



Project Details

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Project Name	BX2400 Bluetooth Component
Product Type	Component (Tested)
TCRL Version:	TCRL 2017-2
Referenced Qualified Design(s)	
Previously Qualified Design Used in this Qualification(s)	
Listing Date	2018-06-17
Declaration ID	D040439

Product Listing(s)	Name	Website	Category	Publish Date	Model Number	Description
	BX2400 Bluetooth Component	http://www.bluemicro.com/	Unique Products	6/17/2018 12:00:00 AM	BX2400	The BX2400, integrated with ARM Cortex-M0+, is a single-chip solution for Bluetooth Low Energy specification Core 5.0 and is compatible with Bluetooth V4.2. BX2400 provides ultra-low power solution for BLE connections. Rich digital and analog peripheral interfaces are integrated for external control which includes GPIO, SPI, UART, IIC, PWM and ADC.

Member Company	BlueX Microelectronics Corp Ltd.
Declaring Member Contact / Listing Contact Person	Name
	Address
	City
	State
	Country
	Postal Code

Complete the Project and Submit Product(s) for Qualification

By typing my name or other symbol of my signature into the "Signature" field below, I agree on behalf of BlueX Microelectronics Corp Ltd. ("Company") to [Bluetooth Launch Studio Terms of Use](#), and I make the following representations and warranties personally and on behalf of Company. The following representations and warranties, together with all project information and the [Bluetooth Launch Studio Terms of Use](#), are the Supplier Declaration of Conformity and Declaration of Compliance described in the [Program Reference Document \(PRD\)](#) and [Declaration Process Document \(DPD\)](#).

- ☒ I am authorized by Company to submit all of the information included in this project and all information is complete and accurate.
- ☒ Company does not, by its governing documents or other applicable law, require more than one signatory, a stamp or seal, or a witnessed signature to be legally bound.
- ☒ I agree on behalf of Company to contract in English and electronically, and adopt the characters and symbols input in the signature field below as my signature, with the same effect as an ink signature.

☒ The products included in this project are owned and distributed by Company under a Product name that identifies Company as the source of the Product. Company has the right to use and reference all Qualified Designs referenced in the project, and the products and referenced Qualified Designs comply with the version of the Bluetooth Specification identified in the project submission.

☒ The product(s) included in this project and the corresponding Qualified Designs comply with the [Bluetooth Launch Studio Terms of Use](#).

If any of the foregoing is not correct or you do not agree, you must exit this form without signing.

Signature:

Zhou Ming

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Effective Date: November 10th, 2017.

These Bluetooth Launch Studio Terms of Use (“**Launch Studio Terms**”) are a supplement to the [Bluetooth SIG Website Terms of Use](#) (“**WTOU**”) and together the Launch Studio Terms and WTOU are a legal agreement (collectively the “**Bluetooth Terms**”) between you and Bluetooth SIG, Inc., a Delaware corporation (“**Bluetooth SIG**”) that governs your access to and use of the Bluetooth Launch Studio (the “**Launch Studio Tool**”).

The Launch Studio Tool is a Service (as defined in the WTOU) offered by Bluetooth SIG. Terms used but not defined in these Launch Studio Terms have the meanings ascribed to them in the WTOU. In the event of a conflict between these Launch Studio Terms and the WTOU, these Launch Studio Terms will govern.

PLEASE READ THE BLUETOOTH TERMS CAREFULLY. BY ACCESSING OR USING THE LAUNCH STUDIO TOOL AND/OR CLICKING TO INDICATE THAT YOU AGREE TO THE LAUNCH STUDIO TERMS, YOU REPRESENT THAT YOU ARE AUTHORIZED TO BIND THE ENTITY UNDER WHOSE BLUETOOTH SIG MEMBERSHIP YOU OBTAINED A USER ACCOUNT AND THAT YOU AND THAT MEMBER AGREE TO BE BOUND BY THE BLUETOOTH TERMS. IF YOU ARE NOT AUTHORIZED OR DO NOT AGREE TO THE BLUETOOTH TERMS, DO NOT ACCESS OR USE THE LAUNCH STUDIO TOOL OR CLICK TO INDICATE THAT YOU AGREE TO THESE LAUNCH STUDIO TERMS.

1. MEMBERSHIP ACCOUNT REQUIREMENT.

To access and use the Launch Studio Tool, you must have an Account (as defined in the WTOU) issued under the membership account of a current Bluetooth SIG member and log into the Launch Studio Tool with that Account. You acknowledge and agree that when you access the Launch Studio Tool that you are doing so on behalf of the member your Account is associated with (“**Member**”) and you represent and warrant that you are authorized by Member to access and use the Launch Studio Tool and provide Submissions (defined below) on Member’s behalf.

2. BLUETOOTH QUALIFICATION PROCESS.

The “**Bluetooth Qualification Process**” is the process created by Bluetooth SIG for qualifying Products. The Launch Studio Tool is the Bluetooth SIG tool designed to implement the Bluetooth Qualification Process. A “**Product**” means a product that:

- (a) if sold, is sold as a single item (consisting of software, firmware, drivers, applications, hardware, or a combination of some or all of the foregoing);
- (b) contains one or more Portions; and
- (c) if marketed, is marketed under a name and/or trademark that uniquely identifies Member as the source of the product. A “**Portion**” means hardware, software, or a combination of hardware and software that implements a Bluetooth Specification. If the hardware, software, or combination contains or consists of more than an implementation of the Bluetooth specification, the “Portion” is only the implementation of the Bluetooth Specification. “**Bluetooth Specification**” is defined in the Bylaws of Bluetooth SIG.

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- (a) You represent and warrant that you have permission to submit to Bluetooth SIG all information and materials (including design information, product information, test reports, and test results) that you provide through the Launch Studio Tool (“**Submissions**”) and that all Submissions are true, complete, and accurate.
- (b) You represent and warrant that you and Member will comply with the SIG Member Terms (as defined in the WTOU).
- (c) You represent and warrant that all Submissions that you make through the Launch Studio Tool and all Products listed in your Submissions comply with the SIG Member Terms (as defined in the WTOU) and the Bluetooth Specification(s) referenced in your Submission.

(d) You represent and warrant that the products referenced in your Submissions that you submit to the Bluetooth Qualification Process via the Launch Studio Tool will only be Products that, if marketed or distributed, are done so by Member under a name or trademark that uniquely identifies Member as the source of the Product.

(e) You acknowledge and agree that a product is not a Bluetooth Product under the Bluetooth Trademark License Agreement and you and Member will not market or distribute any product that uses any Bluetooth® trademark on it or in connection with any related marketing, promotion, or advertising unless you or Member have been notified by Bluetooth SIG that it has completed the Bluetooth Qualification Process (e.g., via a confirmation screen or email from Bluetooth SIG expressly stating that the Product has completed the Bluetooth Qualification Process).

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You and the Bluetooth SIG agree that Submissions are Confidential Information subject to the Bluetooth SIG Confidentiality Policy even if you do not label the Submission "Confidential." Notwithstanding anything in the Bluetooth SIG Confidentiality Policy and except as described in the following sentence, you agree that Bluetooth SIG will treat your Submissions as confidential, including by not making them available through the searchable database on Bluetooth SIG's web site until the date that you have selected as the "listing date" within the Launch Studio Tool when you click to submit your Submission. Bluetooth SIG further agrees that

(a) if, when you submit a Submission, the "publish date" in your Submission is after the listing date, the following information will be treated as Member Confidential Information and not included in the searchable database on Bluetooth SIG's web site until the "publish date": product name, product number, category, subset ID (if applicable), publish date, and product description and

(b) the test plan and test evidence provided as part of your Submission will continue to be treated as Member Confidential Information for the period of time required under the Bluetooth SIG Confidentiality Policy regardless of any listing date or publish date in the Submission. To the extent that this Section conflicts with the Bluetooth SIG Confidentiality Policy, this Section supersedes the Bluetooth SIG Confidentiality Policy with respect to Bluetooth SIG's obligations of confidentiality of Submissions.

6. RECORD KEEPING AND AUDIT.

You agree to maintain a complete copy of your Submissions as well as all supporting information and documentation related to each Product you submit for qualification through the Launch Studio Tool (“**Records**”) in order to document your compliance with the SIG Member Terms and Bluetooth Specifications. You agree that Bluetooth SIG may request copies of Records relating to or pertaining to your Submissions and all Products referenced therein and you will provide copies of Records and permit Bluetooth SIG and its representatives to audit, examine, and make copies of or extracts from all Records (in whatever form they may be kept, whether written, electronic, or other) in order to verify the truth, accuracy, and completeness of your Submissions as well as compliance with the SIG Member Terms and Bluetooth Specifications. Bluetooth SIG will be responsible for the cost of any audit, unless the audit reveals that any Submission is incomplete or inaccurate or that you, Member, any of your Submissions, or any Product fails to comply with the SIG Member Terms or Bluetooth Specifications, in which case Member will reimburse Bluetooth SIG for the costs of the audit within 30 days after receiving Bluetooth SIG’s request for reimbursement.

7. ADDITIONAL DISCLAIMERS.

The Launch Studio Tool is not a record-keeping or storage tool. You are responsible for backing up all of Your Content (as defined in the WTOU) submitted to the Launch Studio Tool. In addition to the disclaimers in the WTOU, Bluetooth SIG does not guarantee that Your Content will not be removed, damaged, corrupted, or lost.

Summary ICS

Table 21: Controller Configuration Specification Version

Item	Capability	System Spec Reference	Support	Status	Comment
21/16	Core Specification Version 5.0. Adopted 06 December 2016	Core 5.0	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support only one Controller Core Specification Version.

Table 24: BR/EDR Controller Electrical Interfaces

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 31: Host Configuration Specification Version

Item	Capability	System Spec Reference	Support	Status	Comment
31/19	Core Specification Version 5.0. Adopted 06 December 2016	Core 5.0 (see 18 in published SUMICS)	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support only one Host Core Specification Version.

