

Vital Signs BLE Protocol based on mmWave Platform v01.03

Abstract:

This document dedicated description for Vital Signs BLE Protocol based on mmWave Platform

Description:

The BLE Protocol structure as followings,

BLE Protocol:

<FrameStructure> := h f BR HR BP HP s t (more detail see Appendix A2)

Appendix:

(A1) Frame Period Time : 50 ms (based on mmWave board firmware v01.54 or v30.02, later)

(A2)

```
/* BLE protocol for Vital Signs
```

```
/* syntax: h f BR HR BP HP s t
```

```
/*
```

Item	Name	Location	Length	Type	Description
0	h	0	1	U8	header (0x7B) or ('{')
1	f	1	1	'0'..'9'	flow for readable
2	BR	2 3 4 5	4	F32	Breath Rate
3	HR	6 7 8 9	4	F32	Heart Rate
4	BP	10 11 12 13	4	F32	Breath Waveform Phase
5	HP	14 15 16 17	4	F32	Heart Waveform Phase
6	s	18	1	U8	Status, see Notes
7	t	19	1	U8	tail (0x7D) or ('}')

```
/*
```

Notes: Type definition as followings,

Status := {0x00 | 0x01 | 0x02 | 0x03}

:= {TargetNone | TargetStable | TargetMovement | TargetAlert}

U8 := unsigned char (1 bytes)

F32 := float (4 bytes in LittleEndian format)

```
/*
```

(A3) example on data logged in Real case

