

ILITek Sensor Test Tool

User Manual

Version: V2.4.0.64

Release Date: Jul. 26 ,2014

ILI TECHNOLOGY CORP.

10F, No.1, Taiyuan 2nd St., Zhubei City,
Hsinchu County 302, Taiwan
Tel.886-3-5600099; Fax.886-3-5600585

<http://www.ilitek.com/>

Document Revision History

Version	Date	Author	Description
1.00	2012/4/01	Kevin Chang	First Release Version
1.01	2012/04/03	Kevin Chang	Modified for Sensor Test V2.0.0.5
1.02	2012/04/25	Kevin Chang	Modified for Sensor Test V2.0.0.6
1.03	2012/08/15	Jay Lee	Modified for Sensor Test V2.0.2.X
2.2.0	2013/5/24	Jay Lee	Modified for Sensor Test V2.2.0.x
2.2.5	2013/6/25	Jay Lee	Modified for Sensor Test V2.2.5.x
2.3.0	2013/7/10	Jay Lee	Modified for Sensor Test V2.3.0.x
2.3.6	2013/7/23	Jay Lee	Modified for Sensor Test V2.3.6.x
2.3.0.10	2013/8/23	Jay Lee	Modified for Sensor Test V2.3.0.10
2.3.0.13	2013/10/31	Jay Lee	Modified for Sensor Test V2.3.0.13
2.3.0.15	2013/11/08	Kevin Chang	Added Log Statistics
2.4.0.11	2014/04/11	Kevin Chang	Added Log File Naming Rule Function
2.4.0.15	2014/06/03	Kevin Chang	Added Chase Line Drawing Test
2.4.0.17	2014/06/17	Kevin Chang	Modified for Sensor Test V2.4.0.17
2.4.0.50	2015/05/22	Kevin Chang	Modified for Sensor Test V2.4.0.50
2.4.0.51	2015/05/25	Kevin Chang	Added Microshort description
2.4.0.64	2016/07/26	Kevin Chang	Modified for Sensor Test V2.4.0.65

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Table of Contents

Document Revision History	2
Table of Contents	3
List of Figures	5
List of Tables	7
1 Description	8
1.1 System Requirements	8
1.2 ILITek Bridge (I ² C to USB)	9
1.3 Main UI Description	10
2 Engineering mode	13
2.1 Entering the engineering mode	13
2.2 Project_Information	15
2.3 Setting	16
2.4 Firmware_Information	17
2.5 System_Check	18
2.6 Uniformity_Test	19
2.6.1 ILI 2301 CDC series IC	19
2.6.2 ILI 2115 / 2116 CDC series IC	20
2.6.3 ILI 2117 / 2210 CDC series IC	21
2.6.4 ILI 2315 / 2510 CDC series IC	22
2.7 Drawing_Test	23
2.8 CDC : The benchmark data of "Uniformity_Test"	41
2.9 CDC : Uniformity_Test test specification modified	42
2.10 LogFile & Barcode	43
2.11 Save / Exit	45
3 Operator mode	46
3.1 Read test profiles	46
3.2 Start the testing	47
3.3 Test Result	51
4 Test log file description	52
4.1 Test log file path	52
4.2 Legal Notices	53
4.3 Test Setup	54

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

4.4	Test Items	55
4.5	The message of test item response	59
4.6	The test time	60
5	Log file analysis tool	61
5.1	All Node analysis	62
6	Log file statistics	63
6.1	Folder selection and start statistics	64
6.2	Every Node Statistics	66
6.3	Summary Statistics	68

List of Figures

Figure 1-1: System Drawing with USB interface	8
Figure 1-2: System Drawing with I ² C interface	8
Figure 1-3: ILITek Bridge	9
Figure 1-4: Legal Notices	10
Figure 1-5: Testing UI	11
Figure 1-6: The UI of log file analysis.....	12
Figure 2-1: Entering the engineering mode	13
Figure 2-2: The UI of testing condition setting	14
Figure 2-3: Project Information	15
Figure 2-4: Interface and Condition Setting	16
Figure 2-5: Firmware Information	17
Figure 2-6: Systeme Check.....	18
Figure 2-7: ILI 2301 CDC series IC Uniformity Test	19
Figure 2-7: ILI 2115 / 2116 CDC series IC Uniformity Test	20
Figure 2-7: ILI 2117 / 2210 CDC series IC Uniformity Test	21
Figure 2-7: ILI 2315 / 2510 CDC series IC Uniformity Test	22
Figure 2-10: Drawing Test	23
Figure 2-11: Inverse Button Left/Right	24
Figure 2-12: Inverse Position Left/Right	24
Figure 2-13: Inverse Position Top/Bottom.....	25
Figure 2-14: Full Screen Disabled / Enabled	25
Figure 2-15: 10 Fingers Test	40
Figure 2-16: Free Style Drawing.....	40
Figure 2-18: CDC	41
Figure 2-19: Inverse Position Left/Right	41
Figure 2-20: Inverse Position Top/Bottom.....	41
Figure 2-21: CDC test specification modified	42
Figure 2-22: LogFile & Barcode.....	43
Figure 2-23: Save / Exit	45
Figure 3-1: Read test profiles.....	46
Figure 3-2: The Testing Condition.....	46
Figure 3-3: Testing UI	47
Figure 3-4: Single-Point Box Drawing Test	48
Figure 3-5: Dual-Points Box Drawing Test.....	48
Figure 3-6: Chase Line Drawing Test	48
Figure 3-7: Single Point Line Drawing Test.....	49

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Figure 3-8: Dual Points Line Drawing Test	49
Figure 3-9: 10 Fingers Test	49
Figure 3-10: Free Style Drawing.....	50
Figure 3-14: Pass.....	51
Figure 3-15: NG.....	51
Figure 4-1: Test log file path	52
Figure 4-2: Test log file.....	52
Figure 4-3: NG.....	59
Figure 4-4: Error Code Description (depended on IC)	59
Figure 4-5: Node Data Summary (depended on IC)	59
Figure 4-6: Failed Nodes Data Summary (depended on IC)	59
Figure 4-7: The detail message of NG.....	59
Figure 5-1: Log file analysis tool	61
Figure 5-2: Log file analysis tool	61
Figure 5-3: All Node analysis of Fig.....	62
Figure 5-4: Analysis of the chart operating schematic	62
Figure 6-1: Log Statistics Chart	63
Figure 6-2: Folder selection	64
Figure 6-3: Select a folder you want statistics	64
Figure 6-4: Statistics Finished	65
Figure 6-5: Show all node result	66
Figure 6-6: Data Selection	66
Figure 6-7: Click show the value distribution	67
Figure 6-8: Summary Statistics	68

List of Tables

Table 1-1: Detailed explanations of Legal Notices UI	10
Table 1-2: Detailed explanations of Testing UI	11
Table 1-3: Detailed explanations of Log File Analysis	12
Table 2-1: Detailed explanations of Project Information	15
Table 2-2: Detailed explanations of Setting	16
Table 2-3: Detailed explanations of Firmware Information	17
Table 2-4: Detailed explanations of System Check	18
Table 2-5: Detailed explanations of ILI 2301 CDC series IC Uniformity Test	19
Table 2-5: Detailed explanations of ILI 2115 / 2116 CDC series IC Uniformity Test	20
Table 2-5: Detailed explanations of ILI 2117 / 2210 CDC series IC Uniformity Test	21
Table 2-5: Detailed explanations of ILI 2315 / 2510 CDC series IC Uniformity Test	22
Table 2-8: Detailed explanations of Sensor Coordinate	23
Table 2-9: Detailed explanations of Single-Point Box Drawing Test	26
Table 2-10: Single-Point Box Drawing Test supports user defined "Offset"	28
Table 2-11: Detailed explanations of Dual-Points Box Drawing Test	29
Table 2-12: Dual-Point Box Drawing Test supports user defined "Offset" and "Distance"	30
Table 2-13: Detailed explanations of Single Point Line Drawing Test	31
Table 2-14: Single-Point Line Drawing Test supports user defined "Offset"	32
Table 2-15: Detailed explanations of Chase Line Drawing Test	33
Table 2-16: Detailed explanations of Dual Point Line Drawing Test	35
Table 2-17: Dual-Point Line Drawing Test supports user defined "Offset" and "Distance"	38
Table 2-19: Detailed explanations of CDC	41
Table 2-20: Detailed explanations of LogFile & Barcode	43
Table 2-21: Detailed explanations of Save / Exit	45
Table 4-1: Detailed explanations of Legal Notices	53
Table 4-2: Detailed explanations of Test Setup	54
Table 4-3: Detailed explanations of test items 1	55
Table 4-4: Detailed explanations of test items 2	55
Table 4-5: Detailed explanations of test items 3	56
Table 4-6: Detailed explanations of test items 4	56
Table 4-7: Detailed explanations of test items 5	57
Table 4-8: Detailed explanations of test items 6	58
Table 4-9: Detailed explanations of Test Time	60
Table 5-1: Detailed explanations of All Node analysis	62
Table 6-1: Detailed explanations of folder selection UI	64
Table 6-2: Detailed explanations summary type	68

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

1 Description

ILITek Sensor Test Software supports USB and I²C interface (required ILITek Bridge). This software is used to assist the capacitive touch panel factory production test which used the ILITek capacitive touch solution.

1.1 System Requirements

- The ILITek capacitive touch-related products.
- RAM at least 2G for WinXP
- RAM at least 4G for Win7 or Win8
- The operating system of Windows XP or above grade.

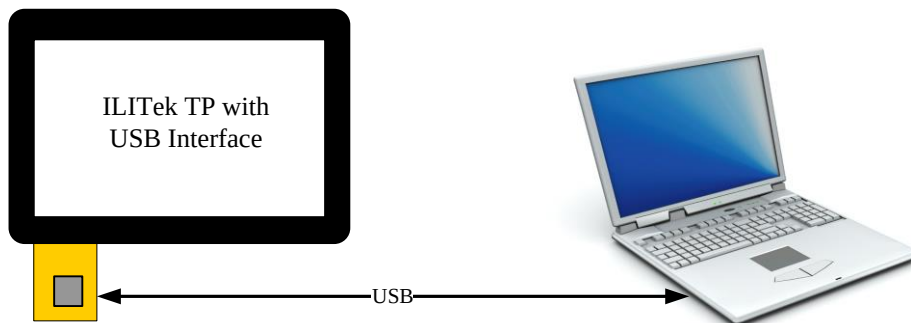


Figure 1-1: System Drawing with USB interface.

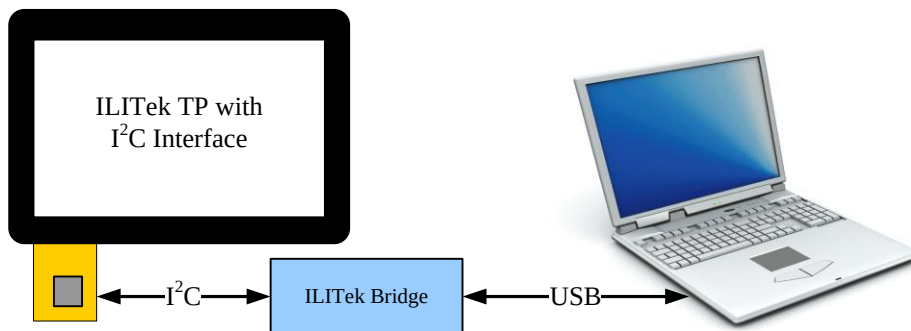


Figure 1-2: System Drawing with I²C interface.

1.2 ILITek Bridge (I²C to USB)

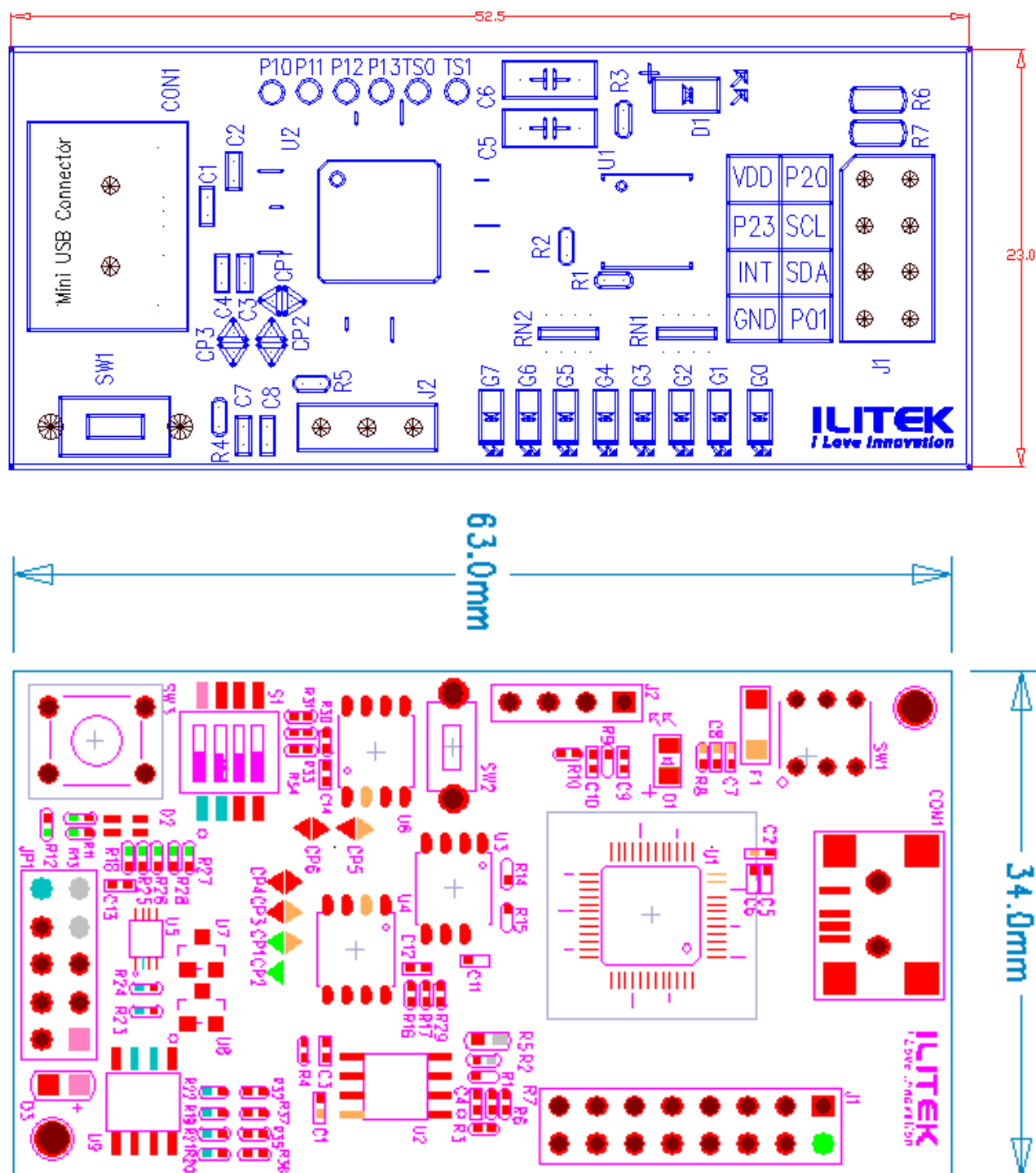


Figure 1-3: ILITek Bridge

- FR4 PCB

1.3 Main UI Description

- Legal Notices

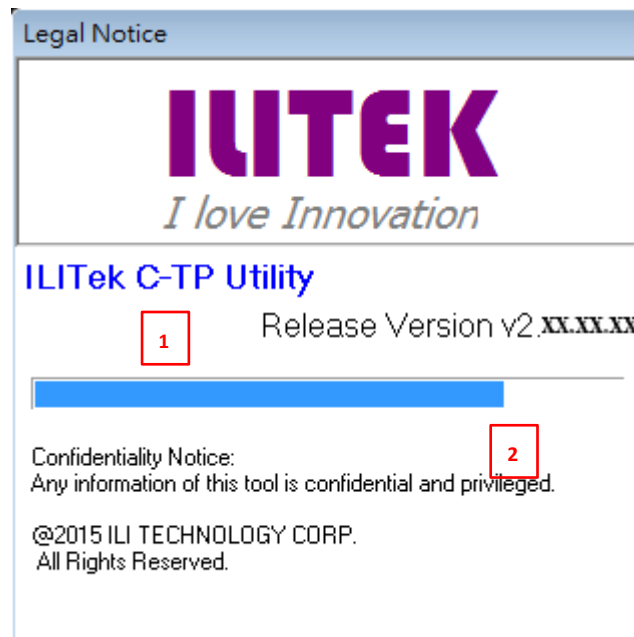


Figure 1-4: Legal Notices

Table 1-1: Detailed explanations of Legal Notices UI

Item	Name	Description
1	Release Version	Software release version
2	Legal Notice	Any information of this tool is confidential and privileged. Do not spread any.

