Reader LEDs & Bluetooth Pairing

Steps	Expected Results	Pass/Fail	Observations and Comments
1. Connect the reader onto the simulator. Ensure that both the reader and simulator is turned off.	The reader connects with minimal difficulty. The reader's light remains off.	☐ Pass ☐ Fail	
2. Turn on the simulator and the reader.	The reader's light turns on as it receives power.	☐ Pass ☐ Fail	
3. While the reader and an Android device is not yet paired up, launch the app on the Android.	The main menu of the software application is displayed. The software application indicates that it is not connected to any device.	☐ Pass ☐ Fail	
4. Turn on Bluetooth, then connect the smartphone to the reader via Bluetooth (pair and connect in-app). The distance from the reader and the smartphone must be no more than 10m.	The smartphone successfully connects to the reader. The software application indicates that it is connected to the reader.	☐ Pass ☐ Fail	
5. After 5 minutes, check the status of the smartphone application.	The software application indicates that it is still connected to the reader.	☐ Pass ☐ Fail	
6. Disconnect the connection between the reader and the smartphone.	The software application indicates it is no longer connected to the reader.	☐ Pass ☐ Fail	
7. Remove the existing Bluetooth pairing between the reader and the smartphone. Repeat steps 4-6.	The expected results from steps 4-6 results are observed.	☐ Pass ☐ Fail	

App Functionality with CAN Bus Simulator

Steps	Expected Results	Pass/Fail	Observations and Comments
1. Connect the reader onto the simulator. Ensure that both the reader and simulator is turned off.	The reader connects with minimal difficulty. The reader's light remains off.	☐ Pass ☐ Fail	
2. Turn on the simulator and the reader.	The reader's light turns on as it receives power.	☐ Pass ☐ Fail	
3. Launch the app. If not paired, pair the smartphone to the reader via Bluetooth (pair and connect in-app).	The smartphone indicates it is connected to the reader.	☐ Pass ☐ Fail	
4. Click on Settings, then the User Acceptance button.	User is presented with the dashboard containing different tabs to show different information and the chosen tab shows the current value as well as any statistical information (eg. graph)	☐ Pass ☐ Fail	
5. Check the validity of the information displayed.	The software application displays data of the engine RPM, the engine oil temperature and vehicle speed which matches the data from the simulator. The values are updated at least once per 5 seconds.	☐ Pass ☐ Fail	
6. Click on 'Logs' and select the newly created log. Compare the values of the logs and the scripted values of the simulator.	The repeating pattern in the newly created log matches the values of the simulator.	☐ Pass ☐ Fail	
7. Close the software application on the smartphone. Wait for 5 minutes then open the software application	The main menu of the software application is displayed. The software application indicates that it is still connected to the reader.	☐ Pass ☐ Fail	
8. Repeat step 6-7.	Same results as step 6-7.	☐ Pass ☐ Fail	

App Bluetooth Edge Cases

Steps	Expected Results	Pass/Fail	Observations and Comments
1. Connect the reader onto the simulator. Ensure that both the reader and simulator is turned off.	The reader connects with minimal difficulty. The reader's light remains off.	☐ Pass ☐ Fail	
2. Turn on the simulator and the reader.	The reader's light turns on as it receives power.	☐ Pass ☐ Fail	
3. While the reader and an Android device is not yet paired up, launch the app on the Android.	The main menu of the software application is displayed. The software application indicates that it is not connected to any device.	☐ Pass ☐ Fail	
4. Turn on Bluetooth, then connect the smartphone to the reader via Bluetooth (pair and connect in-app).	The smartphone successfully connects to the reader. The software application indicates that it is connected to the reader.	☐ Pass ☐ Fail	
5. After 5 minutes, check the status of the smartphone application.	The software application indicates that it is still connected to the reader.	☐ Pass ☐ Fail	
6. Shut off Bluetooth while data readout is present	The app reports that the Bluetooth connection was severed and needs to be re-connected to continue. App returns to the main menu and doesn't crash.	☐ Pass ☐ Fail	
7. Attempt to open the dashboard or User Acceptance button within Settings with Bluetooth off.	The app reports that it cannot start as the device isn't connected and Bluetooth is off. App doesn't crash.	☐ Pass ☐ Fail	
8. Close the app and repeat step 7.	Same result as step 7.	☐ Pass ☐ Fail	
9. Turn on Bluetooth and repeat step 7 without pairing.	Same result with a message saying that device isn't paired.	☐ Pass ☐ Fail	

10. Pair the reader to the smartphone and repeat step 7 without connecting in-app.	Same result with a message saying that device isn't paired.	☐ Pass ☐ Fail	