



## Project Details

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<b>Project Name</b>	BlueZ Host Subsystem Qualification												
<b>Product Type</b>	Host Subsystem												
<b>TCRL Version:</b>	TCRL 2017-1												
<b>Referenced Qualified Design(s)</b>													
<b>Previously Qualified Design Used in this Qualification(s)</b>													
<b>Listing Date</b>	2017-11-08												
<b>Declaration ID</b>	D037483												
<b>Product Listing(s)</b>	<table><thead><tr><th>Name</th><th>Website</th><th>Category</th><th>Publish Date</th><th>Model Number</th><th>Description</th></tr></thead><tbody><tr><td>Digi BlueZ library</td><td>www.digi.com</td><td>Unique Products</td><td>11/8/2017 12:00:00 AM</td><td>BlueZ5</td><td>Bluetooth Host library, used in Digi's products</td></tr></tbody></table>	Name	Website	Category	Publish Date	Model Number	Description	Digi BlueZ library	www.digi.com	Unique Products	11/8/2017 12:00:00 AM	BlueZ5	Bluetooth Host library, used in Digi's products
Name	Website	Category	Publish Date	Model Number	Description								
Digi BlueZ library	www.digi.com	Unique Products	11/8/2017 12:00:00 AM	BlueZ5	Bluetooth Host library, used in Digi's products								
<b>Member Company</b>	Digi International Inc (R)												
<b>Declaring Member Contact / Listing Contact Person</b>	<table><tr><td><b>Name</b></td><td>Guillermo Olague</td></tr><tr><td><b>Address</b></td><td>C/. Milicias, 13</td></tr><tr><td><b>City</b></td><td>Logrono</td></tr><tr><td><b>State</b></td><td>La Rioja</td></tr><tr><td><b>Country</b></td><td>Spain</td></tr><tr><td><b>Postal Code</b></td><td>26003</td></tr></table>	<b>Name</b>	Guillermo Olague	<b>Address</b>	C/. Milicias, 13	<b>City</b>	Logrono	<b>State</b>	La Rioja	<b>Country</b>	Spain	<b>Postal Code</b>	26003
<b>Name</b>	Guillermo Olague												
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## 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 Digi International Inc (R) ("Company") to [Bluetooth Launch Studio Terms of Use](#), and I make the following representations and warranties personally and on behalf of Company. The following representations and warranties, together with all project information and the [Bluetooth Launch Studio Terms of Use](#), are the Supplier Declaration of Conformity and Declaration of Compliance described in the [Program Reference Document \(PRD\)](#) and [Declaration Process Document \(DPD\)](#).

- I am authorized by Company to submit all of the information included in this project and all information is complete and accurate.
- Company does not, by its governing documents or other applicable law, require more than one signatory, a stamp or seal, or a witnessed signature to be legally bound.
- I agree on behalf of Company to contract in English and electronically, and adopt the characters and symbols input in the signature field below as my signature, with the same effect as an ink signature.
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- The product(s) included in this project and the corresponding Qualified Designs comply with the [Bluetooth Launch Studio Terms of Use](#).

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

**Signature:**

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

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Effective Date: November 10th, 2017.

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

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

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

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

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- (b) You represent and warrant that you and Member will comply with the SIG Member Terms (as defined in the WTOU).
- (c) You represent and warrant that all Submissions that you make through the Launch Studio Tool and all Products listed in your Submissions comply with the SIG Member Terms (as defined in the WTOU) and the Bluetooth Specification(s) referenced in your Submission.

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

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

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

## **6. RECORD KEEPING AND AUDIT.**

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

## **7. ADDITIONAL DISCLAIMERS.**

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

## Appendix A

### Summary ICS

Table 21: Controller Configuration Specification Version

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 24: BR/EDR Controller Electrical Interfaces

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

Item	Capability	System Spec Reference	Support	Status	Comment
31/17	Core Spec Version 4.2, Adopted 02 December 2014	Core 4.2 (see 16 in published SUMICS)	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory to support only one Host Core Specification Version.

Table 33: Core Host Electrical Interfaces

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 34: LE Host Specification Parts

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

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

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

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

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

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

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 52: Low Energy Host Core Specification

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

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

Table 22: EDR Features

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

Item	Capability	System Spec Reference	Support	Status	Comment
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### Product Type

Table 1: Product Types

Item	Capability	System Spec Reference	Support	Status	Comment
1/4	Host Subsystem	N/A	C.1	☑	C.1: Mandatory to support one and only one Product Type.

**Table 2: Controller Core Configuration**

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

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 3: Host Core Configuration**

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

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

## Service Discovery Protocol

**Table 1: Support Different Size Capabilities on UUID**

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Support for 128 bit UUID	SDP, 2.7.1	M	☑	
1/2	Support for 32 bit UUID	SDP, 2.7.1	M	☑	
1/3	Support for 16 bit UUID	SDP, 2.7.1	M	☑	

**Table 1b: Roles**

Item	Capability	System Spec Reference	Support	Status	Comment
1b/1	Support for server role	SDP, 2.1	C.1	☑	C.1: Mandatory to support at least one of the defined roles.
1b/2	Support for client role	SDP, 2.1	C.1	☑	C.1: Mandatory to support at least one of the defined roles.

**Table 2: Valid Service Search Request**

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	Support for respond on search of single Service, using ServiceSearchRequest.	SDP, 4.5	C.2	☑	C.2: Mandatory if 1b/1 is supported.
2/3	Search for services using the continuation state.	SDP, 4.3	C.1	☑	C.1: Mandatory if 1b/2 is supported.

**Table 3: Invalid Service Search Request**

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Support for error response on Service search request.	SDP, 4.4	M	☑	

**Table 4: Valid Service Attribute Request**

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	Support for respond on search of Attribute(s)	SDP, 4.6	M	☑	
4/2	Support for respond on search of Attribute, using continuation state.	SDP, 4.6	O	☑	
4/3	Support for respond on search on attribute AdditionalProtocolDescriptorList	SDP, 4.5, 5.1.6	O	☑	

**Table 5: Invalid Service Attribute Request**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 6: Valid Service Search Attribute Request**

Item	Capability	System Spec Reference	Support	Status	Comment
6/1	Support for respond on search for Service(s) and Attribute(s)	SDP, 4.7	M	☑	
6/2	Support for respond on search of Attribute, using continuation state.	SDP, 4.7	O	☑	
6/3	Support for respond on search on attribute AdditionalProtocolDescriptorList on existing service	SDP, 4.7, 5.1.6	O	☑	

**Table 7: Invalid Service Search Attribute Request**

Item	Capability	System Spec Reference	Support	Status	Comment
7/1	Support for error response on Service and Attribute request.	SDP, 4.4	M	☑	

**Table 8: Service Browsing**

Item	Capability	System Spec Reference	Support	Status	Comment
8/1	Support for browsing, using SDP_ServiceSearchRequest and SDP_ServiceAttributeRequest	SDP, 4.5 SDP, 4.6 SDP, 2.8	O	☑	
8/2	Support for browsing, using SDP_ServiceSearchAttributeRequest	SDP, 4.7 SDP, 2.8	O	☑	

**Table 9: Attributes Present in IUT**

Item	Capability	System Spec Reference	Support	Status	Comment
9/2	ProtocolDescriptorList	SDP, 5.1.5	O	☑	
9/5	BrowseGroupList	SDP, 5.1.7	O	☑	
9/8	IconURL	SDP, 5.1.14	O	☑	
9/14	BluetoothProfileDescriptorList	SDP, 5.1.11	O	☑	
9/15	DocumentationURL	SDP, 5.1.12	O	☑	
9/16	ClientExecutableURL	SDP, 5.1.13	O	☑	
9/18	ServiceRecordHandle	SDP, 5.1.1	M	☑	
9/19	ServiceClassIDList	SDP, 5.1.2	M	☑	

## Generic Access Profile

### Generic Access Profile

**Table 0: Device Configuration**

Item	Capability	System Spec Reference	Support	Status	Comment
0/3	BR/EDR/LE	[3] or [7] 1.1	C.3	☑	C.3: Mandatory if (PROD 3/4 or 3/5) is Supported, otherwise excluded.