Table 33: Core Host Electrical Interfaces

Item	Capability	System Spec Reference	Support	Status	Comment
33/1	UART Transport Layer	Vol 4, Part A	O	<input checked="" type="checkbox"/>	

Table 34: LE Host Specification Parts

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 41: AMP Controller Specification Version

Prerequisite: SUM ICS 21/13 or SUM ICS 21/14 or SUM ICS 21/16 or SUM ICS 21/5 or SUM ICS 21/6 or SUM ICS 21/8 or SUM ICS 21/9

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 42: AMP Controller Specification Parts

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 43: AMP Controller Electrical Interfaces

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 51: Low Energy Controller Configuration

Prerequisite: SUM ICS 21/13 or SUM ICS 21/14 or SUM ICS 21/16 or SUM ICS 21/9

Item	Capability	System Spec Reference	Support	Status	Comment
51/1	Low Energy Controller	Core 4.0	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory if PROD 2/4 or 2/5 or 2/6 is supported, otherwise Excluded.

Table 52: Low Energy Host Core Specification

Prerequisite: SUM ICS 31/10 or SUM ICS 31/11 or SUM ICS 31/15 or SUM ICS 31/16 or SUM ICS 31/17 or SUM ICS 31/18 or SUM ICS 31/19

Item	Capability	System Spec Reference	Support	Status	Comment
52/1	Low Energy Host	Core 4.0	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory if PROD 3/3 or 3/4 or 3/5 is supported, otherwise Excluded.

Table 22: EDR Features

Prerequisite: SUM ICS 21/13 or SUM ICS 21/14 or SUM ICS 21/16 or SUM ICS 21/4 or SUM ICS 21/6 or SUM ICS 21/8 or SUM ICS 21/9

Item	Capability	System Spec Reference	Support	Status	Comment
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Product Type

Table 1: Product Types

Item	Capability	System Spec Reference	Support	Status	Comment
1/2	Component (Tested)	N/A	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support one and only one Product Type.

Table 2: Controller Core Configuration

Prerequisite: PROD 1/1 or PROD 1/2 or PROD 1/3 or PROD 1/5

Item	Capability	System Spec Reference	Support	Status	Comment
2/4	LE Controller	Vol. 0 Part B	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support only one Controller Configuration. Optional if 1/2 or 1/3 is Supported.

Table 3: Host Core Configuration

Prerequisite: PROD 1/1 or PROD 1/2 or PROD 1/3 or PROD 1/4

Item	Capability	System Spec Reference	Support	Status	Comment
3/3	LE Host	Vol. 0 Part B	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support only one Host Configuration. Optional if 1/2 or 1/3 is Supported.

Generic Access Profile

Generic Access Profile

Table 0: Device Configuration

Item	Capability	System Spec Reference	Support	Status	Comment
0/2	LE	[3] or [7] 1.1	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory if (PROD 3/3) is Supported, otherwise excluded.

Table 0a: Version Configuration

Item	Capability	System Spec Reference	Support	Status	Comment
0a/5	Core Spec version 5.0 (Core v5.0), Adopted 06 December 2016	Core v5.0	C.5	<input checked="" type="checkbox"/>	C.5: Mandatory IF SUMICS 31/18 "(Core Spec Version 5.0)" is supported, otherwise Excluded.

Table 1: Modes

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 2: Security Aspects

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 3: Idle Mode Procedures

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 4: Establishment Procedures

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 5: LE Roles

Prerequisite: GAP 0/2

Item	Capability	System Spec Reference	Support	Status	Comment
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5/1	Broadcaster	[3] or [7] 2.2.2	C.1	☑	C.1: It is mandatory to support at least one of the defined roles.
5/2	Observer	[3] or [7] 2.2.2	C.1	☑	C.1: It is mandatory to support at least one of the defined roles.
5/3	Peripheral	[3] or [7] 2.2.2	C.1	☑	C.1: It is mandatory to support at least one of the defined roles.
5/4	Central	[3] or [7] 2.2.2	C.1	☑	C.1: It is mandatory to support at least one of the defined roles.

Table 6: Broadcaster Physical Layer

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
6/1	Transmitter	[3] or [7] 2.2.2	M	☑	
6/2	Receiver	[3] or [7] 2.2.2	O	☑	

Table 7: Broadcaster Link Layer States

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
7/1	Standby	[3] or [7] 2.2.2	M	☑	
7/2	Advertising	[3] or [7] 2.2.2	M	☑	

Table 8: Broadcaster Link Layer Advertising Event Types

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
8/1	Non-Connectable Undirected Event	[3] or [7] 2.2.2	M	☑	

Table 8a: Broadcaster Link Layer Advertising Data Types

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
8a/3	AD Type – Flags	[3] 11.1.3, [4] 1.3	C.2	☑	C.2: Mandatory if 5/1 is supported, otherwise Optional.

Table 9: Broadcaster Connection Modes and Procedures

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
9/1	Non-Connectable Mode	[3] or [7] 9.3.2	M	☑	

Table 10: Broadcaster Broadcasting and Observing Features

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
10/1	Broadcast Mode	[3] or [7] 9.1.1	M	☑	

Table 11: Broadcaster Privacy Feature

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 11a: Periodic Advertising Modes and Procedures

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 12: Observer Physical Layer

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment
12/1	Receiver	[3] or [7] 2.2.2	M	☑	
12/2	Transmitter	[3], 2.2.2	O	☑	

Table 13: Observer Link Layer States

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment
13/1	Standby	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
13/2	Scanning	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	

Table 14: Observer Link Layer Scanning Types

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment
14/1	Passive Scanning	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
14/2	Active Scanning	[3] or [7] 2.2.2	O	<input checked="" type="checkbox"/>	

Table 15: Observer Connection Modes and Procedures

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment
15/1	Non-Connectable Modes	[3] or [7] 9.3.2	M	<input checked="" type="checkbox"/>	

Table 16: Observer Broadcasting and Observing Features

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment
16/1	Observation Procedure	[3] or [7] 9.1.2	M	<input checked="" type="checkbox"/>	

Table 17: Observer Privacy Feature

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment

Table 17a: Periodic Advertising Modes and Procedures

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment

Table 18: Peripheral Physical Layer

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
18/1	Transmitter	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
18/2	Receiver	[3] 2.2.2	M	<input checked="" type="checkbox"/>	

Table 19: Peripheral Link Layer States

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
19/1	Standby	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
19/2	Advertising	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
19/3	Connection, Slave Role	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role)) is supported, otherwise Excluded.

Table 20: Peripheral Link Layer Advertising Event Types

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec	Support	Status	Comment

Reference					
20/1	Connectable and Scannable Undirected Event	[3] 2.2.2, 13.1.1.2 [7] 2.2.2	C.1	☑	C.1: Mandatory IF (SUMICS 31/14 (Core Spec v4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Mandatory IF ((SUMICS 31/10 (Core Spec 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role))) is supported, otherwise Excluded.
20/2	Connectable Directed Event	[3] 2.2.2, 13.1.1.2 [7] 2.2.2	C.2	☑	C.2: Optional IF (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Optional IF ((SUMICS 31/10 (Core Spec 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role))) is supported, otherwise Excluded.

Table 20A: Peripheral Link Layer Advertising Data Types

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
20A/3	AD Type – Flags	[3] 11.1.3 [4] 1.3	C.2	☑	C.2: Mandatory if 22/2 (Limited Discoverable Mode) or 22/3 (General Discoverable Mode) is supported, otherwise Optional.

Table 21: Peripheral Link Layer Control Procedures

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
21/1	Connection Update Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	C.1	☑	C.1: Mandatory if ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role))) is supported, otherwise Excluded.
21/2	Channel Map Update Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	C.1	☑	C.1: Mandatory if ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role))) is supported, otherwise Excluded.
21/4	Feature Exchange Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	C.1	☑	C.1: Mandatory if ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role))) is supported, otherwise Excluded.
21/5	Version Exchange Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	C.1	☑	C.1: Mandatory if ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role))) is supported, otherwise Excluded.
21/6	Termination Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	C.1	☑	C.1: Mandatory if ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role))) is supported, otherwise Excluded.
21/8	Slave Initiated Feature Exchange Procedure	[7] 2.2.2	C.4	☑	C.4: Mandatory IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND GAP 21/9 (Connection Parameter Request Procedure)) is supported; Optional IF (Core Spec 4.1 or later) is supported, otherwise Excluded.

Table 22: Peripheral Discovery Modes and Procedures

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
22/1	Non-Discoverable Mode	[3] 9.2.2, 13.1.1.1 [7] 9.2.2, 13.1	C.1	☑	C.1: Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND (5/3 (LE Roles – Peripheral role) OR 42/1 (BR/EDR/LE – Non-Discoverable Mode))) is supported; Mandatory IF (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.
22/2	Limited Discoverable Mode	[3] 9.2.3, 13.1.1.2 [7] 9.2.3, 13.1	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 1/2 (BR/EDR/LE – Limited Discoverable Mode)) is supported; Optional IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
22/3	General Discoverable	[3] 9.2.4, 13.1.1.2	C.3	☑	C.3: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND 1/3 (BR/EDR/LE – General Discoverable Mode)) is supported; Mandatory IF (5/3 (LE Roles – Peripheral role) AND (NOT 22/2 (Limited

Mode	[7] 9.2.4, 13.1	Discoverable Mode))) is supported; Optional IF (5/3 (LE Roles – Peripheral role) AND 22/2 (Limited Discoverable Mode))) is supported; (cont.) C.3: Mandatory IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role) AND (NOT 22/2 (Limited Discoverable Mode))) is supported; (cont.2) C.3: Optional IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role) AND 22/2 (Limited Discoverable Mode)) is supported, otherwise Excluded.
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Table 23: Peripheral Connection Modes and Procedures

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
23/1	Non-Connectable Mode	[3] 9.3.2, 13.1.2.1 [7] 9.3.2	M	☑	
23/3	Undirected Connectable Mode	[3] 9.3.4, 13.1.2.2 [7] 9.3.4	C.2	☑	C.2: Mandatory IF (5/3 (LE Roles – Peripheral Role) OR ((31/14 (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role))) is supported, otherwise Excluded.
23/5	Terminate Connection Procedure	[3] 9.3.10, 13.1.2.1 [7] 9.3.10	C.2	☑	C.2: Mandatory IF (5/3 (LE Roles – Peripheral Role) OR ((31/14 (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role))) is supported, otherwise Excluded.

