



Bluetooth Core Specification

Addendum 6



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ABOUT ADDENDUM 6

This addendum provides an optional update to the *Bluetooth*[®] Core Specification. When the addendum is applied to an allowed Core Specification (see Volume 1, Part D, Section 1.2, [Table 1.3](#)), the following parts of the specification shall be replaced, added, or appended with the revised versions:

Volume 0 Part B Bluetooth Compliance Requirements

Volume 1 Part A Architecture

 Part D Mixing of Specification Versions

Master Table of Contents & Compliance Requirements
Part B

BLUETOOTH COMPLIANCE REQUIREMENTS

*This document specifies the
requirements for Bluetooth
compliance.*

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1 INTRODUCTION

The Bluetooth Qualification Program Reference Document (PRD) is the primary reference document for the Bluetooth Qualification Program and defines its requirements, functions, and policies. The PRD is available on the Bluetooth Web site.

Passing the Bluetooth Qualification Process demonstrates a certain measure of compliance and interoperability, but because products are not tested for every aspect of this Bluetooth Specification, qualification does not guarantee compliance. Passing the Bluetooth Qualification Process only satisfies one condition of the license grant. The Member has the ultimate responsibility to ensure that the qualified product complies with this Bluetooth Specification and interoperates with other products.



2 SCOPE

This part of the specification defines some fundamental concepts used in the Bluetooth Qualification Program.

3 DEFINITIONS

Bluetooth Qualification Process – The process defined in the Bluetooth Qualification Program Reference Document (PRD) to qualify a design used in implementations of Bluetooth wireless technology.

Bluetooth Qualification Program – The Bluetooth Qualification Process together with other related requirements and processes.

3.1 TYPES OF BLUETOOTH PRODUCTS

Bluetooth Product — Any product containing an implementation of Bluetooth wireless technology. Bluetooth Products as defined herein may require enabling technology external to Bluetooth Scope, as defined by the Patent and Copyright License Agreement, to become functional (e.g. power supply, technology capable of running executable code, etc.). Enabling technology is not part of any of the Bluetooth Product type definitions and is not included in the Bluetooth License grant.

All Bluetooth Products shall be one of the following:

- Bluetooth End Product
- Bluetooth Host Subsystem Product
- Bluetooth Controller Subsystem Product
- Bluetooth Profile Subsystem Product
- Bluetooth Component Product
- Bluetooth Development Tool
- Bluetooth Test Equipment.

[Table 3.1](#) defines abbreviations for the different Core Configurations defined in [Section 4](#).

Abbreviation	Explanation	Section Reference
BR CC	Bluetooth Basic Rate Core Configuration	Section 4.1
EDR CC	Bluetooth Enhanced Data Rate Core Configuration	Section 4.2
HS CC	High Speed Bluetooth Core Configuration	Section 4.3
LE CC	Bluetooth Low Energy Core Configuration	Section 4.4
BR and LE Combined CC	Bluetooth Basic Rate and Low Energy Combined Core Configuration	Section 4.5
HCI CC	Host Controller Interface Core Configuration	Section 4.6

Table 3.1: Core Configuration abbreviations



Using the abbreviations in [Table 3.1](#) the following tables define Bluetooth product types in terms of Core Configurations. For the respective Core Configuration, the letter “M” indicates that it is mandatory to claim support, “O” indicates that it is optional to claim support, “P” indicates that it is optionally permitted to claim only partial support of the Core Configuration, “I” indicates that the Core Configuration is inherently included in the combined Core Configuration, “E” indicates that support for the Core Configuration shall not be claimed.

3.1.1 Bluetooth End Product

A *Bluetooth End Product* is a Bluetooth product that claims to implement one or more Core Configurations, in compliance with the required parts of the Specification, and in accordance with the mandatory requirements as defined herein. Complementary products for *Bluetooth End Products* are limited to only *Bluetooth Profile Subsystem Products*.

The Bluetooth End Product types are defined in [Table 3.2](#).

