



OTD9160A

1600CH TFT LCD Gate Driver

Preliminary

JUNE. 12, 2012

Version 0.2

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1600CH TFT LCD Gate Driver

1. GENERAL DESCRIPTION

The OTD9160A is a 1600/1536/1520/1440/1366/1300/1280-ch outputs gate driver, which is used for driving the gate line of TFT LCD panel. It is designed for 2-level output with 40V LCD driving voltage range.

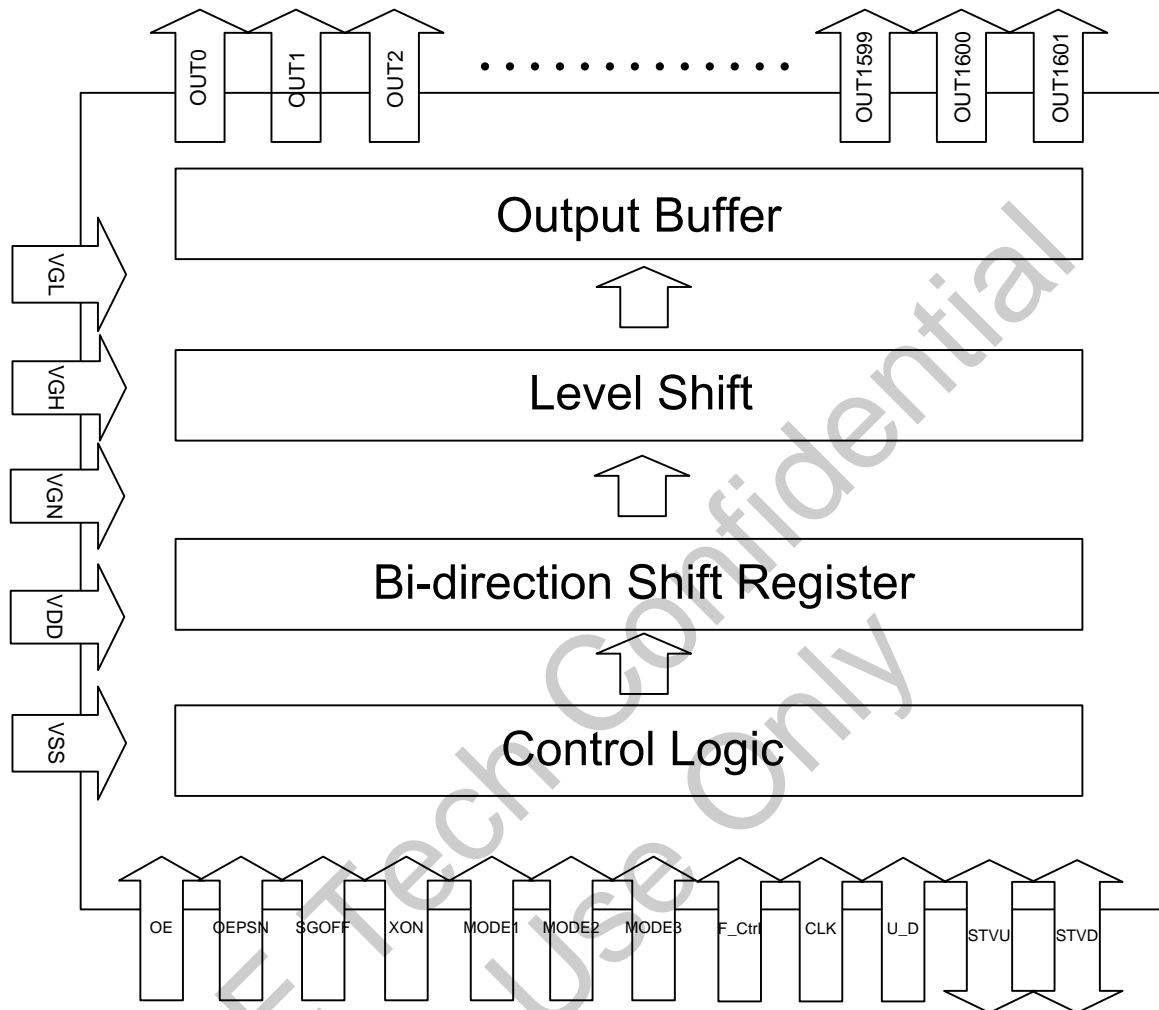
2. FEATURES

- 2-level output
- 1600/1536/1520/1440/1366/1300/1280 channel outputs selectable with 2 dummy outputs
- Maximum 200KHz operation frequency
- Digital supply voltage: 2.3V to 3.6V
- Slow gate off function control by VGN
- Embedded with power off reset circuit
- LCD driving voltage range: 40V
- Bi-directional data shift capability
- High voltage CMOS process technology
- COG package

3. ORDERING INFORMATION

Product Number	Package Type
OTD9160A-C	Chip Form with Gold Bump (thickness 300um)

4. BLOCK DIAGRAM



Note: (1) OUT0 and OUT1601 are LCD panel auxiliary pins, these pins always output VGL level.

5. SIGNAL DESCRIPTIONS

Designation	I/O	Function	Description																																								
CLK	In	Shift clock input	The clock for the internal shift registers.																																								
U_D	In	Shift direction control pin	The shift direction of device internal shift register is controlled by this pin as shown below: U_D=H, STVD→OUT1→OUT2→•••→OUT1600→STVU U_D=L, STVU→OUT1600→•••→OUT2→OUT1→STVD																																								
STVD STVU	In/ Out	Start pulse input/output pin	U_D=H, STVD is used for start pulse input STVU is used for start pulse output U_D=L, STVU is used for start pulse input STVD is used for start pulse output																																								
OE	In	Output enable control	The OE signal controls the OUT1, OUT2, OUT3,..., OUT1599, OUT1600 output enable. OE=H: outputs are fixed to VGL regardless of CLK. However, the content of shift register is not cleared. OE=L: Normal operation																																								
XON	In	Output all-on control	When XON is set to L, all outputs are fixed to VGH. Note that this pin has higher priority than OE. However, the content of shift register is not cleared. XON is pulled high to VDD internally. When it is not used, connecting to VDD is recommended.																																								
MODE1 MODE2 MODE3`	In	Channel mode selection	Channel mode selection <table border="1" data-bbox="595 1010 1425 1406"> <thead> <tr> <th>Output Channel</th> <th>Disable channel</th> <th>MODE3</th> <th>MODE2</th> <th>MODE1</th> </tr> </thead> <tbody> <tr> <td>1280</td> <td>OUT641-OUT960</td> <td>L</td> <td>L</td> <td>L</td> </tr> <tr> <td>1440</td> <td>OUT721-OUT880</td> <td>L</td> <td>H</td> <td>L</td> </tr> <tr> <td>1520</td> <td>OUT761-OUT840</td> <td>L</td> <td>L</td> <td>H</td> </tr> <tr> <td>1536</td> <td>OUT769-OUT832</td> <td>L</td> <td>H</td> <td>H</td> </tr> <tr> <td>1300</td> <td>OUT649-OUT948</td> <td>H</td> <td>L</td> <td>L</td> </tr> <tr> <td>1366</td> <td>OUT681-OUT912,OUT1599-OUT1600</td> <td>H</td> <td>L</td> <td>H</td> </tr> <tr> <td>1600</td> <td>-</td> <td>H</td> <td>H</td> <td>H</td> </tr> </tbody> </table>	Output Channel	Disable channel	MODE3	MODE2	MODE1	1280	OUT641-OUT960	L	L	L	1440	OUT721-OUT880	L	H	L	1520	OUT761-OUT840	L	L	H	1536	OUT769-OUT832	L	H	H	1300	OUT649-OUT948	H	L	L	1366	OUT681-OUT912,OUT1599-OUT1600	H	L	H	1600	-	H	H	H
Output Channel	Disable channel	MODE3	MODE2	MODE1																																							
1280	OUT641-OUT960	L	L	L																																							
1440	OUT721-OUT880	L	H	L																																							
1520	OUT761-OUT840	L	L	H																																							
1536	OUT769-OUT832	L	H	H																																							
1300	OUT649-OUT948	H	L	L																																							
1366	OUT681-OUT912,OUT1599-OUT1600	H	L	H																																							
1600	-	H	H	H																																							
OUT1~ OUT1600	Out	Driver output	The output is either VGH or VGL for driving the gate line of TFT LCD panel.																																								
F_CTRL	In	Frame control	Half source driver This pin decides to inverse the output sequence or not in odd or even frame																																								
OUT0, OUT1601	Out	Auxiliary pins	These two pins always output VGL level.																																								
PASS	-	Internal pass	The pins are shorted internally. (Refer to section 9.4)																																								
SGOFF	In	Slow gate off enable control	The SGOFF signal controls the slow gate off enable, SGOFF="H", slow gate off enable, output H duty is same as CLK High duty, SGOFF="L", Normal operation.																																								
VGN	In	Power supply	Slow gate off bias voltage, supply DC voltage to VGN and tune the slow gate off slew rate by adjust VGN voltage, VGN voltage cannot be large than VGH at all time, When SGOFF="L" (default), VGN must be equal to VGH When SGOFF="H", The range of VGN can be VGL+3V to VGH																																								
OEPSN	In	Pre-scan function enable	Test pin , default pull Low																																								
VDD	In	Power supply	Digital power supply																																								

Designation	I/O	Function	Description
VSS	In	Power supply	Grounding for VDD
VGH	In	Power supply	Power supply for Gate on output.
VGL	In	Power supply	Power supply for Gate off output.

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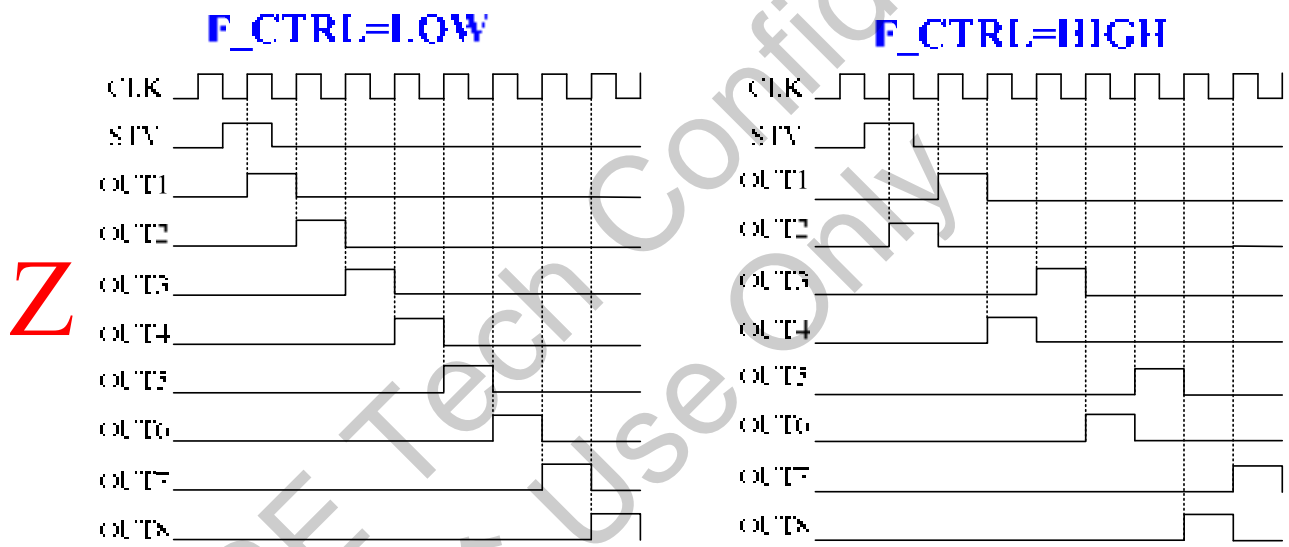
5.1. Output Sequence & Frame Control

U_D=H

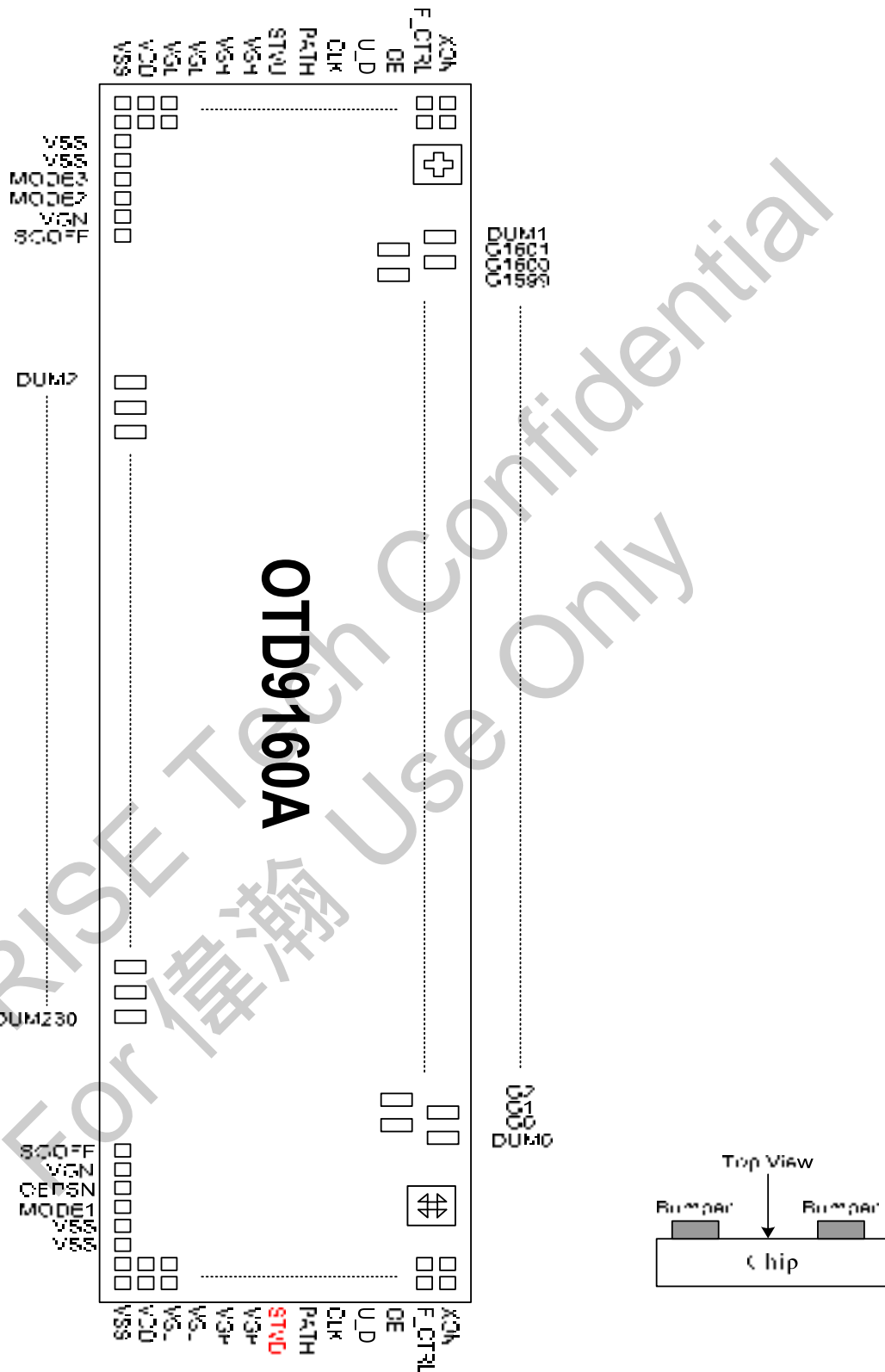
F_CTRL	Scan type	Output sequence
L	Z	1→2→3→4→5→6→7→8→.....
H		2→1→4→3→6→5→8→7→.....

