



Project Details

Project Name	ZUMLINK-KP
Product Type	End Product
TCRL Version:	TCRL 2020-1
Referenced Qualified Design(s)	
Previously Qualified Design Used in this Qualification(s)	160724 161807
Listing Date	2021-02-19
Declaration ID	D054093

Name	Website	Category	Publish Date	Model Number	Description
ZUMLINK-KP	Crestron.com	Unique Products	2/19/2021 12:00:00 AM	M201937001	The Crestron® ZUMLINK KP is a Züm® Wired Keypad that provides control of one or more Züm Link J-Box Load Controllers such as the ZUMLINK JBOX 16ALV, ZUMLINK JBOX 20ASW, and ZUMLINK JBOX 20A PLUG. Bluetooth® functionality allows for configuration of the room via the Züm app

Member Company	Crestron Electronics, Inc.	
Declaring Member Contact / Listing Contact Person	Name	William Wack
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	State	NJ
	Country	United States
	Postal Code	07647

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 Crestron Electronics, Inc. ("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:

William Wack

BLUETOOTH[®] LAUNCH STUDIO TERMS OF USE

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.

3. REPRESENTATIONS AND ACKNOWLEDGEMENTS.

- (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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(a) Bluetooth SIG may charge you fees in connection with your use of the Launch Studio Tool and Submissions (e.g., for declaration IDs, etc.). The type and amount of fees may change at any time. You agree that Member will pay all fees required by Bluetooth SIG in accordance with the instructions provided within the Launch Studio Tool. Bluetooth SIG may accept credit card payments or, if offered within the Launch Studio Tool, may permit you to pay fees offline. If you choose to pay offline, you will pay the invoice issued to you by Bluetooth SIG, according to the terms stated in the invoice. If you provide credit card payment information, you agree that Bluetooth SIG or its third party payment processor may charge your credit card immediately. You acknowledge that, until Bluetooth SIG has processed your payment and received the funds: you will not be entitled to receive or be permitted to use any item purchased (e.g., declaration ID). Except as set forth in Section 4(c) below, all sales are final and all payments are non-refundable.

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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.

Appendix A

Summary ICS

Table 21: Controller Core Configuration

Item	Capability	Reference	Support	Status	Comment
21/20	Core Specification Version 5.2. Adopted 31 December 2019	Core 5.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support only one Controller Core Specification Version. IF 11/1 "End Product" OR 11/3 "Controller Subsystem" is Supported, Mandatory to Support only one Controller Core Spec version IF (11/4 "Component tested" OR 11/5 "Component non-tested") AND (BB OR LL OR LMP OR RF OR RF-PHY) is Supported, otherwise Excluded.

Table 22: EDR Features

Item	Capability	Reference	Support	Status	Comment
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Table 31: Host Core Specification

Item	Capability	Reference	Support	Status	Comment
31/21	Core Specification Version 5.2. Adopted 31 December 2019	Core 5.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support one and only one Host Core Specification Version. IF 11/1 "End Product" OR 11/2 "Host Subsystem" is Supported, Mandatory to Support only one Host Core Spec version IF (11/4 "Component tested" OR 11/5 "Component non-tested") AND (ATT OR GAP OR GATT OR L2CAP OR SDP OR SM) is Supported, otherwise Excluded.

Table 34: LE Host Specification Parts

Item	Capability	Reference	Support	Status	Comment
34/14	Core Specification Supplement 8 (CSSv8), Adopted 15 January 2019	CSSv8	O	<input checked="" type="checkbox"/>	

Table 41: AMP Controller Core Specification

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

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

Item	Capability	Reference	Support	Status	Comment
51/1	Low Energy Controller	Core 4.0 or Later	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

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

Product Type

Table 1: Product Types

Item	Capability	Reference	Support	Status	Comment
1/1	End Product	Vol. 0 Part B	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support one and only one Product Type.

Table 2: Controller Core Configuration

Item	Capability	Reference	Support	Status	Comment
2/4	LE Controller	Vol. 0 Part B	C.1	☑	C.1: Mandatory to support only one Controller Configuration. Optional if 1/2 or 1/3 is Supported.

Table 3: Host Core Configuration

Item	Capability	Reference	Support	Status	Comment
3/3	LE Host	Vol. 0 Part B	C.1	☑	C.1: Mandatory to support only one Host Configuration. Optional if 1/2 or 1/3 is Supported.

4.0 Host Controller Interface

Table 1a: IUT Configuration

Item	Capability	Reference	Support	Status	Comment
1a/2	Host	[1] 1.0	C.0	☑	C.0: Mandatory to support at least one of the defined IUT Configurations.
1a/4	LE Controller	[1] 1.0	C.0	☑	C.0: Mandatory to support at least one of the defined IUT Configurations.

Table 1: -

Item	Capability	Reference	Support	Status	Comment
1/1	Command Complete event	[1] 7.7.14	M	☑	
1/2	Command Status event	[1] 7.7.15	M	☑	
1/3	Hardware Error event	[1] 7.7.16	O	☑	

Table 2: -

Item	Capability	Reference	Support	Status	Comment
2/1	Reset command	[1] 7.3.2	M	☑	

Table 3: -

Item	Capability	Reference	Support	Status	Comment
3/5	LE Read Buffer Size command [M]	[1] 7.8.2	M	☑	

Table 4: -

Item	Capability	Reference	Support	Status	Comment
4/1	Read Local Version Information command	[1] 7.4.1	M	☑	
4/2	Read Local Supported Commands command	[1] 7.4.2	M	☑	
4/3	Read Local Supported Features command	[1] 7.4.3	M	☑	
4/5	Read BD_ADDR command	[1] 7.4.6	M	☑	
4/8	LE Read Local Supported Features command	[1] 7.8.3	M	☑	
4/9	LE Read Supported States command	[1] 7.8.27	M	☑	

Table 5: -

Item	Capability	Reference	Support	Status	Comment
5/13	LE Set Random Address command	[1] 7.8.4	C.1	☑	C.1: Mandatory IF RF PHY 1/1 "LE Transmitter" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.
5/14	LE Read White List Size command	[1] 7.8.14	M	☑	
5/15	LE Add Device To White List	[1] 7.8.16	M	☑	

Item	Capability	Reference	Support	Status	Comment
	command				
5/16	LE Clear White List command	[1] 7.8.15	M	☑	
5/17	LE Remove Device From White List command	[1] 7.8.17	M	☑	
5/27	LE Add Device To Resolving List command	[4] 7.8.38	C.9	☑	C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
5/28	LE Remove Device From Resolving List command	[4] 7.8.39	C.9	☑	C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
5/29	LE Clear Resolving List command	[4] 7.8.40	C.9	☑	C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
5/30	LE Read Resolving List Size command	[4] 7.8.41	C.9	☑	C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
5/31	LE Set Address Resolution Enable command	[4] 7.8.44	C.9	☑	C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
5/32	LE Set Resolvable Private Address Timeout command	[4] 7.8.45	C.9	☑	C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
5/44	LE Read Transmit Power command	[5] 7.8.74	Core v.5.0 or later C.1	☑	Core v.5.0 or later C.1: Mandatory IF RF PHY 1/1 "LE Transmitter" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.

Table 6: -

Item	Capability	Reference	Support	Status	Comment
6/15	LE Set Advertising Enable command	[1] 7.8.9	C.97	☑	C.97: Mandatory IF LL 1/1 "Advertising State" is supported, otherwise Excluded.
6/16	LE Set Advertising Parameters command	[1] 7.8.5	C.97	☑	C.97: Mandatory IF LL 1/1 "Advertising State" is supported, otherwise Excluded.
6/17	LE Set Scan Response Data command	[1] 7.8.8	C.15	☑	C.15: Mandatory IF LL 3/5 "Scannable Undirected Events" OR LL 3/5a "Scannable Directed Events" is supported, otherwise Excluded.
6/18	LE Set Advertising Data command	[1] 7.8.7	C.97	☑	C.97: Mandatory IF LL 1/1 "Advertising State" is supported, otherwise Excluded.
6/19	LE Advertising Report event	[1] 7.7.65.2	C.98	☑	C.98: Mandatory IF LL 1/2 "Scanning State" is supported, otherwise Excluded.
6/20	LE Set Scan Enable command	[1] 7.8.11	C.98	☑	C.98: Mandatory IF LL 1/2 "Scanning State" is supported, otherwise Excluded.
6/21	LE Set Scan Parameters command	[1] 7.8.10	C.98	☑	C.98: Mandatory IF LL 1/2 "Scanning State" is supported, otherwise Excluded.
6/22	LE Read Advertising Physical Channel TxPower command	[1] 7.8.6	C.97	☑	C.97: Mandatory IF LL 1/1 "Advertising State" is supported, otherwise Excluded.
6/26	LE Directed Advertising Report event	[4] 7.7.65.11	C.9	☑	C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.

Table 7: -

Item	Capability	Reference	Support	Status	Comment
7/5	Disconnect command	[1] 7.1.6	C.3a	☑	C.3a: Mandatory IF HCI 1a/1 "BR/EDR" OR HCI 1a/3 "AMP" OR LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
7/23	LE Create Connection command	[1] 7.8.12	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
7/24	LE Create Connection Cancel command	[1] 7.8.13	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
7/25	LE Connection Complete event	[1] 7.7.65.1	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
7/26	Disconnection Complete event	[1] 7.7.5	C.3a	☑	C.3a: Mandatory IF HCI 1a/1 "BR/EDR" OR HCI 1a/3 "AMP" OR LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
7/27	LE Connection Update command	[1] 7.8.18	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
7/28	LE Connection Update Complete event	[1] 7.7.65.3	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
7/38	LE Enhanced Connection Complete event	[1] 7.7.65.10	C.24	☑	C.24: Mandatory IF (LL 1/4 "Slave Role" OR LL 1/5 "Master Role") AND (LL 9/13 "LL Privacy" OR LL 5/4 "Request Connection Using Extended Advertising") is supported, otherwise Optional IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.

