Bluetooth® Low Energy Protocol Stack

rBLE Command Specification

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Introduction

This document describes the rBLE Command Specification for Renesas Bluetooth Low Energy Microcontroller (RL78/G1D).

Target Device

RL78/G1D

Contents

1. Purpose

   This document is described about communication between APP-MCU and BLE-MCU of Modem configuration's BLE protocol stack for RL78/G1D.

2. Application

   This document is applied about communication specification between APP-MCU and BLE-MCU of Modem configuration's BLE protocol stack for RL78/G1D.

3. System configuration

   The rBLE command is communication command when user application is executed by different MCU. This configuration is called "Modem configuration".

   Figure 3-1 shows the BLE software configuration when Modem configuration. The rBLE consists of 3 layers in rBLE_HOST, MDM_APPL, and rBLE_Core. APP-MCU and BLE-MCU of Modem configuration is used by serial interface (UART or CSI or IIC) for communication. The rBLE command communicates in RSCIP (Renesas Serial Communication Interface Protocol) in serial interface.

   Note: Refer to "4. The Physical Communication Specification" about RSCIP.
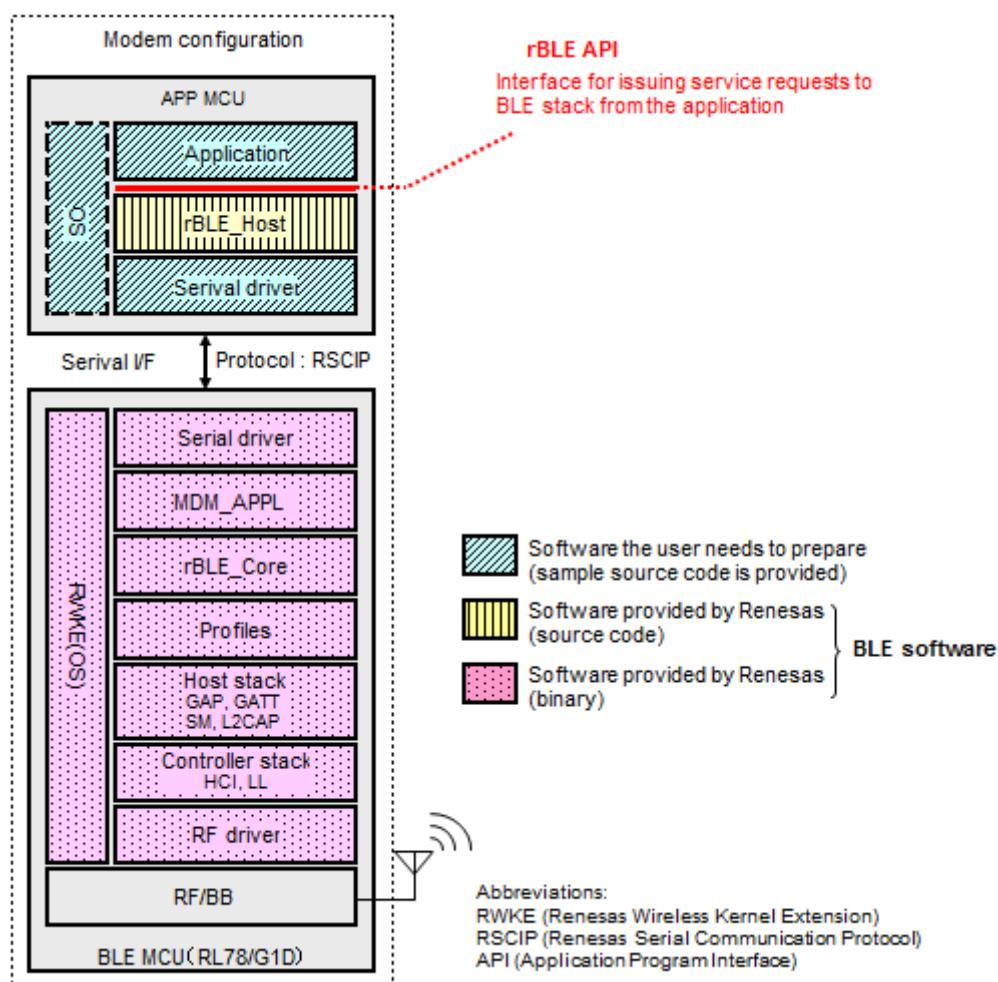
Figure 3-1 System Configuration

4. The Physical Communication Specification

4.1   The Physical Connection

APP-MCU and BLE-MCU communicates through serial interface (UART or CSI or IIC). The following connection methods are provided for serial communication.

For details about connection methods, see *Bluetooth Low Energy Protocol Stack API User's Manual, 5.4, Serial Communication in Modem Configuration*

Table 4-1 Connection methods for serial communication

Serial Interface	Connection method
UART	2-wire
	3-wire
	2-wire with branch
CSI	4-wire
	5-wire
IIC	3-wire

4.2   Encoding Rule

The data communication is used for SLIP (Serial Line Internet Protocol). Figure 4-1 shows SLIP configuration. The SLIP layer places octet 0xC0 at the start and end of every packet it transmits. Any occurrence of 0xC0 in the original packet is changed to the sequence0xDB 0xDC before being transmitted. Any occurrence of 0xDB in the original packet is changed to the sequence 0xDB 0xDD before being transmitted.

C0	C0	Slip Packet 1	C0	C0	Slip Packet 2	C0	C0
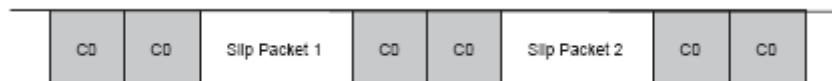
Figure 4-1 SLIP Packets with 0xC0 at the Start and End of Each Packet

SLIP Escape Sequence	Unencoded form	Notes
0xDB 0xDC	0xC0	
0xDB 0xDD	0xDB	
0xDB 0xDE	0x11	Only valid when OOF Software Flow Control is enabled
0xDB 0xDF	0x13	Only valid when OOF Software Flow Control is enabled

Figure 4-2 SLIP Escape Sequences

Note: Because RSICP doesn't execute flow control by software. Any occurrence of 0x11 in the original packet is not changed to the sequence0xDB 0xDE before being transmitted. Any occurrence of 0x13 in the original packet is not changed to the sequence 0xDB 0xDF before being transmitted.

4.3   Packet Format

4.3.1   Packet Header

Every packet that is sent over the UART Transport Layer has a packet header. Figure 4-3 shows Packet Format. Figure 4-4 shows Packet Header Format.

LSB 4 Octets	0-4095	1 MSB
Packet Header	Payload	Data Integrity Check
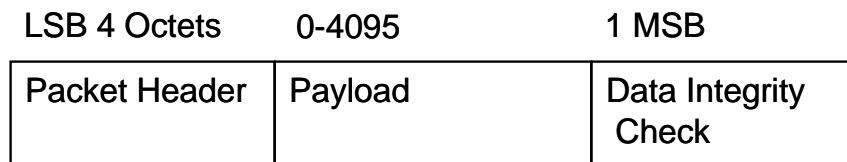
Figure 4-3 Packet Format
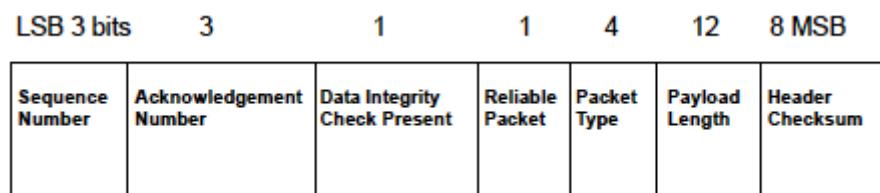
Figure 4-4 Packet Header Format

SEQUENCE NUMBER and ACKNOWLEDGE NUMBER

For unreliable packets this field will be set to 0. Each new reliable packet will be assigned a sequence number which will be equal to the sequence number of the previous reliable packet plus one modulo eight. A packet will use the same sequence number each time it is retransmitted

The acknowledge number must be set to the sequence number of the next reliable packet this device expects to receive. When receiving the reliable packet which isn't registered sequence number, the packet must be discarded.

DATA INTEGRITY CHECK PRESENT

The data integrity uses Data Integrity Check field. The calculation of Data Integrity Check in the RSCIP adopts Checksum.
The calculation method of Checksum is made the total sum of 8 bits word line.

For example, the total sum of 8 bits word line "00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F" is "78". This checksum is "78".
If Checksum Data Integrity Check is appended to the end of the payload, this bit shall be set to 1.

RENESAS

4.4   Packet Type

4.4.1   List of Packet Type

There are four kinds of HCI packets that can be sent Transport Layer; these are HCI Command Packet, HCI Event Packet, HCI ACL Data Packet and HCI Synchronous Data Packet. HCI Command Packets can be sent only to the Controller, HCI Event Packets can be sent only from the Controller, and HCI ACL/Synchronous Data Packets can be sent both to and from the Controller.

HCI packet coding does not provide the ability to differentiate the four HCI packet types. Therefore, the Packet Type field is used to distinguish the different packets. The acceptable values for this Packet Type field are given in Table 4-2.

Table 4-2 Three-Wire UART Packet Type

HCI Packet Type	Packet Type
Acknowledgement Packets	0
HCI Command Packet	1
HCI ACL Data Packet	2
HCI Synchronous Data Packet	3
HCI Event Packet	4
Reserve	5-13
Vendor Specific	14
Link Control Packet	15

Note: In the RSCIP, when command and event send, the Packet Type uses Reserve type.
The rBLE Command Packet is 5. The rBLE Event Packet is 6.

4.4.2   Reliable Packet

In the reliable transmission of packets, the error packets are recovered by the re-sending. The re-sending is controlled by Sequence Number and Acknowledgement number.

4.4.2.1   Recover from Packet Errors

Header Checksum Error

If the remainder of the sum of 4-bytes in the packet header divided by 256 is not 0x00, the packet has Header Checksum Error and the packet will be discarded.

Slip Payload Length Error

If the Data Integrity Check Present bit is set to 1, then the SLIP packet length should be 5 + Packet Payload Length. If the Data Integrity Check Present bit is set to 0, then the SLIP packet length should be 4 + Packet Payload Length. If this check fails, then all information contained in the packet shall be discarded.

The SLIP packet length is the length of the data received from the SLIP layer after the SLIP framing, and SLIP escape codes have been processed.

Data Integrity Check Error

If the Data Integrity Check function is enabled and the Data Integrity Check bit in the received packet is set to 1, then the Data Integrity Check field is compared with the value calculated from received packet data.
If the values are not the same, then the packet shall be discarded.

If the Data Integrity Check function is disabled, then all the packets, whose Data Integrity Check Present bit is set to 1, are considered as Data Integrity Check Error and shall be discarded.

Out of Sequence Packet Error

This will be one more than the sequence number of the last successfully received reliable packet, modulo eight. If a reliable packet is received which has the expected sequence number, then this packet shall be accepted.

If a reliable packet is received which does not have the expected sequence number, then the packet shall be discarded.

4.4.2.2   Acknowledgement

Whenever a reliable packet is received, an acknowledgement shall be generated.

If a packet is available to be sent, the Acknowledgement Number of that packet shall be updated to the latest expected sequence number.

If a requirement to send an acknowledgement value is pending, but there are no other packets available to be sent, the device can send a pure Acknowledgement Packet.

The maximum number of reliable packets that can be sent without acknowledgement defines the sliding window size of the link.

4.4.3   Unreliable Packet

4.4.3.1   Unreliable Packet Header

An unreliable packet header always has the Reliable Packet bit set to 0. The sequence number shall be set to 0. The Data Integrity Check Present, Acknowledgement Number, Packet Type, Payload Length and Packet Header Checksum shall all be set the same as a Reliable Packet.

4.4.3.2   Unreliable Packet Error

If a packet that is marked as unreliable has an error, then the packet shall be discarded.

4.5   Example Reliable Packet Flow

Figure 4-1 shows the transmission of reliable packets between two devices.

Device A sends a packet with a Sequence Number of 6, and an Acknowledgement Number of 3.

Device B receives this packet correctly, so needs to generate an acknowledgement.

