



## Project Details

Project Name	ST17H series
Product Type	Component (Tested)
TCRL Version:	TCRL 2020-1
Referenced Qualified Design(s)	
Previously Qualified Design Used in this Qualification(s)	
Listing Date	2021-04-06
Declaration ID	D054711

### Product Listing(s)

Name	Website	Category	Publish Date	Model Number	Description
ST17H66B	www.lenzotech.com	Unique Products	4/6/2021 12:00:00 AM	ST17H66B	ST17H66B support BLE 5.2 (1M2MCoded PHY), and support AoA/AoD, Extend Adv, Periodic Adv, Extend Scan, Periodic Scan
ST17H66T	www.lenzotech.com	Unique Products	4/6/2021 12:00:00 AM	ST17H66T	ST17H66T support BLE 5.2 (1M2MCoded PHY), and support AoA/AoD, Extend Adv, Periodic Adv, Extend Scan, Periodic Scan
ST17H65	www.lenzotech.com	Unique Products	4/6/2021 12:00:00 AM	ST17H65	ST17H65 support BLE 5.2 (1M2MCoded PHY), and support AoA/AoD, Extend Adv, Periodic Adv, Extend Scan, Periodic Scan
ST17H62	www.lenzotech.com	Unique Products	4/6/2021 12:00:00 AM	ST17H62	ST17H62 support BLE 5.2 (1M2MCoded PHY), and support AoA/AoD, Extend Adv, Periodic Adv, Extend Scan, Periodic Scan
ST17H63	www.lenzotech.com	Unique Products	4/6/2021 12:00:00 AM	ST17H63	ST17H63 support BLE 5.2 (1M2MCoded PHY), and support AoA/AoD, Extend Adv, Periodic Adv, Extend Scan, Periodic Scan

### Member Company

Shenzhen Tingting Technology Co. LTD

### Declaring Member Contact / Listing Contact Person

Name Sheng Fu Jiang

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City

State

Country China

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 Shenzhen Tingting Technology Co. 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:**

Sheng Fu Jiang

# BLUETOOTH<sup>®</sup> LAUNCH STUDIO TERMS OF USE

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Last Updated: February 25, 2021.

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).

#### **4. FEES AND PAYMENT TERMS.**

(a) Bluetooth SIG may charge you fees in connection with the Bluetooth Qualification Process including within the Launch Studio Tool and Submissions (e.g., declaration fees, 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 and Member will not acquire any of the rights or benefits for those fees. All sales are final and all payments are non-refundable.

(b) If you receive a discount on any fees based on your Member's level of membership and your Member's membership level changes (e.g., the Member moves from an associate to an adopter level), you will no longer be entitled to receive the discount and any fees owed and any outstanding invoices from Bluetooth SIG as of the date of the membership level change will be increased to reflect the amount owed without the discount. Further, if you prepaid any declaration fees and received a discount and you have not used the declaration fees as of the date of the membership level change, you may not use the declaration fees unless you pay the difference between the then-current standard fee and the discounted fee previously paid.

(c) *Declaration Fees.* Member must pay a declaration fee prior to completion of the Bluetooth Qualification Process. Bluetooth SIG will issue a unique identification number confirming payment of the declaration fee ("**Declaration ID**") and Member must provide the Declaration ID in the Submission as proof of payment before completing the Bluetooth Qualification Process. Any declaration fees you pay are paid by you on behalf of Member regardless of the payment method or source of funds and proof of payment is evidenced by the issuance of a Declaration ID. If requested by Member, Bluetooth SIG may reassign, without notice to you, a Declaration ID from your user account to another user account under the Member's membership account. All Declaration IDs expire 12 months from the date of issuance unless the Bluetooth Qualification Process is completed prior to expiration. No declaration fees will be refunded. Declaration IDs are nontransferable and may not be transferred to another member.

#### **5. CONFIDENTIALITY OF SUBMISSIONS.**

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
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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
1/2	Component (Tested)	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	☑	
1/1d	Support all LE Controller commands	[1] 3.3, 7.7	O	☑	
1/2	Command Status event	[1] 7.7.15	M	☑	

**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
3/1	Read Buffer Size command	[1] 7.4.5	C.5a	☑	C.5a: Mandatory IF HCI 1a/1 "BR/EDR" OR HCI 1a/3 "AMP" is supported, otherwise Optional.
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	☑	

