

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

No.	Contents	Item	Check	Requirement	Result	Comments
1	VISUAL	1-1. All Item	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	To depend on Visual Requirement	OK	PASS
2	Dimension Measurement	2-1. Outside	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	To depend on customer information	OK	PASS
		2-2. Hole Size	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	To depend on customer information	OK	PASS
		2-3. Trough Width	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A	N/A	N/A
		2-4. Board Thickness	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	To depend on customer information	OK	PASS
		2-5. Au/Ni Thickness	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	To depend on customer information	OK	PASS
		2-6. Dielectric Thickness	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	To depend on customer information	OK	PASS
3	Impedance Measurement	3-1. Indentity	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	To depend on customer information	OK	PASS
		3-2. Differentialaction	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A	N/A	N/A
4	Reliability Test	4-1. Thermal Stress	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	No excessive voids, crack	OK	PASS
		4-2. Solderability	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	>95%	OK	PASS
		4-3. Ionic Contamination Test	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	$\leq 6.45 \mu\text{g NaCl/sq.in}$	1.5 $\mu\text{g NaCl/sq.in}$	PASS
		4-4 Soft Etching corrosion resistance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	20% H2SO4 , 1%H2O2 solution 45°C , 30sec dip	No pin hole	PASS
		4-5 solder resist hardness	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	>6H	7.26 H	PASS

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 (孔径)													
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 um	0.29~0.41 um			✓		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)	實際量測值
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:

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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			
PASS	FAIL	AC	RE
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:	<u>8000HV</u>
Test Voltage:	<u>250V</u>
Test Current:	<u>20mA</u>
Isolation Resistance:	<u>10MΩ</u>
Continuity Resistance:	<u>20 Ω</u>
Test Result:	<u>PASS</u>

DISPOSITION:

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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																																						
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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 data 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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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

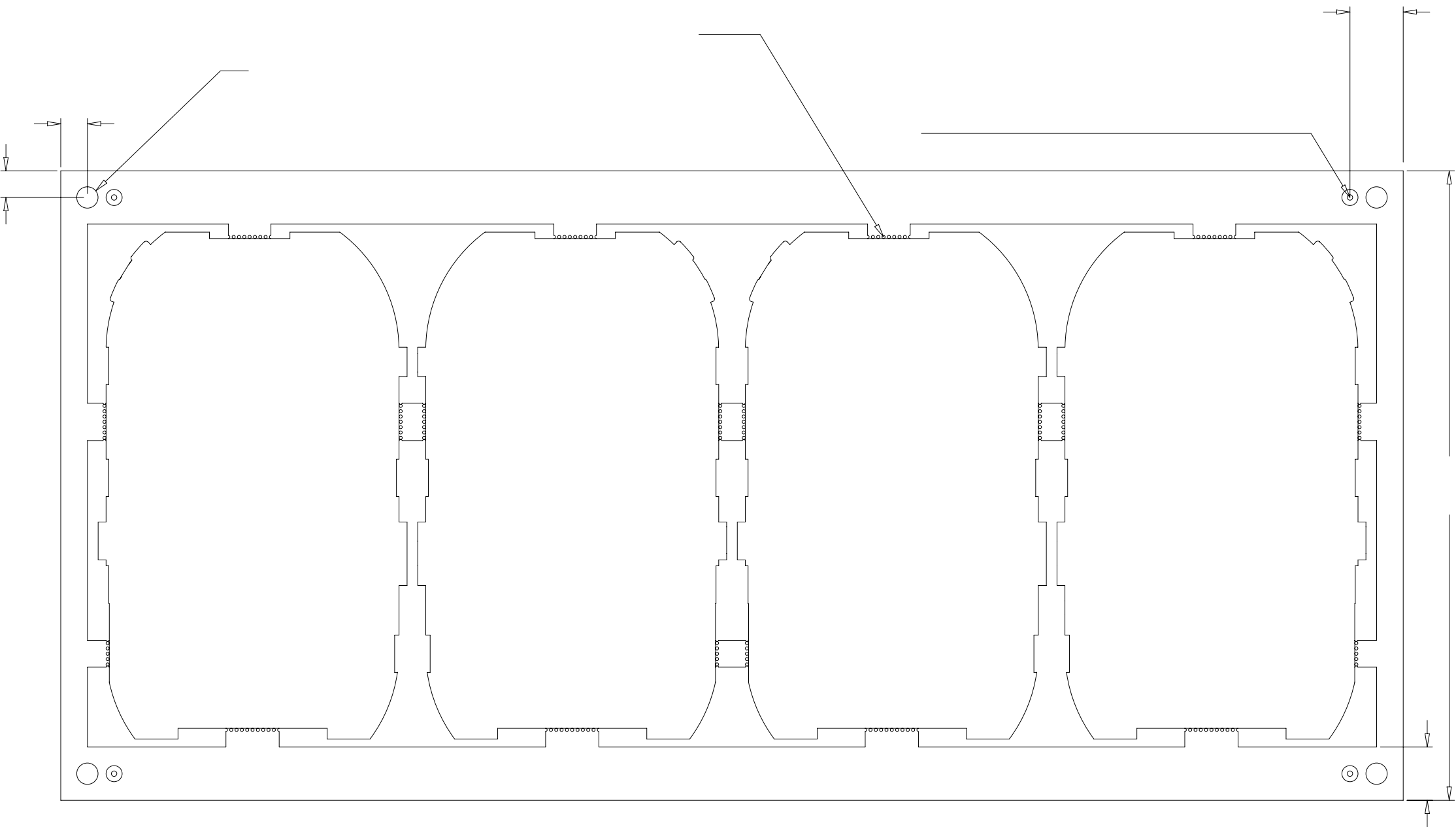
Issued By:
CHRIS MAK / Project Engineer
UL International Ltd.

