

# Physical Activity Monitor Profile (PAMP)

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

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# 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 Roles

**Table 1: Role Requirements**

Item	Role	Reference	Status
1	Physical Activity Monitor	[1] 2.1	C.1
2	Collector	[1] 2.1	C.1

C.1: Mandatory to support at least one.

### 2.2 Transports

**Table 2: Transport Requirements**

Item	Transport	Reference	Status
1	Profile supported over BR/EDR	[1] 2.5	C.1, C.3
2	Profile supported over LE	[1] 2.5	C.2, C.3

C.1: Excluded for this Profile IF CORE 41/2 “LE Core Configuration” OR CORE 40/1 “Core-Controller”.

C.2: Excluded for this Profile IF CORE 41/1 “BR/EDR Core Configuration” OR CORE 40/1 “Core-Controller”.

C.3: Mandatory to support at least one.

### 2.3 Physical Activity Monitor role

**Table 3: X.Y Versions (Physical Activity Monitor)**

*Prerequisite: PAMP 1/1 “Physical Activity Monitor”*

Item	Version	Reference	Status
1	PAMP v1.0	[1]	M

**Table 4: X.Y.Z Versions (Physical Activity Monitor)**

Table number reserved but not yet in use

#### 2.3.1 Services and Profiles (Physical Activity Monitor)

**Table 5: Services and Profiles Supported**

*Prerequisite: PAMP 1/1 “Physical Activity Monitor”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Physical Activity Monitor Service	[1] 3	M	[7] PAMS
2	Device Information Service	[1] 3	M	[4] DIS
3	User Data Service	[1] 3	C.1	[5] UDS
4	Device Time Profile	[1] 3.4	O	[6] DTP



Item	Capability	Reference	Status	Inter-Layer Dependency
5	PAMS UUID in AD Type field in GAP Discoverable Mode	[1] 3.1.1.1	C.2	N/A
6	Local Name included in AD	[1] 3.1.1.2	C.3	N/A
7	Local Name included in Scan Response Data	[1] 3.1.1.2	C.3	N/A
8	Writable Device Name	[1] 3.1.1.3	O	N/A
9	Appearance included in AD	[1] 3.1.1.4	C.4	N/A
10	Appearance included in Scan Response Data	[1] 3.1.1.4	C.4	N/A
11	Multiple Users	[1] 3.2	C.5	[7] PAMS 2/1

C.1: Mandatory IF PAMP 5/11 “Multiple Users”, otherwise Optional.

C.2: Optional IF PAMP 2/2 “Profile supported over LE”, otherwise Excluded.

C.3: Optional to support one and only one IF PAMP 2/2 “Profile supported over LE”, otherwise Excluded.

C.4: Optional to support one and only one IF PAMP 2/2 “Profile supported over LE”, otherwise Excluded.

C.5: (Reverse ILD) Mandatory IF PAMS 2/1 “Multiple Users”, otherwise Excluded.

### 2.3.2 DTP requirements (Physical Activity Monitor)

**Table 6: Device Time Profile Requirements**

*Prerequisite: PAMP 5/4 “Device Time Profile”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	DTP Server	[1] 3.4	M	[6] DTP 1/1

### 2.3.3 DIS requirements (Physical Activity Monitor)

**Table 7: Device Information Service Requirements**

*Prerequisite: PAMP 5/2 “Device Information Service”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Manufacturer Name String Characteristic	[1] 3.3	M	[6] DIS 2/2
2	Model Number String Characteristic	[1] 3.3	M	[6] DIS 2/3

## 2.3.4 GAP requirements (Physical Activity Monitor)

**Table 8: GAP Requirements (Physical Activity Monitor)**

*Prerequisite: PAMP 1/1 “Physical Activity Monitor”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Peripheral	[1] 2.4.1	C.1	[3] GAP 5/3
2	LE security mode 1	[1] 6.1	C.1	[3] GAP 25/1
3	Unauthenticated Pairing (LE security mode 1 level 2)	[1] 6.1	C.2	[3] GAP 25/8
4	Authenticated Pairing (LE security mode 1 level 3)	[1] 6.1	C.2	[3] GAP 25/7

C.1: Mandatory IF PAMP 2/2 “Profile supported over LE”, otherwise not defined.

C.2: Mandatory to support at least one IF PAMP 2/2 “Profile supported over LE”, otherwise not defined.