4/11	LE Read Antenna Information command	[5] 7.8.87	Core v.5.1 or later   C.31	<input checked="" type="checkbox"/>	Core v.5.1 or later C.31: Mandatory IF LL 9/14 "Connection CTE Request" OR LL 9/15 "Connection CTE Response" OR LL 9/16 "Connectionless CTE Transmitter" OR LL 9/17 "Connectionless CTE Receiver" is supported, otherwise Excluded.
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**Table 5: -**

Item	Capability	Reference	Support	Status	Comment
5/13	LE Set Random Address command	[1] 7.8.4	C.1	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
5/15	LE Add Device To White List command	[1] 7.8.16	M	<input checked="" type="checkbox"/>	
5/16	LE Clear White List command	[1] 7.8.15	M	<input checked="" type="checkbox"/>	
5/17	LE Remove Device From White List command	[1] 7.8.17	M	<input checked="" type="checkbox"/>	
5/18	Set MWS Channel Parameters command	[3] 7.3.80	C.108	<input checked="" type="checkbox"/>	C.108: Mandatory IF HCI 5/19 "Set External Frame Configuration command" is supported, otherwise Excluded.
5/27	LE Add Device To Resolving List command	[4] 7.8.38	C.9	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	C.9: Mandatory IF LL 9/13 "LL Privacy" is supported, otherwise Excluded.
5/33	LE Set Advertising Set Random Address command	[5] 7.8.52	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/34	LE Set Extended Advertising Parameters command	[5] 7.8.53	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/35	LE Set Periodic Advertising Parameters command	[5] 7.8.61	Core v.5.0 or later   C.18	<input checked="" type="checkbox"/>	Core v.5.0 or later C.18: Mandatory IF LL 3/10 "Periodic Advertising" is supported, otherwise Excluded.
5/36	LE Set Extended Advertising Data command	[5] 7.8.54	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/37	LE Set Periodic Advertising Data command	[5] 7.8.62	Core v.5.0 or later   C.18	<input checked="" type="checkbox"/>	Core v.5.0 or later C.18: Mandatory IF LL 3/10 "Periodic Advertising" is supported, otherwise Excluded.
5/38	LE Set Extended Scan Response Data command	[5] 7.8.55	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/39	LE Scan Request Received event	[5] 7.7.65.19	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/40	LE Set Extended Advertising Enable command	[5] 7.8.56	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/41	LE Set Periodic Advertising Enable command	[5] 7.8.63	Core v.5.0 or later   C.18	<input checked="" type="checkbox"/>	Core v.5.0 or later C.18: Mandatory IF LL 3/10 "Periodic Advertising" is supported, otherwise Excluded.
5/42	LE Read Maximum Advertising Data Length command	[5] 7.8.57	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/43	LE Read Number of Supported Advertising Sets command	[5] 7.8.58	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/44	LE Read Transmit Power command	[5] 7.8.74	Core v.5.0 or later   C.1	<input checked="" type="checkbox"/>	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.
5/45	LE Write RF Path Compensation command	[5] 7.8.76	Core v.5.0 or later   C.22	<input checked="" type="checkbox"/>	Core v.5.0 or later C.22: Mandatory IF LL 3/13 "Sending Tx Power in Advertisements" is supported, otherwise Optional.
5/46	LE Read RF Path Compensation command	[5] 7.8.75	Core v.5.0 or later   C.22	<input checked="" type="checkbox"/>	Core v.5.0 or later C.22: Mandatory IF LL 3/13 "Sending Tx Power in Advertisements" is supported, otherwise Optional.
5/47	LE Remove Advertising Set command	[5] 7.8.59	Core v.5.0 or later   C.17	<input checked="" type="checkbox"/>	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.



