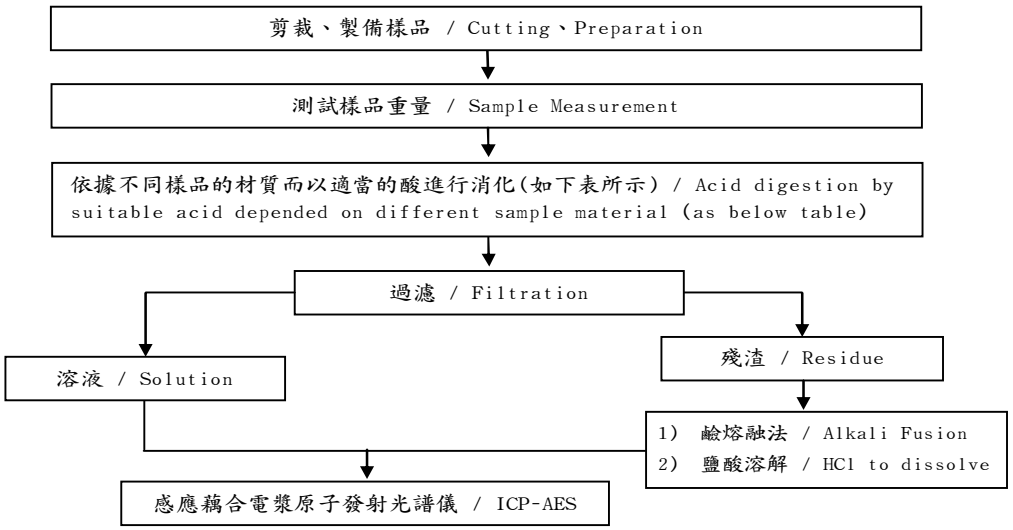
1) 根據以下的流程圖之條件，樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.
2) 測試人員：劉俊宏 / Name of the person who made measurement: Jony Liu
3) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang

元素以 ICP-AES 分析的消化流程圖

(Flow Chart of digestion for the elements analysis performed by ICP-AES)



鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder	王水,硝酸,鹽酸,氫氟酸,雙氧水 / Aqua regia, HNO_3, HCl, HF, H_2O_2
玻璃 / Glass	硝酸,氫氟酸 / HNO_3/HF
金,鉑,鈀,陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO_3
塑膠 / Plastic	硫酸,雙氧水,硝酸,鹽酸 / H_2SO_4, H_2O_2, HNO_3, HCl
其他 / Others	加入任何酸至完全溶解 / Any acid to total digestion

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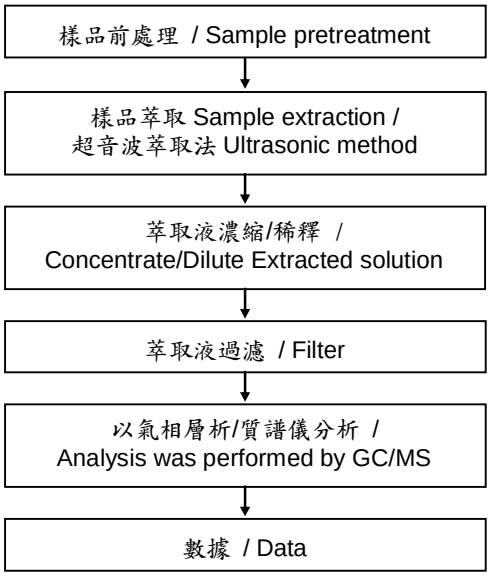
六溴環十二烷分析流程圖 / HBCDD analytical flow chart

1) 測試人員：陳威錚/ Name of the person who made measurement: Dorothy Chen
2) 測試負責人：張伯睿/ Name of the person in charge of measurement: Ray Chang



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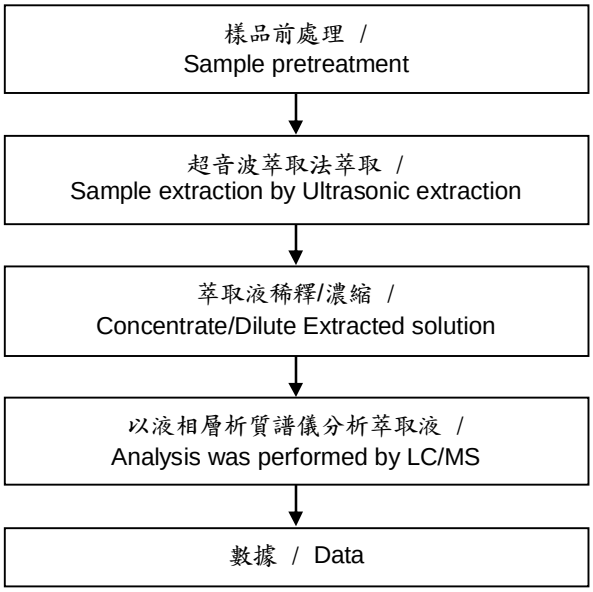
四溴雙酚-A分析流程圖 / TBBP-A analytical flow chart

