### Test 050-09-11 CHECKSUM

#### Description

##### PD

PDs have the option of processing packets with a checksum byte. Upon receiving a command with a checksum, the PD must either reply with a checksum or a NAK if not supported. If the PD supports checksum, it must reject any command message that doesn’t have the proper checksum calculation.

##### ACU

ACU’s may send commands with a checksum byte. If the ACU sends a command with checksum, it must reject any reply messages that doesn’t have the proper checksum calculation.

#### Purpose

A single byte checksum that provides error detection. The checksum value is the 8 least significant bits of the 2’s compliment value of the sum of all the previous characters of the message.

#### Criteria

|  |  |
| --- | --- |
| Basic OSDP (PD) | Optional |
| Basic OSDP (ACU) | Optional |
| Secure Channel (PD) | Optional |
| Secure Channel (ACU) | Optional |
| BIO Match (PD) | Optional |
| BIO Match (ACU) | Optional |
| BIO Read (PD) | Optional |
| BIO Read (ACU) | Optional |
| Extended Packet Mode (PD) | Optional |
| Extended Packet Mode (ACU) | Optional |
| Extended Read/Write (PD) | Optional |
| Extended Read/Write (ACU) | Optional |

#### Test action

##### PD Test

* Verify that every reply packet has a valid checksum when a command is sent with checksum byte. This test is only done with PDs that support this functionality.
* Verify that the PD replies with a NAK 0x01 if checksum is not supported or checksum sent in the command message is no correct.

##### ACU Test

* Verify that every command packet has a valid checksum when a command is sent with checksum byte. This test is only done with ACUs that support this functionality.
* Verify the ACU properly handles NAK 0x01 replies

#### Development status

Available in libosdp-conformance 1.28-1

#### Test Results

JSON tags

|  |  |
| --- | --- |
| test | 050-09-11 |
| test-status | 1 for pass, 0 for fail |

#### Revision History

Refreshed for 2.1.