7/39	LE Read Peer Resolvable Address command	[1] 7.8.42	C.10	☑	C.10: Optional IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
7/40	LE Read Local Resolvable Address command	[1] 7.8.43	C.10	☑	C.10: Optional IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
7/43	LE Set Privacy Mode command	[1] 7.8.77	Core v.5.0 or later C.9	☑	Core v.5.0 or later C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.

Table 8: -

Item	Capability	Reference	Support	Status	Comment
8/5b	Read Remote Version Information command on LE	[1] 7.1.23	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
8/6	LE Read Remote Features command	[1] 7.8.21	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
8/7	LE Read Remote Features Complete event	[1] 7.7.65.4	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
8/8b	Read Remote Version Information Complete event on LE	[1] 7.7.12	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.

Table 10: -

Item	Capability	Reference	Support	Status	Comment
10/12	LE Set Data Length command	[4] 7.8.33	C.8	☑	C.8: Mandatory IF LL 9/6 "LE Data Packet Length Extension" is supported, otherwise Optional.
10/13	LE Data Length Change event	[4] 7.7.65.7	C.8	☑	C.8: Mandatory IF LL 9/6 "LE Data Packet Length Extension" is supported, otherwise Optional.
10/14	LE Read Suggested Default Data Length command	[4] 7.8.34	C.8	☑	C.8: Mandatory IF LL 9/6 "LE Data Packet Length Extension" is supported, otherwise Optional.
10/15	LE Write Suggested Default Data Length command	[4] 7.8.35	C.8	☑	C.8: Mandatory IF LL 9/6 "LE Data Packet Length Extension" is supported, otherwise Optional.
10/16	LE Read Maximum Data Length command	[4] 7.8.46	C.8	☑	C.8: Mandatory IF LL 9/6 "LE Data Packet Length Extension" is supported, otherwise Optional.

Table 13: -

Item	Capability	Reference	Support	Status	Comment
13/8	LE Set Host Channel Classification command	[1] 7.8.19	C.36	☑	C.36: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Optional IF LL 3/9 "Extended Advertising" OR LL 9/33 (Isochronous Broadcaster) is supported, otherwise Excluded.
13/9	LE Read PHY command	[5] 7.8.47	Core v.5.0 or later C.11	☑	Core v.5.0 or later C.11: Mandatory IF LL 9/6a "Multiple PHYs" is supported, otherwise Optional.
13/10	LE Set Default PHY command	[5] 7.8.48	Core v.5.0 or later C.11	☑	Core v.5.0 or later C.11: Mandatory IF LL 9/6a "Multiple PHYs" is supported, otherwise Optional.
13/11	LE Set PHY command	[5] 7.8.49	Core v.5.0 or later C.11	☑	Core v.5.0 or later C.11: Mandatory IF LL 9/6a "Multiple PHYs" is supported, otherwise Optional.
13/12	LE PHY Update Complete event	[5] 7.7.65.12	Core v.5.0 or later C.11	☑	Core v.5.0 or later C.11: Mandatory IF LL 9/6a "Multiple PHYs" is supported, otherwise Optional.

Table 14: -

Item	Capability	Reference	Support	Status	Comment
14/2	Set Event Mask command	[1] 7.3.1	M	☑	
14/12	Number of Completed Packets event	[1] 7.7.19	C.3a	☑	C.3a: Mandatory IF HCI 1a/1 "BR/EDR" OR HCI 1a/3 "AMP" OR LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
14/14	LE Set Event Mask command	[1] 7.8.1	M	☑	

Table 15: -

Item	Capability	Reference	Support	Status	Comment
15/2c	Read Transmit Power Level command on LE	[1] 7.3.35	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
15/4c	Read RSSI command on LE	[1] 7.5.4	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
15/8	LE Read Channel Map command	[1] 7.8.20	C.3	☑	C.3: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.

Table 16: -

Item	Capability	Reference	Support	Status	Comment
16/32	LE Encrypt command	[1] 7.8.22	C.4	☑	C.4: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
16/33	LE Rand command	[1] 7.8.23	C.4	☑	C.4: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
16/34	LE Long Term Key Request Reply command	[1] 7.8.25	C.4	☑	C.4: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
16/35	LE Enable Encryption command	[1] 7.8.24	C.4	☑	C.4: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
16/36	LE Long Term Key Request event	[1] 7.7.65.5	C.4	☑	C.4: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
16/37b	Encryption Change event on LE	[1] 7.7.8	C.4	☑	C.4: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
16/38b	Encryption Key Refresh Complete event on LE	[1] 7.7.39	C.4	☑	C.4: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
16/39	LE Long Term Key Request Negative Reply command	[1] 7.8.26	C.4	☑	C.4: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
16/50	LE Read Local P-256 Public Key command	[4] 7.8.36	O	☑	
16/51	LE Generate DHKey command [v1]	[4] 7.8.37	C.99	☑	C.99: Mandatory IF HCI 16/51a "LE Generate DHKey command [v2]" is supported, otherwise Optional.
16/52	LE Read Local P-256 Public Key Complete event	[4] 7.7.65.8	O	☑	
16/53	LE Generate DHKey Complete event	[4] 7.7.65.9	O	☑	

Table 17: -

Item	Capability	Reference	Support	Status	Comment
17/7	LE Receiver Test command [v1]	[1] 7.8.28	C.2	☑	C.2: Mandatory IF RF PHY 1/2 "LE Receiver" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.
17/8	LE Transmitter Test command [v1]	[1] 7.8.29	C.1	☑	C.1: Mandatory IF RF PHY 1/1 "LE Transmitter" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.
17/9	LE Test End command	[1] 7.8.30	M	☑	
17/10	LE Receiver Test command [v2]	[5] 7.8.28	Core v.5.0 or later C.13	☑	Core v.5.0 or later C.13: Mandatory IF LL 9/6a "Multiple PHYs" OR RF PHY 1/6 "Stable Modulation Index – Receiver" OR HCI 17/12 "LE Receiver Test command [v3]" is supported, otherwise Optional IF RF PHY 1/2 "LE Receiver" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.

17/11	LE Transmitter Test command [v2]	[5] 7.8.29	Core v.5.0 or later C.12	☑	Core v.5.0 or later C.12: Mandatory IF LL 9/6a "Multiple PHYs" OR RF PHY 1/5 "Stable Modulation Index – Transmitter" OR HCI 17/13 "LE Transmitter Test command [v3]" is supported, otherwise Optional IF RF PHY 1/1 "LE Transmitter" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.
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Table 20: -

Item	Capability	Reference	Support	Status	Comment
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Attribute Protocol

Table 1: Role

Item	Capability	Reference	Support	Status	Comment
1/1	Attribute Protocol Client	[1] ATT 1.1; [2] GAP 12	O	☑	
1/2	Attribute Protocol Server	[1] ATT 1.1, [2] GAP 12	M	☑	

Table 2: Transport Requirements

Item	Capability	Reference	Support	Status	Comment
2/2	Attribute Protocol Supported over LE	[1] ATT 1.3	C.2	☑	C.2: Mandatory IF (SUMICS 12/7 "Bluetooth Low Energy Core Host Configuration" OR SUMICS 12/9 "Bluetooth Basic Rate and Low Energy Combined Core Host Configuration" is supported), otherwise Excluded.

Table 3: Attribute Protocol Client Messages

Prerequisite: ATT 1/1 "Attribute Protocol Client"

Item	Capability	Reference	Support	Status	Comment
3/1	Attribute Error Response	[1] ATT, 3.4.1.1	M	☑	
3/2	Exchange MTU Request	[1] ATT, 3.4.2.1	C.11	☑	C.11: Mandatory IF GATT 3/1 "Exchange MTU" is supported, otherwise Optional.
3/3	Exchange MTU Response	[1] ATT, 3.4.2.2	C.1	☑	C.1: Mandatory IF ATT 3/2 "Exchange MTU Request" is supported, otherwise Excluded.
3/4	Find Information Request	[1] ATT, 3.4.3.1	C.13	☑	C.13: Mandatory IF GATT 3/7 "Discover All Characteristic Descriptors" is supported, otherwise Optional.
3/5	Find Information Response	[1] ATT, 3.4.3.2	C.9	☑	C.9: Mandatory IF ATT 3/4 "Find Information Request" is supported, otherwise Excluded.
3/6	Find by Type Value Request	[1] ATT, 3.4.4.3	C.12	☑	C.12: Mandatory IF GATT 3/3 "Discover Primary Services by Service UUID" is supported, otherwise Optional.
3/7	Find by Type Value Response	[1] ATT, 3.4.4.4	C.2	☑	C.2: Mandatory IF ATT 3/6 "Find by Type Value Request" is supported, otherwise Excluded.
3/8	Read by Type Request	[1] ATT, 3.4.4.1	C.15	☑	C.15: Mandatory IF GATT 3/9 "Read Using Characteristic UUID" is supported, otherwise Optional.
3/9	Read by Type Response	[1] ATT, 3.4.4.2	C.3	☑	C.3: Mandatory IF ATT 3/8 "Read by Type Request" is supported, otherwise Excluded.
3/10	Read Request	[1] ATT, 3.4.4.3	C.14	☑	C.14: Mandatory IF GATT 3/8 "Read Characteristic Value" OR GATT 3/19 "Read Characteristic Descriptors" is supported, otherwise Optional.
3/11	Read Response	[1] ATT, 3.4.4.4	C.10	☑	C.10: Mandatory IF ATT 3/10 "Read Request" is supported, otherwise Excluded.
3/12	Read Blob Request	[1] ATT, 3.4.4.5	C.16	☑	C.16: Mandatory IF GATT 3/10 "Read Long Characteristic Values" OR GATT 3/20 "Read Long Characteristic Descriptors" is supported, otherwise Optional.
3/13	Read Blob Response	[1] ATT, 3.4.4.6	C.4	☑	C.4: Mandatory IF ATT 3/12 "Read Blob Request" is supported, otherwise Excluded.
3/14	Read Multiple Request	[1] ATT, 3.4.4.7	C.17	☑	C.17: Mandatory IF GATT 3/11 "Read Multiple Characteristic Values" is supported, otherwise Optional.
3/15	Read Multiple Response	[1] ATT, 3.4.4.8	C.5	☑	C.5: Mandatory IF ATT 3/14 "Read Multiple Request" is supported, otherwise Excluded.
3/16	Read by Group	[1] ATT,	O	☑	