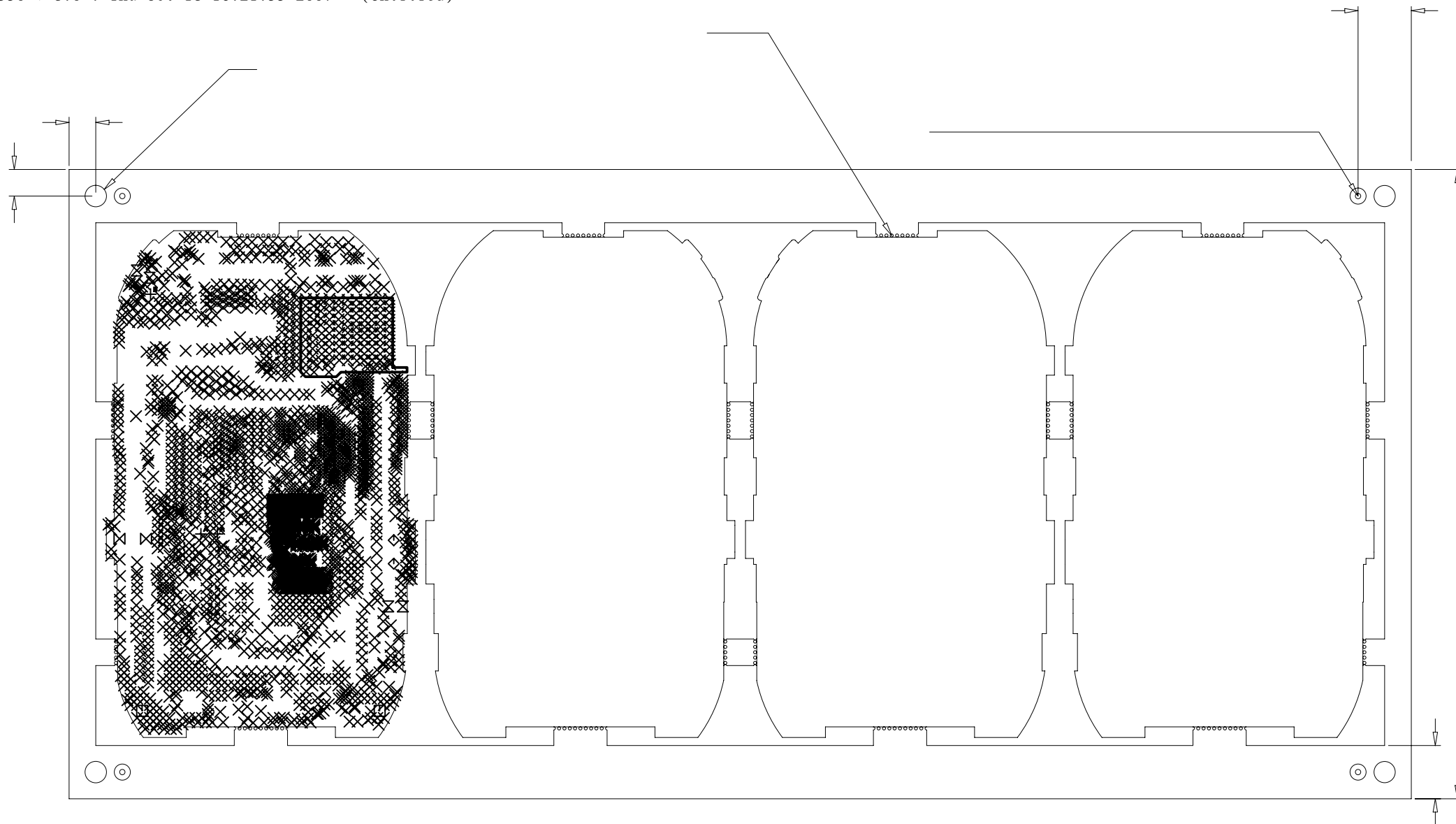
A handwritten signature in black ink, appearing to read 'Chris Mak', is written over the printed name.

