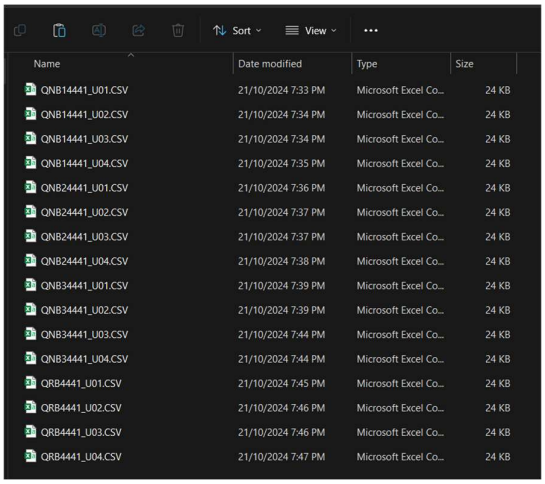
User Manual for Automation Correlation and Cpk Report

By Mohamad Haikal bin Mohamad Nazari

Step 1: Convert DL file format into CSV format

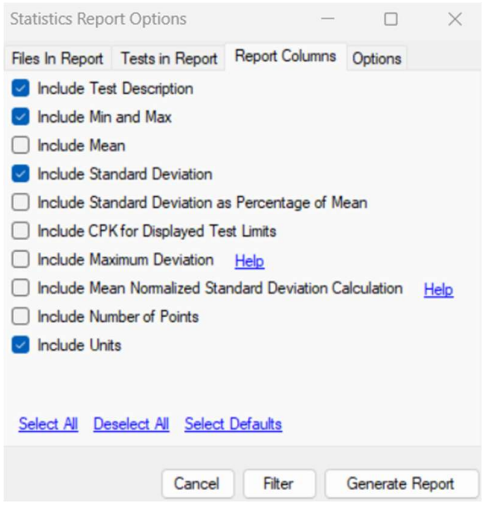
Note: Make sure unit number is included in the CSV file name, if unit #1 then set like “filename_U01.CSV”, this report generator only works with unit#01 to unit#09 for now.

1. Open the Manchester app.
2. Navigate to QA units and drag all DL files (reference board) into Manchester.
3. Go to the Reports section, select Test Value vs Device (Correlation), and choose none after that select one unit.
4. Set the Decimal Places to Display option to 4.
5. Click on Filter, then untick both "include fails" and "include alarms," and click Okay.
6. Generate the report and save it in CSV format.
7. Make sure that create a new folder based on test card name.
8. Repeat steps 3 to 5 for all remaining units.
9. Click on File and select "unload all files."
10. Go to QA units again and drag all DL files (new board) into Manchester.
11. Repeat steps 3 to 5 for the new board.
12. Repeat step 6 to generate and save the report for the new board at the same folder that had been created at step 7.



Step 2: Create limit file

1. Open the Manchester app.
2. Go to QA units and drag all DL files (reference board) into Manchester.
3. Go to the Reports section and select Test Statistics.
4. Select all units in Files in Report tab.
5. Go to Test in Reports tab and unselect MATH.0, MATH.1, MATH.2.
6. Go to the Report Columns tab and select the specified columns as listed below.

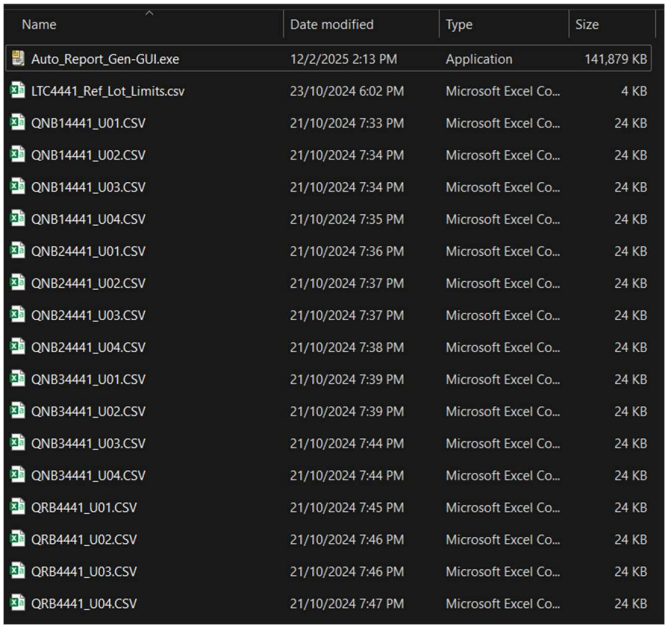


7. Go to the Options menu, select "Add Columns For" and set it to "None," then change the Decimal Places to 4.
8. Click on "Generate Report" to create the report.
9. In the Test Statistic Report section, select "File" then choose "Save to CSV File".
10. Name the file as “LTxxx_Ref_Lot_Limits.csv” and save it in the folder that was created earlier.
11. Open the limit file and change Min and Max columns to Low_limit and High_Limit respectively.
12. Update the Low_limit and High_Limit by taking the limit based on Test Program. **(DO NOT USE THE AUTOGENERATED LIMITS FROM MANCHESTER!).**

