Physical Activity Monitor Service (PAMS)

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

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1 Identification of the implementation

1.1 Implementation Under Test (IUT) identification

Identification of the Implementation Under Test (IUT) is to be filled in to provide as much detail as possible regarding version numbers and configuration options.

An ICS contact person to respond to queries regarding information supplied in this ICS proforma is named in the Declaration of Compliance: Summary of Selected Specifications in Implementation.

1.2 Versions

Table 0: X.Y Versions

Item	Version	Reference	Status
1	PAMS v1.0	[1] 2.1	M

1.3 Transports

Table 1: Transport Requirements

Item	Transport	Reference	Status
1	Service supported over BR/EDR	[1] 1.6	C.1
2	Service supported over LE	[1] 1.6	C.1

C.1: Mandatory to support at least one.

1.4 Service feature requirements

Table 2: Feature Requirements

Item	Feature	Reference	Status
1	Multiple Users	[1] 3.1.1.1	C.1
2	User Data Service	[1] 3.1.1.1	C.1
3	Device Worn	[1] 3.1.1.1	C.1
4	Normal Walking Energy Expenditure	[1] 3.1.1.1 [1] 3.3.1.1.7	C.1
5	Normal Walking Energy Expenditure per Hour	[1] 3.1.1.1 [1] 3.2.1.1.7	C.1
6	Intensity Energy Expenditure	[1] 3.1.1.1 [1] 3.3.1.1.8	C.1
7	Intensity Energy Expenditure per Hour	[1] 3.1.1.1 [1] 3.2.1.1.8	C.1
8	Total Energy Expenditure	[1] 3.1.1.1 [1] 3.3.1.1.9	C.1
9	Total Energy Expenditure per Hour	[1] 3.1.1.1 [1] 3.2.1.1.9	C.1
10	Fat Burned	[1] 3.1.1.1 [1] 3.3.1.1.10	C.1
11	Fat Burned per Hour	[1] 3.1.1.1 [1] 3.2.1.1.10	C.1
12	Metabolic Equivalent	[1] 3.1.1.1 [1] 3.2.1.1.11	C.1
13	Distance	[1] 3.1.1.1 [1] 3.3.1.1.14	C.1
14	Speed	[1] 3.1.1.1 [1] 3.2.1.1.12	C.1

Item	Feature	Reference	Status
15	Duration of Normal Walking Episodes	[1] 3.1.1.1 [1] 3.3.1.1.18	C.1
16	Duration of Intensity Walking Episodes	[1] 3.1.1.1 [1] 3.3.1.1.19	C.1
17	Motion Cadence	[1] 3.1.1.1 [1] 3.2.1.1.13	C.1
18	Floors	[1] 3.1.1.1 [1] 3.3.1.1.23	C.1
19	Positive Elevation Gain	[1] 3.1.1.1 [1] 3.3.1.1.24	C.1
20	Negative Elevation Gain	[1] 3.1.1.1 [1] 3.3.1.1.25	C.1
21	Elevation	[1] 3.1.1.1 [1] 3.2.1.1.14	C.1
22	Activity Count	[1] 3.1.1.1 [1] 3.3.1.1.26	C.1
23	Activity Count per Minute	[1] 3.1.1.1 [1] 3.2.1.1.15	C.1
24	Activity Level	[1] 3.1.1.1 [1] 3.2.1.1.16	C.1
25	Activity Type	[1] 3.1.1.1 [1] 3.2.1.1.17	C.1
26	Worn Duration	[1] 3.1.1.1 [1] 3.3.1.1.31	C.1
27	Time in Heart Rate Zone1	[1] 3.1.1.1 [1] 3.5.1.1.7	C.1
28	Time in Heart Rate Zone2	[1] 3.1.1.1 [1] 3.5.1.1.8	C.1
29	Time in Heart Rate Zone3	[1] 3.1.1.1 [1] 3.5.1.1.9	C.1
30	Time in Heart Rate Zone4	[1] 3.1.1.1 [1] 3.5.1.1.10	C.1
31	Time in Heart Rate Zone5	[1] 3.1.1.1 [1] 3.5.1.1.11	C.1
32	VO2 Max	[1] 3.1.1.1 [1] 3.4.1.1.7	C.1
33	Heart Rate	[1] 3.1.1.1 [1] 3.4.1.1.8	C.1
34	Pulse Inter-beat Interval	[1] 3.1.1.1 [1] 3.4.1.1.9	C.1
35	Resting Heart Rate	[1] 3.1.1.1 [1] 3.4.1.1.10	C.1
36	Heart Rate Variability	[1] 3.1.1.1 [1] 3.4.1.1.11	C.1

