

針腳對位檢測操作手冊



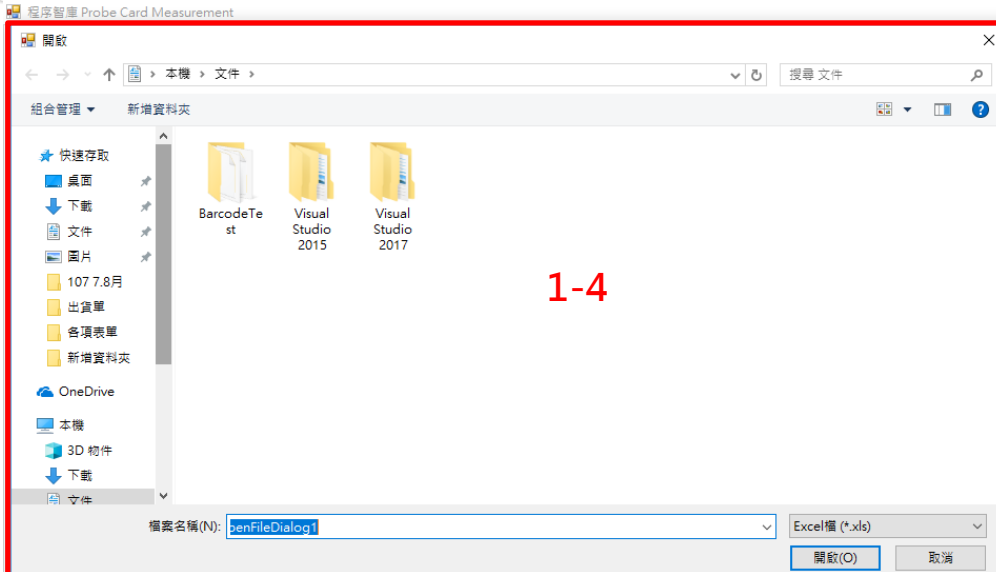
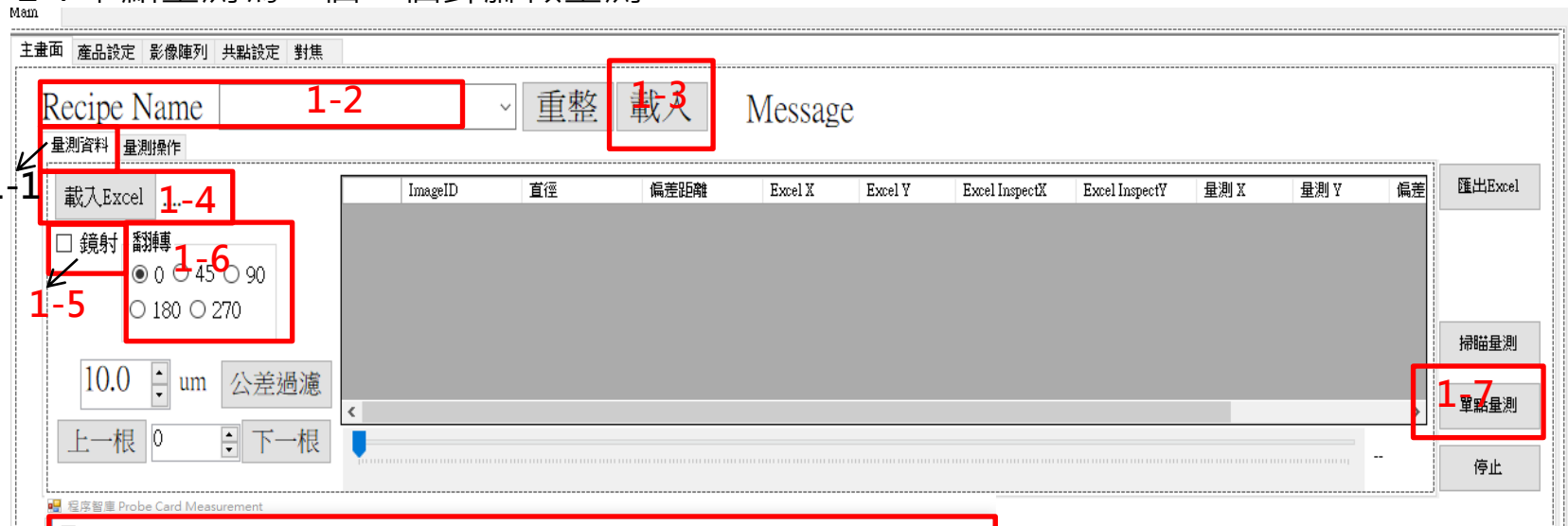
1.主畫面介紹

