Bluetooth®

Project Details

Project Name	XRaaayy(a=0~9, y=A~Z or ' ')
Product Type	Controller Subsystem
TCRL Version:	TCRL 2017-1
Referenced Qualified Design(s)	
Previously Qualified Design Used in this Qualification(s)	
Listing Date	2017-09-22
Declaration ID	D037127

Product Listing(s)						
	Name	**Website**	**Category**	**Publish Date**	**Model Number**	**Description**
	XRaaayy(a=0~9, y=A~Z or ' ') Bluetooth Chip	www.xradiotech.com	Unique Products	9/22/2017 12:00:00 AM	XRaaayy	The XRaaayy(a=0~9, y=A~Z or ' ') is a fully integrated single chip which supports 2.4G IEEE WLAN and Bluetooth. It is optimized for short range wireless connected applications such as Tablets, Smart TV Boxes, Sports DV cameras and IOT devices. Its application has industry leading low cost BOM to simplify product development.

Member Company	Xradio Technology Co.,Ltd.

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

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

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

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

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

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

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

Signature:

<div style="border: 1px solid #ccc; height: 50px;"></div>

BLUETOOTH® LAUNCH STUDIO TERMS OF USE

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

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

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

1. MEMBERSHIP ACCOUNT REQUIREMENT.

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

2. BLUETOOTH QUALIFICATION PROCESS.

The "**Bluetooth Qualification Process**" is the process created by Bluetooth SIG for qualifying Products. The Launch Studio Tool is the Bluetooth SIG tool designed to implement the Bluetooth Qualification Process. A "**Product**" means a product that:

(a) if sold, is sold as a single item (consisting of software, firmware, drivers, applications, hardware, or a combination of some or all of the foregoing);

(b) contains one or more Portions; and

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

3. REPRESENTATIONS AND ACKNOWLEDGEMENTS.

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

(b) You represent and warrant that you and Member will comply with the SIG Member Terms (as defined in the WTOU).

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

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

(e) You acknowledge and agree that a product is not a Bluetooth Product under the Bluetooth Trademark License Agreement and you and Member will not market or distribute any product that uses any Bluetooth® trademark on it or in connection with any related marketing, promotion, or advertising unless you or Member have been notified by Bluetooth SIG that it has completed the Bluetooth Qualification Process (e.g., via a confirmation screen or email from Bluetooth SIG expressly stating that that the Product has completed the Bluetooth Qualification Process).

4. FEES AND PAYMENT TERMS.

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

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

5. CONFIDENTIALITY OF SUBMISSIONS.

You and the Bluetooth SIG agree that Submissions are Confidential Information subject to the Bluetooth SIG Confidentiality Policy even if you do not label the Submission "Confidential." Notwithstanding anything in the Bluetooth SIG Confidentiality Policy and except as described in the following sentence, you agree that Bluetooth SIG will treat your Submissions as confidential, including by not making them available through the searchable database on Bluetooth SIG's web site until the date that you have selected as the "listing date" within the Launch Studio Tool when you click to submit your Submission. Bluetooth SIG further agrees that

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

(b) the test plan and test evidence provided as part of your Submission will continue to be

treated as Member Confidential Information for the period of time required under the Bluetooth SIG Confidentiality Policy regardless of any listing date or publish date in the Submission. To the extent that this Section conflicts with the Bluetooth SIG Confidentiality Policy, this Section supersedes the Bluetooth SIG Confidentiality Policy with respect to Bluetooth SIG's obligations of confidentiality of Submissions.

6. RECORD KEEPING AND AUDIT.

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

7. ADDITIONAL DISCLAIMERS.

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

Summary ICS

Table 21: Controller Configuration Specification Version

Item	Capability	Reference	Support	Status	Comment
21/14	Core Specification Version 4.2, Adopted 02 December 2014	Core 4.2	C.1	☑	C.1: Mandatory to support only one Controller Core Specification Version.

Table 22: EDR Features

Item	Capability	Reference	Support	Status	Comment
22/1	EDR for asynchronous transports (single slot)	Core 2.0+EDR and later	C.1	☑	C.1: Mandatory to support at least one if +EDR (21/4 or 21/6) is supported; Mandatory to support at least one if +HS (41/1 or 41/2) is supported, otherwise Optional
22/2	EDR for asynchronous transports (multi-slot)	Core 2.0+EDR and later	C.1	☑	C.1: Mandatory to support at least one if +EDR (21/4 or 21/6) is supported; Mandatory to support at least one if +HS (41/1 or 41/2) is supported, otherwise Optional
22/4	EDR for synchronous transports (Core 3.0 or later)	CSA1 and 3.0+HS or later	C.1/C.2	☑	C.1: Mandatory to support at least one if +EDR (21/4 or 21/6) is supported; Mandatory to support at least one if +HS (41/1 or 41/2) is supported, otherwise Optional C.2: Optional if CSA1 or later is supported, otherwise Excluded.

Table 24: BR/EDR Controller Electrical Interfaces

Item	Capability	Reference	Support	Status	Comment
24/1	UART Transport Layer	Vol. 4, Part A	O	☑	

Table 31: Host Configuration Specification Version

Item	Capability	Reference	Support	Status	Comment

Table 33: Core Host Electrical Interfaces

Item	Capability	Reference	Support	Status	Comment

Table 34: LE Host Specification Parts

Item	Capability	Reference	Support	Status	Comment

Table 41: AMP Controller Specification Version

Item	Capability	Reference	Support	Status	Comment

Table 42: AMP Controller Specification Parts

Item	Capability	Reference	Support	Status	Comment

Table 43: AMP Controller Electrical Interfaces

Item	Capability	Reference	Support	Status	Comment

Table 51: Low Energy Controller Configuration

Item	Capability	Reference	Support	Status	Comment

Item	Capability	Reference	Support	Status	Comment
51/1	Low Energy Controller	Core 4.0	C.1	☑	C.1: Mandatory if PROD 2/4 or 2/5 or 2/6 is supported, otherwise Excluded.

Table 52: Low Energy Host Core Specification

Item	Capability	Reference	Support	Status	Comment

Product Type

Table 1: Product Types

Item	Capability	Reference	Support	Status	Comment
1/5	Controller 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	Reference	Support	Status	Comment
2/5	BR/EDR/LE Combined Controller	Vol. 0 Part B	C.1	☑	C.1: Mandatory to support only one Controller Configuration. Optional if 1/2 or 1/3 is Supported.

Table 3: Host Core Configuration

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

Item	Capability	Reference	Support	Status	Comment

4.0 Host Controller Interface

Table 1: Generic Events

Item	Capability	Reference	Support	Status	Comment
1/1	Command Complete Event	7.7.14	M	☑	
1/1d	Support all LE controller commands	3.3, 7.7	O	☑	
1/2	Command Status Event	7.7.15	M	☑	
1/3	Hardware Error Event	7.7.15	O	☑	

Table 1a: Roles

Item	Capability	Reference	Support	Status	Comment
1a/4	LE Controller	1	C.1	☑	C.1: It is mandatory to support at least one of the defined roles.

Table 2: Device Setup

Item	Capability	Reference	Support	Status	Comment
2/1	Reset Command	7.3.2	M	☑	

Table 3: Controller Flow Control

Item	Capability	Reference	Support	Status	Comment
3/5	LE Read Buffer Size Command	7.8.2	M	☑	

Table 4: Controller Information

Item	Capability	Reference	Support	Status	Comment
4/1	Read Local Version Information Command	7.4.1	M	☑	

Item	Capability	Reference	Support	Status	Comment
4/2	Read Local Supported Commands Command	7.4.2	M	☑	
4/3	Read Local Supported Features Command	7.4.3	M	☑	
4/5	Read BD_ADDR Command	7.4.6	M	☑	
4/8	LE Read Local Supported Features Command	7.8.3	M	☑	
4/9	LE Read Support States	[1] 7.8.27	C.2	☑	C.2: Mandatory IF SUMICS 21/13 (Core 4.1) OR SUMICS 21/14 (Core 4.2) is supported; Optional IF SUMICS 21/9 (Core 4.0) is supported.