U_D=L

F_CTRL	Scan type	Output sequence
L	Z8→7→6→5→4→3→2→1
H	7→8→5→6→3→4→1→2



5.2. Pin Assignment



6. FUNCTIONAL DESCRIPTIONS

6.1. Device Operation

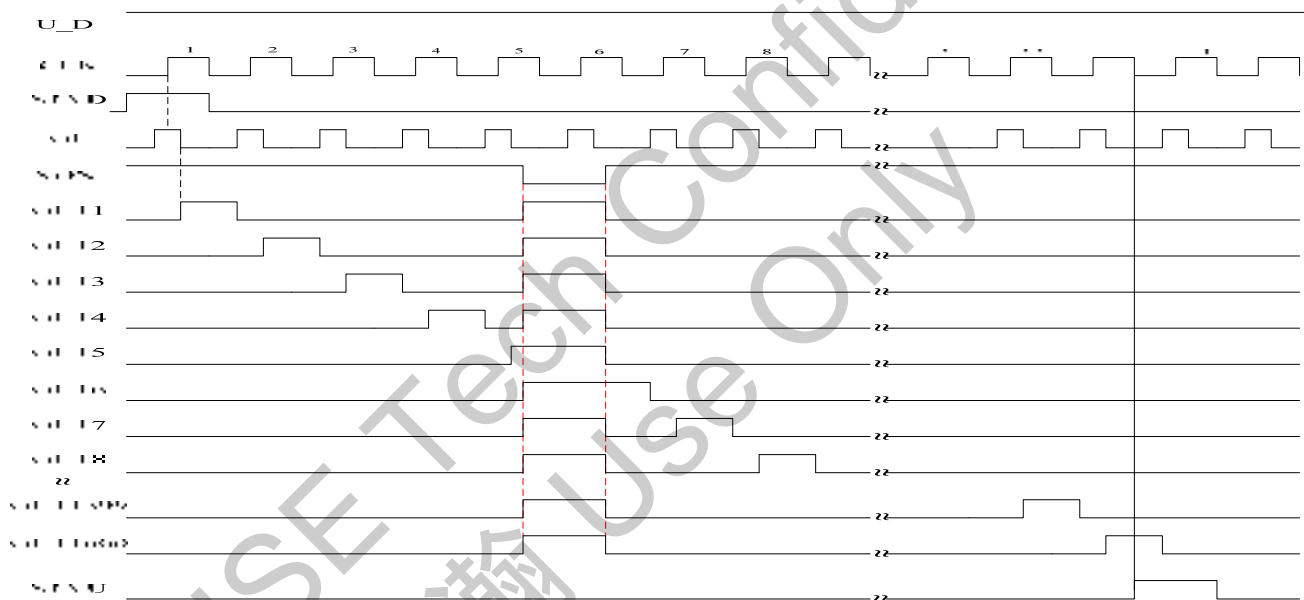
When U_D=H, MODE1/MODE2/MODE3=H, the STVD start pulse input is sensed on the rising edge of CLK and stored in the first stage of shift register, which makes the first scan signal output from the G1 pin. While stored data is transferred to the next stage shift register on the rising edge of next CLK, new data of STVD is sensed and stored simultaneously.

The output pin (OUT1 to OUT1600) supplies VGH voltage or VGL voltage to the LCD panel depending on the data stored in the shift register. For normal operation, a VGH voltage is outputted one by one from OUT1 to OUT1600 in synchronization with CLK pulse.

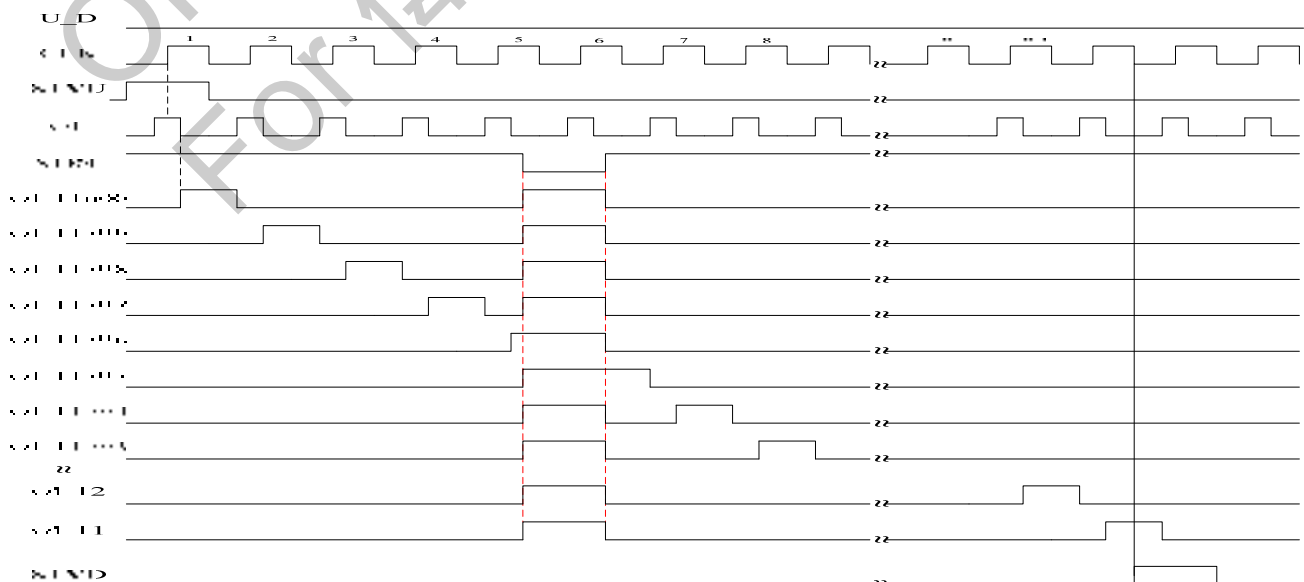
After 1600 CLK rising edge are past, the STVU goes up to high level at the 1600th falling edge of CLK and goes down to low level at the 1601 falling edge of CLK. This STVU output signal becomes the STVD start pulse input of next cascaded gate driver.

When OE=H, the corresponding output channels are fixed to VGL level regardless of CLK. The channel output returns to normal status as soon as OE goes back to L.

Example of input/output timing (U_D=H, MODE1/MODE2/MODE3=H with OE & XON)

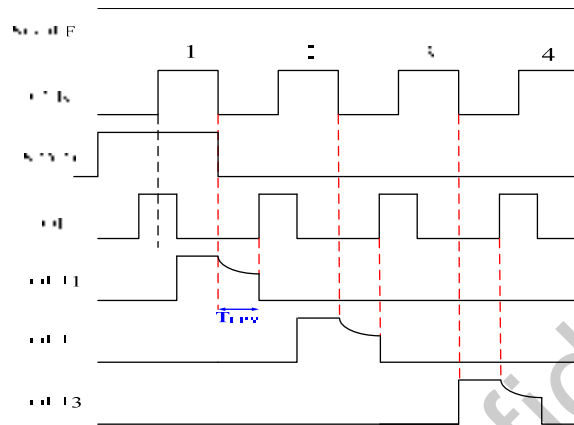


Example of input/output timing (U_D=L, MODE1/MODE2/MODE3=H with OE & XON)



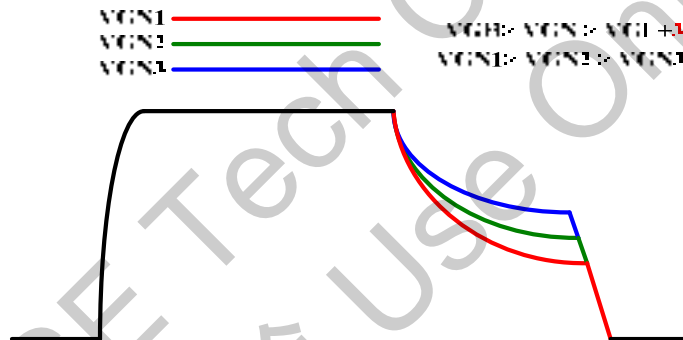
6.2. Gate Pulse Modulation Timing

MODE1=MODE2=MODE3=H, U_D=H, F_CTRL=L, SGOFF=H, OEPSN=L, VGH>VGN>VGL+3V



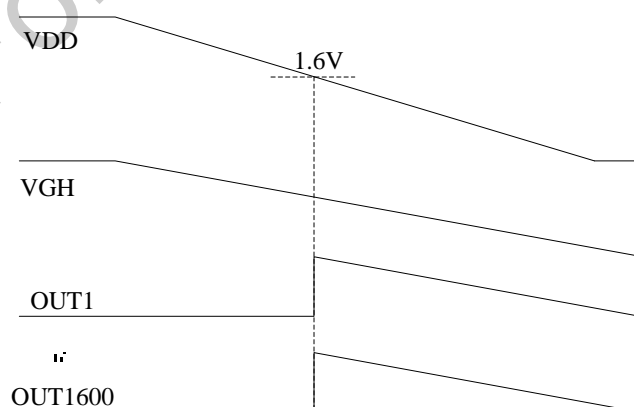
6.3. Gate Pulse Modulation Falling Slew Rate Function

Adjusting GPM falling slew rate by adjusting VGN voltage (DC).



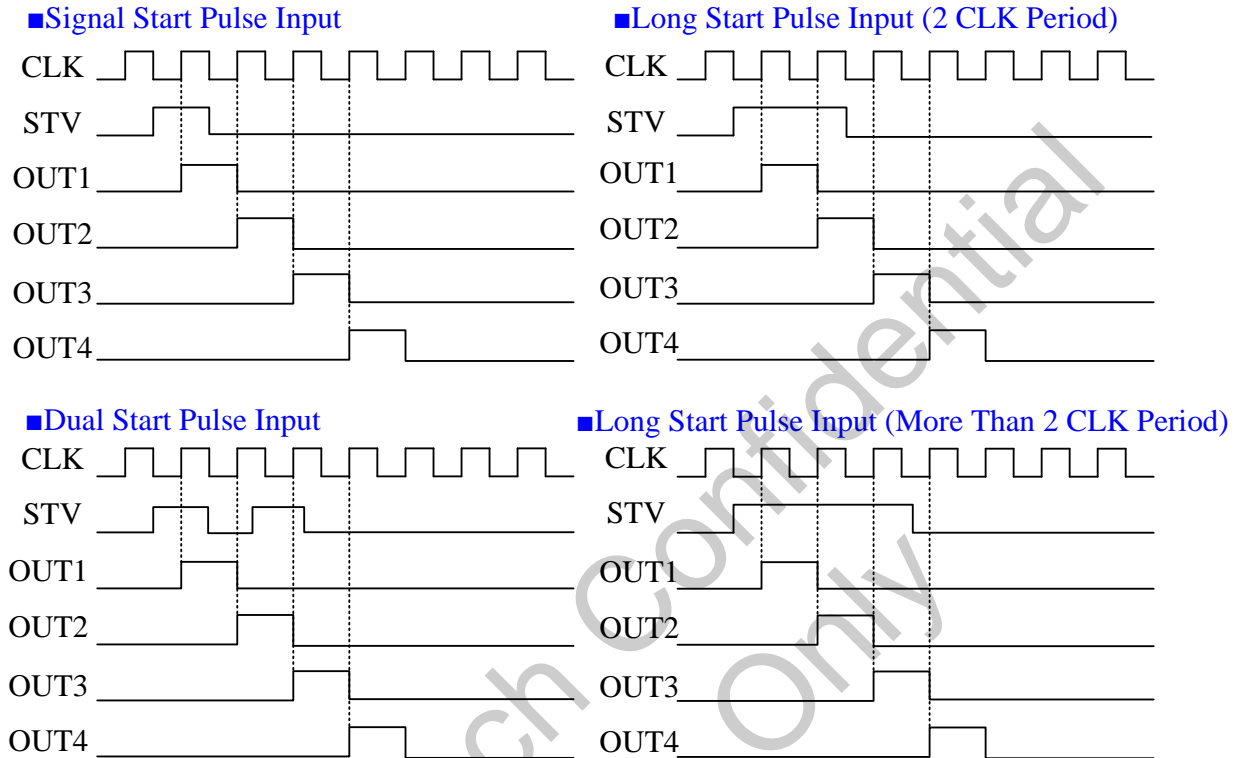
6.4. Power Supply Drop Detection

- OTD9160A can be used to improve panel discharge and prevent the image sticking issue when happen power off.
- when VDD is lower than 1.6V, OTD9160A will activate XON function.