1-1量測資料 1-2名稱設定

1-3載入 1-4點擊載入Excel，跳出視窗(選擇excel檔)

1-5選擇是否鏡射 1-6翻轉角度選擇

1-7單點量測為一個一個針腳做量測



1-4



2.量測操作介紹

2-1點擊量測操作

2-2左上定位設定選擇一點量測(2-2-1利用手動操作在2-2-2camera圖上移至左上點)

2-2-2Camera現在的點要與2-3右下針腳圖對應點按左鍵再按2-4左上定位點set

The screenshot shows the main control interface of a measurement system. At the top, there's a 'Main' tab and a 'Recipe Name' dropdown set to 'P01'. Below this are buttons for '重整' (Reset), '載入' (Load), and 'Message'. The interface is divided into several sections:

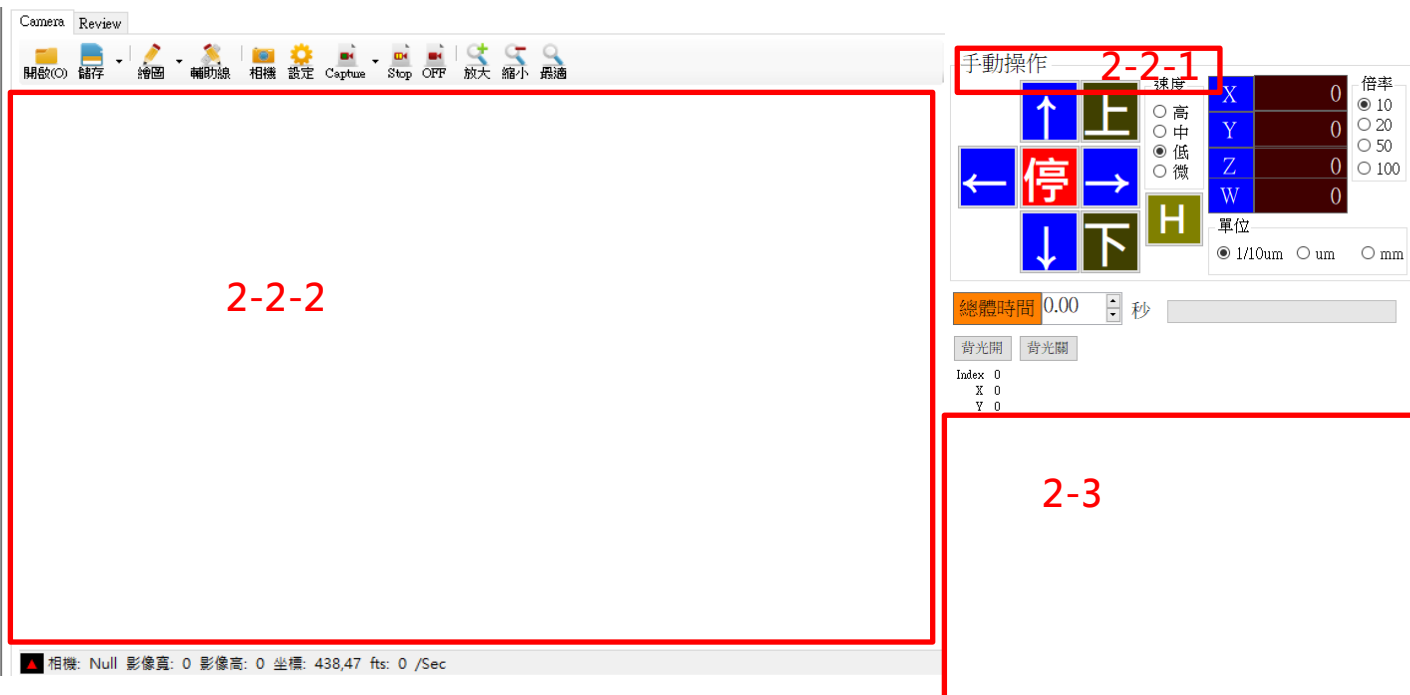
- Measurement Data Section:** Contains '量測資料' and '量測操作' tabs. Under '量測操作', there are two columns for '左上定位點' (Left Top Positioning Point) and '右上定位點' (Right Top Positioning Point). Each column has input fields for X1, Y1, X2, and Y2, all currently set to 0.00. A 'Move' button is located below these fields. A red box labeled '2-4' highlights the 'Move' button.
- Correction Section:** Labeled '修正偏差' (Correction Bias), it includes a 'Set' button, a '0.0000' input field, and 'X Shift' and 'Y Shift' fields, both set to 0. An 'Angle' button is also present.
- Control Section:** Features a '關燈' (Turn Off Light) button, a '回進退料位置' (Return to In/Out Position) button, and a '掃描起點' (Scanning Start Point) section with 'Set X' and 'Set Y' fields, both set to 0, and a 'Move' button.
- Output Section:** On the far right, there are buttons for '匯出Excel' (Export to Excel), '掃描量測' (Scan Measurement), '單點量測' (Single Point Measurement), and '停止' (Stop).