Table 5: Controller Configuration

Item	Capability	Reference	Support	Status	Comment
5/13	LE Set Random Address Command	7.8.5	C.1	☑	C.1: Mandatory if (LL 1/1 or 1/3 or 4/3) is supported, otherwise Optional.
5/14	LE Read White List Size Command	7.8.15	M	☑	
5/15	LE Add Device to White List Command	7.8.17	M	☑	
5/16	LE Clear White List Command	7.8.16	M	☑	
5/17	LE Remove Device From White List Command	7.8.18	M	☑	

Table 6: Device Discovery

Item	Capability	Reference	Support	Status	Comment
6/15	LE Set Advertise Enable Command	7.8.10	C.4	☑	C.4: Mandatory if (LL 1/1) is supported, otherwise Optional.
6/16	LE Set Advertising Parameters Command	7.8.6	C.4	☑	C.4: Mandatory if (LL 1/1) is supported, otherwise Optional.
6/17	LE Set Scan Response Data Command	7.8.9	C.5	☑	C.5: Mandatory if (LL 3/2 or 3/5) is supported, otherwise Optional.
6/18	LE Set Advertising Data Command	7.8.8	C.7	☑	C.7: Mandatory if (LL 3/3) is supported, otherwise Optional.
6/19	LE Advertising Report Event	7.7.65.2	C.6	☑	C.6: Mandatory if (LL 1/2) is supported, otherwise Optional.
6/20	LE Set Scan Enable Command	7.8.12	C.6	☑	C.6: Mandatory if (LL 1/2) is supported, otherwise Optional.
6/21	LE Set Scan Parameters Command	7.8.11	C.6	☑	C.6: Mandatory if (LL 1/2) is supported, otherwise Optional.
6/22	LE Read Advertising Channel TX Power Command	7.8.7	C.4	☑	C.4: Mandatory if (LL 1/1) is supported, otherwise Optional.

Table 7: Connection Setup

Item	Capability	Reference	Support	Status	Comment
7/5	Disconnect Command	7.1.6	C.2	☑	C.2: Mandatory if (LL 3/4 or 3/5) is supported, otherwise Optional.
7/23	LE Create Connection Command	7.8.13	C.1	☑	C.1: Mandatory if LL 1/5 and LL 3/3 are supported, otherwise Excluded.
7/24	LE Create Connection Cancel Command	7.8.14	C.1	☑	C.1: Mandatory if LL 1/5 and LL 3/3 are supported, otherwise Excluded.
7/25	LE Connection Complete Event	7.7.65.1	C.2	☑	C.2: Mandatory if (LL 3/4 or 3/5) is supported, otherwise Optional.
7/26	Disconnection Complete Event	7.7.5	C.2	☑	C.2: Mandatory if (LL 3/4 or 3/5) is supported, otherwise Optional.
7/27	LE Connection Update Command	7.8.19	C.8	☑	C.8: Mandatory IF (LL 1/5 (Master Role) AND LL 1/3 (Initiating State)) OR LL 6/10a (Initiating Connection Parameter Request) OR LL 7/10a (Initiating Connection Parameter Request) is supported, otherwise Excluded.
7/28	LE Connection Update Complete Event	7.7.65.3	C.2	☑	C.2: Mandatory if (LL 3/4 or 3/5) is supported, otherwise Optional.

Table 8: Remote Information

Item	Capability	Reference	Support	Status	Comment
8/5	Read Remote Version Information Command	7.1.23	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.
8/6	LE Read Remote Used Features Command	7.8.22	C.3	☑	C.3: Mandatory if (LL 1/5) is supported, otherwise Optional.
8/7	LE Read Remote Used Features Complete Event	7.7.65.4	C.3	☑	C.3: Mandatory if (LL 1/5) is supported, otherwise Optional.
8/8	Read Remote Version Information Complete Event	7.7.12	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.

Table 10: Connection State

Item	Capability	Reference	Support	Status	Comment

Table 13: Physical Links

Item	Capability	Reference	Support	Status	Comment
13/8	LE Set Host Channel Classification Command	7.8.19	C.5	☑	C.5: Mandatory if (LL 1/5) is supported, otherwise Optional.

Table 14: Host Flow Control

Item	Capability	Reference	Support	Status	Comment
14/1	Host Buffer Size Command	7.3.39	O	☑	
14/2	Set Event Mask Command	7.3.1	M	☑	
14/4	Set Controller To Host Flow Control Command	7.3.38	O	☑	
14/5	Host Number Of Completed Packets Command	7.3.40	O	☑	
14/12	Number of Completed Packets Event	7.7.26	C.1	☑	C.1: Mandatory if (LL 1/4 OR LL 1/5) is supported otherwise Optional
14/13	Data Buffer Overflow Event	7.7.26	O	☑	
14/14	LE Set Event Mask Command	7.8.1	M	☑	
14/15	Read LE Host Support Command	7.3.38	C.2	☑	C.2: Mandatory if HCI 1a/1 (BR/EDR Controller) is supported, otherwise Excluded.
14/16	Write LE Host Support Command	7.3.39	C.2	☑	C.2: Mandatory if HCI 1a/1 (BR/EDR Controller) is supported, otherwise Excluded.

Table 15: Link Information

Item	Capability	Reference	Support	Status	Comment
15/2	Read Transmit Power Level Command	7.3.35	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.
15/4	Read RSSI Command	7.5.4	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.
15/8	LE Read Channel Map Command	7.8.20	C.4	☑	C.4: Mandatory if (LL 1/4 or 1/5) is supported, otherwise Optional.

Table 16: Authentication and Encryption

Item	Capability	Reference	Support	Status	Comment
16/32	LE Encrypt Command	7.8.22	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/33	LE Rand Command	7.8.23	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/34	LE Long Term Key Requested Reply Command	7.8.25	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/35	LE Start Encryption Command	7.8.24	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/36	LE Long Term Key Requested Event	7.7.65.5	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/37	Encryption Change Event	7.7.8	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/38	Encryption Key Refresh Complete Event	7.7.39	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.
16/39	LE Long Term Key Requested Negative Reply Command	7.8.26	C.10	☑	C.10: Mandatory if (LL 9/1) is supported, otherwise Optional.

Table 17: Testing

Item	Capability	Reference	Support	Status	Comment
17/7	LE Receiver Test Command	7.8.28	C.2	☑	C.2: Mandatory if (LL 1/2 or 1/3 or 3/2 or 3/4 or 3/5) is supported, otherwise Optional.
17/8	LE Transmitter Test Command	7.8.29	C.3	☑	C.3: Mandatory if (LL 1/1 or 1/3 or 4/3) is supported, otherwise Optional.
17/9	LE Test End Command	7.8.30	M	☑	

Baseband Conformance

Table 1: Physical Channel

Item	Capability	Reference	Support	Status	Comment
1/1	Support frequency band and 79 RF channels	BB, 2.1	M	☑	
1/2	Adaptive Frequency Hopping Kernel	BB, 2.6	M	☑	

Table 1a: Modulation Schemes

Item	Capability	Reference	Support	Status	Comment
1a/1	Basic Data Rate, 1 Mbps payload data rate	RF, 3.1	M	☑	
1a/2	Enhanced Data Rate, 2 Mbps payload data rate	RF, 3.2	C.1	☑	C.1: Mandatory if (SUMICS 22/1 or 22/2 or 22/3 or 22/4) is supported, otherwise Excluded.
1a/3	Enhanced Data Rate, 3 Mbps payload data rate	RF, 3.2	C.2	☑	C.2: Mandatory IF (SUMICS 22/1 ("EDR for asynchronous transports (single slot)") OR SUMICS 22/2 ("EDR for asynchronous transports (multi-slot)") OR SUMICS 22/3 ("EDR for synchronous transports)") is supported; Optional if IF SUMICS 22/4 ("EDR for synchronous transports, CSA1 and 3.0+HS or later") is supported, otherwise Excluded.

Table 2: Link Types

Item	Capability	Reference	Support	Status	Comment
2/1	ACL link	BB, 5.2	M	☑	
2/2	SCO link	BB, 5.4	O	☑	
2/3	eSCO link	BB, 4.3	O	☑	
2/4	Enhanced Data Rate ACL links	BB, 6.5.4	C.1	☑	C.1: Mandatory if (SUMICS 22/1 or 22/2) is supported, otherwise Optional.
2/5	Enhanced Data Rate eSCO links	BB, 6.5.3	C.2	☑	C.2: Mandatory if (SUMICS 22/3 or 22/4) is supported otherwise Excluded.

Table 3: SCO Link Support

Item	Capability	Reference	Support	Status	Comment	Value
3/1	SCO links to same Slave	BB, 4.3	C.1	☑	C.1: Mandatory to support at least one SCO link type if BB 2/2 is supported.	
3/2	SCO links to different Slaves	BB, 4.3	C.3	☑	C.3: Optional if BB 2/2 is supported, otherwise Excluded.	
3/3	SCO links from same Master	BB, 4.3	C.1	☑	C.1: Mandatory to support at least one SCO link type if BB 2/2 is supported.	
3/4	SCO links from different Masters	BB, 4.3	C.3	☑	C.3: Optional if BB 2/2 is supported, otherwise Excluded.	
3/5	eSCO links to same Slave	BB, 4.2	C.2	☑	C.2: Mandatory to support at least one eSCO link type if BB 2/3 is supported.	
3/6	eSCO links to different Slaves	BB, 4.2	C.4	☑	C.4: Optional if BB 2/3 is supported, otherwise Excluded.	
3/7	eSCO links from same Master	BB, 4.2	C.2	☑	C.2: Mandatory to support at least one eSCO link type if BB 2/3 is supported.	
3/8	eSCO links from different Masters	BB, 4.2	C.4	☑	C.4: Optional if BB 2/3 is supported, otherwise Excluded.	

