

Test Instructions

Document Title:	CR100: First Test		
Document Number:	TBD	Change Reference:	TBA
Document Version:	1A	Document Date:	13/8/2025

Document Approval

Production Testing: Winston Arendse

Date: 19th December 2025 Signature: _____



1. Overview

The purpose of this document is to define the procedures required to perform production testing on the CR100 PCB Sub-Assembly:

Attention: Observe proper ESD handling and storage precautions for handling electrostatic-sensitive devices while performing the following procedures.

1.1. Abbreviations

PCB	Printed Circuit Board
UUT	Unit Under Test
EU	Electronic Unit
GSM	Global System for Mobile Communications
PC	Personal Computer
PSU	Power Supply Unit
BoN	Bed of Nails

1.2. Test Equipment / Jig and Fixtures / Tools

See Appendix for images of the below-mentioned items:

[A] PC

[B] CR100 First Test Bed-of-Nails

[C] Programmable DC Power Supply

2. First Test Procedure

2.1. Test Description

This test will be performed by the TestStand PC test software. The user will be required to insert the UUT into the CR100 First Test BoN and start the appropriate PC test.

2.2. Pre-test Requirements

2.2.1. Ensure that the following items are powered up (NOTE: Switch these on if they are not already powered up):

- Mains power
- Programmable DC PSU
- CR100 First Test BoN

2.2.2. Windows should automatically log into the Pointer profile. In the event that the Windows log-in screen, however, does appear, use the following details to log into Windows:

- Domain: NEXUS-IONICS
- Username: ionicslab
- Password: Pil159753

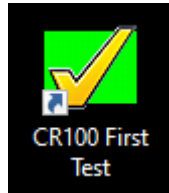
Wait 3-minutes for Windows to completely log in before launching the CR100 First Test Application.

2.2.3. Ensure that the air pressure supplied to the BoN is set to a minimum of 4.5 bar.

2.2.4. NOTE: If/when shutting down Windows after all testing has been completed; first ensure that all test software has been completely exited. DO NOT "force shutdown" or "force close" any test software. Contact Powerfleet Test Engineering in the event that the test software stops responding.

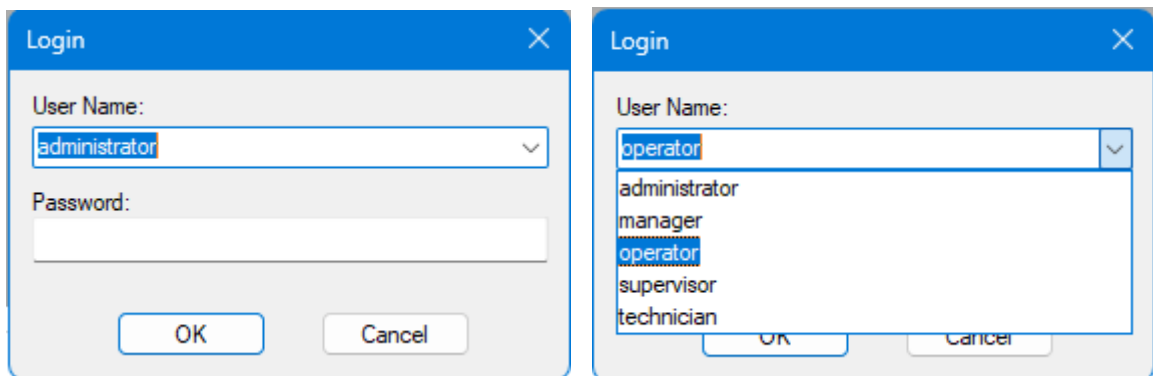
2.3. Test Procedure

- 2.3.1. On the Test PC, double-click the MiX 2000 MK4 First Test icon located on the desktop. The test application will launch and a Login dialog box will appear.

