

## Project Details

<b>Project Name</b>	PAN1080 5.3
<b>Product Type</b>	Component (Tested)
<b>TCRL Version:</b>	TCRL 2021-2
<b>Referenced Qualified Design(s)</b>	
<b>Previously Qualified Design Used in this Qualification(s)</b>	
<b>Listing Date</b>	2022-05-25
<b>Receipt Number</b>	D057792

### Product Listing(s)

Name	Website	Category	Publish Date	Model Number	Description
BLE5 SOC		Unique Products	5/25/2022 12:00:00 AM	PAN1080	PAN1080 integrates BLE5 and 2.4GHZ dual-mode wireless SoC transceiver. PAN1080 is suitable for wireless mouse and keyboard, smart home and electronic shelf label, BLE-AOA indoor locating.
PAN1080LB5B	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1080LB5B	PANCHIP Bluetooth LE SOC
PAN1080LA5A	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1080LA5A	PANCHIP Bluetooth LE SOC
PAN1080LB5A	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1080LB5A	PANCHIP Bluetooth LE SOC
PAN1080UA3C	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1080UA3C	PANCHIP Bluetooth LE SOC
PAN1080UB1A	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1080UB1A	PANCHIP Bluetooth LE SOC
PAN1081UB1A	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1081UB1A	PANCHIP Bluetooth LE SOC
PAN1082UA1C	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1082UA1C	PANCHIP Bluetooth LE SOC
PAN1083UA1C	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1083UA1C	PANCHIP Bluetooth LE SOC

Name	Website	Category	Publish Date	Model Number	Description
PAN1070UA1A	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1070UA1A	PANCHIP Bluetooth LE SOC
PAN1070UA1C	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1070UA1C	PANCHIP Bluetooth LE SOC
PAN1070PADA	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1070PADA	PANCHIP Bluetooth LE SOC
PAN1070PADC	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN1070PADC	PANCHIP Bluetooth LE SOC
PAN3730UB5A	www.panchip.com	Unique Products	9/26/2023 12:00:00 AM	PAN3730UB5A	PANCHIP Bluetooth LE SOC
PAN1020BA		Unique Products	1/10/2024 12:00:00 AM	PAN1020BA	PANCHIP Bluetooth LE SOC
PAN1020DX		Unique Products	1/10/2024 12:00:00 AM	PAN1020DX	PANCHIP Bluetooth LE SOC
PAN1020BY		Unique Products	1/10/2024 12:00:00 AM	PAN1020BY	PANCHIP Bluetooth LE SOC
PAN1020BX		Unique Products	1/10/2024 12:00:00 AM	PAN1020BX	PANCHIP Bluetooth LE SOC
PAN1020DY		Unique Products	1/10/2024 12:00:00 AM	PAN1020DY	PANCHIP Bluetooth LE SOC
PAN1020DA		Unique Products	1/10/2024 12:00:00 AM	PAN1020DA	PANCHIP Bluetooth LE SOC
PAN1010S9FA	www.panchip.com	Unique Products	6/12/2024 12:00:00 AM	PAN1010S9FA	PANCHIP Bluetooth LE SOC
PAN1016M9BA	www.panchip.com		10/11/2024 12:00:00 AM	PAN1016M9BA	PANCHIP Bluetooth LE SOC
PAN1016S9FA	www.panchip.com		10/11/2024 12:00:00 AM	PAN1016S9FA	PANCHIP Bluetooth LE SOC
PAN1076UA1A	www.panchip.com		10/11/2024 12:00:00 AM	PAN1076UA1A	PANCHIP Bluetooth LE SOC
PAN1076UA2A	www.panchip.com		10/11/2024 12:00:00 AM	PAN1076UA2A	PANCHIP Bluetooth LE SOC

Name	Website	Category	Publish Date	Model Number	Description
PAN1076UA3A	www.panchip.com		10/11/2024 12:00:00 AM	PAN1076UA3A	PANCHIP Bluetooth LE SOC
PAN1086LA5A	www.panchip.com		10/11/2024 12:00:00 AM	PAN1086LA5A	PANCHIP Bluetooth LE SOC
BLE5 SOC			4/15/2025 12:00:00 AM	PAN1080	PAN1080 integrates BLE5 and 2.4GHz dual-mode wireless SoC transceiver. PAN1080 is suitable for wireless mouse and keyboard, smart home and electronic shelf label, BLE-AOA indoor locating.
PAN2110P0AA	www.panchip.com		4/15/2025 12:00:00 AM	PAN2110P0AA	PANCHIP Bluetooth LE SOC
PAN2110Z0AA	www.panchip.com		4/15/2025 12:00:00 AM	PAN2110Z0AA	PANCHIP Bluetooth LE SOC
PAN2160U0EA	www.panchip.com		4/15/2025 12:00:00 AM	PAN2160U0EA	PANCHIP Bluetooth LE SOC
PAN1070UA2A	www.panchip.com		4/15/2025 12:00:00 AM	PAN1070UA2A	PANCHIP Bluetooth LE SOC
PAN1070UAEC	www.panchip.com		4/15/2025 12:00:00 AM	PAN1070UAEC	PANCHIP Bluetooth LE SOC
PAN1070GAEC	www.panchip.com		4/15/2025 12:00:00 AM	PAN1070GAEC	PANCHIP Bluetooth LE SOC

<b>Member Company</b>	Shanghai Panchip Microelectronics Co., Ltd				
<b>Declaring Member Contact / Listing Contact Person</b>	<b>Name</b>	li zemin			
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	<b>City</b>	shanghai			
	<b>State</b>	shanghai			
	<b>Country</b>	China			
	<b>Postal Code</b>	201210			

## 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 Shanghai Panchip Microelectronics Co., Ltd ("Company") to [Bluetooth Qualification Workspace 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 Qualification Workspace 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 Qualification Workspace Terms of Use](#).

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

**Signature :**

jack zu

## BLUETOOTH QUALIFICATION WORKSPACE TERMS OF USE

Last Updated: November 27, 2024.

These Bluetooth Qualification Workspace Terms of Use ("**Qualification Workspace Terms**") are a supplement to the [Bluetooth SIG Website Terms of Use \("\*\*WTOU\*\*"\)](#) and together the Qualification Workspace Terms and WTOU are a legal agreement (collectively the "**Bluetooth Terms**") between you and the Bluetooth SIG, Inc., a Delaware corporation ("**Bluetooth SIG**") that governs your access to and use of the Bluetooth Qualification Workspace (the "**Qualification Workspace Tool**"). The Qualification Workspace Tool is a Service (as defined in the WTOU) offered by the Bluetooth SIG. Terms used but not defined in these Qualification Workspace Terms have the meanings ascribed to them in the WTOU or the Qualification Program Reference Document ("**QPRD**"). In the event of a conflict between these Qualification Workspace Terms and the WTOU or QPRD, these Qualification Workspace Terms will govern.

PLEASE READ THE BLUETOOTH TERMS CAREFULLY. BY ACCESSING OR USING THE QUALIFICATION WORKSPACE TOOL AND/OR CLICKING TO INDICATE THAT YOU AGREE TO THE QUALIFICATION WORKSPACE 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 YOUR MEMBER COMPANY AGREES 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 QUALIFICATION WORKSPACE TOOL OR CLICK TO INDICATE THAT YOU AGREE TO THESE QUALIFICATION WORKSPACE TERMS.

