



VERSION 1.0

Sbeacon Packet Guide Non-AoA



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1. Packet Format

Advertising PDU	Label	Value	Byte
Length		0x1E	0
Type		0xFF	1
Company ID	Company ID	0x41	2
		0x0B	3
DATA	MAC	0xXX	4
		0xXX	5
		0xXX	6
		0xXX	7
		0xXX	8
		0xXX	9
	Structure Type	0x01	10
	Color	0x01	
	Firmware Version	0x04	11
	Firmware Revision	0x00	
	Hardware Version	0x08	12
	Hardware Revision	0x00	13
	Life (month)	0x7A	14
	Status Byte 1	0x00	15
	Status Byte 2	0x00	16
	B. Volt	0xFF	17
	Run-hours	0xFFFFFFFF	18
			19
			20
	Temp	0xFFFF	21
			22
	Humidity	0xFFFF	23
			24
	Pressure	0xFFFFFFFF	25
			26
			27
	Accelerometer(x,y,z)	0xFF	28
		0xFF	29
		0xFF	30

2. Telemetry Information Extraction

- **Beacon Type** = (Byte[10] >> 4) & 0b00001111
 - *Beacon Type = 1 (Generic)*
- **Beacon Color** = Byte[10] & 0b00001111
- **Firmware Version** = (Byte[11] >> 4) & 0b00001111
- **Firmware Revision** = Byte[11] & 0b11110000
- **Hardware Version** = Byte[12]
- **Hardware Version** = Byte[13]
- **Battery Life** = Byte[14]
- **Beacon Orientation** = (Byte[15] >> 5) & 0b00000011
 - *Beacon Orientation = 0 (No Orientation)*
 - *Beacon Orientation = 1 (Flat Oriented)*
 - *Beacon Orientation = 2 (Vertically Oriented)*
 - *Beacon Orientation = 3 (Flat and Vertically Oriented)*
- **Button Value** = (Byte[15] >> 3) & 0b00000001
 - *Button Value = 0 (Released)*
 - *Button Value = 1 (Pressed)*
- **Beacon Movement** = (Byte[15] >> 1) & 0b00000001
 - *Beacon Movement = 0 (Static)*
 - *Beacon Movement = 1 (Moving)*
- **Beacon Connectability** = Byte[15] & 0b00000001
 - *Beacon Connectability = 0 (Connectable)*
 - *Beacon Connectability = 1 (Non-Connectable)*

- **Beacon Transmission Power Level** = $\text{Byte}[16] \& 0b00000111$
 - *Beacon Transmission Power Level* = 1 (4dBm)
 - *Beacon Transmission Power Level* = 2 (0dBm)
 - *Beacon Transmission Power Level* = 3 (-4dBm)
 - *Beacon Transmission Power Level* = 4 (-8dBm)
 - *Beacon Transmission Power Level* = 5 (-12dBm)
 - *Beacon Transmission Power Level* = 6 (-16dBm)
 - *Beacon Transmission Power Level* = 7 (-20dBm)
- **Beacon Transmit Interval** = $(\text{Byte}[16] \gg 3) \& 0b00000111$
 - *Beacon Transmit Interval* = 1 (100ms)
 - *Beacon Transmit Interval* = 2 (200ms)
 - *Beacon Transmit Interval* = 3 (300ms)
 - *Beacon Transmit Interval* = 4 (400ms - 500ms)
 - *Beacon Transmit Interval* = 5 (600ms - 1s)
 - *Beacon Transmit Interval* = 6 (1.1s - 2s)
 - *Beacon Transmit Interval* = 7 (2.1s - 5s)
- **Beacon Battery Voltage** = $(\text{Byte}[17] + 150) / 100.0$
- **Beacon Run Hours** = $(\text{Byte}[18] \ll 16) \mid (\text{Byte}[19] \ll 8) \mid \text{Byte}[20]$
- **Beacon Temperature Sensor** = $\text{Byte}[21] + (\text{Byte}[22] / 100.0)$
- **Beacon Accelerometer Sensor:**
 - **X-Axis** = $\text{Byte}[28]$
 - **Y-Axis** = $\text{Byte}[29]$
 - **Z-Axis** = $\text{Byte}[30]$

Disclaimer:

This guide is intended for informational purposes only. If in doubt at any stage of the installation or operation of the locator/gateway always consult Sentrax’s authorized dealer, distributor, or get in touch directly with Sentrax GmbH.

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