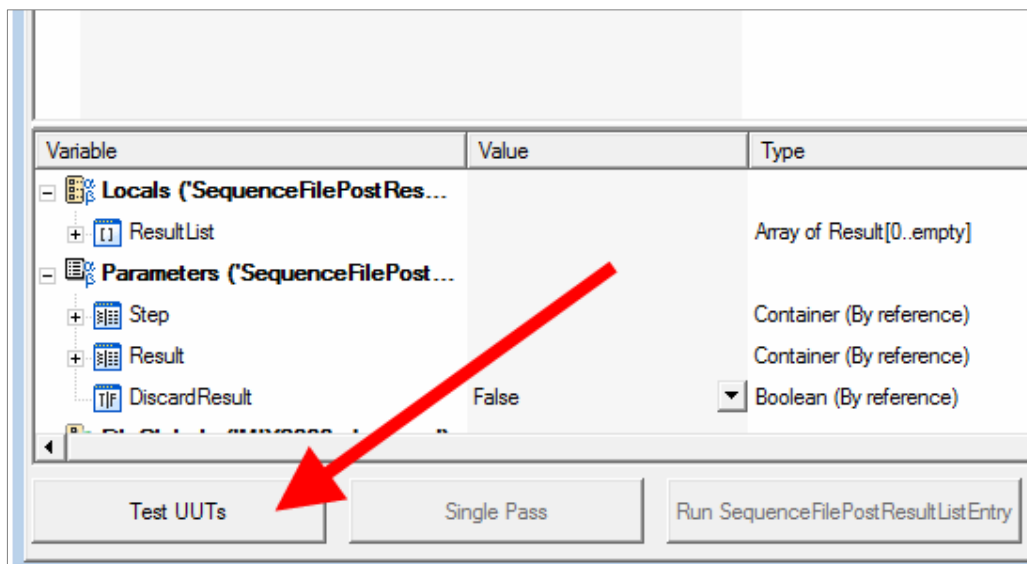


- 2.3.2. Select the Operator user name from the drop-down menu.

- 2.3.2.1. There is no assigned password for Operator user, click OK to proceed.



- 2.3.3. Click the "Test UUTs" button in the lower left corner of the window to initialise the test sequence.