5/48	LE Clear Advertising Sets command	[5] 7.8.60	Core v.5.0 or later   C.17	✓	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/49	LE Advertising Set Terminated event	[5] 7.7.65.18	Core v.5.0 or later   C.17	✓	Core v.5.0 or later C.17: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
5/50	LE Set Connectionless CTE Transmit Parameters command	[5] 7.8.80	Core v.5.1 or later   C.27	✓	Core v.5.1 or later C.27: Mandatory IF LL 9/16 "Connectionless CTE Transmitter" is supported, otherwise Excluded.
5/51	LE Set Connectionless CTE Transmit Enable command	[5] 7.8.81	Core v.5.1 or later   C.27	✓	Core v.5.1 or later C.27: Mandatory IF LL 9/16 "Connectionless CTE Transmitter" is supported, otherwise Excluded.
5/52	LE Set Connectionless IQ Sampling Enable command	[5] 7.8.82	Core v.5.1 or later   C.28	✓	Core v.5.1 or later C.28: Mandatory IF LL 9/17 "Connectionless CTE Receiver" 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 Tx Power 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.
6/27	LE Set Extended Scan Parameters command	[5] 7.8.64	Core v.5.0 or later   C.19	✓	Core v.5.0 or later C.19: Mandatory IF LL 4/7 "Extended Scanning" is supported, otherwise Excluded.
6/28	LE Set Extended Scan Enable command	[5] 7.8.65	Core v.5.0 or later   C.19	✓	Core v.5.0 or later C.19: Mandatory IF LL 4/7 "Extended Scanning" is supported, otherwise Excluded.
6/29	LE Extended Advertising Report event	[5] 7.7.65.13	C.19	✓	C.19: Mandatory IF LL 4/7 "Extended Scanning" is supported, otherwise Excluded.
6/30	LE Periodic Advertising Create Sync command	[5] 7.8.67	Core v.5.0 or later   C.16	✓	Core v.5.0 or later C.16: Mandatory IF LL 4/8 "Scanning for Periodic Advertising" AND LL 1/3a "Synchronization State" are supported, otherwise Excluded.
6/31	LE Periodic Advertising Create Sync Cancel command	[5] 7.8.68	Core v.5.0 or later   C.16	✓	Core v.5.0 or later C.16: Mandatory IF LL 4/8 "Scanning for Periodic Advertising" AND LL 1/3a "Synchronization State" are supported, otherwise Excluded.
6/32	LE Periodic Advertising Terminate Sync command	[5] 7.8.69	Core v.5.0 or later   C.21	✓	Core v.5.0 or later C.21: Mandatory IF LL 11/1 "Synchronizing to Periodic Advertising" is supported, otherwise Excluded.
6/33	LE Periodic Advertising Report event	[5] 7.7.65.15	Core v.5.0 or later   C.21	✓	Core v.5.0 or later C.21: Mandatory IF LL 11/1 "Synchronizing to Periodic Advertising" is supported, otherwise Excluded.
6/34	LE Periodic Advertising Sync Lost event	[5] 7.7.65.16	Core v.5.0 or later   C.21	✓	Core v.5.0 or later C.21: Mandatory IF LL 11/1 "Synchronizing to Periodic Advertising" is supported, otherwise Excluded.
6/35	LE Periodic Advertising Sync Established event	[5] 7.7.65.14	Core v.5.0 or later   C.16	✓	Core v.5.0 or later C.16: Mandatory IF LL 4/8 "Scanning for Periodic Advertising" AND LL 1/3a "Synchronization State" are supported, otherwise Excluded.
6/36	LE Scan Timeout event	[5] 7.7.65.17	Core v.5.0 or later   C.19	✓	Core v.5.0 or later C.19: Mandatory IF LL 4/7 "Extended Scanning" is supported, otherwise Excluded.

6/37	LE Set Periodic Advertising Receive Enable command	[6] 7.8.88	Core v.5.1 or later   C.32	☑	Core v.5.1 or later C.32: Mandatory IF LL 9/27 "Periodic Advertising Sync Transfer – Recipient" is supported, otherwise Optional IF LL 11/1 "Synchronizing to Periodic Advertising" is supported, otherwise Excluded.
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**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.
7/41	LE Extended Create Connection command	[5] 7.8.66	Core v.5.0 or later   C.20	☑	Core v.5.0 or later C.20: Mandatory IF LL 5/4 "Request Connection Using Extended Advertising" is supported, otherwise Excluded.
7/42	LE Channel Selection Algorithm event	[5] 7.7.65.20	Core v.5.0 or later   C.23	☑	Core v.5.0 or later C.23: Mandatory IF LL 9/10 "Channel Selection Algorithm #2" 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.
8/9	LE Connectionless IQ Report event	[5] 7.7.65.21	Core v.5.1 or later   C.28	☑	Core v.5.1 or later C.28: Mandatory IF LL 9/17 "Connectionless CTE Receiver" 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.
10/18	LE Set Connection CTE Receive Parameters command	[5] 7.8.83	Core v.5.1 or later   C.25	☑	Core v.5.1 or later C.25: Mandatory IF LL 9/14 "Connection CTE Request" is supported, otherwise Excluded.
10/19	LE Set Connection CTE Transmit Parameters command	[5] 7.8.84	Core v.5.1 or later   C.26	☑	Core v.5.1 or later C.26: Mandatory IF LL 9/15 "Connection CTE Response" is supported, otherwise Excluded.
10/20	LE Connection CTE Request Enable command	[5] 7.8.85	Core v.5.1 or later   C.25	☑	Core v.5.1 or later C.25: Mandatory IF LL 9/14 "Connection CTE Request" is supported, otherwise Excluded.
10/21	LE Connection CTE Response Enable command	[5] 7.8.86	Core v.5.1 or later   C.26	☑	Core v.5.1 or later C.26: Mandatory IF LL 9/15 "Connection CTE Response" is supported, otherwise Excluded.
10/22	LE Connection IQ Report event	[5] 7.7.65.22	Core v.5.1 or later   C.25	☑	Core v.5.1 or later C.25: Mandatory IF LL 9/14 "Connection CTE Request" is supported, otherwise Excluded.
10/23	LE CTE Request Failed event	[5] 7.7.65.23	Core v.5.1 or later   C.25	☑	Core v.5.1 or later C.25: Mandatory IF LL 9/14 "Connection CTE Request" is supported, otherwise Excluded.