Type Request	3.4.4.9				
3/17 Read by Group Type Response	[1] ATT, 3.4.4.10	C.6	☑	C.6: Mandatory IF ATT 3/16 "Read by Group Type Request" is supported, otherwise Excluded.	
3/18 Write Request	[1] ATT, 3.4.5.1	C.20	☑	C.20: Mandatory IF GATT 3/14 "Write Characteristic Value" OR GATT 3/21 "Write Characteristic Descriptors" is supported, otherwise Optional.	
3/19 Write Response	[1] ATT, 3.4.5.2	C.7	☑	C.7: Mandatory IF ATT 3/18 "Write Request" is supported, otherwise Excluded.	
3/20 Write Command	[1] ATT, 3.4.5.3	C.18	☑	C.18: Mandatory IF GATT 3/12 "Write without Response" is supported, otherwise Optional.	
3/21 Signed Write Command	[1] ATT, 3.4.5.3	C.19	☑	C.19: Mandatory IF GATT 3/13 "Signed Write without Response" is supported, otherwise Optional.	
3/22 Prepare Write Request	[1] ATT, 3.4.6.1	C.21	☑	C.21: Mandatory IF GATT 3/15 "Write Long Characteristic Values" OR GATT 3/16 "Characteristic Value Reliable Writes" OR GATT 3/22 "Write Long Characteristic Descriptors" is supported, otherwise Optional.	
3/23 Prepare Write Response	[1] ATT, 3.4.6.2	C.8	☑	C.8: Mandatory IF ATT 3/22 "Prepare Write Request" is supported, otherwise Excluded.	
3/24 Execute Write Request	[1] ATT, 3.4.6.3	C.8	☑	C.8: Mandatory IF ATT 3/22 "Prepare Write Request" is supported, otherwise Excluded.	
3/25 Execute Write Response	[1] ATT, 3.4.6.4	C.8	☑	C.8: Mandatory IF ATT 3/22 "Prepare Write Request" is supported, otherwise Excluded.	
3/26 Handle Value Notification	[1] ATT, 3.4.7.1	C.22	☑	C.22: Mandatory IF GATT 3/17 "Notifications" OR ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.	
3/27 Handle-Value Indication	[1] ATT, 3.4.7.2	C.23	☑	C.23: Mandatory IF GATT 3/18 "Indications" is supported, otherwise Optional.	
3/28 Handle Value Confirmation	[1] ATT, 3.4.7.3	C.24	☑	C.24: Mandatory IF ATT 3/27 "Handle-Value Indication" is supported, otherwise Excluded.	
3/29 Client Timeout	[1] ATT, 3.3.3	C.24	☑	C.24: Mandatory IF ATT 3/27 "Handle-Value Indication" is supported, otherwise Excluded.	

Table 4: Attribute Protocol Server Messages

Prerequisite: ATT 1/2 "Attribute Protocol Server"

Item	Capability	Reference	Support	Status	Comment
4/1	Attribute Error Response	[1] ATT, 3.4.1.1	M	☑	
4/2	Exchange MTU Request	[1] ATT, 3.4.2.1	C.18	☑	C.18: Mandatory IF GATT 4/1 "Exchange MTU" is supported, otherwise Optional.
4/3	Exchange MTU Response	[1] ATT, 3.4.2.2	C.19	☑	C.19: Mandatory IF ATT 4/2 "Exchange MTU Request" is supported, otherwise Excluded.
4/4	Find Information Request	[1] ATT, 3.4.3.1	M	☑	
4/5	Find Information Response	[1] ATT, 3.4.3.2	M	☑	
4/6	Find by Type Value Request	[1] ATT, 3.4.4.3	M	☑	
4/7	Find by Type Value Response	[1] ATT, 3.4.4.4	M	☑	
4/8	Read by Type Request	[1] ATT, 3.4.4.1	M	☑	
4/9	Read by Type Response	[1] ATT, 3.4.4.2	M	☑	
4/10	Read Request	[1] ATT, 3.4.4.3	M	☑	
4/11	Read Response	[1] ATT, 3.4.4.4	M	☑	
4/12	Read Blob Request	[1] ATT, 3.4.4.5	C.6	☑	C.6: Mandatory IF GATT 4/10 "Read Long Characteristic Values" OR ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/13	Read Blob Response	[1] ATT, 3.4.4.6	C.1	☑	C.1: Mandatory IF ATT 4/12 "Read Blob Request" is supported, otherwise Excluded.
4/14	Read Multiple Request	[1] ATT, 3.4.4.7	C.7	☑	C.7: Mandatory IF GATT 4/11 "Read Multiple Characteristic Values" is supported, otherwise Optional.
4/15	Read Multiple	[1] ATT,	C.2	☑	C.2: Mandatory IF ATT 4/14 "Read Multiple Request" is supported, otherwise Excluded.

	Response	3.4.4.8			
4/16	Read by Group Type Request	[1] ATT, 3.4.4.9	M	☑	
4/17	Read by Group Type Response	[1] ATT, 3.4.4.10	M	☑	
4/18	Write Request	[1] ATT, 3.4.5.1	C.10	☑	C.10: Mandatory IF GATT 4/14 "Write Characteristic Value" OR GATT 4/21 "Write Characteristic Descriptors" OR ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/19	Write Response	[1] ATT, 3.4.5.2	C.3	☑	C.3: Mandatory IF ATT 4/18 "Write Request" is supported, otherwise Excluded.
4/20	Write Command	[1] ATT, 3.4.5.3	C.8	☑	C.8: Mandatory IF GATT 4/12 "Write Without Response" OR ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/21	Signed Write Command	[1] ATT, 3.4.5.3	C.9	☑	C.9: Mandatory IF GATT 4/13 "Signed Write Without Response" is supported, otherwise Optional.
4/22	Prepare Write Request	[1] ATT, 3.4.6.1	C.11	☑	C.11: Mandatory IF GATT 4/15 "Write Long Characteristic Values" OR GATT 4/16 "Characteristic Value Reliable Writes" OR GATT 4/22 "Write Long Characteristic Descriptors" OR ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/23	Prepare Write Response	[1] ATT, 3.4.6.2	C.4	☑	C.4: Mandatory IF ATT 4/22 "Prepare Write Request" is supported, otherwise Excluded.
4/24	Execute Write Request	[1] ATT, 3.4.6.3	C.4	☑	C.4: Mandatory IF ATT 4/22 "Prepare Write Request" is supported, otherwise Excluded.
4/25	Execute Write Response	[1] ATT, 3.4.6.4	C.4	☑	C.4: Mandatory IF ATT 4/22 "Prepare Write Request" is supported, otherwise Excluded.
4/26	Handle Value Notification	[1] ATT, 3.4.7.1	C.12	☑	C.12: Mandatory IF GATT 4/17 "Notifications" OR ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/27	Handle-Value Indication	[1] ATT, 3.4.7.2	C.13	☑	C.13: Mandatory IF GATT 4/18 "Indications" is supported, otherwise Optional.
4/28	Handle Value Confirmation	[1] ATT, 3.4.7.3	C.5	☑	C.5: Mandatory IF ATT 4/27 "Handle-Value Indication" is supported, otherwise Excluded.
4/29	Server Timeout	[1] ATT, 3.3.3	C.5	☑	C.5: Mandatory IF ATT 4/27 "Handle-Value Indication" is supported, otherwise Excluded.
4/30	Execute Write Request with no pending prepared write values	[1] ATT, 3.4.6.3	C.14	☑	C.14: Mandatory IF (GATT 4/25 "Execute Write Request with empty queue" OR ATT 4/22 "Prepare Write Request") AND SUMICS 31/19 "Core Spec Version 5.0" is supported, otherwise Optional.

Table 5: Attribute Protocol Transport Security

Item	Capability	Reference	Support	Status	Comment
5/2	LE Security Mode 1	[2] GAP 10.2.1	C.2	☑	C.2: Optional IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
5/3	LE Security Mode 2	[2] GAP 10.2.2	C.2	☑	C.2: Optional IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
5/4	LE Authentication Procedure	[2] GAP 10.3	C.2	☑	C.2: Optional IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
5/5	LE connection data signing procedure	[2] GAP 10.4.1	C.2	☑	C.2: Optional IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
5/6	LE Authenticate signed data procedure	[2] GAP 10.4.2	C.2	☑	C.2: Optional IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
5/7	LE Authorization Procedure	[2] GAP 10.5	C.2	☑	C.2: Optional IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.

Generic Access Profile

Table 0: Device Configuration

Item	Capability	Reference	Support	Status	Comment
0/2	LE	[3] or [7] 1.1	C.2	☑	C.2: Mandatory if (PROD 3/3) is Supported, otherwise Excluded.

Table 1: Modes

Prerequisite: GAP 0/1 “BR/EDR” OR GAP 0/3 “BR/EDR/LE”

Item	Capability	Reference	Support	Status	Comment
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Table 2: Security Aspects

Prerequisite: GAP 0/1 “BR/EDR” OR GAP 0/3 “BR/EDR/LE”

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

Prerequisite: GAP 0/1 “BR/EDR” OR GAP 0/3 “BR/EDR/LE”

Item	Capability	Reference	Support	Status	Comment
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Table 4: Establishment Procedures

Prerequisite: GAP 0/1 “BR/EDR” OR GAP 0/3 “BR/EDR/LE”

Item	Capability	Reference	Support	Status	Comment
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Table 5: LE Roles

Prerequisite: GAP 0/2 “LE”

Item	Capability	Reference	Support	Status	Comment
5/1	Broadcaster	[3] or [7] 2.2.2	C.1	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	C.1: It is Mandatory to support at least one of the defined roles.

