Link Layer (LL)

Bluetooth® **Implementation Conformance Statement (ICS) Proforma**

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Contents

1 General principles

1.1   Implementation Under Test (IUT) identification

Using the Bluetooth SIG qualification tool, the implementer is expected to declare details about what will be implemented.

1.2   Enforcement of inter-layer dependencies

This ICS includes one or more tables with inter-layer dependencies (ILDs). ILDs are used for specification requirements that are dependent on other supporting specifications. ILDs can refer to an individual ICS item in a separate layer (individual ILD), or it can refer to the full layer (full-layer ILD).

ILDs residing in an X2Core layer will be enforced from the Bluetooth SIG qualification tool in the following conditions, depending on where the referred ILD is residing:

Referred ILD resides in	Individual ILD	Full-layer ILD
Controller layer	Core-Complete configuration, or Referred layer is supported	N/A
Lower HCI layer	HCI is supported	N/A
Upper HCI layer	Core-Host configuration, or UHCI is supported	N/A
Host layer	Core-Host configuration, or Core-Complete configuration, or Referred layer is supported	N/A
X2Core layer	Core-Host configuration, or Core-Complete configuration, or Referred layer is supported	Core-Host configuration, or Core-Complete configuration

Table 1.1: Enforcement of an ILD within the Bluetooth SIG qualification tool

2 ICS declarations

2.1 Controller States/Roles

Table 1: Controller States/Roles

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Advertising State	[1] 4.4.2	C.1	N/A
2	Scanning State	[1] 4.4.3	C.1	N/A
3	Initiating State	[1] 4.4.4	C.1	N/A
3a	Synchronized State	[6] 4.4.5	C.4	N/A
Connection State				
4	Peripheral Role	[1] 4.5.5	C.3	N/A
5	Central Role	[1] 4.5.4	C.2	N/A
6	Isochronous Broadcasting State	[7] 4.4.6	C.5	N/A
7	CS Initiator	[12] 2.4.2.44	C.6	[13] RFPHY 3/1
8	CS Reflector	[12] 2.4.2.44	C.6	[13] RFPHY 3/2

C.1:   Mandatory to support at least one.

C.2:   Mandatory IF LL 1/3 "Initiating State", otherwise Excluded.

C.3:   Optional IF LL 1/1 "Advertising State", otherwise Excluded.

C.4:   Mandatory IF CORE 1a/51 "Controller Core v5.1 or later" AND (LL 9/27 "Periodic Advertising Sync Transfer - Recipient" OR LL 4/8 "Scanning for Periodic Advertising" OR LL 9/34 "Synchronized Receiver"), otherwise Excluded.

C.5:   Mandatory IF LL 9/33 "Isochronous Broadcaster", otherwise Excluded.

C.6:   Optional IF LL 9/56 "Channel Sounding", otherwise not defined.

2.2 Device Addresses

2.2.1 Address Types

Table 2: Device Address Types

Item	Capability	Reference	Status
1	Public Address	[1] 1.3	C.1
2	Random Address	[1] 1.3	C.1
3	Static Address	[3] 1.3.2.1	C.3
4	Generation of private addresses	[3] 1.3.2.2	C.3
5	Resolution of private addresses	[3] 1.3.2.3	C.2
6	Network Privacy Mode: Ignore Identity Address when IRK is present in resolving list	[3] 4.7	C.4
7	Device Privacy Mode	[3] 4.7	C.5

C.1:   Mandatory to support at least one.

C.2:   Mandatory IF LL 2/4 "Generation of private addresses", otherwise Excluded.

C.3:   Mandatory to support at least one IF LL 2/2 "Random Address", otherwise Excluded.

C.4:   Mandatory IF LL 9/13 "LL Privacy", otherwise Excluded.

C.5:   Mandatory IF CORE 1a/50 "Controller Core v5.0 or later" AND LL 9/13 "LL Privacy", otherwise
Optional IF LL 9/13 "LL Privacy", otherwise Excluded.

2.3   Advertising Features

2.3.1   Advertising State

Table 3: Protocol Advertising Features

Prerequisite: LL 1/1 "Advertising State"

Item	Capability	Reference	Status
Sending Events			
1	Non-connectable and non-scannable undirected events	[1] 4.4.2.6 [12] 4.4.2.13	C.1
1a	Non-connectable and non-scannable directed events	[6] 4.4.2.9 [12] 4.4.2.13	C.16
2	Connectable and scannable undirected events	[1] 4.4.2.3 [12] 4.4.2.13	C.3
3	Advertising data	[1] 4.4.2.3, 4.4.2.5, 4.4.2.6	M
3a	Address change on advertising data change	[1] 6.1	C.13
4	Connectable directed events	[1] 4.4.2.4 [12] 4.4.2.13	C.3
4a	Low Duty Cycle Direct Advertising	[1] 4.4.2.4	O
4b	Connectable undirected events	[6] 4.4.2.7 [12] 4.4.2.13	C.17
5	Scannable undirected events	[1] 4.4.2.5 [12] 4.4.2.13	O
5a	Scannable directed events	[6] 4.4.2.8 [12] 4.4.2.13	C.18
Responding in Events			
6	Sending scan responses	[1] 4.4.2.3, 4.4.2.5	C.2
7	Accepting connection requests	[1] 4.4.2.3, 4.4.2.4	C.3
Device Filtering			
8	Filtering policies	[1] 4.3.2	O
Sending Events			
9	Extended Advertising	[4] 4.6.12	C.6
10	Periodic Advertising	[4] 4.4.2.12	C.12
10a	Periodic Advertising with Responses	[11] 4.4.2.12.2	C.14
11	Multiple Advertising Sets	[4] 4.4.2.10	C.7
12	Sending Tx Power in advertisements	[4] 2.3.4.7	C.7
12a	Sending Channel Map Update Indication in ACAD	[9] 1.20	C.11

Item	Capability	Reference	Status
Additional Advertising Features			
13	Connectionless CTE Transmitter	[6] 4.6.18	C.8
14	Decision-Based Advertising Filtering	[12] 4.4.2	C.15

C.1:   Mandatory IF LL 3/10 "Periodic Advertising" OR NOT LL 1/4 "Peripheral Role", otherwise Optional.

C.2:   Mandatory IF LL 1/4 "Peripheral Role", otherwise Optional.

C.3:   Mandatory IF LL 1/4 "Peripheral Role", otherwise Excluded.

C.4–C.5:   No longer used.

C.6:   Mandatory IF LL 9/41 "LE Extended Advertising", otherwise Excluded.

C.7:   Optional IF LL 3/9 "Extended Advertising", otherwise Excluded.

C.8:   Mandatory IF LL 9/16 "Connectionless CTE Transmitter", otherwise Excluded.

C.9–C.10:   No longer used.

C.11:   Optional IF LL 3/10 "Periodic Advertising", otherwise Excluded.

C.12:   Mandatory IF LL 9/42 "LE Periodic Advertising", otherwise Excluded.

C.13:   Optional IF LL 2/4 "Generation of private addresses" AND LL 3/3 "Advertising data" AND LL 9/13 "LL Privacy", otherwise Excluded.

C.14:   Mandatory IF LL 9/49 "Periodic Advertising with Responses – Advertiser", otherwise Excluded.

C.15:   Mandatory IF LL 9/51 "Decision-Based Advertising Filtering", otherwise Excluded.

C.16:   Mandatory IF LL 3/1 "Non-connectable and non-scannable undirected events" AND LL 3/9 "Extended Advertising", otherwise Excluded.

C.17:   Mandatory IF LL 3/4 "Connectable directed events" AND LL 3/9 "Extended Advertising", otherwise Excluded.

C.18:   Mandatory IF LL 3/5 "Scannable undirected events" AND LL 3/9 "Extended Advertising", otherwise Excluded.

2.4   Scanning Features

2.4.1   Scanning State

Table 4: Protocol Scanning Features

Prerequisite: LL 1/2 "Scanning State"

Item	Capability	Reference	Status
Receiving Events			
1	Passive Scanning	[1] 4.4.3.1	C.1
2	Receiving Advertising Data	[1] 4.4.3.1, 4.4.3.2	M
Requesting in Events			
3	Active Scanning	[1] 4.4.3.2	C.1
4	Backoff Procedure	[1] 4.4.3.2	C.2
Device Filtering			
5	Filtering Policies	[1] 4.3.3	M
6	Extended Scanner filter policies	[3] 4.4.3	O
6a	Periodic Sync Establishment Filtering Policies	[4] 4.6.13	C.6

Item	Capability	Reference	Status
Receiving Events			
7	Extended Scanning	[4] 4.6.12	C.4
8	Scanning for Periodic Advertising	[4] 4.4.3.4	C.5
8a	Scanning for Periodic Advertising with Responses	[11] 4.4.2.12.2	C.7
9	Decision-Based Advertising Filtering	[12] 4.4.3.6	C.8

C.1:   Mandatory to support at least one.

C.2:   Mandatory IF LL 4/3 "Active Scanning", otherwise Excluded.

C.3:   No longer used.

C.4:   Mandatory IF LL 9/41 "LE Extended Advertising", otherwise Excluded.

C.5:   Mandatory IF LL 9/42 "LE Periodic Advertising", otherwise Excluded.

C.6:   Mandatory IF LL 4/8 "Scanning for Periodic Advertising", otherwise Excluded.

C.7:   Mandatory IF LL 9/50 "Periodic Advertising with Responses – Scanner", otherwise Excluded.

C.8:   Mandatory IF LL 9/51 "Decision-Based Advertising Filtering", otherwise Excluded.

Table 4a: Protocol Scanning Events

Prerequisite: LL 1/2 "Scanning State"

Item	Capability	Reference	Status
Receiving Events			
1	Non-connectable and non-scannable undirected events	[1] 4.4.2.6 [12] 4.4.3.7	C.1
2	Non-connectable and non-scannable directed events	[6] 4.4.2.9 [12] 4.4.3.7	C.2
3	Scannable undirected events	[1] 4.4.2.5 [12] 4.4.3.7	C.3
4	Scannable directed events	[6] 4.4.2.8 [12] 4.4.3.7	C.4
5	Connectable directed events	[1] 4.4.2.4 [12] 4.4.3.7	C.5
6	Connectable undirected events	[6] 4.4.2.7 [12] 4.4.3.7	C.6
7	Connectable and scannable undirected events	[1] 4.4.2.3 [12] 4.4.3.7	C.7

C.1:   Mandatory IF LL 4/8 "Scanning for Periodic Advertising" OR NOT (LL 1/5 "Central Role" OR LL 4/3 "Active Scanning"), otherwise Optional.

C.2:   Mandatory IF LL 4/7 "Extended Scanning" AND LL 4a/1 "Non-connectable and non-scannable undirected events", otherwise Excluded.

C.3:   Mandatory IF LL 4/3 "Active Scanning", otherwise Optional.

