

# BCI Protocol (v1.2)

-----For Bluetooth & USB Oximeter

**Package Length** : 5 bytes

**Transmit Rate** : 100 Hz

**Package Content** :

Byte	Bit	Description
1	0~3	Signal strength (0~8)
	4	1=no signal, 0=OK
	5	1=probe unplugged, 0=OK
	6	1=pulse beep
	7	Sync bit = 1 (Package Head)
2	0~6	Pleth (0-100, invalid pleth=0)
	7	Sync bit = 0
3	0~3	Bargraph (0-15, invalid bar=0)
	4	No finger=1, 0=OK
	5	Pulse research=1, 0=OK
	6	Bit 6 of Byte 3 is bit 7 of the Pulse Rate
	7	Sync bit = 0
4	0~6	Bits 0-6 of Byte 4 are bits 0-6 of the Pulse Rate
	7	Sync bit = 0
5	0~6	SpO2 (0-100%)
	7	Sync bit = 0

## Tips:

Invalid pleth = 0      Invalid Bargraph = 0

Invalid Pulse Rate = 0xFF      Invalid Spo2 = 0x7F

## Demo:

Android BLE demo: <https://github.com/zh2x/SpO2-BLE-for-Android> \*

Android Classic Bluetooth Demo: <https://github.com/zh2x/SpO2-Bluetooth-for-Android> \*

iOS demo: <https://github.com/zh2x/SpO2-BLE-for-iOS>

**\* Single BLE Bluetooth's MAC address begins with "00 A0 50". if not, dual mode Bluetooth module inside, but BLE Mode is only available for iOS, and the Classic Mode for Windows and Android.**

## Change Log:

history	content	date
V1.1	Add android and iOS demo source github link. Add change log.	2015-11-10
V1.2	Add Classic Bluetooth demo.	2017-03-20