Table 6: Broadcaster Physical Layer

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
6/1	Transmitter	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
6/2	Receiver	[3] or [7] 2.2.2	O	<input checked="" type="checkbox"/>	

Table 7: Broadcaster Link Layer States

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
7/1	Standby	[3] or [7] 2.2.2, 2.2.2.1	M	<input checked="" type="checkbox"/>	
7/2	Advertising	[3] or [7] 2.2.2, 2.2.2.1	M	<input checked="" type="checkbox"/>	

Table 8: Broadcaster Link Layer Advertising Event Types

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
8/1	Non-Connectable Undirected Event	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
8/2	Scannable Undirected Event	[3] or [7] 2.2.2	O	<input checked="" type="checkbox"/>	

Table 8a: Broadcaster Link Layer Advertising Data Types

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
8a/1	AD Type – Service UUID	[3] 11.1.1, [4] 1.1	O	<input checked="" type="checkbox"/>	
8a/2	AD Type – Local Name	[3] 11.1.2, [4] 1.2	O	<input checked="" type="checkbox"/>	
8a/3	AD Type – Flags	[3] 11.1.3, [4] 1.3	O	<input checked="" type="checkbox"/>	
8a/4	AD Type – Manufacturer Specific Data	[3] 11.1.4, [4] 1.4	O	<input checked="" type="checkbox"/>	
8a/5	AD Type – TXPower Level	[3] 11.1.5, [4] 1.5	O	<input checked="" type="checkbox"/>	
8a/6	AD Type – Security Manager Out of Band (OOB)	[3] 11.1.6, [4] 1.6	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF SM2/4 “OOB supported” is supported, otherwise Excluded.

8a/7	AD Type – Security Manager TK Value	[3] 11.1.7, [4] 1.7	O	<input checked="" type="checkbox"/>
8a/8	AD Type – Peripheral Connection Interval Range	[3] 11.1.8, [4] 1.8	O	<input checked="" type="checkbox"/>
8a/9	AD Type - Service Solicitation	[3] 11.1.9, [4] 1.9	O	<input checked="" type="checkbox"/>
8a/10	AD Type – Service Data	[3] 11.1.10, [4] 1.10	O	<input checked="" type="checkbox"/>
8a/11	AD Type – Appearance	[4] 1.1.12	O	<input checked="" type="checkbox"/>
8a/12	AD Type – Public Target Address	[4] 1.1.13	O	<input checked="" type="checkbox"/>
8a/13	AD Type – Random Target Address	[4] 1.1.14	O	<input checked="" type="checkbox"/>
8a/14	AD Type – Advertising Interval	[4] 1.1.15	O	<input checked="" type="checkbox"/>
8a/15	AD Type – LE Bluetooth Device Address	[4] 1.1.16	O	<input checked="" type="checkbox"/>
8a/16	AD Type – LE Role	[4] 1.1.17	O	<input checked="" type="checkbox"/>
8a/17	AD Type - URI	[4] 1.1.18	O	<input checked="" type="checkbox"/>

Table 9: Broadcaster Connection Modes and Procedures

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
9/1	Non-Connectable Mode	[3] or [7] 9.3.2	M	<input checked="" type="checkbox"/>	

Table 10: Broadcaster Broadcasting and Observing Features

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
10/1	Broadcast Mode	[3] or [7] 9.1.1	M	<input checked="" type="checkbox"/>	

Table 11: Broadcaster Privacy Feature

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
11/1	Privacy Feature	[3] 10.7	O	<input checked="" type="checkbox"/>	
11/2	Resolvable Private Address Generation Procedure	[3] or [7] 10.8.2.2 or 1.3.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 11/1 “Privacy Feature” AND NOT GAP 11/3 “Non-Resolvable Private Address Generation Procedure” is supported, otherwise Optional.
11/3	Non-Resolvable Private Address Generation Procedure	[3] or [7] 10.8.2.1 or [9] 1.3.2.2	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF GAP 11/1 “Privacy Feature” AND NOT GAP 11/2 “Resolvable Private Address Generation Procedure” is supported, otherwise Optional.

Table 11a: Periodic Advertising Modes and Procedures

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
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Table 11b: Broadcaster Security Aspects Features

Prerequisite: GAP 5/1 “Broadcaster (LE-Only)” OR GAP 38/1 “Broadcaster (BR/EDR/LE)”

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

Prerequisite: GAP 5/2 “Observer (LE-Only)” OR GAP 38/2 “Observer (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
12/1	Receiver	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
12/2	Transmitter	[3], 2.2.2	O	<input checked="" type="checkbox"/>	

Table 13: Observer Link Layer States

Prerequisite: GAP 5/2 “Observer (LE-Only)” OR GAP 38/2 “Observer (BR/EDR/LE)”

Item	Capability	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"/>
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Table 14: Observer Link Layer Scanning Types

Prerequisite: GAP 5/2 “Observer (LE-Only)” OR GAP 38/2 “Observer (BR/EDR/LE)”

Item	Capability	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 5/2 “Observer (LE-Only)” OR GAP 38/2 “Observer (BR/EDR/LE)”

Item	Capability	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 5/2 “Observer (LE-Only)” OR GAP 38/2 “Observer (BR/EDR/LE)”

Item	Capability	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 5/2 “Observer (LE-Only)” OR GAP 38/2 “Observer (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
17/1	Privacy Feature	[3] 10.7	O	<input checked="" type="checkbox"/>	
17/2	Non-Resolvable Private Address Generation Procedure	[3] or [7] 10.8.2.1 [9] 1.3.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 17/1 “Privacy Feature” AND GAP 14/2 “Active Scanning” AND NOT GAP 17/4 “Resolvable Private Address Generation Procedure” is supported, otherwise Optional.
17/3	Resolvable Private Address Resolution Procedure	[3] or [7] 10.8.2.3 [5] 10.8 [9] 1.3.2.2	O	<input checked="" type="checkbox"/>	
17/4	Resolvable Private Address Generation Procedure	[3] or [7] 10.8.2.2 [5] 10.8 [9] 1.3.2.3	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF GAP 17/1 “Privacy Feature” AND GAP 14/2 “Active Scanning” AND NOT GAP 17/2 “Non-Resolvable Private Address Generation Procedure” is supported, otherwise Optional.

Table 17a: Periodic Advertising Modes and Procedures

Prerequisite: GAP 5/2 “Observer (LE-Only)” OR GAP 38/2 “Observer (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
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Table 17b: Observer Security Aspects Features

Prerequisite: GAP 5/2 “Observer (LE-Only)” OR GAP 38/2 “Observer (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
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Table 18: Peripheral Physical Layer

Prerequisite: GAP 5/3 “Peripheral (LE-Only)” OR GAP 38/3 “Peripheral (BR/EDR/LE)”

Item	Capability	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 5/3 “Peripheral (LE-Only)” OR GAP 38/3 “Peripheral (BR/EDR/LE)”

Item	Capability	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, Peripheral Role	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	M	<input checked="" type="checkbox"/>	

Table 20: Peripheral Link Layer Advertising Event Types

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
20/1	Connectable and Scannable Undirected Event	[3] 2.2.2, 13.1.1.2 [7] 2.2.2	M	☑	
20/2	Connectable Directed Event	[3] 2.2.2, 13.1.1.2 [7] 2.2.2	O	☑	
20/3	Non-Connectable and Non-Scannable Undirected Event	[3] 2.2.2, 9.2.2.2, 9.3.1, 9.3.2 [7] 2.2.2	O	☑	
20/4	Scannable Undirected Event	[3] 2.2.2, 9.2.2.2, 9.3.1, 9.3.2 [7] 2.2.2	O	☑	

Table 20A: Peripheral Link Layer Advertising Data Types

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
20A/1	AD Type – Service UUID	[3] 11.1.1 [4] 1.1	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/2	AD Type – Local Name	[3] 11.1.2 [4] 1.2	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/3	AD Type – Flags	[3] 11.1.3 [4] 1.3	C.2	☑	C.2: Mandatory IF (GAP 22/2 "Limited Discoverable Mode" OR GAP 22/3 "General Discoverable Mode") is supported, otherwise Optional.
20A/4	AD Type – Manufacturer Specific Data	[3] 11.1.4 [4] 1.4	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/5	AD Type – TX Power Level	[3] 11.1.5 [4] 1.5	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/6	AD Type – Security Manager Out of Band (OOB)	[3] 11.1.5 [4] 1.7	C.3	☑	C.3: Optional IF ((GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") AND SM2/4 "OOB supported") is supported otherwise Excluded.
20A/7	AD Type – Security Manager TK Value	[3] 11.1.7 [4] 1.8	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/8	AD Type – Peripheral Connection Interval Range	[3] 11.1.8 [4] 1.9	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/9	AD Type – Service Solicitation	[3] 11.1.9 [4] 1.10	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/10	AD Type – Service Data	[3] 11.1.10 [4] 1.11	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/11	AD Type – Appearance	[4] 1.1.12	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/12	AD Type – Public Target Address	[4] 1.1.13	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/13	AD Type – Random Target Address	[4] 1.1.14	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/14	AD Type – Advertising Interval	[4] 1.1.15	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/15	AD Type – LE Bluetooth Device Address	[4] 1.1.16	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/16	AD Type – LE Role	[4] 1.1.17	C.1	☑	C.1: Optional IF (GAP 20/1 "Connectable and Scannable Undirected Event" OR GAP 20/3 "Non-Connectable and Non-Scannable Undirected Event" OR GAP 20/4 "Scannable Undirected Event") is supported, otherwise Excluded.
20A/17	AD Type – URI	[4] 1.1.18	O	☑	

Table 21: Peripheral Link Layer Control Procedures

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
21/1	Connection Update Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	M	☑	
21/2	Channel Map Update Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	M	☑	
21/3	Encryption Procedure	[3] 2.2.2, 13.1.2.2	O	☑	
21/4	Central Initiated Feature Exchange Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	M	☑	
21/5	Version Exchange Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	M	☑	
21/6	Termination Procedure	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	M	☑	
21/10	Data Length Update Procedure	[7] 2.2.2	O	☑	
21/11	PHY Update Procedure	[7] 2.2.2	C.2	☑	C.2: Excluded IF (SUMICS 31/17 "Core v4.2" OR SUMICS 31/18 "Core v4.2+HS") is supported, otherwise Optional.