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
14/1	Host Buffer Size command	[1] 7.3.39	C.107	☑	C.107: Mandatory IF HCI 14/4 "Set Controller To Host Flow Control command" is supported, otherwise Excluded.
14/2	Set Event Mask command	[1] 7.3.1	M	☑	
14/4	Set Controller to Host Flow Control command	[1] 7.3.38	C.96a	☑	C.96a: Optional 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.
14/5	Host Number of Completed Packets command	[1] 7.3.40	C.107	☑	C.107: Mandatory IF HCI 14/4 "Set Controller To Host Flow Control command" is supported, otherwise Excluded.
14/8	Set Event Mask Page 2 command	[1] 7.3.69	O	☑	
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.
14/13	Data Buffer Overflow event	[1] 7.7.26	O	☑	
14/14	LE Set Event Mask command	[1] 7.8.1	M	☑	

14/17	LE Add Device To Periodic Advertiser List command	[5] 7.8.70	Core v.5.0 or later   C.21	☑	Core v.5.0 or later C.21: Mandatory IF LL 11/1 "Synchronizing to Periodic Advertising" is supported, otherwise Excluded.
14/18	LE Remove Device From Periodic Advertiser List command	[5] 7.8.71	Core v.5.0 or later   C.21	☑	Core v.5.0 or later C.21: Mandatory IF LL 11/1 "Synchronizing to Periodic Advertising" is supported, otherwise Excluded.
14/19	LE Clear Periodic Advertiser List command	[5] 7.8.72	Core v.5.0 or later   C.21	☑	Core v.5.0 or later C.21: Mandatory IF LL 11/1 "Synchronizing to Periodic Advertising" is supported, otherwise Excluded.
14/20	LE Read Periodic Advertiser List Size command	[5] 7.8.73	Core v.5.0 or later   C.21	☑	Core v.5.0 or later C.21: Mandatory IF LL 11/1 "Synchronizing to Periodic Advertising" is supported, otherwise Excluded.

**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.

**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	[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.

[v2]

17/12	LE Receiver Test command [v3]	[6] 7.8.28	Core v.5.1 or later   C.30	<input checked="" type="checkbox"/>	Core v.5.1 or later C.30: Mandatory IF LL 9/14 "Connection CTE Request" OR LL 9/17 "Connectionless CTE Receiver" is supported, otherwise Optional IF RF PHY 1/2 "LE Receiver" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.
17/13	LE Transmitter Test command [v3]	[6] 7.8.29	Core v.5.1 or later   C.29	<input checked="" type="checkbox"/>	Core v.5.1 or later C.29: Mandatory IF LL 9/15 "Connection CTE Response" OR LL 9/16 "Connectionless CTE Transmitter" OR HCI 17/18 "LE Transmitter Test command [v4]" is supported, otherwise Optional IF RF PHY 1/1 "LE Transmitter" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.

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	<input checked="" type="checkbox"/>	
1/2	Attribute Protocol Server	[1] ATT 1.1, [2] GAP 12	M	<input checked="" type="checkbox"/>	

Table 2: Transport Requirements

Item	Capability	Reference	Support	Status	Comment
2/2	Attribute Protocol Supported over LE	[1] ATT 1.3	C.2	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
3/2	Exchange MTU Request	[1] ATT, 3.4.2.1	C.11	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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 Type Request	[1] ATT, 3.4.4.9	O	☑	
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 Response	[1] ATT, 3.4.4.8	C.2	☑	C.2: Mandatory IF ATT 4/14 "Read Multiple Request" is supported, otherwise Excluded.
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 PSMsupported)" 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 PSMsupported)" 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 PSMsupported)" 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 PSMsupported)" 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
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## 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"/>	