## 2.4 Collector role

**Table 9: X.Y Versions (Collector)**

*Prerequisite: PAMP 1/2 “Collector”*

Item	Version	Reference	Status
1	PAMP v1.0	[1]	M

**Table 10: X.Y.Z Versions (Collector)**

Table number reserved but not yet in use

### 2.4.1 Services and Profiles (Collector)

**Table 11: Client Services and Profiles Supported**

*Prerequisite: PAMP 1/2 “Collector”*

Item	Version	Reference	Status	Inter-Layer Dependency
1	Discover Physical Activity Monitor Service	[1] 4	M	N/A
2	Discover Device Information Service	[1] 4	O	N/A
3	Discover User Data Service	[1] 4	M	N/A
4	Device Time Profile	[1] 4.9	M	[6] DTP
5	Writing User Data Service Characteristics	[1] 4.6	O	N/A



**Table 12: PAM Service Characteristic Support Requirements (Collector)***Prerequisite: PAMP 11/1 "Discover Physical Activity Monitor Service"*

Item	Version	Reference	Status
1	Physical Activity Monitor Features	[1] 4.4.1	M
2	General Activity Instantaneous Data	[1] 4.4.2	M
3	General Activity Summary Data	[1] 4.4.3	M
4	CardioRespiratory Activity Instantaneous Data	[1] 4.4.4	O
5	CardioRespiratory Activity Summary Data	[1] 4.4.5	O
6	Step Counter Activity Summary Data	[1] 4.4.6	O
7	Sleep Activity Instantaneous Data	[1] 4.4.7	O
8	Sleep Activity Summary Data	[1] 4.4.8	O
9	Physical Activity Monitor Control Point	[1] 4.4.9	M
10	Physical Activity Current Session	[1] 4.4.10	M
11	Physical Activity Session Descriptor	[1] 4.4.11	M

## 2.4.2 UDS requirements (Collector)

**Table 13: UDS Requirements (Collector)***Prerequisite: PAMP 11/3 "Discover User Data Service"*

Item	Version	Reference	Status
1	Database Change Increment	[1] 4.6.1	C.1
2	User Control Point	[1] 4.6.2	M
3	User Index	[1] 4	M
4	Other UDS characteristics	[1] 4.6.3	O
5	User Data Synchronization Procedure	[1] 4.6.4	C.2
6	Database Change Increment Notification	[1] 4.6.1	C.3

C.1: Mandatory IF PAMP 11/5 "Writing User Data Service Characteristics", otherwise Optional.

C.2: Optional IF PAMP 13/1 "Database Change Increment", otherwise Excluded.

C.3: Mandatory IF PAMP 13/5 "User Data Synchronization Procedure", otherwise Optional.

## 2.4.3 DTP requirements (Collector)

**Table 14: DTP Requirements (Collector)***Prerequisite: PAMP 11/4 "Device Time Profile"*

Item	Version	Reference	Status	Inter-Layer Dependency
1	DTP Client	[1] 4.9	M	[6] DTP 1/2

## 2.4.4 GATT requirements (Collector)

**Table 15: GATT Requirements (Collector)**

*Prerequisite: PAMP 1/2 “Collector”*

Item	Version	Reference	Status	Inter-Layer Dependency
1	Discover All Primary Services	[1] 4.1	C.1	[2] GATT 3/2
2	Discover Primary Service by Service UUID	[1] 4.1	C.1	[2] GATT 3/3
3	Discover All Characteristics of a Service	[1] 4.1	C.2	[2] GATT 3/5
4	Discover Characteristics by UUID	[1] 4.1	C.2	[2] GATT 3/6
5	Discover All Characteristic Descriptors	[1] 4.1	M	[2] GATT 3/7
6	Read Characteristic Value	[1] 4.1	M	[2] GATT 3/8
7	Read Long Characteristic Value	[1] 4.1	M	[2] GATT 3/10
8	Write Characteristic Value	[1] 4.1	M	[2] GATT 3/14
9	Read Characteristic Descriptor	[1] 4.1	M	[2] GATT 3/19
10	Write Characteristic Descriptor	[1] 4.1	M	[2] GATT 3/21
11	GATT Client over LE	[1] 2.1	C.3	[2] GATT 1a/1
12	GATT Client over BR/EDR	[1] 2.1	C.4	[2] GATT 1a/2

C.1: Mandatory to support at least one IF PAMP 2/2 “Profile supported over LE”, otherwise not defined.

C.2: Mandatory to support at least one.

C.3: Mandatory IF PAMP 2/2 “Profile supported over LE”, otherwise not defined.