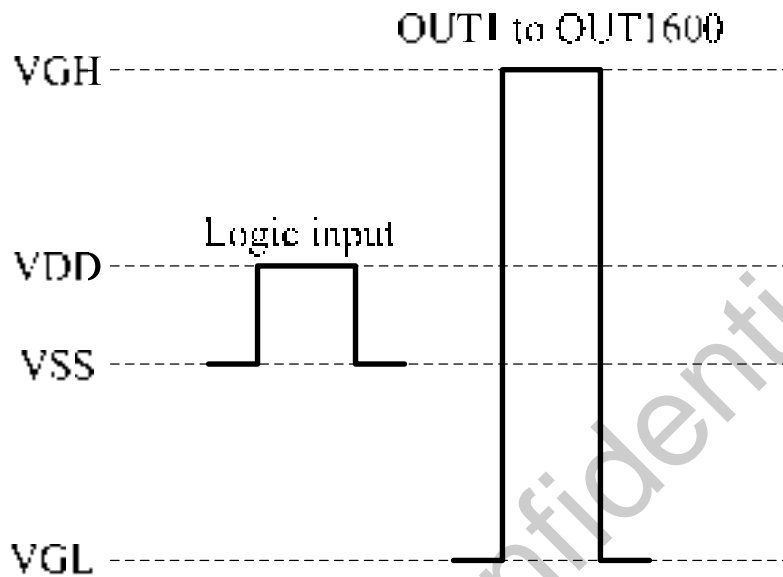
7. START PULSE INPUT LIMITATION

The available start pulse is in the following diagram.



Note 4: However the start pulse form changes, gate output keeps output sequentially.

7.1. Device Power Supply

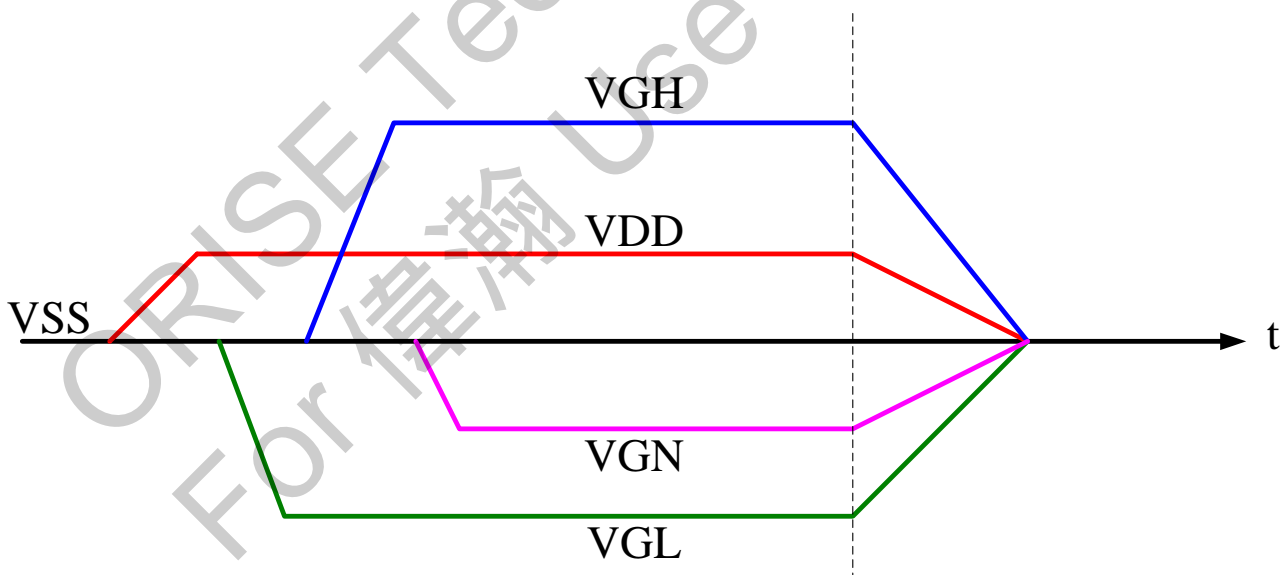


The logic levels of CLK, U_D, OE, XON, MODE1, MODE2, MODE3, STVD and STVU have to swing between VDD for "H" and VSS for "L".

7.2. Power on/off Sequence

To prevent the device from damage due to latch up, the power ON/OFF sequence shown below must be followed.

When power on: VDD→VGL→VGH→VGN



8. ELECTRICAL SPECIFICATIONS

8.1. Absolute Maximum Ratings

Parameter	Symbol	Rating			Unit	Note
		Min.	Typ.	Max.		
Power Supply Voltage 1	VGH	-0.3	-	+42	V	
Power Supply Voltage 2	VDD	-0.3	-	+7	V	
Power Supply Voltage 3	VGL	VGH-42	-	+0.3	V	
Input Voltage	V _{IN}	-0.3	-	VDD+0.3	V	
Operating Temperature	T _A	-40	-	+85	°C	
Storage Temperature	T _{STG}	-55	-	+125	°C	

Note1 : The maximum applicable voltage on any pin with respect to 0V.

Note2 : Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above.

8.2. Recommended Operating Conditions (option)

Parameter	Symbol	Rating			Unit	Note
		Min.	Typ.	Max.		
Power supply voltage 1	VGH	10	-	35	V	
Power supply voltage 2	VDD	2.3	3.3	3.6	V	
Power supply voltage 3	VGL	-20	-	-5	V	
Power supply voltage 4	VGN	VGL+3	-	VGH	V	
Power supply voltage 4	VGH-VGL	15	-	40	V	
Power supply voltage 5	VDD-VGL	6	-	-	V	
Operation frequency	F _{CPV}	-	-	200	KHz	

8.3. Electrical Characteristics

Parameter	Symbol	Application pin	Condition	Rating			Unit	Note
				Min.	Typ.	Max.		
Input H voltage	V _{IH}	All input	-	0.7VDD	-	VDD	V	
Input L voltage	V _{IL}	All input	-	VSS	-	0.3VDD		
Output H voltage	V _{OH}	STVD,2	I _{OH} =40μA	VDD-0.4	-	VDD		
Output L voltage	V _{OL}	STVD,2	I _{OL} =40μA	VSS	-	VSS+0.4		
Output H resistance	R _{OH}	OUT1 ~ OUT1600	V _{OUT} = VGH-0.5V	-	-	1000	Ω	
Output L resistance	R _{OL}	OUT1 ~ OUT1600	V _{OUT} = VGL+0.5V	-	-	1000	Ω	
Input leakage current	I _{IN}	Note(2)	-	-	-	±1	μA	
Pull high resistance	R _{PU}	XON	-	50	-	330	kΩ	
VDD Power consumption	I _{VDD}	VDD	Note(1)	-	15	100	μA	
VGH Power consumption	I _{VGH}	VGH		-	100	400	μA	
VGL Power consumption	I _{VGL}	VGL		-	-100	-400	μA	
VGN operating current	I _{VGN}	VGN		400			uA	

Note: (1) Power consumption in the following condition:

Output no load, VGH=25V, VGL=-8V, VDD=3.3V, V_{IH}=VDD, V_{IL}=VSS, F_{CPV}=50KHz, OE=V_{IL}, XON=V_{IH}

(2) All input except /XON

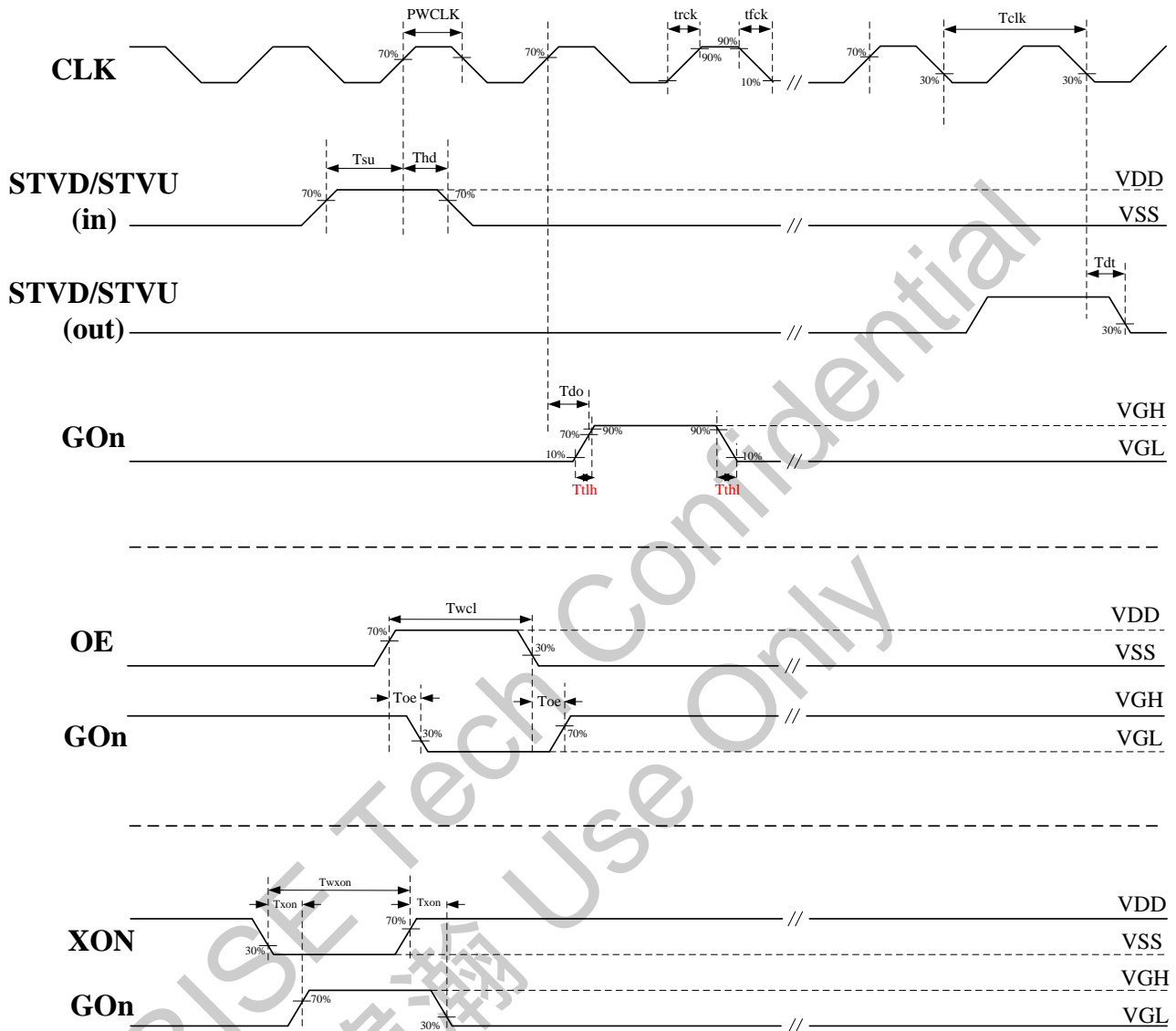
8.4. AC Characteristics

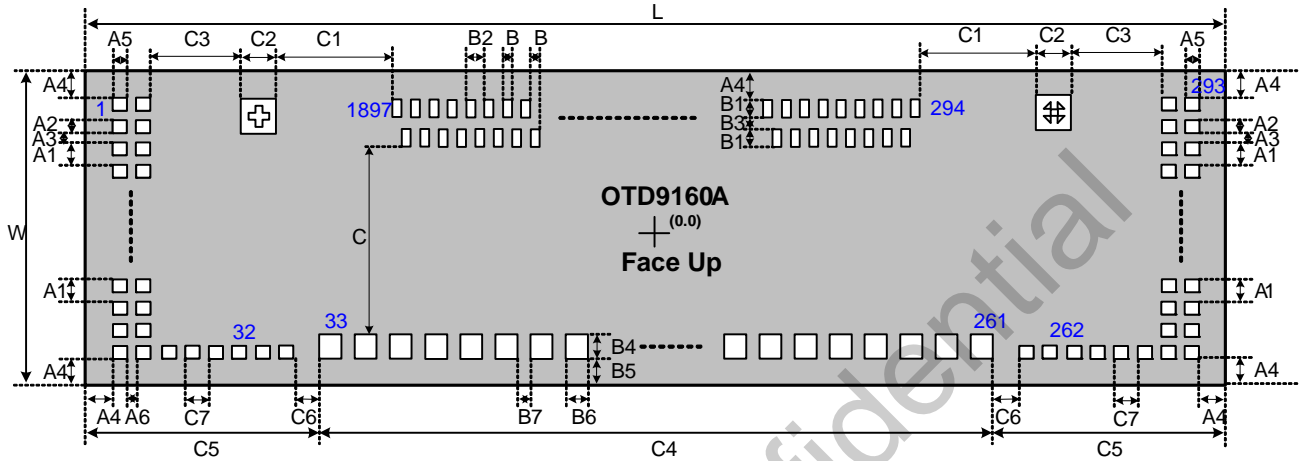
 (T_A = -20°C to 85°C, VDD = 3.3V, VGH = 25V, VGL=-15V, VSS =0)

Parameter	Symbol	Condition	Rating			Unit	Note
			Min.	Typ.	Max.		
CLK period	T _{CLK}	-	5	-	-	μs	
CLK pulse width	PWCLK	50% duty cycle	2.5	-	-		
Clock Rising Time	Trck				0.1		
Clock Falling Time	Tfck				0.1		
Output rising time	T _{rth}	CL=300pF		0.5			
Output falling time	T _{thl}	CL=300pF		0.7			
OE pulse width	Twcl	-	1	-	-		
XON pulse width	T _{WXON}	-	10	-	-		
Data setup time	T _{su}	-	0.7	-	-		
Data hold time	T _{hd}	-	0.7	-	-		
CLK to output delay time	T _{do}	CL=300pF	-	-	1.5		
Start pulse output delay time	T _{dt}	Loading=30pF	-	-	1		
OE to output delay time	T _{oe}	CL=300pF	-	-	1.5		
XON to output delay time	T _{xon}	CL=300pF	-	-	60		

Note: The measurement point for all of above signals is at 50% of input/output amplitude.