Test #	Description	Low_Limit	High_Limit	StdDev	Unit
1.0	VIN CONTINUITY	-1000	-300	4.4914	mV
3.0	BLANK CONTINUITY	-1000	-200	4.8826	mV
3.1	BLANK @20MA CONTINUITY	-1400	-200	20.8291	mV
4.0	RBLANK CONTINUITY	-1000	-300	4.4783	mV
6.0	EN CONTINUITY	-1000	-600	4.1975	mV
7.0	FB CONTINUITY	-1000	-300	5.3423	mV
8.0	DRVCC CONTINUITY	-1000	-300	4.6571	mV
9.0	OUT CONTINUITY	-1000	-300	7.0211	mV
10.0	IVIN; SHUTDOWN @VIN=7.5V	1	11.85	0.0993	uA
15.0	DRVCC VOLTAGE @ VIN=7.5V	3.5	6	0.0329	V
15.1	IVIN; PRE-STRESS @VIN=15V	50	498	7.9314	uA
18.0	IVIN ;ABS MAX @VIN=28V	100	1000	8.7935	uA
80.0	DRVCC VOLTAGE	9.5		0.0005	V
80.1	DRVCC HIGH STRESS @DRVCC=10V	0.01	1	0.0076	mA
80.2	DRVCC LOW STRESS @DRVCC=10V	0.01	1	0.0079	mA
90.0	FB @ 9.3V STRESS	-100	100	0.0842	uA

Step 3: Generate Correlation and Cpk Report

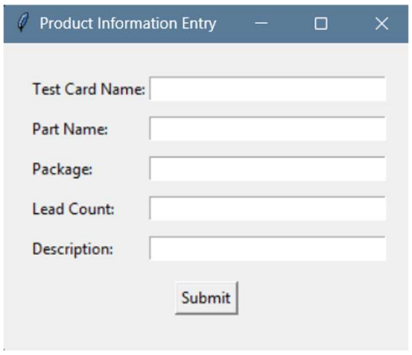
1. Ensure that the previously created folder contains the following files, including **Auto_Report_Gen-GUI.exe**.



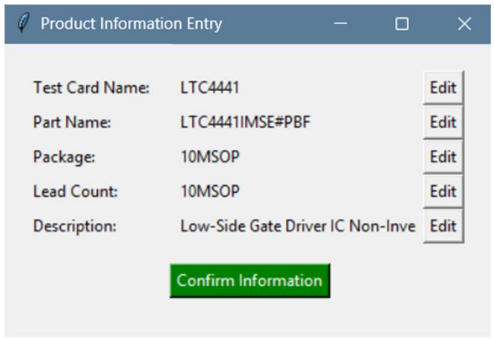
Name	Date modified	Type	Size
Auto_Report_Gen-GUI.exe	12/2/2025 2:13 PM	Application	141,879 KB
LTC4441_Ref_Lot_Limits.csv	23/10/2024 6:02 PM	Microsoft Excel Co...	4 KB
QNB14441_U01.CSV	21/10/2024 7:33 PM	Microsoft Excel Co...	24 KB
QNB14441_U02.CSV	21/10/2024 7:34 PM	Microsoft Excel Co...	24 KB
QNB14441_U03.CSV	21/10/2024 7:34 PM	Microsoft Excel Co...	24 KB
QNB14441_U04.CSV	21/10/2024 7:35 PM	Microsoft Excel Co...	24 KB
QNB24441_U01.CSV	21/10/2024 7:36 PM	Microsoft Excel Co...	24 KB
QNB24441_U02.CSV	21/10/2024 7:37 PM	Microsoft Excel Co...	24 KB
QNB24441_U03.CSV	21/10/2024 7:37 PM	Microsoft Excel Co...	24 KB
QNB24441_U04.CSV	21/10/2024 7:38 PM	Microsoft Excel Co...	24 KB
QNB34441_U01.CSV	21/10/2024 7:39 PM	Microsoft Excel Co...	24 KB
QNB34441_U02.CSV	21/10/2024 7:39 PM	Microsoft Excel Co...	24 KB
QNB34441_U03.CSV	21/10/2024 7:44 PM	Microsoft Excel Co...	24 KB
QNB34441_U04.CSV	21/10/2024 7:44 PM	Microsoft Excel Co...	24 KB
QRB4441_U01.CSV	21/10/2024 7:45 PM	Microsoft Excel Co...	24 KB
QRB4441_U02.CSV	21/10/2024 7:46 PM	Microsoft Excel Co...	24 KB
QRB4441_U03.CSV	21/10/2024 7:46 PM	Microsoft Excel Co...	24 KB
QRB4441_U04.CSV	21/10/2024 7:47 PM	Microsoft Excel Co...	24 KB