Table 24: Peripheral Bonding Modes and Procedures

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
24/1	Non-Bondable Mode	[3], 9.4.2	M	☑	

Table 25: Peripheral Security Aspects Features

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 26: Peripheral Privacy Feature

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 27: Peripheral GAP Characteristics

Item	Capability	System Spec Reference	Support	Status	Comment
27/1	Device Name	[3] or [7] 12.1	M	☑	
27/2	Appearance	[3] or [7] 12.2	M	☑	

Table 28: Central Physical Layer

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
28/1	Transmitter	[3] or [7] 2.2.2	M	☑	
28/2	Receiver	[3] or [7] 2.2.2	M	☑	

Table 29: Central Link Layer States

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
29/1	Standby	[3] or [7] 2.2.2	M	☑	
29/2	Scanning	[3] or [7] 2.2.2	M	☑	
29/3	Initiating	[3] or [7] 2.2.2	M	☑	

29/4	Connection, Master Role	[3] or [7] 2.2.2	M	☑
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Table 30: Central Link Layer Scanning Types

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
30/1	Passive Scanning	[3] or [7] 2.2.2	O	☑	
30/2	Active Scanning	[3] or [7] 2.2.2	C.1	☑	C.1: Mandatory if (5/4 or 38/4) is supported. Optional if 30/1 and (5/4 OR 38/4) is supported, otherwise Excluded.

Table 31: Central Link Layer Control Procedures

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
31/1	Connection Update Procedure	[3] or [7] 2.2.2	M	☑	
31/2	Channel Map Update Procedure	[3] or [7] 2.2.2	M	☑	
31/4	Feature Exchange Procedure	[3] or [7] 2.2.2	M	☑	
31/5	Version Exchange Procedure	[3] or [7] 2.2.2	M	☑	
31/6	Termination Procedure	[3] or [7] 2.2.2	M	☑	

Table 32: Central Discovery Modes and Procedures

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
32/2	General Discovery Procedure	[3] 9.2.6, 13.2 [7] 9.2.6	C.1	☑	C.1: Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/1 (BR/EDR/LE – General Discovery))) is supported; Mandatory IF (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.

Table 33: Central Connection Modes and Procedures

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
33/2	General Connection Establishment	[3] 9.3.6, 13.3.1 [7] 9.3.6	C.1	☑	(1 of 3) C.1: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment)) AND 36/1 (Privacy Feature v1.0)) is supported; (2 of 3) C.1: Optional IF ((SUMICS 31/10 “Core Spec Version 4.0” OR SUMICS 31/10a “Core Spec Version 4.0+HS”) AND (5/4 “LE Only – Central role” OR 40/5 “BR/EDR/LE – Link Establishment” AND (NOT 36/1 “Privacy Feature”))) is supported; (3 of 3) C.1: Optional IF ((SUMICS 31/14 “Core Spec Version 4.1” OR SUMICS 31/15 “Core Spec Version 4.1+HS” OR (SUMICS 31/16 “Core Spec Version 4.2” OR SUMICS 31/17 “Core Spec Version 4.2+HS” OR SUMICS 31/18 “Core Spec version 5.0”) is supported, otherwise Excluded.
33/4	Direct Connection Establishment	[3] or [7] 9.3.8	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment))) is supported; Mandatory IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
33/5	Connection Parameter Update Procedure	[3] or [7] 9.3.9	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment))) is supported; Mandatory IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
33/6	Terminate Connection Procedure	[3] or [7] 9.3.10	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment))) is supported; Mandatory IF (Core Spec 4.1 or later) is supported, otherwise Excluded.

Table 34: Central Bonding Modes and Procedures

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
34/1	Non-Bondable	[3] 9.4.2, 13.1.3 [7]	C.1	☑	C.1: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 39/5 (BR/EDR/LE – Non-Bondable Mode))) is supported; Mandatory IF (Core Spec 4.1 or later) is supported,

Table 35: Central Security Features

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 36: Central Privacy Feature

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 37: Central GAP Characteristics

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
37/1	Device Name	[3] or [7] 12.1	M	☑	
37/2	Appearance	[3] or [7] 12.2	M	☑	

Table 38: BR/EDR/LE Roles

Prerequisite: GAP 0/3

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 39: Central BR/EDR/LE Modes

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 40: Central BR/EDR/LE Idle Mode Procedures

Prerequisite: GAP 38/4

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 41: Central BR/EDR/LE Security Aspects

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 42: Peripheral BR/EDR/LE Modes

Prerequisite: GAP 38/3

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 43: Peripheral BR/EDR/LE Security Aspects

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 44: Central Simultaneous BR/EDR and LE Transports

Prerequisite: GAP 38/4

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 45: Peripheral Simultaneous BR/EDR and LE Transports

Prerequisite: GAP 38/3

Item	Capability	System Spec Reference	Support	Status	Comment
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Logical Link Control and Adaption Protocol

Table 2: General Operation

Item	Capability	System Spec Reference	Support	Status	Comment
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2/40	Support of Low Energy signaling channel	[4] 2.1, 2.2	C.17	☑	C.17: Mandatory (0/2 OR 0/3) is supported, otherwise Excluded.
2/41	Support of command reject	[4] 4.10	C.17	☑	C.17: Mandatory (0/2 OR 0/3) is supported, otherwise Excluded.
2/43	Send Connection Parameter Update Response	[4] 4.21	C.19	☑	C.19 : Mandatory if (Core Spec 4.0) and 1/3 is supported, otherwise Excluded.

Table 3: Configurable Parameters

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Support of RTX timer	[1] 6.2.1	M	☑	
3/12	Support minimum MTU size 23 octets	[4] 5.1	C.6	☑	C.6: Mandatory if (0/2 or 0/3) is supported, otherwise Excluded.

Table 0: L2CAP Transport Configuration

Item	Capability	System Spec Reference	Support	Status	Comment
0/2	Bluetooth low energy only	[2] 1.1	C.2	☑	C.2 Mandatory if (PROD 1/1 or 1/4) and (PROD 3/3) are Supported (End Product or Host Subsystem with LE Host CC), otherwise excluded. Optional for PROD 1/2 or 1/3 (Components).

Table 1: Roles

Item	Capability	System Spec Reference	Support	Status	Comment
1/3	LE Master	[4] 2	C.2	☑	C.2: Mandatory to support at least one of (1/3 or 1/4) if (0/2 OR 0/3) is supported, otherwise Excluded.
1/4	LE Slave	[4] 2	C.2	☑	C.2: Mandatory to support at least one of (1/3 or 1/4) if (0/2 OR 0/3) is supported, otherwise Excluded.
1/6	LE Data Channel Acceptor	[5] 3.4	C.5	☑	C.5: Mandatory IF (L2CAP 0/2 (LE) OR L2CAP 0/3 (BR/EDR/LE)) AND SUMICS 21/13 (v4.1) AND L2CAP 2/46 (LE Credit Based Flow Control Mode) is supported, otherwise Excluded.

Low Energy Link Layer

Table 1: Controller States/Roles

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Advertising State	[1]: 4.4.2	C.1	☑	C.1: Mandatory to support at least one of (1/1 or 1/2 or 1/3).
1/2	Scanning State	[1]: 4.4.3	C.1	☑	C.1: Mandatory to support at least one of (1/1 or 1/2 or 1/3).
1/3	Initiating State	[1]: 4.4.4	C.1	☑	C.1: Mandatory to support at least one of (1/1 or 1/2 or 1/3).
1/4	Slave Role	[1]: 4.5.5	C.3	☑	C.3: Optional if 1/1 is supported, otherwise Excluded.
1/5	Master Role	[1]: 4.5.4	C.2	☑	C.2: Mandatory if 1/3 is supported, otherwise Excluded

Table 2: Device Addresses Types

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	Public Address	[1]: 1.3	C.1	☑	C.1: IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” is supported it is Mandatory to support at least one of (LL 2/1 “Public Address” OR LL 2/2 “Random Address”), otherwise it is Mandatory to support at least one of (LL 2/1 “Public Address” OR LL 2/3 “Static Address”).
2/2	Random Address	[1]: 1.3	C.1	☑	C.1: IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” is supported it is Mandatory to support at least one of (LL 2/1 “Public Address” OR LL 2/2 “Random Address”), otherwise it is Mandatory to support at least one of (LL 2/1 “Public Address” OR LL 2/3 “Static Address”).
2/3	Static Address	[4] 1.3.2.1	C.1	☑	C.1: IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” is supported it is Mandatory to support at least one of (LL 2/1 “Public Address” OR LL 2/2 “Random Address”), otherwise it is Mandatory to support at least one of (LL 2/1 “Public Address” OR LL 2/3 “Static Address”).
2/4	Generation of private addresses	[4] 1.3.2.2	C.3	☑	C.3: Excluded IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” is supported, otherwise Optional.

2/5	Resolution of private addresses	[4] 1.3.2.3	C.2	☑	C.2: Mandatory if 2/4 (Generation of private address) is supported, otherwise Excluded.
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Table 3: Protocol Advertising Features

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Non-Connectable Undirected Events	[1]: 4.4.2.6	C.1	☑	C.1: Mandatory if GAP 5/1 (Broadcaster) is supported; Optional if GAP 5/3 (Peripheral), otherwise Not Defined.
3/2	Connectable Undirected Events	[1]: 4.4.2.3	C.2	☑	C.2: Mandatory if GAP 5/3 (Peripheral) is supported, otherwise Not Defined.
3/3	Advertising Data	[1]: 4.4.2.3, 4.4.2.5, 4.4.2.6	M	☑	
3/4	Connectable Directed Events	[1]: 4.4.2.4	O	☑	
3/4a	Low Duty Cycle Direct Advertising	[1] 4.4.2.4	C.5	☑	C.5: Optional if (Core Spec 4.1 or later) is supported, otherwise Excluded.
3/5	Scannable Undirected Events	[1]: 4.4.2.5	O	☑	
3/6	Sending Scan Responses	[1]: 4.4.2.3, 4.4.2.5	C.2	☑	C.2: Mandatory if GAP 5/3 (Peripheral) is supported, otherwise Not Defined.
3/7	Accepting Connection Requests	[1]: 4.4.2.3, 4.4.2.4	C.2	☑	C.2: Mandatory if GAP 5/3 (Peripheral) is supported, otherwise Not Defined.
3/8	Filtering Policies	[1]: 4.3.2	O	☑	

Table 4: Protocol Scanning Features

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	Passive Scanning	[1]: 4.4.3.1	C.1	☑	C.1: Mandatory if GAP 5/2 (Observer) is supported; otherwise Optional
4/2	Receiving Advertising Data	[1]: 4.4.3.1, 4.4.3.2	M	☑	
4/3	Active Scanning	[1]: 4.4.3.2	C.2	☑	C.2: Mandatory IF (GAP 5/4 (Central) AND NOT LL 4/1 (Passive Scanning)) is supported; otherwise Optional
4/4	Backoff Procedure	[1]: 4.4.3.2	M	☑	
4/5	Filtering Policies	[1]: 4.3.3	O	☑	
4/6	Extended Scanner filter policies	[4] 4.4.3	C.3	☑	C.3: Excluded IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” is supported, otherwise Optional.