**Table 0a: Version Configuration**

Item	Capability	System Spec Reference	Support	Status	Comment
0a/4	Core Spec version 4.2 (Core v4.2), Adopted 02 December 2014	[8] Core v4.2	C.4	☑	C.4: Mandatory if SUMICS 31/17 or 31/18 (Core Spec 4.2 or 4.2+HS) is supported, otherwise Excluded.

**Table 1: Modes**

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Non-discoverable mode	[1] or [2] or [3] or [7] 4.1.1	C.1	☑	C.1: Mandatory if 1/2 is supported, otherwise Optional.



1/2	Limited-discoverable mode	[1] or [2] or [3] or [7] 4.1.2	O	☑	
1/3	General-discoverable mode	[1] or [2] or [3] or [7] 4.1.3	O	☑	
1/4	Non-connectable mode	[1] or [2] or [3] or [7] 4.2.1	O	☑	
1/5	Connectable mode	[1] or [2] or [3] or [7] 4.2.2	M	☑	
1/6	Non-bondable mode	[1] or [2] or [3] or [7] 4.3.1	O	☑	
1/7	Bondable mode	[1] or [2] or [3] or [7] 4.3.2	C.2	☑	C.2: Mandatory if 3/5 is supported, otherwise Optional.

**Table 2: Security Aspects**

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	Authentication procedure	[1] or [2] or [3] or [7] 5.1	C.1	☑	C.1: Mandatory if (2/5 or 2/6) is supported, otherwise Optional.
2/2	Support of LMP-Authentication	[1] or [2] or [3] or [7] 5.1	M	☑	
2/3	Initiate LMP-Authentication	[1] or [2] or [3] or [7] 5.1	C.5	☑	C.5: Mandatory if (2/5 or 2/6 or 2/7) is supported, otherwise Optional.
2/5	Security mode 2	[1] or [2] or [3] or [7] 5.2.1.2	O	☑	
2/7	Security mode 4	[2] or [3] or [7] 5.2.2	C.4	☑	C.4: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
2/8	Support of Authenticated link key	[2] or [3] or [7] 5.2.2	C.6	☑	C.6: If 2/7 is supported then at least one of (2/8 or 2/9 or 2/10) is Mandatory, otherwise Excluded.
2/9	Support of Unauthenticated link key	[2] or [3] or [7] 5.2.2	C.6	☑	C.6: If 2/7 is supported then at least one of (2/8 or 2/9 or 2/10) is Mandatory, otherwise Excluded.
2/10	Security Optional	[2] or [3] or [7] 5.2.2	C.6	☑	C.6: If 2/7 is supported then at least one of (2/8 or 2/9 or 2/10) is Mandatory, otherwise Excluded.

**Table 3: Idle Mode Procedures**

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Initiation of general inquiry	[1] or [2] or [3] or [7] 6.1	C.1	☑	C.1: Mandatory to support at least one of GAP 3/1 (Initiation of general inquiry) or GAP 3/2 (Initiation of limited inquiry) if GAP 3/5 (Initiation of general bonding) is supported, otherwise Optional.
3/2	Initiation of limited inquiry	[1] or [2] or [3] or [7] 6.2	C.1	☑	C.1: Mandatory to support at least one of GAP 3/1 (Initiation of general inquiry) or GAP 3/2 (Initiation of limited inquiry) if GAP 3/5 (Initiation of general bonding) is supported, otherwise Optional.
3/3	Initiation of name discovery	[1] or [2] or [3] or [7] 6.3	O	☑	
3/4	Initiation of device discovery	[1] or [2] or [3] or [7] 6.4	O	☑	
3/5	Initiation of general bonding	[1] or [2] or [3] or [7] 6.5	O	☑	
3/6	Initiation of dedicated bonding	[1] or [2] or [3] or [7] 6.5	O	☑	

**Table 4: Establishment Procedures**

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	Support link establishment as initiator	[1] or [2] or [3] or [7] 7.1	M	☑	
4/2	Support link establishment as acceptor	[1] or [2] or [3] or [7] 7.1	M	☑	
4/3	Support channel establishment as initiator	[1] or [2] or [3] or [7] 7.2	O	☑	
4/4	Support channel establishment as acceptor	[1] or [2] or [3] or [7] 7.2	M	☑	
4/5	Support connection establishment as initiator	[1] or [2] or [3] or [7] 7.3	O	☑	
4/6	Support connection establishment as acceptor	[1] or [2] or [3] or [7] 7.3	O	☑	

**Table 5: LE Roles**

Prerequisite: GAP 0/2

Item	Capability	System Spec Reference	Support	Status	Comment
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#### Table 6: Broadcaster Physical Layer

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
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#### Table 7: Broadcaster Link Layer States

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
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#### Table 8: Broadcaster Link Layer Advertising Event Types

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
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#### Table 8a: Broadcaster Link Layer Advertising Data Types

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
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#### Table 9: Broadcaster Connection Modes and Procedures

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
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#### Table 10: Broadcaster Broadcasting and Observing Features

Prerequisite: GAP 38/1 or GAP 5/1

Item	Capability	System Spec Reference	Support	Status	Comment
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#### Table 11: Broadcaster Privacy Feature

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

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

Prerequisite: GAP 38/2 or GAP 5/2

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

#### Table 13: Observer Link Layer States

Prerequisite: GAP 38/2 or GAP 5/2

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

#### Table 14: Observer Link Layer Scanning Types

Prerequisite: GAP 38/2 or GAP 5/2

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

**Table 15: Observer Connection Modes and Procedures**

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment
15/1	Non-Connectable Modes	[3] or [7] 9.3.2	M	☑	

**Table 16: Observer Broadcasting and Observing Features**

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment
16/1	Observation Procedure	[3] or [7] 9.1.2	M	☑	

**Table 17: Observer Privacy Feature**

Prerequisite: GAP 38/2 or GAP 5/2

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 17a: Periodic Advertising Modes and Procedures**

Prerequisite: GAP 38/2 or GAP 5/2

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

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
18/1	Transmitter	[3] or [7] 2.2.2	M	☑	
18/2	Receiver	[3] 2.2.2	M	☑	

