

Delton Electronics Inc.

OUT-GOING INSP.REPORT

Customer	大眾
Customer P/N	GTA02_MB_A4(50-71429-00)
Part Number	08KT49350D0A
D/C	0740
Quantity	600 PCS

Check by	Ruirui_Wang	Approved by	Andy_Song
Prepared by	Huifeng_Jiang	Build Date	2007.10.05

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QA Check-list

[illegible]

A. VISUAL(外觀檢驗)													
ITEM	REQUIREMENT		RESULT		AC	RE	ITEM	REQUIREMENT		RESULT		AC	RE
MATERIAL	FR-4		FR-4		✓		PEELING TEST	NO PEEL OFF		PASS		✓	
BOARD THK	0.03990+/-0.00399"		0.03845~0.04180"		✓		DATE CODE	YYWW		0740		✓	
LINE WIDTH	0.004000"	MIN	0.00411"	MIN	✓		UL MARK	DTI BV-1		DTI BV-1		✓	
SPACING	0.003506"	MIN	0.00360"	MIN	✓		O/S TEST	100%TEST		PASS		✓	
ANNULAR RING	NA		NA		✓		WARP&TWIST	≤0.70%		0.12~0.23%		✓	
SOLDER MASK	Blue		Blue		✓								
LEGEND	White		White		✓								
B. HOLE SIZE: (UNIT -INCH) "*"表示NON-PTH (孔徑)													
NO	REQUIREMENT	TOLERANCE(+)	TOLERANCE(+)	RESULT	AC	RE	NO	REQUIREMENT	TOLERANCE(+)	TOLERANCE(-)	RESULT	AC	RE
*1	0.02953	0.002	0.002	0.02900 ~ 0.02953	✓		26						
*2	0.03543	0.002	0.002	0.03408 ~ 0.03543	✓		27						
*3	0.04331	0.002	0.002	0.04212 ~ 0.04331	✓		28						
*4	0.05906	0.002	0.002	0.05845 ~ 0.05906	✓		29						
*5	0.08000	0.002	0.002	0.07902 ~ 0.08000	✓		30						
6	0.07874	0.003	0.003	0.07874 ~ 0.07900	✓		31						
*7	0.15748	0.002	0.002	0.15600 ~ 0.15748	✓		32						
8	END!						33						
9							34						
10							35						
11							36						
12							37						
13							38						
14							39						
15							40						
16							41						
17							42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						

DISPOSITION: ☒ ACC ☐ REJ ☐ UAI

C. OUTSIDE DIMENSION:(UNIT - INCH)													
NO	REQUIREMENT	TOLERANCE(+)	TOLERANCE(-)	RESULT	AC	RE	NO	REQUIREMENT	TOLERANCE(+)	TOLERANCE(-)	RESULT	AC	RE
1	4.000	0.20mm	0.20mm	3.97mm ~ 4.00mm	✓		26						
2	0.197	0.008	0.008	0.197 ~ 0.197	✓		27						
3	0.197	0.008	0.008	0.196 ~ 0.198	✓		28						
4	2.205	0.008	0.008	2.203 ~ 2.205	✓		29						
5	2.126	0.008	0.008	2.124 ~ 2.126	✓		30						
6	2.283	0.008	0.008	2.283 ~ 2.285	✓		31						
7	2.109	0.008	0.008	2.109 ~ 2.111	✓		32						
8	3.744	0.008	0.008	3.744 ~ 3.745	✓		33						
9	3.618	0.008	0.008	3.615 ~ 3.618	✓		34						
10	2.467	0.008	0.008	2.466 ~ 2.467	✓		35						
11	4.839	0.008	0.008	4.839 ~ 4.840	✓		36						
12	7.192	0.008	0.008	7.191 ~ 7.192	✓		37						
13	9.563	0.008	0.008	9.562 ~ 9.563	✓		38						
14	9.921	0.008	0.008	9.920 ~ 9.921	✓		39						
15	4.197	0.008	0.008	4.196 ~ 4.197	✓		40						
16	4.650	0.008	0.008	4.650 ~ 4.655	✓		41						
17	END!						42						
18							43						
19							44						
20							45						
21							46						
22							47						
23							48						
24							49						
25							50						
D. MICROSECTION:(UNIT-INCH)							E. REMARK						
ITEM	REQUIREMENT	RESULT			AC	RE	1						
Cu	SURFACE Cu \geq 0.0013	0.00141~0.00157"			✓		2						
	HOLE Cu \geq 0.0009	0.00101~0.00121"			✓		3						
OSP	0.2~0.5 μ m	0.29~0.41 μ m			✓		4						
Ni	100 u" MIN	139.87~167.94u"			✓		5						
Au	3 u" MIN	3.97~5.03 u"			✓		6						