Table 22: Peripheral Discovery Modes and Procedures

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
22/1	Non-Discoverable Mode	[3] 9.2.2, 13.1.1.1 [7] 9.2.2, 13.1	M	☑	
22/2	Limited Discoverable Mode	[3] 9.2.3, 13.1.1.2 [7] 9.2.3, 13.1	O	☑	
22/3	General Discoverable Mode	[3] 9.2.4, 13.1.1.2 [7] 9.2.4, 13.1	C.1	☑	C.1: Mandatory IF (GAP 5/3 "Peripheral (LE-Only)" AND (NOT GAP 22/2 "Limited Discoverable Mode")) is supported; Optional IF (GAP 5/3 "Peripheral (LE-Only)" AND GAP 22/2 "Limited Discoverable Mode") is supported; Mandatory IF (GAP 38/3 "Peripheral (BR/EDR/LE)" AND NOT GAP 22/2 "Limited Discoverable Mode") is supported; Optional IF (GAP 38/3 "Peripheral (BR/EDR/LE)" AND GAP 22/2 "Limited Discoverable Mode") is supported, otherwise Excluded.
22/4	Name Discovery Procedure	[3] or [7] 9.2.7	O	☑	

Table 23: Peripheral Connection Modes and Procedures

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
23/1	Non-Connectable Mode	[3] 9.3.2, 13.1.2.1 [7] 9.3.2	M	☑	
23/2	Directed Connectable Mode	[3] 9.3.3, 13.1.2.2 [7] 9.3.3	O	☑	
23/3	Undirected Connectable Mode	[3] 9.3.4, 13.1.2.2 [7] 9.3.4	M	☑	
23/4	Connection Parameter Update Procedure	[3] 9.3.9, 13.1.2.1 [7] 9.3.9	O	☑	
23/5	Terminate Connection Procedure	[3] 9.3.10, 13.1.2.1 [7] 9.3.10	M	☑	

Table 24: Peripheral Bonding Modes and Procedures

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
24/1	Non-Bondable Mode	[3], 9.4.2	M	☑	
24/2	Bondable Mode	[3] 9.4.3, 13.1.4.2 [7] 9.4.3, 13.2	O	☑	
24/3	Bonding Procedure	[3] 9.4.4, 13.1.4.2 [7] 9.4.4, 13.2	O	☑	
24/4	Multiple Bonds	[3] 9.4, 13.1.4.2 [7] 9.4	C.1	☑	C.1: Optional IF GAP 24/2 "Bondable Mode" is supported, otherwise Excluded.

Table 25: Peripheral Security Aspects Features

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
25/1	Security Mode 1	[3] 10.2.1, 13.1.2.2 [7] 10.2.1	O	☑	
25/2	Security Mode 2	[3] 10.2.2, 13.1.2.2 [7] 10.2.2	O	☑	
25/3	Authentication Procedure	[3] 10.3, 13.1.2.2 [7] 10.3	O	☑	
25/4	Authorization Procedure	[3] 10.5, 13.1.2.2 [7] 10.5	O	☑	
25/5	Connection Data Signing Procedure	[3] 10.4.1, 13.1.2.2 [7] 10.4.1	O	☑	
25/6	Authenticate Signed Data Procedure	[3] 10.4.3, 13.1.2.2 [7] 10.4.3	O	☑	
25/7	Authenticated Pairing (LE security mode 1 level 3)	[3] 10.3, 13.1.2.2 [7] 10.3	C.1	☑	C.1: Optional IF GAP 25/1 "LE Security Mode 1" is supported, otherwise Excluded.
25/8	Unauthenticated Pairing (LE security mode 1 level 2)	[3] 10.3, 13.1.2.2 [7] 10.3	C.1	☑	C.1: Optional IF GAP 25/1 "LE Security Mode 1" is supported, otherwise Excluded.
25/9	LE Security Mode 1 Level 4	[8] 10.3	C.3	☑	C.3: Optional IF (SM2/5 "LE Secure Connections" AND GAP 25/1 "Security Mode 1") are supported, otherwise Excluded.
25/10	Secure Connections Only Mode	[8] 10.2.4	C.4	☑	C.4: Optional IF GAP 25/9 "LE Security Mode 1 Level 4" is supported, otherwise Excluded.
25/13	Minimum 128 Bit entropy key	[3] 10.3, 13.1.2.2 [7] 10.3	C.5	☑	C.5: Mandatory IF GAP 25/9 "LE Security Mode 1 Level 4" is supported, otherwise Optional IF GAP 25/11 "Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only" OR GAP 25/12 "Authenticated Pairing (LE security mode 1 level 3) with LE Secure Connections Pairing only" is supported, otherwise Excluded.

Table 26: Peripheral Privacy Feature

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
26/1	Privacy Feature	[3], 10.7	O	☑	
26/2	Non-Resolvable Private Address Generation Procedure	[3] [7] [8] 10.7, 10.8.2.1 [9] 1.3.2.2	O	☑	
26/3	Resolvable Private Address Generation Procedure	[3] [7] [8] 10.7, 10.8.2.2 [9] 1.3.2.2	C.1	☑	C.1: Mandatory IF GAP 26/1 "Privacy Feature" is supported, otherwise Optional.
26/4	Resolvable Private Address Resolution Procedure	[3] [7] [8] 10.7, 10.8.2.3 [9] 1.3.2.2	C.1	☑	C.1: Mandatory IF GAP 26/1 "Privacy Feature" is supported, otherwise Optional.

Table 27: Peripheral GAP Characteristics

Prerequisite: GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
27/1	Device Name	[3] or [7] 12.1	M	☑	
27/2	Appearance	[3] or [7] 12.2	M	☑	
27/5	Peripheral Preferred Connection Parameters	[3] [7] 12.5	O	☑	
27/6	Writeable Device Name	[3] [7] 12.1	O	☑	
27/7	Writeable Appearance	[3] [7] 12.2	O	☑	
27/9	Central Address Resolution	[8] 12	C.1		C.1: Optional if LL 2/5 "Resolution of Private Addresses" is supported, otherwise

Excluded.

Table 27a: Periodic Advertising Modes and Procedures

Prerequisite: (GAP 5/3 “Peripheral (LE-Only)” OR GAP 38/3 “Peripheral (BR/EDR/LE)”) AND NOT (SUM ICS 31/17 “Core v4.2” OR SUM ICS 31/18 “Core v4.2+HS” OR SUM ICS 31/19 “Core v5.0”)

Item	Capability	Reference	Support	Status	Comment
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Table 28: Central Physical Layer

Prerequisite: GAP 5/4 “Central (LE-Only)” OR GAP 38/4 “Central (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
28/1	Transmitter	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
28/2	Receiver	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	

Table 29: Central Link Layer States

Prerequisite: GAP 5/4 “Central (LE-Only)” OR GAP 38/4 “Central (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
29/1	Standby	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
29/2	Scanning	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
29/3	Initiating	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
29/4	Connection, Central Role	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	

Table 30: Central Link Layer Scanning Types

Prerequisite: GAP 5/4 “Central (LE-Only)” OR GAP 38/4 “Central (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
30/1	Passive Scanning	[3] or [7] 2.2.2	O	<input checked="" type="checkbox"/>	
30/2	Active Scanning	[3] or [7] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF (NOT GAP 30/1 “Passive Scanning”) is supported; otherwise Optional.

Table 31: Central Link Layer Control Procedures

Prerequisite: GAP 5/4 “Central (LE-Only)” OR GAP 38/4 “Central (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
31/1	Connection Update Procedure	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
31/2	Channel Map Update Procedure	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
31/3	Encryption Procedure	[3] or [7] 2.2.2	O	<input checked="" type="checkbox"/>	
31/4	Central Initiated Feature Exchange Procedure	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
31/5	Version Exchange Procedure	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
31/6	Termination Procedure	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
31/8	Peripheral Initiated Feature Exchange Procedure	[7] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 31/9 “Connection Parameter Request Procedure” is supported, otherwise Optional.
31/10	Data Length Update Procedure	[7] 2.2.2	O	<input checked="" type="checkbox"/>	
31/11	PHY Update Procedure	[7] 2.2.2	C.2	<input checked="" type="checkbox"/>	C.2: Excluded IF (SUMICS 31/17 “Core v4.2” OR SUMICS 31/18 “Core v4.2+HS”) is supported, otherwise Optional.