**Table 19: Peripheral Link Layer States**

Prerequisite: GAP 38/3 or GAP 5/3

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

**Table 20: Peripheral Link Layer Advertising Event Types**

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
20/1	Connectable and Scannable Undirected Event	[3] 2.2.2, 13.1.1.2 [7] 2.2.2	C.1	☑	C.1: Mandatory IF (SUMICS 31/14 (Core Spec v4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported; Mandatory IF ((SUMICS 31/10 (Core Spec 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role))) is supported, otherwise Excluded.
20/3	Non-Connectable and Non-Scannable Undirected Event	[3] 2.2.2, 9.2.2.2, 9.3.1, 9.3.2 [7] 2.2.2	O	☑	
20/4	Scannable Undirected Event	[3] 2.2.2, 9.2.2.2, 9.3.1, 9.3.2 [7] 2.2.2	O	☑	

**Table 20A: Peripheral Link Layer Advertising Data Types**

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
20A/3	AD Type – Flags	[3] 11.1.3 [4] 1.3	C.2	☑	C.2: Mandatory if 22/2 (Limited Discoverable Mode) or 22/3 (General Discoverable Mode) is supported, otherwise Optional.
20A/5	AD Type – TX Power Level	[3] 11.1.5 [4] 1.5	C.1	☑	C.1: Optional if (20/1 or 20/3 or 20/4) is supported, otherwise Excluded.

**Table 21: Peripheral Link Layer Control Procedures**

Prerequisite: GAP 38/3 or GAP 5/3

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

**Table 22: Peripheral Discovery Modes and Procedures**

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
22/1	Non-Discoverable Mode	[3] 9.2.2, 13.1.1.1 [7] 9.2.2, 13.1	C.1	☑	C.1: Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND (5/3 (LE Roles – Peripheral role) OR 42/1 (BR/EDR/LE – Non-Discoverable Mode))) is supported; Mandatory IF (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.
22/2	Limited Discoverable Mode	[3] 9.2.3, 13.1.1.2 [7] 9.2.3, 13.1	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 1/2 (BR/EDR/LE – Limited Discoverable Mode)) is supported; Optional IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
22/3	General Discoverable Mode	[3] 9.2.4, 13.1.1.2 [7] 9.2.4, 13.1	C.3	☑	C.3: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND 1/3 (BR/EDR/LE – General Discoverable Mode)) is supported; Mandatory IF (5/3 (LE Roles – Peripheral role) AND (NOT 22/2 (Limited Discoverable Mode))) is supported; Optional IF (5/3 (LE Roles – Peripheral role) AND 22/2 (Limited Discoverable Mode)) is supported; (cont.) C.3: Mandatory IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role) AND (NOT 22/2 (Limited Discoverable Mode))) is supported; (cont.2) C.3: Optional IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role) AND 22/2 (Limited Discoverable Mode)) is supported, otherwise Excluded.
22/4	Name Discovery Procedure	[3] or [7] 9.2.7	C.4	☑	C.4: Optional IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS)) AND 5/3 (LE Roles – Peripheral Role)) is supported; Optional IF (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.

**Table 23: Peripheral Connection Modes and Procedures**

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
23/1	Non-Connectable Mode	[3] 9.3.2, 13.1.2.1 [7] 9.3.2	M	☑	
23/2	Directed Connectable Mode	[3] 9.3.3, 13.1.2.2 [7] 9.3.3	C.1	☑	C.1: Optional IF (5/3 (LE Roles – Peripheral Role) OR ((31/14 (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role))) is supported, otherwise Excluded.
23/3	Undirected Connectable Mode	[3] 9.3.4, 13.1.2.2 [7] 9.3.4	C.2	☑	C.2: Mandatory IF (5/3 (LE Roles – Peripheral Role) OR ((31/14 (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role))) is supported, otherwise Excluded.
23/4	Connection Parameter Update Procedure	[3] 9.3.9, 13.1.2.1 [7] 9.3.9	C.1	☑	C.1: Optional IF (5/3 (LE Roles – Peripheral Role) OR ((31/14 (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role))) is supported, otherwise Excluded.
23/5	Terminate Connection Procedure	[3] 9.3.10, 13.1.2.1 [7] 9.3.10	C.2	☑	C.2: Mandatory IF (5/3 (LE Roles – Peripheral Role) OR ((31/14 (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role))) is supported, otherwise Excluded.

**Table 24: Peripheral Bonding Modes and Procedures**

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
24/1	Non-Bondable Mode	[3], 9.4.2	M	☑	
24/2	Bondable Mode	[3] 9.4.3, 13.1.4.2 [7] 9.4.3, 13.2	C.1	☑	C.1: Optional IF 5/3 (LE Only – Peripheral role) is supported; Optional IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role) AND (NOT 26/1a (Privacy Feature 1.1))) is supported; Mandatory IF (26/1a (Privacy Feature v1.1)) is supported otherwise Excluded.

**Table 25: Peripheral Security Aspects Features**

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
25/1	Security Mode 1	[3] 10.2.1, 13.1.2.2, [7] 10.2.1	C.2	☑	C.2: Optional IF 5/3 (LE Roles – Peripheral Role) is supported; Optional IF ((SUMICS 31/14 (Core Spec Version 4.1) OR (SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) AND 38/3 (BR/EDR/LE Roles – Peripheral Role)) is supported, otherwise Excluded.
25/7	Authenticated Pairing (LE security mode 1 level 3)	[3] 10.3, 13.1.2.2 [7] 10.3	C.1	☑	C.1: Optional if 25/1 is supported, otherwise Excluded.

**Table 26: Peripheral Privacy Feature**

Prerequisite: GAP 38/3 or GAP 5/3

Item	Capability	System Spec Reference	Support	Status	Comment
26/1	Privacy Feature	[3], 10.7	O	☑	
26/3	Resolvable Private Address Generation Procedure	[3] or [7] 10.7, 10.8.2.2 [9] 1.3.2.2	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS) OR GAP 0a/3 (Core Spec version 4.1) OR GAP 0a/4 (Core Spec version 4.2)) AND 26/1 (Privacy Feature)) is supported; Optional IF (GAP 0a/3 (Core Spec version 4.1) OR GAP 0a/4 (Core Spec version 4.2)) is supported, otherwise Excluded.
26/4	Resolvable Private Address Resolution	[3] or [7] 10.7, 10.8.2.3	C.3	☑	C.3: Mandatory IF (GAP 0a/3 (Core Spec version 4.1) OR GAP 0a/4 (Core Spec version 4.2)) AND 26/1 (Privacy Feature) is supported; Optional IF (GAP 0a/3 (Core Spec version 4.1) OR GAP 0a/4 (Core Spec version 4.2)) is supported, otherwise Excluded.