2. Open "Auto_Report_Gen.exe" and press "Enter" to start.

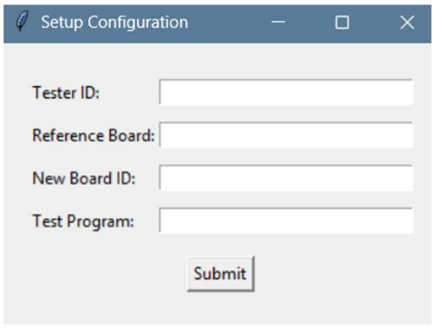
3. Fill in the "Production Information" fields and select "Submit" once completed.



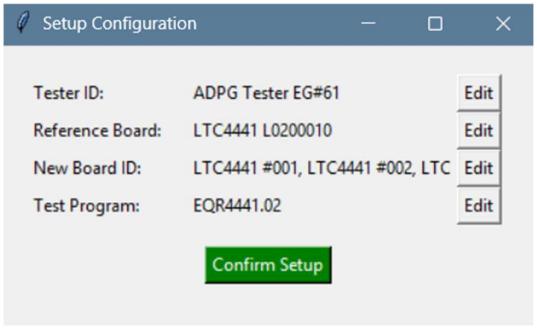
4. Review the production information and select "Confirm Information" if the details are correct. If changes are needed, select "Edit," update the necessary fields, and select "Save".



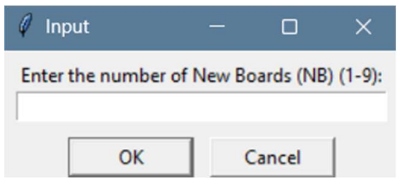
5. Fill in the "Setup Configuration" fields and select "Submit" once completed.

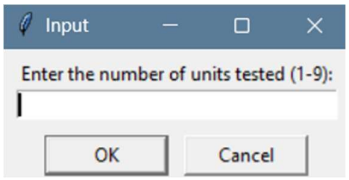


6. Review the setup configuration and select "Confirm Setup" if the details are correct. If changes are needed, select "Edit," update the necessary fields, and select "Save".



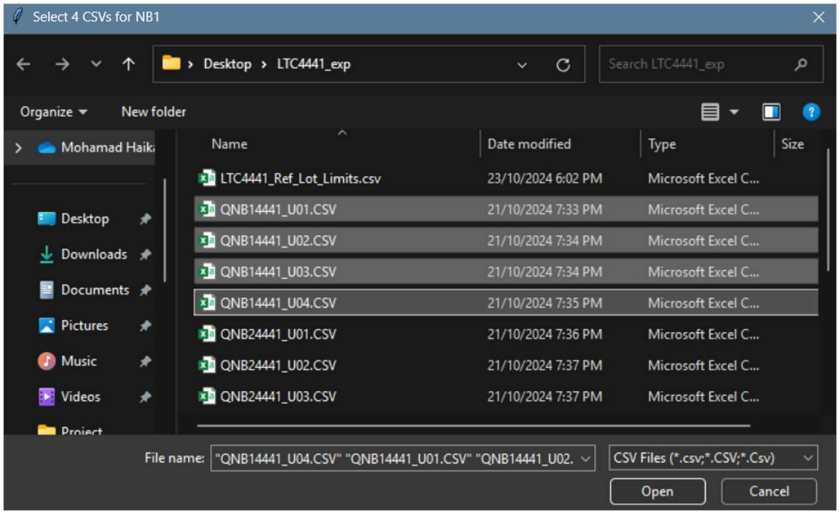
7. Enter the number of "New Boards (NB)" and "units tested".



