

How to get the Beacon's battery level in IOS system

Introduction

We provide 4 ways to get the battery level for the ios system without connecting the JAALee Beacon.

The first way:

Using the highest four bits to show the battery level which means that using the Beacon parameters' highest four bits to show the battery level and divide the battery level into 15 levels. For example, 0-F(1-15).F means the battery level is 100% and 0 means the battery level is 0.(Usually, we recommend this way to get the battery level.)

How to get it: for example, when you get the major as 65535 = 0xFFFF means the actual minor value is 0xFFFF = 4095. And the battery level is F which means the battery level is 100%.

Code Parameters:

```
Int Minor = [beacon.Minor intValue];
UInt8_t BattLevel = (( Minor >> 12) & 0x0F)
UInt8_t BattLevel1 = (( Minor & 0xF000) >> 12)
```

The second way,

Using the highest one byte values to show the battery which means that using the Beacon parameters' highest one byte to show the battery level and divide the battery level into 100 levels. It means that 0%-100%. (Usually, we recommend to get the battery level in this way.)

How to get it: for example, The minor value is 25855 = 0x64FF means that the real Minor value is 0xFF = 255, battery level is 0x64 = 100%.

Code parameter:

```
Int Minor = [beacon.Minor intValue];
UInt8_t BattLevel = (( Minor >> 8) & 0xFF)
UInt8_t BattLevel1 = (( Minor & 0xFF00) >> 8)
```

The third way:

Using UUID, Major, Minor of the Beacon parameters as the Key, and broadcasting the key and the battery information to outside, which can be received by scanning. The data can be broadcasted twice every 50 seconds. (Usually, we don't recommend this way to get the battery level.)

```
if ([advertisementData objectForKey:@"kCBAAdvDataManufacturerData"] != nil) {
    NSData *ManufacturerData = [advertisementData objectForKey:@"kCBAAdvDataManufacturerData"];
    unsigned char data[26];

    [ManufacturerData getBytes:&data];
    uint8_t BattLevel = data[25];
    NSLog(@"Battery level :%d", BattLevel); }
```

The forth way:

Using JAALee Beacon's own ID as the Key, and broadcasting the key and the battery information to outside,

which can be received by scanning. The data can be broadcasted twice every 50 seconds. (This way is something like the third way, so we usually don't suggest to get battery level in this way.)