Table 32: Central Discovery Modes and Procedures

Prerequisite: GAP 5/4 “Central (LE-Only)” OR GAP 38/4 “Central (BR/EDR/LE)”

Item	Capability	Reference	Support	Status	Comment
32/1	Limited Discovery Procedure	[3] 9.2.5, 13.2 [7] 9.2.5	O	<input checked="" type="checkbox"/>	
32/2	General Discovery Procedure	[3] 9.2.6, 13.2 [7] 9.2.6	M	<input checked="" type="checkbox"/>	

Table 33: Central Connection Modes and Procedures

Prerequisite: GAP 5/4 "Central (LE-Only)" OR GAP 38/4 "Central (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
33/1	Auto Connection Establishment Procedure	[3] or [7] 9.3.5	O	☑	
33/2	General Connection Establishment Procedure	[3] 9.3.6, 13.3.1 [7] 9.3.6	O	☑	
33/3	Selective Connection Establishment Procedure	[3] or [7] 9.3.7	O	☑	
33/4	Selective Connection Establishment Procedure	[3] or [7] 9.3.8	M	☑	
33/5	Connection Parameter Update Procedure	[3] or [7] 9.3.9	M	☑	
33/6	Terminate Connection Procedure	[3] or [7] 9.3.10	M	☑	

Table 34: Central Bonding Modes and Procedures

Prerequisite: GAP 5/4 "Central (LE-Only)" OR GAP 38/4 "Central (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
34/1	Non-Bondable Mode	[3] 9.4.2, 13.1.3 [7] 9.4.2, 13.2	M	☑	
34/2	Bondable Mode	[3] 9.4.3, 13.1.3 [7] 9.4.3, 13.2	O	☑	
34/3	Bonding Procedure	[3] 9.4.4, 13.1.3 [7] 9.4.4, 13.2	O	☑	

Table 35: Central Security Features

Prerequisite: GAP 5/4 "Central (LE-Only)" OR GAP 38/4 "Central (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
35/1	Security Mode 1	[3] or [7] 10.2.1	O	☑	
35/2	Security Mode 2	[3] or [7] 10.2.2	O	☑	
35/3	Authentication Procedure	[3] or [7] 10.3	O	☑	
35/4	Authorization Procedure	[3] or [7] 10.5	O	☑	
35/5	Connection Data Signing Procedure	[3] or [7] 10.4.1	O	☑	
35/6	Authenticate Signed Data Procedure	[3] or [7] 10.4.3	O	☑	
35/7	Authenticated Pairing (LE security mode 1 level 3)	[3] or [7] 10.3	C.1	☑	C.1: Optional IF GAP 35/1 "Security Mode 1" is supported, otherwise Excluded.
35/8	Unauthenticated Pairing (LE security mode 1 level 2)	[3] or [7] 10.3	C.1	☑	C.1: Optional IF GAP 35/1 "Security Mode 1" is supported, otherwise Excluded.
35/9	LE Security Mode 1 Level 4	[8] 10.3	C.2	☑	C.2: Optional IF (SM/2/5 "LE Secure Connections" AND GAP 35/1 "Security Mode 1") are supported, otherwise Excluded.
35/10	Secure Connections Only Mode	[8] 10.2.4	C.3	☑	C.3: Optional IF GAP 35/9 "LE Security Mode 1 Level 4" is supported, otherwise Excluded.
35/13	Minimum 128 Bit entropy key	[3] or [7] 10.3	C.4	☑	C.4: Mandatory IF GAP 35/9 "LE Security Mode 1 Level 4" is supported, otherwise Optional IF GAP 35/11 "Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only" is supported OR GAP 35/12 "Authenticated Pairing (LE security mode 1 level 3) with LE Secure Connections Pairing only", otherwise Excluded.

Table 36: Central Privacy Feature

Prerequisite: GAP 5/4 "Central (LE-Only)" OR GAP 38/4 "Central (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
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36/1	Privacy Feature	[7] 10.7	O	☑	
36/2	Non-Resolvable Private Address Generation Procedure	[3] [7] [8] 10.7, 10.8.2.1 [9] 1.3.2.2	O	☑	
36/3	Resolvable Private Address Resolution Procedure	[3] [7] [8] 10.7, 10.8.2.3 [9] 1.3.2.2	C.1	☑	C.1: Mandatory IF GAP 36/1 "Privacy Feature" is supported, otherwise Optional.
36/5	Resolvable Private Address Generation Procedure	[3] [7] [8] 10.7, 10.8.2.2 [5] 2.2.5 [9] 1.3.2.3	C.1	☑	C.1: Mandatory IF GAP 36/1 "Privacy Feature" is supported, otherwise Optional.

Table 37: Central GAP Characteristics

Prerequisite: GAP 5/4 "Central (LE-Only)" OR GAP 38/4 "Central (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
37/1	Device Name	[3] or [7] 12.1	M	☑	
37/2	Appearance	[3] or [7] 12.2	M	☑	
37/3	Central Address Resolution	[8] 12.4	C.1	☑	C.1: Mandatory IF LL 2/5 "Resolution of Private Addresses" is supported, otherwise Excluded.

Table 37a: Periodic Advertising Modes and Procedures

Prerequisite: (GAP 5/4 "Central (LE-Only)" OR GAP 38/4 "Central (BR/EDR/LE)") AND NOT (SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS" OR SUM ICS 31/19 "Core v5.0")

Item	Capability	Reference	Support	Status	Comment
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Table 38: BR/EDR/LE Roles

Prerequisite: GAP 0/3 "BR/EDR/LE"

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

Prerequisite: GAP 38/4 "Central (BR/EDR/LE)"

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

Prerequisite: GAP 38/3 "Peripheral (BR/EDR/LE)"

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

Prerequisite: GAP 38/4 "Central (BR/EDR/LE)"

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

Prerequisite: GAP 38/3 "Peripheral (BR/EDR/LE)"

Item	Capability	Reference	Support	Status	Comment
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Generic Attribute Profile

Table 1: Generic Attribute Profile Support

Item	Capability	Reference	Support	Status	Comment
1/1	Generic Attribute Profile (GATT) Client	[1] 2.2 [2] 12	C.1	☑	C.1: Mandatory IF GATT 1a/1 "GATT Client over LE" OR GATT 1a/2 "GATT Client over BR/EDR" is supported, otherwise Excluded.
1/2	Generic Attribute Profile (GATT) Server	[1] 2.2 [2] 12	C.2	☑	C.2: Mandatory IF GATT 1a/3 "GATT Server over LE" OR GATT 1a/4 "GATT Server over BR/EDR" is supported, otherwise Excluded.

Table 1a: GATT role configuration

Item	Capability	Reference	Support	Status	Comment
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1a/1	GATT Client over LE	[1] 2.2 [2] 12	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
1a/3	GATT Server over LE	[1] 2.2 [2] 12	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.

Table 2: Attribute Protocol Transport

Item	Capability	Reference	Support	Status	Comment
2/2	Attribute Protocol Supported over LE	[1] 2	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.

Table 3: Generic Attribute Profile Feature Support, by Client

Prerequisite: GATT 1/1 "Generic Attribute Profile (GATT) Client" AND (GATT 1a/1 "GATT Client over LE" OR GATT 1a/2 "GATT Client over BR/EDR")

Item	Capability	Reference	Support	Status	Comment
3/1	Exchange MTU	[1] 4.3.1	C.11	<input checked="" type="checkbox"/>	C.11: Optional IF GATT 1a/1 "GATT Client over LE" is supported, otherwise Excluded.
3/2	Discover All Primary Services	[1] 4.4.1	O	<input checked="" type="checkbox"/>	
3/3	Discover Primary Services by Service UUID	[1] 4.4.2	O	<input checked="" type="checkbox"/>	
3/4	Find Included Services	[1] 4.5.1	O	<input checked="" type="checkbox"/>	
3/5	Discover All characteristics of a Service	[1] 4.6.1	O	<input checked="" type="checkbox"/>	
3/6	Discover Characteristics by UUID	[1] 4.6.2	O	<input checked="" type="checkbox"/>	
3/7	Discover All Characteristic Descriptors	[1] 4.7.1	O	<input checked="" type="checkbox"/>	
3/8	Read Characteristic Value	[1] 4.8.1	O	<input checked="" type="checkbox"/>	
3/9	Read Using Characteristic UUID	[1] 4.8.2	O	<input checked="" type="checkbox"/>	
3/10	Read Long Characteristic Values	[1] 4.8.3	O	<input checked="" type="checkbox"/>	
3/11	Read Multiple Characteristic Values	[1] 4.8.4	O	<input checked="" type="checkbox"/>	
3/12	Write without Response	[1] 4.9.1	O	<input checked="" type="checkbox"/>	
3/13	Signed Write Without Response	[1] 4.9.2	C.11	<input checked="" type="checkbox"/>	C.11: Optional IF GATT 1a/1 "GATT Client over LE" is supported, otherwise Excluded.
3/14	Write Characteristic Value	[1] 4.9.3	O	<input checked="" type="checkbox"/>	
3/15	Write Long Characteristic Values	[1] 4.9.4	O	<input checked="" type="checkbox"/>	
3/16	Characteristic Value Reliable Writes	[1] 4.9.5	O	<input checked="" type="checkbox"/>	
3/17	Notifications	[1] 4.10.1	C.7	<input checked="" type="checkbox"/>	C.7: Mandatory IF ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
3/18	Indications	[1] 4.11.1	M	<input checked="" type="checkbox"/>	
3/19	Read Characteristic Descriptors	[1] 4.12.1	O	<input checked="" type="checkbox"/>	
3/20	Read Long Characteristic Descriptors	[1] 4.12.2	O	<input checked="" type="checkbox"/>	
3/21	Write Characteristic Descriptors	[1] 4.12.3	O	<input checked="" type="checkbox"/>	
3/22	Write Long Characteristic Descriptors	[1] 4.12.4	O	<input checked="" type="checkbox"/>	
3/23	Service Changed Characteristic	[1] 7.1	M	<input checked="" type="checkbox"/>	
3/24	Configured Broadcast	[1] 2.7	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF GATT 3/14 "Write Characteristic Value" is supported, otherwise Excluded.