Device B then sends a packet with Sequence Number 3 with its Acknowledgement Number set to the next expected packet Sequence Number from Device A of 7.
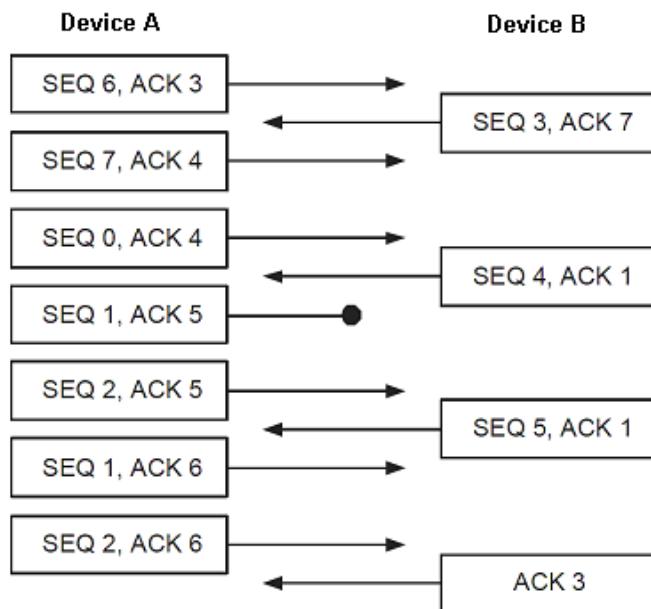
Figure 4-1 Message Diagram Showing Transmission of Reliable Packets

Device A receives a packet with Sequence Number 3 and an Acknowledgement Number of 7. Device A was expecting this sequence number so needs to generate an acknowledgement. The Acknowledgement Number of 7 is one greater than the last Sequence Number that was sent, meaning that this packet was received correctly.

Device A sends two packets, Sequence Numbers 7 and 0. Both packets have the Acknowledgement Number of 4, the next sequence number it expects from Device B.

Device B receives the first correctly, and increments its next expected sequence number to 0. It then receives the second packet correctly, and increments the next expected sequence number to 1.

Device B sends a packet with Sequence Number 4, and the Acknowledgement Number of 1. This will acknowledge both of the previous two packets sent by Device A.

Device A now sends two more packets, Sequence Numbers 1 and 2. Unfortunately, the first packet is corrupted.

Device B receives the first packet, and discovers the error, so discards this packet. It must generate an acknowledgement of this erroneously received reliable packet.

Device B then receives the second packet. This is received out of sequence, as it is currently expecting Sequence Number 1, but has received Sequence Number 2. Again, it must generate an acknowledgement.

Device B sends another packet with Sequence Number 5. It is still expecting a packet with Sequence Number 1 next, so the Acknowledgement Number is set to 1. Device A receives this, and accepts this packet.

Device A has not had either of its last two packets acknowledged, so it must resend them. It does this, but must update the Acknowledgement Number of the original packets that were sent. The Sequence Numbers of these packets must stay the same.

Device B receives these packets correctly, and schedules the sending of an acknowledgement. Because Device B doesn't have any data packets that need to be sent, it sends a pure Acknowledgement Packet.

4.6   Link Establishment

Before any packets except Link Control Packets can be sent, the Link Establishment procedure must be performed. This ensures that the sequence numbers are initialized correctly, it also ensures that the two sides are using the same baud rate, allow detection of peer reset, and allows the device to be configured.

Link Establishment is defined by a state machine with three states: Uninitialized, Initialized and Active. When the transport is first started, the link is in the Uninitialized State. There are four messages that are defined: SYNC, SYNC RESPONSE, CONFIG and CONFIG RESPONSE. All four link establishment messages shall be sent with the Data Integrity Present flag set to 0.
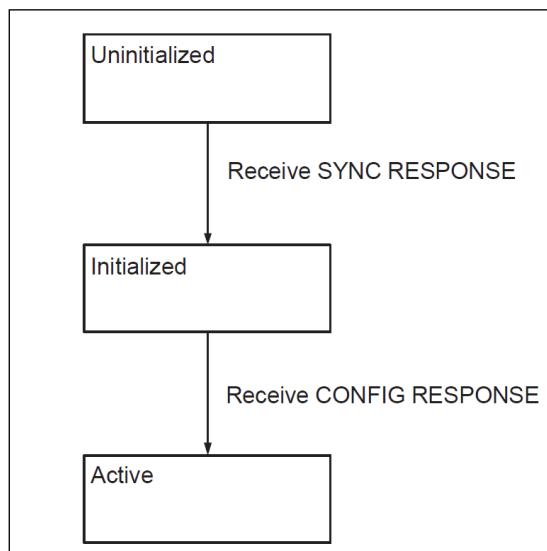
Figure 4-2 Link Establishment State Diagram

4.6.1   Uninitialized State

In the Uninitialized State a device periodically sends SYNC messages. If a SYNC message is received, the device shall respond with a SYNC RESPONSE message. If a SYNC RESPONSE message is received, the device shall move to the Initialized State. In the Initialized State only SYNC and SYNC RESPONSE messages are valid, all other messages that are received must be discarded. If an invalid packet is received, the device shall respond with a SYNC message. The device shall not send any acknowledgement packets in the Uninitialized State.

In the Uninitialized State the Controller may wait until it receives a SYNC message before sending its first SYNC message. This allows the Host to control when the Controller starts to send data.

4.6.2   Initialized State

In the Initialized State a device periodically sends CONFIG messages. If a SYNC message is received, the device shall respond with a SYNC RESPONSE message. If a CONFIG message is received, the device shall respond with a CONFIG RESPONSE message. If a CONFIG RESPONSE message is received, the device will move to the Active State. All other messages that are received must be ignored.

4.6.3   Active State

In the Active State, a device can transfer higher layer packets through the transport. Upon entering the Active State, the first packet sent shall have its SEQ and ACK numbers set to zero.

If a CONFIG message is received, the device shall respond with a CONFIG RESPONSE message. If a CONFIG RESONSE message is received, the device shall discard this message.

If a SYNC message is received while in the Active State, it is assumed that the peer device has reset. The local device should therefore perform a full reset of the upper stack, and start Link Establishment again at the Uninitialized State.

4.6.4   SYNC Message

The SYNC message is an unreliable message sent with the Packet Type of 15 and a Payload Length of 2. The payload is composed of the octet pattern 0x01 0x7E.
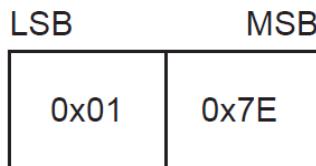
Figure 4-3 SYNC Message Format

4.6.5   SYNC RESPONSE Message

The SYNC RESPONSE message is an unreliable message sent with the Packet Type of 15 and a Payload Length of 2. The payload is composed of the octet pattern 0x02 0x7D.
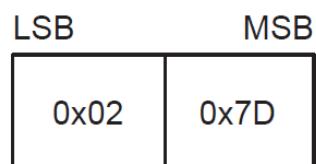
Figure 4-4 SYNC RESPONSE Message Format

4.6.6 CONFIG Message

The CONFIG message is an unreliable message sent with the Packet Type of 15 and a Payload Length of 2 plus the size of the Configuration Field. The payload is composed of the octet pattern 0x03 0xFC and the Configuration Field.

LSB		MSB
0x03	0xFC	Configuration Field
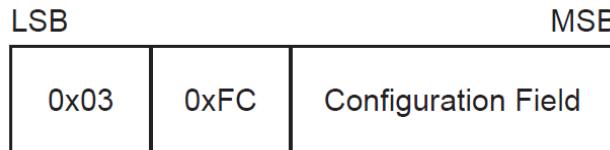
Figure 4-5 Configuration Message Format

4.6.7 CONFIG RESPONSE Message

The CONFIG RESPONSE message is an unreliable message sent with the Packet Type of 15 and a Payload Length of 2 plus the size of the Configuration Field. The payload is composed of the octet pattern 0x04 0x7B and the Configuration Field.

LSB		MSB
0x04	0x7B	Configuration Field
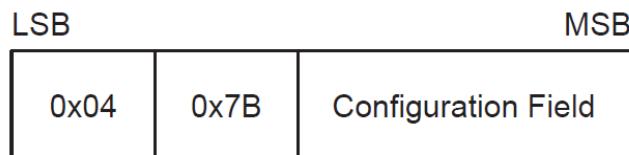
Figure 4-6 Configuration Response Message Format

4.6.8 Configuration Field

The Configuration Field contains the Version Number, Sliding Window Size, and the Data Integrity Check Type.

The Configuration Field in a CONFIG message sent by the Host determines what the Host can transmit and accept. The Configuration Field in a CONFIG RESPONSE message sent by the Controller determines what the Host and Controller shall transmit and can expect to receive. The Controller sends CONFIG messages without a Configuration Field. The Host sends CONFIG RESPONSE messages without a Configuration Field.

LSB 3 Bits	1	1	3 MSB
Sliding Window Size	0	Data Integrity Check Type	Version Number
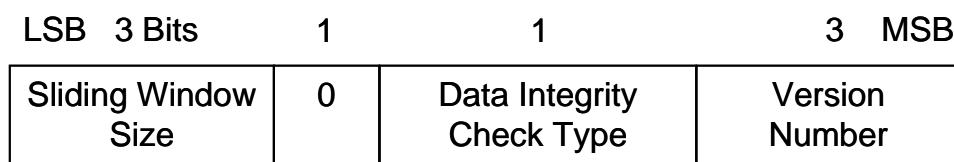
Figure 4-7 Configuration Field Detail

To allow for future extension of the Configuration Field, the size of the message determines the number of significant Configuration Octets in the payload. Future versions of this specification may use extra octets. Any bits that are not included in the message shall be set to 0. Any bits that are not defined are reserved and shall be set to 0.

A device shall not change the values if sends in the Configuration Field during Link Establishment.

4.6.9   Configuration Messages

The CONFIG – CONFIG RESPONSE message sequence configures the link in both directions. Until a CONFIG RESPONSE message is received only unreliable Link Establishment messages may be sent. Once CONFIG RESPONSE message has been received all other packet types may be sent, and received messages passed up to the Host.

The CONFIG and CONFIG RESPONSE messages contain a set of options for both devices on the link. The Host sends a CONFIG message with the set of options that the Host would like to use. The Controller responds with a CONFIG RESPONSE message with the set of options that the Host and the Controller will use. This means that the Controller is in full control of the set of options that will be used for all messages sent by both the Host and Controller.

4.6.10   Sliding Window Size

This is the maximum number of reliable packets a sender of the CONFIG message can send without requiring an acknowledgement. The value of this field shall be in the range 1 to 7. The value in the CONFIG RESPONSE message shall be less than or equal to the value in the CONFIG message. For example, the Host may suggest a window size of 5 in its CONFIG message and the Controller may respond with a value of 3 in its CONFIG RESPONSE message, but not 6 or 7. Both devices will then use a maximum sliding window size of 3.

4.6.11   Level of Data Integrity Check

The CONFIG message contains a bit field describing the types of Data Integrity Checks the sender is prepared to transmit. The peer will select the one it is prepared to use and send its choice in the CONFIG RESPONSE message.

If data integrity checks are not required, then the Data Integrity Check Present bit shall be set to 0 by the Host and Controller.

Level of Data Integrity	Parameter Description for CONFIG Message
0	No Data Integrity Check is supported.
1	Checksum may be used.

Figure 4-8 Data Integrity Check Type in the CONFIG Message

Level of Data Integrity	Parameter Description for CONFIG RESPONSE Message
0	No Data Integrity Check must be used.
1	Checksum may be used.

Figure 4-9 Data Integrity Check Type in the CONFIG RESPONSE Message

4.6.12   Version Number

The CONFIG message specifies the Version Number supported by the Host. The CONFIG RESPONSE message specifies the Version Number that shall be used by the Host and Controller when sent by the Controller.

The value in the CONFIG RESPONSE message shall be less than or equal to the value in the CONFIG message. The Version Numbers are enumerated. This specification is version 1.0 (Version Number = 0).

Version Number	Parameter Description for CONFIG and CONFIG RESPONSE Message
0	Version 1.0 of this Protocol
1-7	Reserved for future use

Figure 4-10 Version Number in the CONFIG and CONFIG RESPONSE message

5. rBLE Packet Format

This chapter is described rBLE Command Packet format which is executed from APP-MCU(rBLE_Host) to BLE-MCU(MDM APPL) and Event format from BLE-MCU to APP-MCU.

5.1 rBLE Command Format

If the command send to BLE-MCU from APP-MCU, the packet type should be used 5 (rBLE Command Packet). Payload uses the following format.

