Feb 2022

Test System Validation Decision

Validation is the engineering process of demonstrating a test system achieves accurate, repeatable and traceable results for supported test cases and conforms to the Bluetooth Specification and Bluetooth Test Specification.

The Bluetooth Testing and Interoperability Committee (BTI) hereby acknowledges that the Teledyne LeCroy Harmony LE Tester is validated for the following Bluetooth Specifications (hereinafter "Validated Parts") on the basis of validation results in accordance with the Bluetooth Test System Validation Guideline on the ***TeleDyne LeCroy Harmony LE Tester 22.2.28266.0***

- ***Bluetooth Specification, Part: LL, version 5.3 and earlier, and***
- ***Bluetooth Specification, Part: IAL, version 5.3 and earlier***
- ***Bluetooth Specification, Part: HCI, version 5.3 and earlier***

The scope of the validation decision is Test Platform and Test Case implementation for Validated Parts.

After this decision, Teledyne LeCroy may declare additional test cases validated within Validated Parts after the concurrence of the BTI. Teledyne LeCroy shall maintain validation material and make it available to Bluetooth Special Interest Group.

The Bluetooth Special Interest Group reserves the right to review validation status annually and at any time test system status has changed pertaining to validation requirements. The Bluetooth Special Interest Group reserves the right to suspend validation at any time, without notice, for cause.

The above conclusion was reached by BTI vote as of 21 February 2022.

Validated Parts according to

- Teledyne LeCroy Harmony - Test System Validation Report TCRL 2021-2 r1.1
- Teledyne LeCroy Harmony - Test System Validation Evidence TCRL 2021-2 r1.0

26 HCI tests per TCRL2021-2

Test Case Identifier	Description
HCI/BIS/BI-07-C	Broadcast Isochronous Stream Using Non-Test Command, Invalid Transport Latency
HCI/BIS/BV-03-C	Broadcast Isochronous Stream Using Test Command, Time_Offset
HCI/BIS/BV-06-C	Broadcast Isochronous Stream, Time_Stamp Optional, Synchronized Receiver
HCI/BIS/BV-07-C	Broadcast Isochronous Stream, Time_Stamp Mandatory, Synchronized Receiver
HCI/CCO/BI-51-C	Reject Invalid Create Connection Command, 0x01, N/A
HCI/CCO/BI-52-C	Reject Invalid Create Connection Command, 0x03, 0x00
HCI/CCO/BI-53-C	Reject Invalid Create Connection Command, 0x03, 0x01
HCI/CCO/BI-54-C	Reject Invalid Extended Create Connection Command, 0x01, N/A
HCI/CCO/BI-55-C	Reject Invalid Extended Create Connection Command, 0x03, 0x00
HCI/CCO/BI-56-C	Reject Invalid Extended Create Connection Command, 0x03, 0x01
HCI/CIN/BV-12-C	LE Read Local Supported Features Command
HCI/CIN/BV-14-C	Read RSSI Value, BR/EDR
HCI/CIS/BV-06-C	Invalid LE Accept or Reject CIS Request, Premature Setup ISO Data Path
HCI/CIS/BV-09-C	LE CIS Request Timeout
HCI/CIS/BV-10-C	Connected Isochronous Stream, Peripheral, Reject Invalid Commands
HCI/CIS/BV-11-C	Connected Isochronous Stream, Peripheral, Reject Invalid Disconnect Command
HCI/CIS/BV-12-C	Connected Isochronous Stream, Central, Reject Max_SDU in Wrong Direction
HCI/CIS/BV-13-C	Connected Isochronous Stream, Central Initiated, CIG Parameters Failure Behavior
HCI/CM/BI-02-C	LE Create Connection Cancel, Command Disallowed
HCI/CM/BI-03-C	LE Create Connection Cancel, Command Disallowed
HCI/CSE/BV-08-C	LE Set Host Feature Command During Connection, Initiator
HCI/CSE/BV-09-C	LE Set Host Feature Command During Connection, Advertiser
HCI/DDI/BV-06-C	Default Extended Scan Enable Command
HCI/DDI/BV-07-C	Set Periodic Advertising Before Periodic Advertising Parameters Command
HCI/PCL/BI-04-C	Invalid LE Enhanced Read Transmit Power Level Parameters, Connection_Handle, Not the current ACL, 0x02
HCI/PCL/BI-08-C	Invalid LE Read Remote Transmit Power Level Parameters, PHY, 0x02, 0x11

Missing Test cases

Test cases defined in the test specification but not listed among the Validated Parts may be absent for the following reasons:

1. the test case was validated previously in the tester and that validation is still applicable, or
2. the test case is supported by the tester but not yet validated since sufficient evidence has not been presented to justify the validation status, or
3. the test case is not yet supported by the tester.