### 1. MEMBERSHIP ACCOUNT REQUIREMENT.

To access and use the Qualification Workspace Tool, you must have an Account (as defined in the WTOU) issued under the membership account of a current Bluetooth SIG member ("**Your Member Company**") and log into the Qualification Workspace Tool with that Account. You acknowledge and agree that when you access the Qualification Workspace Tool that you are doing so on behalf of Your Member Company and you represent and warrant that you are authorized by Your Member Company to access and use the Qualification Workspace Tool and provide Submissions (defined below) on Your Member Company's behalf.

### 2. BLUETOOTH QUALIFICATION PROCESS.

The "**Bluetooth Qualification Process**" is the process created by the Bluetooth SIG for qualifying Products (as defined in the QPRD). The Qualification Workspace Tool is the Bluetooth SIG tool designed to implement the Bluetooth Qualification Process.

### 3. REPRESENTATIONS AND ACKNOWLEDGEMENTS.

(a) You represent and warrant that you have permission to submit to the Bluetooth SIG all information and materials (including design information, product information, test reports, and test results) that you provide through the Qualification Workspace Tool ("Submissions") and that all Submissions are true, complete, and accurate.

(b) You represent and warrant that you and Your Member Company 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 Qualification Workspace Tool and all Products listed in your Submissions comply with the SIG Member Terms (as defined in the WTOU) and the Bluetooth Specification(s) (as defined in the QPRD) 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 Qualification Workspace Tool will only be Products that, if marketed or distributed, are done so by Your Member Company under a name or trademark that uniquely identifies Your Member Company 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 Your Member Company 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 Your Member Company have been notified by the Bluetooth SIG that it has completed the Bluetooth Qualification Process (i.e., via an email from the Bluetooth SIG expressly stating that the Product has completed the Bluetooth Qualification Process).

### 4. FEES AND PAYMENT TERMS.

(a) The Bluetooth SIG may charge you fees in connection with the Bluetooth Qualification Process, including within the Qualification Workspace Tool and Submissions (e.g., Product Qualification Fees, etc.). The type and amount of fees may change at any time. You agree that Your Member Company will pay all fees required by the Bluetooth SIG in accordance with the instructions provided within the Qualification Workspace Tool. The Bluetooth SIG may accept credit card payments or, if offered within the Qualification Workspace Tool, may permit you to pay fees offline. If you choose to pay offline, you will pay the invoice issued to you by the Bluetooth SIG, according to the terms stated in the invoice. If you provide credit card payment information, you agree that the Bluetooth SIG or its third party payment processor may charge your credit card immediately. You acknowledge that, until the Bluetooth SIG has processed your payment and received the funds: you and Your Member Company will not acquire any of the rights or benefits for those fees. All sales are final and all payments are nonrefundable.

(b) If you receive a discount on any fees based on Your Member Company's level of membership and Your Member Company's membership level changes (e.g., it 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 the 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 Product Qualification Fees and received a discount and you have not used the Product Qualification Fees as of the date of the membership level change, you may not use the Product Qualification Fees unless you pay the difference between the then-current standard fee and the discounted fee previously paid.

(c) When required by the Bluetooth SIG, Your Member Company must pay a Product Qualification Fee prior to completion of the Bluetooth Qualification Process. To confirm payment of the Product Qualification Fee, the Bluetooth SIG will issue a Receipt Number (as defined in the QPRD), which will be associated with your user account. Any Product Qualification Fees you pay are paid by you on behalf of Your Member

Company regardless of the payment method or source of funds and proof of payment is evidenced by the issuance of a Receipt Number. If requested by Your Member Company, the Bluetooth SIG may reassign, without notice to you, prepaid Product Qualification Fees from your user account to another user account under Your Member Company's membership account. When required by the Bluetooth SIG, Your Member Company must provide the Receipt Number in the Submission as proof of payment before completing the Bluetooth Qualification Process. All Product Qualification Fees not used expire 12 months from the date of receipt of payment and corresponding Receipt Numbers will no longer be available for use as proof of payment. No Product Qualification Fees will be refunded. Product Qualification Fees and corresponding Receipt Numbers 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 the Bluetooth SIG will treat your Submissions as confidential, including by not making them available through the searchable database on the Bluetooth SIG's web site until the date that you have selected as the "Product Publication Date" within the Qualification Workspace Tool when you click to submit your Submission. The Bluetooth SIG further agrees that:

(a) the following information will be treated as Member Confidential Information and not included in the searchable database on the Bluetooth SIG's web site until the "Product Publication Date" : Product name, model number, Product Publication Date, and Product description; and

(b) the test declaration and test evidence provided as part of your Submission will be treated as Member Confidential Information for the period of time required under the Bluetooth SIG Confidentiality Policy regardless of the Product Publication 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 the 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 Qualification Workspace Tool ("**Records**") in order to document your compliance with the SIG Member Terms and Bluetooth Specifications. You agree that the 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 the 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. The 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, Your Member Company, any of your Submissions, or any Product fails to comply with the SIG Member Terms or Bluetooth Specifications, in which case Your Member Company will reimburse the Bluetooth SIG for the costs of the audit within 30 days after receiving the Bluetooth SIG's request for reimbursement.

#### **7. ADDITIONAL DISCLAIMERS.**

The Qualification Workspace 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 Qualification Workspace Tool. In addition to the disclaimers in the WTOU, the Bluetooth SIG does not guarantee that Your Content will not be removed, damaged, corrupted, or lost.

#### **8. TERMINATION, WITHDRAWAL, SURVIVAL.**

These Qualification Workspace Terms will terminate upon the termination or withdrawal of Your Member Company's membership in Bluetooth SIG and Sections 3-8 of these Qualification Workspace Terms will survive. Bluetooth SIG reserves the right to withdraw the qualification of any Product if, at any time, Bluetooth SIG determines that the Product or the corresponding Submission did not comply with the Bluetooth Terms, SIG Member Terms, or applicable Bluetooth Specifications at the time that the Submission was approved by Bluetooth SIG.

## Appendix A

# Summary ICS

Table 21: Controller Core Configuration

Item	Capability	Reference	Support	Status	Comment
21/21	Core Specification Version 5.3. Adopted 06 July 2021	Core 5.3	C.1	<input checked="" type="checkbox"/>	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
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Table 31: Host Core Specification

Item	Capability	Reference	Support	Status	Comment
31/22	Core Specification Version 5.3. Adopted 06 July 2021	Core 5.3	C.1	<input checked="" type="checkbox"/>	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
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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
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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
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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	<input checked="" type="checkbox"/>	C.1: Mandatory to support only one Controller Configuration. Optional if 1/2 or 1/3 is Supported.

Table 3: Host Core Configuration

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

## 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 (SUM ICS 12/7 "Bluetooth Low Energy Core Host Configuration" OR SUM ICS 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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
3/17	Read by Group Type Response	[1] ATT, 3.4.4.10	C.6	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
4/2	Exchange MTU Request	[1] ATT, 3.4.2.1	C.18	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
4/5	Find Information Response	[1] ATT, 3.4.3.2	M	<input checked="" type="checkbox"/>	
4/6	Find by Type Value Request	[1] ATT, 3.4.4.3	M	<input checked="" type="checkbox"/>	
4/7	Find by Type Value Response	[1] ATT, 3.4.4.4	M	<input checked="" type="checkbox"/>	
4/8	Read by Type Request	[1] ATT, 3.4.4.1	M	<input checked="" type="checkbox"/>	
4/9	Read by Type Response	[1] ATT, 3.4.4.2	M	<input checked="" type="checkbox"/>	
4/10	Read Request	[1] ATT, 3.4.4.3	M	<input checked="" type="checkbox"/>	
4/11	Read Response	[1] ATT, 3.4.4.4	M	<input checked="" type="checkbox"/>	
4/12	Read Blob Request	[1] ATT, 3.4.4.5	C.6	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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 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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	C.2: Optional IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.