Below the main interface is a 'Camera' window. It has a toolbar with icons for '開啟(O)' (Open), '儲存' (Save), '繪圖' (Draw), '輔助線' (Auxiliary Line), '相機' (Camera), '設定' (Settings), 'Capture', 'Stop', 'OFF', '放大' (Zoom In), '縮小' (Zoom Out), and '最適' (Fit). The main area of the camera window is a large red box labeled '2-2-2'. To the right of the camera window is a manual control panel labeled '手動操作 2-2-1'. This panel includes a directional pad with '上' (Up), '下' (Down), '左' (Left), and '右' (Right) buttons, and a central '停' (Stop) button. It also has a speed control section with radio buttons for '高' (High), '中' (Medium), '低' (Low), and '微' (Micro), and a table for selecting magnification (倍率) with values 10, 20, 50, and 100. The '10' magnification is selected. Below this is a '單位' (Unit) section with radio buttons for '1/10um', 'um', and 'mm', with '1/10um' selected. A '總體時間' (Total Time) display shows '0.00' seconds. There are also '背光開' (Backlight On) and '背光關' (Backlight Off) buttons. At the bottom of the manual control panel, the coordinates are shown as 'Index 0', 'X 0', and 'Y 0'. A large red box labeled '2-3' is positioned below the manual control panel.

At the bottom of the software window, a status bar displays: '相機: Null 影像寬: 0 影像高: 0 坐標: 438,47 fts: 0 /Sec'



2- 5右上定位點設定
 右上選擇一點量測(用2-2-1手動操作移至camera圖面右上一點)
 2-2-2Camera現在的點要與2-3右下針腳圖對應點按左鍵再按2-6左上定位點set
 (與前頁2-2左上定位點設定操作手法一樣)



3.設定量測資料

按下機台開關點選桌面ICMAPE

3-1選擇是否回HOME點(如有更新檔就點選是)

3-2選擇RecipeName 3-3點擊載入

3-4載入excel選擇量測檔案

3-5選擇是否鏡射 3-6選擇角度翻轉(如操作的角度與擺設的角度一樣就不需做此動作)

The screenshot shows the ICMAPE software interface. A dialog box titled "詢問視窗" (Question Window) is open, asking "如機台斷電過帶回HOME點，是否重新回HOME?" (If the machine has lost power and returns to the HOME point, do you want to return to HOME?). The "是(Y)" (Yes) button is highlighted, labeled "3-1".

The main software window has several elements highlighted with red boxes:

- "Recipe Name" dropdown menu, labeled "3-2".
- "重整" (Refresh) button, labeled "3-3".
- "載入Excel" (Load Excel) button, labeled "3-4".
- "鏡射" (Mirror) checkbox, labeled "3-5".
- "翻轉" (Rotate) dropdown menu, labeled "3-6".

The main window also displays a table with columns: ImageID, 直徑 (Diameter), 偏差距離 (Deviation Distance), Excel X, Excel Y, Excel Inspect X, Excel Inspect Y, 量測 X (Measure X), 量測 Y (Measure Y), 偏差 (Deviation), and 匯出Excel (Export Excel). The table is currently empty.

The screenshot shows a Windows File Explorer window titled "開啟" (Open). The address bar shows the path "本機 > 本機磁碟 (D:)". The file list shows several folders and files:

名稱	修改日期	類型	大小
gychen	2019/2/15 下午 0...	檔案資料夾	
ICMap	2019/1/29 下午 0...	檔案資料夾	
ProdCard	2019/1/29 下午 0...	檔案資料夾	
Point - 複製	2017/11/28 上午 ...	Microsoft Excel 9...	1,256 KB
Point	2018/11/26 上午 ...	Microsoft Excel 9...	494 KB
Point2000	2018/10/3 上午 1...	Microsoft Excel 9...	71 KB
Point3000	2018/1/5 下午 02...	Microsoft Excel 9...	52 KB
Point20180719	2018/7/19 下午 0...	Microsoft Excel 9...	90 KB
Point20181222	2018/12/22 下午 ...	Microsoft Excel 9...	1,141 KB
Point20190221	2019/2/21 上午 0...	Microsoft Excel 9...	352 KB
Point20190221_1	2019/2/21 上午 1...	Microsoft Excel 9...	358 KB
Point20190221_2	2019/2/21 上午 1...	Microsoft Excel 9...	358 KB
台類電探針卡針位圖	2019/2/20 上午 0...	Microsoft Excel 9...	279 KB

The "開啟" (Open) button at the bottom right is highlighted with a red box, labeled "3-4".