C.4:   Mandatory IF LL 4/7 "Extended Scanning" AND LL 4a/3 "Scannable undirected events", otherwise Excluded.

C.5:   Mandatory IF LL 1/5 "Central Role", otherwise Optional.

C.6:   Mandatory IF LL 4/7 "Extended Scanning" AND LL 4a/5 "Connectable directed events", otherwise Excluded.

C.7:   Mandatory IF LL 1/5 "Central Role" OR LL 4/3 "Active Scanning", otherwise Optional.

2.5 Initiator Features

2.5.1 Initiating State

Table 5: Protocol Initiating Features

Prerequisite: LL 1/3 "Initiating State"

Item	Capability	Reference	Status
Requesting in Events			
1	Requesting Connections	[1] 4.4.4	M
2	Requesting to Directed Advertising	[1] 4.4.4	M
Device Filtering			
3	Initiator Filtering	[1] 4.3.4	M
4	Requesting connections using extended advertising	[4] 4.6.12	C.1

C.1: Mandatory IF LL 9/41 "LE Extended Advertising", otherwise Excluded.

2.6 Peripheral Features

2.6.1 Peripheral Role

Table 6: Protocol Peripheral Role Features

Prerequisite: LL 1/4 "Peripheral Role"

Item	Capability	Reference	Status
Connection Events			
1	Peripheral Transmissions	[1] 4.5.1, 4.5.5, 4.5.6	M
2	Acknowledgement Scheme	[1] 4.5.9	M
3	Unknown Response	[1] 5.1.4, 2.4.2	M
Feature Setup			
4	Responding in Feature Setup	[1] 5.1.4.1	M
4a	Requesting Feature Setup	[1] 5.1.4.2	C.18
Data Transmissions			
5	Sending Data (Device supports data output from a Host)	[1] 4.5.1, 4.5.6	M
6	Receiving Data (Device supports data input to a Host)	[1] 4.5.1, 4.5.6	M
7	More Data	[1] 4.5.6	O
8–9	No longer used	N/A	N/A
Connection Control			
10	Accepting Parameter Update	[1] 5.1.1	M
10a	Initiating Connection Parameter Request	[1] 5.1	C.2
10b	Accepting Connection Parameter Request	[1] 5.1	C.2
11	Accepting Channel Map Update	[1] 5.1.2	M
12	Encryption Start	[1] 5.1.3	C.17
13	Connection Control Timer	[1] 5.2	M

Item	Capability	Reference	Status
Connection Termination			
14	Sending Termination	[1] 5.1.6	M
15	Accepting Termination	[1] 5.1.6	M
16	Connection Supervision Timer	[1] 4.5.2	M
17	No longer used	N/A	N/A
Pause Encryption			
18	Peripheral Pause Encryption	[1] 5.1.3	C.17
Version Exchange			
19	Peripheral Version Exchange	[1] 5.1.5	M
20	Peripheral listens to multiple packets per connection event	[1] 4.5.7	O
21	LE Authenticated Payload Timeout	[2] 5.4	C.5
22	Data Length Update Procedure	[3] 5.1.9	C.4
23	Minimum Number Of Used Channels Procedure	[4] 4.6.15	C.6
23a	PHY Update procedure	[4] 5.1.10	C.9
24	Constant Tone Extension Request Procedure as Initiator	[6] 5.1.12	C.7
25	Constant Tone Extension Request Procedure as Responder	[6] 5.1.12	C.8
26	Initiating Periodic Advertising Sync Transfer Procedure for Local Periodic Advertising	[6] 5.1.13	C.10
26a	Initiating Periodic Advertising Sync Transfer Procedure for Local Periodic Advertising, Subevents	[11] 5.1.13	C.22
27	Initiating Periodic Advertising Sync Transfer Procedure for Remote Periodic Advertising	[6] 5.1.13	C.11
28	Accepting Periodic Advertising Sync Transfer Procedure	[6] 5.1.13	C.12
28a	Accepting Periodic Advertising Sync Transfer Procedure, Subevents	[11] 5.1.13	C.21
29	Sending Long Control PDUs	[6] 4.5.11	C.13
30	Receiving Long Control PDUs	[6] 4.5.11	C.14
31	Can Change Sleep Clock Accuracy	[6] 4.6.25	C.15
Isochronous Channels			
32	Bi-Directional Data in Single Connected Isochronous Stream	[7] 4.5.14	C.16
33	Bi-Directional Data in Multiple Connected Isochronous Streams	[7] 4.5.14	C.20
Channel Classification			
34	Channel Classification Reporting	[1] 4.5.8.1	C.19

C.1:   No longer used.

C.2:   Mandatory IF LL 9/3 "Connection Parameters Request procedure", otherwise Excluded.

C.3:   No longer used.

C.4:   Mandatory IF LL 9/6 "LE Data Packet Length Extension", otherwise Excluded.

C.5:   Mandatory IF LL 9/2 "LE Ping", otherwise Excluded.

C.6: Mandatory IF LL 9/12 "Minimum Number of Used Channels procedure", otherwise Excluded.

C.7: Mandatory IF LL 9/14 "Connection CTE Request", otherwise Excluded.

C.8: Mandatory IF LL 9/15 "Connection CTE Response", otherwise Excluded.

C.9: Mandatory IF CORE 1a/50 "Controller Core v5.0 or later" AND LL 9/6a "Multiple PHYs", otherwise Optional IF CORE 1a/50 "Controller Core v5.0 or later", otherwise Excluded.

C.10: Mandatory IF LL 9/28 "Initiating Periodic Advertising Sync Transfer for Local Periodic Advertising", otherwise Excluded.

C.11: Mandatory IF LL 9/29 "Initiating Periodic Advertising Sync Transfer for Remote Periodic Advertising", otherwise Excluded.

C.12: Mandatory IF LL 9/27 "Periodic Advertising Sync Transfer - Recipient", otherwise Excluded.

C.13: Mandatory IF LL 6/26 "Initiating Periodic Advertising Sync Transfer Procedure for Local Periodic Advertising" OR LL 6/27 "Initiating Periodic Advertising Sync Transfer Procedure for Remote Periodic Advertising", OR LL 9/56 "Channel Sounding", otherwise Excluded.

C.14: Mandatory IF LL 6/28 "Accepting Periodic Advertising Sync Transfer Procedure" OR LL 9/32 "Connected Isochronous Stream - Peripheral", OR LL 9/56 "Channel Sounding", otherwise Excluded.

C.15: Mandatory IF LL 9/40 "Can Change Sleep Clock Accuracy", otherwise Excluded.

C.16: Mandatory IF LL 9/32 "Connected Isochronous Stream - Peripheral", otherwise Excluded.

C.17: Mandatory IF LL 9/1 "LE Encryption", otherwise Excluded.

C.18: Mandatory IF LL 9/5 "Peripheral-initiated Features Exchange" OR LL 9/55 "LL Extended Feature Set", otherwise Excluded.

C.19: Mandatory IF LL 9/44 "Channel Classification", otherwise Excluded.

C.20: Optional IF LL 9/32 "Connected Isochronous Stream - Peripheral", otherwise Excluded.

C.21: Mandatory IF LL 6/28 "Accepting Periodic Advertising Sync Transfer Procedure" AND LL 9/50 "Periodic Advertising with Responses – Scanner", otherwise Excluded.

C.22: Mandatory IF LL 6/26 "Initiating Periodic Advertising Sync Transfer Procedure for Local Periodic Advertising" AND LL 9/49 "Periodic Advertising with Responses – Advertiser", otherwise Excluded.

2.7 Central Features

2.7.1 Central Role

Table 7: Protocol Central Role Features

Prerequisite: LL 1/5 "Central Role"

Item	Capability	Reference	Status
Connection Events			
1	Central Transmissions	[1] 4.5.1, 4.5.4, 4.5.6	M
2	Acknowledgement Scheme	[1] 4.5.9	M
3	Unknown Responses	[1] 5.1.4, 2.4.2	M
Feature Setup			
4	Requesting Feature Setup	[1] 5.1.4.1	M
4a	Responding in Feature Setup	[1] 5.1.4.2	C.18
Data Transmissions			
5	Sending Data (Device supports data output from a Host)	[1] 4.5.1, 4.5.6	M

Item	Capability	Reference	Status
6	Receiving Data (Device supports data input to a Host)	[1] 4.5.1, 4.5.6	M
7	More Data	[1] 4.5.6	O
8–9	No longer used	N/A	N/A
Connection Control			
10	Requesting Parameter Update	[1] 5.1.1	M
10a	Initiating Connection Parameter Request	[1] 5.1	C.2
10b	Accepting Connection Parameter Request	[1] 5.1	C.2
11	Requesting Channel Map Update	[1] 5.1.2	M
12	Encryption Start	[1] 5.1.3	C.17
13	Connection Control Timer	[1] 5.2	M
Connection Termination			
14	Sending Termination	[1] 5.1.6	M
15	Accepting Termination	[1] 5.1.6	M
16	Connection Supervision Timer	[1] 4.5.2	M
17–18	No longer used	N/A	N/A
Pause Encryption			
19	Central Pause Encryption	[1] 5.1.3	C.17
Version Exchange			
20	Central Version Exchange	[1] 5.1.5	M
Connection Control			
21	LE Authenticated Payload Timeout	[2] 5.4	C.5
22	Data Length Update Procedure	[3] 5.1.9	C.4
23	Minimum Number Of Used Channels Procedure	[4] 4.6.15	C.6
23a	PHY Update procedure	[4] 5.1.10	C.9
24	Constant Tone Extension Request Procedure as Initiator	[6] 5.1.12	C.7
25	Constant Tone Extension Request Procedure as Responder	[6] 5.1.12	C.8
26	Initiating Periodic Advertising Sync Transfer Procedure for Local Periodic Advertising	[6] 5.1.13	C.10
26a	Initiating Periodic Advertising Sync Transfer Procedure for Local Periodic Advertising, Subevents	[11] 5.1.13	C.22
27	Initiating Periodic Advertising Sync Transfer Procedure for Remote Periodic Advertising	[6] 5.1.13	C.11
28	Accepting Periodic Advertising Sync Transfer Procedure	[6] 5.1.13	C.12
28a	Accepting Periodic Advertising Sync Transfer Procedure, Subevents	[11] 5.1.13	C.21
29	Sending Long Control PDUs	[6] 4.5.11	C.13
30	Receiving Long Control PDUs	[6] 4.5.11	C.14
31	Can Change Sleep Clock Accuracy	[6] 4.6.25	C.15

Item	Capability	Reference	Status
Isochronous Channels			
32a	More than one CIS in a CIG	[7] 4.5.14	C.20
32	CIG with multiple CISes: Sequential	[7] 4.5.14	C.16
33	CIG with multiple CISes: Interleaved	[7] 4.5.14	C.16
Channel Classification			
34	Channel Classification Enable	[1] 4.5.8.1	C.19

C.1:   No longer used.