## Device Information Service

Table 0: Service Version

Item	Capability	Reference	Support	Status	Comment
0/1	Device Information Service v1.1	DIS 1.1	M	<input checked="" type="checkbox"/>	

Table 1: Transport Requirements

Item	Capability	Reference	Support	Status	Comment
1/2	Service supported over LE	1.5	C.1	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	
2/2	Manufacturer Name String Characteristic	3.1	O	<input checked="" type="checkbox"/>	
2/3	Model Number String Characteristic	3.2	O	<input checked="" type="checkbox"/>	
2/4	Serial Number String Characteristic	3.3	O	<input checked="" type="checkbox"/>	
2/5	Hardware Revision String Characteristic	3.4	O	<input checked="" type="checkbox"/>	
2/6	Firmware Revision String Characteristic	3.5	O	<input checked="" type="checkbox"/>	
2/7	Software Revision String Characteristic	3.6	O	<input checked="" type="checkbox"/>	
2/11	PnP ID	3.9	O	<input checked="" type="checkbox"/>	

## Generic Access Profile

Table 0: Device Configuration

Item	Capability	Reference	Support	Status	Comment
0/2	LE	[2] 1.1	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF SUM ICS 34/2 "Generic Access Profile (LE)" AND NOT SUM ICS 32/3 "Generic Access Profile (BR/EDR)", 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	[2] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of GAP 5/1 "Broadcaster" OR GAP 5/2 "Observer" OR GAP 5/3 "Peripheral" OR GAP 5/4 "Central".
5/2	Observer	[2] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of GAP 5/1 "Broadcaster" OR GAP 5/2 "Observer" OR GAP 5/3 "Peripheral" OR GAP 5/4 "Central".
5/3	Peripheral	[2] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of GAP 5/1 "Broadcaster" OR GAP 5/2 "Observer" OR GAP 5/3 "Peripheral" OR GAP 5/4 "Central".
5/4	Central	[2] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of GAP 5/1 "Broadcaster" OR GAP 5/2 "Observer" OR GAP 5/3 "Peripheral" OR GAP 5/4 "Central".

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	<input checked="" type="checkbox"/>	
6/2	Receiver	[2] 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 state	[2] 2.2.2, 2.2.2.1	M	<input checked="" type="checkbox"/>	
7/2	Advertising state	[2] 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 and non-scannable undirected event	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
8/2	Scannable undirected event	[2] 2.2.2	O	<input checked="" type="checkbox"/>	
8/3	Non-connectable and non-scannable directed event	[7] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS", otherwise Optional.
8/4	Scannable directed event	[7] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS", otherwise Optional.

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/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] 1.12	O	☑	
8a/12	Public Target Address	[3] 1.13	O	☑	
8a/13	Random Target Address	[3] 1.14	O	☑	
8a/14	Advertising Interval	[3] 1.15	O	☑	
8a/14a	Advertising Interval – Long	[3] 1.15	O	☑	
8a/15	LE Bluetooth Device Address	[3] 1.16	O	☑	
8a/16	LE Role	[3] 1.17	O	☑	
8a/17	Uniform Resource Identifier	[3] 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" AND NOT GAP 11/3 "Non-resolvable private address generation procedure", 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" AND NOT GAP 11/2 "Resolvable private address generation procedure", 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
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Table 11b: Broadcaster Security Aspects Features

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

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

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

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

Table 13: Observer Link Layer States

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

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

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	<input checked="" type="checkbox"/>	
14/2	Active scanning	[2] 2.2.2	O	<input checked="" type="checkbox"/>	

Table 15: Observer Connection Modes and Procedures

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

Item	Capability	Reference	Support	Status	Comment
15/1	Non-connectable mode	[2] 9.3.2	M	<input checked="" type="checkbox"/>	

Table 16: Observer Broadcasting and Observing Features

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

Item	Capability	Reference	Support	Status	Comment
16/1	Observation procedure	[2] 9.1.2	M	<input checked="" type="checkbox"/>	

Table 17: Observer Privacy Feature

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

Item	Capability	Reference	Support	Status	Comment
17/1	Privacy feature	[5] 10.7	O	<input checked="" type="checkbox"/>	
17/2	Non-resolvable private address generation procedure	[5] 10.8.2.1, [6] 1.3.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 17/1 "Privacy feature" AND GAP 14/2 "Active scanning" AND NOT GAP 17/4 "Resolvable private address generation procedure", otherwise Optional.
17/3	Resolvable private address resolution procedure	[5] 10.8.2.3, [6] 1.3.2.2	O	<input checked="" type="checkbox"/>	

17/4	Resolvable private address generation procedure	[5] 10.8.2.2, [6] 1.3.2.3	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF GAP 17/1 "Privacy feature" AND GAP 14/2 "Active scanning" AND NOT GAP 17/2 "Non-resolvable private address generation procedure", otherwise Optional.
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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)") AND NOT (SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS")

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
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18/1	Transmitter	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
18/2	Receiver	[2] 2.2.2	M	<input checked="" type="checkbox"/>	

Table 19: Peripheral Link Layer States

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

Item	Capability	Reference	Support	Status	Comment
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19/1	Standby state	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
19/2	Advertising state	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
19/3	Connection state, Peripheral role	[4] 2.2.2	M	<input checked="" type="checkbox"/>	

Table 20: Peripheral Link Layer Advertising Event Types

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

Item	Capability	Reference	Support	Status	Comment
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20/1	Connectable and scannable undirected event	[4] 2.2.2	M	<input checked="" type="checkbox"/>	
20/2	Connectable directed event	[4] 2.2.2	O	<input checked="" type="checkbox"/>	
20/3	Non-connectable and non-scannable undirected event	[4] 2.2.2, 9.3.2.2, 9.3.11.2	O	<input checked="" type="checkbox"/>	
20/4	Scannable undirected event	[4] 2.2.2, 9.3.4.2	O	<input checked="" type="checkbox"/>	
20/5	Connectable undirected event	[7] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS", otherwise Optional.
20/6	Non-connectable and non-scannable directed event	[7] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS", otherwise Optional.
20/7	Scannable directed event	[7] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS", otherwise Optional.

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
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20A/1	Service UUID	[3] 1.1	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/2	Local Name	[3] 1.2	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/3	Flags	[3] 1.3	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF GAP 22/2 "Limited discoverable mode" OR GAP 22/3 "General discoverable mode", otherwise Optional.
20A/4	Manufacturer Specific Data	[3] 1.4	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/5	TX Power Level	[3] 1.5	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/7	Security Manager TK Value	[3] 1.8	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/8	Peripheral Connection Interval Range	[3] 1.9	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/9	Service Solicitation	[3] 1.10	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/10	Service Data	[3] 1.11	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/11	Appearance	[3] 1.12	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/12	Public Target Address	[3] 1.13	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/13	Random Target Address	[3] 1.14	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/14	Advertising Interval	[3] 1.15	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/14a	Advertising Interval – Long	[3] 1.15	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/15	LE Bluetooth Device Address	[3] 1.16	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/16	LE Role	[3] 1.17	C.1	<input checked="" type="checkbox"/>	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", otherwise Excluded.
20A/17	Uniform Resource Identifier	[3] 1.18	O	<input checked="" type="checkbox"/>	

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	☑	
21/7	LE Ping procedure	[4] 2.2.2	O	☑	
21/8	Peripheral-initiated Feature Exchange procedure	[4] 2.2.2	C.1	☑	C.1: Mandatory IF GAP 21/9 "Connection Parameter Request procedure", otherwise Optional.
21/9	Connection Parameter Request procedure	[4] 2.2.2	O	☑	
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 SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS", 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 NOT GAP 22/2 "Limited discoverable mode", otherwise Optional.