2.3.4. A prompt will appear requesting the user to select a CR100 Part Number and PL file.

2.3.4.1. Confirm details of PL file, Bootloader, STM and BLE firmware versions.

Part Selection Screen Cancel

Part Number

Select PL File

Part Number

PL_Description

PL_File

STM_Boot_FW

STM_PROD_FW

BLE_PROD_FW

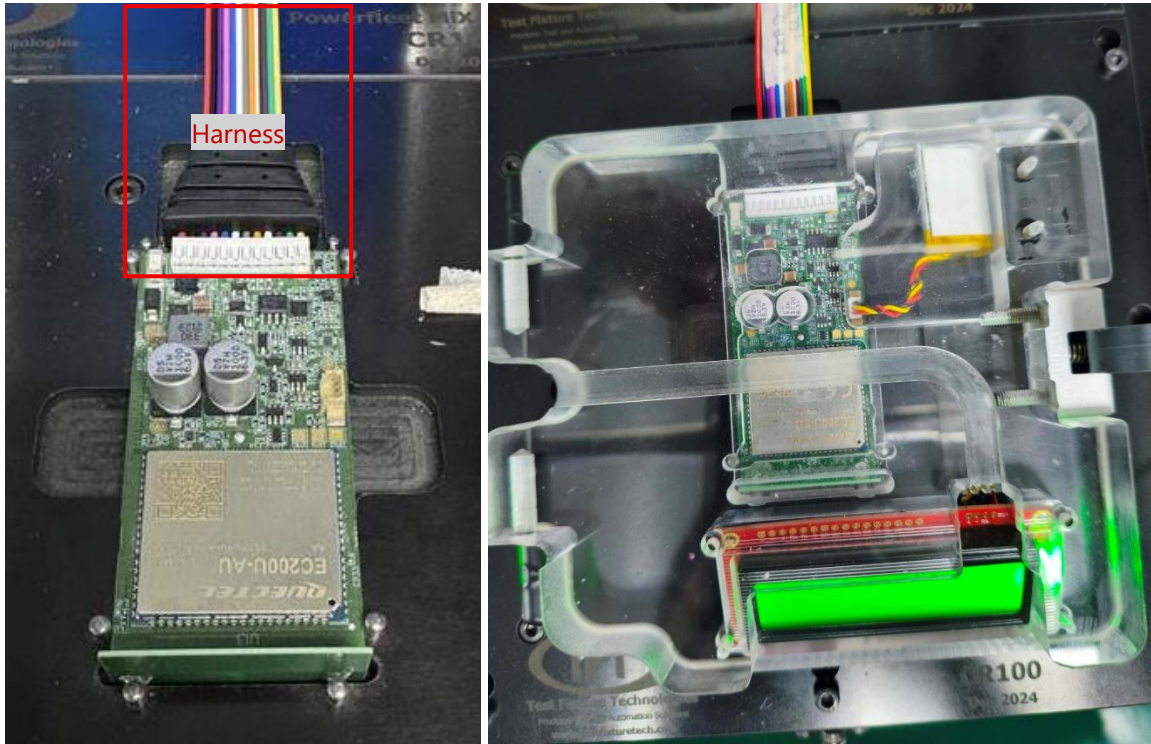
FW_ID_Out

Start Sequence

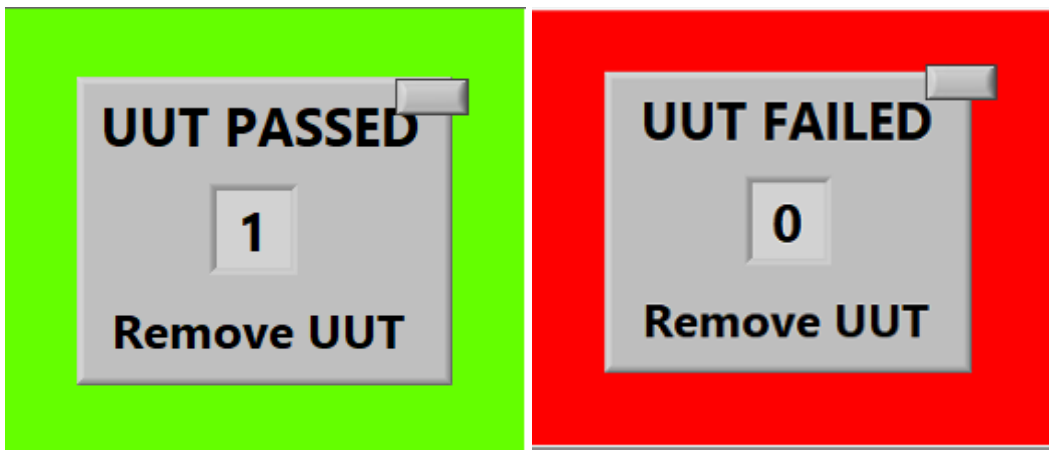
2.3.5. A prompt will appear requesting the user to insert the UUT into the appropriate slot on the test jig



- 2.3.6. Place the UUT onto the CR100 First Test BoN using the locating pins.
- 2.3.6.1. Connect harness to UUT.
- 2.3.6.2. Connect battery and
- 2.3.6.3. Close the lid. The test will begin automatically once the lid is closed. Test progress will be displayed on the BoN LCD screen.



- 2.3.7. A PASS/FAIL prompt will be displayed once the test has completed.

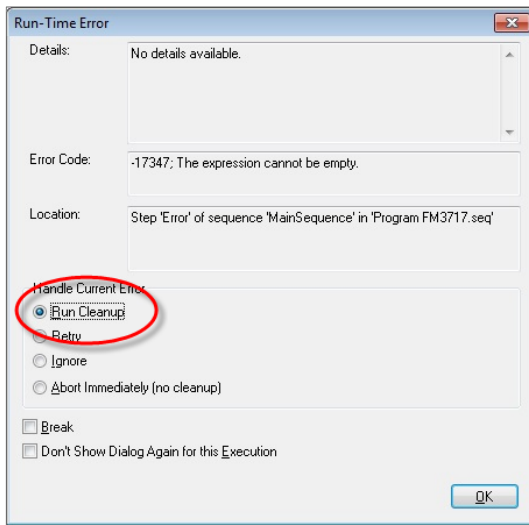


If the test PASSED: The result is written to the results database. Remove the UUT from the BoN and place the UUT in the appropriate PASS tray. Refer to the relevant factory Work Instruction for further instructions.