● Testing UI

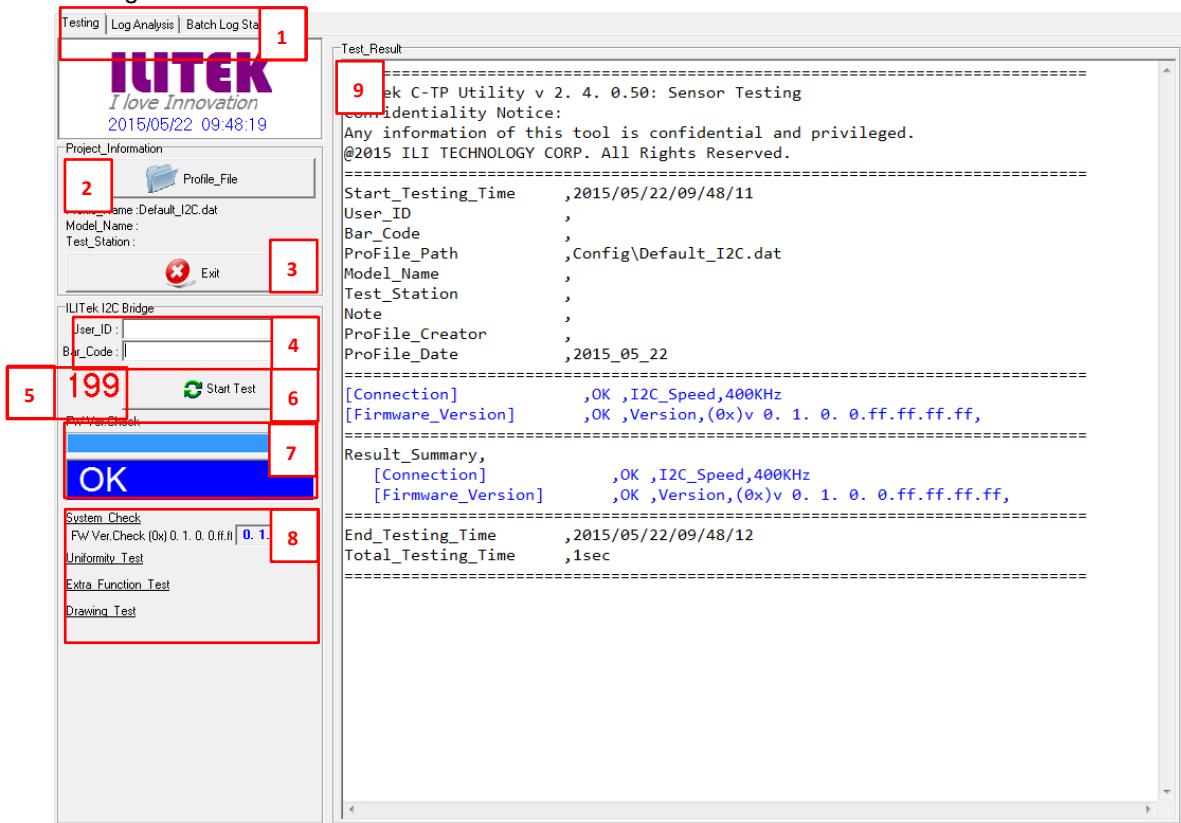


Figure 1-5: Testing UI

Table 1-2: Detailed explanations of Testing UI

Item	Name	Description
1	Testing / Log / Batch	Select “Testing” for testing , select “Log” for log file analysis or select “Batch” for log file statistics
2	Profile_File	Select or modify the test profile
3	Exit	Close AP
4	User_ID / Bar_Code	Set the identification number of the operator / panel barcode
5	Count Down Timer	Test countdown timer
6	Start Test	To begin testing
7	Progress Bar / Result	Test progress bar show the test result
8	Test Items	Shown the test item
9	Test Information	Displays the test information

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

- The UI of log file analysis

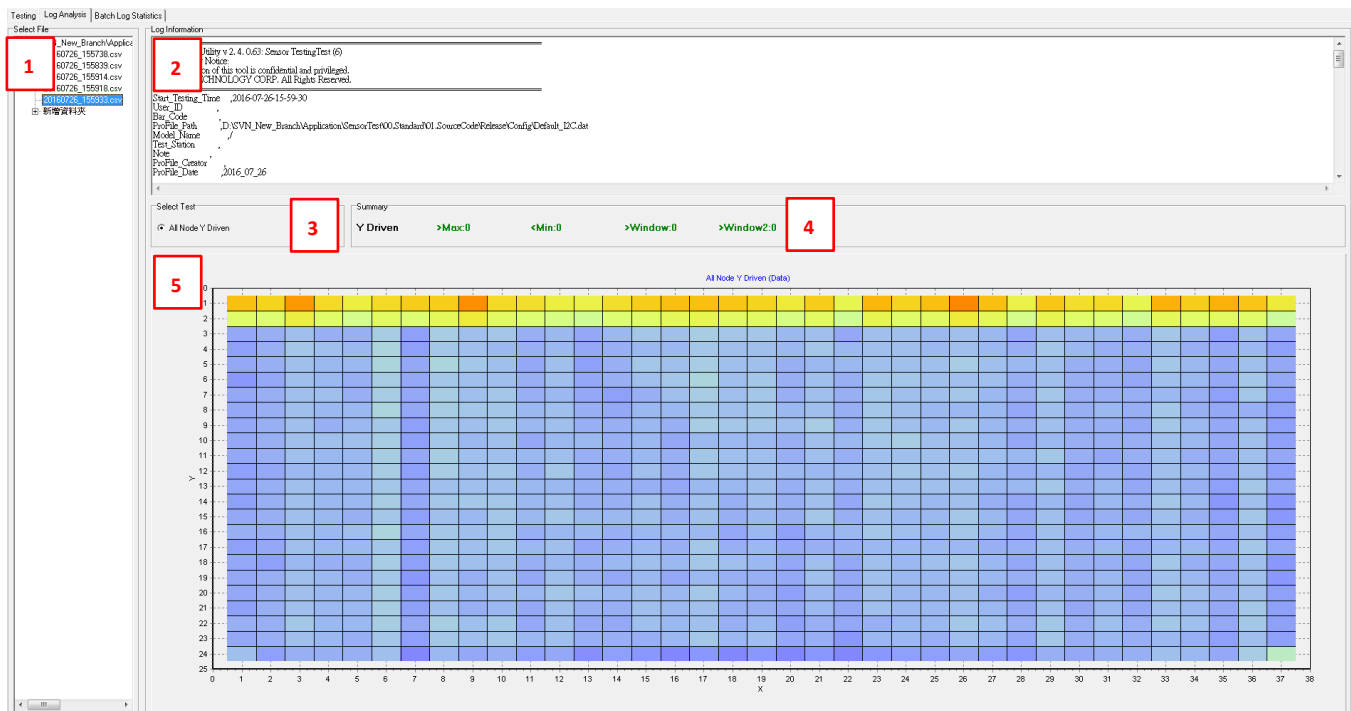


Figure 1-6: The UI of log file analysis

Table 1-3: Detailed explanations of Log File Analysis

Item	Name	Description
1	Select File	Select the log file for analysis
2	Log Information	Display the log file contents
3	Select Test	For the analysis of test items, selected items will be rendered to chart below
4	Status	Failed Nodes Summary
5	Analytical Diagram	Analysis chart

2 Engineering mode

2.1 Entering the engineering mode

Engineers can type in the input grid in User_ID "ILITek ", such as Figure 2 1, before entering the engineering mode of the test profile creation and modification.

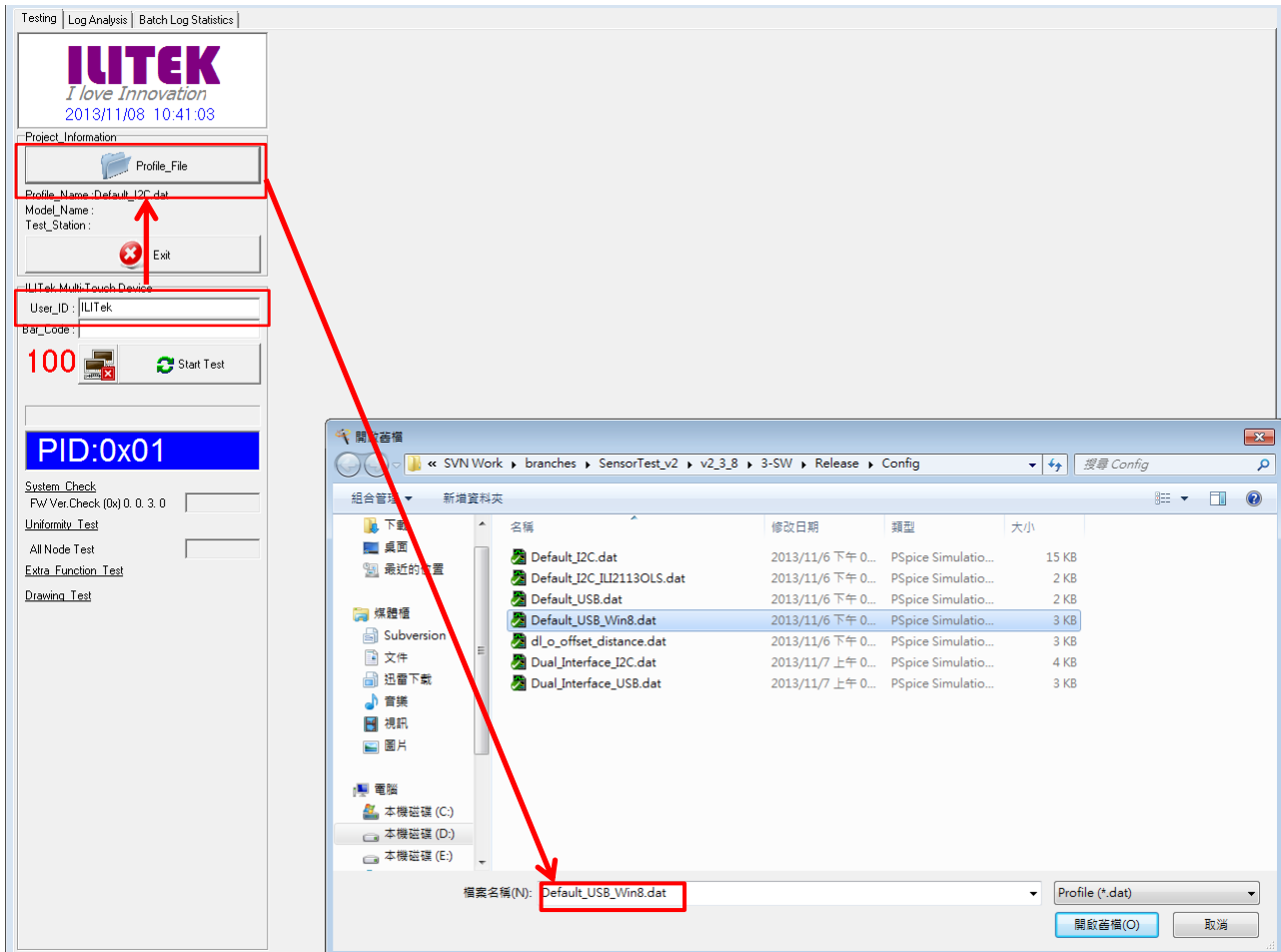


Figure 2-1: Entering the engineering mode

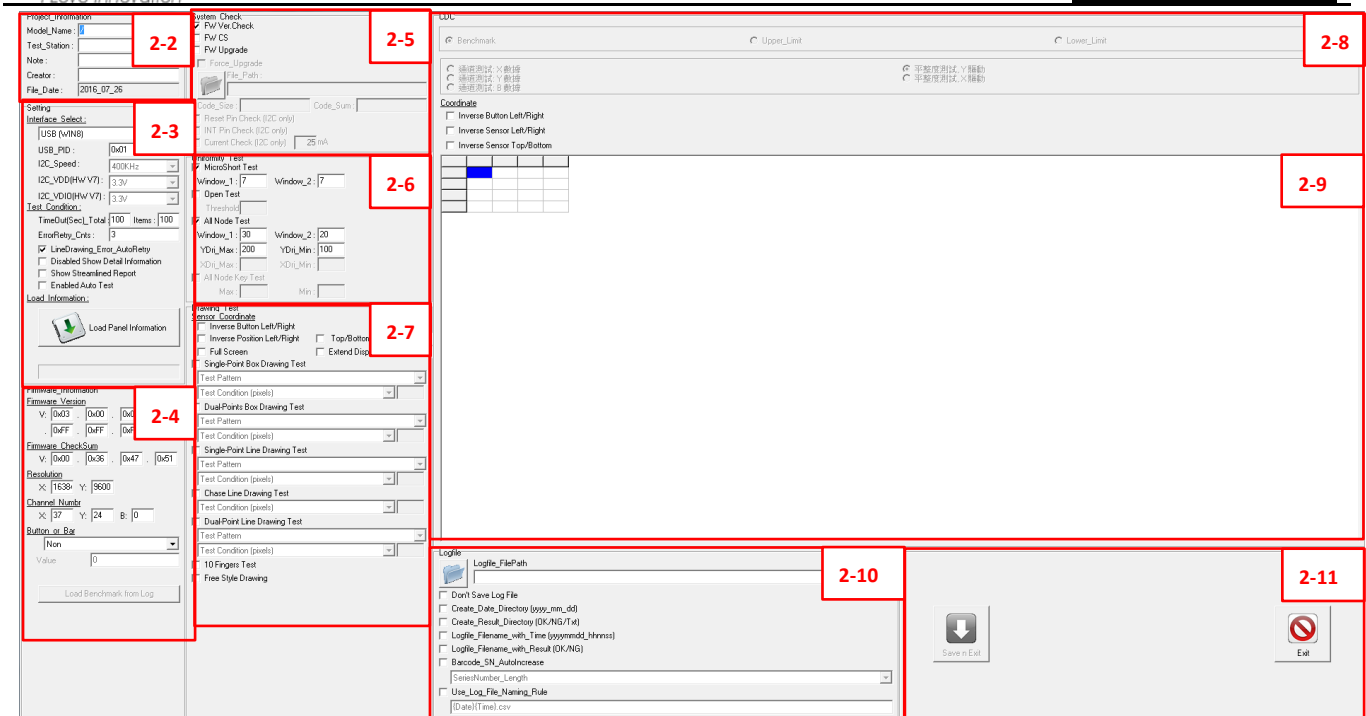
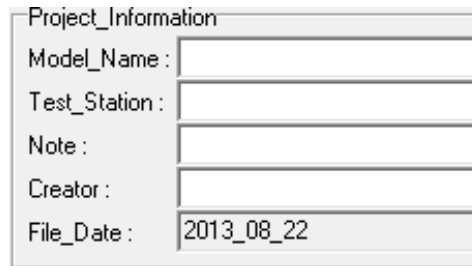


Figure 2-2: The UI of testing condition setting

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

2.2 Project_Information



Project_Information

Model_Name :

Test_Station :

Note :

Creator :

File_Date : 2013_08_22

Figure 2-3: Project Information

Table 2-1: Detailed explanations of Project Information

Item	Name	Description
1	Model_Name	Model Name
2	Test_Station	Test station name
3	Note	Remarks
4	Creator	Creator Name
5	File_Date	Test file creation date

2.3 Setting

Figure 2-4: Interface and Condition Setting

Table 2-2: Detailed explanations of Setting

Item	Name	Description
1	Interface_Select	Choose to connect via USB or I ² C
2	I2C_Address / USB_PID	Specify I2C address (for I ² C Interface) / USB Device PID (for USB device)
3	I2C Speed	I2C frequency, setting range = 100~400KHz
4	I2C_VDD(HW V7)	Bridge VDD setting, only for bridge V7
5	I2C_VDIO(HW V7)	Bridge VDIO setting, only for bridge V7
6	Timeout (Sec) _Total	Test limit (unit: seconds)
7	Items	The time limit for individual tests.
8	ErrorRepty_Cnts	Drawing test, the maximum allowable number of errors
9	LineDrawing_Error_AutoRetry	If it's enabled, Line drawing test whether an error occurs automatically retry.
10	Disabled_Show_Detail_Information	If it's enabled, when a user loads profile, It does not provide preview setting.
11	Show Streamlined Report	Log only show the streamlined report
12	Enabled Auto Test	After first time start test manually. When the tool detects a device has been connected, it will start test automatically.
13	Load Panel Information	Read the panel information

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

2.4 Firmware_Information

Firmware_Information

Firmware_Version

V: 0x03 . 0x00 . 0x00 . 0x00
 . 0xFF . 0xFF . 0xFF . 0xFF

Firmware_CheckSum

V: 0x00 . 0x36 . 0x47 . 0x51

Resolution

X: 1638 Y: 9600

Channel_Numbr

X: 37 Y: 24 B: 0

Button_or_Bar

Non

Value 0

Load Benchmark from Log

Figure 2-5: Firmware Information

Table 2-3: Detailed explanations of Firmware Information

Item	Name	Description
1	Firmware_Version	Firmware version number
2	Firmware_CheckSum	Firmware checksum. (If this model support)
2	Resolution	Panel resolution
3	Channel_Number	Panel total channel number
4	Button_or_Bar	The total number of Button or Bar
5	Load Benchmark from Log	Calculate benchmark data from log files

2.5 System_Check

System Check

☒ FW Ver. Check

☐ FW CS

☐ FW Upgrade

☐ Force_Upgrade

File_Path :

Code_Size : Code_Sum :

☐ Reset Pin Check (I2C only)

☐ INT Pin Check (I2C only)

☐ Current Check (I2C only)

Figure 2-6: Systeme Check

Table 2-4: Detailed explanations of System Check

Item	Name	Description
1	FW Ver. Check	Firmware version check.
2	FW Check Sum	Firmware check sum check
3	FW Upgrade	When the firmware version on the IC is not the same, the firmware update
4	Force_Upgrade	Mandatory firmware update
5	File_Path	Firmware file path
6	Code_Size	Firmware file size
7	Code_Sum	Firmware file checksum
8	Reset Pin Check(I2C only)	Test Reset Pin (I2C interface used)
9	INT Pin Check (I2C only)	Test INT Pin (I2C interface used)
10	Current Check (I2C only)	Test the current consumption of DUT

2.6 Uniformity_Test

2.6.1 ILI 2301 CDC series IC

Figure 2-7: ILI 2301 CDC series IC Uniformity Test

Table 2-5: Detailed explanations of ILI 2301 CDC series IC Uniformity Test

Item	Name		Description
1	Micro Short	Window_1	If X Channel and Y Channel each have a delta value greater than Window_1, the channel is the NG channel if a delta value greater than Window_1
2		Window_2	If X Channel or Y Channel have a whole value less than or equal Window_1, the channel is the NG channel if a delta value greater than Window_2
3	Open	Threshold	The value must be greater than this value in order to pass the test
4	All Node	Window_1	Pass Range = adjacent Tx Node difference must be <= the Window1
5		Window_2	Pass Range = (R (n) and the difference Tx Node adjacent to R (n-1) adjacent Tx Node) the difference must be <= the Window2
6		YDri_Max	Maximum values allowed in the All Node test
7		YDri_Min	Minimum values allowed in the All Node test
8	All Node	Max	Maximum values allowed in the All Node Key test
9	Key	Min	Minimum values allowed in the All Node Key test

2.6.2 ILI 2115 / 2116 CDC series IC

Figure 2-8: ILI 2115 / 2116 CDC series IC Uniformity Test

Table 2-6: Detailed explanations of ILI 2115 / 2116 CDC series IC Uniformity Test

Item	Name		Description
1	Micro Short	Window_1	If X Channel and Y Channel each have a delta value greater than Window_1, the channel is the NG channel if a delta value greater than Window_1
2		Window_2	If X Channel or Y Channel have a whole value less than or equal Window_1, the channel is the NG channel if a delta value greater than Window_2
3	Open	Threshold	The value must be greater than this value in order to pass the test General Pattern→For all node H Pattern→For the first and last Y axis channels 1T2R Pattern→ For the odd X axis channels
4		Threshold2	The value must be greater than this value in order to pass the test General Pattern→Useless H Pattern→ For the non-first and non-last Y axis channels 1T2R Pattern→ For the even X axis channels
5	All Node	Window_1	Used to establish upper limit and lower limit General Pattern→For all node H Pattern→For the first and last Y axis channels 1T2R Pattern→ For the odd X axis channels
6		Window_2	Used to establish upper limit and lower limit General Pattern→Useless H Pattern→ For the non-first and non-last Y axis channels 1T2R Pattern→ For the even X axis channels
7		YDri_Max	Maximum values allowed in the All Node test
8		YDri_Min	Minimum values allowed in the All Node test

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

2.6.3 ILI 2117 / 2210 CDC series IC

Uniformity Test

☒ MicroShort Test

Window_1 : 7 Window_2 : 7

☒ Open Test

Threshold : 220

☒ All Node Test

Window : 10

YDri_Max : 240 YDri_Min : 25

XDri_Max : XDri_Min :

☐ All Node Key Test

Max : Min :

Figure 2-9: ILI 2117 / 2210 CDC series IC Uniformity Test

Table 2-7: Detailed explanations of ILI 2117 / 2210 CDC series IC Uniformity Test

Item	Name		Description
1	Micro Short	Window_1	If X Channel and Y Channel each have a delta value greater than Window_1, the channel is the NG channel if a delta value greater than Window_1
2		Window_2	If X Channel or Y Channel have a whole value less than or equal Window_1, the channel is the NG channel if a delta value greater than Window_2
3	Open	Threshold	The value must be greater than this value in order to pass the test
4	All Node	Window	Used to establish upper limit and lower limit
6		YDri_Max	Maximum values allowed in the All Node test
7		YDri_Min	Minimum values allowed in the All Node test
8	All Node	Max	Maximum values allowed in the All Node Key test
9	Key	Min	Minimum values allowed in the All Node Key test

