

testHarmony

Bluetooth® LE Exerciser



Key Features and Benefits

- Provides regression testing of Bluetooth low energy HCI and Link Layer implementations
- Export test results for individual runs or across multiple runs within the same test project for detailed comparison
- Flexible test configuration supports multiple IUTs
- Summarizes and pinpoints root cause of a fail or inconclusive result
- Allows for integration into "no operator required" automated test regression systems
- User can customize test runs based on individual features or full test runs
- Test Manager, Upper Tester and Lower Tester in one small, portable platform
- Automated error recovery of IUT from failures during testing prevents cascade of failures and "false-negatives"

Based on Teledyne LeCroy's Harmony LE Tester, the testHarmony LE Exerciser is a highly flexible test solution designed to provide robust regression testing for chipset vendors and product manufacturers during the development cycle. The exerciser supports test case package licenses based on Bluetooth feature group functionality, and are available either individually or as a complete package. testHarmony supports iterative testing of individual test cases and full automated test runs. Results from individual test runs can be exported to PDF and Excel format, and multiple test runs from the same project can be exported to a summary report for comparison.

testHarmony is an integrated software/hardware test platform for Bluetooth protocol testing that provides three components: the Test Manager, the Upper Tester, and the Lower tester.

The Test Manager is responsible for test execution and results logging, and running test scripts. Test execution is automated, which allows the system to be integrated into automated regression test systems where no operator intervention is required in order to execute a test suite and parse the pass/fail results. Automated error recovery of the IUT from failures during testing prevents a cascade of failures due to a previous test, limiting failures to just the test that caused the IUT to fail.

The Upper Tester interfaces to the IUT (Implementation Under Test) via HCI UART.

The Lower Tester interfaces to the IUT via RF over the air and RF conducted.

- HCI and over-the-air capture files via X240 Protocol analyzer
- Complete log of test case validations and verdicts

The testHarmony LE Exerciser is a sophisticated protocol analysis and tester platform, providing test case logging and debugging, with the detailed information necessary to help understand and debug each failure.



Optional to the testHarmony LE Exerciser is the addition of the powerful Frontline X240 Bluetooth LE Protocol analyzer to capture and debug OTA and HCI traffic.

Specifications

- **Bluetooth LE controller testing for Link Layer and HCI**

Bluetooth LE 4.0, 4.1, 4.2, 5, 5.1, 5.2
 Note: Test results from testHarmony cannot be used for Bluetooth SIG certification evidence

- **Timestamp Resolution**
125 nsec

- **Lower Tester interfaces to IUT**
RF over-the-air
RF conducted

- **Upper Tester interfaces to IUT**
HCI UART

- **Power**
AC Adapter supplied
Output of the adapter is 5Vdc, 1.2A

- **Dimensions**
4.1 x 4.1 x 1.0 inches
(104 x 104 x 25 mm)

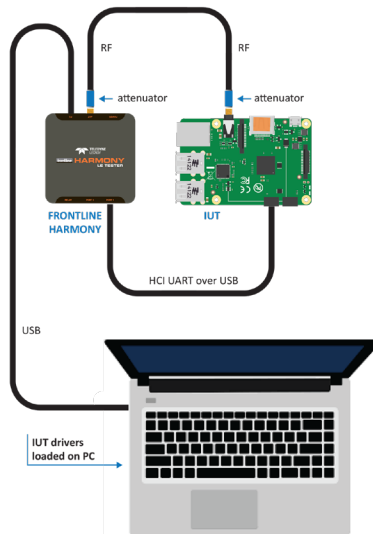
- **Temperature**
0 to 40 degrees C
32 to 104 degrees F

- **Humidity**
Operating: 10% to 90% RH
(noncondensing)

- **Receiver Sensitivity**
-96 dBm

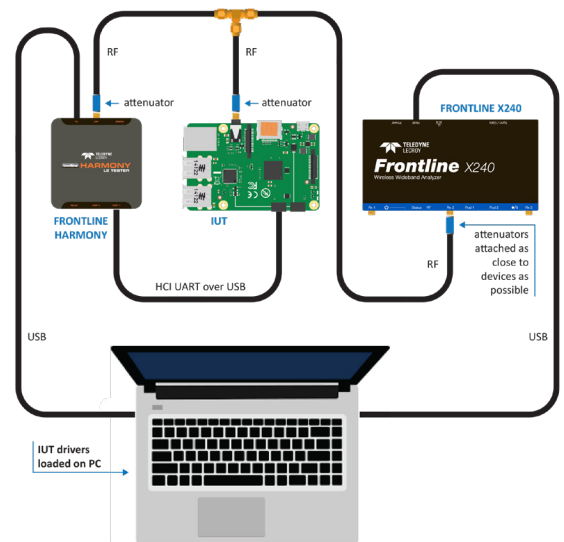
- **Supported Configurations**
OS Supported: Windows 10
USB Port: USB 2.0 or USB 3.0 High Speed

- **Minimum System Requirements**
Processor: Core i5 processor at 2.7 GHz
RAM: 4 GB
Free Hard Disk Space: 20 GB



Typical testing configuration

Configuration using optional Frontline X240 Protocol Analyzer for over-the-air captures



Ordering Information

Product Description

Frontline Harmony LE Tester
 Frontline Harmony LE System Bundle (Harmony Tester and X240 Protocol Analyzer)

Product Code

2014-25100-000
 2014-25400-000

Test Case Packages

testHarmony SW License - Package LE #1
 testHarmony SW License - Package LE #2
 testHarmony SW License - Package LE #3
 testHarmony SW License - Package LE #4
 testHarmony SW License - Package LE #5
 testHarmony SW License - Package LE #1-5

2013-22251-001
 2013-22251-002
 2013-22251-003
 2013-22251-004
 2013-22251-005
 2013-22251-006

For Bluetooth LE Qualification functionality please see - conformanceHarmony license 2016-25100-001.

To order or for more information:

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