**Table 27: Peripheral GAP Characteristics**

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

**Table 28: Central Physical Layer**

Prerequisite: GAP 38/4 or GAP 5/4

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

**Table 29: Central Link Layer States**

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
29/1	Standby	[3] or [7] 2.2.2	M	☑	
29/2	Scanning	[3] or [7] 2.2.2	M	☑	
29/3	Initiating	[3] or [7] 2.2.2	M	☑	
29/4	Connection, Master Role	[3] or [7] 2.2.2	M	☑	

**Table 30: Central Link Layer Scanning Types**

Prerequisite: GAP 38/4 or GAP 5/4

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

**Table 31: Central Link Layer Control Procedures**

Prerequisite: GAP 38/4 or GAP 5/4

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

**Table 32: Central Discovery Modes and Procedures**

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
32/1	Limited Discovery Procedure	[3] 9.2.5, 13.2 [7] 9.2.5	C.2	☑	C.2: Optional IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 40+HS)) AND (5/4 (LE Only – Central role) OR 40/2 (BR/EDR/LE – Limited Discovery))) is supported, Optional IF (SUM ICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.
32/2	General Discovery Procedure	[3] 9.2.6, 13.2 [7] 9.2.6	C.1	☑	C.1: Mandatory IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 40+HS)) AND (5/4 (LE Only – Central role) OR 40/1 (BR/EDR/LE – General Discovery))) is supported; Mandatory IF (SUM ICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.
32/3	Name Discovery Procedure	[3] 9.2.7, 13.2 [7] 9.2.7	C.3	☑	C.3: Optional IF ((SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 40+HS)) AND (5/4 (LE Only – Central role) OR 40/4 (BR/EDR/LE – Name Discovery))) is supported, otherwise Optional IF (SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded .

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

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
33/1	Auto Connection Establishment Procedure	[3] or [7] 9.3.5	C.3	☑	C.3: Optional IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment))) is supported; Optional IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
33/2	General Connection Establishment	[3] 9.3.6, 13.3.1 [7] 9.3.6	C.1	☑	(1 of 3) C.1: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment)) AND 36/1 (Privacy Feature v1.0)) is supported; (2 of 3) C.1: Optional IF ((SUMICS 31/10 “Core Spec Version 4.0” OR SUMICS 31/10a “Core Spec Version 4.0+HS”) AND (5/4 “LE Only – Central role” OR 40/5 “BR/EDR/LE – Link Establishment” AND (NOT 36/1 “Privacy Feature”))) is supported; (3 of 3) C.1: Optional IF ((SUMICS 31/14 “Core Spec Version 4.1” OR SUMICS 31/15 “Core Spec Version 4.1+HS” OR (SUMICS 31/16 “Core Spec Version 4.2” OR SUMICS 31/17 “Core Spec Version 4.2+HS” OR SUMICS 31/18 “Core Spec version 5.0”)) is supported, otherwise Excluded.
33/3	Selective Connection Establishment	[3] or [7] 9.3.7	C.3	☑	C.3: Optional IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment))) is supported; Optional IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
33/4	Direct Connection Establishment	[3] or [7] 9.3.8	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment))) is supported; Mandatory IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
33/5	Connection Parameter Update Procedure	[3] or [7] 9.3.9	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment))) is supported; Mandatory IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
33/6	Terminate Connection Procedure	[3] or [7] 9.3.10	C.2	☑	C.2: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 40/5 (BR/EDR/LE – Link Establishment))) is supported; Mandatory IF (Core Spec 4.1 or later) is supported, otherwise Excluded.

**Table 34: Central Bonding Modes and Procedures**

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
34/1	Non-Bondable Mode	[3] 9.4.2, 13.1.3 [7] 9.4.2, 13.2	C.1	☑	C.1: Mandatory IF ((SUMICS 31/10 (4.0) OR SUMICS 31/11 (4.0+HS)) AND (5/4 (LE Only – Central role) OR 39/5 (BR/EDR/LE – Non-Bondable Mode))) is supported; Mandatory IF (Core Spec 4.1 or later) is supported, otherwise Excluded.
34/2	Bondable Mode	[3] 9.4.3, 13.1.3 [7] 9.4.3, 13.2	C.2	☑	C.2: Optional IF ((SUMICS 31/10 “Core Spec Version 4.0” OR SUMICS 31/10a “Core Spec Version 4.0+HS”) AND (5/4 “LE Only – Central role” OR 39/6 “BR/EDR/LE – Bondable Mode”)) is supported; Optional IF (SUMICS 31/14 “Core Spec Version 4.1” OR SUMICS 31/15 “Core Spec Version 4.1+HS” OR SUMICS 31/16 “Core Spec Version 4.2” OR SUMICS 31/17 “Core Spec Version 4.2+HS” OR SUMICS 31/18 “Core Spec version 5.0”) is supported, otherwise Excluded.

**Table 35: Central Security Features**

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
35/1	Security Mode 1	[3] or [7] 10.2.1	O	☑	
35/7	Authenticated Pairing (LE security mode 1 level 3)	[3] or [7] 10.3	C.1	☑	C.1: Optional if 35/1 is supported, otherwise Excluded.

**Table 36: Central Privacy Feature**

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
36/1	Privacy Feature	[7] 10.7	O	☑	
36/3	Resolvable Private Address Resolution	[3] or [7] 10.7, 10.8.2.3 [9] 1.3.2.2	C.2	☑	C.2: Mandatory IF (SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS) OR GAP 0a/3 (Core Spec version 4.1) OR GAP 0a/4 (Core Spec version 4.2)) AND 36/1 (Privacy Feature) is supported; Optional IF (GAP 0a/3 (Core Spec version 4.1) OR GAP 0a/4 (Core Spec version 4.2)) is supported, otherwise Excluded.



Procedure					
36/5	Resolvable Private Address Generation Procedure	[3] or [7] 10.7, 10.8.2.3 [5] 10.7 [9] 1.3.2.3	C.4	<input checked="" type="checkbox"/>	C.4: Mandatory IF (SUMICS 31/10 (Core Spec Version 4.0) OR SUMICS 31/10a (Core Spec Version 4.0+HS) AND 0a/1 (CSA3)) AND (36/1 (Privacy Feature) AND 14/2 (Active Scanning) AND NOT 36/2 (Non-Resolvable Private Address Generation Procedure)) is supported; C.4: (cont.) Mandatory IF (GAP 0a/3 (Core Spec version 4.1) OR GAP 0a/4 (Core Spec version 4.2)) AND 36/1 (Privacy Feature) is supported; Optional IF (GAP 0a/3 (Core Spec version 4.1) OR GAP 0a/4 (Core Spec version 4.2)) is supported, otherwise Excluded.

**Table 37: Central GAP Characteristics**

Prerequisite: GAP 38/4 or GAP 5/4

Item	Capability	System Spec Reference	Support	Status	Comment
37/1	Device Name	[3] or [7] 12.1	M	<input checked="" type="checkbox"/>	
37/2	Appearance	[3] or [7] 12.2	M	<input checked="" type="checkbox"/>	

**Table 38: BR/EDR/LE Roles**

Prerequisite: GAP 0/3

Item	Capability	System Spec Reference	Support	Status	Comment
38/2	Observer	[3] or [7] 13	C.1	<input checked="" type="checkbox"/>	C.1: It is mandatory to support at least one of the defined roles.
38/3	Peripheral	[3] or [7] 13	C.1	<input checked="" type="checkbox"/>	C.1: It is mandatory to support at least one of the defined roles.
38/4	Central	[3] or [7] 13	C.1	<input checked="" type="checkbox"/>	C.1: It is mandatory to support at least one of the defined roles.