2.6.4 ILI 2315 / 2510 CDC series IC

Figure 2-10: ILI 2315 / 2510 CDC series IC Uniformity Test

Table 2-8: Detailed explanations of ILI 2315 / 2510 CDC series IC Uniformity Test

Item	Name		Description
1	Micro Short	Window_1	If X Channel and Y Channel each have a delta value greater than Window_1, the channel is the NG channel if a delta value greater than Window_1
2		Window_2	If X Channel or Y Channel have a whole value less than or equal Window_1, the channel is the NG channel if a delta value greater than Window_2
3	Open	Threshold	The value must be greater than this value in order to pass the test
4		Delta RX	Adjacent Rx Node difference > Delta RX is an NG group, If found three NG groups in single RX channel, the result is NG, else is PASS
5		Delta TX	Adjacent Tx Node difference > Delta TX is an NG group, If found three NG groups in single TX channel, the result is NG, else is PASS
6	All Node	Delta Threshold	(R (n) and the difference Tx Node adjacent to R (n-1) adjacent
7		Panel Tolerance	Tx Node) the difference > Delta Threshold is an NG group, If found the total NG groups greater than Panel Tolerance and found the total of continuous NG groups on TX channel greater than TX Tolerance, the result is NG, else is PASS
8		TX Tolerance	
9		Max	Maximum values allowed in the All Node test
10		Min	Minimum values allowed in the All Node test
11	All Node Key	Max	Maximum values allowed in the All Node Key test
12		Min	Minimum values allowed in the All Node Key test

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

2.7 Drawing_Test

Drawing Test

Sensor Coordinate

☐ Inverse Button Left/Right

☐ Inverse Position Left/Right

☐ Top/Bottom

☐ Full Screen

☐ Extend Display

☐ Single-Point Box Drawing Test

Test Pattern

Test Condition (pixels)

☐ Dual-Points Box Drawing Test

Test Pattern

Test Condition (pixels)

☐ Single-Point Line Drawing Test

Test Pattern

Test Condition (pixels)

☐ Chase Line Drawing Test

Test Condition (pixels)

☐ Dual-Point Line Drawing Test

Test Pattern

Test Condition (pixels)

☐ 10 Fingers Test

☐ Free Style Drawing

Figure 2-11: Drawing Test

Table 2-9: Detailed explanations of Sensor Coordinate

Item	Name	Description
1	Inverse Button Left/Right	Reversed about the axis of the button, the schematic diagram such as Figure 2-9
2	Inverse Position Left/Right	Drawing test axis reversal, schematic diagram such as Figure 2-10
3	Inverse Position Top/Bottom	Drawing test on an axis inversion, schematic diagram such as Figure 2-11
4	Full Screen	Support full screen for drawing test.
5	Extend Display	Drawing test shown on secondary monitor
Note	1.0 Interpolation = Resolution / Sensor Line number	

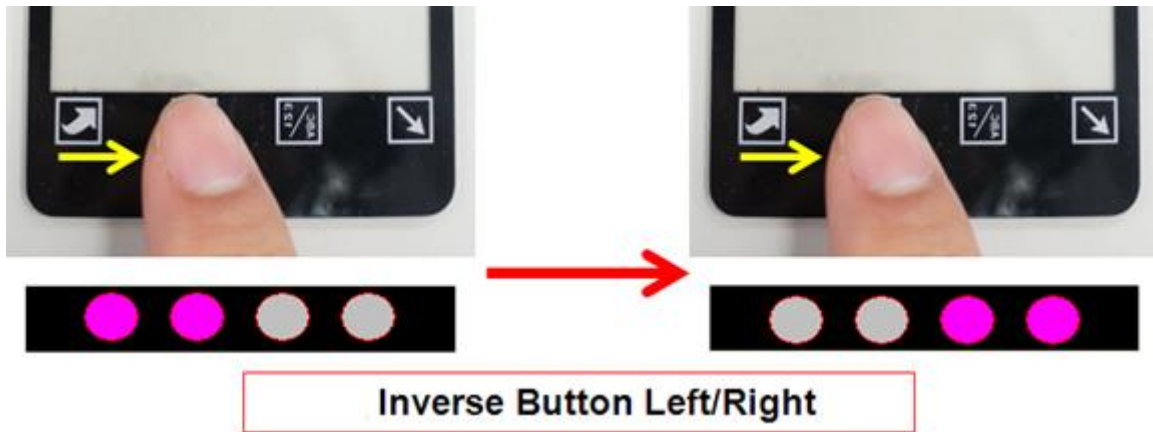


Figure 2-12: Inverse Button Left/Right

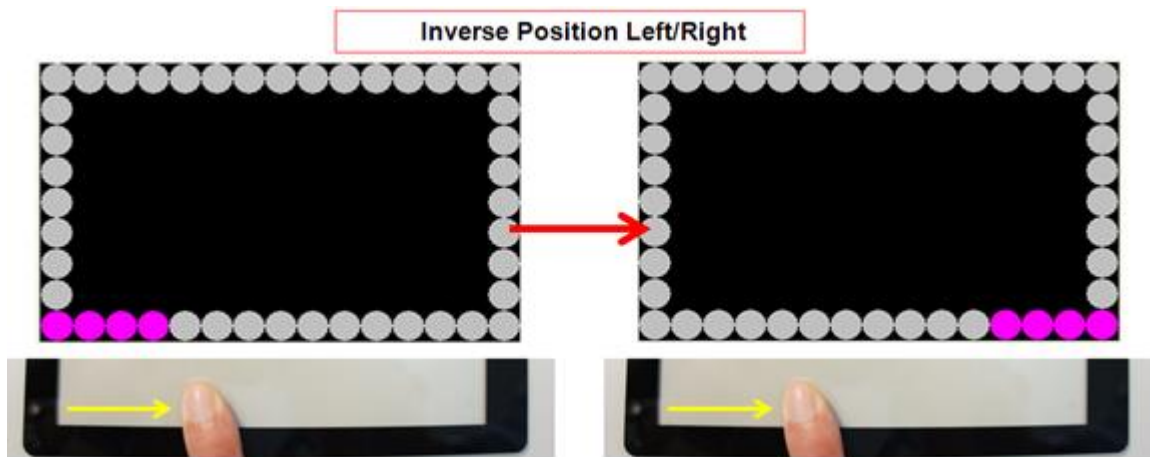


Figure 2-13: Inverse Position Left/Right

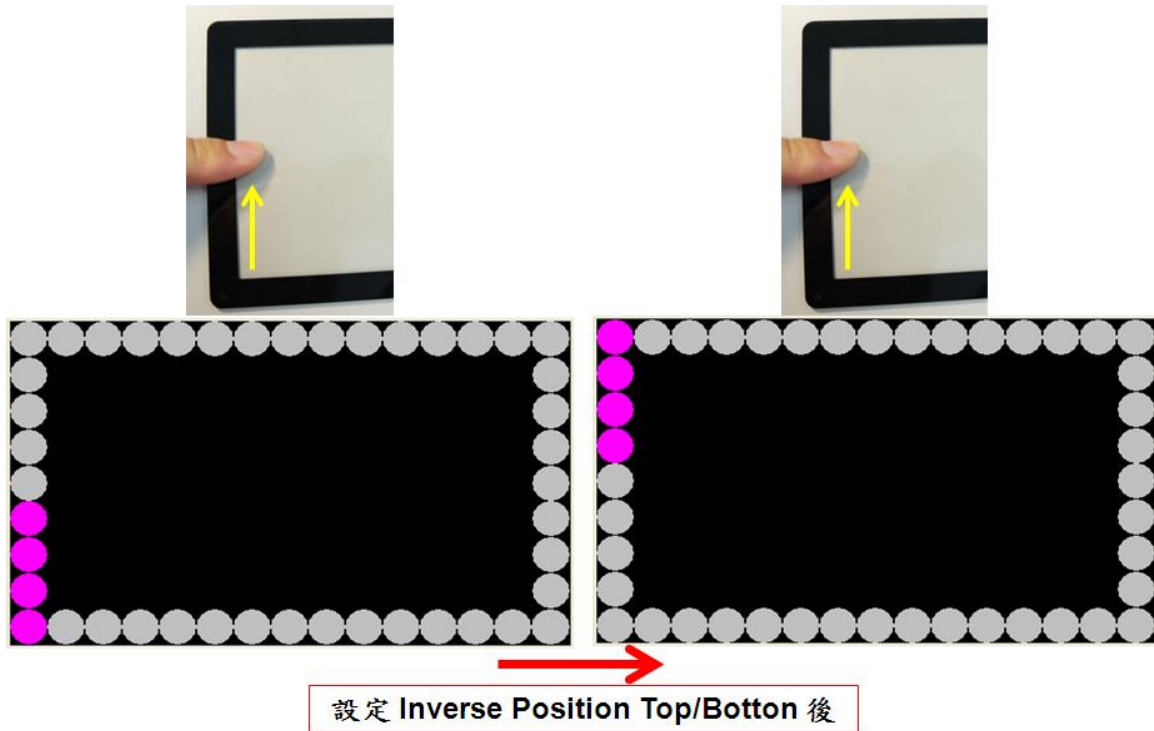


Figure 2-14: Inverse Position Top/Bottom

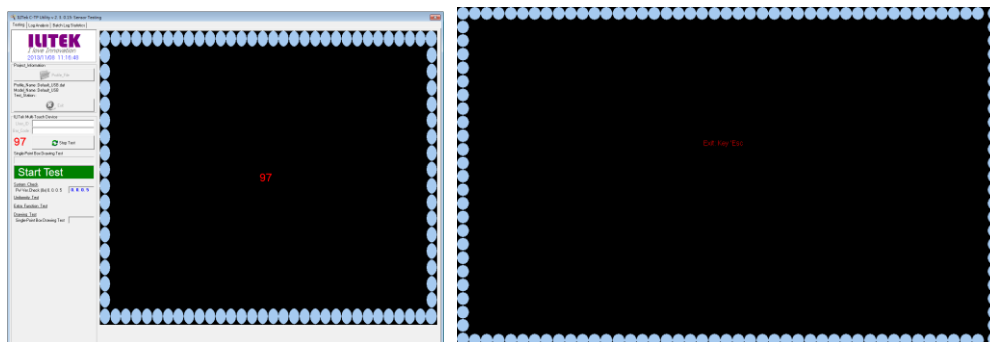
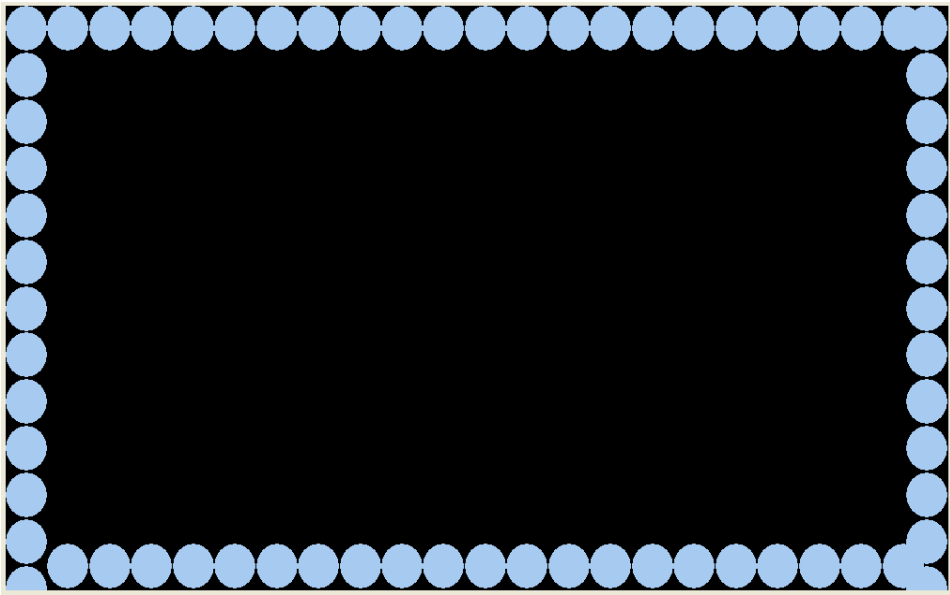
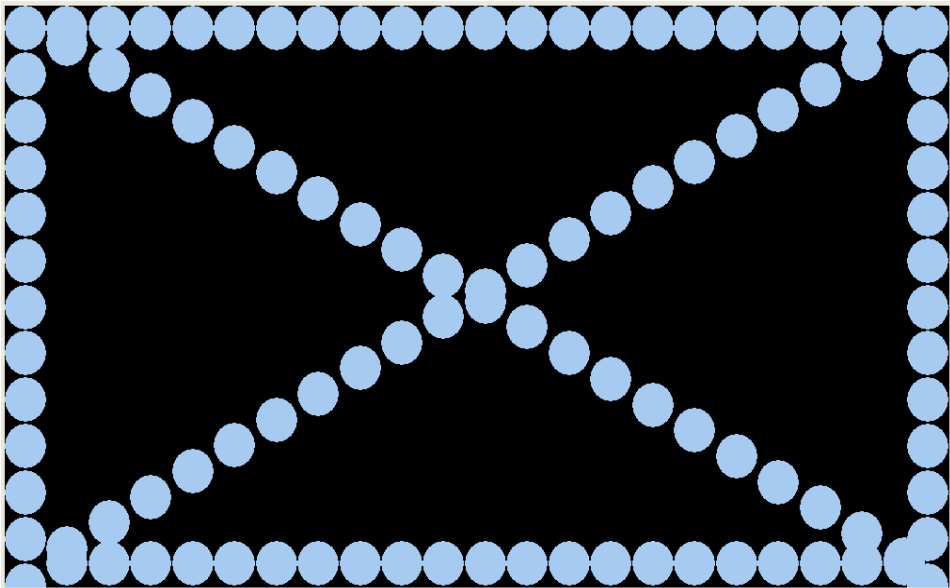


Figure 2-15: Full Screen Disabled / Enabled

Table 2-10: Detailed explanations of Single-Point Box Drawing Test

Item	Name	Description
1	O	
2	OX	

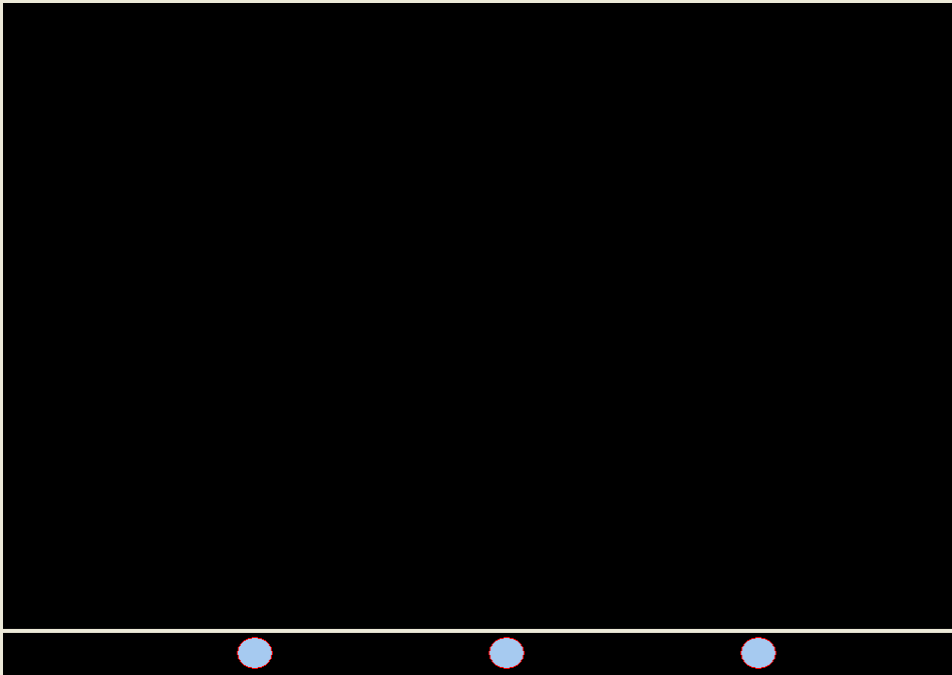
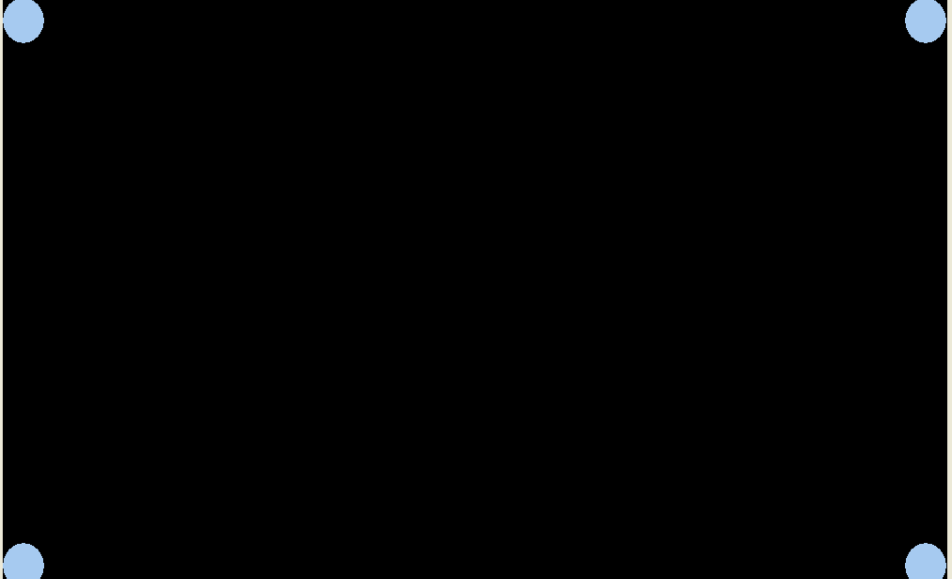
3	Button Only	
4	Corner	

Table 2-11: Single-Point Box Drawing Test supports user defined “Offset”

<pre> Single_Point_Box=1 Single_Point_Box_FunIndex=1 Single_Point_Box_WindowIndex=4 Single_Point_Box_Window=252 Single_Point_Box_Offset_X= 1024 Single Point Box Offset Y= 1024 </pre>		
Item	Name	Description
1	Single_Point_Box_Offset_X	Users can change the test conditions, test points are indented according to the set value
2	Single_Point_Box_Offset_Y	Users can change the test conditions, test points are indented according to the set value

The diagram shows a rectangular grid of blue dots. A red arrow labeled 'Offset_X' points to the horizontal distance from the left edge of the grid to the first dot. Another red arrow labeled 'Offset_Y' points to the vertical distance from the top edge of the grid to the first dot. The grid is composed of 16 dots in each row and 16 dots in each column, forming a 16x16 square pattern.