23 IAL tests per TCRL2021-2

Test Case Identifier	Description
IAL/BIS/UNF/SNC/BI-05-C	SDU Reporting, BIS, Unframed PDU
IAL/BIS/UNF/SNC/BV-30-C	SDU Reporting, BIS, BN = 1, NSE = 1, Unframed PDU
IAL/CIS/FRA/CEN/BV-45-C	Send Single SDU, CIS, Framed, Central
IAL/CIS/FRA/CEN/BV-46-C	Send Large SDU, CIS, Framed, Central
IAL/CIS/FRA/CEN/BV-47-C	Send Multiple, Small SDUs, CIS, Framed, Central
IAL/CIS/FRA/CEN/BV-48-C	Receive Single SDU, CIS, Framed, Central
IAL/CIS/FRA/CEN/BV-50-C	Receive Large SDU, CIS, Framed, Central
IAL/CIS/FRA/CEN/BV-51-C	Receive Multiple, Small SDUs, CIS, Framed, Central
IAL/CIS/FRA/CEN/BV-52-C	Send Zero-Length SDU, CIS, Framed, Central
IAL/CIS/FRA/PER/BV-45-C	Receive Zero-Length SDU, CIS, Framed, Central
IAL/CIS/FRA/PER/BV-46-C	SDU Reporting, CIS, Framed PDU, Peripheral
IAL/CIS/FRA/PER/BV-47-C	SDU Reporting, CIS, Framed PDU, BN = 1, NSE = 1, Peripheral
IAL/CIS/FRA/PER/BV-48-C	Receive Large SDU, CIS, Framed, Peripheral
IAL/CIS/FRA/PER/BV-50-C	Receive Large SDU, CIS, Framed, Peripheral
IAL/CIS/FRA/PER/BV-51-C	Send Single SDU, CIS, Framed, Peripheral
IAL/CIS/FRA/PER/BV-52-C	Send Large SDU, CIS, Framed, Peripheral
IAL/CIS/UNF/CEN/BV-46-C	Send Single SDU, CIS, Unframed, Central
IAL/CIS/UNF/CEN/BV-47-C	Receive Single SDU, CIS, Unframed, Central
IAL/CIS/UNF/CEN/BV-48-C	Receive Zero-Length SDU, CIS, Unframed, Central
IAL/CIS/UNF/PER/BI-04-C	SDU Reporting, CIS, Unframed PDU, Peripheral
IAL/CIS/UNF/PER/BV-47-C	SDU Reporting, CIS, Unframed PDU, BN = 1, NSE = 1, Peripheral
IAL/CIS/UNF/PER/BV-48-C	Receive Large SDU, CIS, Unframed, Peripheral
IAL/CIS/UNF/PER/BV-49-C	Send Single SDU, CIS, Unframed, Peripheral

Missing Test cases

Test cases defined in the test specification but not listed among the Validated Parts may be absent for the following reasons:

1. the test case was validated previously in the tester and that validation is still applicable, or
2. the test case is supported by the tester but not yet validated since sufficient evidence has not been presented to justify the validation status, or
3. the test case is not yet supported by the tester.

