Project Details

Project Name	Flipper Zero (FZ.1)
Product Type	End Product
TCRL Version:	TCRL 2021-1
Referenced Qualified Design(s)	
Previously Qualified Design Used in this Qualification(s)	160724
Listing Date	2022-01-07
Declaration ID	D058379

Product Listing(s)

Name	Website	Category	Publish Date	Model Number	Description
Flipper Zero	https://flipperzero.one	Unique Products	1/7/2022 12:00:00 AM	FZ.1	Portable handheld electronic device featuring virtual pet, designed for education, development and prototyping of electronics and software.

Member Company	Flipper Devices Inc.

Declaring Member Contact / Listing Contact Person		
	Name	Alexander Kulagin
	Address	2803 Philadelphia Pike Suite B #551
	City	Claymont
	State	DE
	Country	United States
	Postal Code	19703

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 Flipper Devices Inc. ("Company") to Bluetooth Launch Studio Terms of Use, and I make the following representations and warranties personally and on behalf of Company. The following representations and warranties, together with all project information and the Bluetooth Launch Studio Terms of Use, are the Supplier Declaration of Conformity and Declaration of Compliance described in the Program Reference Document (PRD) and Declaration Process Document (DPD).

☑ I am authorized by Company to submit all of the information included in this project and all information is complete and accurate.

☑ Company does not, by its governing documents or other applicable law, require more than one signatory, a stamp or seal, or a witnessed signature to be legally bound.

☑ I agree on behalf of Company to contract in English and electronically, and adopt the characters and symbols input in the signature field below as my signature, with the same effect as an ink signature.

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

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

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

signing.

Signature:

Alexander Kulagin

BLUETOOTH® LAUNCH STUDIO TERMS OF USE

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 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	☑	C.1: Mandatory to support one and only one of SUM ICS 21/14 "Core v4.2" OR SUM ICS 21/16 "Core v5.0" OR SUM ICS 21/18 "Core v5.1" OR SUM ICS 21/20 "Core v5.2" OR SUM ICS 21/21 "Core v5.3".

Table 22: EDR Features

Item	Capability	Reference	Support	Status	Comment

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	☑	C.1: Mandatory to support one and only one of SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS" OR SUM ICS 31/19 "Core v5.0" OR SUM ICS 31/20 "Core v5.1" OR SUM ICS 31/21 "Core v5.2" OR SUM ICS 31/22 "Core v5.3".

Table 34: LE Host Specification Parts

Item	Capability	Reference	Support	Status	Comment

Table 41: AMP Controller Core Specification

Prerequisite: SUM ICS 21/14 "Core v4.2" OR SUM ICS 21/16 "Core v5.0" OR SUM ICS 21/18 "Core v5.1" OR SUM ICS 21/20 "Core v5.2"

Item	Capability	Reference	Support	Status	Comment

Table 42: AMP Controller Specification Parts

Prerequisite: SUM ICS 21/14 "Core v4.2" OR SUM ICS 21/16 "Core v5.0" OR SUM ICS 21/18 "Core v5.1" OR SUM ICS 21/20 "Core v5.2"

Item	Capability	Reference	Support	Status	Comment

Table 51: Low Energy Controller Configuration

Item	Capability	Reference	Support	Status	Comment
51/1	Low Energy Controller	Core 4.0 or Later	C.1	☑	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	☑	C.1: Mandatory if PROD 3/3 or 3/4 or 3/5 is supported, otherwise Excluded.

Product Type

Table 1: Product Types

Item	Capability	Reference	Support	Status	Comment
1/1	End Product	Vol. 0 Part B	C.1	☑	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.

Attribute Protocol

Table 1: Role

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

Table 2: Transport Requirements

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

Table 3: Attribute Protocol Client Messages

Prerequisite: ATT 1/1 "Attribute Protocol Client"