**Table 39: Central BR/EDR/LE Modes**

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

Prerequisite: GAP 38/4

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

Item	Capability	System Spec Reference	Support	Status	Comment
41/1	Security Aspects	[3] 14	M	<input checked="" type="checkbox"/>	

**Table 42: Peripheral BR/EDR/LE Modes**

Prerequisite: GAP 38/3

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

Item	Capability	System Spec Reference	Support	Status	Comment
43/1	Security Aspects	[3] or [7] 14	M	<input checked="" type="checkbox"/>	

**Table 44: Central Simultaneous BR/EDR and LE Transports**

Prerequisite: GAP 38/4

Item	Capability	System Spec Reference	Support	Status	Comment
44/1	Simultaneous BR/EDR and LE Transports – BR/EDR Slave to the same device	[3] or [7] 13.1.1	C.1	<input checked="" type="checkbox"/>	C.1 Optional IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.
44/2	Simultaneous BR/EDR and LE Transports – BR/EDR Master to the same device	[3] or [7] 13.1.1	C.1	<input checked="" type="checkbox"/>	C.1 Optional IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.

**Table 45: Peripheral Simultaneous BR/EDR and LE Transports**



Prerequisite: GAP 38/3

Item	Capability	System Spec Reference	Support	Status	Comment
45/1	Simultaneous BR/EDR and LE Transports – BR/EDR Slave to the same device	[3] or [7] 13.1.1	C.1	☑	C.1: Optional IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.
45/2	Simultaneous BR/EDR and LE Transports – BR/EDR Master to the same device	[3] or [7] 13.1.1	C.1	☑	C.1: Optional IF ((SUMICS 31/14 (Core Spec Version 4.1) OR SUMICS 31/15 (Core Spec Version 4.1+HS) OR SUMICS 31/16 (Core Spec Version 4.2) OR SUMICS 31/17 (Core Spec Version 4.2+HS)) is supported, otherwise Excluded.

## Logical Link Control and Adaption Protocol

Table 2: General Operation

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	Support of L2CAP signalling channel	[1] 2.2	C.20	☑	C.20: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
2/2	Support of configuration process	[1] 7.1	C.20	☑	C.20: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
2/3	Support of connection oriented data channel	[1] 2.2	C.20	☑	C.20: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
2/4	Support of command echo request	[1] 4.8	C.21	☑	C.21: Optional if (0/1 or 0/3) is supported, otherwise Excluded.
2/5	Support of command echo response	[1] 4.9	C.20	☑	C.20: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
2/6	Support of command information request	[1] 4.10	C.21	☑	C.21: Optional if (0/1 or 0/3) is supported, otherwise Excluded.
2/7	Support of command information response	[1] 4.11	C.20	☑	C.20: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
2/9	Support of packet for connectionless channel	[1] 3.2	C.21	☑	C.21: Optional if (0/1 or 0/3) is supported, otherwise Excluded.
2/12	Enhanced Retransmission Mode	[2] 8.6	C.1/C.12	☑	C.1: Mandatory to support at least one of (2/12 or 2/13 or 2/35) if (0/1 or 0/3) and (CSA 1 or Core Spec 3.0 or 3.0+HS or 4.0 or 4.0+HS) are supported, otherwise Optional. C.12: Mandatory IF SUMICS 31/9 "3.0+HS" OR SUMICS 31/10a "4.0+HS" OR SUMICS 31/15 "4.1+HS" OR SUMICS 31/17 "4.2+HS" is supported, otherwise Optional.
2/13	Streaming Mode	[2] 8.7	C.1/C.14	☑	C.1: Mandatory to support at least one of (2/12 or 2/13 or 2/35) if (0/1 or 0/3) and (CSA 1 or Core Spec 3.0 or 3.0+HS or 4.0 or 4.0+HS) are supported, otherwise Optional. C.14: Optional if (Core Spec 3.0 or later) is supported, otherwise Excluded.
2/14	FCS Option	[2] 5.5	C.2	☑	C.2: Optional if (2/12 or 2/13) is supported, otherwise Excluded.
2/17	Send Selective Reject	[2] 8.6.1.3	C.3	☑	C.3: Optional if 2/12 and 2/28 are supported, otherwise Excluded.
2/18	Mandatory use of ERTM	[2] 8.6	C.4	☑	C.4: If 2/12 is supported then at least one of (2/18 or 2/20) is Mandatory, otherwise Excluded.
2/19	Mandatory use of Streaming Mode	[2] 8.7	C.5	☑	C.5: If 2/13 is supported then at least one of (2/19 or 2/21) is Mandatory, otherwise Excluded.
2/20	Optional use of ERTM	[2] 8.6	C.4	☑	C.4: If 2/12 is supported then at least one of (2/18 or 2/20) is Mandatory, otherwise Excluded.
2/21	Optional use of Streaming Mode	[2] 8.7	C.5	☑	C.5: If 2/13 is supported then at least one of (2/19 or 2/21) is Mandatory, otherwise Excluded.
2/22	Send data using SAR in ERTM	[2] 3.3.2	C.6	☑	C.6: Optional if 2/12 is supported, otherwise Excluded.
2/23	Send data using SAR in Streaming Mode	[2] 3.3.2	C.7	☑	C.7: Optional if 2/13 is supported, otherwise Excluded.
2/24	Actively request Basic Mode for a PSM that supports the use of ERTM or Streaming Mode	[2] 5.4	C.8	☑	C.8: Optional if (2/12 or 2/13) is supported, otherwise Excluded.
2/25	Supports performing L2CAP channel mode configuration fallback from SM to ERTM	[2] 5.4	C.9	☑	C.9: Mandatory if (2/12 and 2/13 and 2/21) are supported, otherwise Excluded.