C.2:   Mandatory IF LL 9/3 "Connection Parameters Request procedure", otherwise Excluded.

C.3:   No longer used.

C.4:   Mandatory IF LL 9/6 "LE Data Packet Length Extension", otherwise Excluded.

C.5:   Mandatory IF LL 9/2 "LE Ping", otherwise Excluded.

C.6:   Mandatory IF LL 9/12 "Minimum Number of Used Channels procedure", otherwise Excluded.

C.7:   Mandatory IF LL 9/14 "Connection CTE Request", otherwise Excluded.

C.8:   Mandatory IF LL 9/15 "Connection CTE Response", otherwise Excluded.

C.9:   Mandatory IF CORE 1a/50 "Controller Core v5.0 or later" AND LL 9/6a "Multiple PHYs", otherwise Optional IF CORE 1a/50 "Controller Core v5.0 or later", otherwise Excluded.

C.10:   Mandatory IF LL 9/28 "Initiating Periodic Advertising Sync Transfer for Local Periodic Advertising", otherwise Excluded.

C.11:   Mandatory IF LL 9/29 "Initiating Periodic Advertising Sync Transfer for Remote Periodic Advertising", otherwise Excluded.

C.12:   Mandatory IF LL 9/27 "Periodic Advertising Sync Transfer - Recipient", otherwise Excluded.

C.13:   Mandatory IF (LL 7/26 "Initiating Periodic Advertising Sync Transfer Procedure for Local Periodic Advertising" OR LL 7/27 "Initiating Periodic Advertising Sync Transfer Procedure for Remote Periodic Advertising" OR LL 9/31 "Connected Isochronous Stream - Central"), OR LL 9/56 "Channel Sounding", otherwise Excluded.

C.14:   Mandatory IF LL 7/28 "Accepting Periodic Advertising Sync Transfer Procedure", OR LL 9/56 "Channel Sounding", otherwise Excluded.

C.15:   Mandatory IF LL 9/40 "Can Change Sleep Clock Accuracy", otherwise Excluded.

C.16:   Mandatory IF LL 7/32a "More than one CIS in a CIG", otherwise Excluded.

C.17:   Mandatory IF LL 9/1 "LE Encryption", otherwise Excluded.

C.18:   Mandatory IF LL 9/5 "Peripheral-initiated Features Exchange" OR LL 9/55 "LL Extended Feature Set", otherwise Excluded.

C.19:   Mandatory IF LL 9/44 "Channel Classification", otherwise Excluded.

C.20:   Optional IF LL 9/31 "Connected Isochronous Stream - Central", otherwise Excluded.

C.21:   Mandatory IF LL 7/28 "Accepting Periodic Advertising Sync Transfer Procedure" AND LL 9/50 "Periodic Advertising with Responses – Scanner", otherwise Excluded.

C.22:   Mandatory IF LL 7/26 "Initiating Periodic Advertising Sync Transfer Procedure for Local Periodic Advertising" AND LL 9/49 "Periodic Advertising with Responses – Advertiser", otherwise Excluded.

2.8 Physical Channels

Table 8: Physical Channels

Item	Capability	Reference	Status
1	General-purpose channels	[1] 1.4.1	C.1
2	Primary Advertising channels	[1] 1.4.1	M
3	Support Data channel selection algorithm	[1] 4.5.8	C.2

C.1: Mandatory IF LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role" OR LL 1/6 "Isochronous Broadcasting State" OR LL 3/9 "Extended Advertising", otherwise Excluded.

C.2: Mandatory IF LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role" OR LL 9/10 "Channel Selection Algorithm #2", otherwise Excluded.

2.9 Supported Features

Table 9: Supported Features

Item	Capability	Reference	Status	Inter-Layer Dependency
1	LE Encryption	[1] 4.6.1	O	N/A
2	LE Ping	[2] 4.6.5	O	N/A
3	Connection Parameters Request procedure	[1] 4.6.2	C.2	N/A
4	Extended Reject Indication	[1] 4.6.3	O	N/A
5	Peripheral-initiated Features Exchange	[1] 4.6.4	O	N/A
6	LE Data Packet Length Extension	[3] 4.6.6	O	N/A
6a	Multiple PHYs	[4] 4.6.9	C.6	N/A
7	LE 2M PHY	[3] 2.1	C.5	N/A
8	Asymmetric connections	[4] 4.6.9.1	C.7	N/A
9	LE Coded PHY	[4] 2.2	C.5	N/A
10	Channel Selection Algorithm #2	[4] 4.6.14	C.10	N/A
11	LE Power Class 1	[4] 4.6	C.9	[13] RFPHY 1/15
12	Minimum Number of Used Channels procedure	[4] 4.6.15	C.10	N/A
13	LL Privacy	[4] 4.6.7	C.54	N/A
14	Connection CTE Request	[6] 4.6.16	C.11	N/A
15	Connection CTE Response	[6] 4.6.17	C.4	N/A
16	Connectionless CTE Transmitter	[6] 4.6.18	C.12	N/A
17	Connectionless CTE Receiver	[6] 4.6.19	C.13	N/A
18	2 µs Antenna Switching During Constant Tone Extension Transmission (AoD)	[6] 4.6.20	C.14	[13] RFPHY 1/9
19	No Antenna Switching During Constant Tone Extension Transmission (AoA)	[6] 4.6.20	O	N/A

Item	Capability	Reference	Status	Inter-Layer Dependency
20	2 μs Antenna Sampling During Constant Tone Extension Reception (AoD)	[6] 4.6.21	O	[13] RFPHY 1/11
21	2 μs Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	[6] 4.6.21	C.18	[13] RFPHY 1/12
22	1 μs Antenna Switching During Constant Tone Extension Transmission (AoD)	[6] 4.6.20	C.17	[13] RFPHY 1/10
23	1 μs Antenna Sampling During Constant Tone Extension Reception (AoD)	[6] 4.6.21	C.18	[13] RFPHY 1/13
24	1 μs Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	[6] 4.6.21	C.19	[13] RFPHY 1/14
25	Remote Public Key Validation	[5] 4.6.23 [6] 4.6.26	O	N/A
26	Periodic Advertising Sync Transfer - Sender	[6] 4.6.23	C.23	N/A
27	Periodic Advertising Sync Transfer - Recipient	[6] 4.6.24	C.22	N/A
28	Initiating Periodic Advertising Sync Transfer for Local Periodic Advertising	[6] 5.1.13	C.21	N/A
29	Initiating Periodic Advertising Sync Transfer for Remote Periodic Advertising	[6] 5.1.13	C.21	N/A
30	Sleep Clock Accuracy Updates	[6] 4.6.25	C.37	N/A
31	Connected Isochronous Stream - Central	[7] 4.6.27	C.28	N/A
32	Connected Isochronous Stream - Peripheral	[7] 4.6.27	C.29	N/A
33	Isochronous Broadcaster	[7] 4.6.28	C.30	N/A
34	Synchronized Receiver	[7] 4.6.29	C.30	N/A
35	ISO Receive Test	[8] 7.8.112, 7.8.113, 7.8.114	C.32	N/A
36	ISO Transmit Test	[8] 7.8.111, 7.8.114	C.33	N/A
37	LE Power Control Request	[7] 4.6.31	C.34	N/A
38	No longer used	N/A	N/A	N/A
39	LE Path Loss Monitoring	[7] 4.6.32	C.34	N/A
39a	LE Path Loss Monitoring when the path loss becomes unavailable	[7] 4.6.32	C.43	N/A
40	Can Change Sleep Clock Accuracy	[6] 4.6.25	C.37	N/A
41	LE Extended Advertising	[6] 4.6.12	C.38	N/A

Item	Capability	Reference	Status	Inter-Layer Dependency
42	LE Periodic Advertising	[6] 4.6.13	C.39	N/A
43	Periodic Advertising ADI support	[10] 4.6.34	C.40	N/A
44	Channel Classification	[10] 4.6.36	C.41	N/A
45	Connection Subrating	[10] 4.6.35	C.41	N/A
46	BN values greater than 1 in CIS	[7] 4.5.13.1	C.42	N/A
47	FT values greater than 1 in CIS	[7] 4.5.13.1	C.42	N/A
48	Advertising Coding Selection	[11] 4.6.37	C.44	N/A
49	Periodic Advertising with Responses – Advertiser	[11] 4.6.38	C.45	N/A
50	Periodic Advertising with Responses – Scanner	[11] 4.6.39	C.46	N/A
51	Decision-Based Advertising Filtering	[12] 4.6.43	C.47	N/A
52	Monitoring Advertisers	[12] 4.6.45	C.48	N/A
53	Unsegmented Framed Mode	[12] 4.6.44	C.49	N/A
54	Frame Space Update	[12] 4.6.46	C.50	N/A
55	LL Extended Feature Set	[12] 4.6.40	C.51	N/A
56	Channel Sounding	[12] 4.6.41	C.52	[13] RFPHY 1/16
57	CS Tone Quality Indication	[12] 4.6.42	C.53	N/A
58	Stable Modulation Index – Transmitter	[1] 4.6.10	C.10	[13] RFPHY 1/5
59	Stable Modulation Index – Receiver	[1] 4.6.11	C.10	[13] RFPHY 1/6
60	Features with Host Controlled feature bits	[7] 4.6, 4.6.33	C.55	N/A
61	Features with bits > 63	[12] 4.6	C.56	N/A
62	Transmitting Constant Tone Extensions	[6] 4.6.17, 4.6.18, 4.6.20	C.57	[13] RFPHY 1/8

C.1:   No longer used.

C.2:   Optional IF LL 9/4 "Extended Reject Indication", otherwise Excluded.

C.3:   No longer used.

C.4:   Optional IF CORE 1a/51 "Controller Core v5.1 or later" AND LL 9/4 "Extended Reject Indication" AND (LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role"), otherwise Excluded.

C.5:   Optional IF CORE 1a/50 "Controller Core v5.0 or later" AND LL 9/4 "Extended Reject Indication", otherwise Excluded.

C.6:   Mandatory IF LL 9/7 "LE 2M PHY" OR LL 9/9 "LE Coded PHY", otherwise Excluded.

C.7:   Optional IF LL 9/6a "Multiple PHYs", otherwise Excluded.

C.8:   No longer used.

C.9:   (Reverse ILD) Mandatory IF RFPHY 1/15 "Power Class 1", otherwise Excluded.

C.10:   Optional IF CORE 1a/50 "Controller Core v5.0 or later", otherwise not defined.

C.11:   Optional IF CORE 1a/51 "Controller Core v5.1 or later" AND LL 9/4 "Extended Reject Indication" AND (LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role") AND LL 9/20 "2 µs Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise Excluded.