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	☑	
23/3	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", 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", 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", otherwise Excluded.
25/9	LE security mode 1 level 4	[5] 10.3	C.3	☑	C.3: Optional IF SM 2/5 "LE Secure Connections" AND GAP 25/1 "LE security mode 1", otherwise Excluded.
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", 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", 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", 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", 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", 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	<input checked="" type="checkbox"/>	
27/2	Appearance	[2] 12.2	M	<input checked="" type="checkbox"/>	
27/5	Peripheral Preferred Connection Parameters	[2] 12.5	O	<input checked="" type="checkbox"/>	
27/6	Writable Device Name	[2] 12.1	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	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
28/2	Receiver	[2] 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 state	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
29/2	Scanning state	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
29/3	Initiating state	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
29/4	Connection state, Central role	[2] 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	[2] 2.2.2	O	<input checked="" type="checkbox"/>	
30/2	Active scanning	[2] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF NOT GAP 30/1 "Passive scanning", 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	<input checked="" type="checkbox"/>	
31/2	Channel Map Update procedure	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
31/4	Central-initiated Feature Exchange procedure	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
31/5	Version Exchange procedure	[2] 2.2.2	M	<input checked="" type="checkbox"/>	
31/6	Termination procedure	[2] 2.2.2	M	<input checked="" type="checkbox"/>	

31/8	Peripheral-initiated Feature Exchange procedure	[4] 2.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 31/9 "Connection Parameter Request procedure", otherwise Optional.
31/9	Connection Parameter Request procedure	[4] 2.2.2	O	<input checked="" type="checkbox"/>	
31/10	Data Length Update procedure	[8] 2.2.2	O	<input checked="" type="checkbox"/>	
31/11	PHY Update procedure	[8] 2.2.2	C.2	<input checked="" type="checkbox"/>	C.2: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS", 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	<input checked="" type="checkbox"/>	
32/2	General Discovery procedure	[4] 9.2.6	M	<input checked="" type="checkbox"/>	
32/3	Name Discovery procedure	[4] 9.2.7	O	<input checked="" type="checkbox"/>	

**Table 33: Central Connection Modes and Procedures**

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

Item	Capability	Reference	Support	Status	Comment
33/1	Auto connection establishment procedure	[2] 9.3.5	O	<input checked="" type="checkbox"/>	
33/2	General connection establishment procedure	[4] 9.3.6	O	<input checked="" type="checkbox"/>	
33/4	Direct connection establishment procedure	[2] 9.3.8	M	<input checked="" type="checkbox"/>	
33/5	Connection parameter update procedure	[2] 9.3.9	M	<input checked="" type="checkbox"/>	
33/6	Terminate connection procedure	[2] 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 mode	[4] 9.4.2, 13.2	M	<input checked="" type="checkbox"/>	
34/2	Bondable mode	[4] 9.4.3, 13.2	O	<input checked="" type="checkbox"/>	
34/3	Bonding procedure	[4] 9.4.4, 13.2	O	<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
35/1	LE security mode 1	[2] 10.2.1	O	<input checked="" type="checkbox"/>	
35/2	LE security mode 2	[2] 10.2.2	O	<input checked="" type="checkbox"/>	
35/3	Authentication procedure	[2] 10.3	O	<input checked="" type="checkbox"/>	
35/4	Authorization procedure	[2] 10.5	O	<input checked="" type="checkbox"/>	

35/5	Connection data signing procedure	[2] 10.4.1	O	<input checked="" type="checkbox"/>	
35/6	Authenticate signed data procedure	[2] 10.4.3	O	<input checked="" type="checkbox"/>	
35/7	Authenticated Pairing (LE security mode 1 level 3)	[2] 10.3	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF GAP 35/1 "LE security mode 1", otherwise Excluded.
35/8	Unauthenticated Pairing (LE security mode 1 level 2)	[2] 10.3	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF GAP 35/1 "LE security mode 1", otherwise Excluded.
35/9	LE security mode 1 level 4	[5] 10.3	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF SM 2/5 "LE Secure Connections" AND GAP 35/1 "LE security mode 1", otherwise Excluded.
35/10	Secure Connections Only mode	[5] 10.2.4	C.3	<input checked="" type="checkbox"/>	C.3: Optional IF GAP 35/9 "LE security mode 1 level 4", otherwise Excluded.
35/13	Minimum 128 Bit entropy key	[5] 10.3	C.4	<input checked="" type="checkbox"/>	C.4: Mandatory IF GAP 35/9 "LE security mode 1 level 4", otherwise Optional IF GAP 35/11 "Unauthenticated Pairing (LE security mode 1 level 2) with LE Secure Connections Pairing only" 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	<input checked="" type="checkbox"/>	
36/2	Non-resolvable private address generation procedure	[5] 10.7, 10.8.2.1, [6] 1.3.2.2	O	<input checked="" type="checkbox"/>	
36/3	Resolvable private address resolution procedure	[5] 10.7, 10.8.2.3, [6] 1.3.2.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 36/1 "Privacy feature", otherwise Optional.
36/5	Resolvable private address generation procedure	[5] 10.7, 10.8.2.2, [6] 1.3.2.3	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 36/1 "Privacy feature", 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	<input checked="" type="checkbox"/>	
37/2	Appearance	[2] 12.2	M	<input checked="" type="checkbox"/>	

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

Table 2: Attribute Protocol Transport

Item	Capability	Reference	Support	Status	Comment
2/2	Attribute Protocol Supported over LE	[1] 2	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF ATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
2/3	Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)	[3] 2	C.3	<input checked="" type="checkbox"/>	C.3: Excluded IF 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" is supported, otherwise Optional IF at least one of GATT 2/3a "Enhanced ATT bearer supported over LE" OR GATT 2/3b "Enhanced ATT bearer supported over BR/EDR" is supported, otherwise Excluded.

2/3a	Enhanced ATT bearer supported over LE	[3] 3.2.11	C.4	<input checked="" type="checkbox"/>	C.4: Excluded IF GATT 2/2 "Attribute Protocol Supported over LE" is not supported, otherwise Optional IF GATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported.
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**Table 3: Generic Attribute Profile Feature Support, by Client**

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

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



3/19	Read Characteristic Descriptors	[1] 4.12.1	O	☑	
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	☑	
3/25	Client Supported Features Characteristic	[1] 7.2	C.4	☑	C.4: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS" OR SUM ICS 31/19 "Core v5.0" is supported, otherwise Optional.
3/26	Database Hash Characteristic	[1] 7.3	C.4	☑	C.4: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS" OR SUM ICS 31/19 "Core v5.0" is supported, otherwise Optional.