8.5. Timing Waveforms



9. CHIP INFORMATION
9.1. PAD Assignment


Note1: Have no Temperature compensation design.

Symbol	Dimensions	Symbol	Dimensions	Symbol	Dimensions
A1	54	B3	25	C4	22880
A2	32	B4	100	C5	1056
A3	22	B5	47	C6	309
A4	47	B6	80	C7	90
A5	70	B7	20	W	24992
A6	20	C	335	L	774
B	15	C1	85	Unit : μm	
B1	110	C2	115		
B2	30	C3	51.5		

(scribe-line included)

9.2. PAD Dimension

Item	PAD No.	Size		Unit
		X	Y	
Chip Size		24992	774	μm
Chip thickness		300 ± 20 (OTD9160A-C)		
Pad pitch	(ILB) 33-261	100		
	(OLB) 294-1897	15		
	(SLB) 1-28, 266-293	54		
	(SLB) 29-32, 262-265	90		
Pad size	(ILB) 27-247	80	100	
	(OLB) 282-1485	15	110	
	(SLB) 1-32, 262-293,	70	32	

Note1: Chip size included scribe line.

9.3. PAD Locations

PAD No.	PAD Name	X	Y
1	XON	-12414	324
2	XON	-12324	324
3	F_CTRL	-12414	270
4	F_CTRL	-12324	270
5	OE	-12414	216
6	OE	-12324	216
7	U_D	-12414	162
8	U_D	-12324	162
9	CLK	-12414	108
10	CLK	-12324	108
11	PATH	-12414	54
12	PATH	-12324	54
13	STVU	-12414	0
14	STVU	-12324	0
15	VGH	-12414	-54
16	VGH	-12324	-54
17	VGH	-12414	-108
18	VGH	-12324	-108
19	VGL	-12414	-162
20	VGL	-12324	-162
21	VGL	-12414	-216
22	VGL	-12324	-216
23	VDD	-12414	-270
24	VDD	-12324	-270
25	VSS	-12414	-324
26	VSS	-12324	-324
27	VSS	-12234	-324
28	VSS	-12144	-324
29	MODE3	-12054	-324
30	MODE2	-11964	-324
31	VGN	-11874	-324
32	SGOFF	-11784	-324
33	DUM2	-11400	-290
34	DUM3	-11300	-290
35	DUM4	-11200	-290
36	DUM5	-11100	-290
37	DUM6	-11000	-290
38	DUM7	-10900	-290
39	DUM8	-10800	-290
40	DUM9	-10700	-290
41	DUM10	-10600	-290
42	DUM11	-10500	-290
43	DUM12	-10400	-290
44	DUM13	-10300	-290
45	DUM14	-10200	-290
46	DUM15	-10100	-290
47	DUM16	-10000	-290
48	DUM17	-9900	-290
49	DUM18	-9800	-290
50	DUM19	-9700	-290
51	DUM20	-9600	-290
52	DUM21	-9500	-290

PAD No.	PAD Name	X	Y
53	DUM22	-9400	-290
54	DUM23	-9300	-290
55	DUM24	-9200	-290
56	DUM25	-9100	-290
57	DUM26	-9000	-290
58	DUM27	-8900	-290
59	DUM28	-8800	-290
60	DUM29	-8700	-290
61	DUM30	-8600	-290
62	DUM31	-8500	-290
63	DUM32	-8400	-290
64	DUM33	-8300	-290
65	DUM34	-8200	-290
66	DUM35	-8100	-290
67	DUM36	-8000	-290
68	DUM37	-7900	-290
69	DUM38	-7800	-290
70	DUM39	-7700	-290
71	DUM40	-7600	-290
72	DUM41	-7500	-290
73	DUM42	-7400	-290
74	DUM43	-7300	-290
75	DUM44	-7200	-290
76	DUM45	-7100	-290
77	DUM46	-7000	-290
78	DUM47	-6900	-290
79	DUM48	-6800	-290
80	DUM49	-6700	-290
81	DUM50	-6600	-290
82	DUM51	-6500	-290
83	DUM52	-6400	-290
84	DUM53	-6300	-290
85	DUM54	-6200	-290
86	DUM55	-6100	-290
87	DUM56	-6000	-290
88	DUM57	-5900	-290
89	DUM58	-5800	-290
90	DUM59	-5700	-290
91	DUM60	-5600	-290
92	DUM61	-5500	-290
93	DUM62	-5400	-290
94	DUM63	-5300	-290
95	DUM64	-5200	-290
96	DUM65	-5100	-290
97	DUM66	-5000	-290
98	DUM67	-4900	-290
99	DUM68	-4800	-290
100	DUM69	-4700	-290
101	DUM70	-4600	-290
102	DUM71	-4500	-290
103	DUM72	-4400	-290
104	DUM73	-4300	-290

PAD No.	PAD Name	X	Y
105	DUM74	-4200	-290
106	DUM75	-4100	-290
107	DUM76	-4000	-290
108	DUM77	-3900	-290
109	DUM78	-3800	-290
110	DUM79	-3700	-290
111	DUM80	-3600	-290
112	DUM81	-3500	-290
113	DUM82	-3400	-290
114	DUM83	-3300	-290
115	DUM84	-3200	-290
116	DUM85	-3100	-290
117	DUM86	-3000	-290
118	DUM87	-2900	-290
119	DUM88	-2800	-290
120	DUM89	-2700	-290
121	DUM90	-2600	-290
122	DUM91	-2500	-290
123	DUM92	-2400	-290
124	DUM93	-2300	-290
125	DUM94	-2200	-290
126	DUM95	-2100	-290
127	DUM96	-2000	-290
128	DUM97	-1900	-290
129	DUM98	-1800	-290
130	DUM99	-1700	-290
131	DUM100	-1600	-290
132	DUM101	-1500	-290
133	DUM102	-1400	-290
134	DUM103	-1300	-290
135	DUM104	-1200	-290
136	DUM105	-1100	-290
137	DUM106	-1000	-290
138	DUM107	-900	-290
139	DUM108	-800	-290
140	DUM109	-700	-290
141	DUM110	-600	-290
142	DUM111	-500	-290
143	DUM112	-400	-290
144	DUM113	-300	-290
145	DUM114	-200	-290
146	DUM115	-100	-290
147	DUM116	0	-290
148	DUM117	100	-290
149	DUM118	200	-290
150	DUM119	300	-290
151	DUM120	400	-290
152	DUM121	500	-290
153	DUM122	600	-290
154	DUM123	700	-290
155	DUM124	800	-290
156	DUM125	900	-290

PAD No.	PAD Name	X	Y
157	DUM126	1000	-290
158	DUM127	1100	-290
159	DUM128	1200	-290
160	DUM129	1300	-290
161	DUM130	1400	-290
162	DUM131	1500	-290
163	DUM132	1600	-290
164	DUM133	1700	-290
165	DUM134	1800	-290
166	DUM135	1900	-290
167	DUM136	2000	-290
168	DUM137	2100	-290
169	DUM138	2200	-290
170	DUM139	2300	-290
171	DUM140	2400	-290
172	DUM141	2500	-290
173	DUM142	2600	-290
174	DUM143	2700	-290
175	DUM144	2800	-290
176	DUM145	2900	-290
177	DUM146	3000	-290
178	DUM147	3100	-290
179	DUM148	3200	-290
180	DUM149	3300	-290
181	DUM150	3400	-290
182	DUM151	3500	-290
183	DUM152	3600	-290
184	DUM153	3700	-290
185	DUM154	3800	-290
186	DUM155	3900	-290
187	DUM156	4000	-290
188	DUM157	4100	-290
189	DUM158	4200	-290
190	DUM159	4300	-290
191	DUM160	4400	-290
192	DUM161	4500	-290
193	DUM162	4600	-290
194	DUM163	4700	-290
195	DUM164	4800	-290
196	DUM165	4900	-290
197	DUM166	5000	-290
198	DUM167	5100	-290
199	DUM168	5200	-290
200	DUM169	5300	-290
201	DUM170	5400	-290
202	DUM171	5500	-290
203	DUM172	5600	-290
204	DUM173	5700	-290
205	DUM174	5800	-290
206	DUM175	5900	-290
207	DUM176	6000	-290
208	DUM177	6100	-290
209	DUM178	6200	-290

PAD No.	PAD Name	X	Y
210	DUM179	6300	-290
211	DUM180	6400	-290
212	DUM181	6500	-290
213	DUM182	6600	-290
214	DUM183	6700	-290
215	DUM184	6800	-290
216	DUM185	6900	-290
217	DUM186	7000	-290
218	DUM187	7100	-290
219	DUM188	7200	-290
220	DUM189	7300	-290
221	DUM190	7400	-290
222	DUM191	7500	-290
223	DUM192	7600	-290
224	DUM193	7700	-290
225	DUM194	7800	-290
226	DUM195	7900	-290
227	DUM196	8000	-290
228	DUM197	8100	-290
229	DUM198	8200	-290
230	DUM199	8300	-290
231	DUM200	8400	-290
232	DUM201	8500	-290
233	DUM202	8600	-290
234	DUM203	8700	-290
235	DUM204	8800	-290
236	DUM205	8900	-290
237	DUM206	9000	-290
238	DUM207	9100	-290
239	DUM208	9200	-290
240	DUM209	9300	-290
241	DUM210	9400	-290
242	DUM211	9500	-290
243	DUM212	9600	-290
244	DUM213	9700	-290
245	DUM214	9800	-290
246	DUM215	9900	-290
247	DUM216	10000	-290
248	DUM217	10100	-290
249	DUM218	10200	-290
250	DUM219	10300	-290
251	DUM220	10400	-290
252	DUM221	10500	-290
253	DUM222	10600	-290
254	DUM223	10700	-290
255	DUM224	10800	-290
256	DUM225	10900	-290
257	DUM226	11000	-290
258	DUM227	11100	-290
259	DUM228	11200	-290
260	DUM229	11300	-290
261	DUM230	11400	-290
262	SGOFF	11784	-324

PAD No.	PAD Name	X	Y
263	VGN	11874	-324
264	OEPSN	11964	-324
265	MODE1	12054	-324
266	VSS	12144	-324
267	VSS	12234	-324
268	VSS	12324	-324
269	VSS	12414	-324
270	VDD	12324	-270
271	VDD	12414	-270
272	VGL	12324	-216
273	VGL	12414	-216
274	VGL	12324	-162
275	VGL	12414	-162
276	VGH	12324	-108
277	VGH	12414	-108
278	VGH	12324	-54
279	VGH	12414	-54
280	STVD	12324	0
281	STVD	12414	0
282	PATH	12324	54
283	PATH	12414	54
284	CLK	12324	108
285	CLK	12414	108
286	U_D	12324	162
287	U_D	12414	162
288	OE	12324	216
289	OE	12414	216
290	F_CTRL	12324	270
291	F_CTRL	12414	270
292	XON	12324	324
293	XON	12414	324
294	DUM0	12030	285
295	OUT0	12000	285
296	OUT1	11985	150
297	OUT2	11970	285
298	OUT3	11955	150
299	OUT4	11940	285
300	OUT5	11925	150
301	OUT6	11910	285
302	OUT7	11895	150
303	OUT8	11880	285
304	OUT9	11865	150
305	OUT10	11850	285
306	OUT11	11835	150
307	OUT12	11820	285
308	OUT13	11805	150
309	OUT14	11790	285
310	OUT15	11775	150
311	OUT16	11760	285
312	OUT17	11745	150
313	OUT18	11730	285
314	OUT19	11715	150
315	OUT20	11700	285

PAD No.	PAD Name	X	Y
316	OUT21	11685	150
317	OUT22	11670	285
318	OUT23	11655	150
319	OUT24	11640	285
320	OUT25	11625	150
321	OUT26	11610	285
322	OUT27	11595	150
323	OUT28	11580	285
324	OUT29	11565	150
325	OUT30	11550	285
326	OUT31	11535	150
327	OUT32	11520	285
328	OUT33	11505	150
329	OUT34	11490	285
330	OUT35	11475	150
331	OUT36	11460	285
332	OUT37	11445	150
333	OUT38	11430	285
334	OUT39	11415	150
335	OUT40	11400	285
336	OUT41	11385	150
337	OUT42	11370	285
338	OUT43	11355	150
339	OUT44	11340	285
340	OUT45	11325	150
341	OUT46	11310	285
342	OUT47	11295	150
343	OUT48	11280	285
344	OUT49	11265	150
345	OUT50	11250	285
346	OUT51	11235	150
347	OUT52	11220	285
348	OUT53	11205	150
349	OUT54	11190	285
350	OUT55	11175	150
351	OUT56	11160	285
352	OUT57	11145	150
353	OUT58	11130	285
354	OUT59	11115	150
355	OUT60	11100	285
356	OUT61	11085	150
357	OUT62	11070	285
358	OUT63	11055	150
359	OUT64	11040	285
360	OUT65	11025	150
361	OUT66	11010	285
362	OUT67	10995	150
363	OUT68	10980	285
364	OUT69	10965	150
365	OUT70	10950	285
366	OUT71	10935	150
367	OUT72	10920	285
368	OUT73	10905	150