Item	Capability	Reference	Support	Status	Comment
3/1	Attribute Error Response	[1] ATT, 3.4.1.1	M	☑	
3/2	Exchange MTU Request	[1] ATT, 3.4.2.1	C.11	☑	C.11: Mandatory IF GATT 3/1 "Exchange MTU" is supported, otherwise Optional.
3/3	Exchange MTU Response	[1] ATT, 3.4.2.2	C.1	☑	C.1: Mandatory IF ATT 3/2 "Exchange MTU Request" is supported, otherwise Excluded.
3/4	Find Information Request	[1] ATT, 3.4.3.1	C.13	☑	C.13: Mandatory IF GATT 3/7 "Discover All Characteristic Descriptors" is supported, otherwise Optional.
3/5	Find Information Response	[1] ATT, 3.4.3.2	C.9	☑	C.9: Mandatory IF ATT 3/4 "Find Information Request" is supported, otherwise Excluded.
3/6	Find by Type Value Request	[1] ATT, 3.4.4.3	C.12	☑	C.12: Mandatory IF GATT 3/3 "Discover Primary Services by Service UUID" is supported, otherwise Optional.
3/7	Find by Type Value Response	[1] ATT, 3.4.4.4	C.2	☑	C.2: Mandatory IF ATT 3/6 "Find by Type Value Request" is supported, otherwise Excluded.
3/8	Read by Type Request	[1] ATT, 3.4.4.1	C.15	☑	C.15: Mandatory IF GATT 3/9 "Read Using Characteristic UUID" is supported, otherwise Optional.
3/9	Read by Type Response	[1] ATT, 3.4.4.2	C.3	☑	C.3: Mandatory IF ATT 3/8 "Read by Type Request" is supported, otherwise Excluded.
3/10	Read Request	[1] ATT, 3.4.4.3	C.14	☑	C.14: Mandatory IF GATT 3/8 "Read Characteristic Value" OR GATT 3/19 "Read Characteristic Descriptors" is supported, otherwise Optional.
3/11	Read Response	[1] ATT, 3.4.4.4	C.10	☑	C.10: Mandatory IF ATT 3/10 "Read Request" is supported, otherwise Excluded.
3/12	Read Blob Request	[1] ATT, 3.4.4.5	C.16	☑	C.16: Mandatory IF GATT 3/10 "Read Long Characteristic Values" OR GATT 3/20 "Read Long Characteristic Descriptors" is supported, otherwise Optional.
3/13	Read Blob Response	[1] ATT, 3.4.4.6	C.4	☑	C.4: Mandatory IF ATT 3/12 "Read Blob Request" is supported, otherwise Excluded.
3/14	Read Multiple Request	[1] ATT, 3.4.4.7	C.17	☑	C.17: Mandatory IF GATT 3/11 "Read Multiple Characteristic Values" is supported, otherwise Optional.
3/15	Read Multiple Response	[1] ATT, 3.4.4.8	C.5	☑	C.5: Mandatory IF ATT 3/14 "Read Multiple Request" is supported, otherwise Excluded.
3/16	Read by Group Type Request	[1] ATT, 3.4.4.9	O	☑	
3/17	Read by Group	[1] ATT,	C.6	☑	C.6: Mandatory IF ATT 3/16 "Read by Group Type Request" is supported, otherwise Excluded.

| | | Type Response | 3.4.4.10 | | | |

Item	Capability	Reference	Status	Support	Comment
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	[1] ATT,	M	☑	

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

Table 5: Attribute Protocol Transport Security

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

Battery Service

Table 0: Versions

Item	Capability	Reference	Support	Status	Comment
0/1	BAS 1.0		M	☑	

Table 1: Transport Requirements

Item	Capability	Reference	Support	Status	Comment
1/2	Service supported over LE	1.5	C.1	☑	C.1: Mandatory to support at least one of the defined transports.

Table 2: Service Requirements

Item	Capability	Reference	Support	Status	Comment
2/1	Battery Service	2	M	☑	
2/3	Battery Level Characteristic	3.1	M	☑	

Table 2a: Service Characteristics

Item	Capability	Reference	Support	Status	Comment

Device Information Service

Table 0: Service Version

Item	Capability	Reference	Support	Status	Comment
0/1	Device Information Service v1.1	DIS 1.1	M	☑	

Table 1: Transport Requirements

Item	Capability	Reference	Support	Status	Comment
1/2	Service supported over LE	1.5	C.1	☑	C.1: Mandatory to support at least one of the defined transports.

Table 2: Service Requirements

Item	Capability	Reference	Support	Status	Comment
2/1	Device Information Service	2	M	☑	
2/2	Manufacturer Name String Characteristic	3.1	O	☑	
2/4	Serial Number String Characteristic	3.3	O	☑	
2/6	Firmware Revision String Characteristic	3.5	O	☑	
2/7	Software Revision String Characteristic	3.6	O	☑	

Generic Access Profile

Table 0: Device Configuration

Item	Capability	Reference	Support	Status	Comment
0/2	LE	[2] 1.1	C.2	☑	C.2: Mandatory IF SUM ICS 34/2 "Generic Access Profile (LE)" is supported AND SUM ICS 32/3 "Generic Access Profile (BR/EDR)" is not 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

Table 2: Security Aspects

Prerequisite: GAP 0/1 "BR/EDR" OR GAP 0/3 "BR/EDR/LE"

Item	Capability	Reference	Support	Status	Comment

Table 3: Idle Mode Procedures

Prerequisite: GAP 0/1 "BR/EDR" OR GAP 0/3 "BR/EDR/LE"

Item	Capability	Reference	Support	Status	Comment

Table 4: Establishment Procedures

Prerequisite: GAP 0/1 "BR/EDR" OR GAP 0/3 "BR/EDR/LE"

Item	Capability	Reference	Support	Status	Comment

Table 5: LE Roles

Prerequisite: GAP 0/2 "LE"

Item	Capability	Reference	Support	Status	Comment
5/1	Broadcaster	[2] 2.2.2	C.1	☑	C.1: Mandatory to support at least one of the defined roles.
5/2	Observer	[2] 2.2.2	C.1	☑	C.1: Mandatory to support at least one of the defined roles.
5/3	Peripheral	[2] 2.2.2	C.1	☑	C.1: Mandatory to support at least one of the defined roles.
5/4	Central	[2] 2.2.2	C.1	☑	C.1: 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	[2] 2.2.2	M	☑	
6/2	Receiver	[2] 2.2.2	O	☑	

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 state	[2] 2.2.2, 2.2.2.1	M	☑	
7/2	Advertising state	[2] 2.2.2, 2.2.2.1	M	☑	

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 and non-scannable undirected event	[2] 2.2.2	M	☑	
8/2	Scannable undirected event	[2] 2.2.2	O	☑	