Table 3a: Profile Broadcast Data Link Support

Prerequisite: BB 2/6

Item	Capability	Reference	Support	Status	Comment

Table 4: Common Packet Types

Item	Capability	Reference	Support	Status	Comment
4/1	ID packet type	BB, 6.5.1 BB,6.5.1.1	M	☑	
4/2	NULL packet type	BB, 6.5.1 BB, 6.5.1.2	M	☑	
4/3	POLL packet type	BB, 6.5.1 BB, 6.5.1.3	M	☑	
4/4	FHS packet type	BB, 6.5.1 BB,6.5.1.4	M	☑	
4/5	DM1 packet type	BB, 6.5.1 BB, 6.5.1.5 BB, 6.5.4 BB, 6.5.4.1	M	☑	

Table 5: ACL Packet Types

Item	Capability	Reference	Support	Status	Comment
5/1	DH1 packet type	BB, 6.5.4 BB,6.5.4.2	M	☑	
5/2	DM3 packet type	BB, 6.5.4 BB,6.5.4.3	C.1	☑	C.1: Mandatory if (9c/1 or 9c/2) is supported, otherwise Optional.
5/3	DH3 packet type	BB, 6.5.4 BB,6.5.4.4	O	☑	
5/4	DM5 packet type	BB, 6.5.4 BB,6.5.4.5	O	☑	
5/5	DH5 packet type	BB, 6.5.4 BB,6.5.4.6	O	☑	
5/6	AUX1 packet type	BB, 6.5.4 BB,6.5.4.7	O	☑	

Table 5a: Enhanced Data Rate ACL Packet Types

Prerequisite: BB 2/4

Item	Capability	Reference	Support	Status	Comment
5a/1	2-DH1 packet type	BB, 6.5.4.8	C.1	☑	C.1: Mandatory if (SUM ICS 22/1 or 22/2) is supported, otherwise Optional if (BB 1a/2) is supported.
5a/2	2-DH3 packet type	BB, 6.5.4.9	C.2	☑	C.2: Mandatory if (SUM ICS 22/2) is supported, otherwise Optional if (BB 1a/2) is supported.
5a/3	2-DH5 packet type	BB, 6.5.4.10	C.2	☑	C.2: Mandatory if (SUM ICS 22/2) is supported, otherwise Optional if (BB 1a/2) is supported.
5a/4	3-DH1 packet type	BB, 6.5.4.11	C.3	☑	C.3: Mandatory if (SUM ICS 22/1 or 22/2) is supported, otherwise Optional if (BB 1a/3) is Supported.
5a/5	3-DH3 packet type	BB, 6.5.4.12	C.4	☑	C.4: Mandatory if (SUM ICS 22/2) is supported, otherwise Optional if (BB 5a/2 and 5a/4) are supported.
5a/6	3-DH5 packet type	BB, 6.5.4.13	C.5	☑	C.5: Mandatory if (SUM ICS 22/2) is supported, otherwise Optional if (BB 5a/3 and 5a/4) are supported.

Table 6: SCO and eSCO Packet Types

Item	Capability	Reference	Support	Status	Comment
6/1	HV1 packet type	BB, 6.5.2 BB,6.5.2.1	C.1	☑	C.1: Mandatory if BB 2/2 is supported, otherwise Excluded.
6/2	HV2 packet type	BB, 6.5.2 BB,6.5.2.2	C.2	☑	C.2: Optional if BB 2/2 is supported, otherwise Excluded.
6/3	HV3 packet type	BB, 6.5.2 BB,6.5.2.3	C.2	☑	C.2: Optional if BB 2/2 is supported, otherwise Excluded.
6/4	DV packet type	BB, 6.5.2 BB,6.5.2.4	C.1	☑	C.1: Mandatory if BB 2/2 is supported, otherwise Excluded.
6/5	EV3 packet type	BB, 6.5.3 BB,6.5.3.1	C.3	☑	C.3: Mandatory if BB 2/3 is supported, otherwise Excluded.
6/6	EV4 packet type	BB, 6.5.3 BB,6.5.3.2	C.4	☑	C.4: Optional if BB 2/3 is supported, otherwise Excluded.
6/7	EV5 packet type	BB, 6.5.3 BB,6.5.3.3	C.4	☑	C.4: Optional if BB 2/3 is supported, otherwise Excluded.

Table 6a: Enhanced Data Rate eSCO Packet Types

Item	Capability	Reference	Support	Status	Comment
6a/1	2-EV3 packet type	BB, 6.5.3.4	C.1	☑	C.1: Mandatory if (SUM ICS 22/3) is supported, otherwise Optional if (BB 1a/2) is supported.
6a/2	2-EV5 packet type	BB, 6.5.3.5	C.2	☑	C.2: Optional if 1a/2 is supported.

6a/3	3-EV3 packet type	BB, 6.5.3.6	C.3	☑	C.3: Mandatory if (SUM ICS 22/3) is supported and (SUM ICS 22/4) is Not Supported, otherwise Optional if (BB 1a/3) is supported.
6a/4	3-EV5 packet type	BB, 6.5.3.7	C.4	☑	C.4: Optional if 1a/3 is supported.

Table 7: Page Procedures

Item	Capability	Reference	Support	Status	Comment
7/1	Paging	BB, 8.3.2	M	☑	
7/2	Page scan	BB, 8.3.1	M	☑	
7/5	Interlaced Scan during page scan	BB, 2.4	O	☑	

Table 8: Paging Schemes

Item	Capability	Reference	Support	Status	Comment
8/1	Mandatory scan mode	BB, 8.3 BB, table 6.5	M	☑	

Table 9: Paging Modes

Item	Capability	Reference	Support	Status	Comment
9/1	Paging mode R0	BB, 8.3.1 BB, table 8.1	C.1	☑	C.1: At least one of 9/1-3 is Mandatory.
9/2	Paging mode R1	BB, 8.3.1 BB, table 8.1	C.1	☑	C.1: At least one of 9/1-3 is Mandatory.
9/3	Paging mode R2	BB, 8.3.1 BB, table 8.1	C.1	☑	C.1: At least one of 9/1-3 is Mandatory.

Table 9b: Paging Train Repetition

Item	Capability	Reference	Support	Status	Comment
9b/1	Npage >= 1	BB, 8.3.2 BB, table 8.2	O	☑	
9b/2	Npage >= 128	BB, 8.3.2 BB, table 8.2	O	☑	
9b/3	Npage >= 256	BB, 8.3.2 BB, table 8.2	M	☑	

Table 9c: Synchronization Modes Support

Item	Capability	Reference	Support	Status	Comment

Table 10: Inquiry Procedures

Item	Capability	Reference	Support	Status	Comment
10/1	Inquiry	BB, 8.4.2	O	☑	
10/2	Inquiry scan with first FHS	BB, 8.4.2	O	☑	
10/5	Dedicated inquiry access code	BB, 6.3.1	O	☑	
10/6	Interlaced Scan during inquiry scan	BB, 2.5	O	☑	
10/7	Extended Inquiry Response	BB, 8.4.2, BB 8.4.3	C.1	☑	C.1: Mandatory if (GAP 1/3) and (Core Spec 2.1 or later), otherwise Optional. Excluded if (Core Spec 2.0) is supported.

Table 11: Piconet Capabilities

Item	Capability	Reference	Support	Status	Comment	Value
11/1	Broadcast messages	BB, 7.6.1 BB, 7.6.5	O	☑		
11/2	Point-to-multipoint connections	BB, 1	O	☑		

Table 12: Scatternet Capabilities

Item	Capability	Reference	Support	Status	Comment
12/1	Act as Master in one piconet and Slave in another piconet	BB, 1	O	☑	
12/2	Act as Slave in more than one piconet	BB, 1	O	☑	

Table 13: Synchronous Coding Schemes

Prerequisite: BB 2/2

Item	Capability	Reference	Support	Status	Comment
13/1	A-law	BB, 9.1	O	☑	
13/2	u-law	BB, 9.1	O	☑	
13/3	CVSD	BB, 9.2	O	☑	
13/4	Transparent Synchronous Data	BB, 5.4 BB, 5.5	O	☑	

Table 14: Erroneous Data Reporting

Item	Capability	Reference	Support	Status	Comment

Table 15: This table is intentionally left blank: DO NOT USE

Item	Capability	Reference	Support	Status	Comment

Table 16: Non-flushable Packet Boundary Flag

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	Reference	Support	Status	Comment
16/1	Support Non-flushable Packet Boundary Flag	Vol 2, Part B, Section 7.6.3	C.1	☑	C.1 Mandatory if (Core Spec 2.1 or later) and (HCI 12/1) is supported, otherwise optional. Excluded if (Core Spec 2.0) is supported.

Table 17: Connection States

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	Reference	Support	Status	Comment
17/1	Sniff Subrating Mode	Vol 2, Part C, Section 4.5.3.3	C.1	☑	C.1 Mandatory if (Core Spec 2.1 or later) and (LMP 2/8) is supported, otherwise optional. Excluded if (Core Spec 2.0) is supported.