Reviewed By:
CARSON WANG / Manager
UL International Ltd.

A handwritten signature in black ink, appearing to read 'Carson Wang', is written over the printed name.

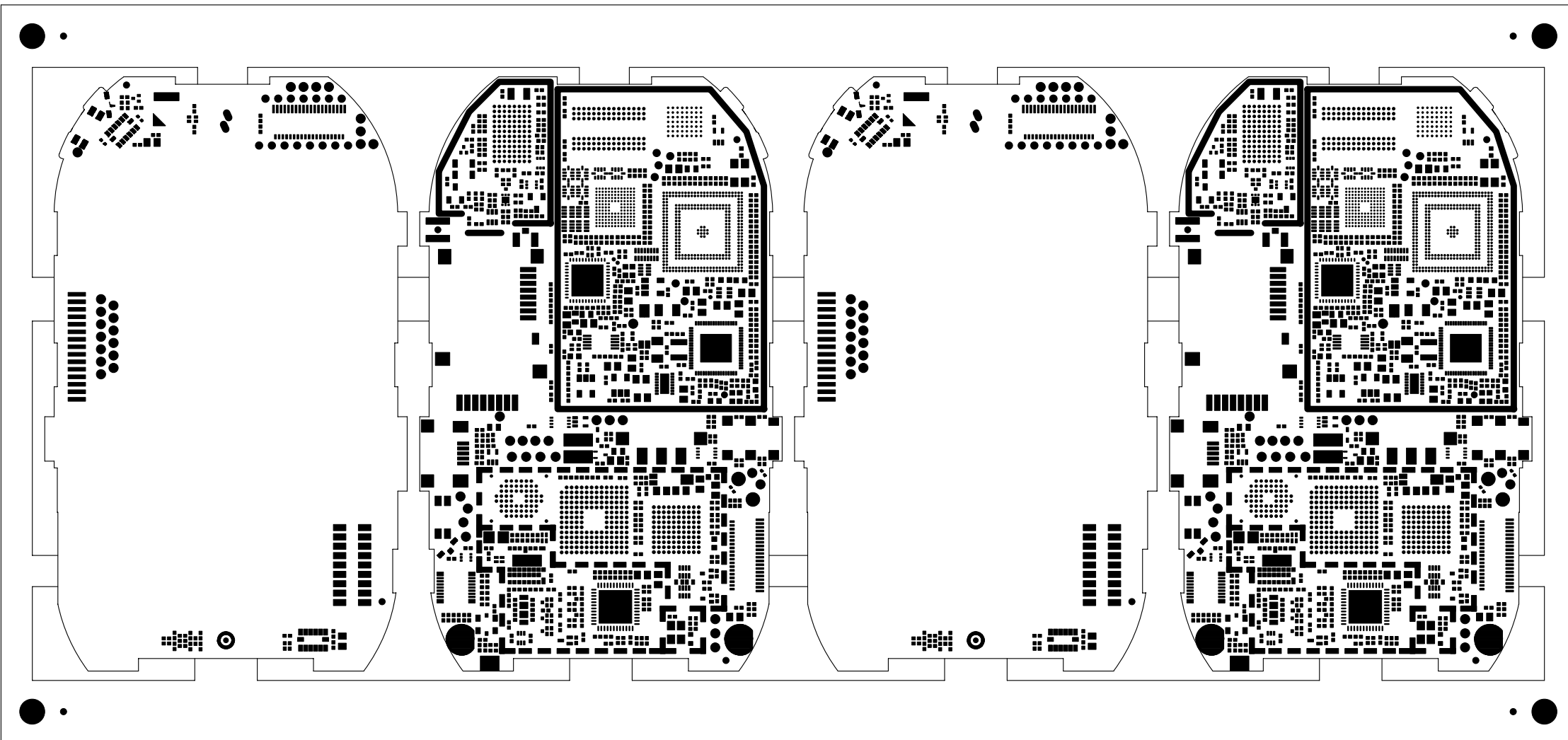
Pursuant to the Corporate Services Agreement between UL International Ltd. and Underwriters Laboratories Inc. ("UL"), UL hereby accepts and issues this Certificate of Compliance. For questions in Hong Kong, you may call 852-22769898.