Item	Feature	Reference	Status
37	Respiration Rate	[1] 3.1.1.1 [1] 3.4.1.1.12	C.1
38	Resting Respiration Rate	[1] 3.1.1.1 [1] 3.4.1.1.13	C.1
39	Normal Walking Steps	[1] 3.1.1.1 [1] 3.6.1.1.7	C.1
40	Intensity Steps	[1] 3.1.1.1 [1] 3.6.1.1.8	C.1
41	Floor Steps	[1] 3.1.1.1 [1] 3.6.1.1.9	C.1
42	Total Sleep Time	[1] 3.1.1.1 [1] 3.8.1.1.7	C.1
43	Total Wake Time	[1] 3.1.1.1 [1] 3.8.1.1.8	C.1
44	Total Bed Time	[1] 3.1.1.1 [1] 3.8.1.1.9	C.1
45	Number of Awakenings	[1] 3.1.1.1 [1] 3.8.1.1.10	C.1
46	Sleep Latency	[1] 3.1.1.1 [1] 3.8.1.1.11	C.1
47	Sleep Efficiency	[1] 3.1.1.1 [1] 3.8.1.1.12	C.1
48	Snooze Time	[1] 3.1.1.1 [1] 3.8.1.1.13	C.1
49	Number of Toss-&-turn Events	[1] 3.1.1.1 [1] 3.8.1.1.14	C.1
50	Time of Awakening After Alarm	[1] 3.1.1.1 [1] 3.8.1.1.15	C.1
51	Visible Light Level	[1] 3.1.1.1 [1] 3.7.1.1.7	C.1
52	UV Light Level	[1] 3.1.1.1 [1] 3.7.1.1.8	C.1
53	IR Light Level	[1] 3.1.1.1 [1] 3.7.1.1.9	C.1
54	Sleep Stage	[1] 3.1.1.1 [1] 3.7.1.1.10	C.1
55	Sleeping Heart Rate	[1] 3.1.1.1 [1] 3.7.1.1.11	C.1

C.1: Mandatory to support at least one.

1.5 Service requirements

Table 3: Service Requirements

Item	Feature	Reference	Status
1	Physical Activity Monitor Service	[1] 2.1	M
2	Physical Activity Monitor Features Characteristic	[1] 3.1	M
3	General Activity Instantaneous Data Characteristic	[1] 3.2	M
4	General Activity Summary Data Characteristic	[1] 3.3	M
5	CardioRespiratory Activity Instantaneous Data Characteristic	[1] 3.4	O
6	CardioRespiratory Activity Summary Data Characteristic	[1] 3.5	O
7	Step Counter Activity Summary Data Characteristic	[1] 3.6	O
8	Sleep Activity Instantaneous Data Characteristic	[1] 3.7	O
9	Sleep Activity Summary Data Characteristic	[1] 3.8	O
10	Physical Activity Monitor Control Point Characteristic	[1] 3.9	M
11	Physical Activity Current Session Characteristic	[1] 3.10	M
12	Physical Activity Session Descriptor Characteristic	[1] 3.11	M

Table 4: Control Point Procedure Requirements

Prerequisite: PAMS 3/10 “Physical Activity Monitor Control Point Characteristic”

Item	Feature	Reference	Status
1	Enquire Sessions Procedure	[1] 3.9.1.1.1 [1] 3.9.3.3	M
2	Enquire Sub-sessions Procedure	[1] 3.9.1.1.2 [1] 3.9.3.4	M
3	Get Ended Session Data Procedure	[1] 3.9.1.1.3 [1] 3.9.3.5	M
4	Start Session/Sub-session Procedure	[1] 3.9.1.1.4	M
5	Stop Session Procedure	[1] 3.9.1.1.5	M
6	Delete Ended Session Procedure	[1] 3.9.1.1.6	M
7	Set Average Activity Type Procedure	[1] 3.9.1.1.7	C.1

C.1: Mandatory IF PAMS 2/25 “Activity Type”, otherwise Excluded.

1.6 GATT requirements

Table 5: GATT Requirements

Item	Feature	Reference	Status	Inter-Layer Dependency
1	No longer used	N/A	N/A	N/A
1a	GATT Server over BR/EDR	[1] 1.5	C.1	[2] GATT 1a/4
1b	GATT Server over LE	[1] 1.5	C.2	[2] GATT 1a/3
2	Read Long Characteristic Values	[1] 1.5	M	[2] GATT 4/10

Item	Feature	Reference	Status	Inter-Layer Dependency
3	Write Characteristic Value	[1] 1.5	M	[2] GATT 4/14
4	Notifications	[1] 1.5	M	[2] GATT 4/17
5	Indications	[1] 1.5	M	[2] GATT 4/18
6	Read Characteristic Descriptors	[1] 1.5	M	[2] GATT 4/19
7	Write Characteristic Descriptors	[1] 1.5	M	[2] GATT 4/21

C.1: Mandatory IF PAMS 1/1 “Service supported over BR/EDR”, otherwise not defined.

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

1.7 SDP requirements

Table 6: SDP Requirements

Prerequisite: PAMS 1/1 “Service supported over BR/EDR”

Item	Feature	Reference	Status
1	SDP record present for PAMS	[1] 4	M
2–4	No longer used	N/A	N/A

2 References

[1] Physical Activity Monitor Service (PAMS) Specification, Version 1.0

[2] ICS Proforma for Generic Attribute Profile (GATT)

3 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	p0	2020-12-22	Approved by BTI on 2020-12-07. PAMS v1.0 adopted by BoD on 2020-12-15. Prepared for publication.
	p1r00	2023-10-06	TSE 23674 (rating 2): Resolved GATT and SDP inter-layer dependencies. Made editorial edits to align the document with the latest ICS template, including updates to the IUT identification section, updates to table titles and spacing, and removal of “is supported” language in conditionals. Updated C.1 for Tables 1 and 2. Deleted section number and heading for 1.5.1, Physical Activity Monitor Service (but retained section content). In Table 5 (GATT Requirements), marked Item 1 as no longer used, added Items 1a and 1b, updated the Feature value in Items 4 and 5, and added C.1 and C.2. In Table 6 (SDP Requirements), deleted the ILD column, updated the Feature value for Item 1, and marked Items 2–4 as no longer used. Updated the references. Updated the copyright page to align with v2 of the DNMD. Deleted draft revision history comments prior to p0.
	p1r01	2023-12-06	Consistency checker editorial.
1	p1	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.

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