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Firmware Update Application Tester

Overview

IO-Link Profile BLOB Transfer & Firmware Update Specification Version 1.1, issued in September 2019 includes test cases for the PC application that controls an IO-Link master to execute an IO-Link Device Firmware update.

In Appendix E.3 test cases for the host implementation of the BLOB transfer are listed. The FWUP specification includes tests for the host application, to ensure interoperability.

Description

E.3 Host implementation of BLOB transfer

E.3.1 Reserved BLOB_IDs for host application test purposes

E.3.2 Complete BLOB write (positive Test)

E3.3 Complete BLOB read (positive Test)

E.3.4 Unsupported BLOB_ID read

E.3.5 Unsupported BLOB_ID write

E.3.6 Check active BLOB transfer

E.3.7 Error handling BLOB Read

E.3.8 FLOW control error handling =

E.3.9 Error handling BLOB Write

E.3.10 Error handling CRC read

E.3.11 Error handling CRC write

E.3.12 Write segments of equal length at ISDUs of maximum size

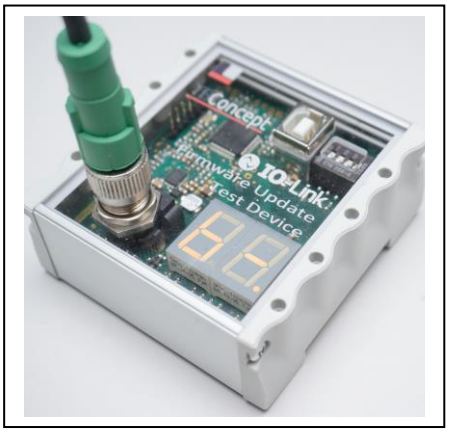
E.3.13 Write segments of unequal length at ISDUs of maximum size

E.3.14 Write segments of equal length at ISDUs of limited size

E.3.15 Write with segments of unequal length at ISDUs of limited size

E.3.16 BLOB size is too big for Device

The test cases listed above require a specific test device, the Firmware Update Application Tester. TEConcept has developed this tool to support Master Manufacturers.



Advantages

- Test of the firmware update of master tools in good cases
- Test of proper behavior of master tool in case of incorrect operation
- Test of proper behavior of master tool in case of errors or mismatches
- Risk of damage of IO-Link Devices by improper FWUP tools functionality reduced
- Approved by IO-Link community

Deliverables

- Firmware Update Test Device
- Reference firmware test files (*.iolfw)
- IODD for the Firmware update Tester
- Five different firmware variants for test
- Manual as PDF
- Maintenance for 1 year