Host Controller Interface – Upper (UHCI)

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

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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.

1.2 Versions

Table 0: X.Y Versions

Item	Version	Reference	Status
42	Upper HCI v4.2	[1]	C.1, C.2
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.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.

2 References

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

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

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

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

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

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

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

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

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

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

3 UHCI tests

The capabilities in this ICS are not tested.

4 Bridge mapping between UHCI and SUM ICS

Erratum 23556 removed Vol 0, Part B “Compliance” and Vol 1, Part D “Mixing Of Specification Versions” from the Core specification and replaced them with a new Vol 0, Part D “Core Configurations”.

Erratum 23556 introduces two HCI roles, the Lower HCI and the Upper HCI role.

Table 4.1 provides a mapping from SUM ICS capabilities to UHCI capabilities. If an implementation that pre-dates the introduction of the UHCI.ICS supports HCI host capability, then it also supports the associated UHCI capability, and vice versa.

UHCI ICS	Description	Corresponding SUM ICS [7] selections
UHCI 0/42	Upper HCI v4.2	(SUM ICS 31/17 “Host Core v4.2” OR SUM ICS 31/18 “Host Core v4.2+HS”) AND (HCI 1a/2 OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND NOT PROD 2/1-6 “Controller Core Configuration”) OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND layer selection (HCI)))
UHCI 0/50	Upper HCI v5.0	SUM ICS 31/19 “Host Core v5.0” AND (HCI 1a/2 OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND NOT PROD 2/1-6 “Controller Core Configuration”) OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND layer selection (HCI)))
UHCI 0/51	Upper HCI v5.1	SUM ICS 31/20 “Host Core v5.1” AND (HCI 1a/2 OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND NOT PROD 2/1-6 “Controller Core Configuration”) OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND layer selection (HCI)))
UHCI 0/52	Upper HCI v5.2	SUM ICS 31/21 “Host Core v5.2” AND (HCI 1a/2 OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND NOT PROD 2/1-6 “Controller Core Configuration”) OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND layer selection (HCI)))
UHCI 0/53	Upper HCI v5.3	SUM ICS 31/22 “Host Core v5.3” AND (HCI 1a/2 OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND NOT PROD 2/1-6 “Controller Core Configuration”) OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND layer selection (HCI)))
UHCI 0/54	Upper HCI v5.4	SUM ICS 31/23 “Host Core v5.4” AND (HCI 1a/2 OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND NOT PROD 2/1-6 “Controller Core Configuration”) OR ((PROD 3/1 “BR Host” OR PROD 3/2 “BR/HS Host” OR PROD 3/3 “LE Host” OR PROD 3/4 “BR/LE Host” OR PROD 3/5 “BR/HS/LE Host”) AND layer selection (HCI)))

Table 4.1: Bridge mapping between UHCI and supported SUM ICS capabilities for QDIDs

5 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.

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