82 LL tests per TCRL2021-2

Test Case Identifier	Description
LL/BIS/BRD/BV-23-C	Broadcast Isochronous Stream Setup – Encryption Disabled – BN=1
LL/BIS/BRD/BV-26-C	Broadcast Isochronous Stream Setup – Encryption Enabled – BN=1
LL/BIS/BRD/BV-27-C	Data Transmission in Multiple Broadcast Isochronous Streams, BN = 1
LL/BIS/SNC/BV-14-C	Pre-transmissions in Broadcast Isochronous Stream, Verify LLID
LL/CIS/CEN/BV-34-C	CIS Connection Loss
LL/CIS/CEN/BV-35-C	Sending and Receiving Data in Bidirectional CIS - Encryption Enabled
LL/CIS/CEN/BV-39-C	CIS Central Setup Procedure, Central Initiated – Central
LL/CIS/CEN/BV-40-C	CIS Central Setup Procedure, LE 2M PHY, Central Initiated – Central
LL/CIS/CEN/BV-41-C	CIS Central Setup Procedure, LE Coded PHY, Central Initiated – Central
LL/CIS/CEN/BV-42-C	CIS Setup Procedure, Central Initiated – LE 2M PHY
LL/CIS/CEN/BV-43-C	New Channel Map
LL/CIS/CEN/BV-44-C	Sending and Receiving Data in Multiple CISes, Single CIG, Multiple Connections, Interleaved CIG
LL/CIS/CEN/BV-45-C	Sending and Receiving Data in Multiple CISes, Single CIG, Multiple Connections, Interleaved CIG
LL/CIS/CEN/BV-46-C	Sending and Receiving Data in Multiple CISes, Single CIG, Single Connection, Interleaved CIG, Central
LL/CIS/CEN/BV-47-C	Sending and Receiving Data in Multiple CISes, Single CIG, Single Connection, Interleaved CIG, Central, BN > 1, NSE = 2
LL/CIS/CEN/BV-48-C	Sending Data in Unidirectional CIS, BN = 1, Central
LL/CIS/CEN/BV-49-C	Receiving Data in Unidirectional CIS, BN = 1, Central
LL/CIS/CEN/BV-51-C	Sending and Receiving Data in Bidirectional CIS, BN = 1, Central, Encryption Disabled
LL/CIS/CEN/BV-52-C	Sending and Receiving Data in Bidirectional CIS, BN = 1, Central, Encryption Enabled
LL/CIS/CEN/BV-53-C	Flushing of Packets in CIS, Central, BN = 1
LL/CIS/CEN/BV-54-C	Connected Isochronous Stream, Central, CIS Offset
LL/CIS/CEN/BV-55-C	CIS Setup Procedure, Central Initiated, CIG ID Reuse
LL/CIS/PER/BI-05-C	CIS Setup Response Procedure, Peripheral, Invalid or Unsupported PHY, RFU Bits Specified
LL/CIS/PER/BV-26-C	CIS Setup Response Procedure, Peripheral, Invalid or Unsupported PHY, No PHY Specified
LL/CIS/PER/BV-27-C	CIS Updating Peer Clock Accuracy
LL/CIS/PER/BV-28-C	CIS Considered Lost before Establishment, Peripheral
LL/CIS/PER/BV-29-C	CIS Connection Loss
LL/CIS/PER/BV-30-C	Sending and Receiving Data in Bidirectional CIS - Encryption Enabled
LL/CIS/PER/BV-31-C	CIS Peripheral Response, No PDU Received in Subevent
LL/CIS/PER/BV-32-C	CIS Setup Response Procedure, Peripheral – LE 2M PHY
LL/CIS/PER/BV-33-C	CIS Setup Response Procedure, Peripheral – LE Coded PHY
LL/CIS/PER/BV-34-C	Sending and Receiving Data in Multiple CISes, Single CIG, Single Connection, Interleaved CIG, Peripheral, NSE=2
LL/CIS/PER/BV-35-C	Sending and Receiving Data in Multiple CISes, Single CIG, Single Connection, Peripheral, BN=1
LL/CIS/PER/BV-36-C	Sending Data in Unidirectional CIS, BN = 1, Peripheral
LL/CIS/PER/BV-37-C	Receiving Data in Unidirectional CIS, BN = 1, Peripheral
LL/CIS/PER/BV-38-C	Sending and Receiving Data in Bidirectional CIS, BN = 1, Peripheral, Encryption Disabled
LL/CIS/PER/BV-39-C	Sending and Receiving Data in Bidirectional CIS, BN = 1, Peripheral, Encryption Enabled
LL/CIS/PER/BV-40-C	CIS Map Update, 0x02, 50 ms (0xC350)
LL/CIS/PER/BV-41-C	Connected Isochronous Stream, Peripheral, CIS Offset
LL/CIS/PER/BV-42-C	CIS Peripheral Accepts All Supported NSE Values
LL/CIS/PER/BV-43-C	CIS Setup Response Procedure, Peripheral
LL/CIS/PER/BV-44-C	transmitSeqNum Increments at Flushpoint in Bidirectional CIS
LL/CON/CEN/BI-11-C	Version Exchange, IUT Requesting
LL/CON/CEN/BI-12-C	Version Exchange, IUT Responding
LL/CON/CEN/BI-13-C	Reject Invalid Connection Parameter Request Parameters
LL/CON/CEN/BV-146-C	Version Exchange, IUT Requesting, Collision
LL/CON/CEN/BV-147-C	Version Exchange, IUT Requesting, Delayed Response
LL/CON/CEN/BV-152-C	Receiving LL Data PDU size with Constant Tone Extension, Central, 0x01 (AoA)
LL/CON/CEN/BV-153-C	Receiving LL Data PDU size with Constant Tone Extension, Central, 0x04 (AoD with 2µs slots)
LL/CON/CEN/BV-154-C	Reject Constant Tone Extension Request Procedure for LE Coded PHY, IUT Responding, AoA, Central
LL/CON/CEN/BV-155-C	Reject Constant Tone Extension Request Procedure for LE Coded PHY, IUT Responding, AoD, Central