Table 5: Protocol Initiating Features

Prerequisite: LL 1/3

Item	Capability	System Spec Reference	Support	Status	Comment
5/1	Requesting Connections	[1]: 4.4.4	M	☑	
5/2	Requesting to Directed Advertising	[1]: 4.4.4	M	☑	
5/3	Initiator Filtering	[1]: 4.3.4	M	☑	
5/88	Intentionally left blank			☑	

Table 6: Protocol Slave Role Features

Item	Capability	System Spec Reference	Support	Status	Comment
6/1	Slave Transmissions	[1]: 4.5.1, 4.5.5, 4.5.6	M	☑	
6/2	Acknowledgement Scheme	[1]: 4.5.9	M	☑	
6/3	Unknown Response	[1]: 5.1.4, 2.4.2	M	☑	
6/4	Responding in Feature Setup	[1]: 5.1.4	M		

				✓	
6/4a	Requesting Feature Setup	[1]: 5.1.4.2	C.2	✓	C.2: Mandatory IF ((Core Spec 4.1 or later) AND LL 6/10a (Initiating Connection Parameter Request)) are supported.
6/5	Sending Data (Device supports data output from a Host)	[1]: 4.5.1, 4.5.6	M	✓	
6/6	Receiving Data (Device supports data input to a Host)	[1]: 4.5.1, 4.5.6	M	✓	
6/7	More Data	[1]: 4.5.6	O	✓	
6/10	Accepting Parameter Update	[1]: 5.1.1	M	✓	
6/10a	Initiating Connection Parameter Request	[1]: 5.1	C.3	✓	C.3: Optional IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
6/10b	Accepting Connection Parameter Request	[1]: 5.1	C.2	✓	C.2: Mandatory IF ((Core Spec 4.1 or later) AND LL 6/10a (Initiating Connection Parameter Request)) are supported.
6/11	Accepting Channel Map Update	[1]: 5.1.2	M	✓	
6/12	Encryption Start	[1]: 5.1.3	O	✓	
6/13	Connection Control Timer	[1]: 5.2	M	✓	
6/14	Sending Termination	[1]: 5.1.6	M	✓	
6/15	Accepting Termination	[1]: 5.1.6	M	✓	
6/16	Connection Supervision Timer	[1]: 4.5.2	M	✓	
6/18	Slave Pause Encryption	[1]: 5.1.3	O	✓	
6/19	Slave Version Exchange	[1]: 5.1.5	M	✓	
6/20	Slave listens to multiple packets per connection event	4.5.7	O	✓	
6/21	LE Authenticated Payload Timeout	[3]: 5.4	C.5	✓	C.5: Mandatory IF LL 9/2 "LE Ping" is supported, otherwise Excluded.
6/22	Data Length Update Procedure	[4]: 5.1.9	C.4	✓	C.4: Mandatory IF LL 9/6 (LE Data Packet Length Extension) is supported, otherwise Excluded.
6/23	Minimum Number Of Used Channels Procedure	4.6.15	C.6	✓	C.6: Excluded IF SUMICS 21/9 "Core v4.0" OR SUMICS 21/13 "Core v4.1" OR SUMICS 21/14 "Core v4.2" is supported, otherwise Optional

Table 7: Protocol Master Role Features

Item	Capability	System Spec Reference	Support	Status	Comment
7/1	Master Transmissions	[1]: 4.5.1, 4.5.4, 4.5.6	M	✓	
7/2	Acknowledgement Scheme	[1]: 4.5.9	M	✓	
7/3	Unknown Responses	[1]: 5.1.4, 2.4.2	M	✓	
7/4	Requesting Feature Setup	[1]: 5.1.4	M	✓	
7/4a	Responding in Feature Setup	[1]: 5.1.4.2	C.2	✓	C.2: Mandatory IF ((Core Spec 4.1 or later) AND LL 7/10b (Accepting Connection Parameter Request) is supported, otherwise Excluded.
7/5	Sending Data (Device supports data output from a Host)	[1]: 4.5.1, 4.5.6	M	✓	
7/6	Receiving Data (Device supports data input to a Host)	[1]: 4.5.1, 4.5.6	M	✓	
7/7	More Data	[1]: 4.5.6	O	✓	
7/10	Requesting Parameter Update	[1]: 5.1.1	M	✓	
7/10a	Initiating Connection Parameter Request	[1]: 5.1	C.2	✓	C.2: Mandatory IF ((Core Spec 4.1 or later) AND LL 7/10b (Accepting Connection Parameter Request) is supported, otherwise Excluded.
7/10b	Accepting Connection Parameter Request	[1]: 5.1	C.3	✓	C.3: Optional if IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
7/11	Requesting Channel Map Update	[1]: 5.1.2	M	✓	
7/12	Encryption Start	[1]: 5.1.3	O	✓	
7/13	Connection Control Timer	[1]: 5.2	M	✓	
7/14	Sending Termination	[1]: 5.1.6	M	✓	

7/15	Accepting Termination	[1]: 5.1.6	M	☑	
7/16	Connection Supervision Timer	[1]: 4.5.2	M	☑	
7/19	Master Pause Encryption	[1]: 5.1.3	O	☑	
7/20	Master Version Exchange	[1]: 5.1.5	M	☑	
7/21	LE Authenticated Payload Timeout	[3] 5.4	C.5	☑	C.5: Mandatory IF LL 9/2 “LE Ping” is supported, otherwise Excluded.
7/22	Data Length Update Procedure	[4] 5.1.9	C.4	☑	C.4: Mandatory IF LL 9/6 (LE Data Packet Length Extension) is supported, otherwise Excluded.
7/23	Minimum Number Of Used Channels Procedure	4.6.15	C.6	☑	C.6: Excluded IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” OR SUMICS 21/14 “Core v4.2” is supported, otherwise Optional

Table 8: Physical Channels

Item	Capability	System Spec Reference	Support	Status	Comment
8/1	Data channels (channel index0 to 36)	[1]:1.4	C.1	☑	C.1: Mandatory if (1/4 or 1/5) is supported, otherwise Excluded.
8/2	Advertising channels (at least one of channel index37, 38, 39)	[1]:1.4.1	M	☑	
8/3	Support Data channel selection algorithm	[1]: 4.5.8	C.1	☑	C.1: Mandatory if (1/4 or 1/5) is supported, otherwise Excluded.

Table 9: Supported Features

Item	Capability	System Spec Reference	Support	Status	Comment
9/1	LE Encryption	[1] 4.6.1	C.1	☑	C.1: Mandatory if (6/12 and 6/18) or (7/12 and 7/19) are supported, otherwise Excluded.
9/2	LE Ping Procedure	[3] 4.6.5	C.4	☑	C.4: Excluded IF SUMICS 21/9 “Core v4.0” is supported, otherwise Optional.
9/3	Connection Parameter Request Procedure	[1] 4.6.2	C.2	☑	C.2: Excluded IF SUMICS 21/9 “Core v4.0” is supported, otherwise Mandatory IF (LL 6/10a “Initiating Connection Parameter Request” OR LL 7/10b “Accepting Connection Parameter Request”) are supported, otherwise Excluded.
9/4	Extended Reject Indication	[1] 4.6.3	C.3	☑	C.3: Excluded IF SUMICS 21/9 “Core v4.0” is supported, otherwise Mandatory IF LL 9/3 “Connection Parameter Request Procedure”; otherwise Optional.
9/5	Slave-initiated Features Exchange	[1] 4.6.4	C.4	☑	C.4: Excluded IF SUMICS 21/9 “Core v4.0” is supported, otherwise Optional.
9/6	LE Data Packet Length Extension	[4] 4.6.6	C.5	☑	C.5: Excluded IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” is supported, otherwise Optional.
9/7	LE 2MPHY	[5][4] 2.1	C.6	☑	C.6: Excluded IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” OR SUMICS 21/14 “Core v4.2” is supported, otherwise Optional.
9/8	Asymmetric Connections	[5] 4.6.9.1	C.7	☑	C.7: Optional IF LL 9/7 “LE 2MPHY” OR LL 9/9 “LE Coded PHY” is supported, otherwise Excluded.
9/12	Minimum Number of Used Channels Procedure	[5] 4.6.15	C.10	☑	C.10: Mandatory IF (LL 6/23 “Slave role -Minimum Number of Used Channels Procedure” or LL 7/23 “Master Role -Minimum Number of Used Channels Procedure”) is supported, otherwise Excluded.
9/13	LL Privacy	[5] 4.6.7	C.5	☑	C.5: Excluded IF SUMICS 21/9 “Core v4.0” OR SUMICS 21/13 “Core v4.1” is supported, otherwise Optional.

Table 10: Scatternet Capabilities

Item	Capability	System Spec Reference	Support	Status	Comment
10/1	Act as LE Master and LE Slave at the same time	[3] 1.1.1	O	☑	
10/2	Act as LE Slave to more than one LE Master at the same time.	[3] 1.1.1	O	☑	

Low Energy RF PHY

Table 1: Bluetooth LE RF Capabilities

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	LE Transmitter (Non-connectable, Broadcaster)	[2], 3	C.1	☑	C.1: Mandatory to support at least one of these capabilities.
1/2	LE Receiver (Non-connectable, Observer)	[2], 4	C.1	☑	C.1: Mandatory to support at least one of these capabilities.
1/3	LE Transceiver (Connectable, Peripheral/Central)	[2], 3, 4	C.1	☑	C.1: Mandatory to support at least one of these capabilities.
1/4	LE 2MPHY	3, 4	C.2	☑	C.2: Optional IF SUMICS 21/16 “Core 5.0” AND RF PHY 1/3 “LE Transceiver” are supported, otherwise Excluded.

Table 2: Bluetooth LE Test Interface Capabilities

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	HCI Test Interface	[3], 2	C.1	☑	C.1: At least one of the capabilities shall be supported.