**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	<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.
4/13	Signed Write Without Response	[1] 4.9.2	C.6	<input checked="" type="checkbox"/>	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	<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 Reliable Writes	[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"/>	
4/23	Service Changed Characteristic	[1] 7.1	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF service definitions on the server can be added, changed, or removed, otherwise Optional.
4/25	Execute Write Request with empty queue	[1] 4.9.4, 4.9.5, 4.12.4	C.7	<input checked="" type="checkbox"/>	C.7: Optional IF (SUM ICS 31/17 "Core v4.2" OR SUM ICS 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 SUM ICS 31/17 "Core v4.2" OR SUM ICS 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.
4/26	Client Supported Features Characteristic	[1] 7.2	C.9	<input checked="" type="checkbox"/>	C.9: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS" OR SUM ICS 31/19 "Core v5.0" is supported, otherwise Mandatory IF GATT 4/23 "Service Changed Characteristic" AND GATT 4/27 "Database Hash Characteristic" are supported, otherwise Excluded.

4/27	Database Hash Characteristic	[1] 7.3	C.8	<input checked="" type="checkbox"/>	C.8: Excluded IF SUM ICS 31/17 "Core v4.2" OR SUM ICS 31/18 "Core v4.2+HS" OR SUM ICS 31/19 "Core v5.0" is supported, otherwise Optional.
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Table 6: SDP Interoperability

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

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

Item	Capability	Reference	Support	Status	Comment
7/2	LE Security Mode 1	[2] 10.2.1	C.5	<input checked="" type="checkbox"/>	C.5: Mandatory IF ATT 5/2 "LE Security Mode 1" is supported, 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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	C.2: Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
7/6	LE Authenticate signed data procedure	[2] 10.4.2	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF GATT 2/2 "Attribute Protocol Supported over LE" is supported, otherwise Excluded.
7/7	LE Authorization Procedure	[2] 10.5	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF ATT 5/7 "LE Authorization Procedure" is supported, 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
8/2	Support for multiple simultaneous active ATT bearers from same device – ATT over LE and EATT over LE	[4] 5.5	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF GATT 2/2 "Attribute Protocol Supported over LE" AND GATT 2/3a "Enhanced ATT bearer supported over LE" is supported, otherwise Excluded.
8/8	Support for multiple simultaneous active EATT bearers from same device – EATT over LE	[4] 5.5	C.7	<input checked="" type="checkbox"/>	C.7: Optional IF GATT 2/3 "Enhanced ATT bearer Attribute Protocol Supported (L2CAP fixed EATT PSM supported)" is supported, otherwise Excluded.

## Logical Link Control and Adaptation Protocol

Table 0: L2CAP Transport Configuration

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

Table 1: Role Requirements

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", 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", otherwise Excluded.
1/5	LE Data Channel Initiator	[5] 3.4	C.4	☑	C.4: Optional IF (L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE") AND L2CAP 2/46 "LE Credit Based Flow Control Mode", otherwise Excluded.
1/6	LE Data Channel Acceptor	[5] 3.4	C.5	☑	C.5: Mandatory IF (L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE") AND L2CAP 2/46 "LE Credit Based Flow Control Mode", otherwise Excluded.

Table 2: General Operation

Item	Capability	Reference	Support	Status	Comment
2/40	L2CAP LE Signaling channel	[4] 2.1, 2.2	C.13	☑	C.13: Mandatory IF L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE", otherwise Excluded.
2/41	Command reject	[4] 4.10	C.13	☑	C.13: Mandatory IF L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE", otherwise Excluded.
2/42	Send Connection Parameter Update Request	[4] 4.20	C.14	☑	C.14: Optional IF L2CAP 1/4 "LE Peripheral", otherwise Excluded.
2/43	Send Connection Parameter Update Response	[4] 4.21	C.15	☑	C.15: Mandatory IF L2CAP 1/3 "LE Central", otherwise Excluded.
2/45a	Send Disconnect Request Command – LE	[5] 4.6	C.22	☑	C.22: Optional IF L2CAP 2/40 "L2CAP LE Signaling channel" AND L2CAP 2/46 "LE Credit Based Flow Control Mode", otherwise Excluded.
2/46	LE Credit Based Flow Control Mode	[5] 3.4	C.19	☑	C.19: Optional IF L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE", otherwise Excluded.
2/47	LE Data Channel	[1] 3.4	C.20	☑	C.20: Mandatory IF L2CAP 2/46 "LE Credit Based Flow Control Mode", otherwise Excluded.
2/48	Enhanced Credit Based Flow Control Mode	[7] 3.4	C.23	☑	C.23: Excluded IF 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", otherwise Optional.

Table 3: Configurable Parameters

Item	Capability	Reference	Support	Status	Comment
3/1	RTX timer	[1] 6.2.1	M	☑	
3/12	Minimum MTU size of 23 octets	[4] 5.1	C.6	☑	C.6: Mandatory IF L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE", otherwise Excluded.
3/16	Support Multiple Simultaneous LE Data Channels	[5] 3.4	C.10	☑	C.10: Optional IF L2CAP 2/47 "LE Data Channel", otherwise Excluded.

Table 4: GAP Requirements – Security Aspects (LE)

Item	Capability	Reference	Support	Status	Comment
4/1	Authentication procedure (LE)	[1] 4.23, 4.26	C.1	☑	C.1: Optional IF L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE", otherwise not defined.
4/2	Authorization procedure (LE)	[1] 4.23, 4.26	C.1	☑	C.1: Optional IF L2CAP 0/2 "LE" OR L2CAP 0/3 "BR/EDR/LE", otherwise not defined.
4/3	Encryption procedure	[1] 4.23, 4.26	C.2	☑	C.2: Mandatory IF 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", otherwise Optional.

Table 5: GAP Requirements – Security Aspects (BR/EDR)

Item	Capability	Reference	Support	Status	Comment
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## 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", otherwise Excluded.
1/5	Central Role	[1] 4.5.4	C.2	☑	C.2: Mandatory IF LL 1/3 "Initiating State", 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".
2/6	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", 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", otherwise Mandatory IF LL 9/13 "LL Privacy", otherwise Excluded.

Table 3: Protocol Advertising Features

Prerequisite: LL 1/1 "Advertising State"

Item	Capability	Reference	Support	Status	Comment
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3/1	Non-Connectable and Non-Scannable Undirected Events	[1] 4.4.2.6	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF GAP 5/1 "Broadcaster", otherwise Optional IF GAP 5/3 "Peripheral", otherwise Excluded.
3/2	Connectable and Scannable Undirected Events	[1] 4.4.2.3	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF GAP 5/3 "Peripheral", otherwise Optional.
3/3	Advertising Data	[1] 4.4.2.3, 4.4.2.5, 4.4.2.6	M	<input checked="" type="checkbox"/>	
3/4	Connectable Directed Events	[1] 4.4.2.4	O	<input checked="" type="checkbox"/>	
3/4a	Low Duty Cycle Direct Advertising	[1] 4.4.2.4	O	<input checked="" type="checkbox"/>	
3/5	Scannable Undirected Events	[1] 4.4.2.5	O	<input checked="" type="checkbox"/>	
3/6	Sending Scan Responses	[1] 4.4.2.3, 4.4.2.5	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF GAP 5/3 "Peripheral", otherwise Optional.
3/7	Accepting Connection Requests	[1] 4.4.2.3, 4.4.2.4	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF GAP 5/3 "Peripheral", otherwise Optional.