DISPOSITION: ☒ ACC ☐ REJ ☐ UAI

Plated Microsection Inspection Report

廠內料號	Work Time	No.	銅厚(Tenting)				Total Copper (總銅平均值)		Tin(錫)		Registrat ion (對準度)	Etchbac k (回蝕)	Rough- ness (粗糙度)	Lamination		
			Side(面)	Hole(孔)												
			客戶料號	I	1	2	3	Side	Hole	Side				Hole	(疊合結構)	(疊合規格)
08KT49350D0A	10/05	1	1.41	1.01	1.21	1.19	1.44	1.11			1.16	0.39	0.39	COPPER PP 1078 61% COPPER PP 1080 65% COPPER PP 1080 65%*2 COPPER FR-4 COPPER PP 1080 65%*2 COPPER PP 1080 65% COPPER PP 1078 61% COPPER	1.30 2.49 1/3 oz 2.49 0.5 oz 6.16 1.0 oz 6.00 1.0 oz 6.16 0.5 oz 2.49 1/3 oz 2.49 1.30	1.587 2.505 0.667 2.556 0.764 6.086 1.231 5.994 1.301 6.203 0.711 2.504 0.665 2.431 1.543
		2	1.46	1.12	1.05	1.05										
		1	1.54	1.05	1.13	1.01	1.51	1.10			1.12	0.41	0.41			
		2	1.48	1.06	1.21	1.12										
GTA02_MB_A4(50-71429-00)		1	1.57	1.12	1.05	1.06	1.57	1.07			1.15	0.36	0.35			
		2	1.56	1.02	1.12	1.05										

Unit:(mil)

DISPOSITION:

ACC

REJ

UAI

Delton Technology Incorporated

SOLDERABILITY TEST REPORT

TEST CONDITION AND RESULT								
CONDITION			REQUIREMENT		ACTUAL RESULTS			
SOLDER TEMPERATURE			245±5℃		250℃			
DIP TIME			3~5 s		5 s			
RESULT								
DATE	CUSTOMER P/N	DELTON P/N	D/C	TOTAL HOLES	DEWETTING HOLES	RESUL T(ppm)	AC	RE
Oct.05,2007	GTA02_MB_A4(50-71429-00)	08KT49350D0A	0740	8	0	0	v	
REMARK:1.S/S 焊錫面 100%Wetting. 2.C/S 零件面 100%Wetting.								
Check by	Ruirui_Wang		INSPECTOR			Huifeng_Jiang		

DISPOSITION:

☒ ACC

☐ REJ

☐ UAI

Delton Technology (GZ) Incorporated
THERMAL STRESS TEST REPORT

CUSTOMER P/N	GTA02_MB_A4(50-71429-00)	DATE CODE	0740	
DELTON P/N	08KT49350D0A	DATE OF TEST	Oct.05,2007	
TEST CONDITION AND RESULTS:				
CONDITION		REQUIREMENT	ACTUAL RESULTS	
SOLDER TEMPERATURE		288±5 °C	293°C	
DIP TIME		10+1/-0 s	11 s	
RESULTS:				
QUANTITY BOARDS TESTED		AC	RE	REMARK
PASS	FAIL			
4	0	V		NO CRACK
REMARK: 1.Holi Wall :No Crack ,No Separation 2. Laminate : No Delamination, No Blistering. 3.Solker Mask: No Peel Off. No Crack.				
Check by	Ruirui_Wang	INSPECTOR	Huifeng_Jiang	