3-7右下針腳圖左鍵點選針腳位置Ctrl按住滑鼠滾輪往前為放大.往後為縮小

3-8把量測物放置機台上後點擊產品設定 3-9點擊移至座標



4.設定針腳位置

4-1 點擊量測操作定位左上角及右上角(自由選擇適合針腳)

4-2 點選camera設置 4-2-1 點選連續取像

4-3 利用手動移至左上角(位置必須與右下針腳圖相同)

4-4 點擊輔助十字(點擊後會出現藍色交叉綠色正方) 4-4-1 在針腳中心點按下左鍵

4-4-2 鎖定右下針腳左鍵按一下(必須與camera圖針腳位置一致)

4-4-3 點擊左上定位點的set(把右下方圖的點與影像做連結)。

主畫面 產品設定 影像陣列 共點設定 tabPage10

Recipe Name P01 重整 載入 Message

量測資料 量測操作 **4-1**

左上定位點um 右上定位點 修正偏差

X1	347859.0	X1	363587.6	Set	0.041
Y1	-28689.0	Y1	-28700.3	X Shift	355723
X2	-7863.8	X2	7862.8	Y Shift	-19847
Y2	-8841.6	Y2	-8841.6	Angl	

Speed 40000 **4-4** + **4-4**

掃描起點 Set X 3478620 Set Y -286885 Move

回進退料位置 匯出Excel 掃描量測 單點量測 停止

4-2 4-2-1 4-3 4-4-1 4-4-2 4-4-3

手動操作 速度 倍率

X	3499038	10
Y	-292992	20
Z	-509846	50
W	0	100

單位 1/10um um mm

總體時間 0.00 秒

button10 button10

Index 100
X -7863.75
Y -8841.6

4-4-2

開啟中 acA1920-155um (22781671) 影像寬: 1920 影像高: 1200 坐標: 1028.6,424.6 fts: 0 /Sec



4-5利用手動移至右上角

4-5-1選定針腳中心點按下左鍵

4-5-2右下針腳圖按右鍵拖移至右上角(與camera同點),鎖定針腳左鍵按一下

4-5-3點擊右上定位點的set(把右下方圖的點與影像做連結), 兩點定位即可完成

主畫面 產品設定 影像陣列 共點設定 tabPage10

Recipe Name P01 重整 載入 Message

量測資料 量測操作

左上定位點um 右上定位點 修正偏差

X1	349903.8	X1	363587.6	Set	0.041
Y1	-29298.9	Y1	-28700.3	X Shift	355723
X2	-8043.8	X2	7862.8	Y Shift	-19847
Y2	-8661.6	YZ	41.6	Angl	

Speed 40000 +

關燈 回進退料位置 匯出Excel

掃描量測 單點量測 停止

掃描起點 Set X 3478620 Set Y -286885 Move

速度 倍率

X	3660098	倍率	10
Y	-294966	倍率	20
Z	-509846	倍率	50
W	0	倍率	100

單位 1/10um um mm

總體時間 0.00 秒

button10 button10

Index 5572
X 8042.85
Y -8661.6

4-5-1 4-5 4-5-2



5.開始測量動作

5-1 點擊修正偏差的set 5-1-1再點擊angel(角度修正)