LL/CON/CEN/BV-156-C	Periodic Advertising Sync Transfer Procedure, Synchronized IUT Initiated – Multiple Resolvable Private Addresses, Central
LL/CON/CEN/BV-157-C	Periodic Advertising Sync Transfer Procedure, Synchronized IUT Initiated
LL/CON/INI/BI-03-C	Duplicate Connection Request
LL/CON/INI/BV-27-C	Connection Initiation with Valid Access Address
LL/CON/INI/BV-28-C	Parallel connection requests, incoming connect indication first
LL/CON/PER/BI-13-C	Reject Invalid Subrate Updates
LL/CON/PER/BI-14-C	Version Exchange, IUT Requesting
LL/CON/PER/BI-15-C	Version Exchange, IUT Responding
LL/CON/PER/BI-16-C	Reject Invalid Connection Parameter Request Parameters
LL/CON/PER/BI-17-C	Invalid LLID
LL/CON/PER/BI-20-C	PHY Update Procedure, Invalid or Unsupported PHY, Central Initiated, LE Coded PHY Not Supported
LL/CON/PER/BV-145-C	Version Exchange, IUT Requesting, Collision
LL/CON/PER/BV-146-C	Version Exchange, IUT Requesting, Collision, Peripheral
LL/CON/PER/BV-147-C	Version Exchange, IUT Requesting, Delayed Response
LL/CON/PER/BV-152-C	Receiving LL Data PDU size with Constant Tone Extension, Peripheral, 0x01 (AoA)
LL/CON/PER/BV-153-C	Receiving LL Data PDU size with Constant Tone Extension, Peripheral, 0x04 (AoD with 2µs slots)
LL/CON/PER/BV-154-C	Reject Constant Tone Extension Request Procedure for LE Coded PHY, IUT Responding, AoA, Peripheral
LL/CON/PER/BV-155-C	Reject Constant Tone Extension Request Procedure for LE Coded PHY, IUT Responding, AoD, Peripheral
LL/CON/PER/BV-156-C	Periodic Advertising Sync Transfer Procedure, Synchronized IUT Initiated – Multiple Resolvable Private Addresses, Peripheral
LL/CON/PER/BV-157-C	Periodic Advertising Sync Transfer Procedure, Synchronized IUT Initiated
LL/DDI/ADV/BI-07-C	Connection Request Invalid Hop Increment
LL/DDI/ADV/BV-64-C	ADI in Periodic Advertising when supporting Periodic Advertising Filtering
LL/DDI/ADV/BV-65-C	Extended Advertising, Non-Connectable and Non-Scannable Undirected, Multiple Sets
LL/DDI/ADV/BV-66-C	Extended Advertising, Connectable and Scannable Undirected, Multiple Sets
LL/DDI/ADV/BV-67-C	Extended Advertising, Connectable Directed, High Duty Cycle, Multiple Sets
LL/DDI/ADV/BV-68-C	Extended Advertising, Connectable Directed, Low Duty Cycle, Multiple Sets
LL/DDI/SCN/BI-06-C	Passive Scanning, Invalid or Unsupported PHY, RFU Bits Specified
LL/DDI/SCN/BV-72-C	Scanner supporting Periodic Advertising Filtering accepts AUX_SYNC_IND with ADI
LL/DDI/SCN/BV-73-C	Scanner enables Duplicate Filtering after initially disabled
LL/DDI/SCN/BV-74-C	Extended Scanning, Passive, Scanning Filter Policy, Resolvable Private Addresses
LL/SEC/PER/BI-07-C	Peripheral Receiving unexpected PDU during encryption start - Unencrypted Data PDU