2/26	Supports sending more than one unacknowledged I-Frame when operating in ERTM	[2] 8.6.5	C.10	☑	C.10: Optional if 2/12 is supported, otherwise Excluded.
2/27	Supports sending more than three unacknowledged I-Frame when operating in ERTM	[2] 8.6.5	C.10	☑	C.10: Optional if 2/12 is supported, otherwise Excluded.
2/28	Supports configuring the peer TxWindow greater than 1.	[2] 5.4	C.11	☑	C.11: Optional if 2/12 is supported, otherwise Excluded.
2/30	Fixed Channel Support	[3] 2.1	C.12	☑	C.12: Mandatory IF SUMICS 31/9 "3.0+HS" OR SUMICS 31/10a "4.0+HS" OR SUMICS 31/15 "4.1+HS" OR SUMICS 31/17 "4.2+HS" is supported, otherwise Optional.
2/31	AMP Manager Support	[3] 2.1	C.12	☑	C.12: Mandatory IF SUMICS 31/9 "3.0+HS" OR SUMICS 31/10a "4.0+HS" OR SUMICS 31/15 "4.1+HS" OR SUMICS 31/17 "4.2+HS" is supported, otherwise Optional.
2/35	Unicast Connectionless Data, Reception	[3] 3.3, 7.6	C.1/C.16	☑	C.1: Mandatory to support at least one of (2/12 or 2/13 or 2/35) if (0/1 or 0/3) and (CSA 1 or Core Spec 3.0 or 3.0+HS or 4.0 or 4.0+HS) are supported, otherwise Optional. C.16: Optional if (Core Spec 3.0 or later) is supported, otherwise Excluded.
2/36	Ability to transmit an unencrypted packet over a unicast connectionless L2CAP channel	[3] 7.6	C.16	☑	C.16: Optional if (Core Spec 3.0 or later) is supported, otherwise Excluded.
2/37	Ability to transmit an encrypted packet over a unicast connectionless L2CAP channel.	[3] 7.6, [6] GAP, 5.2.2	C.16	☑	C.16: Optional if (Core Spec 3.0 or later) is supported, otherwise Excluded.
2/40	Support of Low Energy signaling channel	[4] 2.1, 2.2	C.17	☑	C.17: Mandatory (0/2 OR 0/3) is supported, otherwise Excluded.
2/41	Support of command reject	[4] 4.10	C.17	☑	C.17: Mandatory (0/2 OR 0/3) is supported, otherwise Excluded.
2/42	Send Connection Parameter Update Request	[4] 4.20	C.18	☑	C.18: Optional if (Core Spec 4.0) and 1/4 is supported, otherwise Excluded.
2/43	Send Connection Parameter Update Response	[4] 4.21	C.19	☑	C.19 : Mandatory if (Core Spec 4.0) and 1/3 is supported, otherwise Excluded.
2/45	Send Disconnect Request Command	[1] 4.6	C.25	☑	C.25: Optional IF L2CAP 2/1 "L2CAP signaling channel" is supported, otherwise Excluded.

**Table 3: Configurable Parameters**

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Support of RTX timer	[1] 6.2.1	M	☑	
3/2	Support of ERTX timer	[1] 6.2.2	C.4	☑	C.4: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
3/3	Support minimum MTU size 48 octets	[1] 5.1	C.4	☑	C.4: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
3/4	Support MTU size larger than 48 octets	[1] 5.1	C.5	☑	C.5: Optional if (0/1 or 0/3) is supported, otherwise Excluded.
3/5	Support of flush timeout value for reliable channel	[1] 5.2	C.4	☑	C.4: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
3/12	Support minimum MTU size 23 octets	[4] 5.1	C.6	☑	C.6: Mandatory if (0/2 or 0/3) is supported, otherwise Excluded.

**Table 0: L2CAP Transport Configuration**

Item	Capability	System Spec Reference	Support	Status	Comment
0/3	BR/EDR/Bluetooth low energy	[2] 1.1	C.3	☑	C.3 Mandatory if (PROD 1/1 or 1/4) and (PROD 3/4 or 3/5) are Supported (End Product or Host Subsystem with BR/LE or BR/HS/LE Host CC), otherwise excluded. Optional for PROD 1/2 or 1/3 (Components).

**Table 1: Roles**

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Data Channel Initiator	[1] 2	C.3	☑	C.3: Optional if (L2CAP 0/1 OR L2CAP 0/3) is claimed, ELSE Excluded.
1/2	Data Channel Acceptor	[1] 2	C.1	☑	C.1: Mandatory if (0/1 or 0/3) is supported, otherwise Excluded.
1/3	LE Master	[4] 2	C.2	☑	C.2: Mandatory to support at least one of (1/3 or 1/4) if (0/2 OR 0/3) is supported, otherwise Excluded.
1/4	LE Slave	[4] 2	C.2	☑	C.2: Mandatory to support at least one of (1/3 or 1/4) if (0/2 OR 0/3) is supported, otherwise Excluded.

**Serial Port Profile**

**Table 0: Profile Version**

Item	Capability	System Spec Reference	Support	Status	Comment
0/2	SPP v1.2	SPP v1.2	C.1	☑	C.1: Mandatory to support only one Profile version.

**Table 1: Device Role**

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Device A (DevA)	SPP, 2.2	C.1	☑	
1/2	Device B (DevB)	SPP, 2.2	O.1	☑	O.1: Mandatory to support at least One of the defined roles.

**Table 2: Support of Serial Profile Service**

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	Support of Serial Profile Service	SPP, 1.2	C.1	☑	C.1: Mandatory for devices that support Serial Profile for serial cable emulation as a Bluetooth service. Irrelevant for devices that support Serial Profile for usage by another application profile e.g. FAX, DUN, HFP

**Table 3: Application procedures**

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Establish link and set up virtual serial connection	SPP, 3.1	C.1	☑	C.1: Mandatory for DeviceA, Irrelevant for DeviceB
3/2	Accept link and virtual serial connection establishment	SPP, 3.1	C.2	☑	C.2: Mandatory for DeviceB, Irrelevant for DeviceA
3/3	Register Service record for application in local SDP database	SPP, 3.1	C.2	☑	C.2: Mandatory for DeviceB, Irrelevant for DeviceA
3/4	No release in Sniff mode. Sniff mode enabled in the Link Manager	SPP, 3.2	O	☑	
3/5	No release in Hold mode. Hold mode enabled in the Link Manager	SPP, 3.2	O	☑	
3/7	No release after Master/Slave switch. MS switch enabled in the Link Manager	SPP, 2.4	O	☑	

**Table 4: Service Prot Profile Record Content (SerialPort UUID)**

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	SerialPort service class (UUID16: 0x1101)	SPP, 6.1	C.1	☑	C.1: Mandatory for role B, if capability Support of Serial Profile Service (SPP, 2/1) supported. Irrelevant for Role A
4/2	Protocol0, L2CAP	SPP, 6.1	C.1	☑	C.1: Mandatory for role B, if capability Support of Serial Profile Service (SPP, 2/1)

					supported. Irrelevant for Role A
4/3	Protocol1, RFCOMM	SPP, 6.1	C.1	☑	C.1: Mandatory for role B, if capability Support of Serial Profile Service (SPP, 2/1) supported. Irrelevant for Role A
4/4	Server Channel number	SPP, 6.1	C.1	☑	C.1: Mandatory for role B, if capability Support of Serial Profile Service (SPP, 2/1) supported. Irrelevant for Role A
4/6	BluetoothProfileDescriptorList	SPP 6.1	C.3	☑	C.3: Mandatory to support if 2/1 (Support of Serial Profile Service) AND 0/2 (SPP v1.2) are supported, otherwise Optional.

**Table 5: Encryption**

Item	Capability	System Spec Reference	Support	Status	Comment
5/2	Accept Encryption Request	SPP 2.4	M	☑	
5/3	Point to Point Encryption	SPP 7.1	M	☑	
5/4	Stop Encryption	SPP 7.1	M	☑	

## RFCOMM

**Table 0: Protocol Version**

Item	Capability	System Spec Reference	Support	Status	Comment
0/2	RFCOMM 1.2 with TS 07.10	RFCOMM 1.2	C.1	☑	C.1: Mandatory to support one and only one of the protocol versions.