Bit0	1	2	3	4	5	6	7
Packet Indicator: 0x01							
Parameter Length							
OpeCode (MSB)							
OpeCode (LSB)							
Parameter [0]							
Parameter [1]							
:							
Parameter [N]							
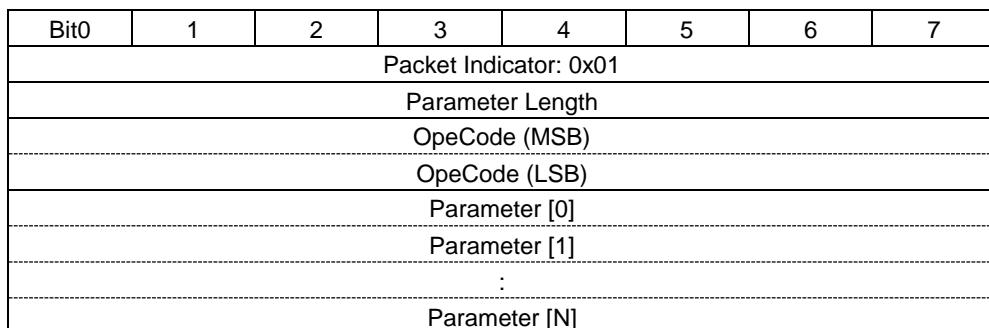
Figure 5-1 Command format

Packet Indicator   Size 1Byte

Value	Parameter Description
0x01	rBLE command packet

Parameter Length   Size 1Byte

Value	Parameter Description
0xXX	Length of parameter: 0x00-0x7C

OpeCode   Size 2Byte

Value	Parameter Description
0xXXXX	Operation code: 0x0000-0x7FFF

Parameter 0-N   Maximum Size NByte

Value	Parameter Description
0xXX	Command data : N=0x7C Each command has a specific numerical parameter which accompanies command. The parameter and size are defined at the each command.

5.2   rBLE Command Format (Fragmented Transmission)

If the command data size of rBLE command exceeds 0x7C bytes when the APP-MCU sends a command to the BLE-MCU, the packet type should be set to 5 (rBLE command packet) and the command data is divided into multiple packets using the following payload format.

Bit0	1	2	3	4	5	6	7
Packet Indicator: 0x01							
Packet Length							
OpeCode (MSB)							
OpeCode (LSB)							
Packet No							
Packet Information							
Command Length (MSB)							
Command Length (LSB)							
Parameter [0]							
Parameter [1]							
:							
Parameter [N-1]							
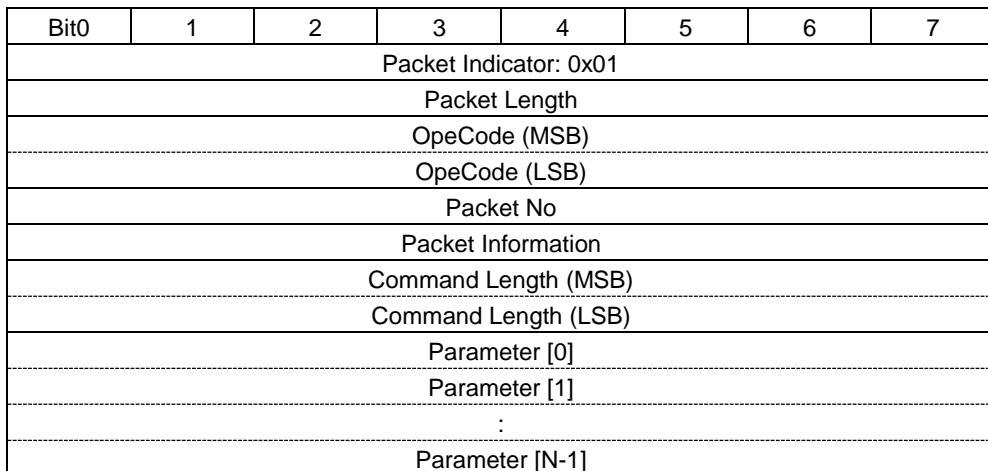
Figure 5-2 Fragmented Command format

Packet Indicator   Size 1Byte

Value	Parameter Description
0x01	rBLE command packet

Packet Length   Size 1Byte

Value	Parameter Description
0xXX	Total length in bytes, including Packet No, Packet Information, Command Length and Parameter blocks. : 0x00-0x7C

OpeCode   Size 2Byte

Value	Parameter Description
0xXXXX	Operation code : 0x8000-0xFFFF (* Set 1 to the most significant bit of the OpeCode for the command data to be fragmented.)

Packet No   Size 1Byte

Value	Parameter Description
0xXX	Identification number of fragmented packet : 0x00-0xFF (* Set 0 for the first fragmented packet, set the Packet No of the previous fragmented packet plus one for the next and subsequent fragmented packets.)

Packet Information   Size 1Byte

Value	Parameter Description
0xXX	Identification information of fragmented packet 0x00 : usual (not the last) fragmented packet 0x01 : the last fragmented packet

Command Length   Size 2Byte

Value	Parameter Description
0xXXXX	Size of command data defined by each command: 0x0000-0xFFFF

Parameter   Maximum Size N Byte

Value	Parameter Description
0xXX	Fragmented command data: N = 0x78 (* The second and subsequent packets contain the rest of command data of the previous packet.)

(note)

   When sending a command using this format, all of fragmented packets for the command including the last one (Packet Information = 0x01) should be sent in the correct order for the BLE MCU to reassemble them. Also, if the first fragmented packet (Packet No = 0x00) is sent in the middle of transmission, preceding fragmented packets are discarded.

5.3 rBLE Event Format

If the event send to APP-MCU from BLE-MCU, the packet type should be used 6 (rBLE Event Packet). Payload uses the following format.

Bit0	1	2	3	4	5	6	7
Packet Indicator: 0x02							
Parameter Length							
Event Code (MSB)							
Event Code (LSB)							
Parameter [0]							
Parameter [1]							
:							
Parameter [N-1]							
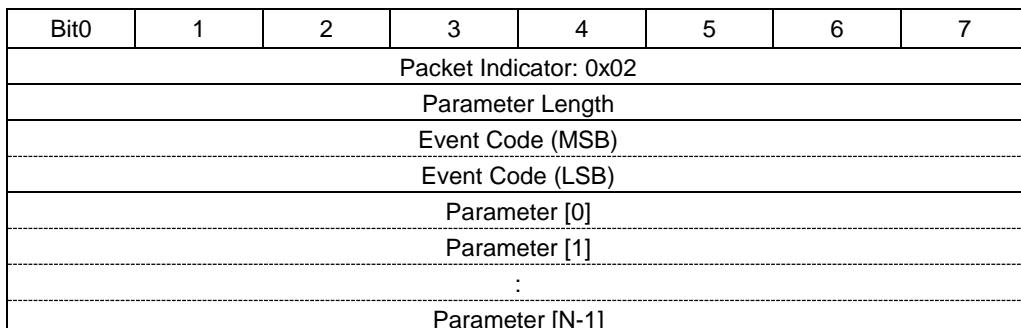
Figure 5-3 Event format

Packet Indicator   Size 1Byte

Value	Parameter Description
0x02	rBLE event packet

Parameter Length   Size 1Byte

Value	Parameter Description
0xXX	Length of parameter: 0x00-0x7C

EventCod   Size 2Byte

Value	Parameter Description
0xXXXX	Event code for distinction of event: 0x0000-0x7FFF

Parameter   Maximum Size N Byte

Value	Parameter Description
0xXX	Event data : N=0x7C Each event has a specific numerical parameter which accompanies command. The parameter and size are defined at the each event.

5.4   rBLE Event Format (Fragmented Transmission)

If the event data size of rBLE event exceeds 0x7C bytes when the BLE-MCU sends an event to the APP-MCU, the packet type should be set to 6 (rBLE event packet) and the event data is divided into multiple packets using the following payload format.

Bit0	1	2	3	4	5	6	7
Packet Indicator: 0x02							
Packet Length							
Event Code (MSB)							
Event Code (LSB)							
Packet No							
Packet Information							
Event Length (MSB)							
Event Length (LSB)							
Parameter [0]							
Parameter [1]							
:							
Parameter [N-1]							
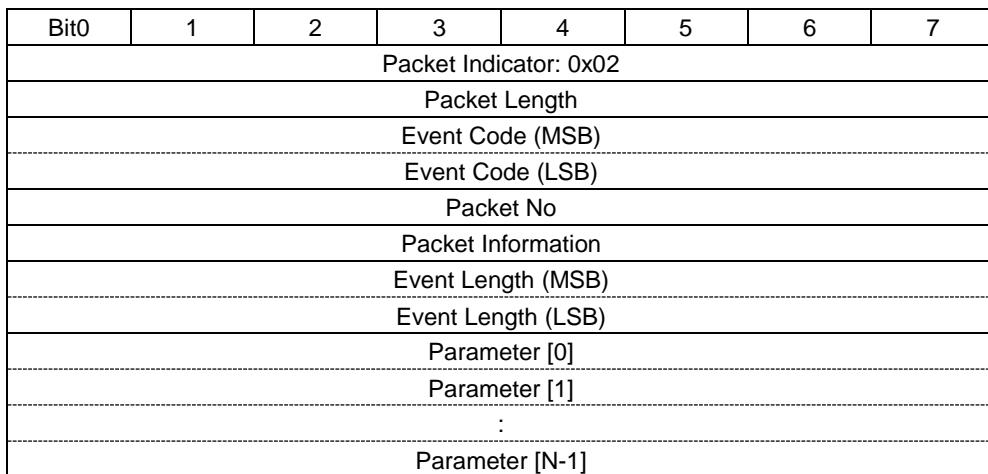
Figure 5-4 Fragmented Event Format

Packet Indicator   Size 1Byte

Value	Parameter Description
0x02	rBLE event packet

Packet Length   Size 1Byte

Value	Parameter Description
0xXX	Total length in bytes, including Packet No, Packet Information, Event Length and Parameter blocks. : 0x00-0x7C

Event Code   Size 2Byte

Value	Parameter Description
0xXXXX	Event code for distinction of event: 0x8000-0xFFFF (* Set 1 to the most significant bit of the EventCode for the event data to be fragmented.)

Packet No   Size 1Byte

Value	Parameter Description
0xXX	Identification number of fragmented packet : 0x00-0xFF (* Set 0 for the first fragmented packet, set the Packet No of the previous fragmented packet plus one for the next and subsequent fragmented packets.)

Packet Information   Size 1Byte

Value	Parameter Description
0xXX	Identification information of fragmented packet 0x00 : usual (not the last) fragmented packet 0x01 : the last fragmented packet

Event Length   Size 2Byte

Value	Parameter Description
0xXXXX	Size of event data defined by each event: 0x0000-0xFFFF

Parameter   最大 Size NByte

Value	Parameter Description
0xXX	Fragmented event data: N = 0x78
	(* The second and subsequent packets contain the rest of event data of the previous packet.)

(note)

When the APP MCU receives the event code (EventCode) of which the most significant bit is set to "1", all of fragmented event data should be saved until the last packet (Packet Information = 0x01) is received. Then the APP MCU reassembles them and notifies the event.

6. rBLE Command

This chapter is described about data format of rBLE command which correspond to API of Bluetooth Low Energy protocol stack.

Note: Refer to API Reference Manual for Bluetooth Low Energy protocol stack API and data.

6.1   Generic Access Profile

NO.	Command name	Description
1	RBLE_GAP_Reset	Resets the GAP.
2	RBLE_GAP_Set_Name	Sets the local device name.
3	RBLE_GAP_Observation_Enable	Enables observation.
4	RBLE_GAP_Observation_Disable	Disables observation.
5	RBLE_GAP_Broadcast_Enable	Enables broadcasting.
6	RBLE_GAP_Broadcast_Disable	Disables broadcasting.
7	RBLE_GAP_Set_Bonding_Mode	Sets up bonding mode.
8	RBLE_GAP_Set_Security_Request	Sets up security mode.
9	RBLE_GAP_Get_Device_Info	Acquires local device information.
10	RBLE_GAP_Get_White_List_Size	Acquires the local device White List size.
11	RBLE_GAP_Add_To_White_List	Adds a device to the White List.
12	RBLE_GAP_Del_From_White_List	Deletes a device from the White List.
13	RBLE_GAP_Get_Remote_Device_Name	Acquires the remote device name.
14	RBLE_GAP_Get_Remote_Device_Info	Acquires remote device information.
15	RBLE_GAP_Device_Search	Searches for a remote device.
16	RBLE_GAP_Set_Random_Address	Sets up a random address to the link layer.
17	RBLE_GAP_Set_Peripheral_Privacy_Feature	Sets up the privacy feature for a peripheral device.
18	RBLE_GAP_Create_Connection	Starts connection to an LE link.
19	RBLE_GAP_Connection_Cancel	Cancels connection to an LE link.
20	RBLE_GAP_Disconnect	Disconnects an LE link.
21	RBLE_GAP_Start_Bonding	Starts bonding.
22	RBLE_GAP_Bonding_Info_Ind	Indicates bonding information.
23	RBLE_GAP_Bonding_Response	Responds to a bonding request.
24	RBLE_GAP_Change_Connection_Param	Changes the link parameter.
25	RBLE_GAP_Channel_Map_Req	Sets or acquires a channel map.
26	RBLE_GAP_Read_RSSI	Reads RSSI.
27	RBLE_GAP_Authorized_Ind	Authorized information indicate.