Table 18: Coarse Clock Adjust

Item	Capability	Reference	Support	Status	Comment

Host Controller Interface

Host Controller Interface

Table 1: Generic Events

Item	Capability	Reference	Support	Status	Comment
1/1	Command Complete Event	7.7.14	M	☑	
1/1b	Support all BR/EDR control commands	3.3, 7.7	O	☑	
1/2	Command Status Event	7.7.15	M	☑	
1/3	Hardware Error Event	7.7.16	O	☑	

Table 1a: Roles

Item	Capability	Reference	Support	Status	Comment
1a/1	BR/EDR Controller	2.0	O.1	☑	O.1: It is mandatory to support at least one of the defined roles.

Table 2: Device Setup

Item	Capability	Reference	Support	Status	Comment
2/1	Reset Command	7.3.2	M	☑	

Table 3: Controller Flow Control

Item	Capability	Reference	Support	Status	Comment
3/1	Read Buffer Size Command	7.4.5	M	☑	
3/5	LE Read Buffer Size Command	7.8.2	O	☑	

Table 4: Controller Information

Item	Capability	Reference	Support	Status	Comment
4/1	Read Local Version Information	7.4.1	M	☑	
4/2	Read Local Supported Commands Command	7.4.2	M	☑	
4/3	Read Local Supported Features Command	7.4.3	M	☑	
4/4	Read Local Extended Features Command	7.4.4	C.1	☑	C.1: Mandatory if a feature requiring another features page is supported, otherwise optional.
4/5	Read BD_ADDR Command	7.4.6	M	☑	

Table 5: Controller Configuration

Item	Capability	Reference	Support	Status	Comment
5/1	Read Local Name Command	7.3.12	M	☑	
5/2	Write Local Name Command	7.3.11	M	☑	
5/3	Read Class of Device Command	7.3.27	M	☑	
5/4	Write Class of Device Command	7.3.28	M	☑	
5/5	Read Number Of Supported IAC Command	7.3.45	O	☑	
5/6	Read Current IAC LAP Command	7.3.46	O	☑	
5/7	Write Current IAC LAP Command	7.3.47	O	☑	
5/8	Read Scan Enable Command	7.3.17	O	☑	
5/9	Write Scan Enable Command	7.3.18	M	☑	

Table 6: Device Discovery

Item	Capability	Reference	Support	Status	Comment
6/1	Inquiry Command	7.1.1	C.1	☑	C.1: Mandatory if (BB 10/1) is supported, otherwise Optional.
6/2	Inquiry Cancel Command	7.1.2	O	☑	
6/3	Periodic Inquiry Mode Command	7.1.3	O	☑	
6/4	Exit Periodic Inquiry Mode Command	7.1.4	O	☑	
6/5	Read Inquiry Scan Activity Command	7.3.21	O	☑	
6/6	Write Inquiry Scan Activity Command	7.3.22	O	☑	
6/7	Read Inquiry Scan Type Command	7.3.51	O	☑	
6/8	Write Inquiry Scan Type Command	7.3.52	O	☑	

6/9	Read Inquiry Mode Command	7.3.53	O	☑	
6/10	Write Inquiry Mode Command	7.3.54	O	☑	
6/11	Read Inquiry Response Transmit Power Level Command	7.3.57	C.2	☑	C.2: Mandatory if (Core Spec 2.1 or later) is supported.
6/12	Write Inquiry Transmit Power Level Command	7.3.58	C.2	☑	C.2: Mandatory if (Core Spec 2.1 or later) is supported.
6/13	Read Extended Inquiry Response Command	7.3.51	C.3	☑	C.3: Mandatory if (Core Spec 2.1 or later) and (GAP 1/3) are supported, otherwise Excluded.
6/14	Write Extended Inquiry Response Command	7.3.52	C.3	☑	C.3: Mandatory if (Core Spec 2.1 or later) and (GAP 1/3) are supported, otherwise Excluded.
6/23	Inquiry Response Notification Event	7.7.73	C.8	☑	C.8: Optional IF SUM ICS 21/12 "CSA4" OR 21/13 "4.1" OR 21/14 "4.2" OR 21/16 OR "5.0" is supported, otherwise Excluded.

Table 7: Connection Setup

Item	Capability	Reference	Support	Status	Comment
7/1	Create Connection Command	7.1.5	M	☑	
7/2	Accept Connection Request Command	7.1.8	M	☑	
7/3	Reject Connection Request Command	7.1.9	M	☑	
7/4	Create Connection Cancel Command	7.1.7	O	☑	
7/5	Disconnect Command	7.1.6	M	☑	
7/6	Read Page Timeout Command	7.3.15	M	☑	
7/7	Write Page Timeout Command	7.3.16	M	☑	
7/8	Read Page Scan Activity Command	7.3.19	M	☑	
7/9	Write Page Scan Activity Command	7.3.20	M	☑	
7/10	Read Page Scan Type Command	7.3.55	O	☑	
7/11	Write Page Scan Type Command	7.3.56	O	☑	
7/12	Read Connection Accept Timeout Command	7.3.13	M	☑	
7/13	Write Connection Accept Timeout Command	7.3.14	M	☑	

Table 8: Remote Information

Item	Capability	Reference	Support	Status	Comment
8/1	Remote Name Request	7.1.19	O	☑	
8/2	Remote Name Request Cancel	7.1.20	O	☑	
8/3	Read Remote Supported Features Command	7.1.21	M	☑	
8/4	Read Remote Extended Features Command	7.1.22	C.2	☑	C.2: Mandatory if (LMP 11/3) is supported, otherwise Optional.
8/5	Read Remote Version Information Command	7.1.23	O	☑	
8/8	Read Remote Version Information Complete Event	7.7.12	O	☑	

Table 9: Synchronous Connections

Item	Capability	Reference	Support	Status	Comment
9/1	Setup Synchronous Connection Command	7.1.26	C.1	☑	C.1: Mandatory if (LMP 21/1 or 21/2) is supported, otherwise Optional.
9/2	Accept Synchronous Connection Request Command	7.1.27	C.2	☑	C.2: Mandatory if (LMP 21/3) is supported, otherwise Optional.
9/3	Reject Synchronous Connection Request Command	7.1.28	C.3	☑	C.3: Mandatory if (LMP 21/3) is NOT supported, otherwise Optional.
9/4	Read Voice Setting Command	7.1.29	C.4	☑	C.4: Mandatoryt if (LMP 21/1 or 21/2 or 21/3) is supported, otherwise Optional.
9/5	Write Voice Setting Command	7.1.30	C.4	☑	C.4: Mandatoryt if (LMP 21/1 or 21/2 or 21/3) is supported, otherwise Optional.

9/6	SCO data via HCI	HCI, 5.4.3	O	☑	
9/7	eSCO data via HCI	HCI, 5.4.3	O	☑	
9/8	Write default Erroneous Data Reporting commands	HCI, 7.3.62	C.5	☑	C.5: Optional if (Core Spec 2.1 or later) is supported, otherwise Excluded.
9/9	Read Default Erroneous Data Reporting command	HCI, 7.3.61	C.5	☑	C.5: Optional if (Core Spec 2.1 or later) is supported, otherwise Excluded.

Table 10: Connection State

Item	Capability	Reference	Support	Status	Comment
10/1	Hold Mode Command	7.2.1	C.1	☑	C.1: Mandatory if (LMP 15/1) is supported, otherwise Optional.
10/2	Sniff Mode Command	7.2.2	C.2	☑	C.2: Mandatory if (LMP 16/2) is supported, otherwise Optional.
10/3	Exit Sniff Mode Command	7.2.3	C.2	☑	C.2: Mandatory if (LMP 16/2) is supported, otherwise Optional.
10/6	Read Link Policy Settings Command	7.2.9	M	☑	
10/7	Write Link Policy Settings Command	7.2.10	M	☑	
10/8	Read Default Link Policy Settings Command	7.2.11	M	☑	
10/9	Write Default Link Policy Settings Command	7.2.12	M	☑	
10/10	Read Hold Mode Activity	7.3.35	C.1	☑	C.1: Mandatory if (LMP 15/1) is supported, otherwise Optional.
10/11	Write Hold Mode Activity	7.3.36	C.1	☑	C.1: Mandatory if (LMP 15/1) is supported, otherwise Optional.

Table 11: Piconet Structure

Item	Capability	Reference	Support	Status	Comment
11/1	Role Discovery Command	7.2.7	O	☑	
11/2	Switch Role Command	7.2.8	C.1	☑	C.1: Mandatory if (LMP 13/1) is supported, otherwise Optional.