PAD No.	PAD Name	X	Y
369	OUT74	10890	285
370	OUT75	10875	150
371	OUT76	10860	285
372	OUT77	10845	150
373	OUT78	10830	285
374	OUT79	10815	150
375	OUT80	10800	285
376	OUT81	10785	150
377	OUT82	10770	285
378	OUT83	10755	150
379	OUT84	10740	285
380	OUT85	10725	150
381	OUT86	10710	285
382	OUT87	10695	150
383	OUT88	10680	285
384	OUT89	10665	150
385	OUT90	10650	285
386	OUT91	10635	150
387	OUT92	10620	285
388	OUT93	10605	150
389	OUT94	10590	285
390	OUT95	10575	150
391	OUT96	10560	285
392	OUT97	10545	150
393	OUT98	10530	285
394	OUT99	10515	150
395	OUT100	10500	285
396	OUT101	10485	150
397	OUT102	10470	285
398	OUT103	10455	150
399	OUT104	10440	285
400	OUT105	10425	150
401	OUT106	10410	285
402	OUT107	10395	150
403	OUT108	10380	285
404	OUT109	10365	150
405	OUT110	10350	285
406	OUT111	10335	150
407	OUT112	10320	285
408	OUT113	10305	150
409	OUT114	10290	285
410	OUT115	10275	150
411	OUT116	10260	285
412	OUT117	10245	150
413	OUT118	10230	285
414	OUT119	10215	150
415	OUT120	10200	285
416	OUT121	10185	150
417	OUT122	10170	285
418	OUT123	10155	150
419	OUT124	10140	285
420	OUT125	10125	150
421	OUT126	10110	285

PAD No.	PAD Name	X	Y
422	OUT127	10095	150
423	OUT128	10080	285
424	OUT129	10065	150
425	OUT130	10050	285
426	OUT131	10035	150
427	OUT132	10020	285
428	OUT133	10005	150
429	OUT134	9990	285
430	OUT135	9975	150
431	OUT136	9960	285
432	OUT137	9945	150
433	OUT138	9930	285
434	OUT139	9915	150
435	OUT140	9900	285
436	OUT141	9885	150
437	OUT142	9870	285
438	OUT143	9855	150
439	OUT144	9840	285
440	OUT145	9825	150
441	OUT146	9810	285
442	OUT147	9795	150
443	OUT148	9780	285
444	OUT149	9765	150
445	OUT150	9750	285
446	OUT151	9735	150
447	OUT152	9720	285
448	OUT153	9705	150
449	OUT154	9690	285
450	OUT155	9675	150
451	OUT156	9660	285
452	OUT157	9645	150
453	OUT158	9630	285
454	OUT159	9615	150
455	OUT160	9600	285
456	OUT161	9585	150
457	OUT162	9570	285
458	OUT163	9555	150
459	OUT164	9540	285
460	OUT165	9525	150
461	OUT166	9510	285
462	OUT167	9495	150
463	OUT168	9480	285
464	OUT169	9465	150
465	OUT170	9450	285
466	OUT171	9435	150
467	OUT172	9420	285
468	OUT173	9405	150
469	OUT174	9390	285
470	OUT175	9375	150
471	OUT176	9360	285
472	OUT177	9345	150
473	OUT178	9330	285
474	OUT179	9315	150

PAD No.	PAD Name	X	Y
475	OUT180	9300	285
476	OUT181	9285	150
477	OUT182	9270	285
478	OUT183	9255	150
479	OUT184	9240	285
480	OUT185	9225	150
481	OUT186	9210	285
482	OUT187	9195	150
483	OUT188	9180	285
484	OUT189	9165	150
485	OUT190	9150	285
486	OUT191	9135	150
487	OUT192	9120	285
488	OUT193	9105	150
489	OUT194	9090	285
490	OUT195	9075	150
491	OUT196	9060	285
492	OUT197	9045	150
493	OUT198	9030	285
494	OUT199	9015	150
495	OUT200	9000	285
496	OUT201	8985	150
497	OUT202	8970	285
498	OUT203	8955	150
499	OUT204	8940	285
500	OUT205	8925	150
501	OUT206	8910	285
502	OUT207	8895	150
503	OUT208	8880	285
504	OUT209	8865	150
505	OUT210	8850	285
506	OUT211	8835	150
507	OUT212	8820	285
508	OUT213	8805	150
509	OUT214	8790	285
510	OUT215	8775	150
511	OUT216	8760	285
512	OUT217	8745	150
513	OUT218	8730	285
514	OUT219	8715	150
515	OUT220	8700	285
516	OUT221	8685	150
517	OUT222	8670	285
518	OUT223	8655	150
519	OUT224	8640	285
520	OUT225	8625	150
521	OUT226	8610	285
522	OUT227	8595	150
523	OUT228	8580	285
524	OUT229	8565	150
525	OUT230	8550	285
526	OUT231	8535	150
527	OUT232	8520	285

PAD No.	PAD Name	X	Y
528	OUT233	8505	150
529	OUT234	8490	285
530	OUT235	8475	150
531	OUT236	8460	285
532	OUT237	8445	150
533	OUT238	8430	285
534	OUT239	8415	150
535	OUT240	8400	285
536	OUT241	8385	150
537	OUT242	8370	285
538	OUT243	8355	150
539	OUT244	8340	285
540	OUT245	8325	150
541	OUT246	8310	285
542	OUT247	8295	150
543	OUT248	8280	285
544	OUT249	8265	150
545	OUT250	8250	285
546	OUT251	8235	150
547	OUT252	8220	285
548	OUT253	8205	150
549	OUT254	8190	285
550	OUT255	8175	150
551	OUT256	8160	285
552	OUT257	8145	150
553	OUT258	8130	285
554	OUT259	8115	150
555	OUT260	8100	285
556	OUT261	8085	150
557	OUT262	8070	285
558	OUT263	8055	150
559	OUT264	8040	285
560	OUT265	8025	150
561	OUT266	8010	285
562	OUT267	7995	150
563	OUT268	7980	285
564	OUT269	7965	150
565	OUT270	7950	285
566	OUT271	7935	150
567	OUT272	7920	285
568	OUT273	7905	150
569	OUT274	7890	285
570	OUT275	7875	150
571	OUT276	7860	285
572	OUT277	7845	150
573	OUT278	7830	285
574	OUT279	7815	150
575	OUT280	7800	285
576	OUT281	7785	150
577	OUT282	7770	285
578	OUT283	7755	150
579	OUT284	7740	285
580	OUT285	7725	150

PAD No.	PAD Name	X	Y
581	OUT286	7710	285
582	OUT287	7695	150
583	OUT288	7680	285
584	OUT289	7665	150
585	OUT290	7650	285
586	OUT291	7635	150
587	OUT292	7620	285
588	OUT293	7605	150
589	OUT294	7590	285
590	OUT295	7575	150
591	OUT296	7560	285
592	OUT297	7545	150
593	OUT298	7530	285
594	OUT299	7515	150
595	OUT300	7500	285
596	OUT301	7485	150
597	OUT302	7470	285
598	OUT303	7455	150
599	OUT304	7440	285
600	OUT305	7425	150
601	OUT306	7410	285
602	OUT307	7395	150
603	OUT308	7380	285
604	OUT309	7365	150
605	OUT310	7350	285
606	OUT311	7335	150
607	OUT312	7320	285
608	OUT313	7305	150
609	OUT314	7290	285
610	OUT315	7275	150
611	OUT316	7260	285
612	OUT317	7245	150
613	OUT318	7230	285
614	OUT319	7215	150
615	OUT320	7200	285
616	OUT321	7185	150
617	OUT322	7170	285
618	OUT323	7155	150
619	OUT324	7140	285
620	OUT325	7125	150
621	OUT326	7110	285
622	OUT327	7095	150
623	OUT328	7080	285
624	OUT329	7065	150
625	OUT330	7050	285
626	OUT331	7035	150
627	OUT332	7020	285
628	OUT333	7005	150
629	OUT334	6990	285
630	OUT335	6975	150
631	OUT336	6960	285
632	OUT337	6945	150
633	OUT338	6930	285

PAD No.	PAD Name	X	Y
634	OUT339	6915	150
635	OUT340	6900	285
636	OUT341	6885	150
637	OUT342	6870	285
638	OUT343	6855	150
639	OUT344	6840	285
640	OUT345	6825	150
641	OUT346	6810	285
642	OUT347	6795	150
643	OUT348	6780	285
644	OUT349	6765	150
645	OUT350	6750	285
646	OUT351	6735	150
647	OUT352	6720	285
648	OUT353	6705	150
649	OUT354	6690	285
650	OUT355	6675	150
651	OUT356	6660	285
652	OUT357	6645	150
653	OUT358	6630	285
654	OUT359	6615	150
655	OUT360	6600	285
656	OUT361	6585	150
657	OUT362	6570	285
658	OUT363	6555	150
659	OUT364	6540	285
660	OUT365	6525	150
661	OUT366	6510	285
662	OUT367	6495	150
663	OUT368	6480	285
664	OUT369	6465	150
665	OUT370	6450	285
666	OUT371	6435	150
667	OUT372	6420	285
668	OUT373	6405	150
669	OUT374	6390	285
670	OUT375	6375	150
671	OUT376	6360	285
672	OUT377	6345	150
673	OUT378	6330	285
674	OUT379	6315	150
675	OUT380	6300	285
676	OUT381	6285	150
677	OUT382	6270	285
678	OUT383	6255	150
679	OUT384	6240	285
680	OUT385	6225	150
681	OUT386	6210	285
682	OUT387	6195	150
683	OUT388	6180	285
684	OUT389	6165	150
685	OUT390	6150	285
686	OUT391	6135	150

PAD No.	PAD Name	X	Y
687	OUT392	6120	285
688	OUT393	6105	150
689	OUT394	6090	285
690	OUT395	6075	150
691	OUT396	6060	285
692	OUT397	6045	150
693	OUT398	6030	285
694	OUT399	6015	150
695	OUT400	6000	285
696	OUT401	5985	150
697	OUT402	5970	285
698	OUT403	5955	150
699	OUT404	5940	285
700	OUT405	5925	150
701	OUT406	5910	285
702	OUT407	5895	150
703	OUT408	5880	285
704	OUT409	5865	150
705	OUT410	5850	285
706	OUT411	5835	150
707	OUT412	5820	285
708	OUT413	5805	150
709	OUT414	5790	285
710	OUT415	5775	150
711	OUT416	5760	285
712	OUT417	5745	150
713	OUT418	5730	285
714	OUT419	5715	150
715	OUT420	5700	285
716	OUT421	5685	150
717	OUT422	5670	285
718	OUT423	5655	150
719	OUT424	5640	285
720	OUT425	5625	150
721	OUT426	5610	285
722	OUT427	5595	150
723	OUT428	5580	285
724	OUT429	5565	150
725	OUT430	5550	285
726	OUT431	5535	150
727	OUT432	5520	285
728	OUT433	5505	150
729	OUT434	5490	285
730	OUT435	5475	150
731	OUT436	5460	285
732	OUT437	5445	150
733	OUT438	5430	285
734	OUT439	5415	150
735	OUT440	5400	285
736	OUT441	5385	150
737	OUT442	5370	285
738	OUT443	5355	150
739	OUT444	5340	285

PAD No.	PAD Name	X	Y
740	OUT445	5325	150
741	OUT446	5310	285
742	OUT447	5295	150
743	OUT448	5280	285
744	OUT449	5265	150
745	OUT450	5250	285
746	OUT451	5235	150
747	OUT452	5220	285
748	OUT453	5205	150
749	OUT454	5190	285
750	OUT455	5175	150
751	OUT456	5160	285
752	OUT457	5145	150
753	OUT458	5130	285
754	OUT459	5115	150
755	OUT460	5100	285
756	OUT461	5085	150
757	OUT462	5070	285
758	OUT463	5055	150
759	OUT464	5040	285
760	OUT465	5025	150
761	OUT466	5010	285
762	OUT467	4995	150
763	OUT468	4980	285
764	OUT469	4965	150
765	OUT470	4950	285
766	OUT471	4935	150
767	OUT472	4920	285
768	OUT473	4905	150
769	OUT474	4890	285
770	OUT475	4875	150
771	OUT476	4860	285
772	OUT477	4845	150
773	OUT478	4830	285
774	OUT479	4815	150
775	OUT480	4800	285
776	OUT481	4785	150
777	OUT482	4770	285
778	OUT483	4755	150
779	OUT484	4740	285
780	OUT485	4725	150
781	OUT486	4710	285
782	OUT487	4695	150
783	OUT488	4680	285
784	OUT489	4665	150
785	OUT490	4650	285
786	OUT491	4635	150
787	OUT492	4620	285
788	OUT493	4605	150
789	OUT494	4590	285
790	OUT495	4575	150
791	OUT496	4560	285
792	OUT497	4545	150