5-2 右下角圖會將點位重新定位成跟現在擺放位置一樣

5-3 點擊左上定位點move 5-3-1設置掃描起點,點擊SetX.SetY

5-4 確定speed 5-4-1按下掃描量測

主畫面 產品設定 影像陣列 共點設定 tabPage10

Recipe Name P01 重整 載入 Message

量測資料 量測操作

左上位點um

X1	347859.0
Y1	-28689.0
X2	-7863.8
Y2	8841.6

右上位點

X1	363587.6
Y1	-28700.3
X2	7862.8
Y2	-8841.6

修正偏差

Set	0.041
X Shift	355723
Y Shift	-19847

Speed 40000

掃描起點

Set X	3478620
Set Y	-286885

回進退料位置

輸出Excel

單點量測

停止

5-1 5-3-1 5-4-1 5-3 5-4

Camera Review

開啟(O) 儲存 繪圖 輔助線 相機 設定 Live Stop OFF 放大 縮小 最適

速度

- 高
- 中
- 低
- 微

X	3499038	倍率
Y	-292992	○ 10
Z	-509846	○ 20
W	0	○ 50

單位

- 1/10um
- um
- mm

總體時間 0.00 秒

button10 button10

Index	100
X	-7863.75
Y	-8841.6

5-2

開啟中 acA1920-155um (22781671) 影像寬: 1920 影像高: 1200 坐標: 1028.6,424.6 fs: 0 /Sec



6.開機第一次量測注意

6-1量測中須點擊停止，因第一次量測不會寫入數值內

6-1-1點選量測操作再點擊掃描量測

6-1-2再回到量測資料即可顯示量測X.Y值,偏差值

Recipe Name P01 重整 載入 量測中

量測資料 量測操作

載入Excel D:\台積電探針卡金

鏡射 翻譯
 0 45 90
 180 270

10.0 um 公差過濾

上一根 0 下一根

Image ID	直径	測量距離	Point X	Point Y	量測 X	量測 Y	偏差 X	
3521		999999	2429.235059	-5780.252332			999999	
3522		999999	2430.236652	-8561.574145			999999	
3523		999999	2432.369688	-5598.871165			999999	
3524	14	153.0799697289...	5.965750055232...	2433.550685	-8291.594485	2439.300998...	-8293.18321...	5.750313828629...
3525		999999	2435.372156	-5280.289998			999999	
3526	14	149.9528441731...	3.105825162684...	2436.533314	-8048.61279	2434.415054...	-8050.88416...	-2.118259601504...
3527		999999	2438.440705	5020.20882			999999	

6-1

6-1-2

Camera Review

開啟(O) 儲存 縮圖 輔助線 相機 設定 TaggedMode Stop OFF 放大 縮小 最適

6-1 手動操作

速度
 高
 中
 低
 微

X	3641889	倍率
Y	-201876	<input checked="" type="radio"/> 10
Z	-509843	<input type="radio"/> 20
W	0	<input type="radio"/> 50
		<input type="radio"/> 100

單位
 1/10um um mm

總體時間 80.00 秒

量測資料 量測操作 **6-1-1**

匯出Excel

關燈

回進退料位置

掃描起點

Set X 0 Move
Set Y 0 Move

6-1-1 掃描量測

單點量測

停止

左上定位點um
X1 0.0
Y1 0.0
X2 0.0
Y2 0.0
Set Move

右上定位點
X1 0.0
Y1 0.0
X2 0.0
Y2 0.0
Set Move

修正偏差
Set 0.000
X Shift 0
Y Shift 0
Angle

Speed 40000 +



7.查看量測結果

7-1顯示測量的X.Y,偏差值結果

7-2點擊公差過濾將問題針腳挑出

7-3點擊問題針腳在review可看見量測值(紅色框為量測值,綠色框為應該要的位置)

7-4點選下一根即可顯示下個針腳位置。

主畫面 產品設定 影像陣列 共點設定 tabPage10

Recipe Name P01 重整 載入 err code:-1位置 684 沒有資料列。

量測資料 量測操作

載入Excel D:\台積電探針卡...

鏡射 翻轉

0 45 90

180 270

10.0 um 公差過濾

上一根 2625 下一根

ImageID	直徑	偏差距離	Excel X	Excel Y	量測 X	量測 Y	偏差 X
2621		999999	-383.806023	-6493.473103			999999
2622	209 7-1	11.06030061274...	-381.480196	5759.077431	-387.508791...	5749.804552...	-6.028595634743...
2623		999999	-378.657599	-6243.526121			999999
2624	209	159.0331268305...	11.49822317986...	-376.331772	6009.024413	-379.146151...	5997.875942...
2625		999999	-373.509174	-5993.579139			999999
2626	228	156.5634918610...	13.03968947351...	-371.183347	6258.971395	-380.641801...	6249.995252...
2627		999999	268.260340	5742.623157			999999

Camera Review 7-3

Save Image

7-3

手動操作

速度

高 中 低 微

X 3472812 倍率 10 20 50 100

Y -111885

Z -511758

W 0

單位 1/10um um mm

總體時間 177.00 秒

button10 button10

Index 181
X -7762.513708
Y -8246.089902