	BR CC	EDR CC	HS CC	BR and LE Combined CC	LE CC	HCI CC
BR End Product	M	P	P	E	E	O
EDR End Product	M	M	P	E	E	O
HS End Product	M	M	M	E	E	O
LE End Product	E	E	E	E	M	O
BR and LE End Product	I	P	P	M	I	O
EDR and LE End Product	I	M	P	M	I	O
HS and LE End Product	I	M	M	M	I	O

Table 3.2: Required configuration per Bluetooth End Product type

3.1.2 Bluetooth Subsystem Product

A Bluetooth Subsystem Product is a Bluetooth product that claims to implement only a portion of the Specification, in compliance with such portion of the Specification, and in accordance with the mandatory requirements as defined herein. Bluetooth Subsystem Products can be qualified solely for distribution; the use of Bluetooth wireless technology in Bluetooth Subsystem Products requires such Bluetooth Subsystem Products to be combined with one or more complementary products such that the resulting combination satisfies the requirements of a Bluetooth End Product. Complementary

products used in combinations are limited to those complementary products specified in each of the product definitions.

There are three types of Bluetooth Subsystem Products defined:

1. Bluetooth Host Subsystem Product
2. Bluetooth Controller Subsystem Product
3. Bluetooth Profile Subsystem Product.

A Bluetooth Subsystem Product shall be one of these types.

3.1.2.1 Bluetooth Host Subsystem Product

The required configuration for each *Bluetooth Host Subsystem Product* type is listed in [Table 3.3](#).

	BR CC Host Parts	HS CC Host Parts	BR and LE Combined CC Host Parts	LE CC Host Parts	HCI CC
BR/EDR Host Subsystem Product	M	P	E	E	M
HS Host Subsystem Product	M	M	E	E	M
LE Host Subsystem Product	E	E	E	M	M
BR/EDR and LE Host Subsystem Product	I	P	M	I	M
HS and LE Host Subsystem Product	I	M	M	I	M

Table 3.3: Required configuration per Bluetooth Host Subsystem Product type

A *Bluetooth Host Subsystem Product* may contain, in addition to the required Core Configuration Host parts (as defined in [Table 3.3](#)), all the mandatory requirements defined in one or more of the protocols and profiles above HCI. Protocols below HCI required by the Core Configuration Controller parts (as defined in [Table 3.4](#)) shall be excluded from the Host Subsystem Product. Complementary products for *Bluetooth Host Subsystem Products* are limited to:

- a) *Bluetooth Controller Subsystem Products* that implement and use the HCI ([\[Vol 2\] Part E](#)) for communication between the subsystems; and
- b) *Bluetooth Profile Subsystem Products* when the *Bluetooth Host Subsystem* is combined with a *Bluetooth Controller Subsystem Product*.

3.1.2.2 Bluetooth Controller Subsystem Product

The required configuration for each *Bluetooth Controller Subsystem Product* type is listed in [Table 3.4](#).

	BR CC Controller Parts	EDR CC Controller Parts	HS CC Controller Parts	BR and LE Combined CC Controller Parts	LE CC Controller Parts	HCI CC
BR Controller Subsystem Product	M	P	P	E	E	M
EDR Control- ler Subsys- tem Product	M	M	P	E	E	M
HS Controller Subsystem Product	M	M	M	E	E	M
HS only Con- troller Subsys- tem Product	E	E	M	E	E	M
LE Controller Subsystem Product	E	E	E	E	M	M
BR and LE Controller Subsystem Product	I	P	P	M	I	M
EDR and LE Controller Subsystem Product	I	M	P	M	I	M
HS and LE Controller Subsystem Product	I	M	M	M	I	M

Table 3.4: Required configuration per Bluetooth Controller Subsystem Product type

A *Bluetooth Controller Subsystem Product* shall be limited to the Controller parts of the Core Configurations. Protocols and Profiles above HCI required by the Core Configuration Host parts (as defined in [Table 3.3](#)) shall be excluded from the Controller Subsystem Product. Complementary products for *Bluetooth Controller Subsystem Products* are limited to *Bluetooth Host Subsystem Products* that implement and use the HCI ([\[Vol 2\] Part E](#)) for communication between the subsystems.

3.1.2.3 Bluetooth Profile Subsystem Product

A *Bluetooth Profile Subsystem Product* is a Bluetooth product that claims to implement, at a minimum, all the mandatory requirements defined in one or more of the ~~profile or service~~ profile, service, or model specifications. Complementary products for *Bluetooth Profile Subsystem Products* are limited to:

- a) *Bluetooth Host Subsystem Products* when combined with a *Bluetooth Controller Subsystem Product*; and
- b) *Bluetooth End Products*.