**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
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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
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**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
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12/1	Receiver	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
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**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
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13/1	Standby	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
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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
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14/1	Passive Scanning	[3] or [7] 2.2.2	M	<input checked="" type="checkbox"/>	
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14/2	Active Scanning	[3] or [7] 2.2.2	O	<input checked="" type="checkbox"/>	
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**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
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15/1	Non-Connectable Modes	[3] or [7] 9.3.2	M	<input checked="" type="checkbox"/>	
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**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
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16/1	Observation Procedure	[3] or [7] 9.1.2	M	<input checked="" type="checkbox"/>	
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**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
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**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	☑	
18/2	Receiver	[3] 2.2.2	M	☑	

**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	☑	
19/2	Advertising	[3] or [7] 2.2.2	M	☑	
19/3	Connection, Peripheral Role	[3] 2.2.2, 13.1.2.2 [7] 2.2.2	M	☑	

**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/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.

**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	☑	

**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	[3] 9.2.2, 13.1.1.1	M	☑	

	Mode	[7] 9.2.2, 13.1			
22/2	Limited Discoverable Mode	[3] 9.2.3, 13.1.1.2 [7] 9.2.3, 13.1	O	<input checked="" type="checkbox"/>	
22/3	General Discoverable Mode	[3] 9.2.4, 13.1.1.2 [7] 9.2.4, 13.1	C.1	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	

**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	<input checked="" type="checkbox"/>	
23/2	Directed Connectable Mode	[3] 9.3.3, 13.1.2.2 [7] 9.3.3	O	<input checked="" type="checkbox"/>	
23/3	Undirected Connectable Mode	[3] 9.3.4, 13.1.2.2 [7] 9.3.4	M	<input checked="" type="checkbox"/>	
23/4	Connection Parameter Update Procedure	[3] 9.3.9, 13.1.2.1 [7] 9.3.9	O	<input checked="" type="checkbox"/>	
23/5	Terminate Connection Procedure	[3] 9.3.10, 13.1.2.1 [7] 9.3.10	M	<input checked="" type="checkbox"/>	

**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	<input checked="" type="checkbox"/>	

**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
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**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
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**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	<input checked="" type="checkbox"/>	
27/2	Appearance	[3] or [7] 12.2	M	<input checked="" type="checkbox"/>	
27/5	Peripheral Preferred Connection Parameters	[3] [7] 12.5	O	<input checked="" type="checkbox"/>	

**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"/>	
31/4	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"/>	

**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
32/2	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
33/4	Selective Connection Establishment Procedure	[3] or [7] 9.3.8	M	<input checked="" type="checkbox"/>	
33/5	Connection Parameter Update Procedure	[3] or [7] 9.3.9	M	<input checked="" type="checkbox"/>	
33/6	Terminate Connection Procedure	[3] or [7] 9.3.10	M	<input checked="" type="checkbox"/>	

**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 Mbde	[3] 9.4.2, 13.1.3 [7] 9.4.2, 13.2	M	<input checked="" type="checkbox"/>	

**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
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**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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**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
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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
1a/1	GATT Client over LE	[1] 2.2 [2] 12	C.1	☑	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	☑	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	☑	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	☑	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	☑	
3/3	Discover Primary Services by Service UUID	[1] 4.4.2	O	☑	
3/4	Find Included Services	[1] 4.5.1	O	☑	
3/5	Discover All characteristics of a Service	[1] 4.6.1	O	☑	
3/6	Discover Characteristics by UUID	[1] 4.6.2	O	☑	
3/7	Discover All Characteristic Descriptors	[1] 4.7.1	O	☑	
3/8	Read Characteristic Value	[1] 4.8.1	O	☑	
3/9	Read Using Characteristic UUID	[1] 4.8.2	O	☑	
3/10	Read Long Characteristic Values	[1] 4.8.3	O	☑	
3/11	Read Multiple Characteristic Values	[1] 4.8.4	O	☑	
3/12	Write without Response	[1] 4.9.1	O	☑	
3/13	Signed Write Without Response	[1] 4.9.2	C.11	☑	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	☑	
3/15	Write Long Characteristic Values	[1] 4.9.4	O	☑	
3/16	Characteristic Value Reliable Writes	[1] 4.9.5	O	☑	
3/17	Notifications	[1] 4.10.1	C.7	☑	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	☑	
3/19	Read Characteristic Descriptors	[1] 4.12.1	O	☑	
3/20	Read Long Characteristic Descriptors	[1] 4.12.2	O	☑	
3/21	Write Characteristic Descriptors	[1] 4.12.3	O	☑	
3/22	Write Long Characteristic Descriptors	[1] 4.12.4	O	☑	
3/23	Service Changed Characteristic	[1] 7.1	M	☑	
3/24	Configured Broadcast	[1] 2.7	C.2	☑	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	<input checked="" type="checkbox"/>	
4/5	Discover All characteristics of a Service	[1] 4.6.1	M	<input checked="" type="checkbox"/>	
4/6	Discover Characteristics by UUID	[1] 4.6.2	M	<input checked="" type="checkbox"/>	
4/7	Discover All Characteristic Descriptors	[1] 4.7.1	M	<input checked="" type="checkbox"/>	
4/8	Read Characteristic Value	[1] 4.8.1	M	<input checked="" type="checkbox"/>	
4/9	Read Using Characteristic UUID	[1] 4.8.2	M	<input checked="" type="checkbox"/>	
4/10	Read Long Characteristic Values	[1] 4.8.3	C.12	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
4/12	Write without Response	[1] 4.9.1	C.2	<input checked="" type="checkbox"/>	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.
4/14	Write Characteristic Value	[1] 4.9.3	C.3	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
4/17	Notifications	[1] 4.10.1	O	<input checked="" type="checkbox"/>	
4/18	Indications	[1] 4.11.1	C.1	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
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
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**Table 8: Multiple Simultaneous ATT Bearers**