C.12:   Optional IF CORE 1a/51 "Controller Core v5.1 or later" AND LL 3/10 "Periodic Advertising", otherwise Excluded.

C.13:   Optional IF LL 11/1 "Synchronizing to Periodic Advertising" AND LL 9/20 "2 µs Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise Excluded.

C.14:   Optional IF LL 9/19 "No Antenna Switching During Constant Tone Extension Transmission (AoA)", otherwise not defined.

C.15–C.16:   No longer used.

C.17:   Optional IF LL 9/18 "2 µs Antenna Switching During Constant Tone Extension Transmission (AoD)", otherwise not defined.

C.18:   Optional IF LL 9/20 "2 µs Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise not defined.

C.19:   Mandatory IF LL 9/21 "2 µs Antenna Switching And Sampling During Constant Tone Extension Reception (AoA)" AND LL 9/23 "1 µs Antenna Sampling During Constant Tone Extension Reception (AoD)", otherwise not defined.

C.20:   No longer used.

C.21:   Mandatory IF LL 9/26 "Periodic Advertising Sync Transfer - Sender", otherwise Excluded.

C.22:   Optional IF CORE 1a/51 "Controller Core v5.1 or later" AND LL 11/1 "Synchronizing to Periodic Advertising" AND (LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role"), otherwise Excluded.

C.23:   Optional IF CORE 1a/51 "Controller Core v5.1 or later" AND LL 3/10 "Periodic Advertising" AND (LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role"), otherwise Excluded.

C.24–C.27:   No longer used.

C.28:   Optional IF CORE 1a/52 "Controller Core v5.2 or later" AND LL 1/5 "Central Role" AND LL 9/4 "Extended Reject Indication" AND LL 9/10 "Channel Selection Algorithm #2" AND LL 9/30 "Sleep Clock Accuracy Updates", otherwise Excluded.

C.29:   Optional IF CORE 1a/52 "Controller Core v5.2 or later" AND LL 1/4 "Peripheral Role" AND LL 9/4 "Extended Reject Indication" AND LL 9/10 "Channel Selection Algorithm #2" AND LL 9/30 "Sleep Clock Accuracy Updates", otherwise Excluded.

C.30:   Optional IF CORE 1a/52 "Controller Core v5.2 or later" AND LL 9/42 "LE Periodic Advertising", otherwise Excluded.

C.31:   No longer used.

C.32:   Mandatory IF LL 9/31 "Connected Isochronous Stream - Central" OR LL 9/32 "Connected Isochronous Stream - Peripheral" OR LL 9/34 "Synchronized Receiver", otherwise Excluded.

C.33:   Mandatory IF LL 9/31 "Connected Isochronous Stream - Central" OR LL 9/32 "Connected Isochronous Stream - Peripheral" OR LL 9/33 "Isochronous Broadcaster", otherwise Excluded.

C.34:   Optional IF CORE 1a/52 "Controller Core v5.2 or later" AND LL 9/4 "Extended Reject Indication", otherwise Excluded.

C.35–C.36:   No longer used.

C.37:   Optional IF CORE 1a/51 "Controller Core v5.1 or later", otherwise Excluded.

C.38:   Optional IF CORE 1a/50 "Controller Core v5.0 or later" AND (LL 9/10 "Channel Selection Algorithm #2" OR NOT (LL 1/4 "Peripheral Role" OR LL 1/5 "Central Role")), otherwise Excluded.

C.39:   Optional IF LL 9/41 "LE Extended Advertising" AND LL 9/10 "Channel Selection Algorithm #2", otherwise Excluded.

C.40:   Optional IF CORE 1a/53 "Controller Core v5.3 or later" AND LL 9/42 "LE Periodic Advertising", otherwise Excluded.

C.41:   Optional IF CORE 1a/53 "Controller Core v5.3 or later", otherwise Excluded.

C.42:   Optional IF (LL 9/31 "Connected Isochronous Stream - Central" OR LL 9/32 "Connected Isochronous Stream - Peripheral"), otherwise Excluded.

C.43:   Optional IF LL 9/39 "LE Path Loss Monitoring", otherwise Excluded.

C.44:   Optional IF CORE 1a/54 "Controller Core v5.4 or later" AND LL 9/9 "LE Coded PHY" AND LL 3/9 "Extended Advertising", otherwise Excluded.

C.45:   Optional IF CORE 1a/54 "Controller Core v5.4 or later" AND LL 9/26 "Periodic Advertising Sync Transfer - Sender", otherwise Excluded.

C.46:   Optional IF CORE 1a/54 "Controller Core v5.4 or later" AND LL 9/27 "Periodic Advertising Sync Transfer - Recipient", otherwise Excluded.

C.47:   Optional IF CORE 1a/60 "Controller Core v6.0 or later" AND LL 9/41 "LE Extended Advertising", otherwise Excluded.

C.48:   Optional IF CORE 1a/60 "Controller Core v6.0 or later" AND LL 1/2 "Scanning State" AND LL 9/55 "LL Extended Feature Set", otherwise Excluded.

C.49:   Optional IF CORE 1a/60 "Controller Core v6.0 or later" AND CORE 20a/3 "Isochronous channels", otherwise Excluded.

C.50:   Optional IF CORE 1a/60 "Controller Core v6.0 or later", otherwise Excluded.

C.51:   Excluded IF CORE 1b/54 "Controller Core v5.4 or earlier", otherwise Mandatory IF LL 9/61 "Features with bits > 63", otherwise Optional.

C.52:   Optional IF CORE 1a/60 "Controller Core v6.0 or later" AND LL 9/4 "Extended Reject Indication", otherwise not defined.

C.53:   Optional IF LL 9/56 "Channel Sounding", otherwise Excluded.

C.54:   Optional IF LL 2/4 "Generation of private addresses" AND LL 2/5 "Resolution of private addresses", otherwise Excluded.

C.55:   Mandatory IF LL 9/31 "Connected Isochronous Stream - Central" OR LL 9/32 "Connected Isochronous Stream - Peripheral" OR LL 9/45 "Connection Subrating" OR LL 9/48 "Advertising Coding Selection" OR LL 9/56 "Channel Sounding", otherwise Excluded.

C.56:   Mandatory IF LL 9/52 "Monitoring Advertisers" OR LL 9/54 "Frame Space Update", otherwise Excluded.

C.57:   Mandatory IF LL 9/15 "Connection CTE Response" OR LL 9/16 "Connectionless CTE Transmitter" OR LL 9/19 "No Antenna Switching During Constant Tone Extension Transmission (AoA)", otherwise not defined.

2.10   Scatternet Capabilities

Table 10: Scatternet Capabilities

Item	Capability	Reference	Status
1	Act as LE Central and LE Peripheral at the same time	[2] 1.1.1	C.1
2	Act as LE Peripheral to more than one LE Central at the same time.	[2] 1.1.1	C.2
3	Simultaneous Connection and Advertising States	[2] 1.1.1	O

C.1:   Optional IF LL 1/4 "Peripheral Role" AND LL 1/5 "Central Role", otherwise Excluded.

C.2:   Optional IF LL 1/4 "Peripheral Role", otherwise Excluded.

2.11   Synchronized Features

Table 11 structures the mandatory and optional requirements as features of a device supporting synchronizing. This section is completed by suppliers with implementations supporting this state.

2.11.1   Synchronized State

Table 11: Protocol Synchronizing Features

Prerequisite: LL 1/3a "Synchronized State"

Item	Capability	Reference	Status
1	Synchronizing to Periodic Advertising	[6] 4.4.3.4	C.3
2	Connectionless CTE Receiver	[6] 4.6.19	C.1
3	Receiving Data on Single Broadcast Isochronous Stream	[7] 4.4.5.2	C.2
4	Receiving Data on Multiple Broadcast Isochronous Streams	[7] 4.4.5.2	C.4

C.1:   Mandatory IF LL 9/17 "Connectionless CTE Receiver", otherwise Excluded.

C.2:   Mandatory IF LL 9/34 "Synchronized Receiver", otherwise Excluded.

C.3:   Mandatory IF LL 4/8 "Scanning for Periodic Advertising", otherwise Excluded.

C.4:   Optional IF LL 9/34 "Synchronized Receiver", otherwise Excluded.

Table 11a: Synchronized Receiver Features

Prerequisite: LL 9/34 "Synchronized Receiver"

Item	Capability	Reference	Status
1	BN values greater than 1	[7] 4.4.6.3	O
2	Pre-transmission	[7] 4.4.6.3	O

2.12   Isochronous Broadcasting Features

Table 12 structures the mandatory and optional requirements as features of a device supporting streaming. This section is completed by suppliers with implementations supporting this state.

2.12.1   Isochronous Broadcasting State

Table 12: Protocol Isochronous Broadcasting Features

Prerequisite: LL 1/6 "Isochronous Broadcasting State"

Item	Capability	Reference	Status
1	Encrypted Broadcast Isochronous Stream	[7] 4.4.6.1, 4.4.6.10	C.1
2	Unencrypted Broadcast Isochronous Stream	[7] 4.4.6.1	M
3	Transmitting Data on Multiple Broadcast Isochronous Streams	[7] 4.4.6.3	O
4	BN values greater than 1	[7] 4.4.6.3	O
5	Pre-transmission	[7] 4.4.6.6	O
6	Create BIG from PAwR	[7] 4.4.6.2	C.2

C.1:   Mandatory IF LL 9/1 "LE Encryption", otherwise Excluded.

C.2:   Optional IF LL 9/49 "Periodic Advertising with Responses – Advertiser", otherwise Excluded.

2.13   Channel Sounding Capabilities

Table 13: Supported Capabilities

Prerequisite: LL 9/56 "Channel Sounding"

Item	Capability	Reference	Status	Inter-Layer Dependency
1	CS Mode-1	[12] 4.3.2	M	[13] RFPHY 3/5
2	CS Mode-2	[12] 4.3.3	M	[13] RFPHY 3/6
3	CS Mode-3	[12] 4.3.4	O	[13] RFPHY 3/7
4	CS RTT Access Address, 10 ns	[12] 3.2	C.1	N/A
5	CS RTT Access Address, 150 ns	[12] 3.2	C.1	N/A
6	CS RTT Sounding Sequence, 10 ns	[12] 3.3	O	N/A
7	CS RTT Sounding Sequence, 150 ns	[12] 3.3	O	N/A
8	CS RTT Random Payload, 10 ns	[12] 3.4	O	N/A
9	CS RTT Random Payload, 150 ns	[12] 3.4	O	N/A
10	CS LE 2M PHY	[12] 2	O	[13] RFPHY 3/10
11	No FAE	[12] 2.4.2.44	O	N/A
12	Procedure Repeat	[12] 5.1.27	O	N/A
13	Channel Selection #3c	[12] 4.1.4.2	O	N/A
14	Sounding Sequence, PCT Estimate	[12] 3.3.1	O	N/A
15	2:2 Antenna Array	[12] 2.4.2.44	O	N/A

C.1:   Mandatory to support at least one.