3.1.3 Bluetooth Component Product

A Bluetooth Component Product is a Bluetooth product that claims to implement, at a minimum, all the mandatory requirements, if any, of ~~either one or more of any of the~~ protocol, profile, service, or model parts of the Specification in compliance with such portion of the Specification. Bluetooth Component Products can be qualified solely for distribution and the use of the Bluetooth wireless technology in Bluetooth Component Products require such Bluetooth Component Products to be incorporated in Bluetooth End Products or Bluetooth Subsystem Products. A product that meets the requirements of a Bluetooth End Product or Bluetooth Subsystem product may be qualified as a Bluetooth Component Product if a manufacturer determines that further integration is necessary prior to qualifying the product as a Bluetooth End Product or Bluetooth Subsystem Product.

3.1.4 Bluetooth Development Tool

A Bluetooth Development Tool is a Bluetooth product intended to facilitate the development of new Bluetooth designs. Bluetooth Development Tools can be qualified solely for distribution and the use of the Bluetooth wireless technology in development of new Bluetooth Products.

3.1.5 Bluetooth Test Equipment

A Bluetooth Test Equipment is a Bluetooth product intended to facilitate the testing of new Bluetooth Products. Bluetooth Test Equipment can be qualified solely for distribution and the use of the Bluetooth wireless technology in testing of new Bluetooth Products. Where necessary, Bluetooth Test Equipment may deviate from the Specification in order to fulfill the test purposes in the Bluetooth Test Specifications.

4 CORE CONFIGURATIONS

This section defines the set of features that are required for a product to be qualified to a specification name. The Core Specification version number is simply the version number of the specification itself.

Specification names differ from Core Specification version numbers in that products are marked based on meeting requirements for a Core Configuration together with the mixing requirements (see [\[Vol 1\] Part D, Section 1](#)).

Each Core Configuration is defined by a set of parts and individual features of the Core Specification that shall be supported to allow the configuration name to be used. The configuration requirements imposed on a device may depend on the profiles that it supports.

4.1 BASIC RATE CORE CONFIGURATION

This section specifies compliance requirements for the “Basic Rate” Core Configuration.

To claim support to the “Basic Rate” Core Configuration, an implementation must support a set of Required Features, according to the details in [Table 4.1](#) and [Table 4.2](#).

Host Part:

Layer	Required Features
L2CAP ([Vol 3] Part A)	L2CAP Signaling Channel (CID 0x0001) and all mandatory features associated with it
SDP ([Vol 3] Part B)	All mandatory features
ATT ([Vol 3] Part F)	If ATT is supported, all mandatory features
GATT ([Vol 3] Part G)	GATT is mandatory when ATT is supported. When supported, all mandatory features
GAP ([Vol 3] Part C)	All mandatory features in sections 2 through 8 and section 15

Table 4.1: BR Core Configuration Host requirements

Controller Part:

Layer	Required Features
RF ([Vol 2] Part A)	All mandatory features
BB ([Vol 2] Part B)	All mandatory features
LMP ([Vol 2] Part C)	All mandatory features

Table 4.2: BR Core Configuration Controller requirements

4.2 ENHANCED DATA RATE CORE CONFIGURATIONS

This section specifies compliance requirements for the “Enhanced Data Rate” Core Configuration.

Table 4.3 defines three categories of Transport Requirements that shall be satisfied subject to the following rules:

- A Bluetooth product shall support category 1 whenever it supports asynchronous transports for the profiles it incorporates.
- A Bluetooth product shall support category 2 whenever it supports asynchronous transports with multislots ACL packets for the profiles it incorporates.
- A Bluetooth product shall support category 3 whenever it supports eSCO synchronous transports for the profiles it incorporates.

A multi-profile product shall support all applicable categories in order to claim support for the Enhanced Data Rate Core Configuration.

Category No.	Transport Requirements	Controller Part	Host Part
		LMP Features Supported	L2CAP Feature Bits Required
1	EDR for asynchronous transports (single slot)	Enhanced Data Rate ACL 2 Mb/s mode (25) AND Enhanced Data Rate ACL 3 Mb/s mode (26)	None
2	EDR for asynchronous transports (multi-slot)	3-slot Enhanced Data Rate ACL packets (39) AND 5-slot Enhanced Data Rate ACL packets (40)	None
3	EDR for synchronous transports	Enhanced Data Rate eSCO 2 Mb/s mode (45)	None

Table 4.3: EDR Core Configuration requirements

Note: No additional requirements are stated on the support of 3-EV3, 2-EV5 and 3-EV5 packets.