Table 4: Generic Attribute Profile Feature Support, by Server

Prerequisite: GATT 1/2 "Generic Attribute Profile (GATT) Server" AND (GATT 1a/3 "GATT Server over LE" OR GATT 1a/4 "GATT Server

over BR/EDR”)

Item	Capability	Reference	Support	Status	Comment
4/1	Exchange MTU	[1] 4.3.1	C.6	☑	C.6: Optional IF GATT 1a/3 “GATT Server over LE” is supported, otherwise Excluded.
4/2	Discover All Primary Services	[1] 4.4.1	M	☑	
4/3	Discover Primary Services by Service UUID	[1] 4.4.2	M	☑	
4/4	Find Included Services	[1] 4.5.1	M	☑	
4/5	Discover All characteristics of a Service	[1] 4.6.1	M	☑	
4/6	Discover Characteristics by UUID	[1] 4.6.2	M	☑	
4/7	Discover All Characteristic Descriptors	[1] 4.7.1	M	☑	
4/8	Read Characteristic Value	[1] 4.8.1	M	☑	
4/9	Read Using Characteristic UUID	[1] 4.8.2	M	☑	
4/10	Read Long Characteristic Values	[1] 4.8.3	C.12	☑	C.12: Mandatory IF ATT 2/3 “Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)” is supported, otherwise Optional.
4/11	Read Multiple Characteristic Values	[1] 4.8.4	O	☑	
4/12	Write without Response	[1] 4.9.1	C.2	☑	C.2: Mandatory IF (GATT 4/13 “Signed Write Without Response” OR ATT 2/3 “Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)”) is supported, otherwise Optional.
4/13	Signed Write Without Response	[1] 4.9.2	C.6	☑	C.6: Optional IF GATT 1a/3 “GATT Server over LE” is supported, otherwise Excluded.
4/14	Write Characteristic Value	[1] 4.9.3	C.3	☑	C.3: Mandatory IF (GATT 4/15 “Write Long Characteristic Values” OR ATT 2/3 “Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)”) is supported, otherwise Optional.
4/15	Write Long Characteristic Values	[1] 4.9.4	C.12	☑	C.12: Mandatory IF ATT 2/3 “Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)” is supported, otherwise Optional.
4/16	Characteristic Value ReliableWrites	[1] 4.9.5	O	☑	
4/17	Notifications	[1] 4.10.1	O	☑	
4/18	Indications	[1] 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	[1] 4.12.1	C.12	☑	C.12: Mandatory IF ATT 2/3 “Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)” is supported, otherwise Optional.
4/20	Read Long Characteristic Descriptors	[1] 4.12.2	C.12	☑	C.12: Mandatory IF ATT 2/3 “Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)” is supported, otherwise Optional.
4/21	Write Characteristic Descriptors	[1] 4.12.3	C.12	☑	C.12: Mandatory IF ATT 2/3 “Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)” is supported, otherwise Optional.
4/22	Write Long Characteristic Descriptors	[1] 4.12.4	O	☑	
4/23	Service Changed	[1] 7.1	C.1	☑	C.1: Mandatory IF service definitions on the server can be added, changed, or removed, otherwise Optional.

Characteristic

4/24	Configured Broadcast	[1] 2.7	C.5	<input checked="" type="checkbox"/>	C.5: Optional IF GATT 4/14 "Write Characteristic Value" is supported, otherwise Excluded.
4/25	Execute Write Request with empty queue	[1] 4.9.4, 4.9.5, 4.12.4	C.7	<input checked="" type="checkbox"/>	C.7: Mandatory IF (SUMICS 31/19 "Core v5.0") 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, Optional IF (NOT SUMICS 31/19 "Core v5.0") 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 6: SDP Interoperability

Prerequisite: GATT 2/1 "Attribute Protocol Supported over BR/EDR (L2CAP fixed channel support)"

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

Item	Capability	Reference	Support	Status	Comment
7/2	LE Security Mode 1	[2] 10.2.1	C.5	<input checked="" type="checkbox"/>	C.5: Mandatory IF ATT 5/2 "LE Security Mode 1" is supported, Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
7/3	LE Security Mode 2	[2] 10.2.2	C.6	<input checked="" type="checkbox"/>	C.6: Mandatory IF ATT 5/3 "LE Security Mode 2" is supported, Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
7/4	LE Authentication Procedure	[2] 10.3	C.4	<input checked="" type="checkbox"/>	C.4: Mandatory IF ATT 5/4 "LE Authentication Procedure" is supported, Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
7/5	LE connection data signing procedure	[2] 10.4.1	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
7/6	LE Authenticate signed data procedure	[2] 10.4.2	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
7/7	LE Authorization Procedure	[2] 10.5	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF ATT 5/7 "LE Authorization Procedure" is supported, Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.

Table 8: Multiple Simultaneous ATT Bearers

Item	Capability	Reference	Support	Status	Comment
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Interoperability Test Specification

Table 1: Interoperability Test Specification

Item	Capability	Reference	Support	Status	Comment
1/1	Interoperability	IOP	M	<input checked="" type="checkbox"/>	

Table 2: Design Configuration

Item	Capability	Reference	Support	Status	Comment
2/2	LE	GAP 0/2	C.1, C.2	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one transport. C.2: Mandatory If IOP 2/3 "BR/EDR/LE" is Supported, otherwise Optional.

Logical Link Control and Adaption Protocol

Table 0: L2CAP Transport Configuration

Item	Capability	Reference	Support	Status	Comment
0/2	LE	[6] 1.1	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF SUMICS 34/1 "LE Host Specification Part: Logical Link Control and Adaptation Protocol (L2CAP)" is supported, otherwise Excluded.

Table 1: Roles

Item	Capability	Reference	Support	Status	Comment
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1/3	LE Master	[4] 2	C.2	☑	C.2: Mandatory to support (at least one of L2CAP 1/3 "LE Master" OR L2CAP 1/4 "LE Slave") IF (L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE") is supported, otherwise Excluded.
1/4	LE Slave	[4] 2	C.2	☑	C.2: Mandatory to support (at least one of L2CAP 1/3 "LE Master" OR L2CAP 1/4 "LE Slave") IF (L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE") is supported, otherwise Excluded.

Table 2: General Operation

Item	Capability	Reference	Support	Status	Comment
2/40	Support of Low Energy signaling channel	[4] 2.1, 2.2	C.13	☑	C.13: Mandatory IF L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE" is supported, otherwise Excluded.
2/41	Support of command reject	[4] 4.10	C.13	☑	C.13: Mandatory IF L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE" is supported, otherwise Excluded.
2/42	Send Connection Parameter Update Request	[4] 4.20	C.14	☑	C.14: Optional IF L2CAP 1/4 "LE Slave" is supported, otherwise Excluded.
2/43	Send Connection Parameter Update Response	[4] 4.21	C.15	☑	C.15: Mandatory IF L2CAP 1/3 "LE Master" is supported, otherwise Excluded.

Table 3: Configurable Parameters

Item	Capability	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 L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE" is supported, otherwise Excluded.

Low Energy Link Layer

Table 9: Supported Features

Item	Capability	Reference	Support	Status	Comment
9/1	LE Encryption	[1] 4.6.1	O	☑	
9/4	Extended Reject Indication	[1] 4.6.3	C.3	☑	C.3: IF LL 9/3 "Connection Parameter Request Procedure" OR LL 9/14 "Connection CTE Request" OR LL 9/15 "Connection CTE Response" is supported; otherwise Optional.
9/5	Slave-initiated Features Exchange	[1] 4.6.4	O	☑	
9/6	LE Data Packet Length Extension	[4] 4.6.6	O	☑	
9/6a	Multiple PHYs	[5] 4.6.9	C.6	☑	C.6: Mandatory IF LL 9/7 "LE 2MPHY" OR LL 9/9 "LE Coded PHY" is supported, otherwise Excluded.
9/7	LE 2MPHY	[4] 2.1	C.5	☑	C.5: Excluded IF 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 9/6a "Multiple PHYs" is supported, otherwise Excluded.
9/13	LL Privacy	[5] 4.6.7	O	☑	
9/25	Remote Public Key Validation	[6] 4.6.23 [7] 4.6.26	O	☑	

Table 10: Scatternet Capabilities

Item	Capability	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	☑	

Table 11: Protocol Synchronizing Features

Prerequisite: LL 1/3a "Synchronized State"

Item	Capability	Reference	Support	Status	Comment
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Table 1: Controller States/Roles

Item	Capability	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 12: Protocol Isochronous Broadcasting Features

Prerequisite: LL 1/6 “Isochronous Broadcasting State”

Item	Capability	Reference	Support	Status	Comment
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Table 2: Device Addresses Types

Prerequisite: LL 1/1 “Advertising State” OR LL 1/2 “Scanning State” OR LL 1/3 “Initiating State”

Item	Capability	Reference	Support	Status	Comment
2/1	Public Address	[1] 1.3	C.1	☑	C.1: 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: 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: 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	O	☑	
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.
2/6	Network Privacy Mode – Ignore Identity Address when IRK is present in resolving list	[4] 4.7	C.4	☑	C.4: Mandatory IF LL 9/13 “LL Privacy” is supported, otherwise Excluded.
2/7	Device Privacy Mode	[4] 4.7	C.5	☑	C.5: Optional IF LL 9/13 “LL Privacy” AND SUMICS 21/14 “Core 4.2” is supported, otherwise Mandatory IF LL 9/13 “LL Privacy” is supported, otherwise Excluded.

Table 3: Protocol Advertising Features

Prerequisite: LL 1/1 “Advertising State”

Item	Capability	Reference	Support	Status	Comment
3/1	Non-Connectable and Non-Scannable 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 and Scannable 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	O	☑	
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 Optional.
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 Optional.
3/8	Filtering Policies	[1] 4.3.2	O	☑	

Table 4: Protocol Scanning Features

Prerequisite: LL 1/2 “Scanning State”

Item	Capability	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; Optional IF GAP 5/4 “Central” 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; Optional IF (GAP 5/4 “Central” AND NOT LL 4/1 “Passive Scanning”) OR GAP 5/2 “Observer” is supported; otherwise

Optional.