2.14   Channel Sounding Mode Capabilities

Table 14: Channel Sounding Mode Capabilities

Prerequisite: LL 9/56 "Channel Sounding"

Item	Capability	Reference	Status
1	T_IP1, 145 µs	[12] 4.3.1	M
2	T_IP1, 80 µs	[12] 4.3.1	C.1
3	T_IP1, 60 µs	[12] 4.3.1	O
4	T_IP1, 50 µs	[12] 4.3.1	O
5	T_IP1, 40 µs	[12] 4.3.1	C.2
6	T_IP1, 30 µs	[12] 4.3.1	O
7	T_IP1, 20 µs	[12] 4.3.1	O
8	T_IP1, 10 µs	[12] 4.3.1	O
9	T_IP2, 145 µs	[12] 4.3.3	M
10	T_IP2, 80 µs	[12] 4.3.3	C.3
11	T_IP2, 60 µs	[12] 4.3.3	O
12	T_IP2, 50 µs	[12] 4.3.3	O
13	T_IP2, 40 µs	[12] 4.3.3	C.4
14	T_IP2, 30 µs	[12] 4.3.3	O

Item	Capability	Reference	Status
15	T_IP2, 20 µs	[12] 4.3.3	O
16	T_IP2, 10 µs	[12] 4.3.3	O
17	T_PM, 40 µs	[12] 4.3.3	M
18	T_PM, 20 µs	[12] 4.3.3	C.5
19	T_PM, 10 µs	[12] 4.3.3	O

C.1:   Mandatory IF LL 14/3 "T_IP1, 60 µs" OR LL 14/4 "T_IP1, 50 µs" OR LL 14/5 "T_IP1, 40 µs" OR LL 14/6 "T_IP1, 30 µs" OR LL 14/7 "T_IP1, 20 µs" OR LL 14/8 "T_IP1, 10 µs", otherwise Optional.

C.2:   Mandatory IF LL 14/6 "T_IP1, 30 µs" OR LL 14/7 "T_IP1, 20 µs" OR LL 14/8 "T_IP1, 10 µs", otherwise Optional.

C.3:   Mandatory IF LL 14/11 "T_IP2, 60 µs" OR LL 14/12 "T_IP2, 50 µs" OR LL 14/13 "T_IP2, 40 µs" OR LL 14/14 "T_IP2, 30 µs" OR LL 14/15 "T_IP2, 20 µs" OR LL 14/16 "T_IP2, 10 µs", otherwise Optional.

C.4:   Mandatory IF LL 14/14 "T_IP2, 30 µs" OR LL 14/15 "T_IP2, 20 µs" OR LL 14/16 "T_IP2, 10 µs", otherwise Optional.

C.5:   Mandatory IF LL 14/19 "T_PM, 10 µs", otherwise Optional.

3 Mapping of LL feature bits to ICS items

This section is informative.

Not all LL features have corresponding ICS items.

Feature	LL Feature Bit	Send to Peer	ICS Item
LE Encryption	0	Y	LL 9/1
Connection Parameters Request procedure	1	Y	LL 9/3
Extended Reject Indication	2	Y	LL 9/4
Peripheral-initiated Features Exchange	3	Y	LL 9/5
LE Ping	4	O	LL 9/2
LE Data Packet Length Extension	5	Y	LL 9/6
LL Privacy	6	O	LL 9/13
Extended Scanning Filter Policies	7	O	LL 4/6
LE 2M PHY	8	Y	LL 9/7
Stable Modulation Index – Transmitter	9	Y	LL 9/58
Stable Modulation Index – Receiver	10	Y	LL 9/59
LE Coded PHY	11	Y	LL 9/9
LE Extended Advertising	12	O	LL 9/41
LE Periodic Advertising	13	O	LL 9/42
Channel Selection Algorithm #2	14	Y	LL 9/10
LE Power Class 1	15	Y	LL 9/11
Minimum Number of Used Channels procedure	16	Y	LL 9/12
Connection CTE Request	17	Y	LL 9/14
Connection CTE Response	18	Y	LL 9/15
Connectionless CTE Transmitter	19	O	LL 9/16
Connectionless CTE Receiver	20	O	LL 9/17
Antenna Switching During CTE Transmission (AoD)	21	O	LL 9/18
Antenna Switching During CTE Reception (AoA)	22	O	LL 9/21
Receiving Constant Tone Extensions	23	Y	LL 9/20
Periodic Advertising Sync Transfer – Sender	24	Y	LL 9/26
Periodic Advertising Sync Transfer – Recipient	25	Y	LL 9/27
Sleep Clock Accuracy Updates	26	Y	LL 9/30
Remote Public Key Validation	27	N	LL 9/25
Connected Isochronous Stream – Central	28	Y	LL 9/31
Connected Isochronous Stream – Peripheral	29	Y	LL 9/32
Isochronous Broadcaster	30	Y	LL 9/33
Synchronized Receiver	31	Y	LL 9/34
Connected Isochronous Stream (Host Support)	32	Y	See below
LE Power Control Request	33	Y	LL 9/37
LE Power Control Request (duplicate)	34	Y	LL 9/37
LE Path Loss Monitoring	35	Y	LL 9/39

Feature	LL Feature Bit	Send to Peer	ICS Item
Periodic Advertising ADI support	36	O	LL 9/43
Connection Subrating	37	Y	LL 9/45
Connection Subrating (Host Support)	38	Y	See below
Channel Classification	39	Y	LL 9/44
Advertising Coding Selection	40	Y	LL 9/48
Advertising Coding Selection (Host Support)	41	Y	See below
Decision-Based Advertising Filtering	42	N	LL 9/51
Periodic Advertising with Responses – Advertiser	43	Y	LL 9/49
Periodic Advertising with Responses – Scanner	44	Y	LL 9/50
Unsegmented Framed Mode	45	Y	LL 9/53
Channel Sounding	46	Y	LL 9/56
Channel Sounding (Host Support)	47	Y	See below
Channel Sounding Tone Quality Indication	48	N	LL 9/57
LL Extended Feature Set	63	Y	LL 9/55
Monitoring Advertisers	64	N	LL 9/52
Frame Space Update	65	Y	LL 9/54

Table 3.1: Mapping of LL feature bits to ICS items

Feature bits with "(Host Support)" in the name are set at run-time by the Host; therefore, they do not have a corresponding ICS entry. Tests that check that feature masks match the ICS should ignore these bits.

Table 3.2 maps the Send to Peer value in Table 3.1 to the Extended Feature Set FeaturePage bit for all feature bits sent by or received from the IUT and a peer controller. The FeaturePage bits sent by a host to the IUT are not modified by the "Send to Host" column. Table 3.2 only applies when a test explicitly references it.

Send to Peer value	Feature bit if feature is supported	Feature bit if feature is not supported
Y	1	0
O	1 or 0	0
N	0	0

Table 3.2: Feature Page mapping for Send to Peer value

4   PDU Support table

PDU	Supported if	Permitted to send in role	
		Central	**Peripheral**
LL_CONNECTION_UPDATE_IND	Mandatory	Yes	No
LL_CHANNEL_MAP_IND	Mandatory	Yes	No
LL_TERMINATE_IND	Mandatory	Yes	Yes
LL_ENC_REQ	LL 9/1	Yes	No
LL_ENC_RSP	LL 9/1	No	Yes
LL_START_ENC_REQ	LL 9/1	No	Yes
LL_START_ENC_RSP	LL 9/1	Yes	Yes
LL_UNKNOWN_RSP	Mandatory	Yes	Yes
LL_FEATURE_REQ	Mandatory	Yes	No
LL_FEATURE_RSP	Mandatory	Yes	Yes
LL_PAUSE_ENC_REQ	LL 9/1	Yes	No
LL_PAUSE_ENC_RSP	LL 9/1	Yes	Yes
LL_VERSION_IND	Mandatory	Yes	Yes
LL_REJECT_IND	Mandatory	Yes	Yes
LL_PERIPHERAL_FEATURE_REQ	LL 9/5	No	Yes
LL_CONNECTION_PARAM_REQ	LL 9/3	Yes	Yes
LL_CONNECTION_PARAM_RSP	LL 9/3	Yes	Yes
LL_REJECT_EXT_IND	LL 9/4	Yes	Yes
LL_PING_REQ	LL 9/2	Yes	Yes
LL_PING_RSP	LL 9/2	Yes	Yes
LL_LENGTH_REQ	LL 9/6	Yes	Yes
LL_LENGTH_RSP	LL 9/6	Yes	Yes
LL_PHY_REQ	LL 9/6a	Yes	Yes
LL_PHY_RSP	LL 9/6a	No	Yes
LL_PHY_UPDATE_IND	LL 9/6a	Yes	No
LL_MIN_USED_CHANNELS_IND	LL 9/12	No	Yes
LL_CTE_REQ	LL 9/14	Yes	Yes
LL_CTE_RSP	LL 9/15	Yes	Yes
LL_PERIODIC_SYNC_IND	LL 9/26 OR LL 9/27	LL 9/26	LL 9/27
LL_CLOCK_ACCURACY_REQ	LL 9/30	Yes	Yes
LL_CLOCK_ACCURACY_RSP	LL 9/30	Yes	Yes
LL_CIS_REQ	LL 9/31 OR LL 9/32	Yes	No
LL_CIS_RSP	LL 9/31 OR LL 9/32	No	Yes
LL_CIS_IND	LL 9/31 OR LL 9/32	Yes	No
LL_CIS_TERMINATE_IND	LL 9/31 OR LL 9/32	Yes	Yes
LL_POWER_CONTROL_REQ	LL 9/37	Yes	Yes
LL_POWER_CONTROL_RSP	LL 9/37	Yes	Yes
LL_POWER_CHANGE_IND	LL 9/37	Yes	Yes

PDU	Supported if	Permitted to send in role	
		Central	**Peripheral**
LL_SUBRATE_REQ	LL 9/45	No	Yes
LL_SUBRATE_IND	LL 9/45	Yes	No
LL_CHANNEL_REPORTING_IND	LL 9/44	Yes	No
LL_CHANNEL_STATUS_IND	LL 9/44	No	Yes
LL_PERIODIC_SYNC_WR_IND	LL 9/49 OR LL 9/50	LL 9/49	LL 9/50
LL_FEATURE_EXT_REQ	LL 9/55	Yes	Yes
LL_FEATURE_EXT_RSP	LL 9/55	Yes	Yes
LL_CS_SEC_REQ	LL 9/56	Yes	No
LL_CS_SEC_RSP	LL 9/56	No	Yes
LL_CS_CAPABILITIES_REQ	LL 9/56	Yes	Yes
LL_CS_CAPABILITIES_RSP	LL 9/56	Yes	Yes
LL_CS_CONFIG_REQ	LL 9/56	Yes	Yes
LL_CS_CONFIG_RSP	LL 9/56	Yes	Yes
LL_CS_REQ	LL 9/56	Yes	Yes
LL_CS_RSP	LL 9/56	Yes	Yes
LL_CS_IND	LL 9/56	Yes	Yes
LL_CS_TERMINATE_REQ	LL 9/56	Yes	Yes
LL_CS_TERMINATE_RSP	LL 9/56	Yes	Yes
LL_CS_FAE_REQ	LL 9/56	Yes	Yes
LL_CS_FAE_RSP	LL 9/56	Yes	Yes
LL_CS_CHANNEL_MAP_IND	LL 9/56	Yes	Yes
LL_FRAME_SPACE_REQ	LL 9/54	Yes	Yes
LL_FRAME_SPACE_RSP	LL 9/54	Yes	Yes