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Table 2-12: Detailed explanations of Dual-Points Box Drawing Test

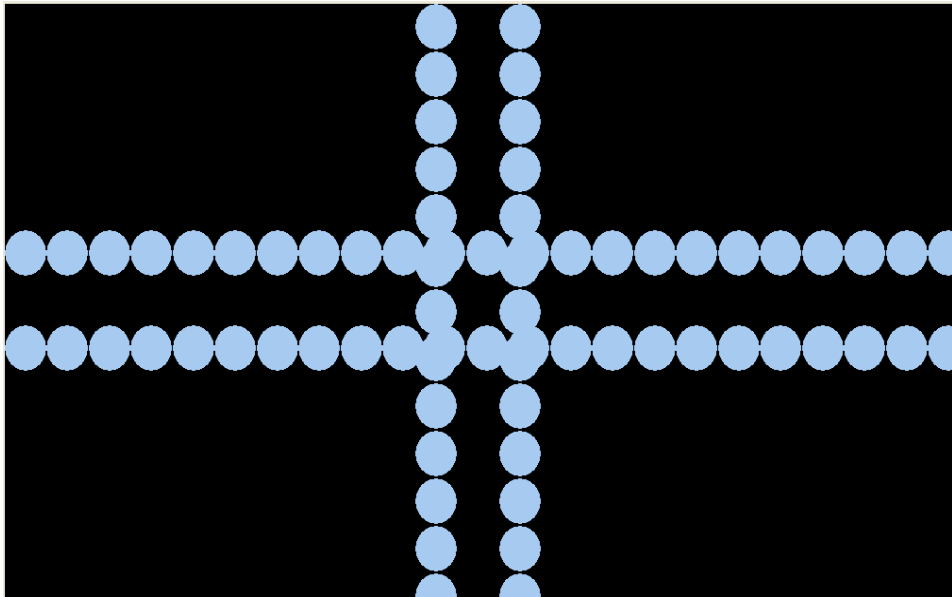
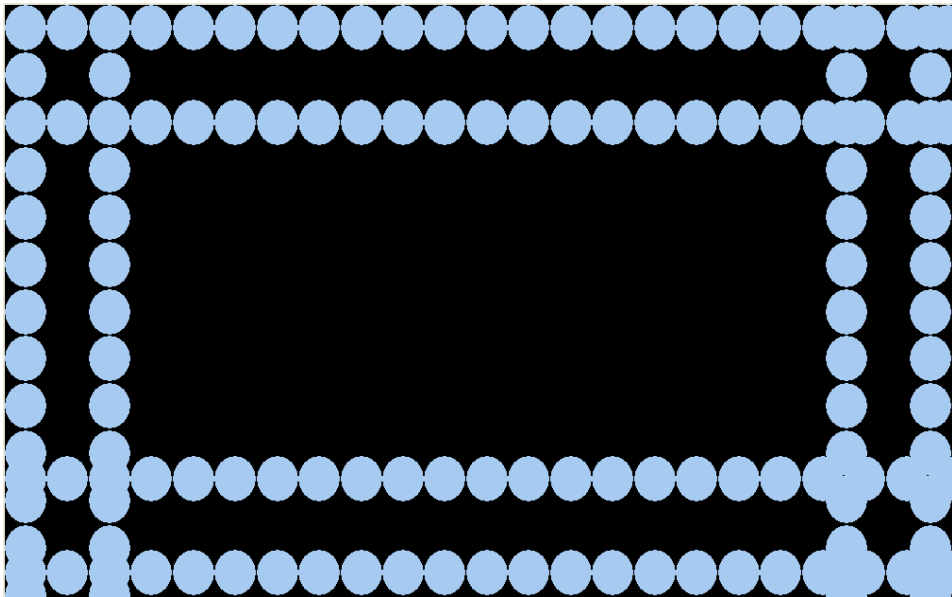
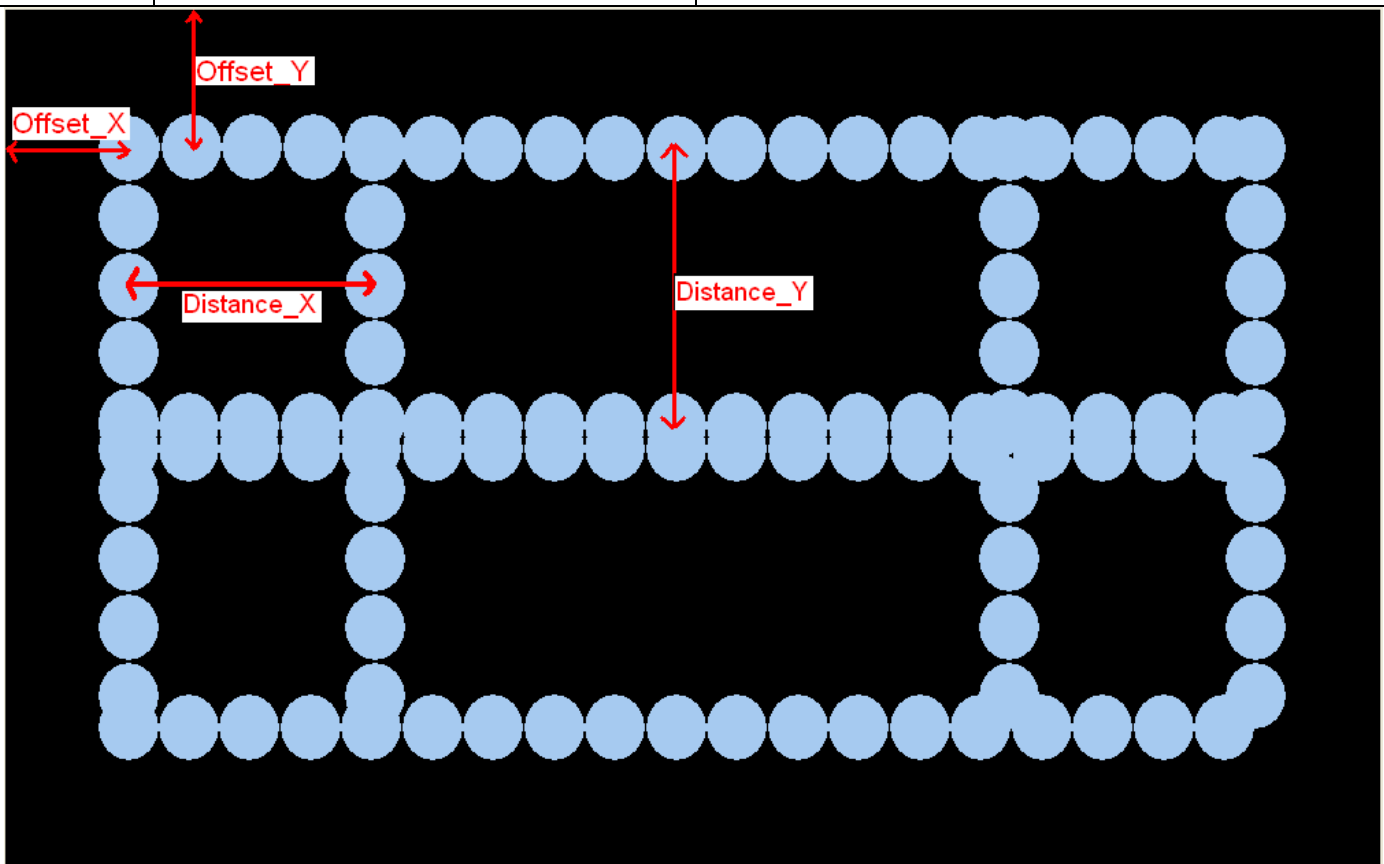
Item	Name	Description
1	+ Two-Points +	
2	© Two-Points O	

Table 2-13: Dual-Point Box Drawing Test supports user defined “Offset” and “Distance”

```
Dual_Points_Box=1
Dual_Points_Box_FunIndex=2
Dual_Points_Box_WindowIndex=0x84
Dual_Points_Box_Window=252
Dual_Points_Box_Offset_X= 512
Dual_Points_Box_Offset_Y= 512
Dual_Points_Box_Distance_X= 512
Dual_Points_Box_Distance_Y= 512
```

Item	Name	Description
1	Dual_Points_Box_Offset_X	Users can change the test conditions, test points are indented according to the set value
2	Dual_Points_Box_Offset_Y	Users can change the test conditions, test points are indented according to the set value
3	Dual_Points_Box_Distance_X	The user can change the test conditions, test points are changed according to the set value of the distance of two lines (WindowIndex must be set 0x8?)
4	Dual_Points_Box_Distance_Y	The user can change the test conditions, test points are changed according to the set value of the distance of two lines (WindowIndex must be set 0x8?)



The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Table 2-14: Detailed explanations of Single Point Line Drawing Test

Item	Name	Description
1	O	
2	OX	

Table 2-15: Single-Point Line Drawing Test supports user defined “Offset”

```
Single_Point_Line=1
Single_Point_Line_FunIndex=2
Single_Point_Line_WindowIndex=4
Single_Point_Line_Window=252
Single_Point_Line_Offset_X= 512
Single_Point_Line_Offset_Y= 512
```

Item	Name	Description
1	Single_Point_Line_Offset_X	Users can change the test conditions, test points are indented according to the set value
2	Single_Point_Line_Offset_Y	Users can change the test conditions, test points are indented according to the set value

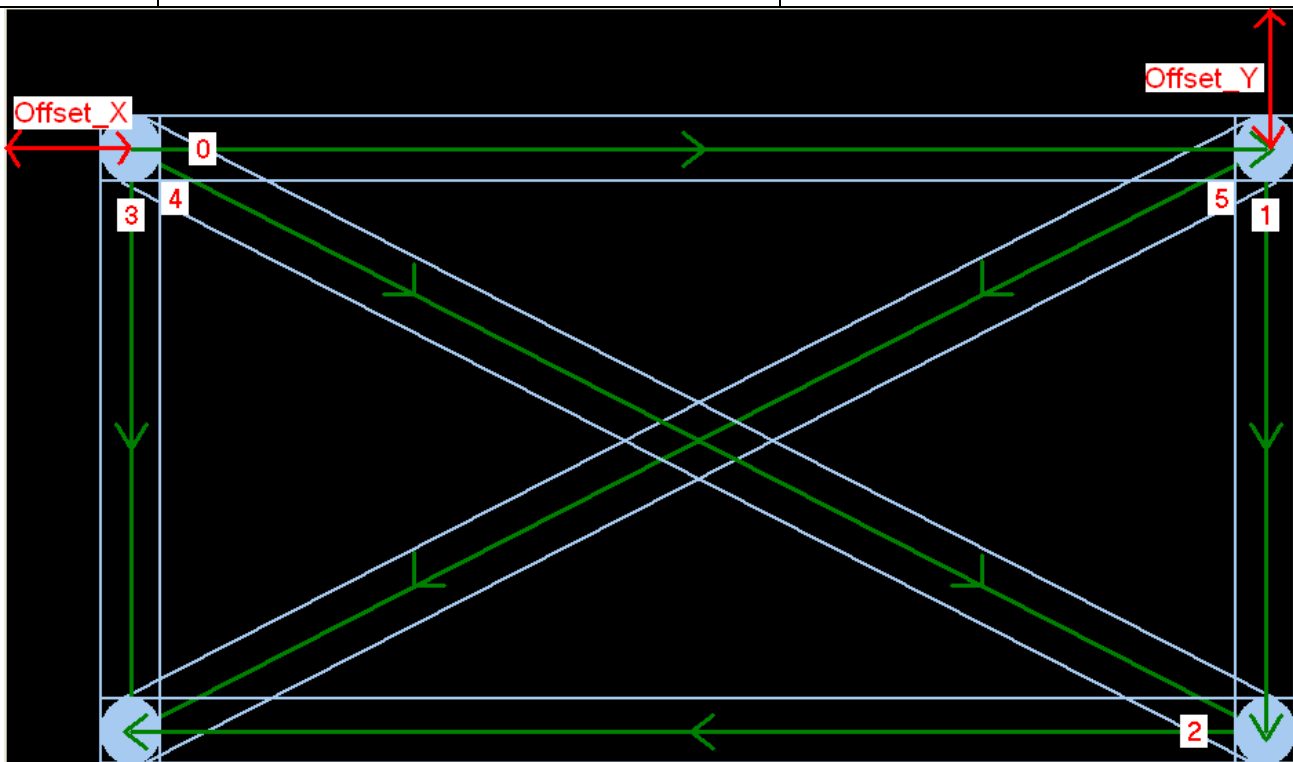
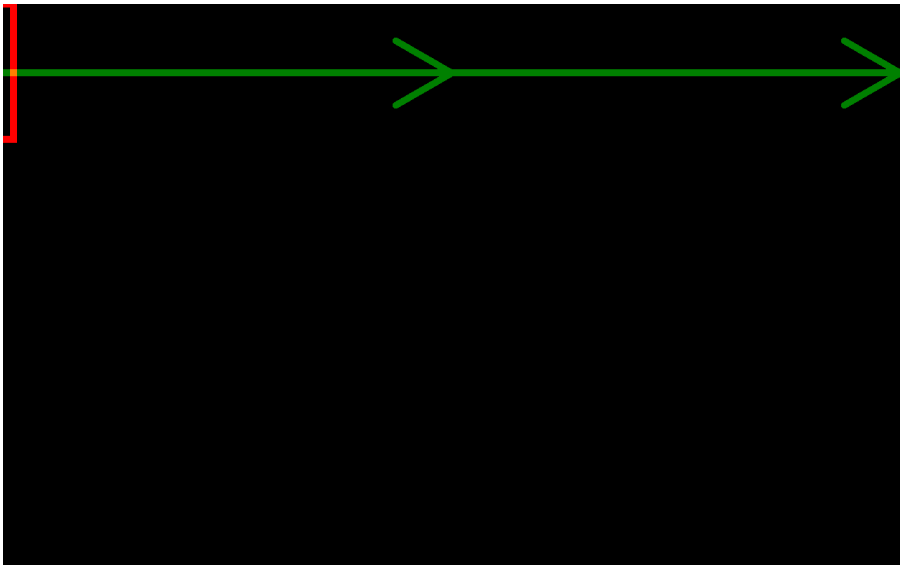
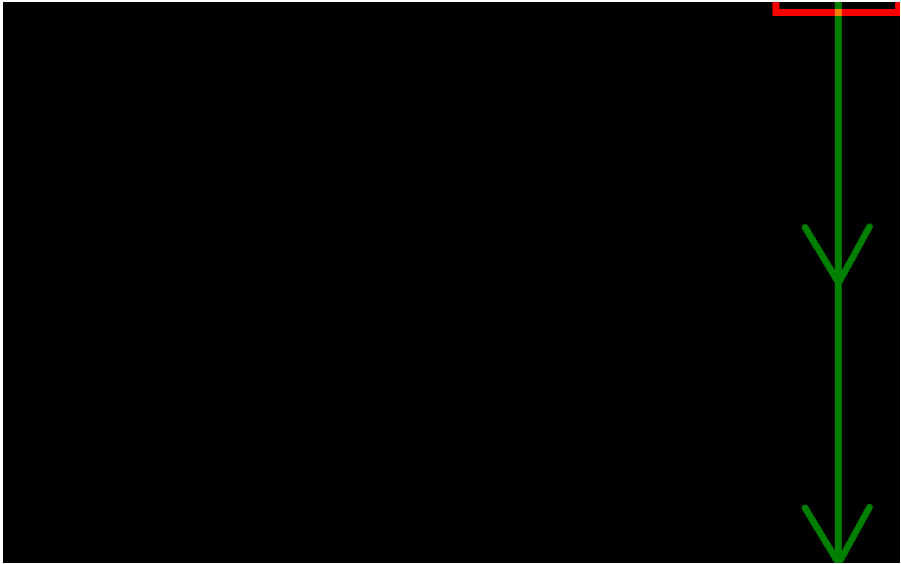