**Table 1: RFCOMM**

Item	Capability	System Spec Reference	Support	Status	Comment
1/1	Initialize RFCOMM session	5.2.1	C.2	☑	C.2: Mandatory if SPP 1/1 (Device A) is supported, otherwise Excluded.
1/2	Respond to initialisation of an RFCOMM session	5.2.1	C.1	☑	C.1: Mandatory if SPP 1/2 (Device B) is supported, otherwise Excluded.
1/3	Shutdown RFCOMM session	5.2.2	M	☑	
1/4	Respond to a shutdown for an RFCOMM session	5.2.2	M	☑	
1/5	Establish DLC	5.2.1	C.2	☑	C.2: Mandatory if SPP 1/1 (Device A) is supported, otherwise Excluded.
1/6	Respond to establishment of a DLC	5.2.1	C.1	☑	C.1: Mandatory if SPP 1/2 (Device B) is supported, otherwise Excluded.
1/7	Disconnect DLC	5.2	M	☑	
1/8	Respond to disconnection of a DLC	5.2	M	☑	
1/9	Respond to and send MSC command	2.2	M	☑	
1/10	Initiate Transfer Information	5.1	M	☑	
1/11	Respond to Test command	4.3	M	☑	
1/13	React to aggregate flow control	6.3	M	☑	
1/14	Respond to RLS command	5.5.2	M	☑	
1/16	Respond to PN command	5.5.3	M	☑	
1/17	Send PN command	5.5.3	C.3	☑	C.3: Mandatory if SPP 1/1 (Device A) is supported, otherwise Optional.
1/18	Send NSC command	4.3	C.4	☑	C.4: Mandatory to support if 0/2 (RFCOMM 1.2) is supported, otherwise Optional.
1/19	Respond to RPN command	5.5.1	M	☑	
1/21	Closing multiplexer by first sending a DISC command	5.2.2	O	☑	
1/22	Support of Credit Based Flow Control	6.5	M	☑	

# Host Controller Interface

## Host Controller Interface

Table 1: Generic Events

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 1a: Roles

Item	Capability	System Spec Reference	Support	Status	Comment
1a/2	Host	2.0	O.1	<input checked="" type="checkbox"/>	O.1: It is mandatory to support at least one of the defined roles.

Table 2: Device Setup

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 3: Controller Flow Control

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 4: Controller Information

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 5: Controller Configuration

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 6: Device Discovery

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 7: Connection Setup

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 8: Remote Information

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 9: Synchronous Connections

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 10: Connection State

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 11: Piconet Structure

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 12: Quality of Service

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 13: Physical Links

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 14: Host Flow Control

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 15: Link Information

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 16: Authentication and Encryption

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 17: Testing

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 18: Connectionless Slave Broadcast

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 19: Alignment with External Timing Source

Item	Capability	System Spec Reference	Support	Status	Comment
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## 4.0 Host Controller Interface

Table 1: Generic Events

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 1a: Roles

Item	Capability	System Spec Reference	Support	Status	Comment
1a/2	Host	1	C.1	<input checked="" type="checkbox"/>	C.1: It is mandatory to support at least one of the defined roles.

Table 2: Device Setup

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 3: Controller Flow Control

Item	Capability	System Spec Reference	Support	Status	Comment
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Table 4: Controller Information

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 5: Controller Configuration**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 6: Device Discovery**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 7: Connection Setup**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 8: Remote Information**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 10: Connection State**

Prerequisite: LL 9/6

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 13: Physical Links**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 14: Host Flow Control**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 15: Link Information**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 16: Authentication and Encryption**

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 17: Testing**

Item	Capability	System Spec Reference	Support	Status	Comment
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## Generic Attribute Profile

**Table 1: Generic Attribute Profile Support**

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

**Table 2: Attribute Protocol Transport**

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	Attribute Protocol Supported over BR/EDR (L2CAP fixed channel support)	GATT 2.2	C.1	☑	C.1: Mandatory if (PROD 3/1 or 3/2 or 3/4 or 3/5) is supported, otherwise Excluded. (Mandatory if Host CC contains BR)
2/2	Attribute Protocol Supported over LE	GATT 2.2	C.2	☑	C.2: Mandatory if (PROD 3/3 or 3/4 or 3/5) is supported, otherwise Excluded. (Mandatory if Host CC contains LE).

**Table 3: Generic Attribute Profile Feature Support, by client**

Item	Capability	System Spec Reference	Support	Status	Comment
3/2	Discover All Primary Services	4.4.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/3	Discover Primary Services by Service UUID	4.4.2	C.4	☑	C.4: Mandatory IF GATT 1/3 (Complete GATT Client) is supported OR ATT 3/6 (Find by Type Value Request), otherwise Optional.
3/4	Find Included Services	4.5.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/5	Discover All characteristics of a Service	4.6.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/6	Discover Characteristics by UUID	4.6.2	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/7	Discover All Characteristic Descriptors	4.7.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/8	Read Characteristic Value	4.8.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/9	Read Using Characteristic UUID	4.8.2	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/12	Write without Response	4.9.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/14	Write Characteristic Value	4.9.3	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/17	Notifications	4.10.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/18	Indications	4.11.1	M	☑	
3/19	Read Characteristic Descriptors	4.12.1	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/21	Write Characteristic Descriptors	4.12.3	C.1	☑	C.1: Mandatory if 1/3 is supported, otherwise Optional.
3/23	Service Changed Characteristic	7.1	M	☑	

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

Prerequisite: GATT 1/3

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 4: Attribute Profile Support, by server**

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	Exchange MTU	4.3.1	C.6	☑	C.6: Mandatory IF GATT 1/4 (Complete GATT Server) OR ATT 4/3 (Exchange MTU Response) is supported, otherwise Optional.
4/2	Discover All Primary Services	4.4.1	M	☑	
4/3	Discover Primary Services by Service UUID	4.4.2	M	☑	
4/4	Find Included Services	4.5.1	M	☑	
4/5	Discover All characteristics of a Service	4.6.1	M	☑	
4/6	Discover Characteristics by UUID	4.6.2	M	☑	
4/7	Discover All Characteristic Descriptors	4.7.1	M	☑	



4/8	Read Characteristic Value	4.8.1	M	<input checked="" type="checkbox"/>
4/9	Read Using Characteristic UUID	4.8.2	M	<input checked="" type="checkbox"/>

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

Prerequisite: GATT 1/4

Item	Capability	System Spec Reference	Support	Status	Comment
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**Table 5: Deleted**

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

Prerequisite: GATT 2/1

Item	Capability	System Spec Reference	Support	Status	Comment
6/2	Discover GATT Services using Service Discovery Profile	GATT 4.4	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory if 1/1 and 2/1 are supported.
6/3	Publish SDP record for GATT services support via BR/EDR	GATT 9	C.2	<input checked="" type="checkbox"/>	C.2: Mandatory if 1/2 and 2/1 are supported.

**Table 7: Attribute Protocol Transport**

Item	Capability	System Spec Reference	Support	Status	Comment
7/1	Security Mode 4	GAP 5	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory if 2/1 is supported, otherwise Excluded.

