

## High Accuracy BLE Protocol based on mmWave Platform v02.02

### Abstract:

This document dedicated description for High Accuracy BLE Protocol based on mmWave Platform

### Description:

The BLE Protocol structure as followings,

BLE Protocol:

<FrameStructure> := h f r D r c t (more detail see Appendix A2)

### Appendix:

(A1) Frame Period Time : 50 ms (based on mmWave board firmware v02.09)

(A2)

```
/* syntax: h f r D r c t
```

Item	Name	Location	Length	Type	Description
0	h	0	1	U8	header (0x2E) or ('.')
1	f	1	1	'0'..'9'	flow for readable
2	r	2 3 4 5 6 7	6	U8 array	reserved
3	D	8 9 10 11	4	F32	Distance (uint: m)
4	r	12 13 14 15 16 17	6	U8 array	reserved
5	c	18	1	'a'..'z'	checkSum := see Notes
6	t	19	1	U8	tail (0x3A) or (':')

Notes: Type definition as followings,

checkSum := (xor(Location0..17) % 26) + 'a' // 'a'..'z' for readable purpose

U8 := unsigned char (1 bytes)

F32 := float (4 bytes in LittleEndian format)

(A3) example on data logged in Real case