4.0 Host Controller Interface

Table 1: Generic Events

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Command Complete Event	7.7.14	M	☑	
1/1d	Support all LE controller commands	3.3, 7.7	O	☑	
1/2	Command Status Event	7.7.15	M	☑	
1/3	Hardware Error Event	7.7.15	O	☑	

Table 1a: Roles

Item	Capability	System Spec Reference	Support	Status	Comment
1a/4	LE Controller	1	C.1	☑	C.1: It is mandatory to support at least one of the defined roles.

Table 2: Device Setup

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	Reset Command	7.3.2	M	☑	

Table 3: Controller Flow Control

Item	Capability	System Spec Reference	Support	Status	Comment
3/5	LE Read Buffer Size Command	7.8.2	M	☑	

Table 4: Controller Information

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	Read Local Version Information Command	7.4.1	M	☑	
4/2	Read Local Supported Commands Command	7.4.2	M	☑	
4/3	Read Local Supported Features Command	7.4.3	M	☑	
4/5	Read BD_ADDR Command	7.4.6	M	☑	
4/8	LE Read Local Supported Features Command	7.8.3	M	☑	

4/9	LE Read Support States	[1] 7.8.27	C.2	☑	C.2: Mandatory IF SUMICS 21/13 (Core 4.1) OR SUMICS 21/14 (Core 4.2) is supported; Optional IF SUMICS 21/9 (Core 4.0) is supported.
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Table 5: Controller Configuration

Item	Capability	System Spec Reference	Support	Status	Comment
5/13	LE Set Random Address Command	7.8.5	C.1	☑	C.1: Mandatory if (LL 1/1 or 1/3 or 4/3) is supported, otherwise Optional.
5/14	LE Read White List Size Command	7.8.15	M	☑	
5/15	LE Add Device to White List Command	7.8.17	M	☑	
5/16	LE Clear White List Command	7.8.16	M	☑	
5/17	LE Remove Device From White List Command	7.8.18	M	☑	
5/27	LE Add Device to Resolving List Command	[4] 7.8.38	C.4	☑	C.4: Mandatory IF LL 2/4 (Generation of private addresses) OR LL 2/5 (Resolution of private addresses) is supported, otherwise Excluded.
5/28	LE Remove Device From Resolving List Command	[4] 7.8.39	C.4	☑	C.4: Mandatory IF LL 2/4 (Generation of private addresses) OR LL 2/5 (Resolution of private addresses) is supported, otherwise Excluded.
5/29	LE Clear Resolving List Command	[4] 7.8.40	C.4	☑	C.4: Mandatory IF LL 2/4 (Generation of private addresses) OR LL 2/5 (Resolution of private addresses) is supported, otherwise Excluded.
5/30	LE Read Resolving List Size Command	[4] 7.8.41	C.4	☑	C.4: Mandatory IF LL 2/4 (Generation of private addresses) OR LL 2/5 (Resolution of private addresses) is supported, otherwise Excluded.
5/31	LE Set Address Resolution Enable Command	[4] 7.8.44	C.4	☑	C.4: Mandatory IF LL 2/4 (Generation of private addresses) OR LL 2/5 (Resolution of private addresses) is supported, otherwise Excluded.
5/32	LE Set Resolvable Private Address Timeout Command	[4] 7.8.45	C.5	☑	C.5: Mandatory IF LL 2/4 (Generation of private addresses) is supported, otherwise Excluded.

Table 6: Device Discovery

Item	Capability	System Spec Reference	Support	Status	Comment
6/15	LE Set Advertise Enable Command	7.8.10	C.4	☑	C.4: Mandatory if (LL 1/1) is supported, otherwise Optional.
6/16	LE Set Advertising Parameters Command	7.8.6	C.4	☑	C.4: Mandatory if (LL 1/1) is supported, otherwise Optional.
6/17	LE Set Scan Response Data Command	7.8.9	C.5	☑	C.5: Mandatory if (LL 3/2 or 3/5) is supported, otherwise Optional.
6/18	LE Set Advertising Data Command	7.8.8	C.7	☑	C.7: Mandatory if (LL 3/3) is supported, otherwise Optional.
6/19	LE Advertising Report Event	7.7.65.2	C.6	☑	C.6: Mandatory if (LL 1/2) is supported, otherwise Optional.
6/20	LE Set Scan Enable Command	7.8.12	C.6	☑	C.6: Mandatory if (LL 1/2) is supported, otherwise Optional.
6/21	LE Set Scan Parameters Command	7.8.11	C.6	☑	C.6: Mandatory if (LL 1/2) is supported, otherwise Optional.
6/22	LE Read Advertising Channel TXPower Command	7.8.7	C.4	☑	C.4: Mandatory if (LL 1/1) is supported, otherwise Optional.
6/26	LE Direct Advertising Report Event	[4] 7.7.65.11	C.11	☑	C.11: Mandatory IF LL 4/6 (Extended Scanner Filter Policies) is supported, otherwise Excluded.

Table 7: Connection Setup

Item	Capability	System Spec Reference	Support	Status	Comment
7/5	Disconnect Command	7.1.6	C.2	☑	C.2: Mandatory if (LL 3/4 or 3/5) is supported, otherwise Optional.
7/23	LE Create Connection Command	7.8.13	C.1	☑	C.1: Mandatory if LL 1/5 and LL 3/3 are supported, otherwise Excluded.
7/24	LE Create Connection Cancel Command	7.8.14	C.1	☑	C.1: Mandatory if LL 1/5 and LL 3/3 are supported, otherwise Excluded.
7/25	LE Connection Complete Event	7.7.65.1	C.2	☑	C.2: Mandatory if (LL 3/4 or 3/5) is supported, otherwise Optional.

7/26	Disconnection Complete Event	7.7.5	C.2	☑	C.2: Mandatory if (LL 3/4 or 3/5) is supported, otherwise Optional.
7/27	LE Connection Update Command	7.8.19	C.8	☑	C.8: Mandatory IF (LL 1/5 (Master Role) AND LL 1/3 (Initiating State)) OR LL 6/10a (Initiating Connection Parameter Request) OR LL 7/10a (Initiating Connection Parameter Request) is supported, otherwise Excluded.
7/28	LE Connection Update Complete Event	7.7.65.3	C.2	☑	C.2: Mandatory if (LL 3/4 or 3/5) is supported, otherwise Optional.
7/35	LE Remote Connection Parameter Request Reply Command	[1] 7.8.32	C.7	☑	C.7: Mandatory IF (LL 6/10b (Accepting Connection Parameter Request) OR LL 7/10b (Accepting Connection Parameter Request)) is supported, otherwise Excluded.
7/36	LE Remote Connection Parameter Request Negative Reply Command	[1] 7.8.33	C.7	☑	C.7: Mandatory IF (LL 6/10b (Accepting Connection Parameter Request) OR LL 7/10b (Accepting Connection Parameter Request)) is supported, otherwise Excluded.
7/37	LE Remote Connection Parameter Request Event	[1] 7.7.65.6	C.7	☑	C.7: Mandatory IF (LL 6/10b (Accepting Connection Parameter Request) OR LL 7/10b (Accepting Connection Parameter Request)) is supported, otherwise Excluded.
7/38	LE Enhanced Connection Complete Event	[4] 7.7.65.10	C.9	☑	C.9: Mandatory IF (LL 1/4 (Slave Role) OR LL 1/5 (Master Role)) AND LL 2/5 (Resolution of private addresses) is supported, otherwise Excluded.
7/39	LE Read Peer Resolvable Address Command	[4] 7.8.42	C.10	☑	C.10: Optional IF (LL 1/4 (Slave Role) OR LL 1/5 (Master Role)) AND LL 2/5 (Resolution of private addresses) is supported, otherwise Excluded.
7/40	LE Read Local Resolvable Address Command	[4] 7.8.43	C.10	☑	C.10: Optional IF (LL 1/4 (Slave Role) OR LL 1/5 (Master Role)) AND LL 2/5 (Resolution of private addresses) is supported, otherwise Excluded.

Table 8: Remote Information

Item	Capability	System Spec Reference	Support	Status	Comment
8/5	Read Remote Version Information Command	7.1.23	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.
8/6	LE Read Remote Features Command	7.8.22	C.3	☑	C.3: Mandatory if (LL 1/5) is supported, otherwise Optional.
8/7	LE Read Remote Features Complete Event	7.7.65.4	C.3	☑	C.3: Mandatory if (LL 1/5) is supported, otherwise Optional.
8/8	Read Remote Version Information Complete Event	7.7.12	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.

Table 10: Connection State

Prerequisite: LL 9/6

Item	Capability	System Spec Reference	Support	Status	Comment
10/12	LE Set Data Length Command	[4] 7.8.33	C.5	☑	C.5: Optional IF LL 9/6 (Data Length Extension) is supported, otherwise Excluded.
10/13	LE Data Length Change Event	[4] 7.7.65.7	C.5	☑	C.5: Optional IF LL 9/6 (Data Length Extension) is supported, otherwise Excluded.
10/14	LE Read Suggested Default Data Length Command	[4] 7.8.34	C.5	☑	C.5: Optional IF LL 9/6 (Data Length Extension) is supported, otherwise Excluded.
10/15	LE Write Suggested Default Data Length Command	[4] 7.8.35	C.5	☑	C.5: Optional IF LL 9/6 (Data Length Extension) is supported, otherwise Excluded.
10/16	LE Read Maximum Data Length Command	[4] 7.8.46	C.5	☑	C.5: Optional IF LL 9/6 (Data Length Extension) is supported, otherwise Excluded.

Table 13: Physical Links

Item	Capability	System Spec Reference	Support	Status	Comment
13/8	LE Set Host Channel Classification Command	7.8.19	C.5	☑	C.5: Mandatory if (LL 1/5) is supported, otherwise Optional.
13/9	LE Read PHY Command	7.8.47	C.6	☑	C.6: Excluded IF SUMICS 21/3 "Core v2.0" OR SUMICS 21/4 "Core v2.0 +EDR" OR SUMICS 21/5 "Core 2.1" OR SUMICS 21/6 "Core 2.1+EDR" OR SUMICS 21/8 "Core 3.0" OR SUMICS 21/9 "Core 4.0" OR SUMICS 21/13 "Core 4.1" OR SUMICS 21/14 (Core 4.2) is supported, otherwise Mandatory IF LL 9/7 "LE 2M PHY" OR LL 9/9 "LE Coded PHY" is supported, otherwise Optional.

