Host Controller Interface – Upper (UHCI)

***Bluetooth*® Implementation Conformance Statement (ICS) Proforma**

- **Revision:** UHCI.ICS.p5
- **Revision Date:** 2026-11-03
- **Prepared By:** BTI
- **Published during TCRL:** TCRL.pkg105

This document, regardless of its title or content, is not a Bluetooth Specification as defined in the Bluetooth Patent/Copyright License Agreement ("PCLA") and Bluetooth Trademark License Agreement. Use of this document by members of Bluetooth SIG is governed by the membership and other related agreements between Bluetooth SIG Inc. ("Bluetooth SIG") and its members, including the PCLA and other agreements posted on Bluetooth SIG's website located at www.bluetooth.com.

THIS DOCUMENT IS PROVIDED "AS IS" AND BLUETOOTH SIG, ITS MEMBERS, AND THEIR AFFILIATES MAKE NO REPRESENTATIONS OR WARRANTIES AND DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, TITLE, NON-INFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, THAT THE CONTENT OF THIS DOCUMENT IS FREE OF ERRORS.

TO THE EXTENT NOT PROHIBITED BY LAW, BLUETOOTH SIG, ITS MEMBERS, AND THEIR AFFILIATES DISCLAIM ALL LIABILITY ARISING OUT OF OR RELATING TO USE OF THIS DOCUMENT AND ANY INFORMATION CONTAINED IN THIS DOCUMENT, INCLUDING LOST REVENUE, PROFITS, DATA OR PROGRAMS, OR BUSINESS INTERRUPTION, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, AND EVEN IF BLUETOOTH SIG, ITS MEMBERS, OR THEIR AFFILIATES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This document is proprietary to Bluetooth SIG. This document may contain or cover subject matter that is intellectual property of Bluetooth SIG and its members. The furnishing of this document does not grant any license to any intellectual property of Bluetooth SIG or its members.

This document is subject to change without notice.

Copyright © 2024–2026 by Bluetooth SIG, Inc. The Bluetooth word mark and logos are owned by Bluetooth SIG, Inc. Other third-party brands and names are the property of their respective owners.

Contents

1 General principles 4
1.1 Implementation Under Test (IUT) identification 4
2 ICS declarations 5
2.1 Versions 5
3 References 6
4 UHCI tests 7
5 Bridge mapping (informational) 8
6 Revision history and acknowledgments 10

1 General principles

1.1 Implementation Under Test (IUT) identification

Using the Bluetooth SIG qualification tool, the implementer is expected to declare details about what will be implemented.

2 ICS declarations

2.1 Versions

Table 0: X.Y Versions

Item	Version	Reference	Status
42	Upper HCI v4.2	[1]	C.1, C.2, C.11
50	Upper HCI v5.0	[2]	C.1, C.3
51	Upper HCI v5.1	[3]	C.1, C.4
52	Upper HCI v5.2	[4]	C.1, C.5
53	Upper HCI v5.3	[5]	C.1, C.6
54	Upper HCI v5.4	[6]	C.1, C.7
60	Upper HCI v6.0	[8]	C.1, C.8
61	Upper HCI v6.1	[9]	C.1, C.9
62	Upper HCI v6.2	[10]	C.1, C.10
63	Upper HCI v6.3	[11]	C.1, C.12
70	Upper HCI v7.0	[12]	C.1

C.1: Mandatory to support one and only one.
C.2: Excluded IF CORE 2a/50 “Host Core v5.0 or later”, otherwise Optional.
C.3: Excluded IF CORE 2a/51 “Host Core v5.1 or later”, otherwise Optional.
C.4: Excluded IF CORE 2a/52 “Host Core v5.2 or later”, otherwise Optional.
C.5: Excluded IF CORE 2a/53 “Host Core v5.3 or later”, otherwise Optional.
C.6: Excluded IF CORE 2a/54 “Host Core v5.4 or later”, otherwise Optional.
C.7: Excluded IF CORE 2a/60 “Host Core v6.0 or later”, otherwise Optional.
C.8: Excluded IF CORE 2a/61 “Host Core v6.1 or later”, otherwise Optional.
C.9: Excluded IF CORE 2a/62 “Host Core v6.2 or later”, otherwise Optional.
C.10: Excluded IF CORE 2a/63 “Host Core v6.3 or later”, otherwise Optional.
C.11: Deprecated 2026-02-01. Withdrawn 2031-02-01.
C.12: Excluded IF CORE 2a/70 “Host Core v7.0 or later”, otherwise Optional.