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	Service UUID	[3] 1.1	O	☑	
8a/2	Local Name	[3] 1.2	O	☑	
8a/3	Flags	[3] 1.3	O	☑	
8a/4	Manufacturer Specific Data	[3] 1.4	O	☑	
8a/5	TX Power Level	[3] 1.5	O	☑	
8a/6	Security Manager OOB	[3] 1.7	C.1	☑	C.1: Optional IF SM2/4 "OOB supported" is supported, otherwise Excluded.
8a/7	Security Manager TK Value	[3] 1.8	O	☑	
8a/8	Peripheral Connection Interval Range	[3] 1.9	O	☑	
8a/9	Service Solicitation	[3] 1.10	O	☑	
8a/10	Service Data	[3] 1.11	O	☑	
8a/11	Appearance	[3] 1.1.12	O	☑	
8a/12	Public Target Address	[3] 1.1.13	O	☑	
8a/13	Random Target Address	[3] 1.1.14	O	☑	
8a/14	Advertising Interval	[3] 1.1.15	O	☑	
8a/15	LE Bluetooth Device Address	[3] 1.1.16	O	☑	

8a/16	LE Role	[3] 1.1.17	O	☑
8a/17	Uniform Resource Identifier	[3] 1.1.18	O	☑

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	[2] 9.3.2	M	☑	

Table 10: Broadcaster Broadcasting and Observing Features

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

Item	Capability	Reference	Support	Status	Comment
10/1	Broadcast mode	[2] 9.1.1	M	☑	

Table 11: Broadcaster Privacy Feature

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

Item	Capability	Reference	Support	Status	Comment
11/1	Privacy feature	[5] 10.7	O	☑	
11/2	Resolvable private address generation procedure	[5] 10.8.2.2, [6] 1.3.2.2	C.1	☑	C.1: Mandatory IF GAP 11/1 "Privacy feature" is supported AND GAP 11/3 "Non-resolvable private address generation procedure" is not supported, otherwise Optional.
11/3	Non-resolvable private address generation procedure	[5] 10.8.2.1, [6] 1.3.2.2	C.2	☑	C.2: Mandatory IF GAP 11/1 "Privacy feature" is supported AND GAP 11/2 "Resolvable private address generation procedure" is not supported, otherwise Optional.

Table 11a: Periodic Advertising Modes and Procedures

Prerequisite: (GAP 5/1 "Broadcaster (LE-Only)" OR GAP 38/1 "Broadcaster (BR/EDR/LE)") AND NOT (SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS")

Item	Capability	Reference	Support	Status	Comment

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

Table 12: Observer Physical Layer

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

Item	Capability	Reference	Support	Status	Comment
12/1	Receiver	[2] 2.2.2	M	☑	
12/2	Transmitter	[2] 2.2.2	O	☑	

Table 13: Observer Link Layer States

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

Item	Capability	Reference	Support	Status	Comment
13/1	Standby state	[2] 2.2.2	M	☑	
13/2	Scanning state	[2] 2.2.2	M	☑	

Table 14: Observer Link Layer Scanning Types

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

Item	Capability	Reference	Support	Status	Comment
14/1	Passive scanning	[2] 2.2.2	M	☑	
14/2	Active scanning	[2] 2.2.2	O	☑	

Table 15: Observer Connection Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment

| 15/1 | Non-connectable mode | [2] 9.3.2 | M | ☑ | |

Table 16: Observer Broadcasting and Observing Features

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

Item	Capability	Reference	Support	Status	Comment
16/1	Observation procedure	[2] 9.1.2	M	☑	

Table 17: Observer Privacy Feature

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

Item	Capability	Reference	Support	Status	Comment
17/1	Privacy feature	[5] 10.7	O	☑	
17/2	Non-resolvable private address generation procedure	[5] 10.8.2.1, [6] 1.3.2.2	C.1	☑	C.1: Mandatory IF GAP 17/1 "Privacy feature" AND GAP 14/2 "Active scanning" are supported AND GAP 17/4 "Resolvable private address generation procedure" is not supported, otherwise Optional.
17/3	Resolvable private address resolution procedure	[5] 10.8.2.3, [6] 1.3.2.2	O	☑	
17/4	Resolvable private address generation procedure	[5] 10.8.2.2, [6] 1.3.2.3	C.2	☑	C.2: Mandatory IF GAP 17/1 "Privacy feature" AND GAP 14/2 "Active scanning" are supported AND GAP 17/2 "Non-resolvable private address generation procedure" is not supported, otherwise Optional.

Table 17a: Periodic Advertising Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment

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

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	[2] 2.2.2	M	☑	
18/2	Receiver	[2] 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 state	[2] 2.2.2	M	☑	
19/2	Advertising state	[2] 2.2.2	M	☑	
19/3	Connection state, Peripheral role	[4] 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	[4] 2.2.2	M	☑	
20/2	Connectable directed event	[4] 2.2.2	O	☑	
20/3	Non-connectable and non-scannable undirected event	[4] 2.2.2, 9.3.2.2, 9.3.11.2	O	☑	
20/4	Scannable undirected event	[4] 2.2.2, 9.3.4.2	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	Service UUID	[3] 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	Local Name	[3] 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	Flags	[3] 1.3	C.2	☑	C.2: Mandatory IF GAP 22/2 "Limited discoverable mode" OR GAP 22/3 "General discoverable mode" is supported, otherwise Optional.
20A/4	Manufacturer Specific Data	[3] 1.4	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/5	TX Power Level	[3] 1.5	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/6	Security Manager OOB	[3] 1.7	C.3	☑	C.3: Optional IF (GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event") AND SM 2/4 "OOB supported" are supported otherwise Excluded.
20A/7	Security Manager TK Value	[3] 1.8	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/8	Peripheral Connection Interval Range	[3] 1.9	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/9	Service Solicitation	[3] 1.10	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/10	Service Data	[3] 1.11	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/11	Appearance	[3] 1.1.12	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/12	Public Target Address	[3] 1.1.13	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/13	Random Target Address	[3] 1.1.14	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/14	Advertising Interval	[3] 1.1.15	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/15	LE Bluetooth Device Address	[3] 1.1.16	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/16	LE Role	[3] 1.1.17	C.1	☑	C.1: Optional IF GAP 20/1 "Connectable and scannable undirected event" OR GAP 20/3 "Non-connectable and non-scannable undirected event" OR GAP 20/4 "Scannable undirected event" is supported, otherwise Excluded.
20A/17	Uniform Resource Identifier	[3] 1.1.18	O	☑	

Table 21: Peripheral Link Layer Control Procedures

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

Item	Capability	Reference	Support	Status	Comment
21/1	Connection Update procedure	[4] 2.2.2	M	☑	
21/2	Channel Map Update procedure	[4] 2.2.2	M	☑	
21/3	Encryption procedure	[4] 2.2.2	O	☑	
21/4	Central-initiated Feature Exchange procedure	[4] 2.2.2	M	☑	
21/5	Version Exchange procedure	[4] 2.2.2	M	☑	
21/6	Termination procedure	[4] 2.2.2	M	☑	

Item	Capability	Reference	Support	Status	Comment
21/10	Data Length Update procedure	[8] 2.2.2	O	☑	
21/11	PHY Update procedure	[8] 2.2.2	C.2	☑	C.2: Excluded IF SUMICS 31/17 "Core v4.2" OR SUMICS 31/18 "Core v4.2+HS" is supported, otherwise Optional.

Table 22: Peripheral Discovery Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment
22/1	Non-discoverable mode	[4] 9.2.2, 13.1	M	☑	
22/2	Limited discoverable mode	[4] 9.2.3, 13.1	O	☑	
22/3	General discoverable mode	[4] 9.2.4, 13.1	C.1	☑	C.1: Mandatory IF GAP 5/3 "Peripheral (LE-Only)" is supported AND GAP 22/2 "Limited discoverable mode" is not supported, otherwise Optional IF GAP 5/3 "Peripheral (LE-Only)" AND GAP 22/2 "Limited discoverable mode" are supported, otherwise Mandatory IF GAP 38/3 "Peripheral (BR/EDR/LE)" is supported AND GAP 22/2 "Limited discoverable mode" is not supported, otherwise Optional IF GAP 38/3 "Peripheral (BR/EDR/LE)" AND GAP 22/2 "Limited discoverable mode" are supported, otherwise Excluded.
22/4	Name discovery procedure	[2] 9.2.7	O	☑	

Table 23: Peripheral Connection Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment
23/1	Non-connectable mode	[4] 9.3.2	M	☑	
23/2	Directed connectable mode	[4] 9.3.3	O	☑	
23/3	Undirected connectable mode	[4] 9.3.4	M	☑	
23/4	Connection parameter update procedure	[4] 9.3.9	O	☑	
23/5	Terminate connection procedure	[4] 9.3.10	M	☑	

Table 24: Peripheral Bonding Modes and Procedures

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

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

Table 25: Peripheral Security Aspects Features

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

Item	Capability	Reference	Support	Status	Comment
25/1	LE security mode 1	[4] 10.2.1	O	☑	
25/2	LE security mode 2	[4] 10.2.2	O	☑	
25/3	Authentication procedure	[4] 10.3	O	☑	
25/4	Authorization procedure	[4] 10.5	O	☑	
25/5	Connection data signing procedure	[4] 10.4.1	O	☑	
25/6	Authenticate signed data procedure	[4] 10.4.3	O	☑	
25/7	Authenticated Pairing (LE security mode 1 level 3)	[4] 10.3	C.1	☑	C.1: Optional IF GAP 25/1 "LE security mode 1" is supported, otherwise Excluded.
25/8	Unauthenticated Pairing (LE security mode 1 level 2)	[4] 10.3	C.1	☑	C.1: Optional IF GAP 25/1 "LE security mode 1" is supported, otherwise Excluded.
25/9	LE security mode 1 level 4	[5] 10.3	C.3	☑	C.3: Optional IF SM2/5 "LE Secure Connections" AND GAP 25/1 "LE security mode 1" are

25/10	Secure Connections Only mode	[5] 10.2.4	C.4	☑	C.4: Optional IF GAP 25/9 "LE security mode 1 level 4" is supported, otherwise Excluded.
25/11	Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only	[5] 10.3	C.3	☑	C.3: Optional IF SM 2/5 "LE Secure Connections" AND GAP 25/1 "LE security mode 1" are supported, otherwise Excluded.
25/12	Authenticated Pairing (LE security mode 1 level 3) with LE Secure Connections Pairing only	[5] 10.3	C.3	☑	C.3: Optional IF SM 2/5 "LE Secure Connections" AND GAP 25/1 "LE security mode 1" are supported, otherwise Excluded.
25/13	Minimum 128 Bit entropy key	[5] 10.3	C.5	☑	C.5: Mandatory IF GAP 25/9 "LE security mode 1 level 4" is supported, otherwise Optional IF GAP 25/11 "Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only" OR GAP 25/12 "Authenticated Pairing (LE security mode 1 level 3) with LE Secure Connections Pairing only" is supported, otherwise Excluded.