4.3 HIGH SPEED CORE CONFIGURATION

This section specifies compliance requirements for the “High Speed” Core Configuration.

To claim support to the “High Speed” Core Configuration, an implementation must support a set of Required Features, according to the details in [Table 4.4](#) and [Table 4.5](#).

Host Part:

Layer	Required Features
L2CAP ([Vol 3] Part A)	Enhanced Retransmission Mode (L2CAP extended features mask number 3) Fixed Channels (L2CAP extended features mask number 7) AMP Manager Fixed Channel (CID 0x0003) AMP Channel Creation and Handling ([Vol 3] Part A, Section 9)
A2MP ([Vol 3] Part E)	All mandatory features

Table 4.4: HS Core Configuration Host requirements

Controller Part:

Layer	Required Features
802.11 PAL ([Vol 5] Part A)	All mandatory features

Table 4.5: HS Core Configuration Controller requirements

4.4 LOW ENERGY CORE CONFIGURATION

This section specifies compliance requirements for the “Low Energy” Core Configuration.

To claim support to the “Low Energy” Core Configuration, an implementation must support a set of Required Features, according to the details in [Table 4.6](#) and [Table 4.7](#).

Host Part:

Layer	Required Features
L2CAP ([Vol 3] Part A)	If the GAP Peripheral or Central role is supported, L2CAP LE Signaling Channel (CID 0x0005) and all mandatory features associated with it
GAP ([Vol 3] Part C)	All mandatory features for at least one of the LE GAP roles (Broadcaster, Observer, Peripheral or Central) in sections 9-12 and section 15

Table 4.6: LE Core Configuration Host requirements

Layer	Required Features
ATT ([Vol 3] Part F)	If the GAP Peripheral or Central role is supported, all mandatory features
GATT ([Vol 3] Part G)	GATT is mandatory when ATT is supported. When supported, all mandatory features
SM ([Vol 3] Part H)	If the GAP Peripheral or Central role is supported, all mandatory features

Table 4.6: LE Core Configuration Host requirements

Controller Part:

Layer	Required Features
PHY ([Vol 6] Part A)	All mandatory features
LL ([Vol 6] Part B)	All mandatory features

Table 4.7: LE Core Configuration Controller requirements

4.5 BASIC RATE AND LOW ENERGY COMBINED CORE CONFIGURATION

This section specifies compliance requirements for the “Basic Rate and Low Energy Combined” Core Configuration.

To claim support for the “Basic Rate and Low Energy” Core Configuration, an implementation must support a set of Required Features, according to the details in [Table 4.8](#) and [Table 4.9](#).

Host Part:

Layer	Required Features
L2CAP ([Vol 3] Part A)	All L2CAP requirements in the BR CC and LE CC
SDP ([Vol 3] Part B)	All mandatory features
GAP ([Vol 3] Part C)	All GAP requirements in the BR CC and LE CC AND All requirements in sections 13, 14 and 15
ATT ([Vol 3] Part F)	All ATT requirements in the LE CC. If ATT is supported on BR, all ATT requirements in the BR CC.
GATT ([Vol 3] Part G)	All GATT requirements in the LE CC. If GATT is supported on BR, all GATT requirements in the BR CC.
SM ([Vol 3] Part H)	All SM requirements in the LE CC

Table 4.8: BR and LE Combined Core Configuration Host requirements

Controller Part:

Layer	Required Features
RF ([Vol 2] Part A)	All RF requirements in the BR CC
BB ([Vol 2] Part B)	All BB requirements in the BR CC
LMP ([Vol 2] Part C)	All LMP requirements in the BR CC AND LMP feature bits 38 and 65 shall be set
PHY ([Vol 6] Part A)	All mandatory features in the LE CC
LL ([Vol 6] Part B)	All mandatory features in the LE CC

Table 4.9: BR and LE Combined Core Configuration Controller requirements

4.6 HOST CONTROLLER INTERFACE CORE CONFIGURATION

This section specifies compliance requirements for the “Host Controller Interface” Core Configuration.

