

Host Controller Interface – Upper (UHCI)

Bluetooth® Implementation Conformance Statement (ICS) Proforma

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1 Identification of the implementation

1.1 Implementation Under Test (IUT) identification

Identification of the Implementation Under Test (IUT) is to be filled in to provide as much detail as possible regarding version numbers and configuration options.

An ICS contact person to respond to queries regarding information supplied in this ICS proforma is named in the Declaration of Compliance: Summary of Selected Specifications in Implementation.

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.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.

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

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.

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