13/10	LE Set Default PHY Command	7.8.48	C.6	☑	C.6: Excluded IF SUMICS 21/3 "Core v2.0" OR SUMICS 21/4 "Core v2.0 +EDR" OR SUMICS 21/5 "Core 2.1" OR SUMICS 21/6 "Core 2.1+EDR" OR SUMICS 21/8 "Core 3.0" OR SUMICS 21/9 "Core 4.0" OR SUMICS 21/13 "Core 4.1" OR SUMICS 21/14 (Core 4.2) is supported, otherwise Mandatory IF LL 9/7 "LE 2M PHY" OR LL 9/9 "LE Coded PHY" is supported, otherwise Optional.
13/11	LE Set PHY Command	7.8.49	C.6	☑	C.6: Excluded IF SUMICS 21/3 "Core v2.0" OR SUMICS 21/4 "Core v2.0 +EDR" OR SUMICS 21/5 "Core 2.1" OR SUMICS 21/6 "Core 2.1+EDR" OR SUMICS 21/8 "Core 3.0" OR SUMICS 21/9 "Core 4.0" OR SUMICS 21/13 "Core 4.1" OR SUMICS 21/14 (Core 4.2) is supported, otherwise Mandatory IF LL 9/7 "LE 2M PHY" OR LL 9/9 "LE Coded PHY" is supported, otherwise Optional.
13/12	LE PHY Update Complete Event	7.7.65	C.6	☑	C.6: Excluded IF SUMICS 21/3 "Core v2.0" OR SUMICS 21/4 "Core v2.0 +EDR" OR SUMICS 21/5 "Core 2.1" OR SUMICS 21/6 "Core 2.1+EDR" OR SUMICS 21/8 "Core 3.0" OR SUMICS 21/9 "Core 4.0" OR SUMICS 21/13 "Core 4.1" OR SUMICS 21/14 (Core 4.2) is supported, otherwise Mandatory IF LL 9/7 "LE 2M PHY" OR LL 9/9 "LE Coded PHY" is supported, otherwise Optional.

Table 14: Host Flow Control

Item	Capability	System Spec Reference	Support	Status	Comment
14/1	Host Buffer Size Command	7.3.39	O	☑	
14/2	Set Event Mask Command	7.3.1	M	☑	
14/4	Set Controller To Host Flow Control Command	7.3.38	O	☑	
14/5	Host Number Of Completed Packets Command	7.3.40	O	☑	
14/8	Set Event Mask Page 2 Command	7.3.69	C.3	☑	C.3: Mandatory IF SUMICS 31/14 (v4.1) AND (LL 6/21 (LL Authenticated Payload Timeout Timer - Slave) OR LL 7/21 (LL Authenticated Payload Timeout Timer - Master) are supported; Optional if SUMICS 31/14 (v4.1), otherwise Excluded.
14/12	Number of Completed Packets Event	7.7.26	C.1	☑	C.1: Mandatory if (LL 1/4 OR LL 1/5) is supported otherwise Optional
14/13	Data Buffer Overflow Event	7.7.26	O	☑	
14/14	LE Set Event Mask Command	7.8.1	M	☑	

Table 15: Link Information

Item	Capability	System Spec Reference	Support	Status	Comment
15/2	Read Transmit Power Level Command	7.3.35	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.
15/4	Read RSSI Command	7.5.4	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.
15/8	LE Read Channel Map Command	7.8.20	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.

Table 16: Authentication and Encryption

Item	Capability	System Spec Reference	Support	Status	Comment
16/32	LE Encrypt Command	7.8.22	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/33	LE Rand Command	7.8.23	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/34	LE Long Term Key Requested Reply Command	7.8.25	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/35	LE Start Encryption Command	7.8.24	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/36	LE Long Term Key Requested Event	7.7.65.5	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.

16/37	Encryption Change Event	7.7.8	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/38	Encryption Key Refresh Complete Event	7.7.39	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/39	LE Long Term Key Requested Negative Reply Command	7.8.26	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/46	Authenticated Payload Timeout Expired Event	[3] 7.7.75	C.12	☑	C.12: Mandatory IF (SUMICS 31/14-19 AND ((LL 1/4 (Slave Role) AND LL 6/21 (LL Authenticated Payload Timeout) OR (LL 1/5 (Master Role) AND LL 7/21 (LL Authenticated Payload Timeout)) is supported, otherwise Excluded.
16/47	Read Authenticated Payload Timeout	[3] 7.3.93	C.12	☑	C.12: Mandatory IF (SUMICS 31/14-19 AND ((LL 1/4 (Slave Role) AND LL 6/21 (LL Authenticated Payload Timeout) OR (LL 1/5 (Master Role) AND LL 7/21 (LL Authenticated Payload Timeout)) is supported, otherwise Excluded.
16/48	Write Authenticated Payload Timeout	[3] 7.3.92	C.12	☑	C.12: Mandatory IF (SUMICS 31/14-19 AND ((LL 1/4 (Slave Role) AND LL 6/21 (LL Authenticated Payload Timeout) OR (LL 1/5 (Master Role) AND LL 7/21 (LL Authenticated Payload Timeout)) is supported, otherwise Excluded.
16/50	LE Read Local P-256 Public Key	[4] 7.8.36	C.13	☑	C.13: Optional IF SUMICS 21/14 (Core 4.2) or higher, otherwise Excluded.
16/51	LE Generate DHKey	[4] 7.8.37	C.13	☑	C.13: Optional IF SUMICS 21/14 (Core 4.2) or higher, otherwise Excluded.
16/52	LE Read Local P-256 Public Key Complete	[4] 7.7.65.8	C.14	☑	C.14: Mandatory IF HCI 16/50 (LE Read Local P-256 Public Key), otherwise Excluded.
16/53	LE Generate DHKey Complete Event	[4] 7.7.65.9	C.15	☑	C.15: Mandatory IF HCI 16/51 (LE Generate DHKey), otherwise Excluded.

Table 17: Testing

Item	Capability	System Spec Reference	Support	Status	Comment
17/7	LE Receiver Test Command	7.8.28	C.2	☑	C.2: Mandatory if (LL 1/2 or 1/3 or 3/2 or 3/4 or 3/5) is supported, otherwise Optional.
17/8	LE Transmitter Test Command	7.8.29	C.3	☑	C.3: Mandatory if (LL 1/1 or 1/3 or 4/3) is supported, otherwise Optional.
17/9	LE Test End Command	7.8.30	M	☑	
17/10	LE Enhanced Receiver Test Command	7.8.50	C.4	☑	C.4: Excluded if SUMICS 21/14 (Core 4.2) or earlier is supported, otherwise Mandatory IF LL 9/7 “LE 2M PHY” OR LL 9/9 “LE Coded PHY” OR RF PHY 1/4 “LE 2MPHY” OR RF PHY 1/5 “Stable Modulation Index - Transmitter” OR RF PHY 1/6 “Stable Modulation Index - Receiver” is supported, otherwise Optional.
17/11	LE Enhanced Transmitter Test Command	7.8.51	C.4	☑	C.4: Excluded if SUMICS 21/14 (Core 4.2) or earlier is supported, otherwise Mandatory IF LL 9/7 “LE 2M PHY” OR LL 9/9 “LE Coded PHY” OR RF PHY 1/4 “LE 2MPHY” OR RF PHY 1/5 “Stable Modulation Index - Transmitter” OR RF PHY 1/6 “Stable Modulation Index - Receiver” is supported, otherwise Optional.

Generic Attribute Profile

Table 1: Generic Attribute Profile Support

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Generic Attribute Profile Client	GATT 2.2	C.1	☑	C.1: Optional to support IF 2/2 (Attribute Protocol Supported over LE); else IF 2/1 (Attribute Protocol Supported over BR/EDR) it is Mandatory to support at least one of 1/1 (GATT Client) OR 1/2 (GATT Server).
1/2	Generic Attribute Profile Server	GATT 2.2	C.2	☑	C.2: Mandatory to support IF 2/2 (Attribute Protocol Supported over LE); else IF 2/1 (Attribute Protocol Supported over BR/EDR) it is Mandatory to support at least one of 1/1 (GATT Client) or 1/2 (GATT Server).
1/3	Complete GATT Client layer	GATT	C.3	☑	C.3: Optional if 1/1 is supported, otherwise Excluded.
1/4	Complete GATT Server layer	GATT	C.4	☑	C.4: Optional if 1/2 is supported, otherwise Excluded.

Table 2: Attribute Protocol Transport

Item	Capability	System Spec Reference	Support	Status	Comment
2/2	Attribute Protocol Supported over LE	GATT 2.2	C.2	☑	C.2: Mandatory if (PROD 3/3 or 3/4 or 3/5) is supported, otherwise Excluded. (Mandatory if Host CC contains LE).

Table 3: Generic Attribute Profile Feature Support, by client

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Exchange MTU	4.3.1	C.2	☑	C.2: Mandatory IF GATT 1/3 (Complete GATT Client) AND GATT 2/2 (LE) AND ATT 3/2 (Exchange MTU Request) is supported, otherwise Optional.
3/2	Discover All Primary Services	4.4.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/3	Discover Primary Services by Service UUID	4.4.2	C.4	☑	C.4: Mandatory IF GATT 1/3 (Complete GATT Client) is supported OR ATT 3/6 (Find by Type Value Request), otherwise Optional.
3/4	Find Included Services	4.5.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/5	Discover All characteristics of a Service	4.6.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/6	Discover Characteristics by UUID	4.6.2	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/7	Discover All Characteristic Descriptors	4.7.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/8	Read Characteristic Value	4.8.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/9	Read Using Characteristic UUID	4.8.2	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/10	Read Long Characteristic Values	4.8.3	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/11	Read Multiple Characteristic Values	4.8.4	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/12	Write without Response	4.9.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/13	Signed Write Without Response	4.9.2	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/14	Write Characteristic Value	4.9.3	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/15	Write Long Characteristic Values	4.9.4	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/16	Characteristic Value Reliable Writes	4.9.5	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/17	Notifications	4.10.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/18	Indications	4.11.1	M	☑	
3/19	Read Characteristic Descriptors	4.12.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/20	Read Long Characteristic Descriptors	4.12.2	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/21	Write Characteristic Descriptors	4.12.3	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/22	Write Long Characteristic Descriptors	4.12.4	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/23	Service Changed Characteristic	7.1	M	☑	
3/24	Configured Broadcast	2.7	C.3	☑	C.3: Optional if 3/14 is supported, otherwise Excluded.