Table 4.1: PDU Support table

5   References

[1]   Specification of the Bluetooth System, Volume 6, Part B, Version 4.0 or later

[2]   Specification of the Bluetooth System, Volume 6, Part B, Version 4.1 or later

[3]   Specification of the Bluetooth System, Volume 6, Part B, Version 4.2 or later

[4]   Specification of the Bluetooth System, Volume 6, Part B, Version 5.0 or later

[5]   Erratum 10734: Pairing Updates

[6]   Specification of the Bluetooth System, Volume 6, Part B, Version 5.1 or later

[7]   Specification of the Bluetooth System, Volume 6, Part B (Link Layer Protocol Specification), Version 5.2 or later

[8]   Specification of the Bluetooth System, Volume 4, Part E (Host Controller Functional Specification), Version 5.2 or later

[9]   Core Specification Supplement (CSS), Part A, Current Version

[10]   Specification of the Bluetooth System, Volume 6, Part B (Link Layer Protocol Specification), Version 5.3 or later

[11]   Specification of the Bluetooth System, Volume 6, Part B (Link Layer Protocol Specification), Version 5.4 or later

[12]   Specification of the Bluetooth System, Volume 6, Part B (Link Layer Protocol Specification), Version 6.0 or later

[13]   ICS Proforma for Radio Frequency Physical Layer (RFPHY)

6 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	4.0.0r9	2009-12-15	Change of name and reference to Spec version 4.0
	4.0.1r0	2010-11-24	TSE 3634: add 6/20 TSE 3927: rename LL 3/6 (discoverable scan)
	4.0.1r1	2011-04-11	Edits by Miles Smith
1	4.0.1	2011-07-1	Prepare for publication.
	4.0.2r0	2011-11-08	TSE 4518: Table 3, Table 4. Remove Conditional footnotes. Change statuses to M
2	4.0.2	2012-03-30	Prepare for publication.
	4.0.3r1	2013-05-30	TSE 5169: Table 3 Updates Changed item 1 to "C.1" Changed item 2 to "C.2" Changed item 4 to "C.3" Changed item 5 to "C.4" Added note to the table, and defined the conditionals added. Table 4 Updates Changed item 1 to "C.1" Changed item 3 to "C.2" Added note to the table and defined the conditionals added.
3	4.0.3	2013-07-02	Prepare for Publication
	4.0.4rT	2013-08-07	Template Conversion Updated conditional wording to match current language.
	4.0.4rTr3	2013-09-25	Template Conversion Comment Resolution
	4.1.0r01	2013-09-25	Low Duty Cycle Directed Advertising CR
	4.1.0r02	2013-10-01	TSE 5343: Removed statements following Table 6 and Table 7. Updated items 6/5, 6/6, 6/8, 6/9, 7/5 and 7/6. TSE 5201: Updated Table 8, Item 1 capability to "Data channels (channel index 0 to 36)", reference to 1.4.1 and status from "M" to "C.1"
	4.1.0r03	2013-10-10	LE Ping CR
	4.1.0r04	2013-10-14	TSE 5342: Updated item 4/5 to M, updated text for C.2 and added a comment for GAP role support and removed comment about active scanning for table 4.
	4.1.0r05	2013-10-14	LE Link Layer Topology CR
	4.1.0r08	2013-11-06	Comment Resolution
4	4.1.0	2013-12-03	Prepare for Publication
	4.1.1r00	2014-04-10	TSE 5602: Added Table 9 C.5, and updated Status for 9/5 to C.5.

Publication Number	Revision Number	Date	Comments
	4.1.1r01	2014-06-22	Editorial correction to Table 3, C.4 added extra space.
5	4.1.1	2014-07-07	TCRL 2014-1 Publication
	4.2.0r00	2014-11-14	Integrated changes from Section 2 and Section 5 of Core_LE_Data_Length_Extensions_TEST.CRr01 and section 1.8 of Core_Enhanced_Privacy_1_2.TS.CR.R05.
	4.2.0r01	2014-11-20	Integrated reviews by Mayank, Jason, Rasmus.
6	4.2.0	2014-12-04	Prepare for TCRL 2014-2 publication
	4.2.1r00	2015-05-06	TSE 6159: Corrected status of 3/6 and 3/7 to C.2 TSE 6280: Updated C.2 in Table 1 by completing the conditional expression
	4.2.1r01	2015-06-05	Deleted Section 1.2 (Global Statement of Conformance) per current ICS template standards.
7	4.2.1	2015-07-14	Prepared for TCRL 2015-1 publication
	4.2.2r00	2015-10-13	TSE 6608: Corrected wording for LL 8/2 capability. TSE 6472: Removed item LL 7/18 (Master Non-Connectable Events)
8	4.2.2	2015-12-22	Prepared for TCRL 2015-2 publication.
	5.0.0r00	2016-06-01	Integrated changes for Core Specification 5.0 release
	5.0.0r00	2016-07-07	Integrated changes for Core Specification 5.0 release
	5.0.0r01	2016-08-30	Issue 7532: Updated Table 3: Deleted row 12. Renumbered row 13 and 14 to 12 and 13, respectively. Deleted conditional C.8. Conditional C.9 renumbered to C.8. Issue 7533: Updated Table 5: Deleted Item 12, "Requesting in Events" subheading, and conditional C.1. Issue 7534: Updated "TBD" references in Table 3, 4, 6, 7, and 9. Table 5 "TBD" reference deleted (Issue 7533). Reference for "High Duty Cycle Non Connectable Advertising (Item 3/13) intentionally not updated. This reference will be addressed in a separate Issue.
	5.0.0r02	2016-09-20	Issue 7633: Updated conditional C.5 for both Tables 6 and 7. Issue 7572: Deleted item LL 3/13 (High Duty Cycle Non-Connectable Advertising) and conditional C.8. Issue 7682: Deleted reference to item LL 9/11 from conditional C.5 for Table 6 and Table 7.
	5.0.0r03	2016-10-06	TSE 7057: Updated status of LL.ICS 6/21 and conditionals C.2 and C.5. Updated capability and status of LL.ICS 7/21 and conditional C.5. Deleted conditional C.2 for Table 9. All conditionals and statuses above C.1 for Table 9 remapped accordingly (3 → 2; 4 → 3; 5 → 4…), except Item 2, which was remapped to conditional C.4. TSE 6899: Deleted items 6/8, 6/9, 7/8, and 7/9.

Publication Number	Revision Number	Date	Comments
	5.0.0r04	2016-11-09	TSE 7833: Added two new items and conditional statement C.4 to Table 2.
	5.0.0r05	2016-11-11	Issue 7884: Global edit. Added support in conditionals for Core Spec version 5.0. Minor editorial changes.
	5.0.0r06	2016-11-14	Updated to current template. Removed unnecessary parentheses and replaced with quotation marks. Editorial re-writes to Conditional logic to future proof Core versioning increments. Conditionals affected: Table 2: C.1, C.2; Table 3: C.5, C.6; Table 4: C.3, C.4; Table 6: C.1, C.2, C.3; Table 7: C.1, C.2, C.3; Table 9: C.2, C.3, C.4, C.5, C.6, C.8. Added the note appearing after Table 4 to Table 3. Revised the affected Conditionals to state "otherwise Optional" rather than "otherwise Excluded" to agree with the note.
9	5.0.0	2016-12-13	Approved by BTI. Prepared for TCRL 2016-2 publication.
	5.0.1r00	2017-03-23	TSE 7385: Updated conditional statements C.1 to include "at least" for Table 1 and 2. TSE 8259: Changed 6/23 reference from 4.6.16 to 4.6.15. Not part of TSE 8259 but same problem applies as 4.6.16 is not in spec. Changed 7/23 reference from 4.6.16 to 4.6.15. TSE 8260: Updated 6/23 and 7/23 status from C.5 to C.6 and added conditional C.6 to Table 6 and 7. TSE 8261: Changed from PHY to Connections for Table 9/8. TSE 8274: Changed from LL to LE for Table 9/1. Changed the Reference from [5] 4.6.15 to [5] 4.6 and the Status from C.7 to C.9 for Table 9/11. Added additional Item 12 to Table 9. Replaced "are supported" with "otherwise Excluded" to C.1 for Table 9. Replaced last part of C.8 for Table 9 from "OR LL 9/11 "LE Power Class 1" is supported, otherwise Optional." to "AND (LL 1/4 "Slave Role" OR LL 1/5 "Master Role" OR LL 3/10 "Periodic Advertising" OR LL 4/8 "Periodic Scanning"), otherwise Optional." Added Conditionals (C.9 and C.10) to Table 9.
	5.0.1r01	2017-04-19	Integrated review comments on TSE 8260: Updated C.6 in Tables 6 and 7. TSE 9304: Introductory statements deleted from all tables. (Note, 17 Aug 2017: Incorporated as editorial update for TCRL 2017-1 release.)
	5.0.1r02	2017-06-11	Reverted C.6 for Minimum Number of Used Channels Procedure in Tables 6 and 7. Conditional statement changed back to: Excluded IF SUM ICS 21/9 "Core v4.0" OR SUM ICS 21/13 "Core v4.1" OR SUM ICS 21/14 "Core v4.2" is supported, otherwise Optional.
10	5.0.1	2017-07-05	Approved by BTI. Prepared for TCRL 2017-1 publication.