6.1.1   RBLE_GAP_Reset

Data format:

RBLE_CMD_GAP_RESET (OpeCode=0x101)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.1.2   RBLE_GAP_Set_Name

Data format:

RBLE_CMD_GAP_SET_NAME (OpeCode=0x102)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	namelen	name[0]	name[1]	name[2]	
		~			
	name[63]	name[64]	-	-	

6.1.3   RBLE_GAP_Observation_Enable

Data format:

RBLE_CMD_GAP_OBSERVATION_ENABLE (OpeCode=0x103)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	mode		scan_type	reserved	
	scan_intv		scan_window		
	own_addr_type	scan_filt_policy	filter_dup	reserved	

6.1.4   RBLE_GAP_Observation_Disable

Data format:

RBLE_CMD_GAP_OBSERVATION_DISABLE (OpeCode=0x104)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.1.5   RBLE_GAP_Broadcast_Enable

Data format:

RBLE_CMD_GAP_BROADCAST_ENABLE (OpeCode=0x105)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	disc_mode		conn_mode		
	adv_intv_min		adv_intv_max		
	adv_type	own_addr_type	direct_addr_type	addr[0]	
	addr[1]	addr[2]	addr[3]	addr[4]	
	addr[5]	adv_chnl_map	adv_filt_policy	reserved	
	adv_data_len	adv_data[0]	adv_data[1]	adv_data[2]	
		~			
	adv_data[27]	adv_data[28]	adv_data[29]	adv_data[30]	
	scan_rsp_data_len	rsp_data[0]	rsp_data[1]	rsp_data[1]	
		~			
	rsp_data[27]	rsp_data[28]	rsp_data[29]	rsp_data[30]	

6.1.6   RBLE_GAP_Broadcast_Disable
Data format:

RBLE_CMD_GAP_BROADCAST_DISABLE (OpeCode=0x106)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.1.7   RBLE_GAP_Set_Bonding_Mode
Data format:

RBLE_CMD_GAP_SET_BONDING_MODE (OpeCode=0x107)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	mode		-	-	

6.1.8   RBLE_GAP_Set_Security_Request
Data format:

RBLE_CMD_GAP_SET_SECURITY_REQUEST (OpeCode=0x108)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	sec	-	-	-	

6.1.9   RBLE_GAP_Get_Device_Info
Data format:

RBLE_CMD_GAP_GET_DEVICE_INFO (OpeCode=0x109)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.1.10   RBLE_GAP_Get_White_List_Size
Data format:

RBLE_CMD_GAP_GET_WHITE_LIST_SIZE (OpeCode=0x10A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.1.11   RBLE_GAP_Add_To_White_List
Data format:

RBLE_CMD_GAP_ADD_TO_WHITE_LIST (OpeCode=0x10B)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	dev_addr_type	addr[0]	addr[1]	addr[2]	
	addr[3]	addr[4]	addr[5]	-	

6.1.12   RBLE_GAP_Del_From_White_List

Data format:

RBLE_CMD_GAP_DEL_FROM_WHITE_LIST (OpeCode=0x10C)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	all_dev	dev_addr_type	addr[0]	addr[1]	
	addr[2]	addr[3]	addr[4]	addr[5]	

6.1.13   RBLE_GAP_Get_Remote_Device_Name

Data format:

RBLE_CMD_GAP_GET_REMOTE_DEVICE_NAME (OpeCode=0x10D)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	scan_intv		scan_window		
	init_filt_policy	peer_addr_type	addr[0]	addr[1]	
	addr[2]	addr[3]	addr[4]	addr[5]	
	own_addr_type	reserved	con_intv_min		
	con_intv_max		con_latency		
	superv_to		ce_len_min		
	ce_len_max		-	-	

6.1.14   RBLE_GAP_Get_Remote_Device_Info

Data format:

RBLE_CMD_GAP_GET_REMOTE_DEVICE_INFO (OpeCode=0x10E)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.1.15   RBLE_GAP_Device_Search

Data format:

RBLE_CMD_GAP_DEVICE_SEARCH (OpeCode=0x10F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	discovery_type	addr_type	-	-	

6.1.16   RBLE_GAP_Set_Random_Address

Data format:

RBLE_CMD_GAP_SET_RANDOM_ADDRESS (OpeCode=0x110)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	addr[0]	addr[1]	addr[2]	addr[3]	
	addr[4]	addr[5]	-	-	

6.1.17   RBLE_GAP_Set_Privacy_Feature

Data format:

RBLE_CMD_GAP_SET_PRIVACY_FEATURE (OpeCode=0x111)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	priv_flag	set_to_ll	-	-	

6.1.18   RBLE_GAP_Create_Connection
Data format:

RBLE_CMD_GAP_CREATE_CONNECTION (OpeCode=0x112)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	scan_intv		scan_window		
	init_filt_policy	peer_addr_type	addr[0]	addr[1]	
	addr[2]	addr[3]	addr[4]	addr[5]	
	own_addr_type	reserved	con_intv_min		
	con_intv_max		con_latency		
	superv_to		ce_len_min		
	ce_len_max		-	-	

6.1.19   RBLE_GAP_Connection_Cancel
Data format:

RBLE_CMD_GAP_CONNECTION_CANCEL (OpeCode=0x113)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.1.20   RBLE_GAP_Disconnect
Data format:

RBLE_CMD_GAP_DISCONNECT (OpeCode=0x114)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.1.21   RBLE_GAP_Start_Bonding
Data format:

RBLE_CMD_GAP_START_BONDING (OpeCode=0x115)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	addr[0]	addr[1]	addr[2]	addr[3]	
	addr[4]	addr[5]	oob	iocap	
	auth	key_size	ikey_dist	rkey_dist	

6.1.22   RBLE_GAP_Bonding_Info_Ind
Data format:

RBLE_CMD_GAP_BONDING_INFO_IND (OpeCode=0x116)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	bond_op	addr[0]	addr[1]	addr[2]	
	addr[3]	addr[4]	addr[5]	-	

6.1.23   RBLE_GAP_Bonding_Response
Data format:

RBLE_CMD_GAP_BONDING_RESPONSE (OpeCode=0x117)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		accept	io_cap	
	oob	auth_req	max_key_size	ikeys	
	rkeys	reserved	-	-	

6.1.24   RBLE_GAP_Change_Connection_Param
Data format:

RBLE_CMD_GAP_CHANGE_CONNECTION_PARAM (OpeCode=0x118)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		result		
	intv_min		intv_max		
	latency		time_out		
	role	-	-	-	

6.1.25   RBLE_GAP_Channel_Map_Req
Data format:

RBLE_CMD_GAP_CHANNEL_MAP_REQ (OpeCode=0x119)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	update_map	reserved	conhdl		
	map[0]	map[1]	map[2]	map[3]	
	map[4]	-	-	-	

6.1.26   RBLE_GAP_Read_RSSI
Data format:

RBLE_CMD_GAP_READ_RSSI (OpeCode=0x11A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.1.27   RBLE_GAP_Authorized_Ind
Data format:

RBLE_CMD_GAP_AUTHORIZED_INFO_IND (OpeCode=0x11B)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.2   Security Manager

NO.	Command name	Description
1	RBLE_SM_Set_Key	Sets the key.
2	RBLE_SM_Start_Enc	Starts encryption.
3	RBLE_SM_Tk_Req_Resp	Responds to a TK request.
4	RBLE_SM_Ltk_Req_Resp	Responds to an LTK request.
5	RBLE_SM_Irk_Req_Resp	Responds to an IRK request.
6	RBLE_SM_Csrk_Req_Resp	Responds to a CSRK request.
7	RBLE_SM_Chk_Bd_Addr_Req_Resp	Responds to a BD address check request.

6.2.1   RBLE_SM_Set_Key

Data format:

RBLE_CMD_SM_SET_KEY (OpeCode=0x201)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	Key_code	key[0]	key[1]	key[2]	
	key[3]	key[4]	key[5]	key[6]	
	key[7]	key[8]	key[9]	key[10]	
	key[11]	key[12]	key[13]	key[14]	
	key[15]	-	-	-	

6.2.2   RBLE_SM_Start_Enc

Data format:

RBLE_CMD_SM_START_ENC (OpeCode=0x202)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	auth_req	ediv		
	rand_nb[0]	rand_nb[1]	rand_nb[2]	rand_nb[3]	
	rand_nb[4]	rand_nb[5]	rand_nb[6]	rand_nb[7]	
	key[0]	key[1]	key[2]	key[3]	
	key[4]	key[5]	key[6]	key[7]	
	key[8]	key[9]	key[10]	key[11]	
	key[12]	key[13]	key[14]	key[15]	

6.2.3   RBLE_SM_Tk_Req_Resp

Data format:

RBLE_CMD_SM_TK_REQ_RESP (OpeCode=0x203)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	status	key[0]	key[1]	
	key[2]	key[3]	key[4]	key[5]	
	key[6]	key[7]	key[8]	key[9]	
	key[10]	key[11]	key[12]	key[13]	
	key[14]	key[15]	-	-	

6.2.4   RBLE_SM_Ltk_Req_Resp

Data format:

RBLE_CMD_SM_LTK_REQ_RESP (OpeCode=0x204)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	status	sec_prop	reserved	
	ediv		rand_nb[0]	rand_nb[1]	
	rand_nb[2]	rand_nb[3]	rand_nb[4]	rand_nb[5]	
	rand_nb[6]	rand_nb[7]	key[0]	key[1]	
	key[2]	key[3]	key[4]	key[5]	
	key[6]	key[7]	key[8]	key[9]	
	key[10]	key[11]	key[12]	key[13]	
	key[14]	key[15]	-	-	

6.2.5   RBLE_SM_Irk_Req_Resp

Data format:

RBLE_CMD_SM_IRK_REQ_RESP (OpeCode=0x205)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	status	addr[0]	addr[1]	
	addr[2]	addr[3]	addr[4]	addr[5]	
	key[0]	key[1]	key[2]	key[3]	
	key[4]	key[5]	key[6]	key[7]	
	key[8]	key[9]	key[10]	key[11]	
	key[12]	key[13]	key[14]	key[15]	
	lk_sec_status	-	-	-	

6.2.6   RBLE_SM_Csrk_Req_Resp

Data format:

RBLE_CMD_SM_CSRK_REQ_RESP (OpeCode=0x206)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	status	key[0]	key[1]	
	key[2]	key[3]	key[4]	key[5]	
	key[6]	key[7]	key[8]	key[9]	
	key[10]	key[11]	key[12]	key[13]	
	key[14]	key[15]	lk_sec_status	-	

6.2.7   RBLE_SM_Chk_Bd_Addr_Req_Resp

Data format:

RBLE_CMD_SM_CHK_BD_ADDR_REQ_RESP (OpeCode=0x207)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	type	found_flag	lk_sec_status	
	addr[0]	addr[1]	addr[2]	addr[3]	
	addr[4]	addr[5]	-	-	

6.3   Generic Attribute Profile

NO.	Command name	Description
1	RBLE_GATT_Enable	Enables GATT
2	RBLE_GATT_Discovery_Service_Request	Discovers service.
3	RBLE_GATT_Discovery_Char_Request	Discovers characteristic value.
4	RBLE_GATT_Discovery_Char_Descriptor_Request	Discovers characteristic descriptor.
5	RBLE_GATT_Read_Char_Request	Reads characteristic value.
6	RBLE_GATT_Write_Char_Request	Writes characteristic value.
7	RBLE_GATT_Write_Reliable_Request	Writes reliable characteristic value.
8	RBLE_GATT_Execute_Write_Char_Request	Requests the execution of writing characteristics.
9	RBLE_GATT_Notify_Request	Requests the notification of characteristic value.
10	RBLE_GATT_Indicate_Request	Requests the indication of characteristic value.
11	RBLE_GATT_Write_Response	Responds to the write request of characteristic value.
12	RBLE_GATT_Set_Permission	Sets permission of the local database.
13	RBLE_GATT_Set_Data	Sets data to the local database.