Missing Test cases

Test cases defined in the test specification but not listed among the Validated Parts may be absent for the following reasons:

1. the test case was validated previously in the tester and that validation is still applicable, or
2. the test case is supported by the tester but not yet validated since sufficient evidence has not been presented to justify the validation status, or
3. the test case is not yet supported by the tester.

Mar 2022

Test System Validation Decision

Validation is the engineering process of demonstrating a test system achieves accurate, repeatable and traceable results for supported test cases and conforms to the Bluetooth Specification and Bluetooth Test Specification.

The Bluetooth Testing and Interoperability Committee (BTI) hereby acknowledges that the Teledyne LeCroy Harmony LE Tester is validated for the following Bluetooth Specifications (hereinafter "Validated Parts") on the basis of validation results in accordance with the Bluetooth Test System Validation Guideline on the ***TeleDyne LeCroy Harmony LE Tester 22.2. 28594.0***

- ***Bluetooth Specification, Part: LL, version 5.3 and earlier***

The scope of the validation decision is Test Platform and Test Case implementation for Validated Parts.

After this decision, TeleDyne LeCroy may declare additional test cases validated within Validated Parts after the concurrence of the BTI. TeleDyne LeCroy shall maintain validation material and make it available to Bluetooth Special Interest Group.

The Bluetooth Special Interest Group reserves the right to review validation status annually and at any time test system status has changed pertaining to validation requirements. The Bluetooth Special Interest Group reserves the right to suspend validation at any time, without notice, for cause.

The above conclusion was reached by BTI vote in March 2022.

Validated Parts according to

- Teledyne LeCroy Harmony - Test System Validation Report TCRL 2021-2 r1.2.1
- Teledyne LeCroy Harmony - Test System Validation Evidence TCRL 2021-2 r1.2

28 LL tests per TCRL2021-2

Test Case Identifier	Description
LL/CON/ADV/BI-02-C	Reject Existing Connection Request
LL/CON/CEN/BI-14-C	Invalid LLID
LL/CON/INI/BV-29-C	Parallel connection requests, outgoing connection request first
LL/CON/PER/BI-18-C	PHY Update Procedure, Invalid or Unsupported PHY, Central Initiated, LE Coded PHY Not Supported
LL/CON/PER/BI-19-C	PHY Update Procedure, Invalid or Unsupported PHY, Central Initiated, LE 2M PHY Not Supported
LL/CON/PER/BI-21-C	PHY Update Procedure, Invalid or Unsupported PHY, Central Initiated, RFU Bits Specified
LL/CON/CEN/BV-148-C	Receiving LL Data PDU size with Constant Tone Extension, Central, 0x01 (AoA)
LL/CON/CEN/BV-149-C	Receiving LL Data PDU size with Constant Tone Extension, Central, 0x04 (AoD with 2µs slots)
LL/CON/PER/BV-148-C	Receiving LL Data PDU size with Constant Tone Extension, Peripheral, 0x01 (AoA)
LL/CON/PER/BV-149-C	Receiving LL Data PDU size with Constant Tone Extension, Peripheral, 0x04 (AoD with 2µs slots)
LL/PCL/CEN/BI-02-C	Power Control Request using an invalid or unsupported PHY, Central, No PHY Specified
LL/PCL/CEN/BI-06-C	Power Control Request using an invalid or unsupported PHY, Central, Multiple PHYs Specified
LL/PCL/CEN/BI-07-C	Power Control Request using an invalid or unsupported PHY, Central, RFU
LL/PCL/CEN/BI-08-C	Power Change Request using an invalid or unsupported PHY, Central, No PHY Specified
LL/PCL/CEN/BI-13-C	Power Change Request using an invalid or unsupported PHY, Central, RFU
LL/PCL/CEN/BV-53-C	Power Control Response, Max Power – LE 1M PHY – Central
LL/PCL/CEN/BV-54-C	Power Control Response, Max Power – LE 2M PHY – Central
LL/PCL/CEN/BV-55-C	Power Control Response, Max Power – LE Coded PHY S=8 – Central
LL/PCL/CEN/BV-56-C	Power Control Response, Max Power – LE Coded PHY S=2 – Central
LL/PCL/PER/BI-02-C	Power Control Request using an invalid or unsupported PHY, Peripheral, No PHY Specified
LL/PCL/PER/BI-06-C	Power Control Request using an invalid or unsupported PHY, Peripheral, Multiple PHYs Specified
LL/PCL/PER/BI-07-C	Power Control Request using an invalid or unsupported PHY, Peripheral, RFU
LL/PCL/PER/BI-08-C	Power Change Request using an invalid or unsupported PHY, Peripheral, No PHY Specified
LL/PCL/PER/BI-13-C	Power Change Request using an invalid or unsupported PHY, Peripheral, RFU
LL/PCL/PER/BV-53-C	Power Control Response, Max Power – LE 1M PHY – Peripheral
LL/PCL/PER/BV-54-C	Power Control Response, Max Power – LE 2M PHY – Peripheral
LL/PCL/PER/BV-55-C	Power Control Response, Max Power – LE Coded PHY S=8 – Peripheral
LL/PCL/PER/BV-56-C	Power Control Response, Max Power – LE Coded PHY S=2 – Peripheral