Table 12: Quality of Service

Item	Capability	Reference	Support	Status	Comment
12/1	Flow Specification Command	7.2.13	M	☑	
12/2	QoS Setup Command	7.2.6	M	☑	
12/3	Flush Command	7.3.4	M	☑	
12/4	Read Automatic Flush Timeout Command	7.3.31	M	☑	
12/5	Write Automatic Flush Timeout Command	7.3.32	M	☑	
12/6	Read Failed Contact Counter Command	7.5.1	M	☑	
12/7	Reset Failed Contact Counter Command	7.5.2	M	☑	
12/8	Read Num Broadcast Retransmissions Command	7.3.33	C.4	☑	C.4: Mandatory if (BB 11/1) is supported, otherwise Optional.
12/9	Write Num Broadcast Retransmissions Command	7.3.34	C.4	☑	C.4: Mandatory if (BB 11/1) is supported, otherwise Optional.
12/10	Enhanced Flush Command	7.3.62	C.3	☑	C.3: Mandatory if (Core Spec 2.1 or later) is supported.
12/17	Sniff Subrating Command	7.2.12	C.2	☑	C.2: Mandatory if (BB 17/1) and (LMP 16/7) are supported.
12/18	Sniff Subrating Event	7.7.37	C.2	☑	C.2: Mandatory if (BB 17/1) and (LMP 16/7) are supported.

Table 13: Physical Links

Item	Capability	Reference	Support	Status	Comment
13/1	Read Link Supervision Timeout Command	7.3.43	O	☑	
13/2	Write Link Supervision Timeout Command	7.3.44	C.1	☑	C.1: Mandatory if (LMP 19/1) is supported, otherwise Optional.
13/3	Read AFH Channel Assessment Mode Command	7.3.57	C.2	☑	C.2: Mandatory if (LMP 26/6) is supported, otherwise Optional.

Item	Capability	Reference		Support	Status	Comment
13/4	Write AFH Channel Assessment Mode Command	7.3.58	C.2		☑	C.2: Mandatory if (LMP 26/6) is supported, otherwise Optional.
13/5	Set AFH Host Channel Classification Command	7.3.50	C.2		☑	C.2: Mandatory if (LMP 26/6) is supported, otherwise Optional.
13/6	Change Connection Packet Type Command	7.1.14	C.3		☑	C.3: Mandatory if (LMP 2/1 and/or 2/2) is supported, otherwise Optional.
13/7	Link Supervision Timeout Changed Event	7.7.46	C.4		☑	C.4: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.

Table 14: Host Flow Control

Item	Capability	Reference	Support	Status	Comment
14/1	Host Buffer Size Command	7.3.41	O	☑	
14/2	Set Event Mask Command	7.3.1	O	☑	
14/3	Set Event Filter Command	7.3.3	O	☑	
14/4	Set Controller To Host Flow Control Command	7.3.40	O	☑	
14/5	Host Number Of Completed Packets Command	7.3.42	O	☑	
14/6	Read Synchronous Flow Control Enable Command	7.3.38	O	☑	
14/7	Write Synchronous Flow Control Enable Command	7.3.39	O	☑	
14/12	Number of Completed Packets Event	7.7.19	O	☑	
14/13	Data Buffer Overflow Event	7.7.26	O	☑	
14/15	Read LE Host Support Command	7.3.38	O	☑	
14/16	Write LE Host Support Commadn	7.3.39	O	☑	

Table 15: Link Information

Item	Capability	Reference	Support	Status	Comment
15/1	Read LMP Handle Command	7.1.25	M	☑	
15/2	Read Transmit Power Level Command	7.3.37	C.1	☑	C.1: Mandatory if (LMP 2/10) is supported, otherwise Optional.
15/2a	Read Enhanced Transmit Power Level Command	7.3.35	C.5	☑	C.5: Mandatory IF LMP 2/20 "Enhanced Power Control" is supported, otherwise Optional
15/3	Read Link Quality Command	7.5.3	O	☑	
15/4	Read RSSI Command	7.5.4	C.2	☑	C.2: Mandatory if (LMP 2/13) is supported, otherwise Optional.
15/5	Read Clock Offset Command	7.1.24	O	☑	
15/6	Read Clock Command	7.5.6	O	☑	
15/7	Read AFH Channel Map Command	7.5.5	C.3	☑	C.3: Mandatory if (LMP 26/6) is supported, otherwise Optional.

Table 16: Authentication and Encryption

Item	Capability	Reference	Support	Status	Comment
16/1	Read Authentication Enable Command	7.3.23	C.1	☑	C.1: Mandatory if (LMP 3/1) is supported, otherwise Optional.
16/2	Write Authentication Enable Command	7.3.24	C.1	☑	C.1: Mandatory if (LMP 3/1) is supported, otherwise Optional.
16/3	Read Encryption Mode Command	7.3.25	C.2	☑	C.2: Mandatory if (LMP 6/1) is supported, otherwise Optional.
16/4	Write Encryption Mode Command	7.3.26	C.2	☑	C.2: Mandatory if (LMP 6/1) is supported, otherwise Optional.
16/5	Link Key Request Reply Command	7.1.10	M	☑	
16/6	Link Key Request Negative Reply Command	7.1.11	M	☑	
16/7	PIN Code Request Reply Command	7.1.12	M	☑	
16/8	PIN Code Request Negative Reply Command	7.1.13	M	☑	
16/9	Authentication Requested Command	7.1.15	O	☑	
16/10	Set Connection Encryption Command	7.1.16	C.2	☑	C.2: Mandatory if (LMP 6/1) is supported, otherwise Optional.
16/11	Change Connection Link Key Command	7.1.17	O	☑	

16/12	Master Link Key Command	7.1.18	C.3	☑	C.3: Mandatory if (LMP 2/14 and 6/6) are supported, otherwise Optional.
16/13	Read PIN Type Command	7.3.5	C.4	☑	C.4: Mandatory if (LMP 4/5) is supported, otherwise Optional.
16/14	Write PIN Type Command	7.3.6	C.4	☑	C.4: Mandatory if (LMP 4/5) is supported, otherwise Optional.
16/15	Read Stored Link Key Command	7.3.8	O	☑	
16/16	Write Stored Link Key Command	7.3.9	O	☑	
16/17	Delete Stored Link Key Command	7.3.10	O	☑	
16/18	Create New Unit Key Command	7.3.7	C.5	☑	C.5: Mandatory if (LMP 5/1) is supported, otherwise Optional.
16/19	User Confirmation Request Reply Command	7.1.30	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/20	User Confirmation Request Negative Reply Command	7.1.31	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/21	User Passkey Request Reply Command	7.1.32	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/22	User Passkey Request Negative Reply Command	7.1.33	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/23	IO Capability Response Command	7.1.29	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/23a	IO Capability Request Negative Reply Command	7.1.29	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/24a	Remote OOB Data Request Reply Command	7.1.34	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/25	Remote OOB Data Request Negative Reply Command	7.1.35	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/26	Read Local OOB Data Command	7.3.56	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/27	Write Simple Pairing Mode Command	7.3.55	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/28	Read Simple Pairing Mode Command	7.3.54	C.6	☑	C.6: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/29	Refresh Encryption Key Command	7.3.53	C.7	☑	C.7: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Optional.
16/30	Read Encryption Key Size Command	7.5.7	C.8	☑	C.8: Optional if (Core Spec 3.0 or later) is supported, otherwise Excluded.
16/31	Send Keypress Notification Command	7.3.63	C.9	☑	C.9: Optional if (Core Spec 2.1 or later) is supported, otherwise Excluded.
16/37	Encryption Change Event	7.7.8	C.2	☑	C.2: Mandatory if (LMP 6/1) is supported, otherwise Optional.
16/38	Encryption Key Refresh Complete Event	7.7.39	C.2	☑	C.2: Mandatory if (LMP 6/1) is supported, otherwise Optional.
16/40	Link Key Notification Event	[3] 7.7.24	M	☑	

Table 17: Testing

Item	Capability	Reference	Support	Status	Comment
17/1	Read Loopback Mode Command	7.6.1	O	☑	
17/2	Write Loopback Mode Command	7.6.2	O	☑	
17/3	Enable Device Under Test Mode Command	7.6.3	O	☑	
17/4	Write Simple Pairing Debug Mode Command	7.6.4	C.1	☑	C.1: Mandatory if (Core Spec 2.1 or later) is supported, otherwise Excluded.