PAD No.	PAD Name	X	Y
793	OUT498	4530	285
794	OUT499	4515	150
795	OUT500	4500	285
796	OUT501	4485	150
797	OUT502	4470	285
798	OUT503	4455	150
799	OUT504	4440	285
800	OUT505	4425	150
801	OUT506	4410	285
802	OUT507	4395	150
803	OUT508	4380	285
804	OUT509	4365	150
805	OUT510	4350	285
806	OUT511	4335	150
807	OUT512	4320	285
808	OUT513	4305	150
809	OUT514	4290	285
810	OUT515	4275	150
811	OUT516	4260	285
812	OUT517	4245	150
813	OUT518	4230	285
814	OUT519	4215	150
815	OUT520	4200	285
816	OUT521	4185	150
817	OUT522	4170	285
818	OUT523	4155	150
819	OUT524	4140	285
820	OUT525	4125	150
821	OUT526	4110	285
822	OUT527	4095	150
823	OUT528	4080	285
824	OUT529	4065	150
825	OUT530	4050	285
826	OUT531	4035	150
827	OUT532	4020	285
828	OUT533	4005	150
829	OUT534	3990	285
830	OUT535	3975	150
831	OUT536	3960	285
832	OUT537	3945	150
833	OUT538	3930	285
834	OUT539	3915	150
835	OUT540	3900	285
836	OUT541	3885	150
837	OUT542	3870	285
838	OUT543	3855	150
839	OUT544	3840	285
840	OUT545	3825	150
841	OUT546	3810	285
842	OUT547	3795	150
843	OUT548	3780	285
844	OUT549	3765	150
845	OUT550	3750	285

PAD No.	PAD Name	X	Y
846	OUT551	3735	150
847	OUT552	3720	285
848	OUT553	3705	150
849	OUT554	3690	285
850	OUT555	3675	150
851	OUT556	3660	285
852	OUT557	3645	150
853	OUT558	3630	285
854	OUT559	3615	150
855	OUT560	3600	285
856	OUT561	3585	150
857	OUT562	3570	285
858	OUT563	3555	150
859	OUT564	3540	285
860	OUT565	3525	150
861	OUT566	3510	285
862	OUT567	3495	150
863	OUT568	3480	285
864	OUT569	3465	150
865	OUT570	3450	285
866	OUT571	3435	150
867	OUT572	3420	285
868	OUT573	3405	150
869	OUT574	3390	285
870	OUT575	3375	150
871	OUT576	3360	285
872	OUT577	3345	150
873	OUT578	3330	285
874	OUT579	3315	150
875	OUT580	3300	285
876	OUT581	3285	150
877	OUT582	3270	285
878	OUT583	3255	150
879	OUT584	3240	285
880	OUT585	3225	150
881	OUT586	3210	285
882	OUT587	3195	150
883	OUT588	3180	285
884	OUT589	3165	150
885	OUT590	3150	285
886	OUT591	3135	150
887	OUT592	3120	285
888	OUT593	3105	150
889	OUT594	3090	285
890	OUT595	3075	150
891	OUT596	3060	285
892	OUT597	3045	150
893	OUT598	3030	285
894	OUT599	3015	150
895	OUT600	3000	285
896	OUT601	2985	150
897	OUT602	2970	285
898	OUT603	2955	150

PAD No.	PAD Name	X	Y
899	OUT604	2940	285
900	OUT605	2925	150
901	OUT606	2910	285
902	OUT607	2895	150
903	OUT608	2880	285
904	OUT609	2865	150
905	OUT610	2850	285
906	OUT611	2835	150
907	OUT612	2820	285
908	OUT613	2805	150
909	OUT614	2790	285
910	OUT615	2775	150
911	OUT616	2760	285
912	OUT617	2745	150
913	OUT618	2730	285
914	OUT619	2715	150
915	OUT620	2700	285
916	OUT621	2685	150
917	OUT622	2670	285
918	OUT623	2655	150
919	OUT624	2640	285
920	OUT625	2625	150
921	OUT626	2610	285
922	OUT627	2595	150
923	OUT628	2580	285
924	OUT629	2565	150
925	OUT630	2550	285
926	OUT631	2535	150
927	OUT632	2520	285
928	OUT633	2505	150
929	OUT634	2490	285
930	OUT635	2475	150
931	OUT636	2460	285
932	OUT637	2445	150
933	OUT638	2430	285
934	OUT639	2415	150
935	OUT640	2400	285
936	OUT641	2385	150
937	OUT642	2370	285
938	OUT643	2355	150
939	OUT644	2340	285
940	OUT645	2325	150
941	OUT646	2310	285
942	OUT647	2295	150
943	OUT648	2280	285
944	OUT649	2265	150
945	OUT650	2250	285
946	OUT651	2235	150
947	OUT652	2220	285
948	OUT653	2205	150
949	OUT654	2190	285
950	OUT655	2175	150
951	OUT656	2160	285

PAD No.	PAD Name	X	Y
952	OUT657	2145	150
953	OUT658	2130	285
954	OUT659	2115	150
955	OUT660	2100	285
956	OUT661	2085	150
957	OUT662	2070	285
958	OUT663	2055	150
959	OUT664	2040	285
960	OUT665	2025	150
961	OUT666	2010	285
962	OUT667	1995	150
963	OUT668	1980	285
964	OUT669	1965	150
965	OUT670	1950	285
966	OUT671	1935	150
967	OUT672	1920	285
968	OUT673	1905	150
969	OUT674	1890	285
970	OUT675	1875	150
971	OUT676	1860	285
972	OUT677	1845	150
973	OUT678	1830	285
974	OUT679	1815	150
975	OUT680	1800	285
976	OUT681	1785	150
977	OUT682	1770	285
978	OUT683	1755	150
979	OUT684	1740	285
980	OUT685	1725	150
981	OUT686	1710	285
982	OUT687	1695	150
983	OUT688	1680	285
984	OUT689	1665	150
985	OUT690	1650	285
986	OUT691	1635	150
987	OUT692	1620	285
988	OUT693	1605	150
989	OUT694	1590	285
990	OUT695	1575	150
991	OUT696	1560	285
992	OUT697	1545	150
993	OUT698	1530	285
994	OUT699	1515	150
995	OUT700	1500	285
996	OUT701	1485	150
997	OUT702	1470	285
998	OUT703	1455	150
999	OUT704	1440	285
1000	OUT705	1425	150
1001	OUT706	1410	285
1002	OUT707	1395	150
1003	OUT708	1380	285
1004	OUT709	1365	150

PAD No.	PAD Name	X	Y
1005	OUT710	1350	285
1006	OUT711	1335	150
1007	OUT712	1320	285
1008	OUT713	1305	150
1009	OUT714	1290	285
1010	OUT715	1275	150
1011	OUT716	1260	285
1012	OUT717	1245	150
1013	OUT718	1230	285
1014	OUT719	1215	150
1015	OUT720	1200	285
1016	OUT721	1185	150
1017	OUT722	1170	285
1018	OUT723	1155	150
1019	OUT724	1140	285
1020	OUT725	1125	150
1021	OUT726	1110	285
1022	OUT727	1095	150
1023	OUT728	1080	285
1024	OUT729	1065	150
1025	OUT730	1050	285
1026	OUT731	1035	150
1027	OUT732	1020	285
1028	OUT733	1005	150
1029	OUT734	990	285
1030	OUT735	975	150
1031	OUT736	960	285
1032	OUT737	945	150
1033	OUT738	930	285
1034	OUT739	915	150
1035	OUT740	900	285
1036	OUT741	885	150
1037	OUT742	870	285
1038	OUT743	855	150
1039	OUT744	840	285
1040	OUT745	825	150
1041	OUT746	810	285
1042	OUT747	795	150
1043	OUT748	780	285
1044	OUT749	765	150
1045	OUT750	750	285
1046	OUT751	735	150
1047	OUT752	720	285
1048	OUT753	705	150
1049	OUT754	690	285
1050	OUT755	675	150
1051	OUT756	660	285
1052	OUT757	645	150
1053	OUT758	630	285
1054	OUT759	615	150
1055	OUT760	600	285
1056	OUT761	585	150
1057	OUT762	570	285

PAD No.	PAD Name	X	Y
1058	OUT763	555	150
1059	OUT764	540	285
1060	OUT765	525	150
1061	OUT766	510	285
1062	OUT767	495	150
1063	OUT768	480	285
1064	OUT769	465	150
1065	OUT770	450	285
1066	OUT771	435	150
1067	OUT772	420	285
1068	OUT773	405	150
1069	OUT774	390	285
1070	OUT775	375	150
1071	OUT776	360	285
1072	OUT777	345	150
1073	OUT778	330	285
1074	OUT779	315	150
1075	OUT780	300	285
1076	OUT781	285	150
1077	OUT782	270	285
1078	OUT783	255	150
1079	OUT784	240	285
1080	OUT785	225	150
1081	OUT786	210	285
1082	OUT787	195	150
1083	OUT788	180	285
1084	OUT789	165	150
1085	OUT790	150	285
1086	OUT791	135	150
1087	OUT792	120	285
1088	OUT793	105	150
1089	OUT794	90	285
1090	OUT795	75	150
1091	OUT796	60	285
1092	OUT797	45	150
1093	OUT798	30	285
1094	OUT799	15	150
1095	OUT800	0	285
1096	OUT801	-15	150
1097	OUT802	-30	285
1098	OUT803	-45	150
1099	OUT804	-60	285
1100	OUT805	-75	150
1101	OUT806	-90	285
1102	OUT807	-105	150
1103	OUT808	-120	285
1104	OUT809	-135	150
1105	OUT810	-150	285
1106	OUT811	-165	150
1107	OUT812	-180	285
1108	OUT813	-195	150
1109	OUT814	-210	285
1110	OUT815	-225	150

PAD No.	PAD Name	X	Y
1111	OUT816	-240	285
1112	OUT817	-255	150
1113	OUT818	-270	285
1114	OUT819	-285	150
1115	OUT820	-300	285
1116	OUT821	-315	150
1117	OUT822	-330	285
1118	OUT823	-345	150
1119	OUT824	-360	285
1120	OUT825	-375	150
1121	OUT826	-390	285
1122	OUT827	-405	150
1123	OUT828	-420	285
1124	OUT829	-435	150
1125	OUT830	-450	285
1126	OUT831	-465	150
1127	OUT832	-480	285
1128	OUT833	-495	150
1129	OUT834	-510	285
1130	OUT835	-525	150
1131	OUT836	-540	285
1132	OUT837	-555	150
1133	OUT838	-570	285
1134	OUT839	-585	150
1135	OUT840	-600	285
1136	OUT841	-615	150
1137	OUT842	-630	285
1138	OUT843	-645	150
1139	OUT844	-660	285
1140	OUT845	-675	150
1141	OUT846	-690	285
1142	OUT847	-705	150
1143	OUT848	-720	285
1144	OUT849	-735	150
1145	OUT850	-750	285
1146	OUT851	-765	150
1147	OUT852	-780	285
1148	OUT853	-795	150
1149	OUT854	-810	285
1150	OUT855	-825	150
1151	OUT856	-840	285
1152	OUT857	-855	150
1153	OUT858	-870	285
1154	OUT859	-885	150
1155	OUT860	-900	285
1156	OUT861	-915	150
1157	OUT862	-930	285
1158	OUT863	-945	150
1159	OUT864	-960	285
1160	OUT865	-975	150
1161	OUT866	-990	285
1162	OUT867	-1005	150
1163	OUT868	-1020	285

PAD No.	PAD Name	X	Y
1164	OUT869	-1035	150
1165	OUT870	-1050	285
1166	OUT871	-1065	150
1167	OUT872	-1080	285
1168	OUT873	-1095	150
1169	OUT874	-1110	285
1170	OUT875	-1125	150
1171	OUT876	-1140	285
1172	OUT877	-1155	150
1173	OUT878	-1170	285
1174	OUT879	-1185	150
1175	OUT880	-1200	285
1176	OUT881	-1215	150
1177	OUT882	-1230	285
1178	OUT883	-1245	150
1179	OUT884	-1260	285
1180	OUT885	-1275	150
1181	OUT886	-1290	285
1182	OUT887	-1305	150
1183	OUT888	-1320	285
1184	OUT889	-1335	150
1185	OUT890	-1350	285
1186	OUT891	-1365	150
1187	OUT892	-1380	285
1188	OUT893	-1395	150
1189	OUT894	-1410	285
1190	OUT895	-1425	150
1191	OUT896	-1440	285
1192	OUT897	-1455	150
1193	OUT898	-1470	285
1194	OUT899	-1485	150
1195	OUT900	-1500	285
1196	OUT901	-1515	150
1197	OUT902	-1530	285
1198	OUT903	-1545	150
1199	OUT904	-1560	285
1200	OUT905	-1575	150
1201	OUT906	-1590	285
1202	OUT907	-1605	150
1203	OUT908	-1620	285
1204	OUT909	-1635	150
1205	OUT910	-1650	285
1206	OUT911	-1665	150
1207	OUT912	-1680	285
1208	OUT913	-1695	150
1209	OUT914	-1710	285
1210	OUT915	-1725	150
1211	OUT916	-1740	285
1212	OUT917	-1755	150
1213	OUT918	-1770	285
1214	OUT919	-1785	150
1215	OUT920	-1800	285
1216	OUT921	-1815	150