Table 26: Peripheral Privacy Feature

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

Item	Capability	Reference	Support	Status	Comment
26/1	Privacy feature	[5] 10.7	O	☑	
26/2	Non-resolvable private address generation procedure	[5] 10.7, 10.8.2.1, [6] 1.3.2.2	O	☑	
26/3	Resolvable private address generation procedure	[5] 10.7, 10.8.2.2, [6] 1.3.2.2	C.1	☑	C.1: Mandatory IF GAP 26/1 "Privacy feature" is supported, otherwise Optional.
26/4	Resolvable private address resolution procedure	[5] 10.7, 10.8.2.3, [6] 1.3.2.2	C.1	☑	C.1: Mandatory IF GAP 26/1 "Privacy feature" is supported, otherwise Optional.

Table 27: Peripheral GAP Characteristics

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

Item	Capability	Reference	Support	Status	Comment
27/1	Device Name	[2] 12.1	M	☑	
27/2	Appearance	[2] 12.2	M	☑	
27/5	Peripheral Preferred Connection Parameters	[2] 12.5	O	☑	
27/6	Writable Device Name	[2] 12.1	O	☑	
27/7	Writable Appearance	[2] 12.2	O	☑	
27/9	Central Address Resolution	[5] 12	C.1	☑	C.1: Optional IF LL 2/5 "Resolution of private addresses" is supported, otherwise Excluded.

Table 27a: Periodic Advertising Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment

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	[2] 2.2.2	M	☑	
28/2	Receiver	[2] 2.2.2	M	☑	

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 state	[2] 2.2.2	M	☑	
29/2	Scanning state	[2] 2.2.2	M	☑	

29/3	Initiating state	[2] 2.2.2	M	☑
29/4	Connection state, Central role	[2] 2.2.2	M	☑

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	[2] 2.2.2	O	☑	
30/2	Active scanning	[2] 2.2.2	C.1	☑	C.1: Mandatory IF GAP 30/1 "Passive scanning" is not 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	[2] 2.2.2	M	☑	
31/2	Channel Map Update procedure	[2] 2.2.2	M	☑	
31/3	Encryption procedure	[2] 2.2.2	O	☑	
31/4	Central-initiated Feature Exchange procedure	[2] 2.2.2	M	☑	
31/5	Version Exchange procedure	[2] 2.2.2	M	☑	
31/6	Termination procedure	[2] 2.2.2	M	☑	
31/8	Peripheral-initiated Feature Exchange procedure	[4] 2.2.2	C.1	☑	C.1: Mandatory IF GAP 31/9 "Connection Parameter Request procedure" is supported, otherwise Optional.
31/10	Data Length Update procedure	[8] 2.2.2	O	☑	
31/11	PHY Update procedure	[8] 2.2.2	C.2	☑	C.2: Excluded IF SUMICS 31/17 "Core v4.2" OR SUMICS 31/18 "Core v4.2+HS" is supported, otherwise Optional.

Table 32: Central Discovery Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment
32/1	Limited Discovery procedure	[4] 9.2.5	O	☑	
32/2	General Discovery procedure	[4] 9.2.6	M	☑	
32/3	Name Discovery procedure	[4] 9.2.7	O	☑	

Table 33: Central Connection Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment
33/1	Auto connection establishment procedure	[2] 9.3.5	O	☑	
33/2	General connection establishment procedure	[4] 9.3.6	O	☑	
33/3	Selective connection establishment procedure	[2] 9.3.7	O	☑	
33/4	Direct connection establishment procedure	[2] 9.3.8	M	☑	
33/5	Connection parameter update procedure	[2] 9.3.9	M	☑	
33/6	Terminate connection procedure	[2] 9.3.10	M	☑	

Table 34: Central Bonding Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment
34/1	Non-bondable mode	[4] 9.4.2, 13.2	M	☑	
34/2	Bondable mode	[4] 9.4.3, 13.2	O	☑	
34/3	Bonding procedure	[4] 9.4.4, 13.2	O	☑	

Table 35: Central Security Features

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

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

Table 36: Central Privacy Feature

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

Item	Capability	Reference	Support	Status	Comment
36/1	Privacy feature	[5] 10.7	O	☑	
36/2	Non-resolvable private address generation procedure	[5] 10.7, 10.8.2.1, [6] 1.3.2.2	O	☑	
36/3	Resolvable private address resolution procedure	[5] 10.7, 10.8.2.3, [6] 1.3.2.2	C.1	☑	C.1: Mandatory IF GAP 36/1 "Privacy feature" is supported, otherwise Optional.
36/5	Resolvable private address generation procedure	[5] 10.7, 10.8.2.2, [6] 1.3.2.3	C.1	☑	C.1: Mandatory IF GAP 36/1 "Privacy feature" is supported, otherwise Optional.