Publication Number	Revision Number	Date	Comments
	5.0.2.r00	2017-08-22	TSE 9699: Deleted text from Table 2: Device Address Types note C.1.
	5.0.2.r01	2017-09-15	TSE 9217: Revised privacy requirements in Tables 2 and 9. For Table 2, changed status of LL 2/7, modified conditional C.4, and added conditional C.5. For Table 9, added row 13 ("LL Privacy"). TSE 9776: Removed redundancy from conditional statements in Tables 3 and 4.
	5.0.2.r02	2017-09-22	AoA/AoD: Added items and conditionals to Tables 3, 6, 7, and 9. Added Table 11: Synchronized State.
	5.0.2r03	2017-10-19	TSE 9899: Updated the "Protocol Scanning Features" table.
11	5.0.2	2017-12-07	Approved by BTI. Prepared for TCRL 2017-2 publication.
	5.0.3r00-03	2018-03-12 – 2018-06-14	TSE 9991 (rating 2): Added item 23a and table note C.9 in Tables 6 and 7. Added item 6a and table note 6a and revised table note 7 in Table 9. TSE 10357 (rating 1): Globally replaced "Periodic Scanning" with "Scanning for Periodic Advertising". TSE 10080 (rating 2): Revised Conditional C.6 in Table 3 and C.4 in Table 4 to remove LE Coded PHY. Editorial revisions of references in Table 9 items 9/7 and 9/9. Incorporated Core E10734 Pairing Updates TS CR: Added item 9/25 and C.20.
12	5.0.3	2018-07-02	Approved by BTI. Prepared for TCRL 2018-1 publication.
	5.0.4r00-r04	2018-07-16 - 2018-11-12	Incorporated Core_PAST_CLE_TEST_CR_r05: Table 1: Added row 3a and conditional note C.4. LL 4/8, C.5: Added support for SUM ICS 21/16 "Core v5.0". Table 6: Added rows 26–30 and conditional notes C.10–C.14. Table 7: Added rows 26–30 and conditional notes C.10–C.14. Table 9: Added rows 26–29 and conditional notes C.21–C.23. Section 1.12: Added section introductory text. Table 11: Added row 1. Incorporated Core Minor Enhancements Batch 1 Test CRr10-clean: Added item 31 and conditional note C.15 to both Tables 6 and 7. Added item 30 and conditional note C.24 to Table 9. Issue 10710: Added cross-reference section "4.6.X" to LL 6/31, LL 7/31, and LL 9/30. Added reference [7] for Bluetooth 5.1 and updated TBD and [x] values. Production edits: Deleted "Core Madrid Feature Notation (Gray Text)" section. For all new Madrid (5.1) text, changed style from gray to black.

Publication Number	Revision Number	Date	Comments
	5.1.0r00	2018-11-13	Updated revision number from 5.0.4 to 5.1.0 to align with the adoption of Core Specification version 5.1.
13	5.1.0	2018-12-07	Approved by BTI. Prepared for TCRL 2018-2 publication.
	5.1.1r00–r03	2019-04-01– 2019-05-23	TSE 11546 (rating 1): Changed C.1 in Table 6 to "No longer used." TSE 11165 (rating 2): For Table 3, updated status for item 10 and text in note C.6 and added note C.9. For Table 4, updated notes C.4 and C.5. For Table 5, added a new item and a new note. For Table 9, added items 9a and 9b, modified note C.8, and added notes C.25 and C.26. TSE 11791 (rating 2): Updated Table 9 items 15 and 21 "Status" column, and modified and added conditionals to accommodate changes made to RFPHY layer for this TSE. TSE 12099 (rating 2): Removed references to deprecated Core Specification versions in tables affected by TSE 11165 and 11791 updates (Tables 3, 4, 6, 9).
14	5.1.1	2019-08-01	Approved by BTI. Prepared for TCRL 2019-1 publication.
	p15r00–r10	2019-08-05 – 2019-12-05	Added test groups to accommodate adoption of Core Specification v5.2 with regard to Isochronous Channels CR r20 (includes Issues 11742, 11762, 11777, 11778, 11779, 11783,11786, 11804, 11817, 11819, 11820, 11852, 11917, 11919, 11928, 11929, 11930, 11983, 11740, 11801, 11941, 12029, 12030, 12043, 12052, 12053, 12054, 12055, 12059, 12061, 12071, 12072, 12073, 12077, 12084, 12031, 12078, 12094, 12095, 12106, 12107, 12130, 12132, 12133, 12251, 12280, and 12321). Added item 6 and note C.6 to Table 1; Added items 32 and 33 and note C.16 to Table 6; added items 32 and 33 and note C.16 to Table 7; added items 31–36 and notes C.28–C.33 to Table 9; added items 3 and 4 and note C.2 to Table 11; added section "Isochronous Broadcasting Features"; updated references section with new Core Specification. Added test groups to accommodate adoption of Core Specification v5.2 with regard to LE Power Control CR r07 (includes Issues 12116, 12112, 12115, 12117, 12118, 12255). Added items 37–39 and notes C.34–C.36 to Table 9. TSE 12501 (rating 1): Changed item 2 in Table 9 to optional. TSE 12607 (rating 2): Updated conditionals in Tables 1, 2, and 7 to remove references to deprecated and/or withdrawn core specs and to fix an editorial issue with conditionals no longer used.

Publication Number	Revision Number	Date	Comments
			TSE 12065 (rating 3): Updated rows and conditionals in Table 3, updated conditionals only in Tables 6 and 7, and added a new row and conditional to Table 9 to account for missing features in Link Layer.
			TSE 12034 (rating 2): Updated Table 9 conditionals.
			TSE 12605 (rating 2): Updated rows 12 and 18 and added a conditional in Table 6; updated rows 12 and 19 and added a conditional in Table 7; updated row 1 and changed C.1 to "No longer used" in Table 9.
			TSE 12778 (rating 2): Updated Conditional and reference for item 9/25 to align with the current SUM ICS. Removed C.20, which required support for Erratum 10734 that was not future-proof. Conditional is now just Optional.
			IAL restructure: Removed "Isochronous Adaptation Layer" item and associated conditional C.2 from Table 12.
			TSE 12428 (rating 4): Added item 12a and conditional C.11 to Table 3. Added reference for "Supplement to Bluetooth Core Specification, Part A, Version 7 or later" to References section.
			TSE 11709 (rating 2): Updated C.4 for Table 1; updated item 10 and note C.6 and added note C.12 to Table 3; updated notes C.4 and C.5 for Table 4; added items 41 and 42 and notes C.38 and C.39 for Table 9; updated item 1 and added note C.3 for Table 11.
			Removed deprecated specs from 1:C.5, 9:C.28, 9:C.29, 9:C.31, 9:C.34–C.36, and 9:C.38 ("SUM ICS 21/9 "Core v4.0" OR SUM ICS 21/13 "Core v4.1" OR ") per integration review feedback when prepping 2019-2 for Launch Studio.
			Resolved .X and Milan references with real numbers.
			Backed out errant addition of item C.16a for 12034, which was added as C.27 in TCRL 2019-1.
			Revised document numbering convention, setting last release publication of 5.1.1 as p14; added publication number column to Revision History.
			Updated Contributors list.
15	p15	2020-01-07	Approved by BTI on 2019-12-22. Prepared for TCRL 2019-2 publication.
	p16r00–r24	2020-01-29 – 2021-06-21	TSE 13062 (rating 2): Updated C.6 in Tables 6 and 7; updated Capability name of Item 3 and revised C.10 of Table 9.
			TSE 13333 (rating 2): Updated C.32 conditional note for Table 9 to fix dependencies.
			TSE 13361 (rating 2): Updated C.13 and C.14 conditionals in Tables 6 and 7 to align with updated spec.

Publication Number	Revision Number	Date	Comments
			TSE 14629 (rating 2): Updated conditionals for Tables 6 and 7 and updated for appropriate items' Status column to address requirements for Peripheral-initiated features exchange.
			TSE 14664 (rating 3): Added C.20 to Table 6 and updated item 33's status with new conditional; updated text of C.16 for Tables 6 and 7; added item 46 and C.42 to Table 9; updated text of C.2, added C.4, and updated status of item 4 in Table 11; added new Table 11a; and added items 3, 4, and 5 to Table 12.
			TSE 14679 (rating 4): Added item 47 and C.43 to Table 9.
			TSE 14853 (rating 2): Updated conditionals for Table 12 items 1 and 2 to include LE Encryption dependencies.
			TSE 14907 (rating 2): Updated C.4 for Table 1 and C.3 for Table 11.
			TSE 15046 (rating 2): Updated Table 9 by modifying items 37–39 and notes C.34–C.36 to address Erratum 15010, regarding updates to the LL feature bits for LE Power Control.
			TSE 15451 (rating 1): Editorials to address Erratum 15334, globally change "Master" to "Central" and "Slave" to "Peripheral".
			TSE 16758 (rating 2): To address E16372 regarding Transmit Power Level for Power Class, updated C.9 for Table 9.
			TSE 17009 (rating 3): Added item 9/39a for LE Path Loss Monitoring when the path loss becomes unavailable.
			TSE 17082 (rating 1): Added item 2/2 to C.1 in Table 2.
			TSE 17096 (rating 1): Added LL 3/3a and corresponding C.13 (Gene's CR in 73492).
			Incorporated ADI_In_Periodic_Advertising_Test_CR_r06: Added "Periodic Advertising ADI support" item to Table 9 as well as associated conditional, and added a new reference to the v5.3 Core spec.
			Incorporated Enhanced_Connection_Update_TEST_CR_r17: Added LL 9/45, referencing conditional and reference from other previously incorporated v5.3 CRs.
			Incorporated LE_Channel_Classification_TEST_CR_r07: added new items and associated conditionals to Tables 6, 7, and 9.
			Template-related and consistency checker editorials.
16	p16	2021-07-13	Approved by BTI on 2021-06-27. Prepared for TCRL 2021-1 publication.

Publication Number	Revision Number	Date	Comments
	p17r00–r02	2021-09-14 – 2022-01-03	TSE 17274 (rating 2): Updated C.13 of Table 3.
			TSE 17285 (rating 2): Updated C.1 and C.9 of Table 3; updated C.1 and C.2 of Table 4 and status of items 3 and 4.
			TSE 17415 (rating 2): Updated C.13 of Table 6 and C.14 of Table 7.
			TSE 17488 (rating 2): Fixed capability name of item 37 and updated C.3 for Table 9.
			TSE 17491 (rating 2): To address an issue with the presentation of periodic and extended advertising: Table 5: updated C.1; Table 9, deleted items 9a and 9b and related C.25 and C.26, and updated C.8 and C.40.
			Consistency checker editorials. Updated copyright page to align with v2 of the DNMD. Updated table spacing to align with latest ICS template.
17	p17	2022-01-25	Approved by BTI on 2021-12-27. Prepared for TCRL 2021-2 publication.
	p17ed2 r00–r02	2022-01-28 – 2022-03-07	TSE 17948 (rating 1): Removed redundant "LL 1/3a" from C.3 of Table 11.
			Consistency checker editorials.
	p17 edition 2	2022-03-07	Approved by BTI on 2022-03-07. Prepared for edition 2 publication.
	p18r00–r01	2022-03-29 – 2022-04-05	TSE 18323 (rating 2): Updated C.19 for Table 9 to correct conditions for AoD receive.
			TSE 18642 (rating 1): Updated items 1, 2, and 3 and C.1 for Table 8 and added C.2. Updated C.8 for Table 9.
18	p18	2022-06-28	Approved by BTI on 2022-05-31. Prepared for TCRL 2022-1 publication.
	p18ed2 r00–r02	2022-07-19 – 2022-08-22	TSE 19152 (rating 1): Updated description of item 1 in Table 12 to align with grammar used in the subsequent item.
			Editorials, including punctuation changes, making "no longer used" language consistent, and removing unused references, including the reference to the Appropriate Language Mapping Tables document (if needed, it can be found at the link in this revision history comment).
	p18 edition 2	2022-08-23	Approved by BTI on 2022-08-22. Prepared for edition 2 publication.
	p19r00–r08	2022-08-24 – 2022-12-19	TSE 19123 (rating 2): Updated references for 9/19, 9/20, and 9/23.
			TSE 19329 (rating 3): Added new item 10/3.
			TSE 19332 (rating 2): Updated items 10/1 and 10/2 with new conditionals C.1 and C.2.
			TSE 20527 (rating 3): Added a new item 7/32a and conditional C.20 to Table 7 and updated 7/32, 7/33, and C.16.