6.3.1   RBLE_GATT_Enable

Data format:

RBLE_CMD_GATT_ENABLE (OpeCode=0x301)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.3.2   RBLE_GATT_Discovery_Service_Request

Data format:

RBLE_CMD_GATT_DISCOVERY_SERVICE_REQUEST (OpeCode=0x302)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	req_type	reserved	conhdl		
	start_hdl		end_hdl		
	value_size		value[0]	value[1]	
	value[2]	value[3]	value[4]	value[5]	
	value[6]	value[7]	value[8]	value[9]	
	value[10]	value[11]	value[12]	value[13]	
	value[14]	value[15]	-	-	

6.3.3   RBLE_GATT_Discovery_Char_Request

Data format:

RBLE_CMD_GATT_DISCOVERY_CHAR_REQUEST (OpeCode=0x303)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	req_type	reserved	conhdl		
	start_hdl		end_hdl		
	value_size		value[0]	value[1]	
	value[2]	value[3]	value[4]	value[5]	
	value[6]	value[7]	value[8]	value[9]	
	value[10]	value[11]	value[12]	value[13]	
	value[14]	value[15]	-	-	

6.3.4   RBLE_GATT_Discovery_Char_Descriptor_Request

Data format:

RBLE_CMD_GATT_DISCOVERY_CHAR_DESCRIPTOR_REQUEST (OpeCode=0x304)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		start_hdl		
	end_hdl		-	-	

6.3.5 RBLE_GATT_Read_Char_Request

Data format:

RBLE_CMD_GATT_READ_CHAR_REQUEST (OpeCode=0x305)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	req_type	reserved	offset		
	conhdl		start_hdl		
	end_hdl		nb_uuid		
	uuid[0].value_size	uuid[0].expect_resp_size	uuid[0].value[0]	uuid[0].value[1]	
	~				
	uuid[0].value[14]	uuid[0].value[15]	uuid[1].value_size	uuid[1].expect_resp_size	
	~				
	uuid[n].value[12]	uuid[n].value[13]	uuid[n].value[14]	uuid[n].value[15]	

(Note) n is RBLE_GATT_MAX_NB_HDLS - 1.

6.3.6 RBLE_GATT_Write_Char_Request

Data format:

RBLE_CMD_GATT_WRITE_CHAR_REQUEST (OpeCode=0x306)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		charhdl		
	wr_offset		val_len		
	req_type	auto_execute	value[0]	value[1]	
	value[2]	value[3]	value[4]	value[5]	
	~				
	value[70]	value[71]	-	-	

6.3.7 RBLE_GATT_Write_Reliable_Request

Data format:

RBLE_CMD_GATT_WRITE_RELIABLE_REQUEST (OpeCode=0x307)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	nb_writes	auto_execute	conhdl		
	value[0].elmt_hdl		value[0].size		
	value[0].value[0]	value[0].value[1]	value[0].value[2]	value[0].value[3]	
	~				
	value[0].value[12]	value[0].value[13]	value[0].value[14]	value[0].value[15]	
	value[1].elmt_hdl		value[1].size		
	value[1].value[0]	value[1].value[1]	value[1].value[2]	value[1].value[3]	
	~				
	value[n].value[12]	value[n].value[13]	value[n].value[14]	value[n].value[15]	

(Note) n is RBLE_GATT_MAX_RELIABLE_WRITE_NUM - 1.

6.3.8   RBLE_GATT_Execute_Write_Char_Request
Data format:

RBLE_CMD_GATT_EXECUTE_WRITE_CHAR_REQUEST (OpeCode=0x308)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	exe_wr_ena	reserved	conhdl		

6.3.9   RBLE_GATT_Notify_Request
Data format:

RBLE_CMD_GATT_NOTIFY_REQUEST (OpeCode=0x309)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		charhdl		

6.3.10   RBLE_GATT_Indicate_Request
Data format:

RBLE_CMD_GATT_INDICATE_REQUEST (OpeCode=0x30A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		charhdl		

6.3.11   RBLE_GATT_Write_Response
Data format:

RBLE_CMD_GATT_WRITE_RESP (OpeCode=0x30B)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_hdl		
	att_code	reserved	-	-	

6.3.12   RBLE_GATT_Set_Permission
Data format:

RBLE_CMD_GATT_SET_PERM (OpeCode=0x30C)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	start_hdl		end_hdl		
	perm	-	-		

6.3.13   RBLE_GATT_Set_Data
Data format:

RBLE_CMD_GATT_SET_DATA (OpeCode=0x30D)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	val_hdl		val_len		
	value[0]	value[1]	value[2]	value[3]	
	~				
	value[68]	value[69]	value[70]	value[71]	

6.4 Find Me Profile

6.4.1 Target Command

NO.	Command name	Description
1	RBLE_FMP_Target_Enable	Enables the Target role.
2	RBLE_FMP_Target_Disable	Disables the Target role.

6.4.1.1   RBLE_FMP_Target_Enable

Data format:

RBLE_CMD_FMP_TARGET_ENABLE (OpeCode=0x1001)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	-	

6.4.1.2   RBLE_FMP_Target_Disable

Data format:

RBLE_CMD_FMP_TARGET_DISABLE (OpeCode=0x1002)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.4.2   Locator Command

NO.	Command name	Description
1	RBLE_FMP_Locator_Enable	Enables the Locator role.
2	RBLE_FMP_Locator_Disable	Disables the Locator role.
3	RBLE_FMP_Locator_Set_Alert	Specifies the alert level value.

6.4.2.1   RBLE_FMP_Locator_Enable

Data format:

RBLE_CMD_FMP_LOCATOR_ENABLE (OpeCode=0x1081)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	shdl		ehdl		
	alert_char_hdl		alert_val_hdl		
	alert_char_prop	-	-	-	

6.4.2.2   RBLE_FMP_Locator_Disable

Data format:

RBLE_CMD_FMP_LOCATOR_DISABLE (OpeCode=0x1082)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.4.2.3   RBLE_FMP_Locator_Set_Alert

Data format:

RBLE_CMD_FMP_LOCATOR_SET_ALERT (OpeCode=0x1083)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		alert_lvl	-	

6.5   Proximity Profile

6.5.1   Reporter Command

NO.	Command name	Description
1	RBLE_PXP_Reporter_Enable	Enables the Reporter role.
2	RBLE_PXP_Reporter_Disable	Disables the Reporter role.

6.5.1.1   RBLE_PXP_Reporter_Enable

Data format:

RBLE_CMD_PXP_REPORTER_ENABLE (OpeCode=0x1101)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		alert_lvl	sec_lvl	

6.5.1.2   RBLE_PXP_Reporter_Disable

Data format:

RBLE_CMD_PXP_REPORTER_DISABLE (OpeCode=0x1102)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.5.2 Monitor Command

NO.	Command name	Description
1	RBLE_PXP_Monitor_Enable	Enables the Monitor role.
2	RBLE_PXP_Monitor_Disable	Disables the Monitor role.
3	RBLE_PXP_Monitor_Get_Alert_Level	Acquires the alert level value.
4	RBLE_PXP_Monitor_Set_Alert_Level	Specifies the alert level value.
5	RBLE_PXP_Monitor_Get_Tx_Power	Acquires the Tx power.

6.5.2.1   RBLE_PXP_Monitor_Enable

Data format:

RBLE_CMD_PXP_MONITOR_ENABLE (OpeCode=0x1181)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	lls_shdl		lls_ehdl		
	lls_alert_lvl_char_hdl		lls_alert_lvl_val_hdl		
	lls_alert_lvl_prop	lls_alert_lvl_value	ias_shdl		
	ias_ehdl		ias_alert_lvl_char_hdl		
	ias_alert_lvl_val_hdl		ias_alert_lvl_prop	ias_alert_lvl_value	
	tps_shdl		tps_ehdl		
	tps_txpw_lvl_char_hdl		tps_txpw_lvl_val_hdl		
	tps_txpw_lvl_cfg_hdl		tps_txpw_lvl_prop	tps_txpw_lvl	

6.5.2.2   RBLE_PXP_Monitor_Disable

Data format:

RBLE_CMD_PXP_MONITOR_DISABLE (OpeCode=0x1182)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.5.2.3   RBLE_PXP_Monitor_Get_Alert_Level

Data format:

RBLE_CMD_PXP_MONITOR_GET_ALERT_LEVEL (OpeCode=0x1183)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.5.2.4   RBLE_PXP_Monitor_Set_Alert_Level

Data format:

RBLE_CMD_PXP_MONITOR_SET_ALERT_LEVEL (OpeCode=0x1184)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		svc_code	lvl	

6.5.2.5   RBLE_PXP_Monitor_Get_Tx_Power

Data format:

RBLE_CMD_PXP_MONITOR_GET_TX_POWER (OpeCode=0x1185)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.6   Health Thermometer Profile

6.6.1   Thermometer Command

NO.	Command name	Description
1	RBLE_HTP_Thermometer_Enable	Enables the Thermometer role.
2	RBLE_HTP_Thermometer_Disable	Disables the Thermometer role.
3	RBLE_HTP_Thermometer_Send_Temp	Sends temperature measurement information.
4	RBLE_HTP_Thermometer_Req_Measurement_Period_Ind	Sends the measurement period.

6.6.1.1   RBLE_HTP_Thermometer_Enable

Data format:

RBLE_CMD_HTP_THERMOMETER_ENABLE (OpeCode=0x1201)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	temp_meas_ind_en		interm_temp_ntf_en		
	meas_intv_ind_en		meas_intv		

6.6.1.2   RBLE_HTP_Thermometer_Disable

Data format:

RBLE_CMD_HTP_THERMOMETER_DISABLE (OpeCode=0x1202)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.6.1.3   RBLE_HTP_Thermometer_Send_Temp

Data format:

RBLE_CMD_HTP_THERMOMETER_SEND_TEMP (OpeCode=0x1203)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flag_stable_meas	flags	
	temp_val				
	year		month	day	
	hour	min	sec	reserved	
	type	-	-	-	

6.6.1.4   RBLE_HTP_Thermometer_Req_Measurement_Period_Ind

Data format:

RBLE_CMD_HTP_THERMOMETER_REQ_MEASUREMENT_PERIOD_IND (OpeCode=0x1204)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.6.2   Collector Command

NO.	Command name	Description
1	RBLE_HTP_Collector_Enable	Enables the Collector role.
2	RBLE_HTP_Collector_Disable	Disables the Collector role.
3	RBLE_HTP_Collector_Read_Char	Reads the Characteristic value.
4	RBLE_HTP_Collector_Write_Char	Writes the Characteristic value.
5	RBLE_HTP_Collector_Set_Measurement_Period	Sets the measurement period.

6.6.2.1   RBLE_HTP_Collector_Enable

Data format:

RBLE_CMD_HTP_COLLECTOR_ENABLE (OpeCode=0x1281)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	hts_shdl		hts_ehdl		
	hts_temp_meas_char_hdl		hts_temp_meas_val_hdl		
	hts_temp_meas_cfg_hdl		hts_temp_meas_prop	reserved	
	hts_temp_type_char_hdl		hts_temp_type_val_hdl		
	hts_temp_type_prop	reserved	hts_interm_temp_char_hdl		
	hts_interm_temp_val_hdl		hts_interm_temp_cfg_hdl		
	hts_interm_temp_prop	reserved	hts_meas_intv_char_hdl		
	hts_meas_intv_val_hdl		hts_meas_intv_cfg_hdl		
	hts_valid_range_hdl		hts_meas_intv_prop	reserved	
	dis_shdl		dis_ehdl		
	dis_sys_id_char_hdl		dis_sys_id_val_hdl		
	dis_sys_id_prop	reserved	dis_model_nb_char_hdl		
	dis_model_nb_val_hdl		dis_model_nb_prop	reserved	
	dis_serial_nb_char_hdl		dis_serial_nb_val_hdl		
	dis_serial_nb_prop	reserved	dis_fw_rev_char_hdl		
	dis_fw_rev_val_hdl		dis_fw_rev_prop	reserved	
	dis_hw_rev_char_hdl		dis_hw_rev_val_hdl		
	dis_hw_rev_prop	reserved	dis_sw_rev_char_hdl		
	dis_sw_rev_val_hdl		sw_rev_prop	reserved	
	dis_manuf_name_char_hdl		dis_manuf_name_val_hdl		
	dis_manuf_name_prop	reserved	dis_ieee_certif_char_hdl		
	dis_ieee_certif_val_hdl		dis_ieee_certif_prop	reserved	

6.6.2.2   RBLE_HTP_Collector_Disable

Data format:

RBLE_CMD_HTP_COLLECTOR_DISABLE (OpeCode=0x1282)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.6.2.3   RBLE_HTP_Collector_Read_Char

Data format:

RBLE_CMD_HTP_COLLECTOR_READ_CHAR (OpeCode=0x1283)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	-	

6.6.2.4   RBLE_HTP_Collector_Write_Char

Data format:

RBLE_CMD_HTP_COLLECTOR_WRITE_CHAR (OpeCode=0x1284)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.6.2.5   RBLE_HTP_Collector_Set_Measurement_Period

Data format:

RBLE_CMD_HTP_COLLECTOR_SET_MEASUREMENT_PERIOD (OpeCode=0x1285)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		intv		

6.7   Blood Pressure Profile

6.7.1   Sensor Command

NO.	Command name	Description
1	RBLE_BLP_Sensor_Enable	Enables the Sensor role.
2	RBLE_BLP_Sensor_Disable	Disables the Sensor role.
3	RBLE_BLP_Sensor_Send_Measurements	Sends the measured value.