Table 2-16: Detailed explanations of Chase Line Drawing Test

Item	Name	Description
1	Left Top to Right Top	
2	Right Top to Right Bottom	

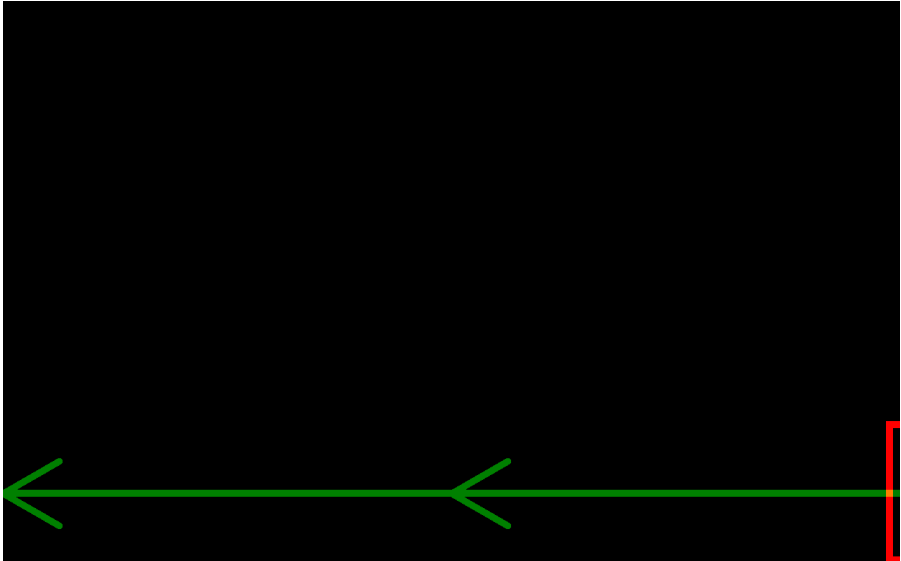
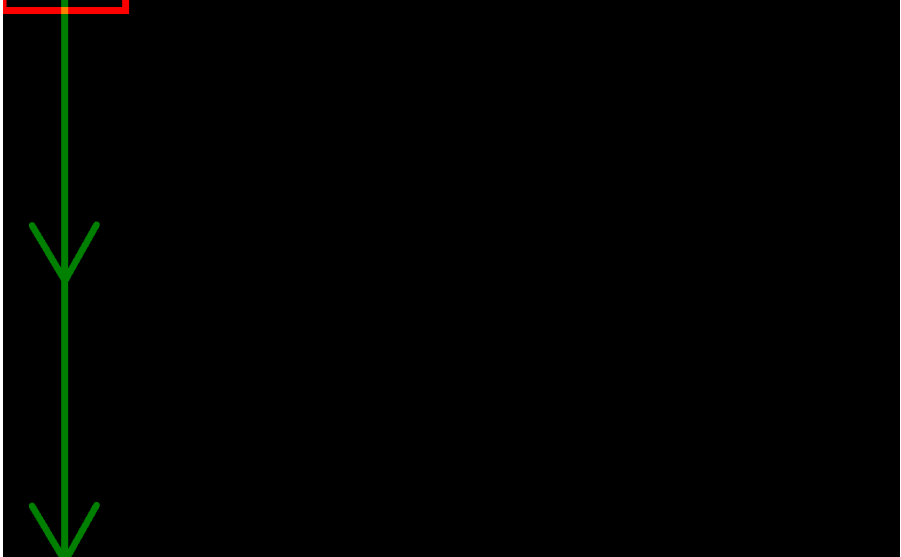
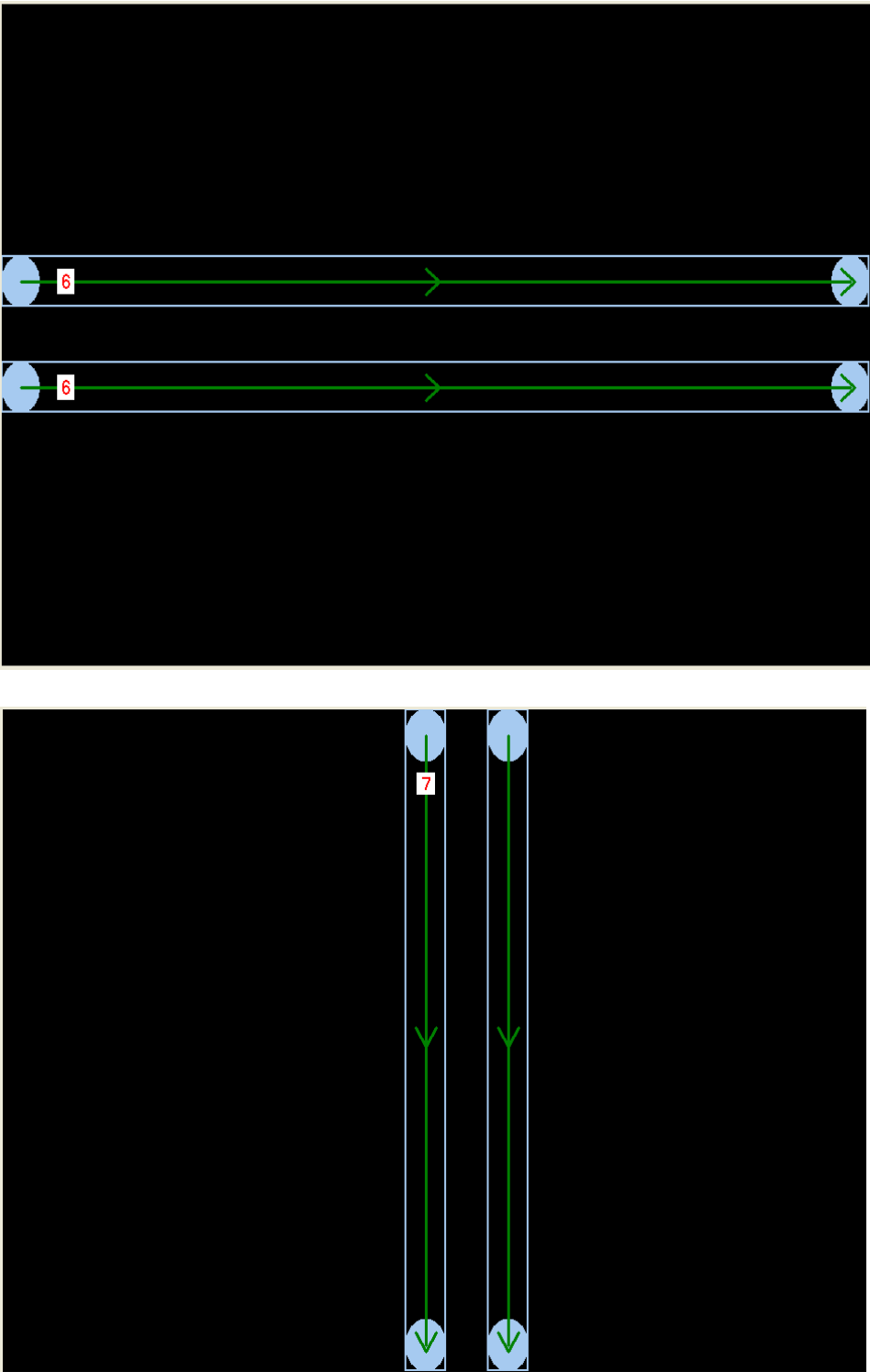
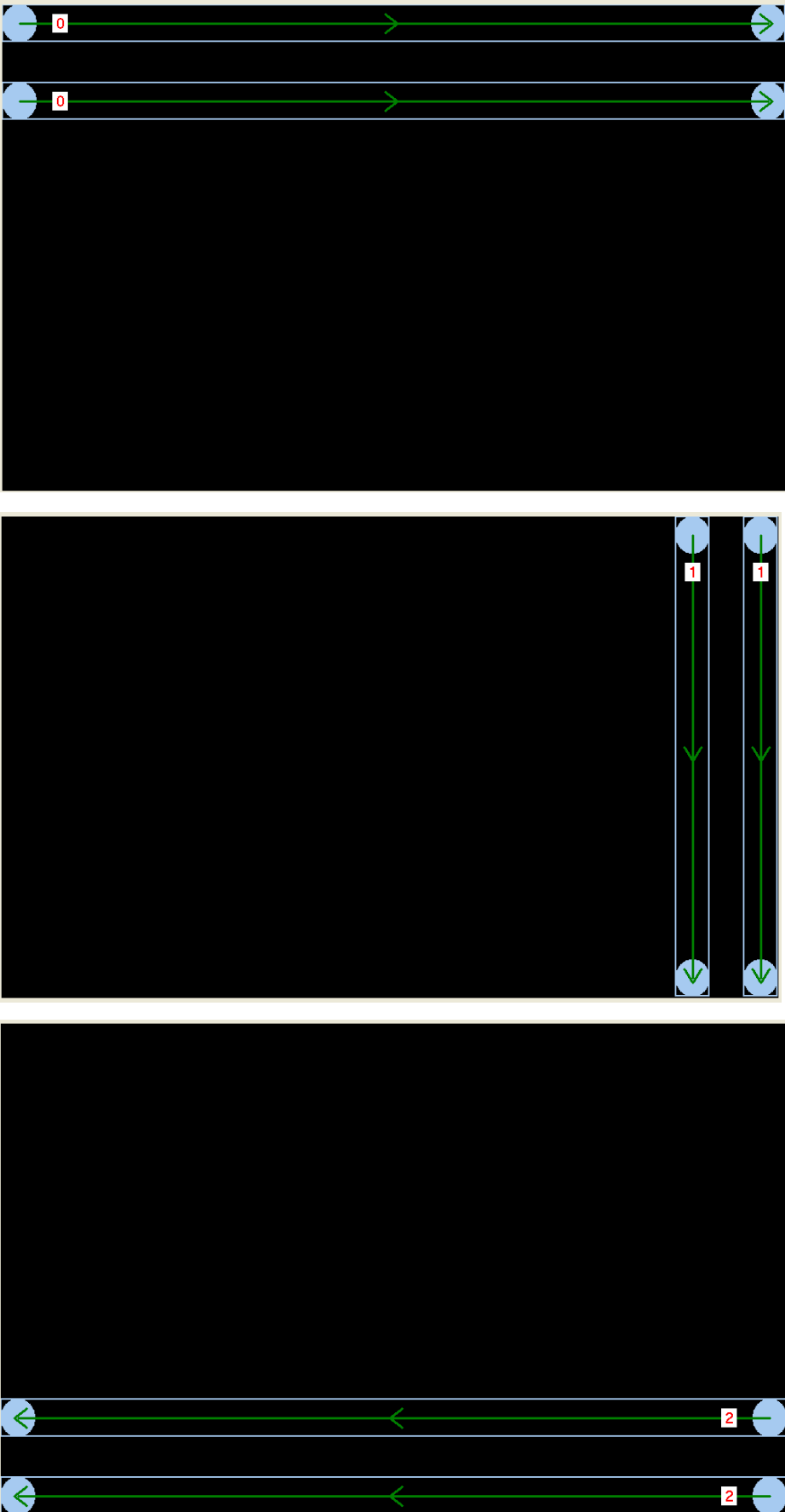
3	Right Bottom to Left Bottom	
4	Left Top to Left Bottom	

Table 2-17: Detailed explanations of Dual Point Line Drawing Test

Item	Name	Description
1	+ Two-Points +	 The diagram illustrates the Dual Point Line Drawing Test. It consists of two horizontal lines and two vertical lines. The horizontal lines are labeled with a red '6' and the vertical lines with a red '7'. Green arrows indicate the direction of movement: right for the horizontal lines and down for the vertical lines. The lines are drawn on a black background.

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

2	© Two-Points O	
---	----------------	---

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

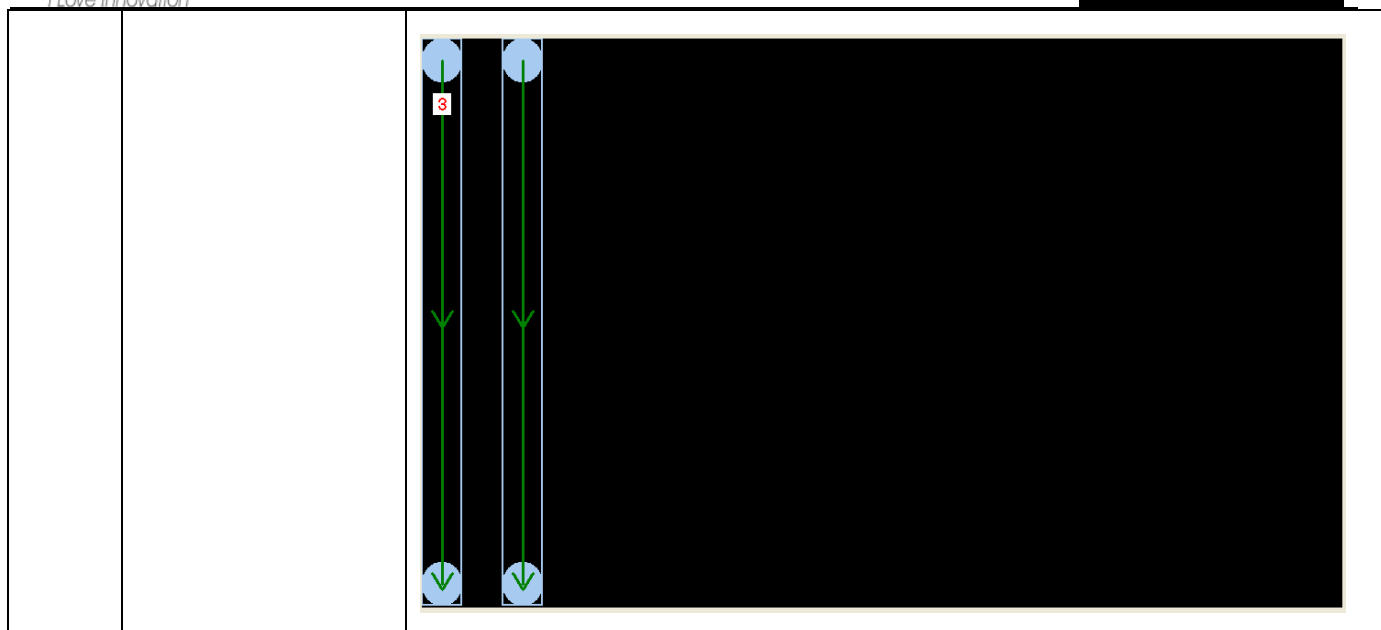
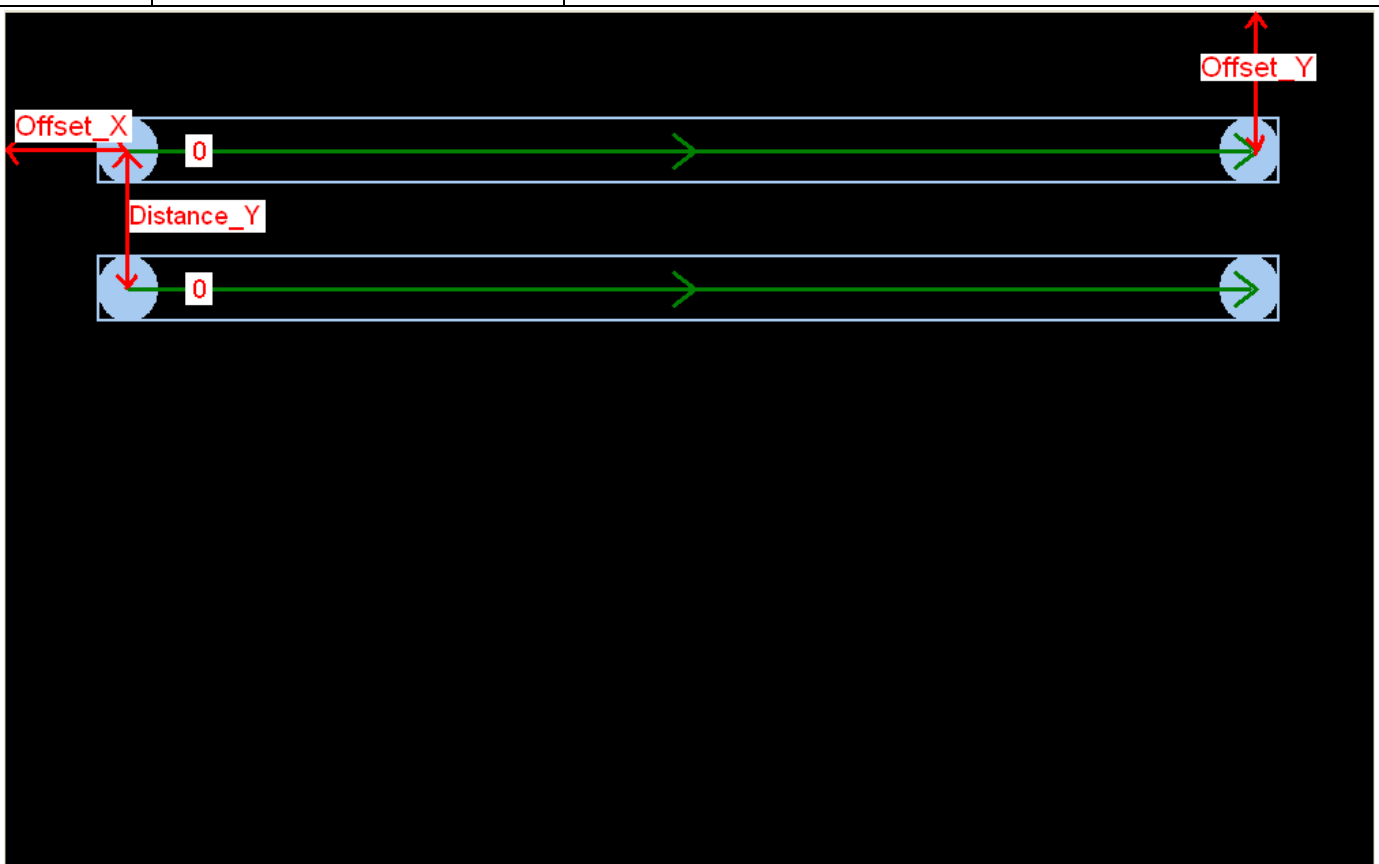


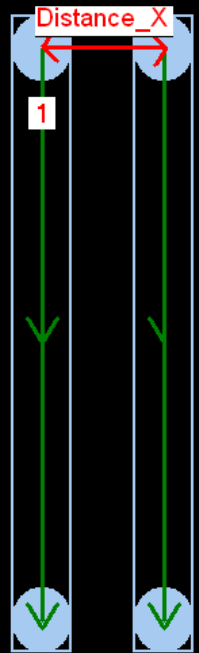
Table 2-18: Dual-Point Line Drawing Test supports user defined “Offset” and “Distance”

```
Dual_Points_Line=1
Dual_Points_Line_FunIndex=2
Dual_Points_Line_WindowIndex=0x84
Dual_Points_Line_Window=252
Dual_Points_Line_Offset_X= 512
Dual_Points_Line_Offset_Y= 512
Dual_Points_Line_Distance_X= 512
Dual_Points_Line_Distance_Y= 512
```

Item	Name	Description
1	Dual_Points_Line_Offset_X	Users can change the test conditions, test points are indented according to the set value
2	Dual_Points_Line_Offset_Y	Users can change the test conditions, test points are indented according to the set value
3	Dual_Points_Line_Distance_X	The user can change the test conditions, test points are changed according to the set value of the distance of two lines (WindowIndex must be set 0x8?)
4	Dual_Points_Line_Distance_Y	The user can change the test conditions, test points are changed according to the set value of the distance of two lines (WindowIndex must be set 0x8?)



The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.



10 Fingers Test

Test TP whether there is support for 10-finger touch.

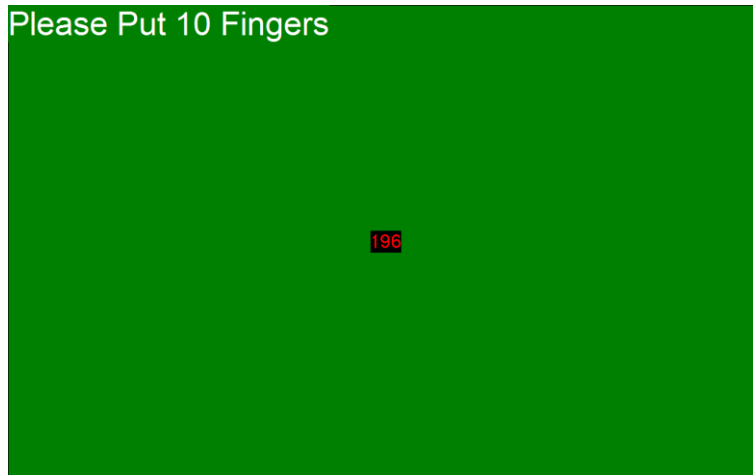


Figure 2-16: 10 Fingers Test

Free Style Drawing

Free drawing test allows engineers to determine the need to test, such as Figure 2-14.

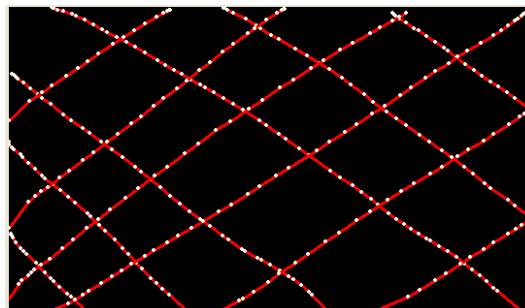


Figure 2-17: Free Style Drawing

2.8 CDC : The benchmark data of “Uniformity_Test”

CDC

☒ Benchmark ☐ Upper_Limit ☐ Lower_Limit

☐ Trace Loading: X Data ☒ All Node, Y Driven
☐ Trace Loading: Y Data ☐ All Node, X Driven
☐ Trace Loading: B Data

☐ Set to default value

Coordinate

☐ Inverse Button Left/Right
☐ Inverse Sensor Left/Right
☐ Inverse Sensor Top/Bottom

Benchmark	X1	X2	X3	X4	X5	X6	X7	X8
Y1	125	127	128	128	128	128	128	128
Y2	126	128	128	128	128	128	128	128
Y3	127	128	128	128	128	128	128	128
Y4	127	128	128	128	128	128	128	128
Y5	127	128	128	128	128	128	128	128

Figure 2-18: CDC

Table 2-19: Detailed explanations of CDC

Item	Name	Description
1	CDC data select 1	To view the CDC, you can choose to show off the reference value / upper limit / lower limit
2	CDC data select 2	To view the CDC data, the selected data will be displayed at the bottom
3	Set to default value	All values set to 128
4	Inverse Button Left/Right	Axis of the button reverses
5	Inverse Position Left/Right	Axis about reverse
6	Inverse Position Top/Bottom	Coordinate axis under the reverse

Y Driven	X1	X2	X3	X4	X5	X6	X7
Y1	136	129	129	129	128	129	130
Y2	136	129	129	129	129	129	130
Y3	135	128	128	128	129	130	129
Y4	135	127	127	129	129	129	128

→

Y Driven	X7	X6	X5	X4	X3	X2	X1
Y1	130	129	128	129	129	129	136
Y2	130	129	129	129	129	129	136
Y3	129	130	129	128	128	128	135
Y4	128	129	129	129	129	127	135

Inverse Position Left/Right

Figure 2-19: Inverse Position Left/Right

Y Driven	X1	X2	X3	X4
Y1	136	129	129	129
Y2	136	129	129	129
Y3	135	128	128	128
Y4	135	127	127	129
Y5	135	127	126	129
Y6	134	127	127	128
Y7	135	127	128	129

→

Y Driven	X1	X2	X3	X4
Y19	135	130	129	129
Y18	136	130	130	129
Y17	135	129	129	129
Y16	135	130	129	129
Y15	135	129	129	129
Y14	134	128	128	128
Y13	133	128	127	128

Inverse Position Top/Bottom

Figure 2-20: Inverse Position Top/Bottom

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

2.9 CDC : Uniformity_Test test specification modified

Modify a single value

Using the mouse to double-click the value which you want to modify, it shows a reference value / upper limit / lower limit to modify the window, as shown in Figure 2-18.