Table 37: Central GAP Characteristics

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

Item	Capability	Reference	Support	Status	Comment
37/1	Device Name	[2] 12.1	M	☑	
37/2	Appearance	[2] 12.2	M	☑	
37/3	Central Address Resolution	[5] 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

Table 38: BR/EDR/LE Roles

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

Item	Capability	Reference	Support	Status	Comment

Table 41: Central BR/EDR/LE Security Aspects

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

Item	Capability	Reference	Support	Status	Comment

Table 43: Peripheral BR/EDR/LE Security Aspects

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

Item	Capability	Reference	Support	Status	Comment

Table 44: Central Simultaneous BR/EDR and LE Transports

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

Item	Capability	Reference	Support	Status	Comment

Table 45: Peripheral Simultaneous BR/EDR and LE Transports

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

Item	Capability	Reference	Support	Status	Comment

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	☑	
4/5	Discover All characteristics of a Service	[1] 4.6.1	M	☑	
4/6	Discover Characteristics by UUID	[1] 4.6.2	M	☑	
4/7	Discover All Characteristic Descriptors	[1] 4.7.1	M	☑	
4/8	Read Characteristic Value	[1] 4.8.1	M	☑	
4/9	Read Using Characteristic UUID	[1] 4.8.2	M	☑	
4/10	Read Long Characteristic Values	[1] 4.8.3	C.12	☑	C.12: Mandatory IF ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.

Item	Capability	Reference	Status	Support	Comment
4/11	Read Multiple Characteristic Values	[1] 4.8.4	O	☑	
4/12	Write without Response	[1] 4.9.1	C.2	☑	C.2: Mandatory IF (GATT 4/13 "Signed Write Without Response" OR ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)") is supported, otherwise Optional.
4/13	Signed Write Without Response	[1] 4.9.2	C.6	☑	C.6: Optional IF GATT 1a/3 "GATT Server over LE" is supported, otherwise Excluded.
4/14	Write Characteristic Value	[1] 4.9.3	C.3	☑	C.3: Mandatory IF (GATT 4/15 "Write Long Characteristic Values" OR ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)") is supported, otherwise Optional.
4/15	Write Long Characteristic Values	[1] 4.9.4	C.12	☑	C.12: Mandatory IF ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/16	Characteristic Value Reliable Writes	[1] 4.9.5	O	☑	
4/17	Notifications	[1] 4.10.1	O	☑	
4/18	Indications	[1] 4.11.1	C.1	☑	C.1: Mandatory IF service definitions on the server can be added, changed, or removed, otherwise Optional.
4/19	Read Characteristic Descriptors	[1] 4.12.1	C.12	☑	C.12: Mandatory IF ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/20	Read Long Characteristic Descriptors	[1] 4.12.2	C.12	☑	C.12: Mandatory IF ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/21	Write Characteristic Descriptors	[1] 4.12.3	C.12	☑	C.12: Mandatory IF ATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Optional.
4/22	Write Long Characteristic Descriptors	[1] 4.12.4	O	☑	
4/23	Service Changed Characteristic	[1] 7.1	C.1	☑	C.1: Mandatory IF service definitions on the server can be added, changed, or removed, otherwise Optional.
4/24	Configured Broadcast	[1] 2.7	C.5	☑	C.5: Optional IF GATT 4/14 "Write Characteristic Value" is supported, otherwise Excluded.
4/25	Execute Write Request with empty queue	[1] 4.9.4, 4.9.5, 4.12.4	C.7	☑	C.7: Optional IF (SUMICS 31/17 "Core v4.2" OR SUMICS 31/18 "Core v4.2+HS") AND (GATT 4/15 "Write Long Characteristic Values" OR GATT 4/16 "Characteristic Value Reliable Writes" OR GATT 4/22 "Write Long Characteristic Descriptors") are supported, otherwise Mandatory IF SUMICS 31/17 "Core v4.2" OR SUMICS 31/18 "Core v4.2+HS" is not supported 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

Table 7: Attribute Protocol Transport Security

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

Table 8: Multiple Simultaneous ATT Bearers

Item	Capability	Reference	Support	Status	Comment

Interoperability Test Specification

Table 1: Interoperability Test Specification

Item	Capability	Reference	Support	Status	Comment
1/1	Interoperability	IOP	M	☑	

Table 2: Design Configuration

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

Logical Link Control and Adaption Protocol

Table 0: L2CAP Transport Configuration

Item	Capability	Reference	Support	Status	Comment
0/2	LE	[6] 1.1	C.2	☑	C.2: Mandatory IF SUM ICS 34/1 "Logical Link Control and Adaptation Protocol (L2CAP)" is supported, otherwise Excluded.

Table 1: Roles

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

Table 2: General Operation

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

Table 4: Security Aspects

Item	Capability	Reference	Support	Status	Comment

4/1	Authentication Procedure	[1] 4.23, 4.26	C.1	☑	C.1: Mandatory IF GAP 2/1 "Authentication procedure" OR GAP 25/3 "Authentication procedure" OR GAP 35/3 "Authentication procedure" is supported, otherwise Optional.
4/2	Authorization procedure	[1] 4.23, 4.26	C.2	☑	C.2: Mandatory IF GAP 3/8 "Security mode 2" OR GAP 25/4 "Authorization procedure" OR GAP 35/4 "Authorization procedure" is supported, otherwise Optional.
4/3	Encryption procedure	[1] 4.23, 4.26	C.3	☑	C.3: Mandatory IF GAP 2/5 "Security mode 2" OR GAP 2/6 "Security mode 3" OR GAP 2/7 "Security mode 4" OR GAP 25/6 "Authenticate signed data procedure" OR GAP 25/7 "Authenticated Pairing (LE security mode 1 level 3)" OR GAP 25/9 "LE security mode 1 level 4" OR GAP 35/6 "Authenticate signed data procedure" OR GAP 35/7 "Authenticated Pairing (LE security mode 1 level 3)" OR GAP 35/9 "LE security mode 1 level 4" is supported, otherwise Optional.