4/4	Backoff Procedure	[1] 4.4.3.2	M	<input checked="" type="checkbox"/>
4/5	Filtering Policies	[1] 4.3.3	M	<input checked="" type="checkbox"/>
4/6	Extended Scanner filter policies	[4] 4.4.3	O	<input checked="" type="checkbox"/>

Table 5: Protocol Initiating Features

Prerequisite: LL 1/3 "Initiating State"

Item	Capability	Reference	Support	Status	Comment
5/1	Requesting Connections	[1] 4.4.4	M	<input checked="" type="checkbox"/>	
5/2	Requesting to Directed Advertising	[1] 4.4.4	M	<input checked="" type="checkbox"/>	
5/3	Initiator Filtering	[1] 4.3.4	M	<input checked="" type="checkbox"/>	

Table 6: Protocol Slave Role Features

Prerequisite: LL 1/4 "Slave Role"

Item	Capability	Reference	Support	Status	Comment
6/1	Slave Transmissions	[1] 4.5.1, 4.5.5, 4.5.6	M	<input checked="" type="checkbox"/>	
6/2	Acknowledgement Scheme	[1] 4.5.9	M	<input checked="" type="checkbox"/>	
6/3	Unknown Response	[1] 5.1.4, 2.4.2	M	<input checked="" type="checkbox"/>	
6/4	Responding in Feature Setup	[1] 5.1.4	M	<input checked="" type="checkbox"/>	
6/5	Sending Data (Device supports data output from a Host)	[1] 4.5.1, 4.5.6	M	<input checked="" type="checkbox"/>	
6/6	Receiving Data (Device supports data input to a Host)	[1] 4.5.1, 4.5.6	M	<input checked="" type="checkbox"/>	
6/7	More Data	[1] 4.5.6	O	<input checked="" type="checkbox"/>	
6/10	Accepting Parameter Update	[1] 5.1.1	M	<input checked="" type="checkbox"/>	
6/11	Accepting Channel Map Update	[1] 5.1.2	M	<input checked="" type="checkbox"/>	
6/12	Encryption Start	[1] 5.1.3	C.17	<input checked="" type="checkbox"/>	C.17: Mandatory if LL 9/1 "LE Encryption" is supported, otherwise Excluded.
6/13	Connection Control Timer	[1] 5.2	M	<input checked="" type="checkbox"/>	
6/14	Sending Termination	[1] 5.1.6	M	<input checked="" type="checkbox"/>	
6/15	Accepting Termination	[1] 5.1.6	M	<input checked="" type="checkbox"/>	
6/16	Connection Supervision Timer	[1] 4.5.2	M	<input checked="" type="checkbox"/>	
6/18	Slave Pause Encryption	[1] 5.1.3	C.17	<input checked="" type="checkbox"/>	C.17: Mandatory if LL 9/1 "LE Encryption" is supported, otherwise Excluded.
6/19	Slave Version Exchange	[1] 5.1.5	M	<input checked="" type="checkbox"/>	
6/20	Slave listens to multiple packets per connection event	4.5.7	O	<input checked="" type="checkbox"/>	
6/22	Data Length Update Procedure	[4] 5.1.9	C.4	<input checked="" type="checkbox"/>	C.4: Mandatory IF LL 9/6 (LE Data Packet Length Extension) is supported, otherwise Excluded.
6/23a	PHY Update procedure	[5] 5.1.10	C.9	<input checked="" type="checkbox"/>	C.9: Excluded IF SUM.ICS 21/14 "Core v4.2" is supported; otherwise Mandatory IF LL 9/6a "Multiple PHYs" is supported; otherwise Optional.

Table 7: Protocol Master Role Features

Prerequisite: LL 1/5 "Master Role"

Item	Capability	Reference	Support	Status	Comment
7/1	Master Transmissions	[1] 4.5.1, 4.5.4, 4.5.6	M	<input checked="" type="checkbox"/>	
7/2	Acknowledgement Scheme	[1] 4.5.9	M	<input checked="" type="checkbox"/>	
7/3	Unknown Responses	[1] 5.1.4, 2.4.2	M	<input checked="" type="checkbox"/>	

7/4	Requesting Feature Setup	[1] 5.1.4	M	☑	
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	☑	
7/11	Requesting Channel Map Update	[1] 5.1.2	M	☑	
7/12	Encryption Start	[1] 5.1.3	C.17	☑	C.17: Mandatory if LL 9/1 "LE Encryption", otherwise Excluded.
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	C.17	☑	C.17: Mandatory if LL 9/1 "LE Encryption", otherwise Excluded.
7/20	Master Version Exchange	[1] 5.1.5	M	☑	
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.
7/23a	PHY Update procedure	[5] 5.1.10	C.9	☑	C.9: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Mandatory IF LL 9/6a "Multiple PHYs" is supported, otherwise Optional.

Table 8: Physical Channels

Item	Capability	Reference	Support	Status	Comment
8/1	Data channels (channel index 0 to 36)	[1] 1.4	C.1	☑	C.1: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.
8/2	Advertising channels (at least one of channel index 37, 38, 39)	[1] 1.4.1	M	☑	
8/3	Support Data channel selection algorithm	[1] 4.5.8	C.1	☑	C.1: Mandatory IF LL 1/4 "Slave Role" OR LL 1/5 "Master Role" is supported, otherwise Excluded.

Low Energy RF PHY

Table 1: Bluetooth LE RF Capabilities

Item	Capability	Reference	Support	Status	Comment
1/1	LE Transmitter	[1] 3	C.1	☑	C.1: Mandatory to support at least one of these capabilities. Note that selecting both RF PHY 1/1 "LE Transmitter" and RF PHY 1/2 "LE Receiver" is equivalent to selecting RF PHY 1/3 "LE Transceiver" and vice versa.
1/2	LE Receiver	[1] 4	C.1	☑	C.1: Mandatory to support at least one of these capabilities. Note that selecting both RF PHY 1/1 "LE Transmitter" and RF PHY 1/2 "LE Receiver" is equivalent to selecting RF PHY 1/3 "LE Transceiver" and vice versa.
1/3	LE Transceiver	[1] 3, 4	C.1	☑	C.1: Mandatory to support at least one of these capabilities. Note that selecting both RF PHY 1/1 "LE Transmitter" and RF PHY 1/2 "LE Receiver" is equivalent to selecting RF PHY 1/3 "LE Transceiver" and vice versa.
1/4	LE 2MPHY	[3] 3, 4	C.2	☑	C.2: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Optional.

Table 2: Bluetooth LE Test Interface Capabilities

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

Security Manager Protocol

Table 1: Role

Item	Capability	Reference	Support	Status	Comment
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1/1	Central Role (Initiator)	[1] 2.4	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF SM 1/2 "Peripheral Role (Responder)" is not supported, otherwise Optional.
1/2	Peripheral Role (Responder)	[1] 2.4	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF GAP 5/3 "Peripheral (LE-Only)" OR GAP 38/3 "Peripheral (BR/EDR/LE)" are supported, otherwise Excluded.

Table 2: Security Properties

Item	Capability	Reference	Support	Status	Comment
2/1	Authenticated MITM protection	[1] 2.3.1	O	<input checked="" type="checkbox"/>	
2/2	Unauthenticated no MITM protection	[1] 2.3.1	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF SM 2/1 "Authenticated MITM protection" is supported, otherwise Optional.
2/3	No security requirements	[1] 2.3.1	M	<input checked="" type="checkbox"/>	
2/4	OOB supported	[1] 2.3.1	O	<input checked="" type="checkbox"/>	
2/5	LE Secure Connections	[3] 2.3.1	O	<input checked="" type="checkbox"/>	

Table 3: Encryption Key Size

Prerequisite: SM 2/1 "Authenticated MITM protection" OR SM 2/2 "Unauthenticated no MITM protection" OR SM 2/4 "OOB supported"

Item	Capability	Reference	Support	Status	Comment
3/1	Encryption Key Size	[1] 2.3.4	M	<input checked="" type="checkbox"/>	

Table 4: Pairing Method

Item	Capability	Reference	Support	Status	Comment
4/1	Just Works	[1] 2.3.5	O	<input checked="" type="checkbox"/>	
4/2	Passkey Entry	[1] 2.3.5	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of the defined methods IF SM 2/1 "Authenticated MITM protection" is supported, otherwise Excluded.
4/3	Out of Band	[1] 2.3.5	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of the defined methods IF SM 2/1 "Authenticated MITM protection" is supported, otherwise Excluded.

Table 5: Security Initiation

Item	Capability	Reference	Support	Status	Comment
5/1	Encryption Setup using STK	[1] 2.4	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF SM 2/1 "Authenticated MITM protection" OR SM 2/2 "Unauthenticated no MITM protection" OR SM 2/4 "OOB supported" is supported, otherwise Excluded.
5/2	Encryption Setup using LTK	[1] 2.4	O	<input checked="" type="checkbox"/>	
5/3	Peripheral Initiated Security	[1] 2.4.6	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF SM 1/2 "Peripheral Role (Responder)" is supported, otherwise Excluded.
5/4	Peripheral Initiated Security – Central response	[1] 2.4.6	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF SM 1/1 "Central Role (Initiator)" is supported, otherwise Excluded.

Table 6: Signing Algorithm

Item	Capability	Reference	Support	Status	Comment
6/1	Signing Algorithm - Generation	[1] 2.4	O	<input checked="" type="checkbox"/>	
6/2	Signing Algorithm - Resolving	[1] 2.4	O	<input checked="" type="checkbox"/>	

Table 7: Key Distribution

Item	Capability	Reference	Support	Status	Comment
7/1	Encryption Key	[2] 9.4.3	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 24/2 "Bondable mode" OR GAP 34/2 "Bondable mode" is supported, otherwise Optional.
7/2	Identity Key	[2] 10.7	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF GAP 26/3 "Resolvable private address generation procedure" is supported, otherwise Optional.
7/3	Signing Key	[2] 10.4	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF GAP 25/6 "Authenticate signed data procedure" OR GAP 35/6 "Authenticate signed data procedure" is supported, otherwise Optional.

Table 8: Cross-Transport Key Derivation

Item	Capability	Reference	Support	Status	Comment
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