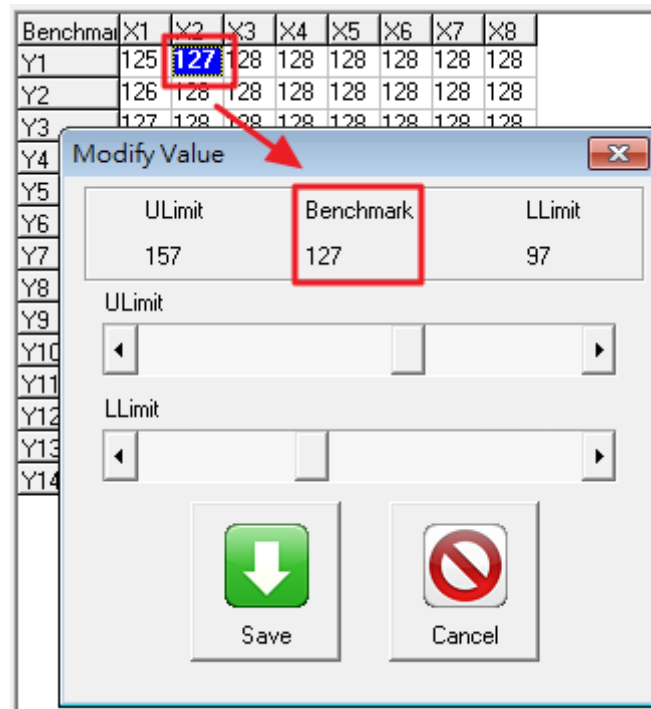


Figure 2-21: CDC test specification modified

2.10 LogFile & Barcode

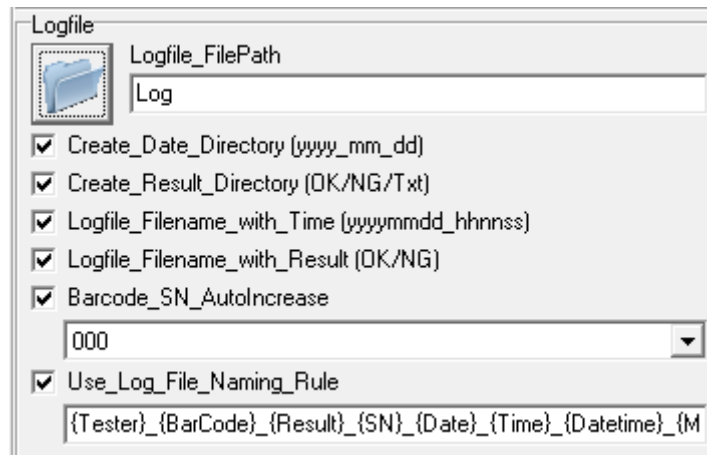
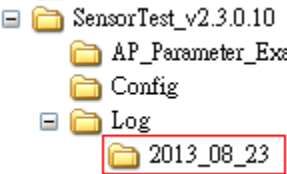
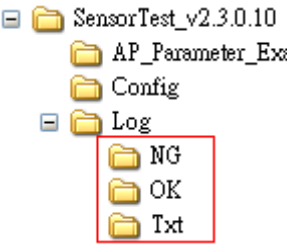
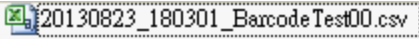
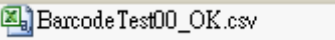
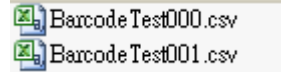
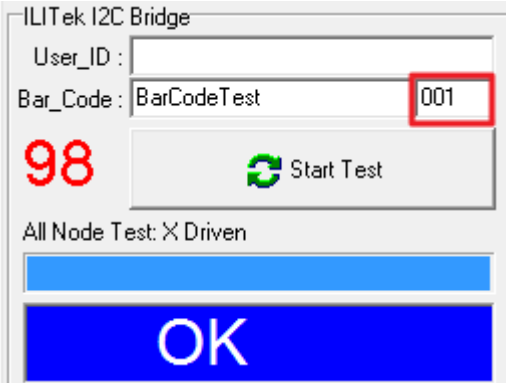


Figure 2-22: LogFile & Barcode

Table 2-20: Detailed explanations of LogFile & Barcode

Item	Name	Description
1	LogFile_FilePath	The file-path of Logfile. (User could select and decide the logfile file-path)
2	Don't Save Log File	Tool will not save log file after test finish.
3	Create_Date_Directory (yyyy_mm_dd)	TOOL will be automatically generated "Date" directory 
4	Create_Result_Directory (OK/NG/Txt)	The test result (Pass / Failed) will be record under OK/NG directory. (Note: if test three 3 times, it will have three records under OK/NG directory) Txt directory will store the final test results. (Note: if test three 3 times, it will have records the "final test" result) 
5	Logfile_Filename_with_Time (yyyymmdd_hhnnss)	If user enabled this function, log file filename format is "yyyymmdd_hhnnss_Barcode.csv"

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

		
6	Logfile_Filename_with_Result (OK/NG)	If user enabled this function, log file filename format is “barcode_OK/NG.csv” 
7	Barcode_SN_Autoincrease	If user enabled this function, after passing the test, tool will auto-increase series number. (Ex: after test twice, SN will be set “002”)  
8	Use_Log_File_Naming_Rule	If user enabled this function, please enter log file naming rule (include filename extension), The following is description of the variable : {Tester} : User ID {BarCode} : Panel Bar Code {SN} : Series Number {Result} : Test Result (OK / NG) {NG_Item} : NG Item Name {Model} : Model Name Setting in Profile {Station} : Test Station Setting in Profile {Date} : Represent Date (YYYYMMDD) {Time} : Represent Time (HHMMSS) {Datetime} : Represent Datetime (YYYYMMDD_HHMMSS) Example: If user wants to generate the rule of log file is” Panel Bar Code_ Datetime_ Test Result.txt”, please enter “{BarCode}_{Datetime}_{Result}.txt”

2.11 Save / Exit



Figure 2-23: Save / Exit

Table 2-21: Detailed explanations of Save / Exit

Item	Name	Description
1	Save n Exit	Save the file and exit
2	Exit	Not save directly to leave

3 Operator mode

3.1 Read test profiles

The operator cannot modify the test profile can only view the contents of the tests and press the "Exit" button to leave, such as in Figure 3-2. In addition, the program will automatically restart the previous program is closed before the read test file reads come in, eliminating the trouble of re-read.

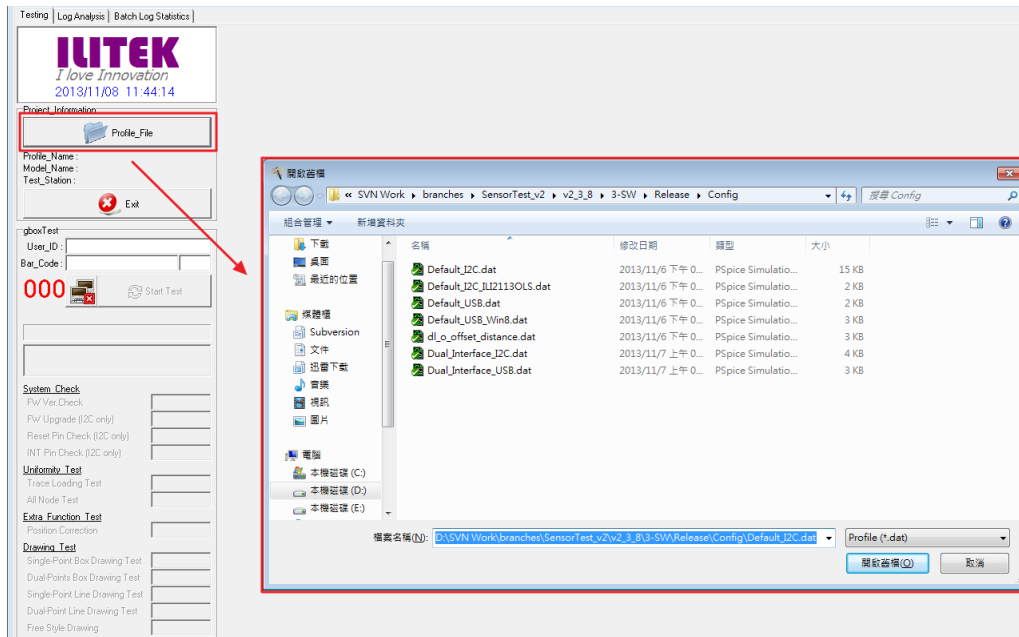


Figure 3-1: Read test profiles

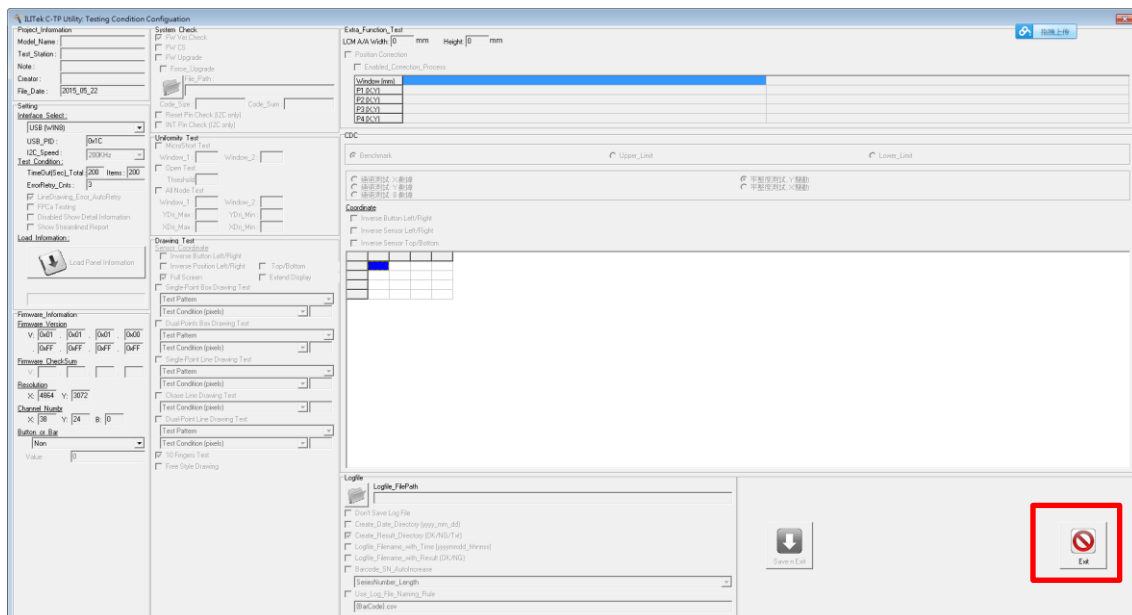


Figure 3-2: The Testing Condition

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

3.2 Start the testing

User can press the "Start Test" to begin testing.

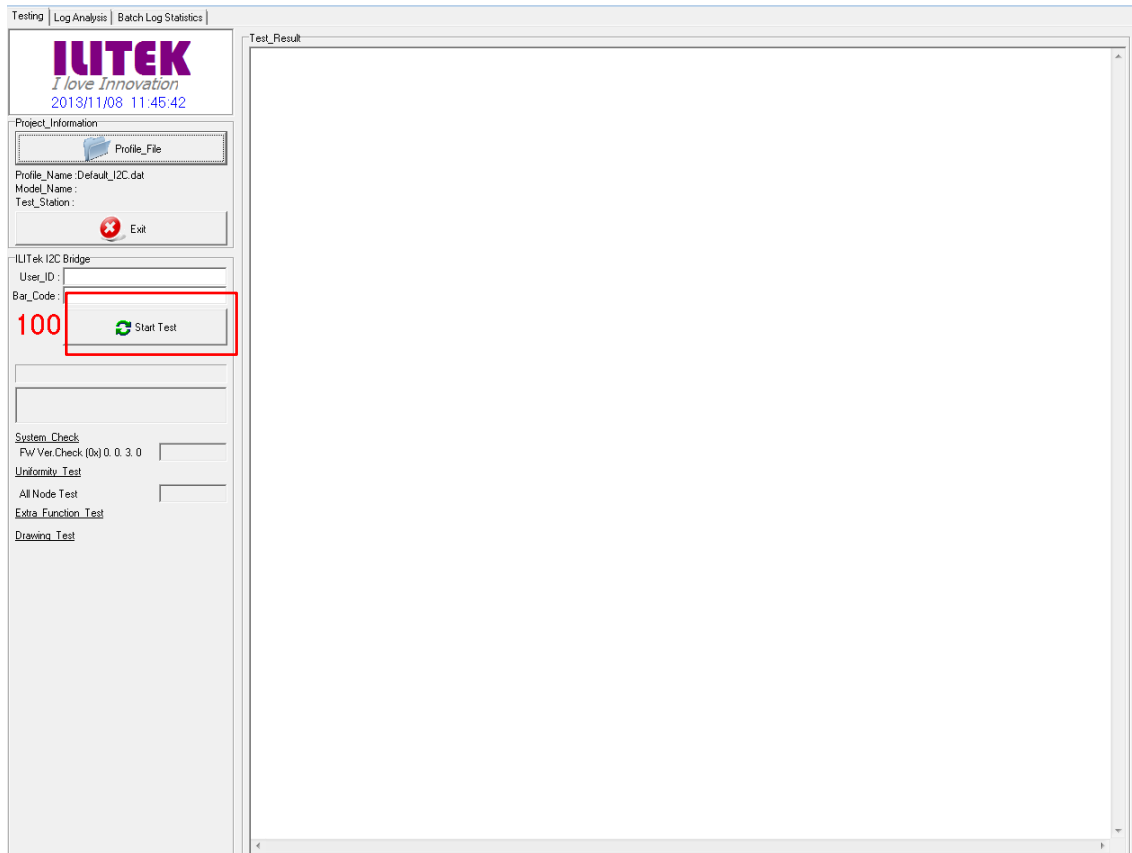


Figure 3-3: Testing UI

Single-Point Box Drawing Test

Using a finger across all the gray circle, and the pink circle to fill up all the gray circle, the way the fingers are allowed to leave the touch panel, just a finger back in to continue testing.

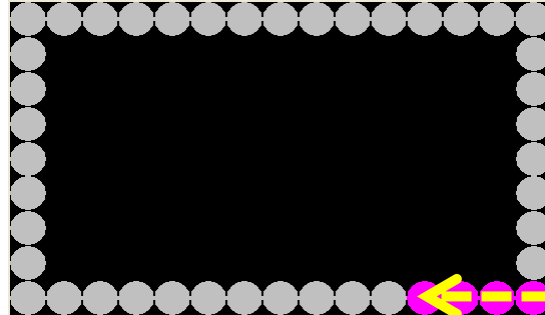


Figure 3-4: Single-Point Box Drawing Test

Dual-Points Box Drawing Test

Use two fingers across the gray circle to the pink circle to fill up all of gray circle, touch panel, the way the fingers are allowed to leave just the finger back in to continue testing.

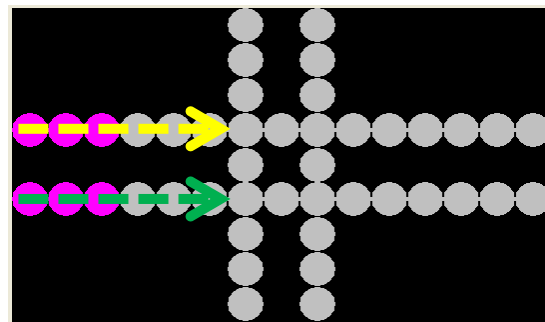


Figure 3-5: Dual-Points Box Drawing Test

Chase Line Drawing Test

Using a finger in accordance with the instructions of the green arrow, draw from start to the end, a finger cannot leave the touch panel and cannot draw outside the range of the red rectangle.

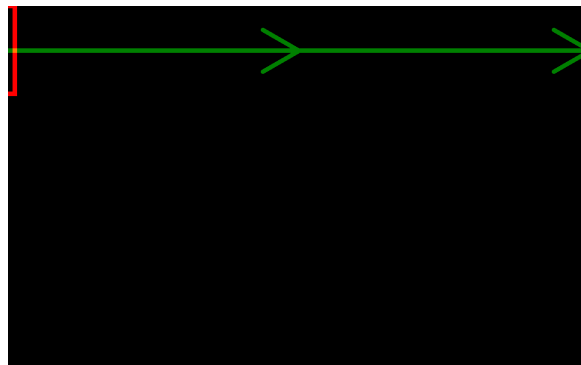


Figure 3-6: Chase Line Drawing Test

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Single Point Line Drawing Test

Using a finger in accordance with the instructions of the blue arrow, draw from start to the end, a finger **cannot leave the touch panel** and **cannot draw outside** the range of the gray line.

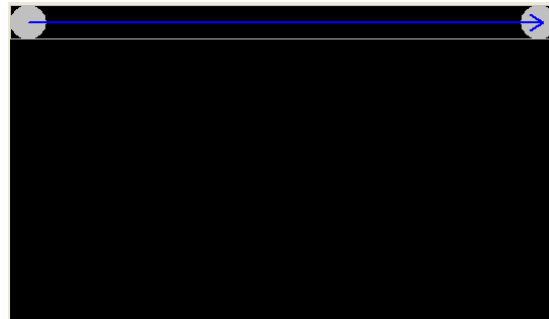


Figure 3-7: Single Point Line Drawing Test

Dual Points Line Drawing Test

Using a finger in accordance with the instructions of the blue arrow, draw from start to the end, a finger **cannot leave the touch panel** and **cannot draw outside** the range of the gray line.

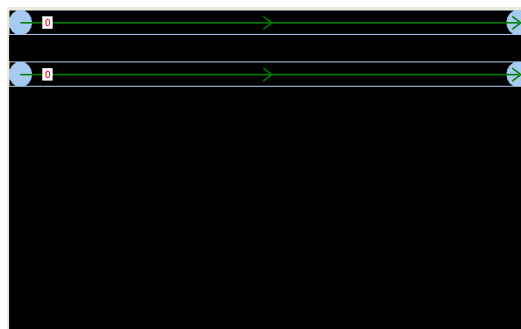


Figure 3-8: Dual Points Line Drawing Test

10 Fingers Test

Put 10 fingers on the TP, Pass the test if tool detect 10 fingers.



Figure 3-9: 10 Fingers Test

Free Style Drawing

Free drawing test can only be through manually stop the test or over the of the test countdown timer.

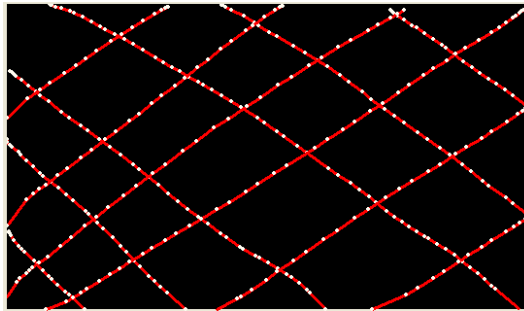


Figure 3-10: Free Style Drawing

3.3 Test Result

After testing is completed the system will display the test results.