C.4: Mandatory IF PAMP 2/1 “Profile supported over BR/EDR”, otherwise not defined.

## 2.4.5 GAP requirements (Collector)

**Table 16: GAP Requirements (Collector)**

*Prerequisite: PAMP 1/2 “Collector”*

Item	Capability	Reference	Status	Inter-Layer Dependency
1	Central	[1] 2.4.1	C.1	[3] GAP 5/4
2	Initiation of dedicated bonding	[1] 6.3	C.2	[3] GAP 3/6
3	Bondable mode	[1] 6.2	C.1	[3] GAP 34/2
4	Bonding procedure	[1] 6.2	C.1	[3] GAP 34/3
5	LE security mode 1	[1] 6.1	C.1	[3] GAP 35/1
6	Unauthenticated Pairing (LE security mode 1 level 2)	[1] 6.1	C.1	[3] GAP 35/8
7	Authenticated Pairing (LE security mode 1 level 3)	[1] 6.1	C.1	[3] GAP 35/7
8	Bondable mode	[1] 6.3	C.3	[3] GAP 1/7

C.1: Mandatory IF PAMP 2/2 “Profile supported over LE”, otherwise not defined.

C.2: Mandatory IF PAMS 2/1 “Multiple Users” AND PAMP 2/1 “Profile supported over BR/EDR”, otherwise not defined.

C.3: Mandatory IF PAMP 2/1 “Profile supported over BR/EDR”, otherwise not defined.



## 3 References

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- [1] Physical Activity Monitor Profile (PAMP) Specification, Version 1.0
- [2] ICS Proforma for Generic Attribute Profile (GATT)
- [3] ICS Proforma for Generic Access Profile (GAP)
- [4] ICS Proforma for Device Information Service (DIS)
- [5] ICS Proforma for User Data Service (UDS)
- [6] ICS Proforma for Device Time Profile (DTP)
- [7] ICS Proforma for Physical Activity Monitor Service (PAMS)

## 4 Revision history and acknowledgments

### Revision History

Publication Number	Revision Number	Date	Comments
0	p0	2020-12-22	Approved by BTI on 2020-12-07. PAMP v1.0 adopted by BoD on 2020-12-15. Prepared for publication.
	p1r00	2023-10-05 – 2023-10-06	TSE 23950 (rating 2): Resolved GATT inter-layer dependencies. Made editorial edits to align the document with the latest ICS template, including updates to the IUT identification section, formatting updates to section and table titles, and removal of “is supported” language in conditionals. Updated C.1 for Tables 1 and 2. In Table 5, updated C.1–C.4. In Table 7, updated the Capability value for Items 1 and 2. In Table 8, updated the Status value for Item 1, the Capability value for Item 2, and conditionals C.1 and C.2. Updated the Capability value for Items 1–3 in Table 11. Corrected the heading in the Capability column for Tables 11–15. Updated the prerequisite for Tables 12 and 13. In Table 15, updated the Capability value for Items 5 and 7, added Items 11 and 12, updated C.1 and C.2, and added C.3 and C.4. In Table 16, updated the Capability values for Items 3–5 and the Status values for Items 4, 6, and 7; added Item 8; updated C.1 and C.2; deleted C.3 and C.4; and added a new C.3. Updated the formatting of the list of references.  Updated the copyright page to align with v2 of the DNMD. Deleted draft revision history comments prior to p0.
1	p1	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.
	p1ed2r00	2025-07-08	TSE 27377 (rating 1): Updated the Status for PAMP 2/1 and PAMP 2/2, added conditions C.1 and C.2, and renumbered the previous C.1 as C.3.
	p1 edition 2	2025-08-05	Approved by BTI on 2025-08-05. Prepared for edition 2 publication.
	p2r00	2025-08-14	TSE 27560 (rating 1): Updated the ILD column for Items 8/1 and 16/1 to delete references to GAP Table 38.
2	p2	2025-11-04	Approved by BTI on 2025-10-02. Prepared for TCRL pkg101 publication.
	p3r00–r02	2025-12-07 – 2025-12-31	TSE 28122 (rating 1): Updated the status for PAMP 5/11 and condition C.1 and added C.5 to for Table 5. TSE 28169 (rating 1): Updated the conditions in the transport table to make sure the layer is excluded when the design is an implementation of the Core-Controller Configuration by adding "OR CORE 40/1 "Core-Controller"" to an already excluded transport based on Core Configuration support.
3	p3	2026-02-17	Approved by BTI on 2026-01-21. Prepared for TCRL pkg102 publication.



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