Unique Scales Cloud Scale Communication protocol V1.4

1, revise records

修订版本	修改内容	修订人	日期
V1.0	全新制定	杨先文	2016.8.23
V1.1	1、修改接收和发送都变成11个字节	杨先文	2016.9.8
	2、在秤发送的数据中将6-8位改成加密的		
	阻抗值(兼容加密和不加密的APP使用)		
	3、在秤接收的数据中增加1为预留位		
V1.2	1、修改能够接收并显示手机发下来的用户	杨先文	2016.10.15
	组		
V1.3	1、扩充厨房秤单位	杨先文	2016.11.12
V1.4	1、增加:抱婴模式	杨先文	2016.11.28

2、 Serial asynchronous communication UART, Baud rate 4800pbs

3、 Format: data sending from Scale to Bluetooth

byte	value	Description	
1	I IIINT X	Device: CF stands for Body Fat Scales, CE for Bathroom Scale, CB for Baby Scale, CA for Kitchen Scale	
2-3	uint16	The first body impedance, accuracy 0.1 (Byte2 for low byte, Byte3 for high byte)	
4-5	uint16	Weight Unit: KG (for Body Fat Scales baby scales and Bathroom Scales)	
		Weight Unit: g (for kitchen Scales)	
		Accuracy: 0.01 (for Body Fat Scales baby scales and Bathroom Scal	
		es)	
		Accuracy: 1 (for kitchen Scales)	
		Byte4 for low byte, Byte5 for high byte	
6-8	I IIINT X	Encryption Body Impedance, if no value, fill in 0	
	unito	Byte6 for low byte, Byte7 for middle byte, Byte8 for high byte	
9	uint8	Unit (00: for KG 01 for LB	
		02: for ST 03 for斤	
		04: for g 05 for lb:oz	
		06: for oz 07 for ml(water)	
08: for ml (milk)) data type (00 + Locked data 01 + Transmitting Data		data type (00: Locked data 01: Transmitting Data	
10	uint8	02: Overloaded 35: Shut Down	
		36: do not calculate Body Age, it is a locked data	
		(Other data received in Byte 10 will be calculated into body	
		age)	
		20: Means group no.P0 21: Means group no.P1	
		22: Means group no.P2 23: Means group no.P3	
		24: Means group no.P4 25: Means group no.P5	

		26: Means group no.P6	27: Means group no.P7	
		28: Means group no.P8	29: Means group no.P9	
11	11 uint8 XOR checkout: Byte1-byte10 XOR checksum			

Example: CF 88 13 00 14 66 77 88 00 00 40

byte1: CF Stands for Body Fat Scales

byte2 byte3: 88 13 Stands for first impedance(Not Valid at present)

byte4 byte5 : 00 14 Stands for weight 14 00 (hexadecimal) = 5120 (decimal)

=5120*0.01=51.2KG

byte6byte7 byte8: 00 00 00 Stands for NO Second impedance

Byte9: 00 stands for Current unit KG

Byte10: 00 stands for Current date is locked

Byte11: 40 stands for byte1-byte9 XOR checksum

4、Format: data send from Bluetooth to Scale

byte	value	Description
1	uint8	Head: FD, stands for date send from phone to scale
2	uint8	Command: 34: Stand for calibration command 35: Stand for shut down command
		36: Stand for Low energy command
		37: Stand for valid group info 38: Stand for infant weighing mode
3	uint8	Byte for Unit Switch
	anico	(00: for KG 01 for LB
		02: for ST 03 for斤 Chinese Jin)
4	uint8	User group: (00: Stands for group 0
		01: Stands for group 0
		or. Starius foi group i
		09: Stands for group 9)
5-10	— —	reserved byte: (fill in 00)

11 uint8 XOR check, stand for Byte1-byte10 XOR checksum

Example: FD 34 00 00 00 00 00 00 00 00 C9

byte1: FD: stands for data send from phone to scale

byte2: 34: stands for calibration command Byte3: 00: stands for unit switch to KG

Byte4: 00: User group 0

Byte5-byte10: reserved byte: (fill in 00)

Byte11: C9 stand for Byte1-byte9 XOR checksum

5. Notice

1. Data show in Example is all in hexadecimal

2. If there is valid data, fill in 0

3. All data are little endian data

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