6.7.1.1   RBLE_BLP_Sensor_Enable

Data format:

RBLE_CMD_BLP_SENSOR_ENABLE (OpeCode=0x1301)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	bldprs_meas_ind_en		interm_cufprs_ntf_en		

6.7.1.2   RBLE_BLP_Sensor_Disable

Data format:

RBLE_CMD_BLP_SENSOR_DISABLE (OpeCode=0x1302)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.7.1.3   RBLE_BLP_Sensor_Send_Measurements

Data format:

RBLE_CMD_BLP_SENSOR_SEND_MEASUREMENTS (OpeCode=0x1303)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flag_stable_meas	flags	
	press_val_field1		press_val_field2		
	press_val_field3		year		
	month	day	hour	min	
	sec	reserved	rate		
	id	reserved	meas_sts		

6.7.2　　Collector Command

NO.	Command name	Description
1	RBLE_BLP_Collector_Enable	Enables the Collector role.
2	RBLE_BLP_Collector_Disable	Disables the Collector role.
3	RBLE_BLP_Collector_Read_Char	Reads the Characteristic value.
4	RBLE_BLP_Collector_Write_Char	Writes the Characteristic value.

6.7.2.1   RBLE_BLP_Collector_Enable

Data format:

RBLE_CMD_BLP_COLLECTOR_ENABLE (OpeCode=0x1381)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	bls_shdl		bls_ehdl		
	bls_bldprs_meas_char_hdl		bls_bldprs_meas_val_hdl		
	bls_bldprs_meas_cfg_hdl		bls_bldprs_meas_prop	reserved	
	bls_interm_cufprs_char_hdl		bls_interm_cufprs_val_hdl		
	bls_interm_cufprs_cfg_hdl		bls_interm_cufprs_prop	reserved	
	bls_bldprs_feat_char_hdl		bls_bldprs_feat_val_hdl		
	bls_bldprs_feat_prop	reserved	dis_shdl		
	dis_ehdl		dis_sys_id_char_hdl		
	dis_sys_id_val_hdl		dis_sys_id_prop	reserved	
	dis_model_nb_char_hdl		dis_model_nb_val_hdl		
	dis_model_nb_prop	reserved	dis_serial_nb_char_hdl		
	dis_serial_nb_val_hdl		dis_serial_nb_prop	reserved	
	dis_fw_rev_char_hdl		dis_fw_rev_val_hdl		
	dis_fw_rev_prop	reserved	dis_hw_rev_char_hdl		
	dis_hw_rev_val_hdl		dis_hw_rev_prop	reserved	
	dis_sw_rev_char_hdl		dis_sw_rev_val_hdl		
	sw_rev_prop	reserved	dis_manuf_name_char_hdl		
	dis_manuf_name_val_hdl		dis_manuf_name_prop	reserved	
	dis_ieee_certif_char_hdl		dis_ieee_certif_val_hdl		
	dis_ieee_certif_prop	reserved	-	-	

6.7.2.2   RBLE_BLP_Collector_Disable

Data format:

RBLE_CMD_BLP_COLLECTOR_DISABLE (OpeCode=0x1382)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.7.2.3   RBLE_BLP_Collector_Read_Char

Data format:

RBLE_CMD_BLP_COLLECTOR_DISABLE (OpeCode=0x1383)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	-	

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6.7.2.4   RBLE_BLP_Collector_Write_Char

Data format:

RBLE_CMD_BLP_COLLECTOR_WRITE_CHAR (OpeCode=0x1384)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.8   HID over GATT Profile

6.8.1   HID Device role Command

NO.	Command name	Description
1	RBLE_HGP_HDevice_Enable	Enables the HID Device role.
2	RBLE_HGP_HDevice_Disable	Disables the HID Device role.
3	RBLE_HGP_HDevice_Send_Report	Sends the Report.
4	RBLE_HGP_HDevice_Send_Battery_Level	Sends the Battery Level.

6.8.1.1   RBLE_HGP_HDevice_Enable

Data format:

RBLE_CMD_HGP_HDEVICE_ENABLE (OpeCode=0x1401)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	hids_inst_num	bas_inst_num	report_input_ntf_en[0]		
	report_input_ntf_en[1]		kb_report_ntf_en[0]		
	kb_report_ntf_en[1]		mo_report_ntf_en[0]		
	mo_report_ntf_en[1]		protocol_mode_val [0]	protocol_mode_val [1]	
	battery_level_ntf_en[0]		battery_level_ntf_en[1]		

6.8.1.2   RBLE_HGP_HDevice_Disable

Data format:

RBLE_CMD_HGP_HDEVICE_DISABLE (OpeCode=0x1402)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.8.1.3   RBLE_HGP_HDevice_Send_Report

Data format:

RBLE_CMD_HGP_HDEVICE_SEND_REPORT (OpeCode=0x1403)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

6.8.1.4   RBLE_HGP_HDevice_Send_Battery_Level

Data format:

RBLE_CMD_HGP_HDEVICE_SEND_BATTERY_LEVEL (OpeCode=0x1404)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	battery_level	

6.8.2   Boot Host Command

NO.	Command name	Description
1	RBLE_HGP_BHost_Enable	Enables the Boot Host role.
2	RBLE_HGP_BHost_Disable	Disables the Boot Host role.
3	RBLE_HGP_BHost_Read_Char	Reads the Characteristic value.
4	RBLE_HGP_BHost_Read_By_UUID_Char	Reads the Characteristic value specified by UUID.
5	RBLE_HGP_BHost_Write_Char	Writes the Characteristic value.
6	RBLE_HGP_BHost_Set_Report	Sets the Report value.
7	RBLE_HGP_BHost_Write_Protocol_Mode	Sets the Protocol Mode.
8	RBLE_HGP_BHost_Data_Output	Outputs the Report value.

6.8.2.1   RBLE_HGP_BHost_Enable

Data format:

RBLE_CMD_HGP_BHOST_ENABLE (OpeCode=0x1481)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	hids_inst_num	
	bas_inst_num	reserved	hids[0].shdl		
	hids[0].ehdl		hids[0].protocol_md_char_hdl		
	hids[0].protocol_md_val_hdl		hids[0].protocol_md_prop	reserved	
	hids[0].report_input_char_hdl		hids[0].report_input_val_hdl		
	hids[0].report_input_cfg_hdl		hids[0].input_rep_ref_hdl		
	hids[0].report_input_prop	reserved	hids[0].report_output_char_hdl		
	hids[0].report_output_val_hdl		hids[0].output_rep_ref_hdl		
	hids[0].report_output_prop	reserved	hids[0].report_feature_char_hdl		
	hids[0].report_feature_val_hdl		hids[0].feature_rep_ref_hdl		
	hids[0].report_feature_prop	reserved	hids[0].report_map_char_hdl		
	hids[0].report_map_val_hdl		hids[0].external_rep_ref_hdl		
	hids[0].report_map_prop	reserved	hids[0].bootkb_input_char_hdl		
	hids[0].bootkb_input_val_hdl		hids[0].bootkb_input_cfg_hdl		
	hids[0].bootkb_input_prop	reserved	hids[0].bootkb_output_char_hdl		
	hids[0].bootkb_output_val_hdl		hids[0].bootkb_output_prop	reserved	
	hids[0].bootmo_input_char_hdl		hids[0].bootmo_input_val_hdl		
	hids[0].bootmo_input_cfg_hdl		hids[0].bootmo_input_prop	reserved	
	hids[0].hid_info_char_hdl		hids[0].hid_info_val_hdl		
	hids[0].hid_info_prop	reserved	hids[0].hid_cp_char_hdl		
	hids[0].hid_cp_val_hdl		hids[0].hid_cp_prop	reserved	
	hids[0].include_svc_hdl		hids[0].include_svc_uuid		
	hids[0].incl_shdl		hids[0].incl_ehdl		
	hids[1].shdl		hids[1].ehdl		
	~				
	hids[1].incl_ehdl		dis_shdl		
	dis_ehdl		dis_pnp_id_char_hdl		
	dis_pnp_id_val_hdl		dis_pnp_id_prop	reserved	
	bas[0].shdl		bas[0].ehdl		
	bas[0].battery_lvl_char_hdl		bas[0].battery_lvl_val_hdl		
	bas[0].battery_lvl_cfg_hdl		bas[0].battery_lvl_rep_ref_hdl		
	bas[0].battery_lvl_prop	reserved	bas[1].shdl		
	~				
	bas[1].battery_lvl_rep_ref_hdl		bas[1].battery_lvl_prop	reserved	

6.8.2.2   RBLE_HGP_BHost_Disable

Data format:

RBLE_CMD_HGP_BHOST_DISABLE (OpeCode=0x1482)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.8.2.3   RBLE_HGP_BHost_Read_Char

Data format:

RBLE_CMD_HGP_BHOST_READ_CHAR (OpeCode=0x1483)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	char_code	

6.8.2.4   RBLE_HGP_BHost_Read_By_UUID_Char

Data format:

RBLE_CMD_HGP_BHOST_READ_CHAR_BY_UUID (OpeCode=0x1484)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	char_code	

6.8.2.5   RBLE_HGP_BHost_Write_Char

Data format:

RBLE_CMD_HGP_BHOST_WRITE_CHAR (OpeCode=0x1485)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	char_code	
	cfg_val		-	-	

6.8.2.6   RBLE_HGP_BHost_Set_Report

Data format:

RBLE_CMD_HGP_BHOST_SET_REPORT (OpeCode=0x1486)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

6.8.2.7   RBLE_HGP_BHost_Write_Protocol_Mode

Data format:

RBLE_CMD_HGP_BHOST_SET_PROTOCOL_MODE (OpeCode=0x1487)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	protocol_mode_val	

6.8.2.8   RBLE_HGP_BHost_Data_Output

Data format:

RBLE_CMD_HGP_BHOST_DATA_OUTPUT (OpeCode=0x1488)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

6.8.3   Report Host Command

NO.	Command name	Description
1	RBLE_HGP_RHost_Enable	Enables the Report Host role.
2	RBLE_HGP_RHost_Disable	Disables the Report Host role.
3	RBLE_HGP_RHost_Read_Char	Reads the Characteristic value.
4	RBLE_HGP_RHost_Read_By_UUID_Char	Reads the Characteristic value specified by UUID.
5	RBLE_HGP_RHost_Read_Long_Char	Reads the long Characteristic value.
6	RBLE_HGP_RHost_Write_Char	Writes the Characteristic value.
7	RBLE_HGP_RHost_Set_Report	Sets the Report value.
8	RBLE_HGP_RHost_Write_Protocol_Mode	Sets the Protocol Mode.
9	RBLE_HGP_RHost_Data_Output	Outputs the Report value.
10	RBLE_HGP_RHost_Write_Control_Point	Sets the Control Point.