Low Energy Link Layer

Table 1: Controller States/Roles

Item	Capability	Reference	Support	Status	Comment
1/1	Advertising State	[1] 4.4.2	C.1	☑	C.1: Mandatory to support at least one of LL 1/1 "Advertising State" OR LL 1/2 "Scanning State" OR LL 1/3 "Initiating State".
1/2	Scanning State	[1] 4.4.3	C.1	☑	C.1: Mandatory to support at least one of LL 1/1 "Advertising State" OR LL 1/2 "Scanning State" OR LL 1/3 "Initiating State".
1/3	Initiating State	[1] 4.4.4	C.1	☑	C.1: Mandatory to support at least one of LL 1/1 "Advertising State" OR LL 1/2 "Scanning State" OR LL 1/3 "Initiating State".
1/4	Peripheral Role	[1] 4.5.5	C.3	☑	C.3: Optional IF LL 1/1 "Advertising State" is supported, otherwise Excluded.
1/5	Central Role	[1] 4.5.4	C.2	☑	C.2: Mandatory IF LL 1/3 "Initiating State" is supported, otherwise Excluded.

Table 2: Device Address 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 2/2 "Random 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 2/2 "Random 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 2/2 "Random 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 LL 2/4 "Generation of private addresses" 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 SUM ICS 21/14 "Core v4.2" 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, otherwise Optional IF GAP 5/3 "Peripheral" is supported, otherwise Optional.
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 Optional.
3/3	Advertising Data	[1] 4.4.2.3, 4.4.2.5, 4.4.2.6	M	☑	
3/4	Connectable Directed Events	[1] 4.4.2.4	O	☑	
3/4a	Low Duty Cycle Direct Advertising	[1] 4.4.2.4	O	☑	
3/5	Scannable Undirected Events	[1] 4.4.2.5	O	☑	
3/6	Sending Scan Responses	[1] 4.4.2.3, 4.4.2.5	C.2	☑	C.2: Mandatory IF GAP 5/3 "Peripheral" is supported, otherwise Optional.
3/7	Accepting Connection Requests	[1] 4.4.2.3, 4.4.2.4	C.2	☑	C.2: Mandatory IF GAP 5/3 "Peripheral" is supported, otherwise Optional.

| 3/8 | Filtering Policies | [1] 4.3.2 | O | ☑ | |

Table 4: Protocol Scanning Features

Prerequisite: LL 1/2 "Scanning State"

Item	Capability	Reference	Support	Status	Comment
4/1	Passive Scanning	[1] 4.4.3.1	C.1	☑	C.1: Mandatory IF GAP 5/2 "Observer" is supported, otherwise 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" is supported AND LL 4/1 "Passive Scanning" is not supported, otherwise Optional IF (GAP 5/4 "Central" is supported AND LL 4/1 "Passive Scanning" is not supported) 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	☑	
4/6	Extended Scanner filter policies	[4] 4.4.3	O	☑	

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	☑	

Table 6: Protocol Peripheral Role Features

Prerequisite: LL 1/4 "Peripheral Role"

Item	Capability	Reference	Support	Status	Comment
6/1	Peripheral 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] 5.1.4.1	M	☑	
6/4a	Requesting Feature Setup	[1] 5.1.4.2	C.18	☑	C.18: Mandatory IF LL 9/5 "Peripheral-initiated Features Exchange" is supported, otherwise Excluded.
6/5	Sending Data (Device supports data output from a Host)	[1] 4.5.1, 4.5.6	M	☑	
6/6	Receiving Data (Device supports data input to a Host)	[1] 4.5.1, 4.5.6	M	☑	
6/7	More Data	[1] 4.5.6	O	☑	
6/10	Accepting Parameter Update	[1] 5.1.1	M	☑	
6/11	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	Peripheral Pause Encryption	[1] 5.1.3	C.17	☑	C.17: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
6/19	Peripheral Version Exchange	[1] 5.1.5	M	☑	
6/20	Peripheral listens to multiple	[1] 4.5.7	O	☑	

					packets per connection event
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.

Table 7: Protocol Central Role Features

Prerequisite: LL 1/5 "Central Role"

Item	Capability	Reference	Support	Status	Comment
7/1	Central 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] 5.1.4.1	M	☑	
7/4a	Responding in Feature Setup	[1] 5.1.4.2	C.18	☑	C.18: Mandatory IF LL 9/5 "Peripheral-initiated Features Exchange" is supported, otherwise Excluded.
7/5	Sending Data (Device supports data output from a Host)	[1] 4.5.1, 4.5.6	M	☑	
7/6	Receiving Data (Device supports data input to a Host)	[1] 4.5.1, 4.5.6	M	☑	
7/7	More Data	[1] 4.5.6	O	☑	
7/10	Requesting Parameter Update	[1] 5.1.1	M	☑	
7/11	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" is supported, 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	Central Pause Encryption	[1] 5.1.3	C.17	☑	C.17: Mandatory IF LL 9/1 "LE Encryption" is supported, otherwise Excluded.
7/20	Central Version Exchange	[1] 5.1.5	M	☑	
7/22	Data Length Update Procedure	[4] 5.1.9	C.4	☑	C.4: Mandatory IF LL 9/6 "LE Data Packet Length Extension" is supported, otherwise Excluded.
7/23a	PHY Update procedure	[5] 5.1.10	C.9	☑	C.9: Excluded IF SUMICS 21/14 "Core v4.2" is supported, otherwise Mandatory IF LL 9/6a "Multiple PHYs" is supported, otherwise Optional.