If the test FAILED: Remove the UUT from the BoN and retest the UUT. If it fails a second time, remove the UUT from the BoN and refer to the appropriate factory Work Instruction for further actions.

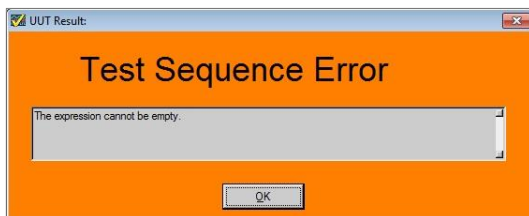
3. Troubleshooting

3.1.1. In the event that an error occurs during the test sequence, the following steps shall be followed:

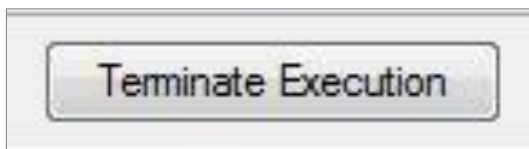


If an unrecoverable error occurs within an individual test sequence, a "Run-Time Error" window will appear.

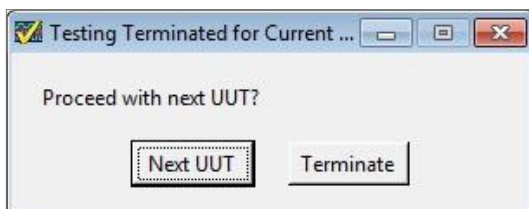
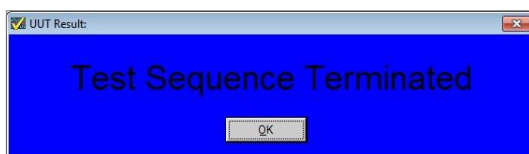
- Select "Run Cleanup" under the Handle Current Error heading and click OK. This will execute a test software cleanup to recover the test sequence.
- Once the CleanUp has been completed, a "Test Sequence Error" message will appear. Click OK to restart the test sequence.
- Remove the UUT from the test jig.
- If the fault persists after three consecutive tries, exit all test software and restart Windows.



3.1.2. If a test sequence hangs for some reason and the user wishes to terminate the test sequence, the following steps shall be followed:



- Click the "Terminate Execution" button to abort the test sequence.
- Wait until the "Test Sequence Terminated" message appears before removing the UUT from the Test Jig. Click OK.
- A prompt will appear asking whether the user would like to proceed with the next UUT. Clicking "Next UUT" will restart the test procedure.

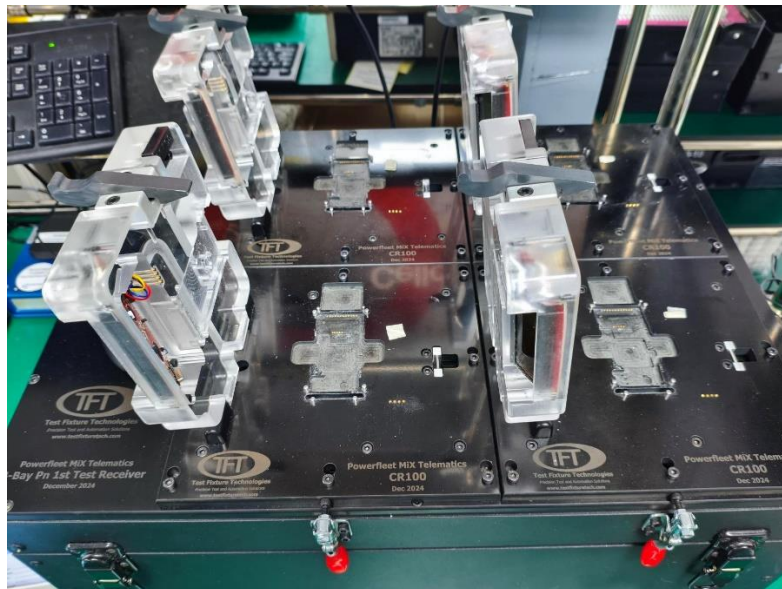


4. Appendix

[A] PC



[B] CR100 First Test Bed-of-Nails



[C] Programmable DC Power Supply