DISPOSITION:

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Open&Short Circuit Test

Tester Model:	8000HV
Test Voltage:	250V
Test Current:	20mA
Isolation Resistance:	10MΩ
Continuity Resistance:	20 Ω
Test Result:	PASS

DISPOSITION:

☒ ACC

☐ REJ

☐ UAI

Impedance Measurement Report

客戶料號: GTA02_MB_A4(50-71429-00)																		廠內料號: 08KT49350D0A																		Date: 2007.10.05																	
2	位置	規格(Ω)		1	2	3	4	5	6	7	8	9	10	Total			判定																																				
														MAX	MIN	AVG																																					
1	L5-L3,6	規格(Ω)	50.00	49.24	50.61	51.61	52.85	50.61	50.30	48.64	50.43	50.15	52.85	52.85	48.64	50.73	PASS																																				
		上限(Ω)	55.00																																																		
		下限(Ω)	45.00																																																		
2	L8-L6	規格(Ω)	50.00	50.74	49.80	50.85	50.64	51.58	49.82	50.42	50.74	49.68	50.47	51.58	49.68	50.47	PASS																																				
		上限(Ω)	55.00																																																		
		下限(Ω)	45.00																																																		
3																																																					
4																																																					
5																																																					
6																																																					
7																																																					
8																																																					

Delton Electronics Inc.

Customer Drawing &COC

Date:	2007.10.05
D/C:	0740
CUSTOMER:	大眾
P.O.#:	
PART#:	GTA02_MB_A4(50-71429-00)
QUANTITY:	600 PCS

We hereby certify the materials listed above to be in compliance with the terms and conditions of your purchase order ,including all applicable drawings and specifications. meet or exceed U.L. flame classification 94V--0. Inspection records and test date necessary to substantiate this certification are on file.

ch-shieh

Certificate of Compliance

Certificate Number 20040127-E237771
Report Reference E237771, 2003 October 30
Issue Date 2004 January 27

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**Underwriters
Laboratories Inc.®**

Issued to: **Delton Technology (Guangzhou) Inc.**
22 Baoyingnan Rd., The Computer Industrial City of GZ FTZ, Guangzhou,
Guangdong 510730, China

*This is to certify that
representative samples of*

Wiring, Printed

Multilayer Printed Wiring Boards Employing Rigid Core and High Density
Interconnect (HDI) Material, Type BV-1.
Multilayer Printed Wiring Board, Types ML-1 and ML-2


*Have been investigated by Underwriters Laboratories Inc.® in
accordance with the Standard(s) indicated on this Certificate.*

Standard(s) for Safety: UL 796, Printed-Wiring Boards

Additional Information:

The wiring printed category covers printed wiring boards for use as components in devices or appliances. The boards may use organic or inorganic base materials in a single or multilayer, rigid or flexible form. Circuitry construction may include etched, die stamped, precut, flush press, additive, and plated conductor techniques. Printed-component parts may be used. The suitability of the pattern parameters, temperature and maximum solder limits shall be determined in accordance with the applicable end-product construction and requirements.

Only those products bearing the UL Recognized Component Marking should be considered as being covered by UL's Recognition and Follow-Up Service.

The UL Recognized Component Marking generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark:  may be used in conjunction with the required Recognized Markings. The Recognized Component Mark is required when specified in the UL Directory preceeding the recognitions or under "Markings" for the individual recognitions.

Look for the UL Recognized Component Marking on the product

Issued By:

CHRIS MAK / Project Engineer
UL International Ltd.

Reviewed By:

CARSON WANG / Manager
UL International Ltd.