**Table 8: Attribute Protocol Transport**

Item	Capability	System Spec Reference	Support	Status	Comment
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## Security Manager Protocol

**Table 1: Roles**

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

**Table 2: Security Properties**

Item	Capability	System Spec Reference	Support	Status	Comment
2/2	Unauthenticated no MTM protection	[1] 2.3.1	C.1	<input checked="" type="checkbox"/>	C.1: Mandatory if 2/1 is supported, otherwise Optional.
2/3	No security requirements	[1] 2.3.1	M	<input checked="" type="checkbox"/>	

**Table 3: Encryption Key Size**

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

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

**Table 4: Pairing Method**

Item	Capability	System Spec Reference	Support	Status	Comment
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4/1	Just Works	[1] 2.3.5	O	☑	
4/2	Passkey Entry	[1] 2.3.5	C.1	☑	C.1: If 2/1 is supported, at least one of these features shall be supported.

**Table 5: Security Initiation**

Item	Capability	System Spec Reference	Support	Status	Comment
5/1	Encryption Setup using STK	[1] 2.4	C.3	☑	C.3: Mandatory if (2/1 or 2/2 or 2/4) is supported, otherwise Excluded.
5/2	Encryption Setup using LTK	[1] 2.4	O	☑	
5/3	Slave Initiated Security	[1] 2.4.6	C.1	☑	C.1: Optional if 1/2 is supported, otherwise Excluded.
5/4	Slave Initiated Security – Master response	[1] 2.4.6	C.2	☑	C.2: Mandatory if 1/1 is supported, otherwise Excluded.

**Table 6: Signing Algorithm**

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

**Table 7: Key Distribution**

Item	Capability	System Spec Reference	Support	Status	Comment
7/1	Encryption Key	GAP 9.4.3	C.1	☑	C.1: Mandatory if (GAP 24/2 or 42/6) is supported, otherwise Optional.
7/2	Identity Key	GAP 10.7	C.2	☑	C.2: Mandatory if (GAP 26/3) is supported, otherwise Optional.
7/3	Signing Key	GAP 10.4	C.3	☑	C.3: Mandatory if (GAP 25/6 or 35/6) is supported, otherwise Optional.

## Attribute Protocol

**Table 1: Attribute Protocol Support**

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

**Table 2: Attribute Protocol Transport**

Item	Capability	System Spec Reference	Support	Status	Comment
2/1	Attribute Protocol Supported over BR/EDR (L2CAP fixed channel support)	ATT 1.3	C.1	☑	C.1: Mandatory to support at least one of 2/1 or 2/2.
2/2	Attribute Protocol Supported over LE	ATT 1.3	C.1	☑	C.1: Mandatory to support at least one of 2/1 or 2/2.

**Table 3: Attribute Protocol Client Messages**

Item	Capability	System Spec Reference	Support	Status	Comment
3/1	Attribute Error Response	ATT, 3.4.1.1	M	☑	
3/4	Find Information Request	ATT, 3.4.3.1	C.13	☑	C.13: Mandatory IF GATT 3/7 (GATT Client Discover All Characteristic Descriptors) is supported, otherwise Optional.
3/5	Find Information Response	ATT, 3.4.3.2	C.9	☑	C.9: Mandatory if 3/4 is supported, otherwise Excluded.
3/6	Find by Type Value Request	ATT, 3.4.4.3	C.12	☑	C.12: Mandatory IF GATT 3/3 (GATT Client Discover Primary Services by Service UUID) is supported, otherwise Optional.

3/7	Find by Type Value Response	ATT, 3.4.4.4	C.2	☑	C.2: Mandatory if 3/6 is supported, otherwise Excluded.
3/8	Read by Type Request	ATT, 3.4.4.1	C.15	☑	C.15: Mandatory IF GATT 3/9 (GATT Client Read Using Characteristic UUID) is supported, otherwise Optional.
3/9	Read by Type Response	ATT, 3.4.4.2	C.3	☑	C.3: Mandatory if 3/8 is supported, otherwise Excluded.
3/10	Read Request	ATT, 3.4.4.3	C.14	☑	C.14: Mandatory IF GATT 3/8 (GATT Client Read Characteristic Value) OR GATT 3/19 (GATT Client Read Characteristic Descriptors) is supported, otherwise Optional.
3/11	Read Response	ATT, 3.4.4.4	C.10	☑	C.10: Mandatory if 3/10 is supported, otherwise Excluded.
3/18	Write Request	ATT, 3.4.5.1	C.20	☑	C.20: Mandatory IF GATT 3/14 (GATT Client Write Characteristic Value) OR GATT 3/21 (GATT Client Write Characteristic Descriptors) is supported, otherwise Optional.
3/19	Write Response	ATT, 3.4.5.2	C.7	☑	C.7: Mandatory if 3/18 is supported, otherwise Excluded
3/20	Write Command	ATT, 3.4.5.3	C.18	☑	C.18: Mandatory IF GATT 3/12 (GATT Client Write without Response) is supported, otherwise Optional.
3/26	Handle Value Notification	ATT, 3.4.7.1	C.22	☑	C.22: Mandatory IF GATT 3/17 (GATT Client Notifications) is supported, otherwise Optional.
3/27	Handle-Value Indication	ATT, 3.4.7.2	C.23	☑	C.23: Mandatory IF GATT 3/18 (GATT Client Indications) is supported, otherwise Optional.
3/28	Handle Value Confirmation	ATT, 3.4.7.3	C.24	☑	C.24: Mandatory IF 3/27 (Handle-Value Indication) is supported, otherwise Excluded.
3/29	Client Timeout	ATT, 3.3.3	C.24	☑	C.24: Mandatory IF 3/27 (Handle-Value Indication) is supported, otherwise Excluded.

**Table 4: Attribute Protocol Server Messages**

Item	Capability	System Spec Reference	Support	Status	Comment
4/1	Attribute Error Response	ATT, 3.4.1.1	M	☑	
4/2	Exchange MTU Request	ATT, 3.4.2.1	M	☑	
4/3	Exchange MTU Response	ATT, 3.4.2.2	M	☑	
4/4	Find Information Request	ATT, 3.4.3.1	M	☑	
4/5	Find Information Response	ATT, 3.4.3.2	M	☑	
4/6	Find by Type Value Request	ATT, 3.4.4.3	M	☑	
4/7	Find by Type Value Response	ATT, 3.4.4.4	M	☑	
4/8	Read by Type Request	ATT, 3.4.4.1	M	☑	
4/9	Read by Type Response	ATT, 3.4.4.2	M	☑	
4/10	Read Request	ATT, 3.4.4.3	M	☑	
4/11	Read Response	ATT, 3.4.4.4	M	☑	
4/14	Read Multiple Request	ATT, 3.4.4.7	C.7	☑	C.7: Mandatory IF GATT 4/11 (GATT Server Read Multiple Characteristic Values) is supported, otherwise Optional.
4/15	Read Multiple Response	ATT, 3.4.4.8	C.2	☑	C.2: Mandatory if 4/14 is supported, otherwise Excluded.
4/16	Read by Group Type Request	ATT, 3.4.4.9	M	☑	
4/17	Read by Group Type Response	ATT, 3.4.4.10	M	☑	

**Table 5: Attribute Protocol Transport**

Item	Capability	System Spec Reference	Support	Status	Comment
5/1	Security Mode 4	GAP 5	C.1	☑	C.1: Mandatory if 2/1 is supported, otherwise Excluded.