To claim support for the “Host Controller Interface” Core Configuration, an implementation must support a set of Required Features, according to the details in [Table 4.10](#).

Layer	Required Features
HCI ([Vol 2] Part E)	All the supported features in the implementation shall be compliant to the Host Controller Interface.

Table 4.10: HCI Core Configuration requirements

Architecture & Terminology Overview

Part A

ARCHITECTURE



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6 BLUETOOTH APPLICATION ARCHITECTURE [Updated]

6.6 MESH-BASED MODEL HIERARCHY [New Section]

The Mesh Profile¹ specifies the structure within which data is exchanged by devices in a mesh network. This structure defines basic building blocks such as models and properties.

The top level of the hierarchy is a model, which is either a client model or a server model. A client model can send messages to a server model and the server model can use other messages to respond to the client model. Models enable devices to send standardized messages, using standardized data formats, to other devices that they have had no previous relationship with.

6.6.1 Model

A model is a collection of properties, states, messages, and associated behaviors that accomplishes a particular device function. A model defines and exposes states along with any associated behavior. It also defines the messages that are used to communicate between models within devices in a mesh network. Messages are defined globally and are not model-specific. Models are immutable meaning that features cannot be added to or removed from a model definition. Therefore, the only way to add features to a model is by defining a new model that extends an existing model by defining new states, messages, and behaviors. These new states and behaviors are linked to the existing model using state binding. This ensures backwards and forwards compatibility by allowing newer devices to access the newer features of the extended model, and older devices to access the base features of an existing model.

6.6.2 Properties

A property adds context to a defined characteristic. When sending data into a mesh network, it is very useful to label data with the meaning, or context, of that data. This allows a device that receives a property to interpret that data without having to negotiate the context beforehand. For example, a temperature characteristic can be given a context about how or when that temperature was measured such as “outside temperature”, “indoor temperature”, or “oil temperature”.

Properties are defined globally and are not model-specific.

1. The Mesh Profile specification is available at <https://www.bluetooth.com/specifications/adopted-specifications>.

Architecture & Terminology Overview

Part D

MIXING OF SPECIFICATION VERSIONS



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MIXING OF SPECIFICATION VERSIONS

This part describes how volumes, and parts within volumes, of different versions and Specification Addenda of the Core Specification may be mixed in Bluetooth implementations. The Core System consists of a BR/EDR Controller Package (see [Volume 2](#)), a Low Energy Controller Package (see [Volume 6](#)), a Host Package (see [Volume 3](#)) and AMP Protocol Adaptation Layers (see [Volume 5](#)).

- All parts within a Primary Controller implementation shall comply with the same version of [Volume 2](#) and [Volume 6](#).
- All parts within a Host implementation of [Volume 3](#) shall comply with the same version.
- An AMP Controller implementation shall contain parts of [Volume 2](#) and [Volume 5](#) from the same version.
- The Primary Controller, AMP Controller, and Host may comply with different versions within a single implementation.

In order to describe how these volumes and parts within volumes can be mixed, one needs to distinguish between four categories of features specified in the different specification versions. The four categories are:

Category	Description
Type 1	Feature that exists below HCI and cannot be configured/enabled via HCI
Type 2	Feature that exists below HCI and can be configured/enabled via HCI
Type 3	Feature that exists below and above HCI and requires HCI command/events to function
Type 4	Feature that exists only above HCI

Table 1.1: Feature type definitions

The outcome of mixing different Core System Packages are derived from the feature definitions in the table above:

- If an implementation contains features of type 1 or type 4, these features can function with any combination of Host Package and Controller Package or AMP Protocol Adaptation Layer (PAL) versions with applicable addenda.
- If an implementation contains features of type 2, these features can only be used under a default condition if a Host Package of an older version with applicable addenda is mixed with a Controller Package or AMP PAL of this version with applicable Core Specification Addenda (CSAs).



- In order to fully use the feature under all conditions, the Host Package, Controller Package, and AMP PAL must comply with the same or later version with applicable CSAs.
- If an implementation contains features of type 3, these features can only function if the Host Package supports this version or a later version with applicable CSAs and if the Controller Package complies with this version or a later version with applicable CSAs.