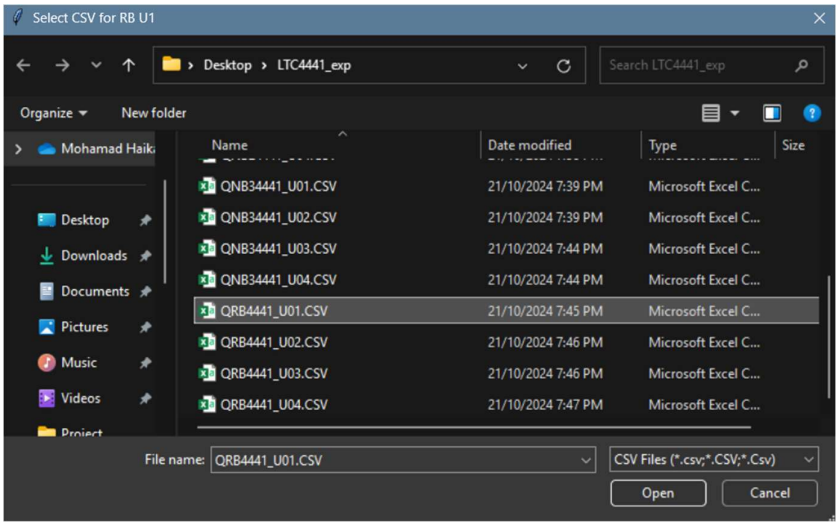


8. Check if the values are correct and select "Yes". If they are incorrect, select "No" and re-enter the correct values.

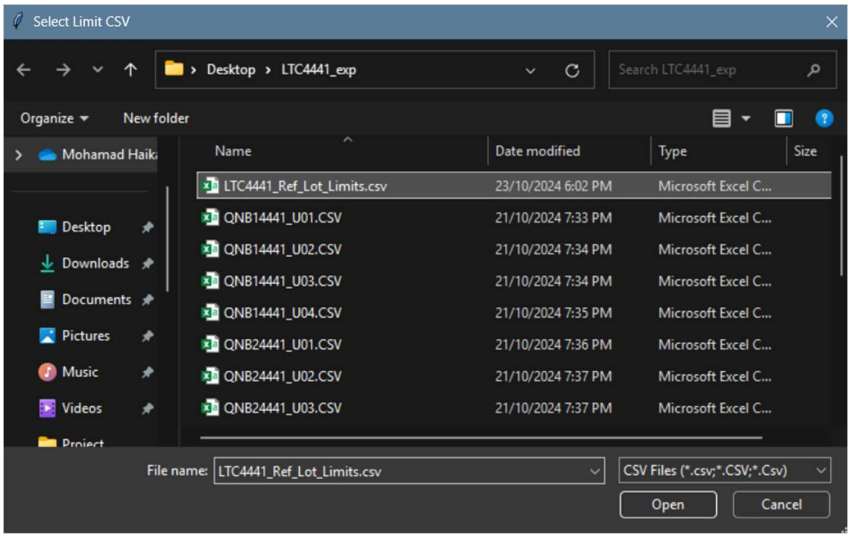
9. Select the CSV files based on the number of units for each NB and click "Open". Ensure that the correct file path is selected, containing the board to be generated. Repeat this process for each NB entered.



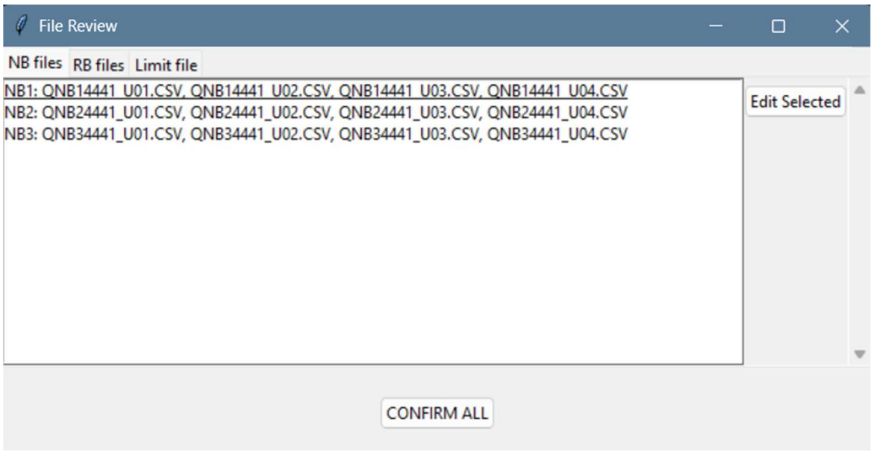
10. Select one CSV file for each RB and click "Open". Ensure that the correct file path is selected, containing the board to be generated. Repeat this for each unit entered.



11. Select one limit CSV file and click "Open". Ensure that the correct file path is selected, containing the board to be generated.



12. Review all selected files in the File Review window. If everything is correct, select "CONFIRM ALL". If changes are needed, select the file, click "Edit Selected," and upload the correct file.



13. The report will be generated as indicated in the console, and the console will close automatically when the process is complete.