Table 3B: Profile Attribute Types and Formats, by client

Prerequisite: GATT 1/3

Item	Capability	System Spec Reference	Support	Status	Comment
3B/1	Primary Service Declaration	3.1	M	☑	

3B/2	Secondary Service Declaration	3.1	M	☑
3B/3	Include Declaration	3.2	M	☑
3B/4	Characteristic Declaration	3.3.1	M	☑
3B/5	Characteristic Value Declaration	3.3.2	M	☑
3B/6	Characteristic Extended Properties	3.3.3.1	M	☑
3B/7	Characteristic User Description Descriptor	3.3.3.2	M	☑
3B/8	Client Characteristic Configuration Descriptor	3.3.3.3	M	☑
3B/9	Server Characteristic Configuration Descriptor	3.3.3.4	M	☑
3B/10	Characteristic Format Descriptor	3.3.3.5	M	☑
3B/11	Characteristic Aggregate Format Descriptor	3.3.3.6	M	☑
3B/12	Characteristic Format: Boolean	3.3.3.5.2	M	☑
3B/13	Characteristic Format: 2Bit	3.3.3.5.2	M	☑
3B/14	Characteristic Format: nibble	3.3.3.5.2	M	☑
3B/15	Characteristic Format: UInt8	3.3.3.5.2	M	☑
3B/16	Characteristic Format: UInt12	3.3.3.5.2	M	☑
3B/17	Characteristic Format: UInt16	3.3.3.5.2	M	☑
3B/18	Characteristic Format: UInt24	3.3.3.5.2	M	☑
3B/19	Characteristic Format: UInt32	3.3.3.5.2	M	☑
3B/20	Characteristic Format: UInt48	3.3.3.5.2	M	☑
3B/21	Characteristic Format: UInt64	3.3.3.5.2	M	☑
3B/22	Characteristic Format: UInt128	3.3.3.5.2	M	☑
3B/23	Characteristic Format: Sint8	3.3.3.5.2	M	☑
3B/24	Characteristic Format: Sint12	3.3.3.5.2	M	☑
3B/25	Characteristic Format: Sint16	3.3.3.5.2	M	☑
3B/26	Characteristic Format: Sint24	3.3.3.5.2	M	☑
3B/27	Characteristic Format: Sint32	3.3.3.5.2	M	☑
3B/28	Characteristic Format: Sint48	3.3.3.5.2	M	☑
3B/29	Characteristic Format: Sint64	3.3.3.5.2	M	☑
3B/30	Characteristic Format: Sint128	3.3.3.5.2	M	☑
3B/31	Characteristic Format: Float32	3.3.3.5.2	M	☑
3B/32	Characteristic Format: Float64	3.3.3.5.2	M	☑
3B/33	Characteristic Format: SFLOAT	3.3.3.5.2	M	☑
3B/34	Characteristic Format: FLOAT	3.3.3.5.2	M	☑
3B/35	Characteristic Format: Duint16	3.3.3.5.2	M	☑
3B/36	Characteristic Format: utf8s	3.3.3.5.2	M	☑
3B/37	Characteristic Format: utf16s	3.3.3.5.2	M	☑
3B/38	Characteristic Format: struct	3.3.3.5.2	M	☑

Table 4: Attribute Profile Support, by server

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	Exchange MTU	4.3.1	C.6	☑	C.6: Mandatory IF GATT 1/4 (Complete GATT Server) OR ATT 4/3 (Exchange MTU Response) is supported, otherwise Optional.
4/2	Discover All Primary Services	4.4.1	M	☑	
4/3	Discover	4.4.2	M	☑	

Primary Services by Service UUID					
4/4	Find Included Services	4.5.1	M	☑	
4/5	Discover All characteristics of a Service	4.6.1	M	☑	
4/6	Discover Characteristics by UUID	4.6.2	M	☑	
4/7	Discover All Characteristic Descriptors	4.7.1	M	☑	
4/8	Read Characteristic Value	4.8.1	M	☑	
4/9	Read Using Characteristic UUID	4.8.2	M	☑	
4/10	Read Long Characteristic Values	4.8.3	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/11	Read Multiple Characteristic Values	4.8.4	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/12	Write without Response	4.9.1	C.2	☑	C.2: Mandatory if 4/13 is supported, otherwise Optional.
4/13	Signed Write Without Response	4.9.2	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/14	Write Characteristic Value	4.9.3	C.3	☑	C.3: Mandatory if 4/15 is supported, otherwise Optional.
4/15	Write Long Characteristic Values	4.9.4	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/16	Characteristic Value Reliable Writes	4.9.5	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/17	Notifications	4.10.1	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/18	Indications	4.11.1	C.1	☑	C.1: Mandatory if service definitions on the server can be added, changed, or removed, otherwise Optional.
4/19	Read Characteristic Descriptors	4.12.1	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/20	Read Long Characteristic Descriptors	4.12.2	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/21	Write Characteristic Descriptors	4.12.3	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/22	Write Long Characteristic Descriptors	4.12.4	C.4	☑	C.4: Mandatory if 1/4 is supported, otherwise Optional.
4/23	Service Changed Characteristic	7.1	C.1	☑	C.1: Mandatory if service definitions on the server can be added, changed, or removed, otherwise Optional.
4/25	Execute Write Request with empty queue	4.9.4, 4.9.5, 4.12.4	C.7	☑	C.7 (1 of 2): Mandatory IF (SUMICS 31/18 "Core Spec Version 5.0") AND (GATT 4/15 "Write Long Characteristic Values" OR GATT 4/16 "Characteristic Value Reliable Writes" OR GATT 4/22 "Write Long Characteristic Descriptors") is supported; C.7 (2 of 2): Optional IF (NOT SUMICS 31/18 "Core Spec Version 5.0") AND (GATT 4/15 "Write Long Characteristic Values" OR GATT 4/16 "Characteristic Value Reliable Writes" OR GATT 4/22 "Write Long Characteristic Descriptors") is supported, otherwise Excluded.

Table 4B: Profile Attribute Types and Characteristic Formats, by server

Prerequisite: GATT 1/4

Item	Capability	System Spec Reference	Support	Status	Comment
4B/1	Primary Service Declaration	3.1	M	☑	
4B/2	Secondary Service Declaration	3.1	M	☑	
4B/3	Include Declaration	3.2	M	☑	
4B/4	Characteristic Declaration	3.3.1	M	☑	
4B/5	Characteristic Value Declaration	3.3.2	M	☑	
4B/6	Characteristic Extended Properties	3.3.3.1	M	☑	
4B/7	Characteristic User Description Descriptor	3.3.3.2	M	☑	
4B/8	Client Characteristic Configuration Descriptor	3.3.3.3	M	☑	
4B/9	Server Characteristic Configuration Descriptor	3.3.3.4	M	☑	
4B/10	Characteristic Format Descriptor	3.3.3.5	M	☑	
4B/11	Characteristic Aggregate Format Descriptor	3.3.3.6	M	☑	
4B/12	Characteristic Format: Boolean	3.3.3.5.2	M	☑	
4B/13	Characteristic Format: 2Bit	3.3.3.5.2	M	☑	
4B/14	Characteristic Format: nibble	3.3.3.5.2	M	☑	
4B/15	Characteristic Format: UInt8	3.3.3.5.2	M	☑	
4B/16	Characteristic Format: UInt12	3.3.3.5.2	M	☑	
4B/17	Characteristic Format: UInt16	3.3.3.5.2	M	☑	
4B/18	Characteristic Format: UInt24	3.3.3.5.2	M	☑	
4B/19	Characteristic Format: UInt32	3.3.3.5.2	M	☑	
4B/20	Characteristic Format: UInt48	3.3.3.5.2	M	☑	
4B/21	Characteristic Format: UInt64	3.3.3.5.2	M	☑	
4B/22	Characteristic Format: UInt128	3.3.3.5.2	M	☑	
4B/23	Characteristic Format: Sint8	3.3.3.5.2	M	☑	
4B/24	Characteristic Format: Sint12	3.3.3.5.2	M	☑	
4B/25	Characteristic Format: Sint16	3.3.3.5.2	M	☑	
4B/26	Characteristic Format: Sint24	3.3.3.5.2	M	☑	
4B/27	Characteristic Format: Sint32	3.3.3.5.2	M	☑	
4B/28	Characteristic Format: Sint48	3.3.3.5.2	M	☑	
4B/29	Characteristic Format: Sint64	3.3.3.5.2	M	☑	
4B/30	Characteristic Format: Sint128	3.3.3.5.2	M	☑	
4B/31	Characteristic Format: Float32	3.3.3.5.2	M	☑	
4B/32	Characteristic Format: Float64	3.3.3.5.2	M	☑	
4B/33	Characteristic Format: SFLOAT	3.3.3.5.2	M	☑	
4B/34	Characteristic Format: FLOAT	3.3.3.5.2	M	☑	
4B/35	Characteristic Format: Duint16	3.3.3.5.2	M	☑	
4B/36	Characteristic Format: utf8s	3.3.3.5.2	M	☑	
4B/37	Characteristic Format: utf16s	3.3.3.5.2	M	☑	
4B/38	Characteristic Format: struct	3.3.3.5.2	M	☑	

Table 5: Deleted

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 6: SDP Interoperability

Prerequisite: GATT 2/1

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 7: Attribute Protocol Transport

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 8: Attribute Protocol Transport

Item	Capability	System Spec Reference	Support	Status	Comment
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Security Manager Protocol

Table 1: Roles

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Master Role (Initiator)	[1] 2.4	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support if 1/2 (Slave Role (Responder)) is NOT supported, otherwise Optional
1/2	Slave Role (Responder)	[1] 2.4	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF (((SUMICS 31/10 (4.0) OR SUMICS 31/10a (4.0+HS)) AND (GAP 5/3 (LE Roles – Peripheral Role)) OR ((SUMICS 31/14 (4.1) OR SUMICS 31/15 (4.1+HS) OR SUMICS 31/16 (4.2) OR SUMICS 31/17 (4.2+HS)) AND (GAP 5/3 (LE Roles – Peripheral Role) OR GAP 38/3 (BR/EDR/LE Roles – Peripheral Role))))

Table 2: Security Properties

Item	Capability	System Spec Reference	Support	Status	Comment
2/3	No security requirements	[1] 2.3.1	M	<input checked="" type="checkbox"/>	

Table 3: Encryption Key Size

Prerequisite: SM 2/1 or SM 2/2 or SM 2/4

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 4: Pairing Method

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 5: Security Initiation

Item	Capability	System Spec Reference	Support	Status	Comment
5/4	Slave Initiated Security – Master response	[1] 2.4.6	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory if 1/1 is supported, otherwise Excluded.