Missing Test cases

Test cases defined in the test specification but not listed among the Validated Parts may be absent for the following reasons:

1. the test case was validated previously in the tester and that validation is still applicable, or
2. the test case is supported by the tester but not yet validated since sufficient evidence has not been presented to justify the validation status, or
3. the test case is not yet supported by the tester.

Validated Parts according to

- Teledyne LeCroy Harmony - Test System Validation Report TCRL 2021-2 r1.3
- Teledyne LeCroy Harmony - Test System Validation Evidence TCRL 2021-2 r1.3

21 LL tests per TCRL2021-2

Test Case Identifier	Description
LL/CON/CEN/BI-10-C	Reject an Invalid Incoming Subrate Change Request
LL/CON/CEN/BV-134-C	Change the Subrate of an Existing Connection
LL/CON/CEN/BV-135-C	Accept an Incoming Subrate Change Request
LL/CON/CEN/BV-136-C	Feature Exchange Before a Subrate Request
LL/CON/CEN/BV-137-C	Set the Default Subrate Factor
LL/CON/CEN/BV-138-C	Central Retransmission on Old and New Subrated Connection Events when Connection Subrate Update Not Acknowledged
LL/CON/CEN/BV-139-C	Subrate Set to 1 After Requesting Connection Interval Change
LL/CON/CEN/BV-140-C	Reject Subrate Request When Feature Bit is not set
LL/CON/CEN/BV-141-C	Subrate Factor, Event Counter wrapping
LL/CON/CEN/BV-142-C	Change the Subrate of an Existing Connection, Verify Sending Data, Continuation Number events
LL/CON/CEN/BV-143-C	Reject Subrate Request when Peripheral Feature Bit is not set
LL/CON/CEN/BV-145-C	Receive Data on Continuation events – Central
LL/CON/PER/BI-13-C	Reject Invalid Subrate Updates
LL/CON/PER/BV-137-C	Respond to a Subrate Change
LL/CON/PER/BV-138-C	Send a Request for a Subrate Change, Accepted
LL/CON/PER/BV-139-C	Subrate Factor set to 1 and Continuation Number set to 0 on Connection Interval change
LL/CON/PER/BV-140-C	SubrateFactor, Event Counter wrapping
LL/CON/PER/BV-141-C	Subrate Change, Verify Sending Data, Continuation Number events
LL/CON/PER/BV-142-C	Listen for Data on Subrated events – Peripheral
LL/CON/PER/BV-143-C	Receive Data on Continuation events – Peripheral
LL/CON/PER/BV-144-C	Receiving a Delayed Connection Change Update After the Event Counter Wraps

Missing Test cases

Test cases defined in the test specification but not listed among the Validated Parts may be absent for the following reasons:

1. the test case was validated previously in the tester and that validation is still applicable, or
2. the test case is supported by the tester but not yet validated since sufficient evidence has not been presented to justify the validation status, or
3. the test case is not yet supported by the tester.