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	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of LL 4/1 "Passive Scanning" OR LL 4/3 "Active Scanning" IF GAP 5/2 "Observer" OR GAP 5/4 "Central", otherwise Excluded.
4/2	Receiving Advertising Data	[1] 4.4.3.1, 4.4.3.2	M	<input checked="" type="checkbox"/>	
4/3	Active Scanning	[1] 4.4.3.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of LL 4/1 "Passive Scanning" OR LL 4/3 "Active Scanning" IF GAP 5/2 "Observer" OR GAP 5/4 "Central", otherwise Excluded.
4/4	Backoff Procedure	[1] 4.4.3.2	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF LL 4/3 "Active Scanning", otherwise Excluded.
4/5	Filtering Policies	[1] 4.3.3	M	<input checked="" type="checkbox"/>	
4/6	Extended Scanner filter policies	[4] 4.4.3	O	<input checked="" type="checkbox"/>	

Table 5: Protocol Initiating Features

Prerequisite: LL 1/3 "Initiating State"

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

Table 6: Protocol 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	<input checked="" type="checkbox"/>	

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", 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	☑	
6/13	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	☑	
6/19	Peripheral Version Exchange	[1] 5.1.5	M	☑	
6/20	Peripheral listens to multiple packets per connection event	[1] 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", otherwise Excluded.
6/23a	PHY Update procedure	[5] 5.1.10	C.9	☑	C.9: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Mandatory IF LL 9/6a "Multiple PHYs", 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", 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", otherwise Excluded.

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", otherwise Excluded.
7/5	Sending Data (Device supports data output from a Host)	[1] 4.5.1, 4.5.6	M	☑	

7/6	Receiving Data (Device supports data input to a Host)	[1] 4.5.1, 4.5.6	M	☑	
7/7	More Data	[1] 4.5.6	O	☑	
7/10	Requesting Parameter Update	[1] 5.1.1	M	☑	
7/10a	Initiating Connection Parameter Request	[1] 5.1	C.2	☑	C.2: Mandatory IF LL 7/10b "Accepting Connection Parameter Request", otherwise Excluded.
7/10b	Accepting Connection Parameter Request	[1] 5.1	O	☑	
7/11	Requesting Channel Map Update	[1] 5.1.2	M	☑	
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	☑	
7/20	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", otherwise Excluded.
7/23a	PHY Update procedure	[5] 5.1.10	C.9	☑	C.9: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Mandatory IF LL 9/6a "Multiple PHYs", 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", 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", otherwise Excluded.

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", 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", otherwise Excluded.

Table 9: Supported Features

Item	Capability	Reference	Support	Status	Comment
9/3	Connection Parameters Request Procedure	[1] 4.6.2	C.2	☑	C.2: Mandatory IF (LL 6/10a "Initiating Connection Parameter Request" OR LL 7/10b "Accepting Connection Parameter Request"), otherwise Excluded.
9/4	Extended Reject Indication	[1] 4.6.3	C.3	☑	C.3: Mandatory IF LL 9/3 "Connection Parameters Request Procedure" OR LL 9/6a "Multiple PHYs" OR LL 9/14 "Connection CTE Request" OR LL 9/15 "Connection CTE Response" OR LL 9/31 "Connected Isochronous Stream Central" OR LL 9/32 "Connected Isochronous Stream Peripheral" OR LL 9/37 "LE Power Control Request", 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", otherwise Excluded.
9/7	LE 2M PHY	[4] 2.1	C.5	☑	C.5: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Optional.
9/8	Asymmetric Connections	[5] 4.6.9.1	C.7	☑	C.7: Optional IF LL 9/6a "Multiple PHYs", otherwise Excluded.
9/9	LE Coded PHY	[5] 2.2	C.5	☑	C.5: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Optional.
9/10	Channel Selection Algorithm #2	[5] 4.6.14	C.8	☑	C.8: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Mandatory IF (LL 9/41 "Extended Advertising" AND (LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role")) OR LL 9/42 "Periodic Advertising", 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 SUM ICS 21/14 "Core v4.2" OR SUM ICS 21/16 "Core v5.0", otherwise Optional IF (LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role") AND RFPHY 1/11 "2 μs Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise Excluded.
9/15	Connection CTE Response	[7] 4.6.17	C.4	☑	C.4: Excluded IF SUM ICS 21/14 "Core v4.2" OR SUM ICS 21/16 "Core v5.0", otherwise Optional IF (LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role") AND RFPHY 1/8 "Transmitting Constant Tone Extensions", otherwise Excluded.
9/20	2μs Antenna Sampling During Constant Tone Extension Reception (AoD)	[7] 4.6.20	C.16	☑	C.16: Optional IF RFPHY 1/11 "2 μs Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise Excluded.
9/21	2μs Antenna Switching And Sampling During Constant Tone Extension Reception (AoA)	[7] 4.6.21	C.27	☑	C.27: Optional IF LL 9/20 "2 μs Antenna Sampling During Constant Tone Extension Reception (AoD)" AND RFPHY 1/12 "2 μs Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)", otherwise Excluded.
9/23	1μs Antenna Sampling During Constant Tone Extension Reception (AoD)	[7] 4.6.20	C.18	☑	C.18: Optional IF LL 9/20 "2μs Antenna Sampling During Constant Tone Extension Reception (AoD)" AND RFPHY 1/13 "1 μs Antenna Sampling During Constant Tone Extension Reception (AoD)" , otherwise Excluded.
9/24	1μs Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	[7] 4.6.21	C.19	☑	C.19: Optional IF LL 9/21 "2μs Antenna Switching And Sampling During Constant Tone Extension Reception (AoA)" AND RFPHY 1/14 "1 μs Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)", otherwise Excluded.

Table 10: Scatternet Capabilities

Item	Capability	Reference	Support	Status	Comment
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Table 11: Protocol Synchronizing Features

Prerequisite: LL 1/3a "Synchronized State"

Item	Capability	Reference	Support	Status	Comment
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Table 11a: Synchronized Receiver Features

Prerequisite: LL 9/34 "Synchronized Receiver"

Item	Capability	Reference	Support	Status	Comment
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Table 12: Protocol Isochronous Broadcasting Features

Prerequisite: LL 1/6 "Isochronous Broadcasting State"

Item	Capability	Reference	Support	Status	Comment
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## Mesh Protocol

Table 0: Major Versions (X.Y)

Item	Capability	Reference	Support	Status	Comment
0/1	Mesh v1.0	[2]	M	<input checked="" type="checkbox"/>	

Table 0a: Minor Versions (X.Y.Z)

Item	Capability	Reference	Support	Status	Comment
0a/1	Erratum 10395	[5]	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF MESH 0/1 "Mesh v1.0" is supported, otherwise Excluded.
0a/2	Mesh v1.0.1	[2]	C.2	<input checked="" type="checkbox"/>	C.2: Optional IF MESH 0/1 "Mesh v1.0" is supported, otherwise Excluded.
0a/3	Erratum 16350	[6]	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF MESH 0/1 "Mesh v1.0" is supported, otherwise Excluded.

Table 2: Role Requirements

Item	Capability	Reference	Support	Status	Comment
2/1	Node	[2] 2.3.11	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of MESH 2/1 "Node" OR MESH 2/2 "Provisioner".
2/2	Provisioner	[2] 5	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of MESH 2/1 "Node" OR MESH 2/2 "Provisioner".

Table 3: Node Capabilities - Bearers

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
3/1	Advertising Bearer	[2] 3.3.1	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of MESH 3/1 "Advertising Bearer" OR MESH 3/2 "GATT Bearer".
3/2	GATT Bearer	[2] 3.3.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of MESH 3/1 "Advertising Bearer" OR MESH 3/2 "GATT Bearer".