- 測試人員：黃璟瓔/ Name of the person who made measurement: Ginny Huang
- 測試負責人：張伯睿/ Name of the person in charge of measurement: Ray Chang



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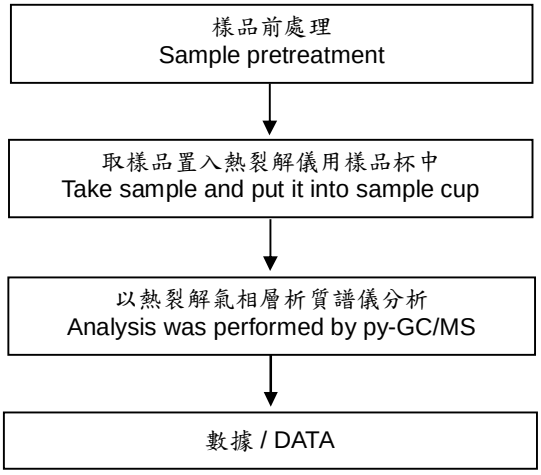
紅磷分析流程 / Analytical flow chart of Red phosphorus

- 測試人員：林建宇 / Name of the person who made measurement: Roy Lin
- 測試負責人：張啟興 / Name of the person in charge of measurement: Troy Chang



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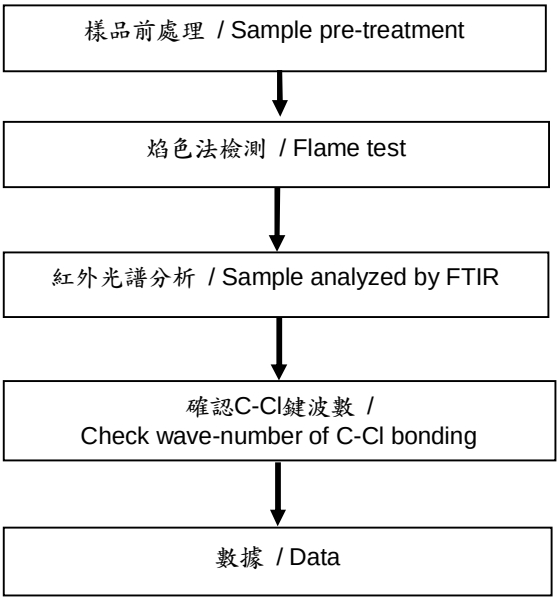
聚氯乙烯物質判定分析流程圖 /

Analysis flow chart for determination of PVC in material

1)測試人員：戴秀純 / Name of the person who made measurement: Hannah Tai
2)測試負責人：林立翔 / Name of the person in charge of measurement: Roger Lin



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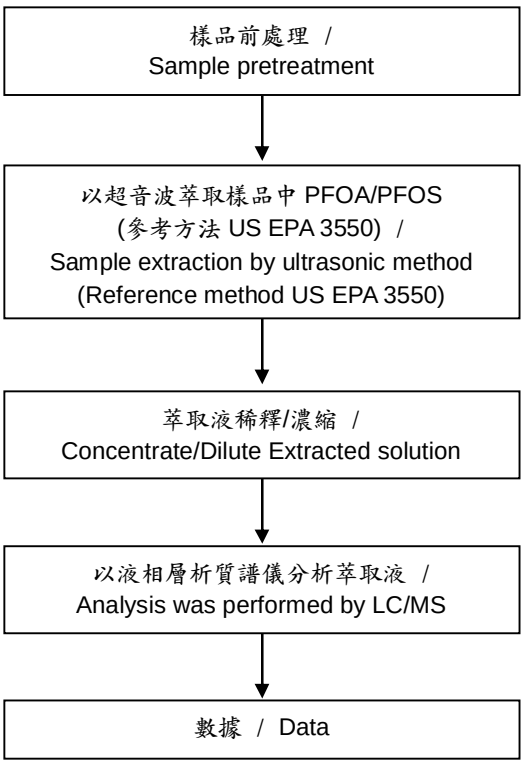
全氟辛酸(鹽)/ 全氟辛烷磺酸分析流程圖 /
Analytical flow chart of PFOA/PFOS content