3 References

[1] Bluetooth Core Specification, Version 4.2, Volume 2, Part E

[2] Bluetooth Core Specification, Version 5.0, Volume 2, Part E

[3] Bluetooth Core Specification, Version 5.1, Volume 2, Part E

[4] Bluetooth Core Specification, Version 5.2, Volume 4, Part E

[5] Bluetooth Core Specification, Version 5.3, Volume 4, Part E

[6] Bluetooth Core Specification, Version 5.4, Volume 4, Part E

[7] ICS Proforma for Summary of Selected Specifications in Implementation (SUM ICS)

[8] Bluetooth Core Specification, Version 6.0, Volume 4, Part E

[9] Bluetooth Core Specification, Version 6.1, Volume 4, Part E

[10] Bluetooth Core Specification, Version 6.2, Volume 4, Part E

[11] Bluetooth Core Specification, Version 6.3, Volume 4, Part E

[12] Bluetooth Core Specification, Version 7.0, Volume 4, Part E

4 UHCI tests

The capabilities in this ICS are not tested.

5 Bridge mapping (informational)

Bridge mapping provides a logical mapping for ICS items defined in the latest TCRL release to one or more ICS items present in an older TCRL release. The bridge mapping logic can change depending on the old TCRL release. An implementation qualified under an older TCRL release will use the bridge mapping logic to indicate support for an ICS item that is missing from the old TCRL release when upgrading to a new TCRL release. Using bridge mapping when upgrading a design to a new TCRL release should prevent unnecessary consistency check errors.

Table 5.1 provides a bridge mapping example for GAP 7/3a (from the GAP ICS as defined in TCRL pkg103). Depending on the TCRL of the old design, the following apply:

- GAP 7/3a was introduced in TCRL pkg103. Therefore, bridge mapping is not applicable for designs qualified on TCRL pkg103 or newer TCRL releases.
- For old designs qualified before TCRL pkg103, but not before TCRL 2019-2, support for GAP 7/3a in the upgraded design is determined by the support of LL 9/33 in the old design and by whether GAP itself was selected in the original design. The addition of GAP into the bridge mapping logic prevents the GAP layer from being added to the old design in the event that it did not exist before (e.g., in the case of a Core-Controller design), unless it is intended (e.g., automatically adding SEC or LESEC to an older design from before Core v6.0).
- For old designs qualified before TCRL 2019-2, GAP 7/3a is not supported in the upgraded design.

ICS Item	Description	Bridge Mapping Logic	TCRL Information
GAP 7/3a	Isochronous Broadcaster	Not applicable	≥ TCRL pkg103
		GAP AND LL 9/33	< TCRL pkg103
		Not supported	< TCRL 2019-2 (Core v5.2)

Table 5.1: Bridge mapping (Example)

Bridge mapping for this layer is provided in Table 5.2:

ICS Item	Description	Bridge Mapping Logic	TCRL Information
UHCI 0/42	Upper HCI v4.2	Not applicable	≥ TCRL 2024-1
		(SUM ICS 31/17 OR SUM ICS 31/18) AND (HCI 1a/2 OR ((PROD 3/1 OR PROD 3/2 OR PROD 3/3 OR PROD 3/4 OR PROD 3/5) AND (NOT (PROD 2/1–6) OR HCI))	< TCRL 2024-1 (Core v6.0)
UHCI 0/50	Upper HCI v5.0	Not applicable	≥ TCRL 2024-1
		SUM ICS 31/19 AND (HCI 1a/2 OR ((PROD 3/1 OR PROD 3/2 OR PROD 3/3 OR PROD 3/4 OR PROD 3/5) AND (NOT (PROD 2/1–6) OR HCI))	< TCRL 2024-1 (Core v6.0)
UHCI 0/51	Upper HCI v5.1	Not applicable	≥ TCRL 2024-1
		SUM ICS 31/20 AND (HCI 1a/2 OR ((PROD 3/1 OR PROD 3/2 OR PROD 3/3 OR PROD 3/4 OR PROD 3/5) AND (NOT (PROD 2/1–6) OR HCI))	< TCRL 2024-1 (Core v6.0)