Table 4: Node Capabilities - Provisioning

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
4/1	PB-ADV	[2] 5.2.1	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF MESH 3/1 "Advertising Bearer" is supported, otherwise Excluded.
4/2	PB-GATT	[2] 5.2.2, 6.7	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory to support at least one of MESH 4/2 "PB-GATT" OR MESH 12/5 "Proxy Client" IF MESH 3/2 "GATT Bearer" is supported, otherwise Excluded.

4/3	Device UUID	[2] 3.10.3	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/4	Sending Unprovisioned Device Beacon	[2] 3.9.2	C.4	<input checked="" type="checkbox"/>	C.4: Mandatory IF MESH 4/1 "PB-ADV" is supported, otherwise Excluded.
4/5	Generic Provisioning Layer	[2] 5.3	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/6	Provisioning Protocol (Provisioning Server)	[2] 5.4	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/7	Provisioning: Public Key OOB	[2] 5.4.1.2	C.5	<input checked="" type="checkbox"/>	C.5: Mandatory to support at least one of MESH 4/7 "Provisioning: Public Key OOB" OR MESH 4/8 "Provisioning: Public Key No OOB" IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/8	Provisioning: Public Key No OOB	[2] 5.4.1.2	C.5	<input checked="" type="checkbox"/>	C.5: Mandatory to support at least one of MESH 4/7 "Provisioning: Public Key OOB" OR MESH 4/8 "Provisioning: Public Key No OOB" IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/9	Provisioning: Authentication Output OOB	[2] 5.4.1.2	C.6	<input checked="" type="checkbox"/>	C.6: Optional IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/10	Provisioning: Authentication Input OOB	[2] 5.4.1.2	C.6	<input checked="" type="checkbox"/>	C.6: Optional IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/11	Provisioning: Authentication Static OOB	[2] 5.4.1.2	C.6	<input checked="" type="checkbox"/>	C.6: Optional IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/12	Provisioning: Authentication No OOB	[2] 5.4.1.2	C.3	<input checked="" type="checkbox"/>	C.3: Mandatory IF MESH 4/1 "PB-ADV" OR MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
4/13	Provisioning algorithm: ECDH_P256 + CMAC_AES128 + CCM_AES128	[2] 5.4.1.2, 5.4.2.4.1	M	<input checked="" type="checkbox"/>	

Table 5: Node Capabilities – Network Layer

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
5/1	Transmitting and Receiving Secured Network Layer Messages	[2] 3.4.6.2, 3.4.6.3	M	<input checked="" type="checkbox"/>	
5/2	Relay Feature	[2] 3.4.6.1	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF MESH 3/1 "Advertising Bearer" is supported, otherwise Excluded.
5/3	Network Message Cache	[2] 3.4.6.4	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory IF MESH 5/2 "Relay Feature" is supported, otherwise Excluded.
5/4	Multiple Subnet Support	[2] 2.2.1	O	<input checked="" type="checkbox"/>	

Table 6: Node Capabilities – Lower Transport Layer

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
6/1	Transmitting and Receiving a Lower Transport PDU	[2] 3.5.4.1, 3.5.4.2	M	<input checked="" type="checkbox"/>	
6/2	Segmentation and Reassembly Behavior	[2] 3.5.3.3, 3.5.3.4	M	<input checked="" type="checkbox"/>	

6/3	Friend Cache	[2] 3.5.5	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF MESH 7/3 "Friend Feature" is supported, otherwise Excluded.
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Table 7: Node Capabilities – Upper Transport Layer

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
7/1	Transmitting a Secured Access Payload	[2] 3.6.4.1	M	<input checked="" type="checkbox"/>	
7/2	Receiving a Secured Upper Transport PDU	[2] 3.6.4.2	M	<input checked="" type="checkbox"/>	
7/3	Friend Feature	[2] 3.6.6.3	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF MESH 3/1 "Advertising Bearer" is supported, otherwise Excluded.
7/4	Low Power Feature	[2] 3.6.6.4	C.1	<input checked="" type="checkbox"/>	C.1: Optional IF MESH 3/1 "Advertising Bearer" is supported, otherwise Excluded.
7/5	Heartbeat	[2] 3.6.7	M	<input checked="" type="checkbox"/>	

Table 8: Node Capabilities – Access Layer

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
8/1	Transmitting and Receiving an Access Layer Message	[2] 3.7.4.1	M	<input checked="" type="checkbox"/>	

Table 9: Node Capabilities – Security

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
9/1	Message Replay Protection	[2] 3.8.7	M	<input checked="" type="checkbox"/>	

Table 10: Node Capabilities – Mesh Management

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
10/1	Secure Network Beacon	[2] 3.9.3	M	<input checked="" type="checkbox"/>	
10/2	Key Refresh Procedure	[2] 3.10.4	M	<input checked="" type="checkbox"/>	
10/3	IV Update Procedure	[2] 3.10.5	M	<input checked="" type="checkbox"/>	
10/4	IV Index Recovery Procedure	[2] 3.10.6	M	<input checked="" type="checkbox"/>	

Table 11: Node Capabilities – Foundation Mesh Models

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
11/1	Configuration Server Model	[2] 4.4.1	M	<input checked="" type="checkbox"/>	
11/2	Health Server Model	[2] 4.4.3	M	<input checked="" type="checkbox"/>	
11/3	Configuration Client Model	[2] 4.4.2	O	<input checked="" type="checkbox"/>	
11/4	Health Client Model	[2] 4.4.4	O	<input checked="" type="checkbox"/>	

Table 12: Node Capabilities – Proxy

Prerequisite: MESH 3/2 "GATT Bearer"

Item	Capability	Reference	Support	Status	Comment
12/1	Proxy Server	[2] 6.2, 6.6	C.1	☑	C.1: Optional IF MESH 3/1 "Advertising Bearer" is supported, otherwise Excluded.
12/2	Generic Attribute Profile (GATT) Server	[2] 3.3.2	C.2	☑	C.2: Mandatory IF MESH 12/1 "Proxy Server" OR MESH 4/2 "PB-GATT" is supported, otherwise not defined.
12/3	Advertising with Network ID	[2] 7.2.2.2.2	C.2	☑	C.2: Mandatory IF MESH 12/1 "Proxy Server" OR MESH 4/2 "PB-GATT" is supported, otherwise not defined.
12/4	Advertising with Node Identity	[2] 7.2.2.2.3	C.2	☑	C.2: Mandatory IF MESH 12/1 "Proxy Server" OR MESH 4/2 "PB-GATT" is supported, otherwise not defined.

Table 13: Mesh GATT Services

Prerequisite: MESH 12/2 "Generic Attribute Profile (GATT) Server"

Item	Capability	Reference	Support	Status	Comment
13/1	Mesh Provisioning Service	[2] 7.1	C.1	☑	C.1: Mandatory IF MESH 4/2 "PB-GATT" is supported, otherwise Excluded.
13/2	Mesh Proxy Service	[2] 7.2	C.2	☑	C.2: Mandatory IF MESH 12/1 "Proxy Server" is supported, otherwise Excluded.