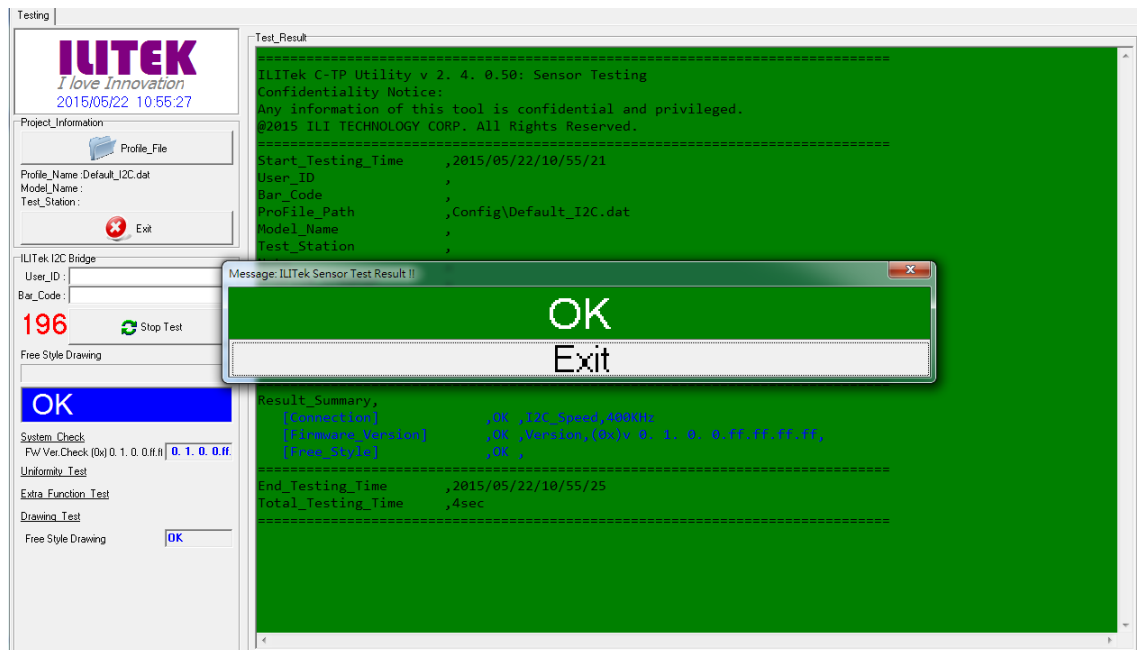


Figure 3-11: Pass

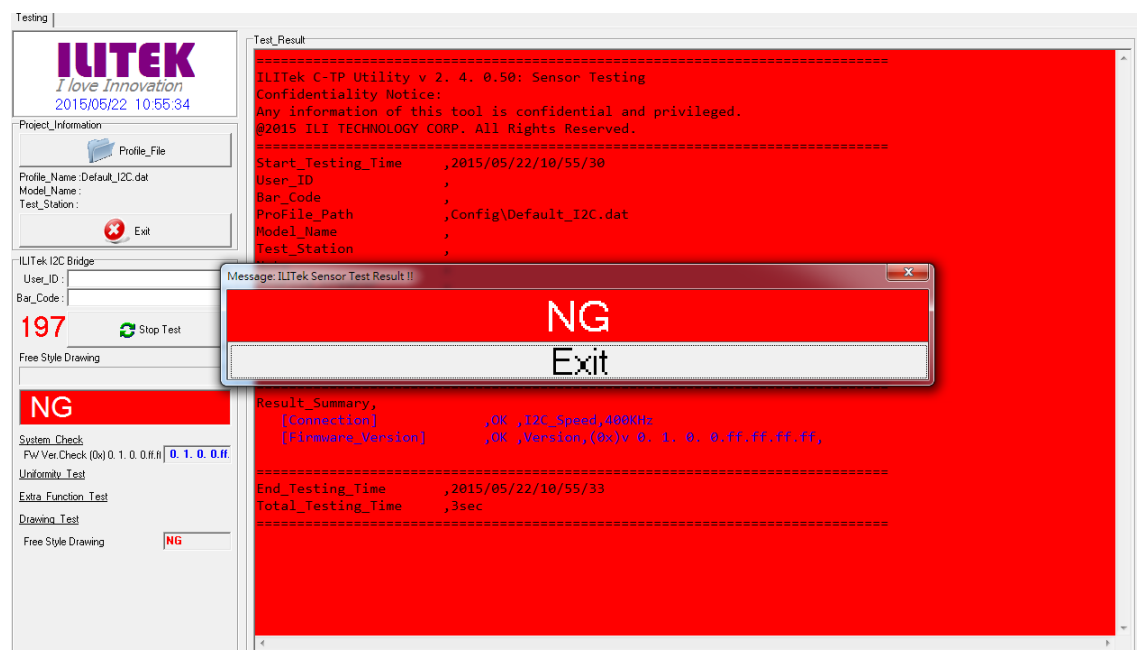


Figure 3-12: NG

4 Test log file description

4.1 Test log file path

Test log file placed in the directory of the Sensor Test Software "Log" folder, such as Figure 4, and date as the folder classification, the test log file named after the combination starts with the test results _ when minutes attachments the CSV. Such as in Figure 4-2 as shown in picture on the left of the file on behalf of the test by (NG), the test completion time 16:26:29, picture files to the right on behalf of the test through (OK), the test is completed for 11 when 11 minutes 08 seconds.



Figure 4-1: Test log file path



Figure 4-2: Test log file

4.2 Legal Notices

Table 4-1: Detailed explanations of Legal Notices

<pre>===== ILITek C-TP Utility v 2. 3. 6. 1: Sensor Testing Confidentiality Notice: Any information of this tool is confidential and privileged. ©2012 ILI TECHNOLOGY CORP. All Rights Reserved. =====</pre>		
Item	Name	Description
1	Confidentiality Notice	Any information on this tool are confidential, do not spread any

4.3 Test Setup

Table 4-2: Detailed explanations of Test Setup

<pre> Start_Testing_Time ,2013/06/11/11/36/20 User_ID , Bar_Code , ProFile_Path ,D:\SVN_Work2\branches\SensorTest_v2\V2_2_2\0-Release_Ba Model_Name ,Default_USB Test_Station , Note , ProFile_Creator ,ILITek ProFile_Date ,2013_06_11 ===== </pre>		
Item	Name	Description
1	Start_Testing_Time	Test Start Time
2	User_ID	Operator identification number
3	Bar_Code	Panel barcode
4	ProFile_Path	Test the profile path
5	Model_Name	Module name
6	Test_Station	Test station name
7	Note	Remarks
8	Creator	Creator Name
9	File_Date	Test file creation date

4.4 Test Items

This due in part to record the contents of a long, the picture is divided into several parts.

Table 4-3: Detailed explanations of test items 1

<pre>[Connection] ,OK ,I2C_Speed,400KHz [Firmware_Version] ,OK ,Version,(0x)v 0. 1. 0. 0.ff.ff.ff.ff, [I2C_Reset_Pin] ,OK , [I2C_INT_Pin] ,OK ,</pre>		
Item	Name	Description
1	Connection	Connection is established results
2	Firmware_Version	Firmware version
3	I2C_Reset_Pin	I2C Reset Pin test results
4	I2C_INT_Pin	I2C_INT_Pin test results

Table 4-4: Detailed explanations of test items 2

<pre>[MicroShort_Test] ,OK , MicroShort_Test_Window_1,50 MicroShort_Test_Window_2,50 X_Data_M_00, CH00, CH01, CH02 X_Data_M_01,125 ,125 ,125 X_Data_M_02,126 ,126 ,125 X_M_Delta, 1 , 1 , 0 Y_Data_M_00, CH00, CH01, CH02 Y_Data_M_01,125 ,125 ,125 Y_Data_M_02,126 ,125 ,126 Y_M_Delta, 1 , 0 , 1 ErrorCode_Description, MicroShort_NG_____,.1</pre>		
Item	Name	Description
1	MicroShort_Test	MicroShort test result
2	MicroShort_Test_Window_1	MicroShort test condition 1
3	MicroShort_Test_Window_2	MicroShort test condition 2
4	X/Y_Data_M_01~02	MicroShort test data
5	X/Y_M_Delta	The difference between data_01 and data_02
6	ErrorCode_Description	Explanation of error code

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Table 4-5: Detailed explanations of test items 3

<pre> [Open_Test] ,OK , Open_Threshold_____,200 Y_Driven_Data_O_____, X00 , X01 , X02 Y_Driven_Data_O_Y00, 200 ,255 ,255 Y_Driven_Data_O_Y01, 200 ,255 ,255 Y_Driven_Data_O_Y02, 200 ,255 ,255 ErrorCode_Description, Y_Driven_Below_Threshold_,.B Failed_Nodes_Summary, Y_Driven_Below_Threshold_Failed_Nodes_, 0 </pre>		
Item	Name	Description
1	Open_Test	Open test
2	Open_Theshold	Open test test condition
3	Y_Driven_Data_O_Y00~Ynn	Open data
4	ErrorCode_Description	Explanation of error code
5	Failed_Nodes_Summary	The cause of NG and statistics

Table 4-6: Detailed explanations of test items 4

<pre> [All_Node_Test] ,OK , All_Node_Window_____,10 All_Node_YDriven_Maximum_____,215 All_Node_YDriven_Minimum_____,118 </pre>		
項次	名稱	說明
1	All_Node_Test	All Node test result
2	All_Node_Window	All Node test condition
3	All_Node_YDriven_Maximum	All Node test data to allow the maximum
4	All_Node_YDriven_Minimum	All Node test data to allow the minimum

Table 4-7: Detailed explanations of test items 5

Y_Driven_Bench____, X00, X01, X02, X03, X04, Y_Driven_Bench_Y00, 121, 126, 127, 129, 129, Y_Driven_Bench_Y01, 123, 127, 130, 130, 130, Y_Driven_Bench_Y02, 124, 127, 130, 131, 130, Y_Driven_Bench_Y03, 123, 128, 130, 131, 130,					
Y_Driven_ULimit____, X00, X01, X02, X03, X04, Y_Driven_ULimit_Y00, 151, 156, 157, 159, 159, Y_Driven_ULimit_Y01, 153, 157, 160, 160, 160, Y_Driven_ULimit_Y02, 154, 157, 160, 161, 160, Y_Driven_ULimit_Y03, 153, 158, 160, 161, 160, Y_Driven_ULimit_Y04, 154, 157, 160, 161, 159,					
Y_Driven_LLimit____, X00, X01, X02, X03, X04, Y_Driven_LLimit_Y00, 91, 96, 97, 99, 99, Y_Driven_LLimit_Y01, 93, 97, 100, 100, 100, Y_Driven_LLimit_Y02, 94, 97, 100, 101, 100, Y_Driven_LLimit_Y03, 93, 98, 100, 101, 100,					
Y_Driven_Data____, X00, X01, X02, X03, X04, Y_Driven_Data_Y00, 121, 125, 128, 128, 129, Y_Driven_Data_Y01, 123, 127, 129, 129, 130, Y_Driven_Data_Y02, 124, 128, 130, 129, 129, Y_Driven_Data_Y03, 124, 129, 129, 130, 130,					
Item	Name	Description			
1	Y_Driven_Data_Bench_Y00 ~ Y_Driven_Data_Bench_Y..	All node Y Driven baseline information			
2	Y_Driven_Data_ULimit_Y00 ~ Y_Driven_Data_ULimit_Y..	All node Y Driven benchmarks on upper limits			
3	Y_Driven_Data_LLimit_Y00 ~ Y_Driven_Data_LLimit_Y..	All node Y Driven benchmark lower limit			
4	Y_Driven_Data_Data_Y00 ~ Y_Driven_Data_Data_Y..	All node Y Driven test data			

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Table 4-8: Detailed explanations of test items 6

[Single_Point_Box_Test] ,OK , [Dual_Points_Box_Test] ,OK , [Single_Point_Line_Test] ,OK , [Dual_Points_Line_Test] ,OK , [Chase_Box_Test] ,OK , [10_Fingers_Test] ,OK , [Free_Style] ,OK ,		
Item	Name	Description
1	Single_Point_Box_Test	Single-Point Box Drawing test result
2	Dual_Points_Box_Test	Dual-Points Box Drawing test result
3	Single_Point_Line_Test	Single-Point Line Drawing test result
5	Chase_Box_Test	Chase Box Drawing test result
6	10_Fingers_Test	10 Fingers Drawing test result
7	Free_Style	Free-Style Drawing test result

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

4.5 The message of test item response

If there is not in the allowable range data, the extra information will be added later ". X" as the distinction.

```
X_Driven_Data____, X00, X01, X02, X03,
X_Driven_Data__Y00, 72.1, 92, 107, 112,
X_Driven_Data__Y01, 139, 133, 126, 124,
X_Driven_Data__Y02, 157.1, 142, 127, 125,
X_Driven_Data__Y03, 126, 124, 123, 122,

Data__Tx06,116 ,159 ,113.8,140 ,102 ,103 ,116.8, 98 , 96 ,148 ,105
Data__Tx07,113 ,157.8,111 ,138 , 99 ,101 ,112.8, 95 , 93 ,145 ,103
Data__Tx08,110 ,153.8,109 ,136 , 97 , 99 ,109 , 93 , 91 ,144 ,101
```

Figure 4-3: NG

```
ErrorCode_Description,
Y_Driven_Exceeds_Maximum____.6
Y_Driven_Below_Minimum____.7
Y_Driven_Over_Window____.8
Y_Driven_Over_Window2____.9
```

Figure 4-4: Error Code Description (depended on IC)

```
Nodes_Data_Summary,
Y_Driven_Maximum____,198
Y_Driven_Minimum____, 74
Maximum_Window1____, 17
Maximum_Window2____, 6
```

Figure 4-5: Node Data Summary (depended on IC)

```
Failed_Nodes_Summary,
Y_Driven_Exceeds_Maximum_Failed_Nodes____, 0
Y_Driven_Below_Minimum_Failed_Nodes____, 0
Y_Driven_Exceeds_Window_Failed_Nodes____, 633
Y_Driven_Exceeds_Window2_Failed_Nodes____, 0
```

Figure 4-6: Failed Nodes Data Summary (depended on IC)

In addition to the log file will be marked not by the reason.

```
[Free_Style] ,NG ,Time_Out
```

Figure 4-7: The detail message of NG

4.6 The test time

Table 4-9: Detailed explanations of Test Time

<pre>===== End_Testing_Time ,2013/05/24/11/24/59 Total_Testing_Time ,0sec =====</pre>		
Item	Name	Description
1	End_Testing_Time	End of the test time
2	Total_Testing_Time	Test to spend a total time

5 Log file analysis tool

Select the record file, test data will appear in the right panel. If didn't have CDC test data, analysis of the chart does not appear.

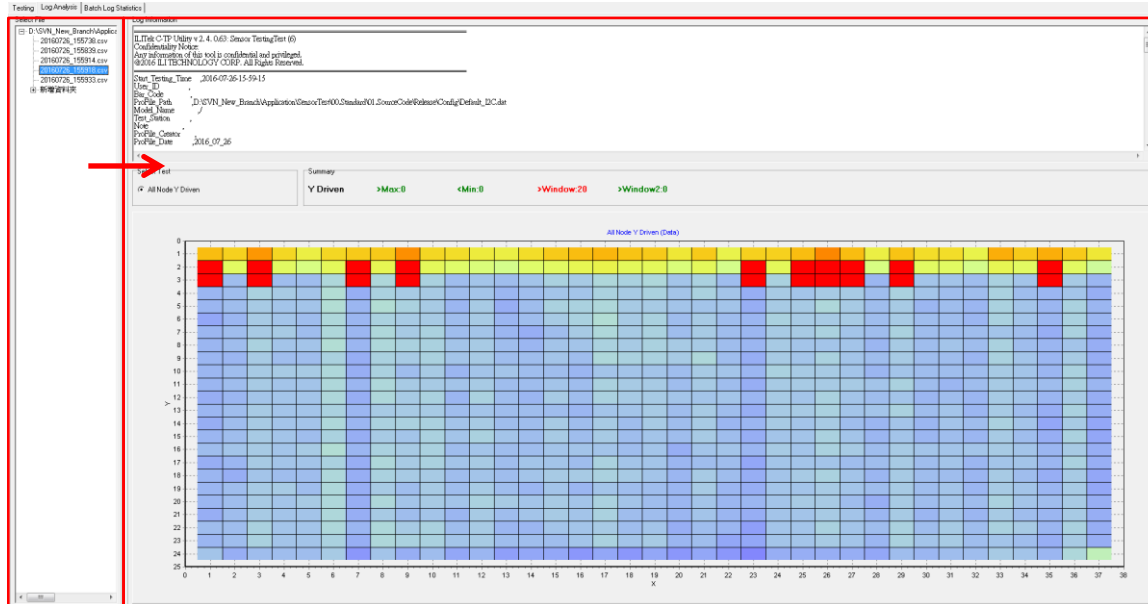


Figure 5-1: Log file analysis tool

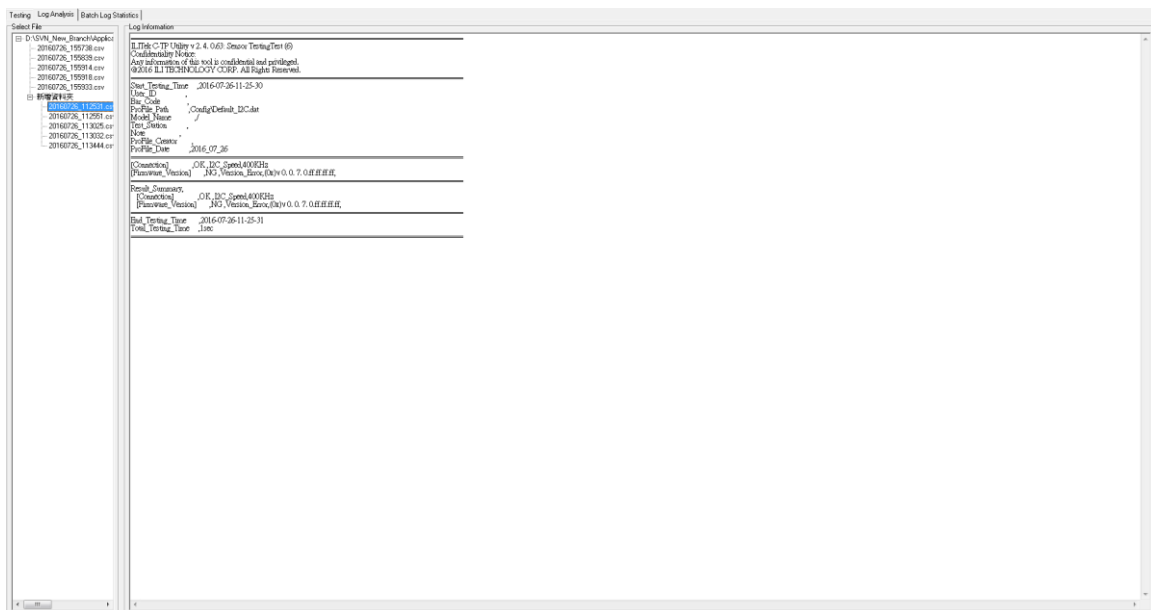


Figure 5-2: Log file analysis tool

5.1 All Node analysis

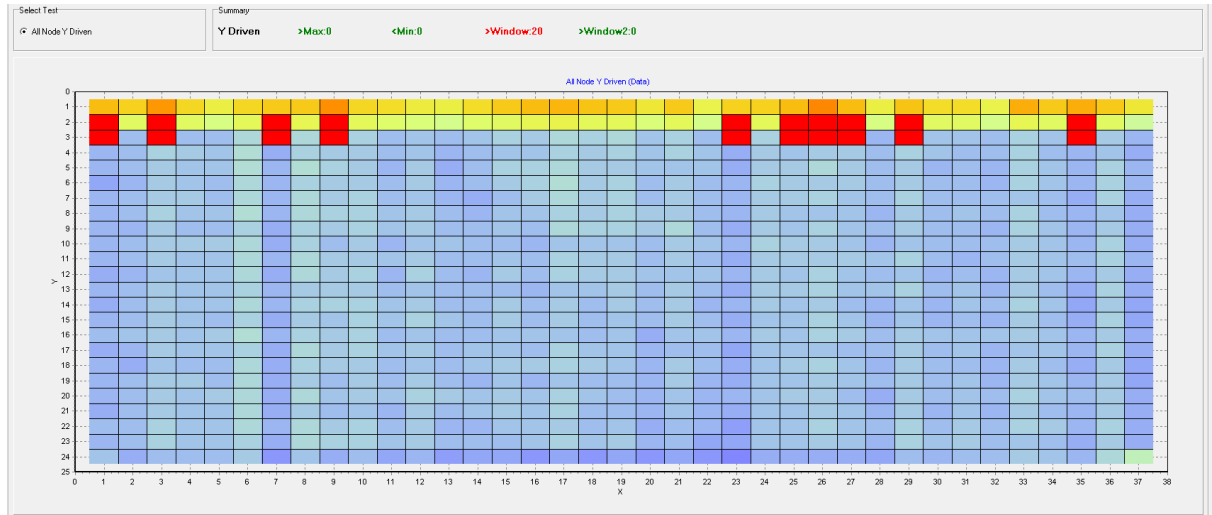


Figure 5-3: All Node analysis of Fig.