Item	Capability	Reference	Support	Status	Comment
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## 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	☑	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
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.

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.
9/9	LE Coded PHY	[5] 2.2	C.5	☑	C.5: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Optional.
9/9a	LE Extended Advertising	[5] 4.6.12	C.25	☑	C.25: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Mandatory IF LL 9/9 "LE Coded PHY" is supported, otherwise Optional.
9/9b	LE Periodic Advertising	[5] 4.6.13	C.26	☑	C.26: Optional IF LL 9/9a "LE Extended Advertising" is supported, otherwise Excluded.
9/10	Channel Selection Algorithm #2	[5] 4.6.14	C.8	☑	C.8: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Mandatory IF (LL 9/9a "LE Extended Advertising" AND (LL 1/4 "Slave Role" OR LL 1/5 "Master Role")) OR LL 9/9b "LE Periodic Advertising" is supported, otherwise Optional.
9/13	LL Privacy	[5] 4.6.7	O	☑	
9/14	Connection CTE Request	[7] 4.6.16	C.11	☑	C.11: Excluded IF SUMICS 21/14 "Core v4.2" OR SUMICS 21/16 "Core v5.0" is supported,



					otherwise Optional IF (LL 1/4 "Slave Role" OR LL 1/5 "Master Role") AND RF PHY 1/11 "2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)" is supported, otherwise Excluded.
9/15	Connection CTE Response	[7] 4.6.17	C.4	<input checked="" type="checkbox"/>	C.4: Excluded IF SUMICS 21/14 "Core v4.2" OR SUMICS 21/16 "Core v5.0" is supported, otherwise Optional IF (LL 1/4 "Slave Role" OR LL 1/5 "Master Role") AND RF PHY 1/8 "Transmitting Constant Tone Extensions" is supported, otherwise Excluded.
9/16	Connectionless CTE Transmitter	[7] 4.6.18	C.12	<input checked="" type="checkbox"/>	C.12: Excluded IF SUMICS 21/16 "Core v5.0" is supported, otherwise Optional IF LL 3/10 "Periodic Advertising" AND RF PHY 1/8 "Transmitting Constant Tone Extensions" is supported, otherwise Excluded.
9/17	Connectionless CTE Receiver	[7] 4.6.19	C.13	<input checked="" type="checkbox"/>	C.13: Optional IF LL 11/1 "Synchronizing to Periodic Advertising" AND RF PHY 1/11 "2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)" is supported, otherwise Excluded.
9/18	2 $\mu$ s Antenna Switching During Constant Tone Extension Transmission (AoD)	[7] 4.6.20	C.14	<input checked="" type="checkbox"/>	C.14: Optional IF LL 9/19 "No Antenna Switching During Constant Tone Extension Transmission (AoA)" AND RF PHY 1/9 "2 $\mu$ s Antenna Switching During Constant Tone Extension Transmission (AoD)" is supported, otherwise Excluded.
9/19	No Antenna Switching During Constant Tone Extension Transmission (AoA)	[7] 4.6.21	C.15	<input checked="" type="checkbox"/>	C.15: Optional IF RF PHY 1/8 "Transmitting Constant Tone Extensions" is supported, otherwise Excluded.
9/20	2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)	[7] 4.6.20	C.16	<input checked="" type="checkbox"/>	C.16: Optional IF RF PHY 1/11 "2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)" is supported, otherwise Excluded.
9/21	2 $\mu$ s Antenna Switching And Sampling During Constant Tone Extension Reception (AoA)	[7] 4.6.21	C.27	<input checked="" type="checkbox"/>	C.27: Optional if LL 9/20 "2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)" AND RF PHY 1/12 "2 $\mu$ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)" is supported, otherwise Excluded.
9/22	1 $\mu$ s Antenna Switching During Constant Tone Extension Transmission (AoD)	[7] 4.6.20	C.17	<input checked="" type="checkbox"/>	C.17: Optional IF LL 9/18 "2 $\mu$ s Antenna Switching During Constant Tone Extension Transmission (AoD)" AND RF PHY 1/10 "1 $\mu$ s Antenna Switching During Constant Tone Extension Transmission (AoD)" is supported, otherwise Excluded.
9/23	1 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)	[7] 4.6.20	C.18	<input checked="" type="checkbox"/>	C.18: Optional IF LL 9/20 "2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)" AND RF PHY 1/13 "1 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)" is supported, otherwise Excluded.
9/24	1 $\mu$ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	[7] 4.6.21	C.19	<input checked="" type="checkbox"/>	C.19: Optional IF LL 9/21 "2 $\mu$ s Antenna Switching And Sampling During Constant Tone Extension Reception (AoA)" AND RF PHY 1/14 "1 $\mu$ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoD)" is supported, otherwise Excluded.
9/35	Isochronous Receive Test	[9] 7.8.112, 7.8.113, 7.8.114	C.32	<input checked="" type="checkbox"/>	C.32: Mandatory IF LL 1/3a "Synchronized State" OR LL 9/31 "Connected Isochronous Stream Master" OR LL 9/32 "Connected Isochronous Stream Slave" is supported, otherwise Excluded.
9/41	Extended Advertising	[7] 4.6.12	C.38	<input checked="" type="checkbox"/>	C.38: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Optional.
9/42	Periodic Advertising	[7] 4.6.13	C.39	<input checked="" type="checkbox"/>	C.39: Optional IF LL 9/41 "Extended Advertising" is supported, otherwise Excluded.