Table 8: Physical Channels

Item	Capability	Reference	Support	Status	Comment
8/1	Data channels (channel index 0 to 36)	[1] 1.4.1	C.1	☑	C.1: Mandatory IF LL 1/4 "Peripheral Role" OR LL 1/5 "Central 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 "Peripheral Role" OR LL 1/5 "Central Role" is supported, otherwise Excluded.

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: Mandatory IF LL 9/3 "Connection Parameters Request Procedure" OR LL 9/14 "Connection CTE Request" OR LL 9/15 "Connection CTE Response" is supported, otherwise Optional.
9/5	Peripheral-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 2M PHY" OR LL 9/9 "LE Coded PHY" is supported, otherwise Excluded.
9/7	LE 2M PHY	[4] 2.1	C.5	☑	C.5: Excluded IF SUM ICS 21/14 "Core v4.2" is supported, otherwise Optional.
9/8	Asymmetric Connections	[5] 4.6.9.1	C.7	☑	C.7: Optional IF LL 9/6a "Multiple PHYs" is supported, otherwise Excluded.
9/13	LL Privacy	[5] 4.6.7	O	☑	
9/25	Remote Public Key Validation	[6] 4.6.23, [7] 4.6.26	O	☑	

Table 10: Scatternet Capabilities

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

Table 11: Protocol Synchronizing Features

Prerequisite: LL 1/3a "Synchronized State"

Item	Capability	Reference	Support	Status	Comment

Table 11a: Synchronized Receiver Features

Prerequisite: LL 9/34 "Synchronized Receiver"

Item	Capability	Reference	Support	Status	Comment

Table 12: Protocol Isochronous Broadcasting Features

Prerequisite: LL 1/6 "Isochronous Broadcasting State"

Item	Capability	Reference	Support	Status	Comment

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 RFPHY 1/1 "LE Transmitter" OR RFPHY 1/2 "LE Receiver" OR RFPHY 1/3 "LE Transceiver". Note: Selecting both RFPHY 1/1 "LE Transmitter" and RFPHY 1/2 "LE Receiver" is equivalent to selecting RFPHY 1/3 "LE Transceiver" and vice versa.
1/2	LE Receiver	[1] 4	C.1	☑	C.1: Mandatory to support at least one of RFPHY 1/1 "LE Transmitter" OR RFPHY 1/2 "LE Receiver" OR RFPHY 1/3 "LE Transceiver". Note: Selecting both RFPHY 1/1 "LE Transmitter" and RFPHY 1/2 "LE Receiver" is equivalent to selecting RFPHY 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 RFPHY 1/1 "LE Transmitter" OR RFPHY 1/2 "LE Receiver" OR RFPHY 1/3 "LE Transceiver". Note: Selecting both RFPHY 1/1 "LE Transmitter" and RFPHY 1/2 "LE Receiver" is equivalent to selecting RFPHY 1/3 "LE Transceiver" and vice versa.
1/4	LE 2M PHY	[3] 3, 4	C.2	☑	C.2: Excluded IF SUM ICS 21/14 "Core v4.2" is supported, otherwise Optional.

Table 2: Bluetooth LE Test Interface Capabilities

Item	Capability	Reference	Support	Status	Comment
2/1	HCI Test Interface	[2] 2	C.1	☑	C.1: Mandatory to support at least one of RFPHY 2/1 "HCI Test Interface" OR RFPHY 2/2 "UART Test Interface".

Security Manager Protocol

Table 1: Role

Item	Capability	Reference	Support	Status	Comment
1/1	Central Role (Initiator)	[1] 2.4	C.1	☑	C.1: Mandatory IF SM 1/2 "Peripheral Role (Responder)" is not supported, otherwise Optional.

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 SM 2/1 "Authenticated MITM protection" is supported, otherwise Optional.
2/3	No security requirements	[1] 2.3.1	M	☑	
2/4	OOB supported	[1] 2.3.1	O	☑	
2/5	LE Secure Connections	[3] 2.3.1	O	☑	

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
4/1	Just Works	[1] 2.3.5	O	☑	
4/2	Passkey Entry	[1] 2.3.5	C.1	☑	C.1: Mandatory to support at least one of the defined methods IF SM 2/1 "Authenticated MITM protection" is supported, otherwise Excluded.
4/3	Out of Band	[1] 2.3.5	C.1	☑	C.1: Mandatory to support at least one of the defined methods IF SM 2/1 "Authenticated MITM protection" is supported, otherwise Excluded.

Table 5: Security Initiation

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

Table 6: Signing Algorithm

Item	Capability	Reference	Support	Status	Comment
6/1	Signing Algorithm - Generation	[1] 2.4	O	☑	
6/2	Signing Algorithm - Resolving	[1] 2.4	O	☑	

Table 7: Key Distribution

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

Table 8: Cross-Transport Key Derivation

Item	Capability	Reference	Support	Status	Comment