Table 6: Signing Algorithm

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 7: Key Distribution

Item	Capability	System Spec Reference	Support	Status	Comment
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Attribute Protocol

Table 1: Attribute Protocol Support

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Attribute Protocol Client	ATT 1.1, GAP 12	O	<input checked="" type="checkbox"/>	

1/2	Attribute Protocol Server	ATT 1.1, GAP 12	M	✓
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Table 2: Attribute Protocol Transport

Item	Capability	System Spec Reference	Support	Status	Comment
2/2	Attribute Protocol Supported over LE	ATT 1.3	C.1	✓	C.1: Mandatory to support at least one of 2/1 or 2/2.

Table 3: Attribute Protocol Client Messages

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Attribute Error Response	ATT, 3.4.1.1	M	✓	
3/2	Exchange MTU Request	ATT, 3.4.2.1	C.11	✓	C.11: Mandatory IF GATT 3/1 (GATT Client Exchange MTU) is supported, otherwise Optional.
3/3	Exchange MTU Response	ATT, 3.4.2.2	C.1	✓	C.1: Mandatory if 3/2 is supported, otherwise Excluded.
3/4	Find Information Request	ATT, 3.4.3.1	C.13	✓	C.13: Mandatory IF GATT 3/7 (GATT Client Discover All Characteristic Descriptors) is supported, otherwise Optional.
3/5	Find Information Response	ATT, 3.4.3.2	C.9	✓	C.9: Mandatory if 3/4 is supported, otherwise Excluded.
3/6	Find by Type Value Request	ATT, 3.4.4.3	C.12	✓	C.12: Mandatory IF GATT 3/3 (GATT Client Discover Primary Services by Service UUID) is supported, otherwise Optional.
3/7	Find by Type Value Response	ATT, 3.4.4.4	C.2	✓	C.2: Mandatory if 3/6 is supported, otherwise Excluded.
3/8	Read by Type Request	ATT, 3.4.4.1	C.15	✓	C.15: Mandatory IF GATT 3/9 (GATT Client Read Using Characteristic UUID) is supported, otherwise Optional.
3/9	Read by Type Response	ATT, 3.4.4.2	C.3	✓	C.3: Mandatory if 3/8 is supported, otherwise Excluded.
3/10	Read Request	ATT, 3.4.4.3	C.14	✓	C.14: Mandatory IF GATT 3/8 (GATT Client Read Characteristic Value) OR GATT 3/19 (GATT Client Read Characteristic Descriptors) is supported, otherwise Optional.
3/11	Read Response	ATT, 3.4.4.4	C.10	✓	C.10: Mandatory if 3/10 is supported, otherwise Excluded.
3/12	Read Blob Request	ATT, 3.4.4.5	C.16	✓	C.16: Mandatory IF GATT 3/10 (GATT Client Read Long Characteristic Values) OR GATT 3/20 (GATT Client Read Long Characteristic Descriptors) is supported, otherwise Optional.
3/13	Read Blob Response	ATT, 3.4.4.6	C.4	✓	C.4: Mandatory if 3/12 is supported, otherwise Excluded.
3/14	Read Multiple Request	ATT, 3.4.4.7	C.17	✓	C.17: Mandatory IF GATT 3/11 (GATT Client Read Multiple Characteristic Values) is supported, otherwise Optional.
3/15	Read Multiple Response	ATT, 3.4.4.8	C.5	✓	C.5: Mandatory if 3/14 is supported, otherwise Excluded.
3/18	Write Request	ATT, 3.4.5.1	C.20	✓	C.20: Mandatory IF GATT 3/14 (GATT Client Write Characteristic Value) OR GATT 3/21 (GATT Client Write Characteristic Descriptors) is supported, otherwise Optional.
3/19	Write Response	ATT, 3.4.5.2	C.7	✓	C.7: Mandatory if 3/18 is supported, otherwise Excluded
3/20	Write Command	ATT, 3.4.5.3	C.18	✓	C.18: Mandatory IF GATT 3/12 (GATT Client Write without Response) is supported, otherwise Optional.
3/21	Signed Write Command	ATT, 3.4.5.3	C.19	✓	C.19: Mandatory IF GATT 3/13 (GATT Client Signed Write without Response) is supported, otherwise Optional.
3/22	Prepare Write Request	ATT, 3.4.6.1	C.21	✓	C.21: Mandatory IF GATT 3/15 (GATT Client Write Long Characteristic Values) OR GATT 3/16 (GATT Client Characteristic Value Reliable Writes) OR GATT 3/22 (GATT Client Write Long Characteristic Descriptors) is supported, otherwise Optional.

3/23	Prepare Write Response	ATT, 3.4.6.2	C.8	☑	C.8: Mandatory if 3/22 is supported, otherwise Excluded.
3/24	Execute Write Request	ATT, 3.4.6.3	C.8	☑	C.8: Mandatory if 3/22 is supported, otherwise Excluded.
3/25	Execute Write Response	ATT, 3.4.6.4	C.8	☑	C.8: Mandatory if 3/22 is supported, otherwise Excluded.
3/26	Handle Value Notification	ATT, 3.4.7.1	C.22	☑	C.22: Mandatory IF GATT 3/17 (GATT Client Notifications) is supported, otherwise Optional.
3/27	Handle-Value Indication	ATT, 3.4.7.2	C.23	☑	C.23: Mandatory IF GATT 3/18 (GATT Client Indications) is supported, otherwise Optional.
3/28	Handle Value Confirmation	ATT, 3.4.7.3	C.24	☑	C.24: Mandatory IF 3/27 (Handle-Value Indication) is supported, otherwise Excluded.
3/29	Client Timeout	ATT, 3.3.3	C.24	☑	C.24: Mandatory IF 3/27 (Handle-Value Indication) is supported, otherwise Excluded.

Table 4: Attribute Protocol Server Messages

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	Attribute Error Response	ATT, 3.4.1.1	M	☑	
4/2	Exchange MTU Request	ATT, 3.4.2.1	M	☑	
4/3	Exchange MTU Response	ATT, 3.4.2.2	M	☑	
4/4	Find Information Request	ATT, 3.4.3.1	M	☑	
4/5	Find Information Response	ATT, 3.4.3.2	M	☑	
4/6	Find by Type Value Request	ATT, 3.4.4.3	M	☑	
4/7	Find by Type Value Response	ATT, 3.4.4.4	M	☑	
4/8	Read by Type Request	ATT, 3.4.4.1	M	☑	
4/9	Read by Type Response	ATT, 3.4.4.2	M	☑	
4/10	Read Request	ATT, 3.4.4.3	M	☑	
4/11	Read Response	ATT, 3.4.4.4	M	☑	
4/12	Read Blob Request	ATT, 3.4.4.5	C.6	☑	C.6: Mandatory IF GATT 4/10 (GATT Server Read Long Characteristic Values) is supported, otherwise Optional.
4/13	Read Blob Response	ATT, 3.4.4.6	C.1	☑	C.1: Mandatory if 4/12 is supported, otherwise Excluded.
4/14	Read Multiple Request	ATT, 3.4.4.7	C.7	☑	C.7: Mandatory IF GATT 4/11 (GATT Server Read Multiple Characteristic Values) is supported, otherwise Optional.
4/15	Read Multiple Response	ATT, 3.4.4.8	C.2	☑	C.2: Mandatory if 4/14 is supported, otherwise Excluded.
4/16	Read by Group Type Request	ATT, 3.4.4.9	M	☑	
4/17	Read by Group Type Response	ATT, 3.4.4.10	M	☑	
4/18	Write Request	ATT, 3.4.5.1	C.10	☑	C.10: Mandatory IF GATT 4/14 (GATT Server Write Characteristic Value) OR GATT 4/21 (GATT Server Write Characteristic Descriptors) is supported, otherwise Optional.
4/19	Write Response	ATT, 3.4.5.2	C.3	☑	C.3: Mandatory if 4/18 is supported, otherwise Excluded.
4/20	Write Command	ATT,	C.8	☑	C.8: Mandatory IF GATT 4/12 (GATT Server Write Without Response) is supported, otherwise

		3.4.5.3			Optional.
4/21	Signed Write Command	ATT, 3.4.5.3	C.9	☑	C.9: Mandatory IF GATT 4/13 (GATT Server Signed Write Without Response) is supported, otherwise Optional.
4/22	Prepare Write Request	ATT, 3.4.6.1	C.11	☑	C.11: Mandatory IF GATT 4/15 (GATT Server Write Long Characteristic Values) OR GATT 4/16 (GATT Server Characteristic Value Reliable Writes) OR GATT 4/22 (GATT Server Write Long Characteristic Descriptors) is supported, otherwise Optional.
4/23	Prepare Write Response	ATT, 3.4.6.2	C.4	☑	C.4: Mandatory if 4/22 is supported, otherwise Excluded.
4/24	Execute Write Request	ATT, 3.4.6.3	C.4	☑	C.4: Mandatory if 4/22 is supported, otherwise Excluded.
4/25	Execute Write Response	ATT, 3.4.6.4	C.4	☑	C.4: Mandatory if 4/22 is supported, otherwise Excluded.
4/26	Handle Value Notification	ATT, 3.4.7.1	C.12	☑	C.12: Mandatory IF GATT 4/17 (GATT Server Notifications) is supported, otherwise Optional.
4/27	Handle-Value Indication	ATT, 3.4.7.2	C.13	☑	C.13: Mandatory IF GATT 4/18 (GATT Server Indications) is supported, otherwise Optional.
4/28	Handle Value Confirmation	ATT, 3.4.7.3	C.5	☑	C.5: Mandatory if 4/27 is supported, otherwise Excluded.
4/29	Server Timeout	ATT, 3.3.3	C.5	☑	C.5: Mandatory if 4/27 is supported, otherwise Excluded.
4/30	Execute Write Request with no pending prepared write values	ATT, 3.4.6.3	C.14	☑	C.14: Mandatory IF (GATT 4/25 “Execute Write Request with empty queue” OR 4/22 “Prepare Write Request”) AND (SUMICS 31/18 “Core Spec Version 5.0”) is supported, otherwise Optional.

Table 5: Attribute Protocol Transport

Item	Capability	System Spec Reference	Support	Status	Comment
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