**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	<input checked="" type="checkbox"/>	
10/2	Act as LE Slave to more than one LE Master at the same time.	[3] 1.1.1	O	<input checked="" type="checkbox"/>	

**Table 11: Protocol Synchronizing Features**

Prerequisite: LL 1/3a "Synchronized State"

Item	Capability	Reference	Support	Status	Comment
11/1	Synchronizing to Periodic Advertising	[7] 4.4.3.4	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF LL 9/42 "Periodic Advertising" is supported, otherwise Excluded.
11/2	Connectionless CTE Receiver	[7] 4.6.19	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF LL 9/17 "Connectionless CTE Receiver" is supported, otherwise Excluded.

**Table 1: Controller States/Roles**

Item	Capability	Reference	Support	Status	Comment
1/1	Advertising State	[1] 4.4.2	C.1	<input checked="" type="checkbox"/>	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).
1/3a	Synchronized State	[7] 4.4.5	C.4	☑	C.4: Mandatory IF LL 6/28 "Accepting Periodic Advertising Sync Transfer Procedure" OR LL 7/28 "Accepting Periodic Advertising Sync Transfer Procedure" OR LL 4/8 "Scanning for periodic advertising" is supported, otherwise Excluded.
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.
3/1a	Non-Connectable and Non-Scannable Directed Events	[7] 4.4.2.9	C.10	☑	C.10: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
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	☑	
3/4b	Connectable Undirected Events	[7] 4.4.2.7	C.10	☑	C.10: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
3/5	Scannable Undirected Events	[1] 4.4.2.5	O	☑	
3/5a	Scannable Directed Events	[7] 4.4.2.8	C.10	☑	C.10: Mandatory IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
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	☑	
3/9	Extended Advertising	[5] 4.6.12	C.6	☑	C.6: Mandatory IF LL 9/41 "Extended Advertising" is supported, otherwise Excluded.
3/10	Periodic Advertising	[5] 4.4.2.12	C.12	☑	C.12: Mandatory IF LL 9/42 "Periodic Advertising" is supported, otherwise

					Excluded.
3/12	Sending TxPower in Advertisements	[5] 2.3.4.7	C.7	☑	C.7: Optional IF LL 3/9 "Extended Advertising" is supported, otherwise Excluded.
3/13	Connectionless CTE Transmitter	[7] 4.6.18	C.8	☑	C.8: Mandatory IF LL 9/16 "Connectionless CTE Transmitter" is supported, otherwise Excluded.