PAD No.	PAD Name	X	Y
1217	OUT922	-1830	285
1218	OUT923	-1845	150
1219	OUT924	-1860	285
1220	OUT925	-1875	150
1221	OUT926	-1890	285
1222	OUT927	-1905	150
1223	OUT928	-1920	285
1224	OUT929	-1935	150
1225	OUT930	-1950	285
1226	OUT931	-1965	150
1227	OUT932	-1980	285
1228	OUT933	-1995	150
1229	OUT934	-2010	285
1230	OUT935	-2025	150
1231	OUT936	-2040	285
1232	OUT937	-2055	150
1233	OUT938	-2070	285
1234	OUT939	-2085	150
1235	OUT940	-2100	285
1236	OUT941	-2115	150
1237	OUT942	-2130	285
1238	OUT943	-2145	150
1239	OUT944	-2160	285
1240	OUT945	-2175	150
1241	OUT946	-2190	285
1242	OUT947	-2205	150
1243	OUT948	-2220	285
1244	OUT949	-2235	150
1245	OUT950	-2250	285
1246	OUT951	-2265	150
1247	OUT952	-2280	285
1248	OUT953	-2295	150
1249	OUT954	-2310	285
1250	OUT955	-2325	150
1251	OUT956	-2340	285
1252	OUT957	-2355	150
1253	OUT958	-2370	285
1254	OUT959	-2385	150
1255	OUT960	-2400	285
1256	OUT961	-2415	150
1257	OUT962	-2430	285
1258	OUT963	-2445	150
1259	OUT964	-2460	285
1260	OUT965	-2475	150
1261	OUT966	-2490	285
1262	OUT967	-2505	150
1263	OUT968	-2520	285
1264	OUT969	-2535	150
1265	OUT970	-2550	285
1266	OUT971	-2565	150
1267	OUT972	-2580	285
1268	OUT973	-2595	150
1269	OUT974	-2610	285

PAD No.	PAD Name	X	Y
1270	OUT975	-2625	150
1271	OUT976	-2640	285
1272	OUT977	-2655	150
1273	OUT978	-2670	285
1274	OUT979	-2685	150
1275	OUT980	-2700	285
1276	OUT981	-2715	150
1277	OUT982	-2730	285
1278	OUT983	-2745	150
1279	OUT984	-2760	285
1280	OUT985	-2775	150
1281	OUT986	-2790	285
1282	OUT987	-2805	150
1283	OUT988	-2820	285
1284	OUT989	-2835	150
1285	OUT990	-2850	285
1286	OUT991	-2865	150
1287	OUT992	-2880	285
1288	OUT993	-2895	150
1289	OUT994	-2910	285
1290	OUT995	-2925	150
1291	OUT996	-2940	285
1292	OUT997	-2955	150
1293	OUT998	-2970	285
1294	OUT999	-2985	150
1295	OUT1000	-3000	285
1296	OUT1001	-3015	150
1297	OUT1002	-3030	285
1298	OUT1003	-3045	150
1299	OUT1004	-3060	285
1300	OUT1005	-3075	150
1301	OUT1006	-3090	285
1302	OUT1007	-3105	150
1303	OUT1008	-3120	285
1304	OUT1009	-3135	150
1305	OUT1010	-3150	285
1306	OUT1011	-3165	150
1307	OUT1012	-3180	285
1308	OUT1013	-3195	150
1309	OUT1014	-3210	285
1310	OUT1015	-3225	150
1311	OUT1016	-3240	285
1312	OUT1017	-3255	150
1313	OUT1018	-3270	285
1314	OUT1019	-3285	150
1315	OUT1020	-3300	285
1316	OUT1021	-3315	150
1317	OUT1022	-3330	285
1318	OUT1023	-3345	150
1319	OUT1024	-3360	285
1320	OUT1025	-3375	150
1321	OUT1026	-3390	285
1322	OUT1027	-3405	150

PAD No.	PAD Name	X	Y
1323	OUT1028	-3420	285
1324	OUT1029	-3435	150
1325	OUT1030	-3450	285
1326	OUT1031	-3465	150
1327	OUT1032	-3480	285
1328	OUT1033	-3495	150
1329	OUT1034	-3510	285
1330	OUT1035	-3525	150
1331	OUT1036	-3540	285
1332	OUT1037	-3555	150
1333	OUT1038	-3570	285
1334	OUT1039	-3585	150
1335	OUT1040	-3600	285
1336	OUT1041	-3615	150
1337	OUT1042	-3630	285
1338	OUT1043	-3645	150
1339	OUT1044	-3660	285
1340	OUT1045	-3675	150
1341	OUT1046	-3690	285
1342	OUT1047	-3705	150
1343	OUT1048	-3720	285
1344	OUT1049	-3735	150
1345	OUT1050	-3750	285
1346	OUT1051	-3765	150
1347	OUT1052	-3780	285
1348	OUT1053	-3795	150
1349	OUT1054	-3810	285
1350	OUT1055	-3825	150
1351	OUT1056	-3840	285
1352	OUT1057	-3855	150
1353	OUT1058	-3870	285
1354	OUT1059	-3885	150
1355	OUT1060	-3900	285
1356	OUT1061	-3915	150
1357	OUT1062	-3930	285
1358	OUT1063	-3945	150
1359	OUT1064	-3960	285
1360	OUT1065	-3975	150
1361	OUT1066	-3990	285
1362	OUT1067	-4005	150
1363	OUT1068	-4020	285
1364	OUT1069	-4035	150
1365	OUT1070	-4050	285
1366	OUT1071	-4065	150
1367	OUT1072	-4080	285
1368	OUT1073	-4095	150
1369	OUT1074	-4110	285
1370	OUT1075	-4125	150
1371	OUT1076	-4140	285
1372	OUT1077	-4155	150
1373	OUT1078	-4170	285
1374	OUT1079	-4185	150
1375	OUT1080	-4200	285

PAD No.	PAD Name	X	Y
1376	OUT1081	-4215	150
1377	OUT1082	-4230	285
1378	OUT1083	-4245	150
1379	OUT1084	-4260	285
1380	OUT1085	-4275	150
1381	OUT1086	-4290	285
1382	OUT1087	-4305	150
1383	OUT1088	-4320	285
1384	OUT1089	-4335	150
1385	OUT1090	-4350	285
1386	OUT1091	-4365	150
1387	OUT1092	-4380	285
1388	OUT1093	-4395	150
1389	OUT1094	-4410	285
1390	OUT1095	-4425	150
1391	OUT1096	-4440	285
1392	OUT1097	-4455	150
1393	OUT1098	-4470	285
1394	OUT1099	-4485	150
1395	OUT1100	-4500	285
1396	OUT1101	-4515	150
1397	OUT1102	-4530	285
1398	OUT1103	-4545	150
1399	OUT1104	-4560	285
1400	OUT1105	-4575	150
1401	OUT1106	-4590	285
1402	OUT1107	-4605	150
1403	OUT1108	-4620	285
1404	OUT1109	-4635	150
1405	OUT1110	-4650	285
1406	OUT1111	-4665	150
1407	OUT1112	-4680	285
1408	OUT1113	-4695	150
1409	OUT1114	-4710	285
1410	OUT1115	-4725	150
1411	OUT1116	-4740	285
1412	OUT1117	-4755	150
1413	OUT1118	-4770	285
1414	OUT1119	-4785	150
1415	OUT1120	-4800	285
1416	OUT1121	-4815	150
1417	OUT1122	-4830	285
1418	OUT1123	-4845	150
1419	OUT1124	-4860	285
1420	OUT1125	-4875	150
1421	OUT1126	-4890	285
1422	OUT1127	-4905	150
1423	OUT1128	-4920	285
1424	OUT1129	-4935	150
1425	OUT1130	-4950	285
1426	OUT1131	-4965	150
1427	OUT1132	-4980	285
1428	OUT1133	-4995	150

PAD No.	PAD Name	X	Y
1429	OUT1134	-5010	285
1430	OUT1135	-5025	150
1431	OUT1136	-5040	285
1432	OUT1137	-5055	150
1433	OUT1138	-5070	285
1434	OUT1139	-5085	150
1435	OUT1140	-5100	285
1436	OUT1141	-5115	150
1437	OUT1142	-5130	285
1438	OUT1143	-5145	150
1439	OUT1144	-5160	285
1440	OUT1145	-5175	150
1441	OUT1146	-5190	285
1442	OUT1147	-5205	150
1443	OUT1148	-5220	285
1444	OUT1149	-5235	150
1445	OUT1150	-5250	285
1446	OUT1151	-5265	150
1447	OUT1152	-5280	285
1448	OUT1153	-5295	150
1449	OUT1154	-5310	285
1450	OUT1155	-5325	150
1451	OUT1156	-5340	285
1452	OUT1157	-5355	150
1453	OUT1158	-5370	285
1454	OUT1159	-5385	150
1455	OUT1160	-5400	285
1456	OUT1161	-5415	150
1457	OUT1162	-5430	285
1458	OUT1163	-5445	150
1459	OUT1164	-5460	285
1460	OUT1165	-5475	150
1461	OUT1166	-5490	285
1462	OUT1167	-5505	150
1463	OUT1168	-5520	285
1464	OUT1169	-5535	150
1465	OUT1170	-5550	285
1466	OUT1171	-5565	150
1467	OUT1172	-5580	285
1468	OUT1173	-5595	150
1469	OUT1174	-5610	285
1470	OUT1175	-5625	150
1471	OUT1176	-5640	285
1472	OUT1177	-5655	150
1473	OUT1178	-5670	285
1474	OUT1179	-5685	150
1475	OUT1180	-5700	285
1476	OUT1181	-5715	150
1477	OUT1182	-5730	285
1478	OUT1183	-5745	150
1479	OUT1184	-5760	285
1480	OUT1185	-5775	150
1481	OUT1186	-5790	285

PAD No.	PAD Name	X	Y
1482	OUT1187	-5805	150
1483	OUT1188	-5820	285
1484	OUT1189	-5835	150
1485	OUT1190	-5850	285
1486	OUT1191	-5865	150
1487	OUT1192	-5880	285
1488	OUT1193	-5895	150
1489	OUT1194	-5910	285
1490	OUT1195	-5925	150
1491	OUT1196	-5940	285
1492	OUT1197	-5955	150
1493	OUT1198	-5970	285
1494	OUT1199	-5985	150
1495	OUT1200	-6000	285
1496	OUT1201	-6015	150
1497	OUT1202	-6030	285
1498	OUT1203	-6045	150
1499	OUT1204	-6060	285
1500	OUT1205	-6075	150
1501	OUT1206	-6090	285
1502	OUT1207	-6105	150
1503	OUT1208	-6120	285
1504	OUT1209	-6135	150
1505	OUT1210	-6150	285
1506	OUT1211	-6165	150
1507	OUT1212	-6180	285
1508	OUT1213	-6195	150
1509	OUT1214	-6210	285
1510	OUT1215	-6225	150
1511	OUT1216	-6240	285
1512	OUT1217	-6255	150
1513	OUT1218	-6270	285
1514	OUT1219	-6285	150
1515	OUT1220	-6300	285
1516	OUT1221	-6315	150
1517	OUT1222	-6330	285
1518	OUT1223	-6345	150
1519	OUT1224	-6360	285
1520	OUT1225	-6375	150
1521	OUT1226	-6390	285
1522	OUT1227	-6405	150
1523	OUT1228	-6420	285
1524	OUT1229	-6435	150
1525	OUT1230	-6450	285
1526	OUT1231	-6465	150
1527	OUT1232	-6480	285
1528	OUT1233	-6495	150
1529	OUT1234	-6510	285
1530	OUT1235	-6525	150
1531	OUT1236	-6540	285
1532	OUT1237	-6555	150
1533	OUT1238	-6570	285
1534	OUT1239	-6585	150

PAD No.	PAD Name	X	Y
1535	OUT1240	-6600	285
1536	OUT1241	-6615	150
1537	OUT1242	-6630	285
1538	OUT1243	-6645	150
1539	OUT1244	-6660	285
1540	OUT1245	-6675	150
1541	OUT1246	-6690	285
1542	OUT1247	-6705	150
1543	OUT1248	-6720	285
1544	OUT1249	-6735	150
1545	OUT1250	-6750	285
1546	OUT1251	-6765	150
1547	OUT1252	-6780	285
1548	OUT1253	-6795	150
1549	OUT1254	-6810	285
1550	OUT1255	-6825	150
1551	OUT1256	-6840	285
1552	OUT1257	-6855	150
1553	OUT1258	-6870	285
1554	OUT1259	-6885	150
1555	OUT1260	-6900	285
1556	OUT1261	-6915	150
1557	OUT1262	-6930	285
1558	OUT1263	-6945	150
1559	OUT1264	-6960	285
1560	OUT1265	-6975	150
1561	OUT1266	-6990	285
1562	OUT1267	-7005	150
1563	OUT1268	-7020	285
1564	OUT1269	-7035	150
1565	OUT1270	-7050	285
1566	OUT1271	-7065	150
1567	OUT1272	-7080	285
1568	OUT1273	-7095	150
1569	OUT1274	-7110	285
1570	OUT1275	-7125	150
1571	OUT1276	-7140	285
1572	OUT1277	-7155	150
1573	OUT1278	-7170	285
1574	OUT1279	-7185	150
1575	OUT1280	-7200	285
1576	OUT1281	-7215	150
1577	OUT1282	-7230	285
1578	OUT1283	-7245	150
1579	OUT1284	-7260	285
1580	OUT1285	-7275	150
1581	OUT1286	-7290	285
1582	OUT1287	-7305	150
1583	OUT1288	-7320	285
1584	OUT1289	-7335	150
1585	OUT1290	-7350	285
1586	OUT1291	-7365	150
1587	OUT1292	-7380	285