See the [Bluetooth Brand Usage Guide](#) for specification naming requirements.

1.1 FEATURES AND THEIR TYPES

The following table lists the features, their types, and the version or addendum where the feature was first introduced.

Feature	Version	Type
Basic AFH operation	1.2	1
Enhanced inquiry	1.2	1
Configuration of AFH (setting channels and enabling/disabling channel assessment)	1.2	2
Enhanced synchronization capability	1.2	2
Interlaced inquiry scan	1.2	2
Interlaced page scan	1.2	2
Broadcast encryption	1.2	2
Enhanced flow specification and flush time-out	1.2	3
Extended SCO links	1.2	3
Inquiry Result with RSSI	1.2	3
L2CAP flow and error control	1.2	4
2 Mb/s EDR	2.0 + EDR	2
3 Mb/s EDR	2.0 + EDR	2
3 slot packets in EDR	2.0 + EDR	2
5 slot packets in EDR	2.0 + EDR	2
2 Mb/s eSCO	2.0 + EDR	2
3 Mb/s eSCO	2.0 + EDR	2
3 slot packets for EDR eSCO	2.0 + EDR	2
Erroneous Data Reporting	2.1 + EDR	3
Extended Inquiry Response	2.1 + EDR	3
Encryption Pause and Resume	2.1 + EDR	1
Link Supervision Timeout Changed Event	2.1 + EDR	3
Non-Flushable Packet Boundary Flag	2.1 + EDR	3
Sniff subrating	2.1+ EDR	3
Secure Simple Pairing	2.1.+ EDR	3
L2CAP Enhanced Retransmission Mode	Addendum 1/ 3.0 + HS	4
L2CAP Streaming Mode	Addendum 1/ 3.0 + HS	4
Enhanced Power Control	3.0 + HS	1

Table 1.2: Features and their types

Feature	Version	Type
AMP Manager Protocol (A2MP)	3.0 + HS	4
L2CAP Enhancements for AMP	3.0 + HS	4
802.11 PAL	3.0 + HS	3
Generic Test Methodology	3.0 + HS	3
Unicast Connectionless Data	3.0 + HS	4
Low Energy Controller (PHY and LL)	4.0	3
Low Energy Host (L2CAP and Security Manager)	4.0	4
Attribute Protocol and Generic Attribute Profile	4.0	4
Appearance Data Type	Addendum 2	4
802.11n Enhancements to the 802.11 PAL	Addendum 2	3
MWS Coexistence Signaling	Addendum 3	2
Connectionless Slave Broadcast	Addendum 4	3
Unencrypted UCD	Addendum 4	4
BR/EDR Secure Connections	4.1	3
Train Nudging	4.1	2
Generalized Interlaced Scan	4.1	2
Piconet Clock Adjustment	4.1	3
Low Duty Cycle Directed Advertising	4.1	2
32-bit UUID Support in LE	4.1	4
LE Dual Mode Topology	4.1	4
LE L2CAP Connection Oriented Channel Support	4.1	4
LE Privacy v1.1	4.1	4
LE Link Layer Topology	4.1	3
LE Ping	4.1	2
LE Data Packet Length Extension	4.2	2
LE Secure Connections	4.2	4
Link Layer Privacy	4.2	3
Link Layer Extended Filter Policies	4.2	3
Slot Availability Mask	5.0	2
LE 2M PHY	5.0	2
LE Coded PHY	5.0	3
High Duty Cycle Non-Connectable Advertising	5.0	2
LE Advertising Extensions	5.0	3

Table 1.2: Features and their types



Feature	Version	Type
LE Channel Selection Algorithm #2	5.0	2
LE Higher Output Power	Addendum 5	1

Table 1.2: Features and their types

1.2 CORE SPECIFICATION ADDENDA

A Core Specification Addendum (CSA) contains one or more parts of a single volume, one or more parts in multiple volumes, changes on one or more parts, or a combination of parts and changes. Addenda are used to supersede a part in a volume or may be used to add a part to a volume according to the rules in [Table 1.3](#).

Note: Each Change may contain changes and/or additions to one or more parts of the Core Specification.