Pursuant to the Corporate Services Agreement between UL International Ltd. and Underwriters Laboratories Inc. ("UL"), UL hereby accepts and issues this Certificate of Compliance. For questions in Hong Kong, you may call 852-22769898.

Test Report

No.GZ0612185034/CHEM Date : Dec 18, 2006

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DELTON ELECTRONICS (GUANGZHOU) INC.
NO. 22 BAOYING NAN ROAD
THE COMPUTER INDUSTRIAL CITY OF GZ FTZ

Report on the submitted sample said to be 多层线路板(护铜板)

SGS Ref. No. : GZ10175563EC-2.1, 2083949/EC
Sample Receiving Date : DEC 08 2006
Testing Period : DEC 08 -14 2006

Test Requested : (1-3) In accordance with RoHS Directive 2002/95/EC, and its amendment directives.
(4) To determine of Chlorinated Paraffin (C10~C13) of the submitted sample.

Test Method : (1) With reference to EPA Method 3051A/ 3052 for Cadmium, Lead and Mercury content.
Analysis was performed by ICP/ AAS.
(2) With reference to IEC 62321 (Ed. 1) 111/54/CDV – Section 9 for Hexavalent Chromium on the sample.
Analysis was performed by colorimetric method (UV-VIS).
(3) With reference to EPA Method 3540C/ 3550C for PBB/ PBDE content.
Analysis was performed by GC/MS.
(4) With reference to SGS in-house method. Analysis was performed by GC/ECD.

Test Results : Please refer to next page.

Conclusion : (1-3) Based on the performed tests on submitted sample, the results comply with the RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of
SGS-CSTC Ltd.

Wang HongLei, Leo
Sr. Engineer

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Test Report

No.GZ0612185034/CHEM Date : Dec 18, 2006

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Test results by chemical method (Unit: mg/kg)
1-3)

	<u>1</u>	<u>MDL</u>	<u>Limit</u>
Cadmium(Cd)	n.d.	2	100
Lead (Pb)	11	2	1000
Mercury (Hg)	n.d.	2	1000
Hexavalent Chromium (CrVI) by colorimetric method	n.d.	2	1000
Sum of PBBs	n.d.	-	1000
Monobromobiphenyl	n.d.	5	
Dibromobiphenyl	n.d.	5	
Tribromobiphenyl	n.d.	5	
Tetrabromobiphenyl	n.d.	5	
Hexabromobiphenyl	n.d.	5	
Pentabromobiphenyl	n.d.	5	
Heptabromobiphenyl	n.d.	5	
Octabromobiphenyl	n.d.	5	
Nonabromobiphenyl	n.d.	5	
Decabromobiphenyl	n.d.	5	
Sum of PBDEs (Note 4)	n.d.	-	1000
Monobromodiphenyl ether	n.d.	5	
Dibromodiphenyl ether	n.d.	5	
Tribromodiphenyl ether	n.d.	5	
Tetrabromodiphenyl ether	n.d.	5	
Pentabromodiphenyl ether	n.d.	5	
Hexabromodiphenyl ether	n.d.	5	
Heptabromodiphenyl ether	n.d.	5	
Octabromodiphenyl ether	n.d.	5	
Nonabromodiphenyl ether	n.d.	5	
Decabromodiphenyl ether	n.d.	5	
Sum of PBDEs (Mono to Deca)	n.d.	-	

4)		
<u>Test Item</u>	<u>1</u>	<u>MDL</u>
Chlorinated Paraffin	n.d.	50 ppm

Note :