PAD No.	PAD Name	X	Y
1588	OUT1293	-7395	150
1589	OUT1294	-7410	285
1590	OUT1295	-7425	150
1591	OUT1296	-7440	285
1592	OUT1297	-7455	150
1593	OUT1298	-7470	285
1594	OUT1299	-7485	150
1595	OUT1300	-7500	285
1596	OUT1301	-7515	150
1597	OUT1302	-7530	285
1598	OUT1303	-7545	150
1599	OUT1304	-7560	285
1600	OUT1305	-7575	150
1601	OUT1306	-7590	285
1602	OUT1307	-7605	150
1603	OUT1308	-7620	285
1604	OUT1309	-7635	150
1605	OUT1310	-7650	285
1606	OUT1311	-7665	150
1607	OUT1312	-7680	285
1608	OUT1313	-7695	150
1609	OUT1314	-7710	285
1610	OUT1315	-7725	150
1611	OUT1316	-7740	285
1612	OUT1317	-7755	150
1613	OUT1318	-7770	285
1614	OUT1319	-7785	150
1615	OUT1320	-7800	285
1616	OUT1321	-7815	150
1617	OUT1322	-7830	285
1618	OUT1323	-7845	150
1619	OUT1324	-7860	285
1620	OUT1325	-7875	150
1621	OUT1326	-7890	285
1622	OUT1327	-7905	150
1623	OUT1328	-7920	285
1624	OUT1329	-7935	150
1625	OUT1330	-7950	285
1626	OUT1331	-7965	150
1627	OUT1332	-7980	285
1628	OUT1333	-7995	150
1629	OUT1334	-8010	285
1630	OUT1335	-8025	150
1631	OUT1336	-8040	285
1632	OUT1337	-8055	150
1633	OUT1338	-8070	285
1634	OUT1339	-8085	150
1635	OUT1340	-8100	285
1636	OUT1341	-8115	150
1637	OUT1342	-8130	285
1638	OUT1343	-8145	150
1639	OUT1344	-8160	285
1640	OUT1345	-8175	150

PAD No.	PAD Name	X	Y
1641	OUT1346	-8190	285
1642	OUT1347	-8205	150
1643	OUT1348	-8220	285
1644	OUT1349	-8235	150
1645	OUT1350	-8250	285
1646	OUT1351	-8265	150
1647	OUT1352	-8280	285
1648	OUT1353	-8295	150
1649	OUT1354	-8310	285
1650	OUT1355	-8325	150
1651	OUT1356	-8340	285
1652	OUT1357	-8355	150
1653	OUT1358	-8370	285
1654	OUT1359	-8385	150
1655	OUT1360	-8400	285
1656	OUT1361	-8415	150
1657	OUT1362	-8430	285
1658	OUT1363	-8445	150
1659	OUT1364	-8460	285
1660	OUT1365	-8475	150
1661	OUT1366	-8490	285
1662	OUT1367	-8505	150
1663	OUT1368	-8520	285
1664	OUT1369	-8535	150
1665	OUT1370	-8550	285
1666	OUT1371	-8565	150
1667	OUT1372	-8580	285
1668	OUT1373	-8595	150
1669	OUT1374	-8610	285
1670	OUT1375	-8625	150
1671	OUT1376	-8640	285
1672	OUT1377	-8655	150
1673	OUT1378	-8670	285
1674	OUT1379	-8685	150
1675	OUT1380	-8700	285
1676	OUT1381	-8715	150
1677	OUT1382	-8730	285
1678	OUT1383	-8745	150
1679	OUT1384	-8760	285
1680	OUT1385	-8775	150
1681	OUT1386	-8790	285
1682	OUT1387	-8805	150
1683	OUT1388	-8820	285
1684	OUT1389	-8835	150
1685	OUT1390	-8850	285
1686	OUT1391	-8865	150
1687	OUT1392	-8880	285
1688	OUT1393	-8895	150
1689	OUT1394	-8910	285
1690	OUT1395	-8925	150
1691	OUT1396	-8940	285
1692	OUT1397	-8955	150
1693	OUT1398	-8970	285

PAD No.	PAD Name	X	Y
1694	OUT1399	-8985	150
1695	OUT1400	-9000	285
1696	OUT1401	-9015	150
1697	OUT1402	-9030	285
1698	OUT1403	-9045	150
1699	OUT1404	-9060	285
1700	OUT1405	-9075	150
1701	OUT1406	-9090	285
1702	OUT1407	-9105	150
1703	OUT1408	-9120	285
1704	OUT1409	-9135	150
1705	OUT1410	-9150	285
1706	OUT1411	-9165	150
1707	OUT1412	-9180	285
1708	OUT1413	-9195	150
1709	OUT1414	-9210	285
1710	OUT1415	-9225	150
1711	OUT1416	-9240	285
1712	OUT1417	-9255	150
1713	OUT1418	-9270	285
1714	OUT1419	-9285	150
1715	OUT1420	-9300	285
1716	OUT1421	-9315	150
1717	OUT1422	-9330	285
1718	OUT1423	-9345	150
1719	OUT1424	-9360	285
1720	OUT1425	-9375	150
1721	OUT1426	-9390	285
1722	OUT1427	-9405	150
1723	OUT1428	-9420	285
1724	OUT1429	-9435	150
1725	OUT1430	-9450	285
1726	OUT1431	-9465	150
1727	OUT1432	-9480	285
1728	OUT1433	-9495	150
1729	OUT1434	-9510	285
1730	OUT1435	-9525	150
1731	OUT1436	-9540	285
1732	OUT1437	-9555	150
1733	OUT1438	-9570	285
1734	OUT1439	-9585	150
1735	OUT1440	-9600	285
1736	OUT1441	-9615	150
1737	OUT1442	-9630	285
1738	OUT1443	-9645	150
1739	OUT1444	-9660	285
1740	OUT1445	-9675	150
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1742	OUT1447	-9705	150
1743	OUT1448	-9720	285
1744	OUT1449	-9735	150
1745	OUT1450	-9750	285
1746	OUT1451	-9765	150

PAD No.	PAD Name	X	Y
1747	OUT1452	-9780	285
1748	OUT1453	-9795	150
1749	OUT1454	-9810	285
1750	OUT1455	-9825	150
1751	OUT1456	-9840	285
1752	OUT1457	-9855	150
1753	OUT1458	-9870	285
1754	OUT1459	-9885	150
1755	OUT1460	-9900	285
1756	OUT1461	-9915	150
1757	OUT1462	-9930	285
1758	OUT1463	-9945	150
1759	OUT1464	-9960	285
1760	OUT1465	-9975	150
1761	OUT1466	-9990	285
1762	OUT1467	-10005	150
1763	OUT1468	-10020	285
1764	OUT1469	-10035	150
1765	OUT1470	-10050	285
1766	OUT1471	-10065	150
1767	OUT1472	-10080	285
1768	OUT1473	-10095	150
1769	OUT1474	-10110	285
1770	OUT1475	-10125	150
1771	OUT1476	-10140	285
1772	OUT1477	-10155	150
1773	OUT1478	-10170	285
1774	OUT1479	-10185	150
1775	OUT1480	-10200	285
1776	OUT1481	-10215	150
1777	OUT1482	-10230	285
1778	OUT1483	-10245	150
1779	OUT1484	-10260	285
1780	OUT1485	-10275	150
1781	OUT1486	-10290	285
1782	OUT1487	-10305	150
1783	OUT1488	-10320	285
1784	OUT1489	-10335	150
1785	OUT1490	-10350	285
1786	OUT1491	-10365	150
1787	OUT1492	-10380	285
1788	OUT1493	-10395	150
1789	OUT1494	-10410	285
1790	OUT1495	-10425	150
1791	OUT1496	-10440	285
1792	OUT1497	-10455	150
1793	OUT1498	-10470	285
1794	OUT1499	-10485	150
1795	OUT1500	-10500	285
1796	OUT1501	-10515	150
1797	OUT1502	-10530	285
1798	OUT1503	-10545	150

PAD No.	PAD Name	X	Y
1799	OUT1504	-10560	285
1800	OUT1505	-10575	150
1801	OUT1506	-10590	285
1802	OUT1507	-10605	150
1803	OUT1508	-10620	285
1804	OUT1509	-10635	150
1805	OUT1510	-10650	285
1806	OUT1511	-10665	150
1807	OUT1512	-10680	285
1808	OUT1513	-10695	150
1809	OUT1514	-10710	285
1810	OUT1515	-10725	150
1811	OUT1516	-10740	285
1812	OUT1517	-10755	150
1813	OUT1518	-10770	285
1814	OUT1519	-10785	150
1815	OUT1520	-10800	285
1816	OUT1521	-10815	150
1817	OUT1522	-10830	285
1818	OUT1523	-10845	150
1819	OUT1524	-10860	285
1820	OUT1525	-10875	150
1821	OUT1526	-10890	285
1822	OUT1527	-10905	150
1823	OUT1528	-10920	285
1824	OUT1529	-10935	150
1825	OUT1530	-10950	285
1826	OUT1531	-10965	150
1827	OUT1532	-10980	285
1828	OUT1533	-10995	150
1829	OUT1534	-11010	285
1830	OUT1535	-11025	150
1831	OUT1536	-11040	285
1832	OUT1537	-11055	150
1833	OUT1538	-11070	285
1834	OUT1539	-11085	150
1835	OUT1540	-11100	285
1836	OUT1541	-11115	150
1837	OUT1542	-11130	285
1838	OUT1543	-11145	150
1839	OUT1544	-11160	285
1840	OUT1545	-11175	150
1841	OUT1546	-11190	285
1842	OUT1547	-11205	150
1843	OUT1548	-11220	285
1844	OUT1549	-11235	150
1845	OUT1550	-11250	285
1846	OUT1551	-11265	150
1847	OUT1552	-11280	285
1848	OUT1553	-11295	150
1849	OUT1554	-11310	285
1850	OUT1555	-11325	150

PAD No.	PAD Name	X	Y
1851	OUT1556	-11340	285
1852	OUT1557	-11355	150
1853	OUT1558	-11370	285
1854	OUT1559	-11385	150
1855	OUT1560	-11400	285
1856	OUT1561	-11415	150
1857	OUT1562	-11430	285
1858	OUT1563	-11445	150
1859	OUT1564	-11460	285
1860	OUT1565	-11475	150
1861	OUT1566	-11490	285
1862	OUT1567	-11505	150
1863	OUT1568	-11520	285
1864	OUT1569	-11535	150
1865	OUT1570	-11550	285
1866	OUT1571	-11565	150
1867	OUT1572	-11580	285
1868	OUT1573	-11595	150
1869	OUT1574	-11610	285
1870	OUT1575	-11625	150
1871	OUT1576	-11640	285
1872	OUT1577	-11655	150
1873	OUT1578	-11670	285
1874	OUT1579	-11685	150
1875	OUT1580	-11700	285
1876	OUT1581	-11715	150
1877	OUT1582	-11730	285
1878	OUT1583	-11745	150
1879	OUT1584	-11760	285
1880	OUT1585	-11775	150
1881	OUT1586	-11790	285
1882	OUT1587	-11805	150
1883	OUT1588	-11820	285
1884	OUT1589	-11835	150
1885	OUT1590	-11850	285
1886	OUT1591	-11865	150
1887	OUT1592	-11880	285
1888	OUT1593	-11895	150
1889	OUT1594	-11910	285
1890	OUT1595	-11925	150
1891	OUT1596	-11940	285
1892	OUT1597	-11955	150
1893	OUT1598	-11970	285
1894	OUT1599	-11985	150
1895	OUT1600	-12000	285
1896	OUT1601	-12015	150
1897	DUM1	-12030	285

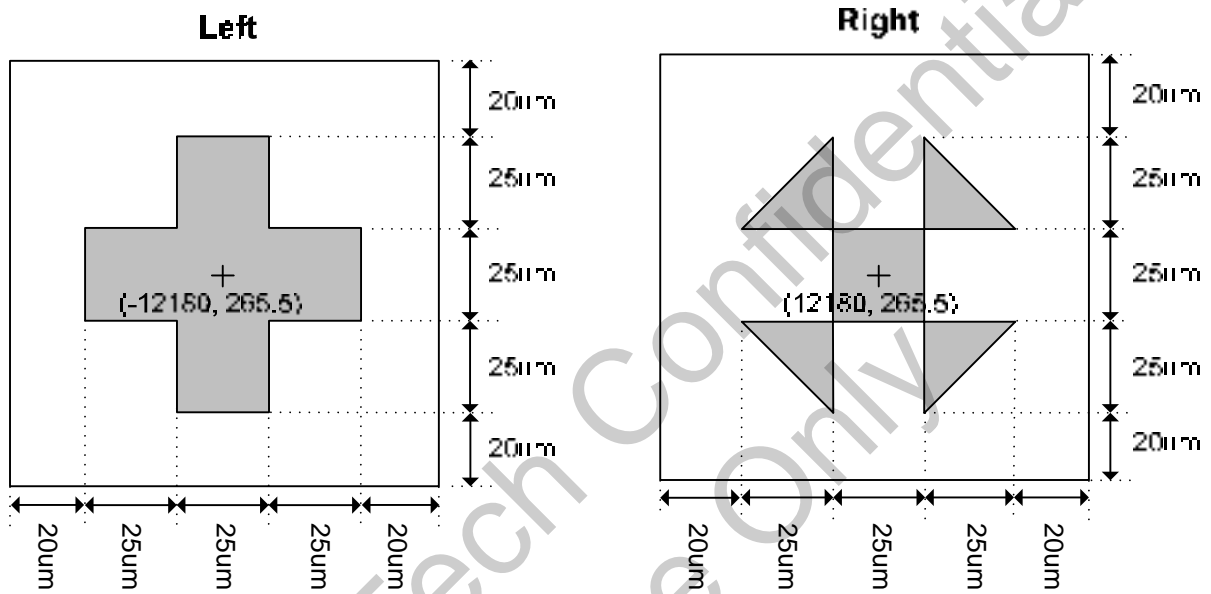
9.4. Alignment Mark

--Alignment Mark coordinate

Left (-12180, 265.5)

Right (12180, 265.5)

--Alignment Mark size



10. DISCLAIMER

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11. REVISION HISTORY

Date	Revision #	Description	Page	Auditor
JUNE 12, 2012	0.2	1.Modify Pin assignment	8	Hung-Jen Chien
		2.Modify Gate pulse modulation falling slew rate function	10	
		3.Modify Power on/off sequence	12	
		4.Modify Electrical Characteristics	13	
		5.Modify AC Characteristics	14	
		6.Modify Timing Waveform	15	
		7.Modify chip thickness	16	
MAY. 07, 2012	0.1	Original	30	Hung-Jen Chien

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