Table 18: Connectionless Slave Broadcast

Item	Capability	Reference	Support	Status	Comment

Table 19: Alignment with External Timing Source

Item	Capability	Reference	Support	Status	Comment

Low Energy Link Layer

Table 1: Controller States/Roles

Item	Capability	Reference	Support	Status	Comment
1/1	Advertising State	[1]: 4.4.2	C.1	☑	C.1: Mandatory to support at least one of (1/1 or 1/2 or 1/3).
1/2	Scanning State	[1]: 4.4.3	C.1	☑	C.1: Mandatory to support at least one of (1/1 or 1/2 or 1/3).
1/3	Initiating State	[1]: 4.4.4	C.1	☑	C.1: Mandatory to support at least one of (1/1 or 1/2 or 1/3).
1/4	Slave Role	[1]: 4.5.5	C.3	☑	C.3: Optional if 1/1 is supported, otherwise Excluded.
1/5	Master Role	[1]: 4.5.4	C.2	☑	C.2: Mandatory if 1/3 is supported, otherwise Excluded

Table 2: Device Addresses Types

Item	Capability	Reference	Support	Status	Comment
2/1	Public Address	[1]: 1.3	C.1	☑	C.1: IF SUMICS 21/9 "Core v4.0" OR SUMICS 21/13 "Core v4.1" is supported it is Mandatory to support at least one of (LL 2/1 "Public Address" OR LL 2/2 "Random Address"), otherwise it is Mandatory to support at least one of (LL 2/1 "Public Address" OR LL 2/3 "Static Address"), otherwise Optional.
2/2	Random Address	[1]: 1.3	C.1	☑	C.1: IF SUMICS 21/9 "Core v4.0" OR SUMICS 21/13 "Core v4.1" is supported it is Mandatory to support at least one of (LL 2/1 "Public Address" OR LL 2/2 "Random Address"), otherwise it is Mandatory to support at least one of (LL 2/1 "Public Address" OR LL 2/3 "Static Address"), otherwise Optional.

Table 3: Protocol Advertising Features

Item	Capability	Reference	Support	Status	Comment
3/1	Non-Connectable Undirected Events	[1]: 4.4.2.6	C.1	☑	C.1: Mandatory if GAP 5/1 (Broadcaster) is supported; Optional if GAP 5/3 (Peripheral), otherwise Not Defined.
3/2	Connectable Undirected Events	[1]: 4.4.2.3	C.2	☑	C.2: Mandatory if GAP 5/3 (Peripheral) is supported, otherwise Not Defined.
3/3	Advertising Data	[1]: 4.4.2.3, 4.4.2.5, 4.4.2.6	M	☑	
3/4	Connectable Directed Events	[1]: 4.4.2.4	O	☑	
3/5	Scannable Undirected Events	[1]: 4.4.2.5	O	☑	
3/6	Sending Scan Responses	[1]: 4.4.2.3, 4.4.2.5	C.2	☑	C.2: Mandatory if GAP 5/3 (Peripheral) is supported, otherwise Not Defined.
3/7	Accepting Connection Requests	[1]: 4.4.2.3, 4.4.2.4	C.2	☑	C.2: Mandatory if GAP 5/3 (Peripheral) is supported, otherwise Not Defined.
3/8	Filtering Policies	[1]: 4.3.2	O	☑	

Table 4: Protocol Scanning Features

Item	Capability	Reference	Support	Status	Comment
4/1	Passive Scanning	[1]: 4.4.3.1	C.1	☑	C.1: Mandatory if GAP 5/2 (Observer) is supported; otherwise Optional
4/2	Receiving Advertising Data	[1]: 4.4.3.1, 4.4.3.2	M	☑	
4/3	Active Scanning	[1]: 4.4.3.2	C.2	☑	C.2: Mandatory IF (GAP 5/4 (Central) AND NOT LL 4/1 (Passive Scanning)) is supported; otherwise Optional
4/4	Backoff Procedure	[1]: 4.4.3.2	M	☑	
4/5	Filtering Policies	[1]: 4.3.3	O	☑	

Table 5: Protocol Initiating Features

Prerequisite: LL 1/3

Item	Capability	Reference	Support	Status	Comment
5/1	Requesting Connections	[1]: 4.4.4	M	☑	

Item	Capability	Reference	Support	Status	Comment
5/2	Requesting to Directed Advertising	[1]: 4.4.4	M	☑	
5/3	Initiator Filtering	[1]: 4.3.4	M	☑	

Table 6: Protocol Slave Role Features

Item	Capability	Reference	Support	Status	Comment
6/1	Slave Transmissions	[1]: 4.5.1, 4.5.5, 4.5.6	M	☑	
6/2	Acknowledgement Scheme	[1]: 4.5.9	M	☑	
6/3	Unknown Response	[1]: 5.1.4, 2.4.2	M	☑	
6/4	Responding in Feature Setup	[1]: 5.1.4	M	☑	
6/5	Sending Data (Device supports data output from a Host)	[1]: 4.5.1, 4.5.6	M	☑	
6/6	Receiving Data (Device supports data input to a Host)	[1]: 4.5.1, 4.5.6	M	☑	
6/7	More Data	[1]: 4.5.6	O	☑	
6/10	Accepting Parameter Update	[1]: 5.1.1	M	☑	
6/11	Accepting Channel Map Update	[1]: 5.1.2	M	☑	
6/12	Encryption Start	[1]: 5.1.3	O	☑	
6/13	Connection Control Timer	[1]: 5.2	M	☑	
6/14	Sending Termination	[1]: 5.1.6	M	☑	
6/15	Accepting Termination	[1]: 5.1.6	M	☑	
6/16	Connection Supervision Timer	[1]: 4.5.2	M	☑	
6/18	Slave Pause Encryption	[1]: 5.1.3	O	☑	
6/19	Slave Version Exchange	[1]: 5.1.5	M	☑	
6/20	Slave listens to multiple packets per connection event	4.5.7	O	☑	

Table 7: Protocol Master Role Features

Item	Capability	Reference	Support	Status	Comment
7/1	Master Transmissions	[1]: 4.5.1, 4.5.4, 4.5.6	M	☑	
7/2	Acknowledgement Scheme	[1]: 4.5.9	M	☑	
7/3	Unknown Responses	[1]: 5.1.4, 2.4.2	M	☑	
7/4	Requesting Feature Setup	[1]: 5.1.4	M	☑	
7/5	Sending Data (Device supports data output from a Host)	[1]: 4.5.1, 4.5.6	M	☑	
7/6	Receiving Data (Device supports data input to a Host)	[1]: 4.5.1, 4.5.6	M	☑	
7/7	More Data	[1]: 4.5.6	O	☑	
7/10	Requesting Parameter Update	[1]: 5.1.1	M	☑	
7/11	Requesting Channel Map Update	[1]: 5.1.2	M	☑	
7/12	Encryption Start	[1]: 5.1.3	O	☑	
7/13	Connection Control Timer	[1]: 5.2	M	☑	
7/14	Sending Termination	[1]: 5.1.6	M	☑	
7/15	Accepting Termination	[1]: 5.1.6	M	☑	
7/16	Connection Supervision Timer	[1]: 4.5.2	M	☑	
7/19	Master Pause Encryption	[1]: 5.1.3	O	☑	
7/20	Master Version Exchange	[1]: 5.1.5	M	☑	

Table 8: Physical Channels

Item	Capability	Reference	Support	Status	Comment

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

Table 9: Supported Features

Item	Capability	Reference	Support	Status	Comment
9/1	LE Encryption	[1] 4.6.1	C.1	☑	C.1: Mandatory if (6/12 and 6/18) or (7/12 and 7/19) are supported, otherwise Excluded.

Table 10: Scatternet Capabilities

Item	Capability	Reference	Support	Status	Comment

Link Manager

Table 1: Response Messages

Item	Capability	Reference	Support	Status	Comment
1/1	Accept message	LMP, 2.7	M	☑	
1/2	Reject message	LMP, 2.7	M	☑	

Table 2: Supported Features

Item	Capability	Reference	Support	Status	Comment
2/1	3-slot packets	LMP, 4.1.10, LMP,3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/2	5-slot packets	LMP, 4.1.10, LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/3	Encryption	LMP, 4.2.5, LMP, 3.3	C.5	☑	C.5: Optional IF (SUM ICS 21/1 OR SUM ICS 21/2 OR SUM ICS 21/3 "(Core Specification 2.0)" OR SUM ICS 21/4 "(2.0+EDR)") is supported; Excluded IF LMP 2/21 "(BR/EDR Not Supported)" is supported, otherwise Mandatory.
2/4	Slot offset	LMP, 4.4.1, LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/5	Timing accuracy	LMP, 4.3.1, LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/6	Role switch (Master/Slave)	LMP,4.4.2, LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/7	Hold mode	LMP,4.5.1, LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/8	Sniff mode	LMP,4.5.3, LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/10	Power Control	RF, 3 LMP, 4.1.3, LMP, 3.3	C.1	☑	C.1: Mandatory IF Power Class 1 is supported (RF, 1/1=1); Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/11	Channel quality driven data rate	LMP, 4.1.7, LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/12	SCO link	LMP, 4.6.1, LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/13	RSSI	LMP, 3.3	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/14	Broadcast	LMP,	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.