ICS Item	Description	Bridge Mapping Logic	TCRL Information
UHCI 0/52	Upper HCI v5.2	Not applicable	≥ TCRL 2024-1
		SUM ICS 31/21 AND (HCI 1a/2 OR ((PROD 3/1 OR PROD 3/2 OR PROD 3/3 OR PROD 3/4 OR PROD 3/5) AND (NOT (PROD 2/1–6) OR HCI))	< TCRL 2024-1 (Core v6.0)
UHCI 0/53	Upper HCI v5.3	Not applicable	≥ TCRL 2024-1
		SUM ICS 31/22 AND (HCI 1a/2 OR ((PROD 3/1 OR PROD 3/2 OR PROD 3/3 OR PROD 3/4 OR PROD 3/5) AND (NOT (PROD 2/1–6) OR HCI))	< TCRL 2024-1 (Core v6.0)
UHCI 0/54	Upper HCI v5.4	Not applicable	≥ TCRL 2024-1
		SUM ICS 31/23 AND (HCI 1a/2 OR ((PROD 3/1 OR PROD 3/2 OR PROD 3/3 OR PROD 3/4 OR PROD 3/5) AND (NOT (PROD 2/1–6) OR HCI))	< TCRL 2024-1 (Core v6.0)

Table 5.2: Bridge mapping (informational)

6 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
	p0r00–r01	2023-08-15 – 2024-01-29	TSE 23691 (rating 2): In accordance with E23556, added an Upper HCI ICS to the HCI layer.
0	p0	2024-07-01	Approved by BTI on 2024-05-22. Prepared for TCRL 2024-1 publication.
	p1r00	2024-08-07	Incorporated Test Issue 25968. Updated Table 0 to account for Core v6.0; updated the bridge mapping table.
1	p1	2024-09-04	Approved by BTI on 2024-08-14. Prepared for TCRL 2024-2 publication.
	p2r00	2025-03-25	TSE 27176 (rating 1): Added Core v6.1 to the Versions table and a reference to Core v6.1 to the References list.
2	p2	2025-05-06	Approved by BTI on 2025-04-16. Prepared for TCRL 2025-2 publication.
	p3r00	2025-08-01	TSE 27886 (rating 4): Incorporated LE Test Mode Enhancements changes needed to support Core v6.2. Added a reference to Core v6.2 and added 0/62 with required conditional C.9.
3	p3	2025-11-04	Approved by BTI on 2025-10-05. Prepared for TCRL pkg101 publication.
	p4r00–r02	2026-01-05 – 2026-01-23	TSE 28550 (rating 1): Added deprecation and withdrawal information for Core v4.2 to Table 0, including updating of related conditional C.2. TSE 28642 (rating 2): In preparation for the adoption of Core v6.3, added 0/63 and 0/C.10; modified the status of 0/62; and added a reference to Core v6.3 to the References section.
4	p4	2026-05-05	Approved by BTI on 2026-04-07. Prepared for TCRL pkg103 publication.
	p4ed2 r00–r01	2026-04-23 – 2026-04-27	TSE 29129 (rating 1): Reverted changes made to remove Core v4.2 mentions to support qualification tools until the spec version is withdrawn.
	p4 edition 2	2026-05-05	Approved by BTI on 2026-04-27 by consensus during BTI call. Prepared for edition 2 publication.
	p5r00–r03	2026-07-29 – 2026-08-21	TSE 29113 (rating 1): Updated Bridge Mapping section to allow for easier automatic import. TSE 29633 (rating 2): Added material needed to support the Core v7.0 release, including a reference to the Core v7.0 spec in the References section, a new item 0/70, and new conditional C.12 added to 0/63. Editorial updates to template and references to align with BTI's desired test doc conventions.
5	p5	2026-11-03	Approved by BTI on 2026-10-12. Prepared for TCRL pkg105 publication.

Acknowledgments

Name	Company
Jörg Brakensiek	Bluetooth SIG, Inc.
Matt Canavan	Bluetooth SIG, Inc.