6.8.3.1   RBLE_HGP_RHost_Enable

Data format:

RBLE_CMD_HGP_RHOST_ENABLE (OpeCode=0x14C1)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	hids_inst_num	
	bas_inst_num	reserved	hids[0].shdl		
	hids[0].ehdl		hids[0].protocol_md_char_hdl		
	hids[0].protocol_md_val_hdl		hids[0].protocol_md_prop	reserved	
	hids[0].report_input_char_hdl		hids[0].report_input_val_hdl		
	hids[0].report_input_cfg_hdl		hids[0].input_rep_ref_hdl		
	hids[0].report_input_prop	reserved	hids[0].report_output_char_hdl		
	hids[0].report_output_val_hdl		hids[0].output_rep_ref_hdl		
	hids[0].report_output_prop	reserved	hids[0].report_feature_char_hdl		
	hids[0].report_feature_val_hdl		hids[0].feature_rep_ref_hdl		
	hids[0].report_feature_prop	reserved	hids[0].report_map_char_hdl		
	hids[0].report_map_val_hdl		hids[0].external_rep_ref_hdl		
	hids[0].report_map_prop	reserved	hids[0].bootkb_input_char_hdl		
	hids[0].bootkb_input_val_hdl		hids[0].bootkb_input_cfg_hdl		
	hids[0].bootkb_input_prop	reserved	hids[0].bootkb_output_char_hdl		
	hids[0].bootkb_output_val_hdl		hids[0].bootkb_output_prop	reserved	
	hids[0].bootmo_input_char_hdl		hids[0].bootmo_input_val_hdl		
	hids[0].bootmo_input_cfg_hdl		hids[0].bootmo_input_prop	reserved	
	hids[0].hid_info_char_hdl		hids[0].hid_info_val_hdl		
	hids[0].hid_info_prop	reserved	hids[0].hid_cp_char_hdl		
	hids[0].hid_cp_val_hdl		hids[0].hid_cp_prop	reserved	
	hids[0].include_svc_hdl		hids[0].include_svc_uuid		
	hids[0].incl_shdl		hids[0].incl_ehdl		
	hids[1].shdl		hids[1].ehd		
	~				
	hids[1].incl_ehdl		dis_shdl		
	dis_ehdl		dis_pnp_id_char_hdl		
	dis_pnp_id_val_hdl		dis_pnp_id_prop	dis_pnp_id_val_hdl	
	bas[0].shdl		bas[0].ehdl		
	bas[0].battery_lvl_char_hdl		bas[0].battery_lvl_val_hdl		
	bas[0].battery_lvl_cfg_hdl		bas[0].battery_lvl_rep_ref_hdl		
	bas[0].battery_lvl_prop	reserved	bas[1].shdl		
	~				
	bas[1].battery_lvl_rep_ref_hdl		bas[1].battery_lvl_prop	reserved	

6.8.3.2   RBLE_HGP_RHost_Disable

Data format:

RBLE_CMD_HGP_RHOST_DISABLE (OpeCode=0x14C2)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.8.3.3   RBLE_HGP_RHost_Read_Char

Data format:

RBLE_CMD_HGP_RHOST_READ_CHAR (OpeCode=0x14C3)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	char_code	

6.8.3.4   RBLE_HGP_RHost_Read_By_UUID_Char

Data format:

RBLE_CMD_HGP_RHOST_READ_CHAR_BY_UUID (OpeCode=0x14C4)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	char_code	

6.8.3.5   RBLE_HGP_RHost_Read_Long_Char

Data format:

RBLE_CMD_HGP_RHOST_READ_LONG_CHAR (OpeCode=0x14C5)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	char_code	

6.8.3.6   RBLE_HGP_RHost_Write_Char

Data format:

RBLE_CMD_HGP_RHOST_WRITE_CHAR (OpeCode=0x14C6)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	char_code	
	cfg_val		-	-	

6.8.3.7   RBLE_HGP_RHost_Set_Report

Data format:

RBLE_CMD_HGP_RHOST_SET_REPORT (OpeCode=0x14C7)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

6.8.3.8   RBLE_HGP_RHost_Write_Protocol_Mode

Data format:

RBLE_CMD_HGP_RHOST_SET_PROTOCOL_MODE (OpeCode=0x14C8)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	protocol_mode_val	

6.8.3.9   RBLE_HGP_RHost_Data_Output

Data format:

RBLE_CMD_HGP_RHOST_DATA_OUTPUT (OpeCode=0x14C9)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

6.8.3.10   RBLE_HGP_RHost_Write_Control_Point

Data format:

RBLE_CMD_HGP_RHOST_SET_CONTROL_POINT (OpeCode=0x14CA)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	control_point_val	

6.9   Scan Parameters Profile

6.9.1   Scan Server Command

NO.	Command name	Description
1	RBLE_SPP_Server_Enable	Enable the Scan Server role.
2	RBLE_SPP_Server_Disable	Disables the Scan Server role.
3	RBLE_SPP_Server_Send_Refresh	Sends scan refresh request.

6.9.1.1   RBLE_SPP_Server_Enable

Data format:

RBLE_CMD_SPP_SERVER_ENABLE (OpeCode=0x1501)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	s_refresh_ntf_en		-	-	

6.9.1.2   RBLE_SPP_Server_Disable

Data format:

RBLE_CMD_SPP_SERVER_DISABLE (OpeCode=0x1502)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.9.1.3   RBLE_SPP_Server_Send_Refresh

Data format:

RBLE_CMD_SPP_SERVER_SEND_REFRESH (OpeCode=0x1503)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		s_refresh_val	reserved	

6.9.2   Scan Client Command

NO.	Command name	Description
1	RBLE_SPP_Client_Enable	Enables the Scan Client role.
2	RBLE_SPP_Client_Disable	Disables the Scan Client role.
3	RBLE_SPP_Client_Write_Char	Writes Characteristic.
4	RBLE_SPP_Client_Write_Interval	Sends scan interval window value.

6.9.2.1   RBLE_SPP_Client_Enable

Data format:

RBLE_CMD_SPP_CLIENT_ENABLE (OpeCode=0x1581)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	shdl		ehdl		
	intv_window_char_hdl		intv_window_val_hdl		
	intv_window_prop	reserved	refresh_char_hdl		
	refresh_val_hdl		refresh_cfg_hdl		
	refresh_prop	reserved	le_scan_interval		
	le_scan_window		-	-	

6.9.2.2   RBLE_SPP_Client_Disable

Data format:

RBLE_CMD_SPP_CLIENT_DISABLE (OpeCode=0x1582)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.9.2.3   RBLE_SPP_Client_Write_Char

Data format:

RBLE_CMD_SPP_CLIENT_WRITE_CHAR (OpeCode=0x1583)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cfg_val		

6.9.2.4   RBLE_SPP_Client_Write_Interval

Data format:

RBLE_CMD_SPP_CLIENT_SET_INTERVAL (OpeCode=0x1584)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		le_scan_interval		
	le_scan_window		-	-	

6.10   Heart Rate Profile

6.10.1   Sensor Command

NO.	Command name	Description
1	RBLE_HRP_Sensor_Enable	Enables the Sensor role.
2	RBLE_HRP_Sensor_Disable	Disables the Sensor role.
3	RBLE_HRP_Sensor_Send_Measurements	Sends heart rate measurement information.

6.10.1.1 RBLE_HRP_Sensor_Enable

Data format:

RBLE_CMD_HRP_SENSOR_ENABLE (OpeCode=0x1601)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	hrtrate_meas_ntf_en		-	-	

6.10.1.2 RBLE_HRP_Sensor_Disable

Data format:

RBLE_CMD_HRP_SENSOR_DISABLE (OpeCode=0x1602)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.10.1.3 RBLE_HRP_Sensor_Send_Measurements

Data format:

RBLE_CMD_HRP_SENSOR_SEND_MEASUREMENTS (OpeCode=0x1603)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	rr_interval_num	
	heart_rate_measure		energy_expended		
	rr_interval[0]		rr_interval[1]		
	~				
	rr_interval[8]		-	-	

6.10.2   Collector Command

NO.	Command name	Description
1	RBLE_HRP_Collector_Enable	Enables the Collector role.
2	RBLE_HRP_Collector_Disable	Disables the Collector role.
3	RBLE_HRP_Collector_Read_Char	Reads the characteristic value.
4	RBLE_HRP_Collector_Write_Char	Writes the characteristic value.
5	RBLE_HRP_Collector_Write_Control_Point	Sets the heart rate control point.

6.10.2.1   RBLE_HRP_Collector_Enable

Data format:

RBLE_CMD_HRP_COLLECTOR_ENABLE (OpeCode=0x1681)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	hrs_shdl		hrs_ehdl		
	hrs_hrtrate_meas_char_hdl		hrs_hrtrate_meas_val_hdl		
	hrs_hrtrate_meas_cfg_hdl		hrs_hrtrate_meas_prop	reserved	
	hrs_body_sensor_loc_char_hdl		hrs_body_sensor_loc_val_hdl		
	hrs_body_sensor_loc_prop	reserved	hrs_hrtrate_cp_char_hdl		
	hrs_hrtrate_cp_val_hdl		hrs_hrtrate_cp_prop	reserved	
	dis_shdl		dis_ehdl		
	dis_sys_id_char_hdl		dis_sys_id_val_hdl		
	dis_sys_id_prop	reserved	dis_model_nb_char_hdl		
	dis_model_nb_val_hdl		dis_model_nb_prop	reserved	
	dis_serial_nb_char_hdl		dis_serial_nb_val_hdl		
	dis_serial_nb_prop	reserved	dis_fw_rev_char_hdl		
	dis_fw_rev_val_hdl		dis_fw_rev_prop	reserved	
	dis_hw_rev_char_hdl		dis_hw_rev_val_hdl		
	dis_hw_rev_prop	reserved	dis_sw_rev_char_hdl		
	dis_sw_rev_val_hdl		sw_rev_prop	reserved	
	dis_manuf_name_char_hdl		dis_manuf_name_val_hdl		
	dis_manuf_name_prop	reserved	dis_ieee_certif_char_hdl		
	dis_ieee_certif_val_hdl		dis_ieee_certif_prop	reserved	

6.10.2.2   RBLE_HRP_Collector_Disable

Data format:

RBLE_CMD_HRP_COLLECTOR_DISABLE (OpeCode=0x1682)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.10.2.3   RBLE_HRP_Collector_Read_Char

Data format:

RBLE_CMD_HRP_COLLECTOR_READ_CHAR (OpeCode=0x1683)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	-	

6.10.2.4 RBLE_HRP_Collector_Write_Char

Data format:

RBLE_CMD_HRP_COLLECTOR_WRITE_CHAR (OpeCode=0x1685)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cfg_val		

6.10.2.5 RBLE_HRP_Collector_Write_Control_Point

Data format:

RBLE_CMD_HRP_COLLECTOR_WRITE_CONTROL_POINT (OpeCode=0x1684)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cp_val	-	

6.11   Cycling Speed and Cadence Profile

6.11.1   Sensor Command

NO.	Command name	Description
1	RBLE_CSCP_Sensor_Enable	Enables the Sensor role.
2	RBLE_CSCP_Sensor_Disable	Disables the Sensor role.
3	RBLE_CSCP_Sensor_Send_Measurements	Sends sensor measurement information.
4	RBLE_CSCP_Sensor_Send_SC_Control_Point	Sends the SC Control Point.

6.11.1.1 RBLE_CSCP_Sensor_Enable

Data format:

RBLE_CMD_CSCP_SENSOR_ENABLE (OpeCode=0x1701)

	Octet0	Octet1	Octet2	Octet3	
LSB					MSB
	conhdl		sec_lvl	con_type	
	cycspd_meas_ntf_en		sc_cp_ind_en		
	sensor_location	reserved	-	-	

6.11.1.2 RBLE_CSCP_Sensor_Disable

Data format:

RBLE_CMD_CSCP_SENSOR_DISABLE (OpeCode=0x1702)

	Octet0	Octet1	Octet2	Octet3	
LSB					MSB
	conhdl		-	-	

6.11.1.3 RBLE_CSCP_Sensor_Send_Measurements

Data format:

RBLE_CMD_CSCP_SENSOR_SEND_MEASUREMENTS (OpeCode=0x1703)

	Octet0	Octet1	Octet2	Octet3	
LSB					MSB
	conhdl		flags	reserved	
	wheel_revolutions				
	wheel_event_time		crank_revolutions		
	crank_event_time		-	-	

6.11.1.4 RBLE_CSCP_Sensor_Send_SC_Control_Point

Data format:

RBLE_CMD_CSCP_SENSOR_SEND_SC_CONTROL_POINT (OpeCode=0x1704)

	Octet0	Octet1	Octet2	Octet3	
LSB					MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	request_op_code	response_value	reserved	

6.11.2   Collector Command

NO.	Command name	Description
1	RBLE_CSCP_Collector_Enable	Enables the Collector role.
2	RBLE_CSCP_Collector_Disable	Disables the Collector role.
3	RBLE_CSCP_Collector_Read_Char	Reads the characteristic value.
4	RBLE_CSCP_Collector_Write_Char	Writes the characteristic value.
5	RBLE_CSCP_Collector_Write_SC_Control_Point	Sets the SC Control Point.