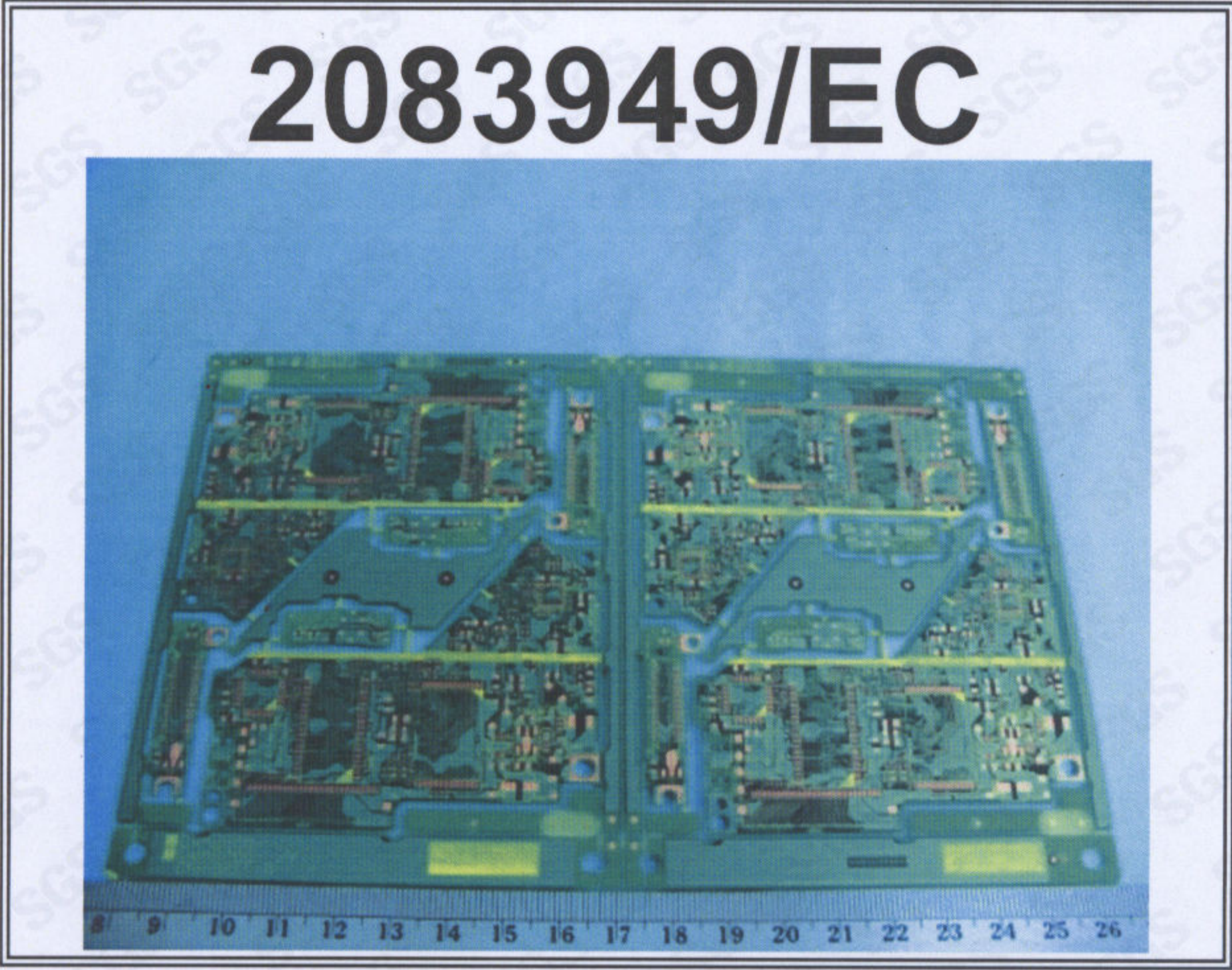
- (1) mg/kg = ppm; 0.1% = 1000 ppm
- (2) MDL = Method Detection Limit
- (3) n.d. = Not Detected (Less than MDL)
- (4) Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.
- (5) - = Not Regulated
- (6) -- = Not Conducted
- (7) Results shown were conducted by SGS HK LTD.

Sample Description :

1. Translucent Glass Fibre w/ Green and Yellow Printing w/ Coppery Metal

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Sample photo :



SGS authenticate the photo on original report only

End of Report

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