Table 14: GATT Server Requirements

Prerequisite: MESH 12/2 "Generic Attribute Profile (GATT) Server"

Item	Capability	Reference	Support	Status	Comment
14/1	Discover All Primary Services	[2] 3.3.2	M	☑	
14/2	Discover Primary Services by Service UUID	[2] 3.3.2	M	☑	
14/3	Write without Response	[2] 3.3.2	M	☑	
14/4	Notifications	[2] 3.3.2	M	☑	
14/5	Write Characteristic Descriptors	[2] 3.3.2	M	☑	

Table 15: GATT Client Requirements

Prerequisite: MESH 12/6 "Generic Attribute Profile (GATT) Client"

Item	Capability	Reference	Support	Status	Comment
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Table 16: GAP Requirements

Prerequisite: MESH 2/1 "Node"

Item	Capability	Reference	Support	Status	Comment
16/1	Broadcaster	[2] 3.3.1	C.1	☑	C.1: Mandatory IF MESH 3/1 "Advertising Bearer" is supported, otherwise not defined.
16/2	Observer	[2] 3.3.1	C.1	☑	C.1: Mandatory IF MESH 3/1 "Advertising Bearer" is supported, otherwise not defined.
16/3	Peripheral	[2] 3.3.2, 7.1.1, 7.2.1, 7.2.2.2.1	C.2	☑	C.2: Mandatory IF MESH 12/1 "Proxy Server" OR MESH 4/2 "PB-GATT" is supported, otherwise not defined.
16/4	Authorization procedure (Peripheral)	[2] 2.2.3	C.2	☑	C.2: Mandatory IF MESH 12/1 "Proxy Server" OR MESH 4/2 "PB-GATT" is supported, otherwise not defined.

Table 17: Provisioner – Bearers

Prerequisite: MESH 2/2 "Provisioner"

Item	Capability	Reference	Support	Status	Comment
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17/1	Advertising Bearer	[2] 3.3.1	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of MESH 17/1 "Advertising Bearer" OR MESH 17/2 "GATT Bearer".
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Table 18: Provisioner – Provisioning

Prerequisite: MESH 2/2 "Provisioner"

Item	Capability	Reference	Support	Status	Comment
18/1	Receiving Unprovisioned Device Beacon	[2] 3.9.2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF MESH 17/1 "Advertising Bearer" is supported, otherwise Excluded.
18/2	PB-ADV	[2] 5.2.1	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF MESH 17/1 "Advertising Bearer" is supported, otherwise Excluded.
18/3	Generic Provisioning Layer	[2] 5.3	M	<input checked="" type="checkbox"/>	
18/4	Provisioning Protocol (Provisioning Client)	[2] 5.4	M	<input checked="" type="checkbox"/>	
18/7	Provisioning: Public Key OOB	[2] 5.4.1.2	M	<input checked="" type="checkbox"/>	
18/8	Provisioning: Public Key No OOB	[2] 5.4.1.2	M	<input checked="" type="checkbox"/>	
18/9	Provisioning: Authentication Output OOB	[2] 5.4.1.2	M	<input checked="" type="checkbox"/>	
18/10	Provisioning: Authentication Input OOB	[2] 5.4.1.2	M	<input checked="" type="checkbox"/>	
18/11	Provisioning: Authentication Static or No OOB	[2] 5.4.1.2, 5.4.3	M	<input checked="" type="checkbox"/>	
18/12	Provisioning algorithm: ECDH_P256 + CMAC_AES128 + CCM_AES128	[2] 5.4.2.4.1	M	<input checked="" type="checkbox"/>	

Table 19: Provisioner – Mesh Management

Prerequisite: MESH 2/2 "Provisioner"

Item	Capability	Reference	Support	Status	Comment
19/1	Receiving Secure Network Beacon	[2] 3.9.3	M	<input checked="" type="checkbox"/>	

Table 20: GATT Client Requirements

Prerequisite: MESH 18/6 "Generic Attribute Profile (GATT) Client"

Item	Capability	Reference	Support	Status	Comment
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Table 21: GAP Requirements

Prerequisite: MESH 2/2 "Provisioner"

Item	Capability	Reference	Support	Status	Comment
21/1	Broadcaster	[2] 3.3.1	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF MESH 17/1 "Advertising Bearer" is supported, otherwise not defined.
21/2	Observer	[2] 3.3.1	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory IF MESH 17/1 "Advertising Bearer" is supported, otherwise not defined.

## LE Radio Physical Layer

Table 1: Bluetooth LE RF Capabilities

Item	Capability	Reference	Support	Status	Comment
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1/3	LE Transceiver	[1] 3, 4	C.1	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	C.2: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Optional.
1/5	Stable Modulation Index - Transmitter	[3] 3.1.1	C.3	<input checked="" type="checkbox"/>	C.3: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Optional IF RFPHY 1/1 "LE Transmitter" OR RFPHY 1/3 "LE Transceiver", otherwise Excluded.
1/6	Stable Modulation Index - Receiver	[3] 3.1.1	C.4	<input checked="" type="checkbox"/>	C.4: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Optional IF RFPHY 1/2 "LE Receiver" OR RFPHY 1/3 "LE Transceiver", otherwise Excluded.
1/7	LE Coded PHY	[3] 3, 4	C.2	<input checked="" type="checkbox"/>	C.2: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Optional.
1/8	Transmitting Constant Tone Extensions	[4] 5	C.3	<input checked="" type="checkbox"/>	C.3: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Optional IF RFPHY 1/1 "LE Transmitter" OR RFPHY 1/3 "LE Transceiver", otherwise Excluded.
1/9	2 $\mu$ s Antenna Switching During Constant Tone Extension Transmission (AoD)	[4] 5	C.5	<input checked="" type="checkbox"/>	C.5: Optional IF RFPHY 1/8 "Transmitting Constant Tone Extensions", otherwise Excluded.
1/10	1 $\mu$ s Antenna Switching During Constant Tone Extension Transmission (AoD)	[4] 5	C.6	<input checked="" type="checkbox"/>	C.6: Optional IF RFPHY 1/9 "2 $\mu$ s Antenna Switching During Constant Tone Extension Transmission (AoD)", otherwise Excluded.
1/11	2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)	[4] 5	C.4	<input checked="" type="checkbox"/>	C.4: Excluded IF SUM ICS 21/14 "Core v4.2", otherwise Optional IF RFPHY 1/2 "LE Receiver" OR RFPHY 1/3 "LE Transceiver", otherwise Excluded.
1/12	2 $\mu$ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	[4] 5	C.7	<input checked="" type="checkbox"/>	C.7: Optional IF RFPHY 1/11 "2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise Excluded.
1/13	1 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)	[4] 5	C.7	<input checked="" type="checkbox"/>	C.7: Optional IF RFPHY 1/11 "2 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise Excluded.
1/14	1 $\mu$ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	[4] 5	C.8	<input checked="" type="checkbox"/>	C.8: Mandatory IF RFPHY 1/12 "2 $\mu$ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)" AND RFPHY 1/13 "1 $\mu$ s Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise Excluded.

Table 2: Bluetooth LE Test Interface Capabilities

Item	Capability	Reference	Support	Status	Comment
2/1	HCI Test Interface	[2] 2	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support at least one of RFPHY 2/1 "HCI Test Interface" OR RFPHY 2/2 "UART Test Interface".

## Security Manager

Table 1: Role Requirements

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

Table 2: Security Properties

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

Table 3: Encryption Key Size

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

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

Table 4: Pairing Method

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

Table 5: Security Initiation

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

Table 6: Signing Algorithm

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

Table 7: Key Distribution

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

Table 8: Cross-Transport Key Derivation

Item	Capability	Reference	Support	Status	Comment
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