1)測試人員：黃璟瓔 / Name of the person who made measurement: Ginny Huang

2)測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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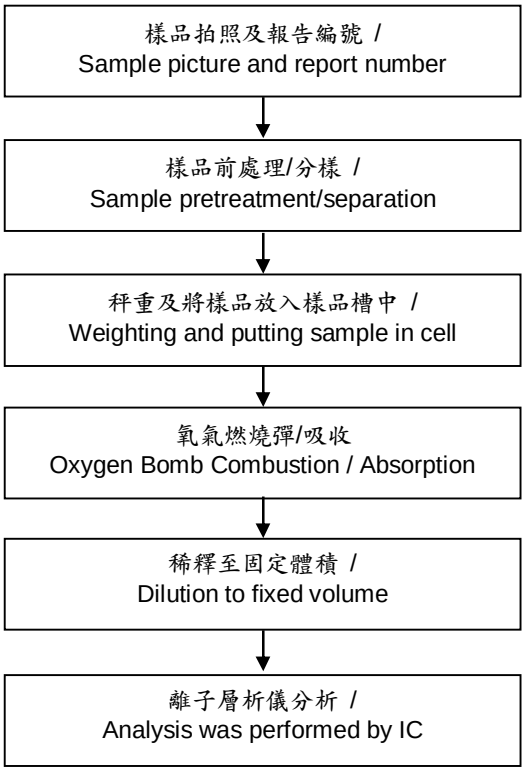
鹵素分析流程圖 / Analytical flow chart of halogen content

1) 測試人員：洪秀眞/ Name of the person who made measurement: Jean Hung
2) 測試負責人：張伯睿/ Name of the person in charge of measurement: Ray Chang



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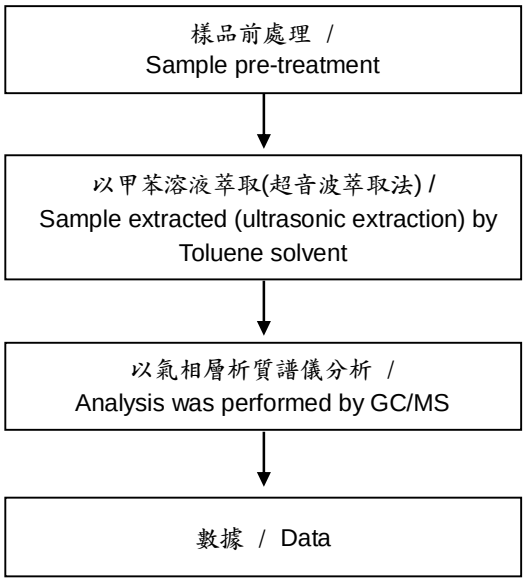
多苯環芳香族化合物分析流程圖 /
PAHs (Poly Aromatic Hydrocarbons) analytical flow chart

1)測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen

2)測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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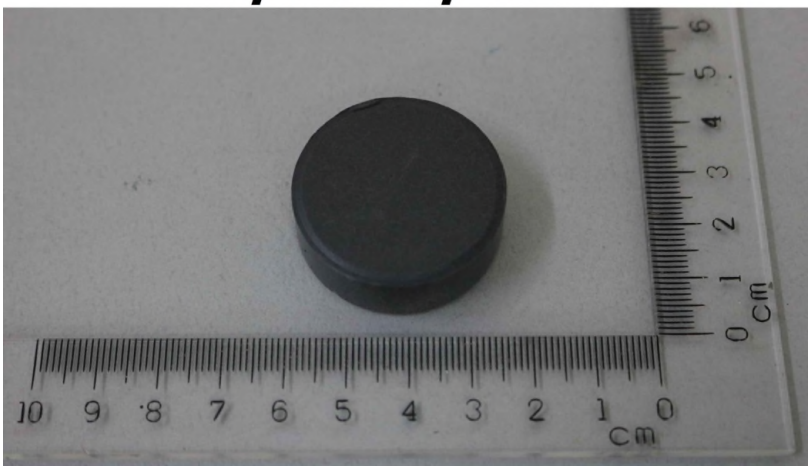
*** 照片中如有箭頭標示，則表示爲實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

KA/2017/61160



** 報告結尾 (End of Report) **