Table 5-1: Detailed explanations of All Node analysis

Item	Name	Description
1	ULmit, LLmit or Data	Choose to display the benchmark (ULmit, LLmit) or test data (Data)
2	Fail Value	Over eligibility criteria, the background will turn red for identification
Note	Analysis chart can be used to click way to view a block of data, such as Figure 5-5, and then click once to restore	



Figure 5-4: Analysis of the chart operating schematic

6 Log file statistics

In the batch log statistics tab, you can select a log file folder and click “Start Statistics” button. Software will search and statistics all the log files and provide statistics chart.

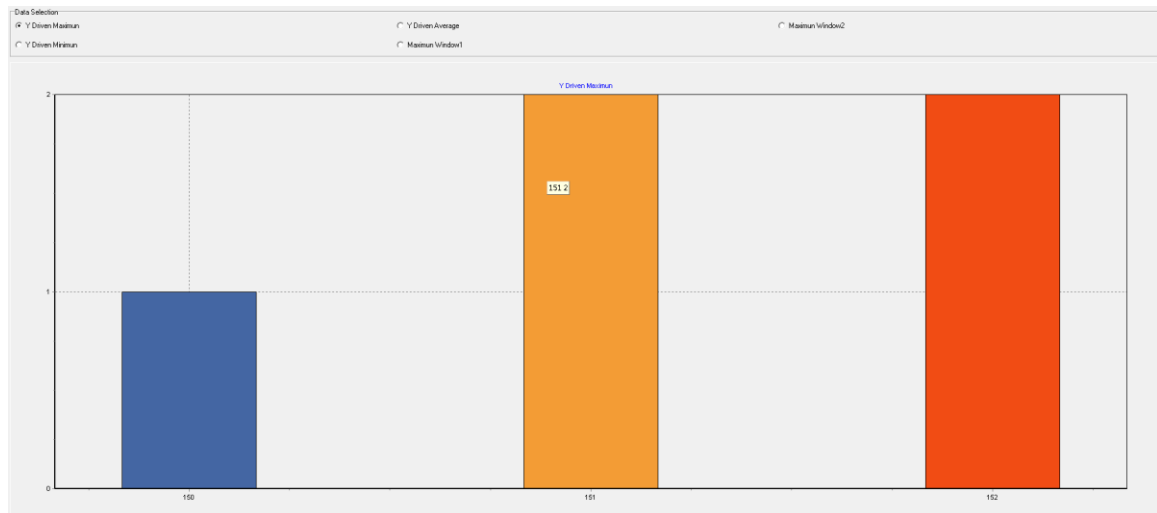


Figure 6-1: Log Statistics Chart

6.1 Folder selection and start statistics

The following describe how to use the statistical function.



Figure 6-2: Folder selection

Table 6-1: Detailed explanations of folder selection UI

Item	Name	Description
1	Include Sub Folder	Whether to include subdirectory
2	Select Folder	Select a directory what you want statistics
3	Start Statistics	Statistics began
4	Export Summary JPEG	Export all the summary chart to JPEG file

Step 1: Click “Select Folder” and select a folder. If you want to statistics subdirectory, please check “Include Sub Folder”.

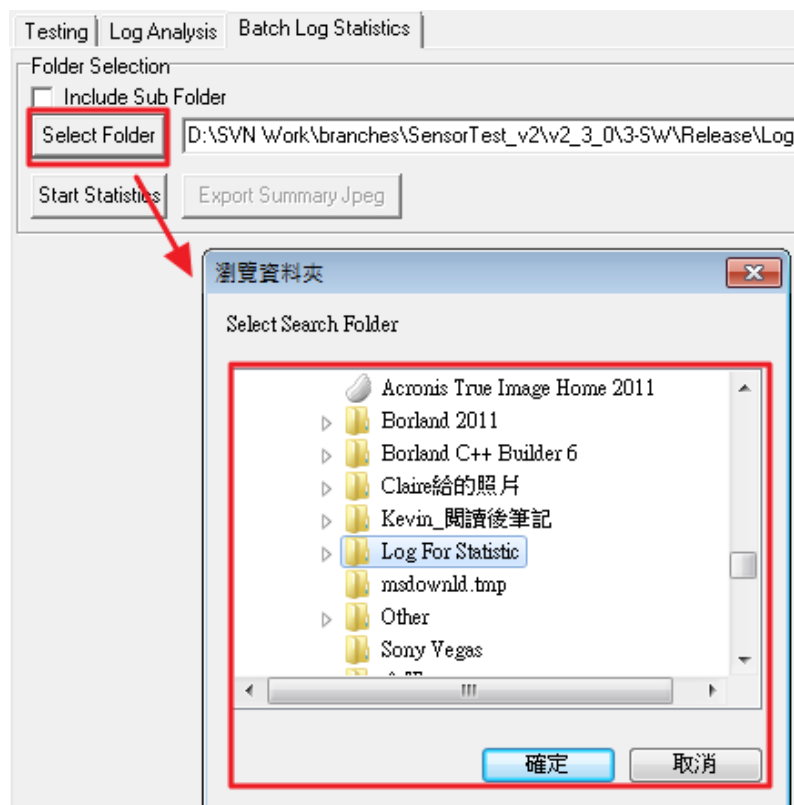


Figure 6-3: Select a folder you want statistics

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Step 2: Click “Start Statistic” button, please wait patiently until show "Statistics Finished!!" dialog.

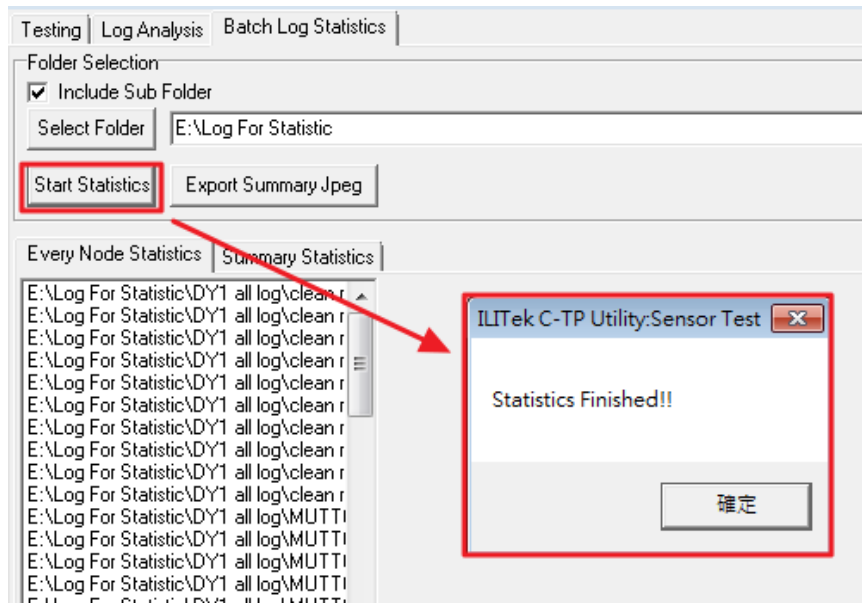


Figure 6-4: Statistics Finished

6.2 Every Node Statistics

Every Node Statistics function will count the value distribution of each node; the following describe how to use this feature.

Step 1: Select the file on the left side, the software show the chart by grayscale.

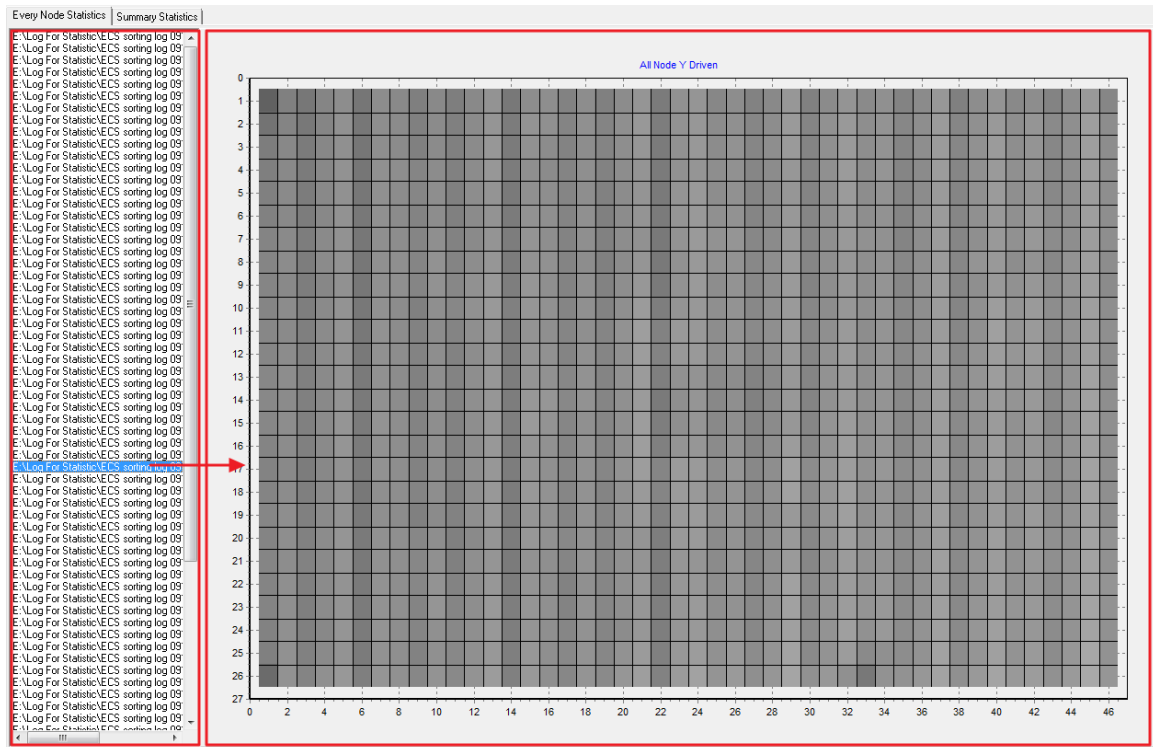


Figure 6-5: Show all node result

Step 2: When right-click on chart, you can select different type driven data. Unsupported data are shown in gray (Figure 6-6 left) . If the channel of panel is over a certain size, the value will be hidden. Just move cursor to the top of the node, the value will be shown (Figure 6-6 right) .

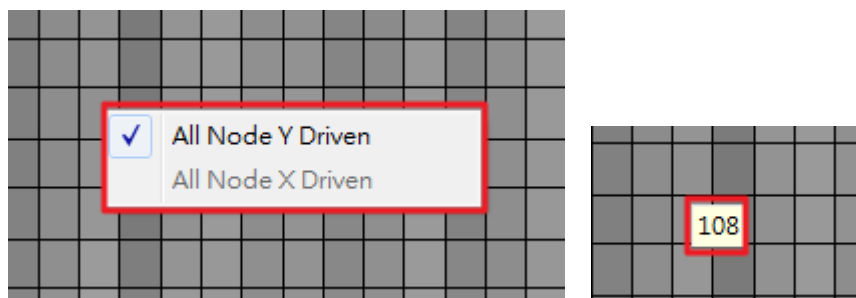


Figure 6-6: Data Selection

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.

Step 3: Left-click the node will show the value distribution of the node. The vertical axis is the amount. The horizontal axis is the value. Left-click on the chart returns to the previous screen.

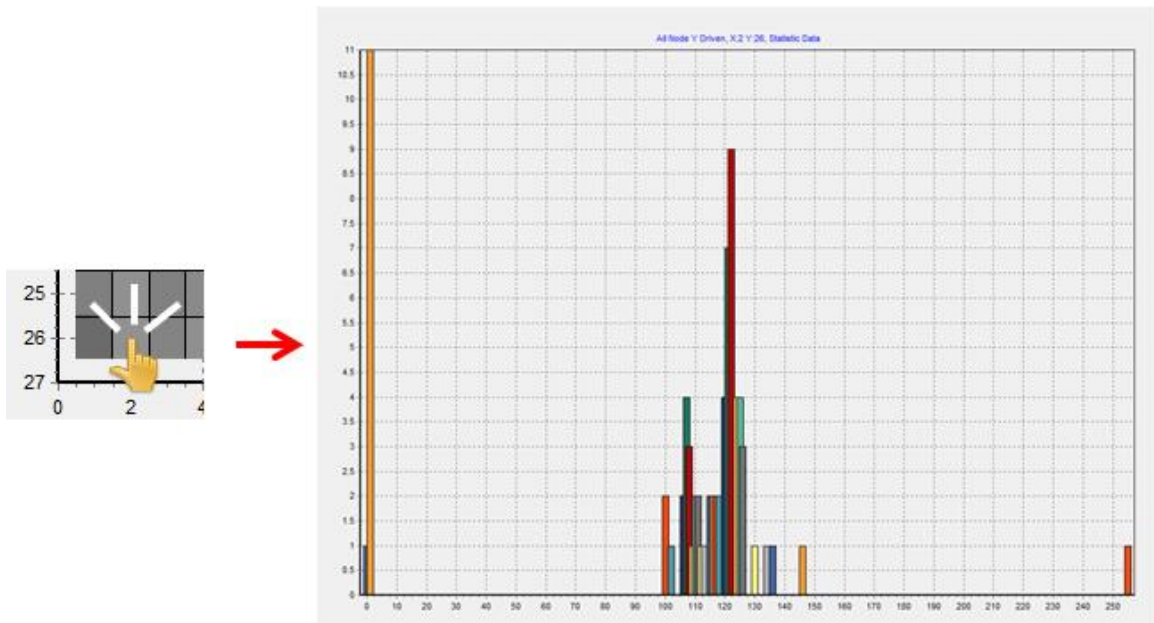


Figure 6-7: Click show the value distribution

6.3 Summary Statistics

Summary Statistics function will count the value distribution of the node data summary; the following describe how to use this feature.

Step 1: "Data Selection" provides selection for different type summary results, statistics result shown in the chart (Figure 6-8). Figure 6-8 Describe summary type.

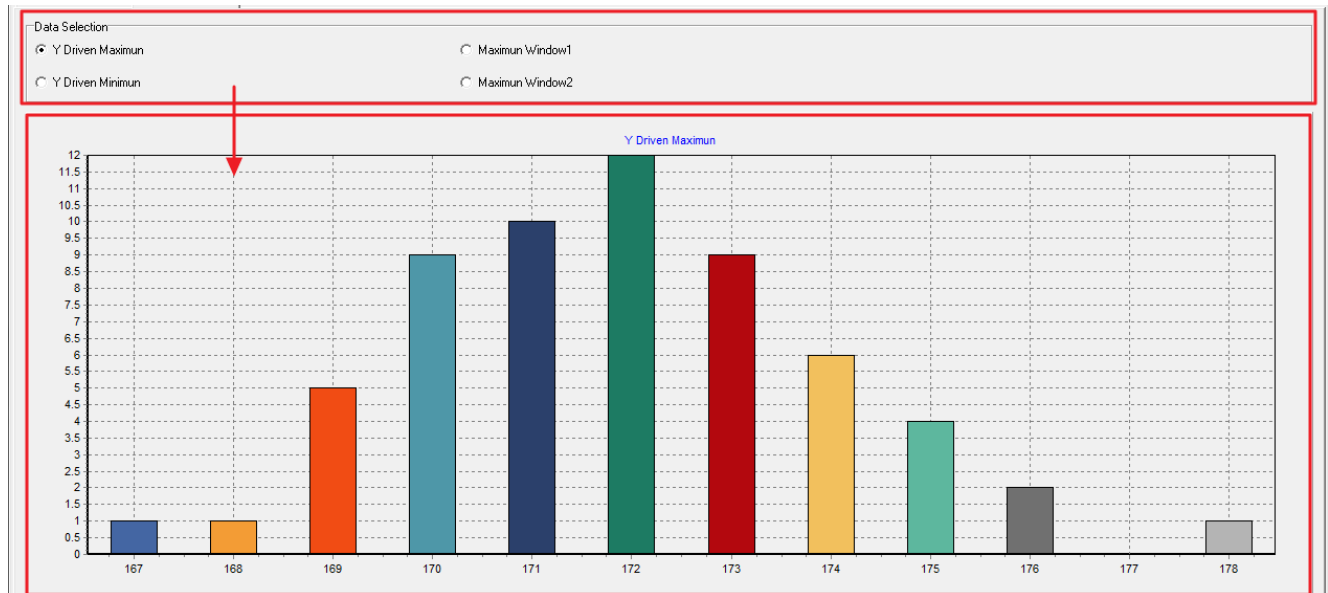


Figure 6-8: Summary Statistics

Table 6-2: Detailed explanations summary type

Item	Name	Description
1	Y Driven Maximum	The maximum y driven value of the log
2	X Driven Maximum	The maximum x driven value of the log
3	Y Driven Minimum	The minimum y driven value of the log
4	X Driven Minimum	The minimum x driven value of the log
5	Y Driven Average	The average y driven value of the log
6	X Driven Average	The average x driven value of the log
7	Maximum Window1	The maximum window1 value of the log
8	Maximum Window2	The maximum window2 value of the log

The information contained herein is the exclusive property of ILI Technology Corp. and shall not be distributed, reproduced, or disclosed in whole or in part without prior written permission of ILI Technology Corp.