	encryption	4.2.5, LMP, 3.3			
2/15	eSCO link	LMP, 4.6.2	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/16	Adaptive frequency hopping	LMP, 4.1.4	C.11	☑	C.11: Excluded IF LMP 2/21 (BR/EDR Not Supported) is supported, otherwise Optional.
2/17	Enhanced Data Rate ACL	BB, 6.5.4 LMP, 3.3	C.2	☑	C.2: Mandatory IF (SUMICS 22/1 "EDR for asynchronous transports (single slot)" OR SUMICS 22/2 "EDR for asynchronous transports (multi-slot)") is supported AND LMP 2/21 "BR/EDR Not Supported" is NOT supported; Excluded IF LMP 2/21 "BR/EDR Not Supported" is supported, otherwise Optional.
2/18	Enhanced Data Rate eSCO	BB, 6.5.3 LMP, 3.3	C.3	☑	C.3: Mandatory IF (SUMICS 22/3 "EDR for synchronous transports" OR SUMICS 22/4 "EDR for synchronous transports, CSA1 and 3.0 + HS or later") is supported AND LMP 2/21 "BR/EDR Not Supported" is NOT supported; Excluded IF LMP 2/21 "BR/EDR Not Supported" is supported, otherwise Optional.
2/19	Simple Pairing	LMP 4.2.7	C.4	☑	C.4: Excluded IF SUMICS 21/3 "Core Specification 2.0" OR SUMICS 21/4 "2.0+EDR" is supported; otherwise Mandatory IF LMP 2/21 "BR/EDR Not Supported" is NOT supported, otherwise Excluded.
2/20	Enhanced Power Control	LMP, 4.1.3.1, LMP, 3.3	C.6	☑	C.6: Excluded IF SUMICS 21/3 "Core Specification 2.0" OR SUMICS 21/4 "2.0+EDR" OR SUMICS 21/5 "Core Specification 2.1" OR SUMICS 21/6 "2.1+EDR" is supported, otherwise Excluded if LMP 2/21 "BR/EDR Not Supported" is supported, otherwise Optional IF LMP 2/10 "Power Control" AND LMP 2/13 "RSSI" are supported.
2/22	LE Supported (Controller)	LMP, 3.3	C.8	☑	C.8: Mandatory IF LMP 2/21 "BR/EDR Not Supported" is supported, otherwise Optional.
2/23	LE and BR/EDR to same device capable (Controller)	LMP, 3.3	C.12	☑	C.12: Optional IF LMP 2/22 (LE Supported (Controller)) is supported AND LMP 2/21 (BR/EDR Not Supported) is NOT supported, otherwise Excluded.
2/24	LE Supported (Host)	LMP, 3.3	C.7	☑	C.7: Optional IF LMP 2/22 (LE Supported (Controller)) is supported, otherwise Excluded.

Table 3: Authentication

Item	Capability	Reference	Support	Status	Comment
3/2	Initiate authentication after connection completed	LMP, 4.2.1	O	☑	
3/3	Respond to authentication request	LMP, 4.2.1	M	☑	

Table 4: Pairing

Item	Capability	Reference	Support	Status	Comment
4/2	Initiate pairing after connection completed	LMP, 4.2.2	O	☑	
4/3	Respond to pairing request	LMP, 4.2.2.1, LMP, 4.2.2.3	M	☑	
4/4	Use fixed PIN and request responder to initiator switch	LMP, 4.2.2.2	C.1	☑	C.1: Mandatory to support at least one of 4/4 or 4/5.
4/5	Use variable PIN	LMP, 4.2.2.2	C.1	☑	C.1: Mandatory to support at least one of 4/4 or 4/5.
4/6	Accept initiator to responder switch	LMP, 4.2.2.2	C.2	☑	C.2: Mandatory if 4/5 and (4/1 or 4/2) are supported.

Table 5: Link Keys

Item	Capability	Reference	Support	Status	Comment
5/1	Creation of link key - Unit Key	LMP, 4.2.2.4	C.1	☑	C.1: Mandatory to support at least one of 5/1 or 5/2.
5/2	Creation of link key - Combination Key	LMP, 4.2.2.4	C.1	☑	C.1: Mandatory to support at least one of 5/1 or 5/2.
5/3	Initiate change of link key	LMP, 4.2.3	O	☑	
5/4	Accept change of link key	LMP, 4.2.3	M	☑	
5/7	Accept pairing with Unit Key	LMP, 4.2.2.4	O	☑	

Table 6: Encryption

Prerequisite: LMP 2/3

Item	Capability	Reference	Support	Status	Comment
6/1	Initiate encryption	LMP,	C.1	☑	C.1: Optional IF (SUMICS 21/3 "Core Specification 2.0" OR SUMICS 21/4 "2.0+EDR") is supported,

		4.2.5.1			otherwise Mandatory.
6/2	Accept encryption requests	LMP, 4.2.5.1	M	☑	
6/5	Key size negotiation	LMP, 4.2.5.2	M	☑	
6/6	Start encryption, as master	LMP, 4.2.5.3	M	☑	
6/7	Accept start of encryption	LMP, 4.2.5.3	M	☑	
6/8	Stop encryption , as master	LMP, 4.2.5.4	M	☑	
6/9	Accept stop of encryption	LMP, 4.2.5.4	M	☑	
6/10	Encryption Pause/Resume	LMP 4.2.5.3	C.2	☑	C.2: Excluded IF (SUM ICS 21/3 "Core Specification 2.0" OR SUM ICS 21/4 "2.0+EDR") is supported, otherwise Mandatory.

Table 7: Clock Offset Information

Item	Capability	Reference	Support	Status	Comment
7/1	Request clock offset information	LMP, 4.3.2	O	☑	
7/2	Respond to clock offset requests	LMP, 4.3.2	M	☑	

Table 8: Slot Offset Information

Prerequisite: LMP 2/4

Item	Capability	Reference	Support	Status	Comment
8/1	Send slot offset information	LMP, 4.4.1	C.1	☑	C.1: Mandatory if 13/1 is supported, otherwise Optional.

Table 9: Timing Accuracy Information

Prerequisite: LMP 2/5

Item	Capability	Reference	Support	Status	Comment
9/1	Request timing accuracy information	LMP, 4.3.1	O	☑	
9/2	Respond to timing accuracy information requests	LMP, 4.3.1	M	☑	

Table 10: LM Version Information

Item	Capability	Reference	Support	Status	Comment
10/1	Request LM version information	LMP, 4.3.3	O	☑	
10/2	Respond to LM version information requests	LMP, 4.3.3	M	☑	

Table 11: Feature Support

Item	Capability	Reference	Support	Status	Comment
11/1	Request supported features	LMP, 4.3.4	C.1	☑	C.1: Mandatory if any of the "Optional" features in Table 2 is supported, otherwise Optional. (LMP:2/1-3), (LMP:2/5), (LMP:2/7-12), (LMP:2/14-16), (LMP:26/1) is requested by the IUT, ELSE Optional.
11/2	Respond to supported features requests	LMP, 4.3.4	M	☑	
11/3	Request extended features mask	LMP, 4.3.4	C.2	☑	C.2: Mandatory if a feature requiring another features page is supported, otherwise Optional.
11/4	Respond to extended features Request	LMP, 4.3.4	C.2	☑	C.2: Mandatory if a feature requiring another features page is supported, otherwise Optional.

Table 12: Name Information

Item	Capability	Reference	Support	Status	Comment

Item	Capability	Reference	Support	Status	Comment
12/1	Request name information	LMP, 4.3.5	O	☑	
12/2	Respond to name requests	LMP, 4.3.5	M	☑	

Table 13: Role Switch

Item	Capability	Reference	Support	Status	Comment
13/1	Request Master Slave switch	LMP, 4.4.2	O	☑	
13/2	Accept Master Slave switch requests	LMP, 4.4.2	M	☑	

Table 14: Detach

Item	Capability	Reference	Support	Status	Comment
14/1	Detach connection	LMP, 4.1.2	M	☑	

Table 14a: Setting Up and Removing Enhanced Data Rate ACL Connection

Prerequisite: LMP 2/17

Item	Capability	Reference	Support	Status	Comment
14a/1	Enter Enhanced Data Rate	LMP, 4.1.11	C.1	☑	C.1: Mandatory if 2/17 is supported, otherwise Excluded.
14a/2	Exit Enhanced Data Rate	LMP, 4.1.11	C.1	☑	C.1: Mandatory if 2/17 is supported, otherwise Excluded.

Table 14b: Setting Up and Removing Enhanced Data Rate eSCO Connection

Prerequisite: LMP 2/18

Item	Capability	Reference	Support	Status	Comment
14b/1	Enter and Exit eSCO Using Enhanced Data Rate Packets	LMP, 4.6.2	C.1	☑	C.1: Mandatory if 2/18 is supported, otherwise Excluded.

Table 15: Hold Mode

Prerequisite: LMP 2/7

Item	Capability	Reference	Support	Status	Comment
15/1	Force hold mode	LMP, 4.5.1, LMP, 4.5.1.2	O	☑	
15/2	Request hold mode	LMP, 4.5.1, LMP, 4.5.1.3	C.1	☑	C.1: Mandatory if 15/1 is supported, otherwise Optional.
15/3	Respond to hold mode requests	LMP, 4.5.1, LMP, 4.5.1.3	M	☑	
15/4	Accept forced hold mode	LMP, 4.5.1.1, LMP, 4.5.1.2	M	☑	

Table 16: Sniff Mode

Item	Capability	Reference	Support	Status	Comment
16/2	Request sniff mode	LMP, 4.5.3, LMP, 4.5.3.2	O	☑	
16/3	Respond to sniff mode requests (renegotiate or reject)	LMP, 4.5.3.2	M	☑	
16/5	Request un-sniff	LMP, 4.5.3.2	C.1	☑	C.1: Mandatory if 16/2 is supported, otherwise Optional.
16/6	Accept un-sniff requests	LMP, 4.5.3.2	M	☑	
16/7	Sniff Subrating Mode	LMP, 4.5.3.3	C.2	☑	C.2: Excluded IF (SUM ICS 21/3 "Core Specification 2.0" OR SUM ICS 21/4 "2.0+EDR") is supported, otherwise Mandatory.