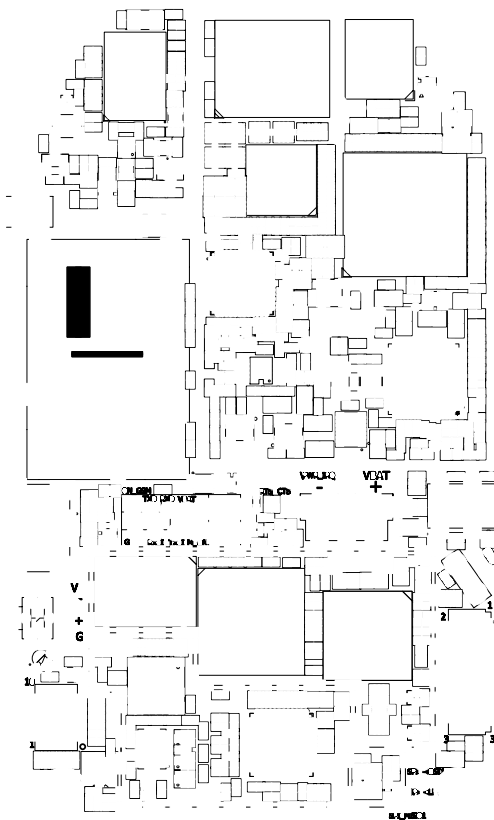
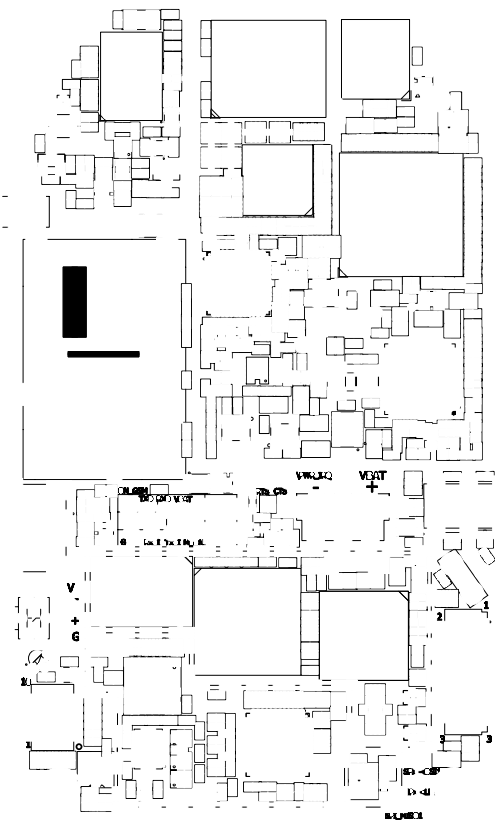




ST	GTA02	8 LAYER
	FIC011	
LAYER: L1 TOP SIDE		DRILL
DATE: 2007-09-17 12:00		
Clearance error		8
Connectivity error		0

SIZE	QTY	SYM	PLATED	TOL
4	2310	✕	YES	+/-0.0
78.74	2	□	YES	+/-0.0
35.43	2	◇	NO	+/-0.0
29.53	4	⊗	NO	+/-0.0
59.06	2	⊗	NO	+/-0.0
43.31	2	+ ^A	NO	+/-0.0
80	1	+ ^B	NO	+/-0.0





08KT49350D0A