Addendum	Volume and Part or Change Name	Addition/ Changes/ Replacement	Allowed Versions & Addendum	Mandatory / Optional / Conditional	Type
1	Volume 3, Part A	Replacement	2.0 + EDR, 2.1 + EDR	O	4
2	Audio Architecture HCI Changes	Change	2.1 + EDR, 3.0 + HS, 4.0	O	2
	Audio Architecture USB Changes	Change	2.1 + EDR, 3.0 + HS, 4.0	O	2
	LE Limited Discovery Time Changes	Change	4.0	C.1	4
	EIR and AD Data Types in GAP Changes	Change	4.0	C.1	4
	EIR and AD Data Types Specification	Addition	4.0	C.1	4
	Volume 5, Part A	Replacement	3.0 + HS, 4.0	O	3

Table 1.3: Adopted core specification versions to use with addenda.

Addendum	Volume and Part or Change Name	Addition/Changes/Replacement	Allowed Versions & Addendum	Mandatory / Optional / Conditional	Type
3	LE Errata	Change	4.0 with CSA2	C.2	Multiple
	GAP Connection Parameters Changes	Change	4.0 with CSA2	C.1	4
	GAP Authentication and Lost Bond Changes	Change	4.0 with CSA2	C.1	4
	Common Profile and Services Error Code Range Changes	Change	4.0 with CSA2	C.1	4
	Private Addressing Changes	Change	4.0 with CSA2	C.1	4
	Dual Mode Addressing Changes	Change	4.0 with CSA2	C.3	4
	MWS Coexistence Logical Signaling Specification	Addition	2.1 + EDR, 3.0 + HS, 4.0 with CSA2	O	2
	MWS Coexistence HCI	Addition	2.1 + EDR, 3.0 + HS, 4.0 with CSA2	C.4	2
	Wireless Coexistence Interface 1 (WCI-1) Transport Layer Specification	Addition	2.1 + EDR, 3.0 + HS, 4.0 with CSA2	C.4	2
	Wireless Coexistence Interface 2 (WCI-2) Transport Layer Specification	Addition	2.1 + EDR, 3.0 + HS, 4.0 with CSA2	C.4	2

Table 1.3: Adopted core specification versions to use with addenda.

Addendum	Volume and Part or Change Name	Addition/ Changes/ Replacement	Allowed Versions & Addendum	Mandatory / Optional / Conditional	Type
4	Connectionless Slave Broadcast	Change	3.0 + HS, 4.0 with CSA3	O	3
	Unencrypted UCD	Change	3.0 + HS, 4.0 with CSA3	O	4
	Fast Advertising Interval	Change	4.0 with CSA3	C.1	4
	eSCO Reserved Slot Clarification	Change	2.1 + EDR, 3.0 + HS, 4.0 with CSA3	O	1
5	Higher Output Power	Change	4.0 with CSA3, 4.0 with CSA4, 4.1, 4.2	O	1
<u>6</u>	<u>Volume 0, Part B</u>	<u>Replacement</u>	<u>4.0 with CSA3,</u> <u>4.0 with CSA4,</u> <u>4.0 with CSA5,</u> <u>4.1, 4.1 with CSA5,</u> <u>4.2, 4.2 with CSA5,</u> <u>5.0</u>	<u>M</u>	<u>N/A</u>
	<u>Volume 1, Part A</u>	<u>Change</u>	<u>4.0 with CSA3,</u> <u>4.0 with CSA4,</u> <u>4.0 with CSA5,</u> <u>4.1, 4.1 with CSA5,</u> <u>4.2, 4.2 with CSA5,</u> <u>5.0</u>	<u>M</u>	<u>N/A</u>

Table 1.3: Adopted core specification versions to use with addenda.

C.1: Mandatory if either the Host Part of the Low Energy Core Configuration or the Host Part of the Basic Rate and Low Energy Combined Core Configuration is supported, otherwise Excluded.

Mixing of Specification Versions

- C.2: Mandatory if either the Host Part of the Low Energy Core Configuration, Controller Part of the Low Energy Core Configuration, Host Part of the Basic Rate and Low Energy Combined Core Configuration, or Controller Part of the Basic Rate and Low Energy Combined Core Configuration is supported, otherwise Excluded.
- C.3: Mandatory if the Host Part of the Basic Rate and Low Energy Combined Core Configuration is supported, otherwise Excluded.
- C.4: Optional if MWS Coexistence Logical Signaling is supported, otherwise Excluded.



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