Table 17: Park Mode

Prerequisite: LMP 2/9

Item	Capability	Reference	Support	Status	Comment

Table 18: Power Control

Item	Capability	Reference	Support	Status	Comment

18/1	Request to increase power	LMP, 4.1.3	M1	☑	M1: Mandatory if 2/13 is supported.
18/2	Request to decrease power	LMP, 4.1.3	M1	☑	M1: Mandatory if 2/13 is supported.
18/3	Respond when max power reached	LMP, 4.1.3	M2	☑	M2: Mandatory if 2/10 is supported.
18/4	Respond when min power reached	LMP, 4.1.3	M2	☑	M2: Mandatory if 2/10 is supported.
18/5	Request to increment power a single step	LMP, 4.1.3.1.1	M3	☑	M3: Mandatory if 2/20 is supported.
18/6	Request to decrease power a single step	LMP, 4.1.3.1.1	M3	☑	M3: Mandatory if 2/20 is supported.
18/7	Request to go to max power	LMP, 4.1.3.1.1	O	☑	
18/8	Respond to increment power a single step	LMP, 4.1.3.1.2	M3	☑	M3: Mandatory if 2/20 is supported.
18/9	Respond to decrease power a single step	LMP, 4.1.3.1.2	M3	☑	M3: Mandatory if 2/20 is supported.
18/10	Respond to go to max power	LMP, 4.1.3.1.2	M3	☑	M3: Mandatory if 2/20 is supported.

Table 19: Link Supervision Timeout

Item	Capability	Reference	Support	Status	Comment
19/1	Set link supervision timeout value	LMP, 4.1.6	O	☑	
19/2	Accept link supervision timeout setting	LMP, 4.1.6	M	☑	

Table 20: Quality of Service

Item	Capability	Reference	Support	Status	Comment
20/1	Channel quality driven change between DM and DH packet type	LMP, 4.1.7	C.1	☑	C.1: Mandatory if 2/11 is supported (stated in the feature request), otherwise Optional.
20/2	Force/Request change of Quality of Service	LMP, 4.1.8, LMP, 4.1.8.1	M	☑	
20/3	Request Change of Quality of Service	LMP, 4.1.8, LMP, 4.1.8.2	M	☑	

Table 21: SCO Links

Prerequisite: LMP 2/12

Item	Capability	Reference	Support	Status	Comment
21/1	Initiate SCO links, as Master	LMP, 4.6.1, LMP, 4.6.1.1	O	☑	
21/2	Initiate SCO links, as Slave	LMP, 4.6.1, LMP, 4.6.1.2	O	☑	
21/3	Accept SCO links	LMP, 4.6.1, LMP, 4.6.1.1, LMP, 4.6.1.2	O	☑	
21/4	Remove SCO links, as Master	LMP, 4.6.1, LMP, 4.6.1.5	C.1	☑	C.1: Mandatory if 21/1 is supported, otherwise Optional.
21/5	Remove SCO links, as Slave	LMP, 4.6.1, LMP, 4.6.1.5	C.2	☑	C.2: Mandatory if 21/2 is supported, otherwise Optional.
21/6	Negotiate SCO link parameters, as Master	LMP, 4.6.1, LMP, 4.6.1.3	C.3	☑	C.3: Mandatory if (21/1 or 21/3) is supported, otherwise Optional.
21/7	Negotiate SCO link parameters, as Slave	LMP, 4.6.1, LMP, 4.6.1.4	C.4	☑	C.4: Mandatory if (21/2 or 21/3) is supported, otherwise Optional.

Table 22: Multi-Slot Packets

Item	Capability	Reference	Support	Status	Comment
22/1	Accept maximum allowed number of slots to be used	LMP, 4.1.10	C.1	☑	C.1: Mandatory if (2/1 and/or 2/2) is supported, otherwise Optional.
22/2	Request maximum number of slots to be used	LMP, 4.1.10	C.1	☑	C.1: Mandatory if (2/1 and/or 2/2) is supported, otherwise Optional.
22/3	Accept request of maximum number of slots to be used	LMP, 4.1.10	C.1	☑	C.1: Mandatory if (2/1 and/or 2/2) is supported, otherwise Optional.

Table 23: Paging Scheme

Item	Capability	Reference	Support	Status	Comment

Table 24: Connection Establishment

Item	Capability	Reference	Support	Status	Comment
24/1	Create connection for higher layers	LMP, 4.1.1	M	☑	
24/2	Respond to requests to establish connections for higher layers	LMP, 4.1.1	M	☑	
24/3	Indicate that link set-up is complete	LMP, 4.1.1	M	☑	

Table 25: Test Mode

Item	Capability	Reference	Support	Status	Comment
25/1	Activate test mode	LMP, 4.7.1	O	☑	
25/2	Ability to reject activation of test mode if test mode is disabled	LMP, 4.7.1	M	☑	
25/3	Control test mode	LMP, 4.7.2	O	☑	
25/4	Ability to reject test mode control commands if test mode is disabled.	LMP, 4.7.2	M	☑	

Table 26: Adaptive Frequency Hopping

Item	Capability	Reference	Support	Status	Comment
26/1	Support of AFH switch as master	LMP, 4.1.4	O	☑	
26/2	Support of AFH switch as slave	LMP, 4.1.4	M	☑	
26/3	Support of Channel Classification reporting - post Role Switch (as Slave)	LMP, 4.1.5	C.1	☑	C.1: Optional if 26/6 is supported, otherwise Excluded.
26/4	Support of Channel Classification reporting as slave	LMP, 4.1.5	C.2	☑	C.2: Mandatory if 26/6 is supported, otherwise Excluded.
26/5	Support channel classification from host	LMP, 4.1.5	C.3	☑	C.3: Mandatory if 26/1 or 26/4 is supported, otherwise Optional.
26/6	Support of Channel Classification	LMP, 4.1.5	O	☑	

Table 27: Ping

Item	Capability	Reference	Support	Status	Comment

Table 28: Coarse Clock Adjustment

Item	Capability	Reference	Support	Status	Comment

Table 29: Slot Availability Mask

Item	Capability	Reference	Support	Status	Comment

Radio

Table 1: RF Capabilities

Item	Capability	Reference	Support	Status	Comment
1/1	Power Class = 1	RF, 3	C.5	☑	C.5: At least one of 1/1 (Power Class 1) OR 1/2 (Power Class 2) OR 1/3 (Power Class 3) shall be supported.
1/4	Power Control	RF, 3	C.1	☑	C.1: Mandatory if 1/1 is supported, otherwise Optional.
1/5	1-slot packets supported	BB, 6.5	M	☑	
1/6	3-slot packets supported	BB, 6.5	O	☑	

1/7	5-slot packets supported	BB, 6.5	O	☑	
1/8	79 Channels	RF, 2	M	☑	
1/9	Support for GFSK modulation	RF, 3.1	M	☑	
1/10	Support for pi/4-DQPSK modulation	RF, 3.2	C.2	☑	C.2: Mandatory if (SUMICS 22/1 or 22/2 or 22/3 or 22/4) is supported, otherwise Excluded.
1/11	Support for 8DPSK modulation	RF, 3.3	C.3	☑	C.3: Mandatory if (SUMICS 22/1 or 22/2 or 22/3) is supported; Optional if (SUMICS 22/4) is supported, otherwise Excluded.
1/12	Enhanced Power Control	RF, 3	C.4	☑	C.4: Optional if Core Specification 3.0 or later and 1/4 is supported, otherwise Excluded.

Low Energy RF PHY

Table 1: Bluetooth LE RF Capabilities

Item	Capability	Reference	Support	Status	Comment
1/1	LE Transmitter (Non-connectable, Broadcaster)	[2], 3	C.1	☑	C.1: Mandatory to support at least one of these capabilities.
1/2	LE Receiver (Non-connectable, Observer)	[2], 4	C.1	☑	C.1: Mandatory to support at least one of these capabilities.
1/3	LE Transceiver (Connectable, Peripheral/Central)	[2], 3, 4	C.1	☑	C.1: Mandatory to support at least one of these capabilities.

Table 2: Bluetooth LE Test Interface Capabilities

Item	Capability	Reference	Support	Status	Comment
2/1	HCI Test Interface	[3], 2	C.1	☑	C.1: At least one of the capabilities shall be supported.
2/2	UART Test Interface	[3], 3	C.1	☑	C.1: At least one of the capabilities shall be supported.