Publication Number	Revision Number	Date	Comments
			TSE 20646 (rating 3): Per E18415/18311, updated C.4 and C.5 in Table 1; added 3/10a and related C.14; added 4/8a and related C.7; updated 6/10a status and related C.2 and added 6/28a and related C.21; updated 7/10b and related C.2 and added 7/28a and related C.21; updated 9/4, 9/10, 9/26, 9/28, 9/29, 9/30 statuses and C.2, C.4, C.5, C.11, C.21, C.22, C.28, C.29, C.30, C.31, C.33, C.34, C.38, C.39, C.40, and deleted C.3, C.8, C.24, and added 9/49 and 9/50 and related C.45 and C.46. TSE 22132 (rating 1): Corrected the CSS citation in the references. Core v5.4 CR: CSSA (from CR Coding_Scheme_Selection_on_ Advertising_Test_CR_r08, including E18415 and E19196): Added item 9/48 and related C.44. Added v5.4 reference to Core in References.
19	p19	2023-02-07	Approved by BTI on 2022-12-28. Prepared for TCRL 2022-2 publication.
	p20r00–r02	2023-04-10 – 2023-05-26	TSE 22259 (rating 2): Updated the status of 3/7 and added conditional C.3. TSE 22719 (rating 2): Added items 6/26a and associated conditional C.22 and 7/26a and associated conditional C.22. TSE 22916 (rating 1): Corrected the reference for LE Channel Classification in 9/44.
20	p20	2023-06-29	Approved by BTI on 2023-06-05. Prepared for TCRL 2023-1 publication.
	p21r00–r05	2023-09-28 – 2023-11-13	TSE 18402 (rating 2): Updated Table 3 conditionals C.1 and C.2 and Table 4 C.1 and removed old "Comments" after the conditionals list in both tables. TSE 24075 (rating 2): Replaced SUM ICS references with CORE ICS references. In Table 1, removed the prerequisite and updated C.4 (affecting 1/3a). In Table 2, updated C.5 (affecting 2/7). In Table 6, updated C.9 (affecting 6/23a). In Table 7, updated C.9 (affecting 7/23a). In Table 9, updated C.4, C.5, C.10–C.12, C.22, C.23, C.28–C.30, C.34, C.37, C.38, C.40, C.41, and C.44–C.46 (affecting 9/7, 9/9, 9/10, 9/12, 9/14–9/16, 9/21, 9/26, 9/27, 9/30–9/34, 9/37, 9/39–9/41, 9/43–9/45, and 9/48–9/50). Removed draft (pre-p0) revision history entries per current BTI conventions.
21	p21	2024-07-01	Approved by BTI on 2024-05-22. Prepared for TCRL 2024-1 publication.

Publication Number	Revision Number	Date	Comments
	p22r00–r22	2024-05-20 – 2024-07-31	Incorporated changes from Decision_Based_ Advertising_Filtering_TEST_CR_r17: In Table 3, added Item 3/14 and note C.15. In Table 5, added Item 4/9 and note C.8. In Table 9, added Item 9/51 and note C.47. Integrated the following test issues for Core v6.0: 20399 (TI 18581, 18583, 18584, 18928, 19316, 19330, 19331), 20408, 20411 – 20415, 20418, 20462, 20468, 20517, 20523, 20555, 20563, 20565, 22454, 22455, 22472, 22497, 22907, 22915, 23436, 24156, and 24788. Incorporated changes from Monitoring Advertising_Test_CR_r02: In Table 9, added Item 9/51 and note C.48. Updated the references list. Updated reference in Table 9, C.47, from SUM ICS to CORE ICS per updated CR. Incorporated CR Enhancements_for_ISOAL_TEST_CR_r12-jorg (which includes Test Issues 22481, 22725, 23116, 23360, 23385, 23913, 23920, 24024, 24096, 24828, 24829, 24830, 24937). To account for the Enhancements for ISOAL feature in Core Specification v6.0, updated References to include Core v6.0 LL layer, added 9/53 with new associated conditional C.49. Incorporated CR Frame Space Update_Test_CR_r08 (which includes Test Issues 25371, 25444, 25452, 25453, 25470, 25471, 25475). To account for the Frame Space Update feature in Core Specification v6.0, updated References to include Core v6.0 LL layer, added 9/54 with new associated conditional C.50. Incorporated CR Core_LLExtendedFeatureSet_Test_CRr11-Jorg (which includes Test Issues 24450, 24696, 24807, 24896, 24905). To account for the Low Energy Extended Feature Set feature in Core Specification v6.0, added a reference to Core v6.0 and added 9/55 with accompanying conditional C.51. Updated C.18 in Tables 6 and 7 to add the new 9/55. Incorporated the changed parts of the Monitoring Advertising_Test_CR_r03 (changes only for Test Issue 25248). Incorporated CR CS_Test_CR_r16-jorg (which includes Test Issues 23205, 23293, 23331, 23332, 23361, 23362, 23363, 23364, 23365, 23378, 23379, 23381, 23382, 23384, 23404, 23419, 23422, 23424, 23425, 23500, 23501, 23502, 23503, 23504, 23506, 23594, 23693, 23694, 23696, 23701, 23706, 23711, 23732, 23736, 23737, 23738, 23776, 23842, 23923, 23993, 24023, 24033, 24043, 24049, 24133, 24135, 24137, 24138, 24139, 24141, 24142, 24143, 24146, 24147, 24149, 24150, 24151, 24153, 24177, 24181, 24231, 24232, 24330, 24331, 24332, 24410, 24411, 24418, 24419, 24478, 24483, 24515, 24531, 24599, 24601, 24602, 24614, 24618, 24619, 24621, 24623,

Publication Number	Revision Number	Date	Comments
			24624, 24625, 24627, 24630, 24639, 24645, 24646, 24655, 24656, 24657, 24659, 24660, 24669, 24681, 24717, 24769, 24776, 24789, 24808, 24809, 24838, 24844, 24850, 24867, 24868, 24893, 24894, 24895, 25028, 25029, 25040, 25042, 25053, 25055, 25111, 25112, 25120, 25139, 25140, 25141, 25142, 25143, 25148, 25149, 25150, 25157, 25166, 25209, 25240, 25278, 25282, 25299, 25428, 25443, 25479, 25498, 25511, 25512, 25525, 25585, 25617, 25632). To account for the Channel Sounding feature of Core v6.0, added references to Core Vol. 6 Part B and Vol. 4 Part E, added 1/7 and 1/8 and related C.6, added 9/56 and 9/57 with related C.52 and C.53, and added new Tables 13 and 14.
			TSE 22164 (rating 3): Per E25486, added items 9/58 and 9/59 and related conditionals C.54 and C.55. Also added a new section/table for mapping of LL feature bits to ICS items.
			TSE 22898 (rating 4): Added a "PDU Support" table. Updated .X references.
			TSE 23586 (rating 4): Per E23069, added 12/6 and related conditional C.2.
			TSE 24877 (rating 2): Per E17874, added Core v6.0 references to 3/1, 3/1a, 3/2, 3/4, 3/4b, 3/5, and 3/5a; updated the conditionals for 3/1a, 3/2, 3/4, 3/4b, 3/5a; updated the wording of Table 3 C.1; added new Table 4a with items 4a/1 – 4a/7 and conditionals C.1–C.7.
			TSE 25572 (rating 2): Removed the prerequisite from Table 2 and assigned text to C.3, setting it as the Status for 2/3 and 2/4.
			TSE 25573 (rating 2): Updated conditional for LL 9/13 "LL Privacy" from O to C.56.
			TSE 25793 (rating 2): Added new items 9/60, 9/61, and 9/62 and related conditionals C.57, C.58, and C.59.
			Incorporated TIs 25248, 25302, 25538, 25746, 25785.
			Captured BTI comments from 2024-07-31 ad hoc and cleaned up title page.
22	p22	2024-09-04	Approved by BTI on 2024-08-14. Prepared for TCRL 2024-2 publication.
	p22ed2r00	2024-09-26	TSE 26368 (rating 1): Corrected 3/10a from "Periodic Advertising with responses" to "Periodic Advertising with Responses".
	p22 edition 2	2024-10-24	Approved by BTI on 2024-10-16. Prepared for edition 2 publication.

Publication Number	Revision Number	Date	Comments
	p23r00–r03	2024-11-01 – 2024-11-25	TSE 25893 (rating 2): Corrected DBAF conditionals to mandatory for C.15 of Table 3 and C.8 of Table 4. TSE 26136 (rating 1): Updated conditionals C.13 and C.14 in Tables 6 and 7 to include Channel Sounding. TSE 26141 (rating 1): Added new PDU names from Core v6.0 release to the PDU Support table. TSE 26519 (rating 2): Per E26398, added a Send to Peer column to the "Mapping of LL feature bits to ICS items" table and added a new table to that section for "Feature Page mapping for Send to Peer value". TSE 26543 (rating 1): Added an RFPHY ILD to 13/10.
23	p23	2025-02-18	Approved by BTI on 2024-12-26. Prepared for TCRL 2025-1 publication.
	p24r00	2025-02-03	TSE 26114 (rating 4): Per E23289, added new ICS item 13/15. TSE 26828 (rating 1): Updated Table 9 to include ILDs to RFPHY and/or to update the Status, including items 9/11 and 9/18–9/24; added new item 9/62; updated conditionals C.4, C.9, C.12–C.14, and C.17–C.19; set conditionals C.15, C.16, and C.27 to "No longer used"; added new conditional C.57.
24	p24	2025-05-06	Approved by BTI on 2025-04-16. Prepared for TCRL 2025-2 publication.

Name	Company
Paul Vanoostende	ST-NXP Wireless
Ben Brown	Teledyne LeCroy