**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	☑	
4/5	Filtering Policies	[1] 4.3.3	M	☑	
4/6a	Periodic Sync Establishment Filtering Policies	[5] 4.6.13	C.6	☑	C.6: Mandatory IF LL 4/8 "Scanning for Periodic Advertising" is supported, otherwise Excluded.
4/7	Extended Scanning	[5] 4.6.12	C.4	☑	C.4: Mandatory IF LL 9/41 "Extended Advertising" is supported, otherwise Excluded.
4/8	Scanning for Periodic Advertising	[5] 4.4.3.4	C.5	☑	C.5: Mandatory IF LL 9/42 "Periodic Advertising" is supported, otherwise Excluded.

**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	☑	
5/2	Requesting to Directed Advertising	[1] 4.4.4	M	☑	
5/3	Initiator Filtering	[1] 4.3.4	M	☑	
5/4	Requesting connections using extended advertising	[5] 4.6.12	C.1	☑	C.1: Mandatory IF LL 9/9a "LE Extended Advertising" is supported, otherwise Excluded.

**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	☑	
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	☑	
6/5	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	☑	
6/10	Accepting Parameter Update	[1] 5.1.1	M	☑	
6/11	Accepting Channel Map Update	[1] 5.1.2	M	☑	
6/12	Encryption Start	[1] 5.1.3	C.17	☑	C.17: Mandatory if LL 9/1 "LE Encryption" is supported, otherwise Excluded.
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	C.17	☑	C.17: Mandatory if LL 9/1 "LE Encryption" is supported, otherwise Excluded.
6/19	Slave Version Exchange	[1] 5.1.5	M	☑	
6/20	Slave listens to multiple packets per connection event	4.5.7	O	☑	
6/22	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.
6/23a	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.
6/24	Constant Tone Extension Request Procedure as Initiator	[7] 5.1.12	C.7	☑	C.7: Mandatory IF LL 9/14 "Connection CTE Request" is supported, otherwise Excluded.
6/25	Constant Tone Extension Request Procedure as Responder	[7] 5.1.12	C.8	☑	C.8: Mandatory IF LL 9/15 "Connection CTE Response" is supported, otherwise Excluded.

**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	☑	
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	☑	
7/5	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.
7/24	Constant Tone Extension Request Procedure as Initiator	[7] 5.1.12	C.7	☑	C.7: Mandatory IF LL 9/14 "Connection CTE Request" is supported, otherwise Excluded.
7/25	Constant Tone Extension Request Procedure as Responder	[7] 5.1.12	C.8	☑	C.8: Mandatory IF LL 9/15 "Connection CTE Response" is supported, otherwise Excluded.

**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.
1/6	Stable Modulation Index - Receiver	[3] 3.1.1	C.4	☑	C.4: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Optional IF RF PHY 1/2 "LE Receiver" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.
1/7	LE Coded PHY	[3] 3.4	C.2	☑	C.2: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Optional.
1/8	Transmitting Constant Tone Extensions	[4] 5	C.3	☑	C.3: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Optional IF RF PHY 1/1 "LE Transmitter" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.
1/9	2 μs Antenna Switching During Constant Tone Extension Transmission (AoD)	[4] 5	C.5	☑	C.5: Optional IF RF PHY 1/8 "Transmitting Constant Tone Extensions" is supported, otherwise Excluded.
1/11	2 μs Antenna Sampling During Constant Tone Extension Reception (AoD)	[4] 5	C.4	☑	C.4: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Optional IF RF PHY 1/2 "LE Receiver" OR RF PHY 1/3 "LE Transceiver" is supported, otherwise Excluded.

**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
1/2	Peripheral Role (Responder)	[1] 2.4	C.2	☑	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	☑	
2/2	Unauthenticated no MITM protection	[1] 2.3.1	C.1	☑	C.1: Mandatory IF SM2/1 "Authenticated MITM protection" is supported, otherwise Optional.
2/3	No security requirements	[1] 2.3.1	M	☑	

**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	☑	

**Table 4: Pairing Method**

Item	Capability	Reference	Support	Status	Comment
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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 SM2/1 "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 SM2/1 "Authenticated MITM protection" OR SM2/2 "Unauthenticated no MITM protection" OR SM2/4 "OOB supported" is supported, otherwise Excluded.

**Table 6: Signing Algorithm**

Item	Capability	Reference	Support	Status	Comment
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**Table 7: Key Distribution**

Item	Capability	Reference	Support	Status	Comment
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**Table 8: Cross-Transport Key Derivation**

Item	Capability	Reference	Support	Status	Comment
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