6.11.2.1   RBLE_CSCP_Collector_Enable

Data format:

RBLE_CMD_CSCP_COLLECTOR_ENABLE (OpeCode=0x1781)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	cscs_shdl		cscs_ehdl		
	cscs_cycspd_meas_char_hdl		cscs_cycspd_meas_val_hdl		
	cscs_cycspd_meas_cfg_hdl		cscs_cycspd_meas_prop	reserved	
	cscs_csc_feature_char_hdl		cscs_csc_feature_val_hdl		
	cscs_csc_feature_prop	reserved	cscs_sensor_loc_char_hdl		
	cscs_sensor_loc_val_hdl		cscs_sensor_loc_prop	reserved	
	cscs_sc_cp_char_hdl		cscs_sc_cp_val_hdl		
	cscs_sc_cp_cfg_hdl		cscs_sc_cp_prop	reserved	
	dis_shdl		dis_ehdl		
	dis_sys_id_char_hdl		dis_sys_id_val_hdl		
	dis_sys_id_prop	reserved	dis_model_nb_char_hdl		
	dis_model_nb_val_hdl		dis_model_nb_prop	reserved	
	dis_serial_nb_char_hdl		dis_serial_nb_val_hdl		
	dis_serial_nb_prop	reserved	dis_fw_rev_char_hdl		
	dis_fw_rev_val_hdl		dis_fw_rev_prop	reserved	
	dis_hw_rev_char_hdl		dis_hw_rev_val_hdl		
	dis_hw_rev_prop	reserved	dis_sw_rev_char_hdl		
	dis_sw_rev_val_hdl		sw_rev_prop	reserved	
	dis_manuf_name_char_hdl		dis_manuf_name_val_hdl		
	dis_manuf_name_prop	reserved	dis_ieee_certif_char_hdl		
	dis_ieee_certif_val_hdl		dis_ieee_certif_prop	reserved	

6.11.2.2   RBLE_CSCP_Collector_Disable

Data format:

RBLE_CMD_CSCP_COLLECTOR_DISABLE (OpeCode=0x1782)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.11.2.3   RBLE_CSCP_Collector_Read_Char

Data format:

RBLE_CMD_CSCP_COLLECTOR_READ_CHAR (OpeCode=0x1783)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	-	

6.11.2.4   RBLE_CSCP_Collector_Write_Char

Data format:

RBLE_CMD_CSCP_COLLECTOR_WRITE_CHAR (OpeCode=0x1785)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.11.2.5   RBLE_CSCP_Collector_Write_SC_Control_Point

Data format:

RBLE_CMD_CSCP_COLLECTOR_WRITE_SC_CONTROL_POINT (OpeCode=0x1784)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	request_op_code	response_value	reserved	

6.12   Glucose Profile

6.12.1   Sensor Command

NO.	Command name	Description
1	RBLE_GLP_Sensor_Enable	Enables the Sensor role.
2	RBLE_GLP_Sensor_Disable	Disables the Sensor role.
3	RBLE_GLP_Sensor_Send_Measurements	Sends the glucose measurement information.
4	RBLE_GLP_Sensor_Send_Measurements_Context	Sends the glucose measurement context information.
5	RBLE_GLP_Sensor_Send_RA_Control_Point	Sends the RA control point information.

6.12.1.1   RBLE_GLP_Sensor_Enable

Data format:

RBLE_CMD_GLP_SENSOR_ENABLE (OpeCode=0x1801)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	glp_meas_ntf_en		glp_meas_context_ntf_en		
	ra_cp_ind_en		-	-	

6.12.1.2   RBLE_GLP_Sensor_Disable

Data format:

RBLE_CMD_GLP_SENSOR_DISABLE (OpeCode=0x1802)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.12.1.3   RBLE_GLP_Sensor_Send_Measurements

Data format:

RBLE_CMD_GLP_SENSOR_SEND_MEASUREMENTS (OpeCode=0x1803)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	reserved	
	seq_num		year		
	month	day	hour	min	
	sec	reserved	time_offset		
	concentration		type	sample_location	
	sensor_status_annun		-	-	

6.12.1.4   RBLE_GLP_Sensor_Send_Measurements_Context

Data format:

RBLE_CMD_GLP_SENSOR_SEND_MEASUREMENTS_CONTEXT (OpeCode=0x1804)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	reserved	
	seq_num		ex_flags	carbohydrate_id	
	carbohydrate_kg		meal	tester	
	health	reserved	exercise_duration		
	exercise_intensity	medication_id	medication		
	HbA1c		-	-	

6.12.1.5   RBLE_GLP_Sensor_Send_RA_Control_Point

Data format:

RBLE_CMD_GLP_SENSOR_SEND_RA_CONTROL_POINT (OpeCode=0x1805)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	operator	
	num_of_records		request_op_code	response_code_value	

6.12.2   Collector Command

NO.	Command name	Description
1	RBLE_GLP_Collector_Enable	Enables the Collector role.
2	RBLE_GLP_Collector_Disable	Disables the Collector role.
3	RBLE_GLP_Collector_Read_Char	Reads the characteristic value.
4	RBLE_GLP_Collector_Write_RA_Control_Point	Sets the RA control point.
5	RBLE_GLP_Collector_Write_Char	Writes the characteristic value.

6.12.2.1   RBLE_GLP_Collector_Enable

Data format:

RBLE_CMD_GLP_COLLECTOR_ENABLE (OpeCode=0x1881)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	gls_shdl		gls_ehdl		
	gls_glucose_meas_char_hdl		gls_glucose_meas_val_hdl		
	gls_glucose_meas_cfg_hdl		gls_glucose_meas_ prop	reserved	
	gls_glucose_meas_context_char_hdl		gls_glucose_meas_context_val_hdl		
	gls_glucose_meas_context_cfg_hdl		gls_glucose_meas_ context_prop	reserved	
	gls_glucose_feature_char_hdl		gls_glucose_feature_val_hdl		
	gls_glucose_feature_ prop	resrved	gls_glucose_ra_cp_char_hdl		
	gls_glucose_ra_cp_val_hdl		gls_glucose_ra_cp_cfg_hdl		
	gls_glucose_ra_cp_p rop	reserved	dis_shdl		
	dis_ehdl		dis_sys_id_char_hdl		
	dis_sys_id_val_hdl		dis_sys_id_prop	reserved	
	dis_model_nb_char_hdl		dis_model_nb_val_hdl		
	dis_model_nb_prop	reserved	dis_serial_nb_char_hdl		
	dis_serial_nb_val_hdl		dis_serial_nb_prop	reserved	
	dis_fw_rev_char_hdl		dis_fw_rev_val_hdl		
	dis_fw_rev_prop	reserved	dis_hw_rev_char_hdl		
	dis_hw_rev_val_hdl		dis_hw_rev_prop	reserved	
	dis_sw_rev_char_hdl		dis_sw_rev_val_hdl		
	dis_sw_rev_prop	reserved	dis_manuf_name_char_hdl		
	dis_manuf_name_val_hdl		dis_manuf_name_p rop	reserved	
	dis_ieee_certif_char_hdl		dis_ieee_certif_val_hdl		
	dis_ieee_certif_pro p	reserved	-	-	

6.12.2.2   RBLE_GLP_Collector_Disable

Data format:

RBLE_CMD_GLP_COLLECTOR_DISABLE (OpeCode=0x1882)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.12.2.3   RBLE_GLP_Collector_Read_Char

Data format:

RBLE_CMD_GLP_COLLECTOR_READ_CHAR (OpeCode=0x1883)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	

6.12.2.4   RBLE_GLP_Collector_Write_RA_Control_Point

Data format:

RBLE_CMD_GLP_COLLECTOR_WRITE_RA_CONTROL_POINT (OpeCode=0x1884)

	Octet0	Octet1	Octet2	Octet3	
LSB					MSB
	conhdl		OpCode	racp_operator	
	operand_value	reserved	min_sequence_num		
	max_sequence_num		min_stamp_year		
	min_stamp_month	min_stamp_day	min_stamp_hour	min_stamp_min	
	min_stamp_sec	reserved	max_stamp_Year		
	max_stamp_month	max_stamp_day	max_stamp_hour	max_stamp_min	
	max_stamp_sec	reserved	-	-	

6.12.2.5   RBLE_GLP_Collector_Write_Char

Data format:

RBLE_CMD_GLP_COLLECTOR_WRITE_CHAR (OpeCode=0x1885)

	Octet0	Octet1	Octet2	Octet3	
LSB					MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.13   Cycling Power Profile

6.13.1   Sensor Command

NO.	Command name	Description
1	RBLE_CPP_Sensor_Enable	Enables the Sensor role.
2	RBLE_CPP_Sensor_Disable	Disables the Sensor role.
3	RBLE_CPP_Sensor_Send_Measurements	Sends the cycling power measurement information.
4	RBLE_CPP_Sensor_Broadcast_Measurements	Broadcasts the cycling power measurement information.
5	RBLE_CPP_Sensor_Send_Vector	Sends the cycling power vector information.
6	RBLE_CPP_Sensor_Send_CP_Control_Point	Sends the CP control point information.
7	RBLE_CPP_Sensor_Send_Battery_Level	Sends the battery level.
8	RBLE_CPP_Sensor_Send_Write_Response	Sends the write response

6.13.1.1   RBLE_CPP_Sensor_Enable

Data format:

RBLE_CMD_CPP_SENSOR_ENABLE (OpeCode=0x1901)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	cp_meas_ntf_en		cp_meas_brd_en		
	cp_vector_ntf_en		cp_cp_ind_en		
	battery_level_ntf_en		sensor_location	reserved	

6.13.1.2   RBLE_CPP_Sensor_Disable

Data format:

RBLE_CMD_CPP_SENSOR_DISABLE (OpeCode=0x1902)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.13.1.3   RBLE_CPP_Sensor_Send_Measurements

Data format:

RBLE_CMD_CPP_SENSOR_SEND_MEASUREMENTS (OpeCode=0x1903)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags		
	instant_power		pedal_balance	reserved	
	accumulated_torque		wheel_revolutions(lower)		
	wheel_revolutions(upper)		wheel_event		
	crank_revolutions		crank_event		
	max_force_magnitude		min_force_magnitude		
	max_torque_magnitude		min_torque_magnitude		
	max_angle		min_angle		
	top_dead_spot		bottom_dead_spot		
	accumulated_energy		-	-	

6.13.1.4 RBLE_CPP_Sensor_Broadcast_Measurements

Data format:

RBLE_CMD_CPP_SENSOR_BROADCAST_MEASUREMENTS (OpeCode=0x1904)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags		
	instant_power		pedal_balance	reserved	
	accumulated_torque		wheel_revolutions(lower)		
	wheel_revolutions(upper)		wheel_event		
	crank_revolutions		crank_event		
	max_force_magnitude		min_force_magnitude		
	max_torque_magnitude		min_torque_magnitude		
	max_angle		min_angle		
	top_dead_spot		bottom_dead_spot		
	accumulated_energy		-	-	

6.13.1.5 RBLE_CPP_Sensor_Send_Vector

Data format:

RBLE_CMD_CPP_SENSOR_SEND_VECTOR (OpeCode=0x1905)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	reserved	
	crank_revolutions		crank_event		
	first_crank_angle		array_num	reserved	
	magnitude[0]		magnitude[1]		
	~				
	magnitude[8]		-	-	

6.13.1.6 RBLE_CPP_Sensor_Send_CP_Control_Point

Data format:

RBLE_CMD_CPP_SENSOR_SEND_CONTROL_POINT (OpeCode=0x1906)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	request_op_code	
	response_value	reserved	crank_length		
	chain_length		chain_weight		
	span_length		offset_compensation		
	sampling_rate	reserved	year		
	month	day	hour	min	
	sec	reserved	-	-	

6.13.1.7 RBLE_CPP_Sensor_Send_Battery_Level

Data format:

RBLE_CMD_CPP_SENSOR_SEND_BATTERY_LEVEL (OpeCode=0x1907)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		battery_level	-	

6.13.1.8   RBLE_CPP_Sensor_Send_Write_Response

Data format:

RBLE_CMD_CPP_SENSOR_SEND_WRITE_RESPONSE (OpeCode=0x1908)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		res_code	-	

6.13.2   Collector Command

NO.	Command name	Description
1	RBLE_CPP_Collector_Enable	Enables the Collector role.
2	RBLE_CPP_Collector_Disable	Disables the Collector role.
3	RBLE_CPP_Collector_Read_Char	Reads the characteristic value.
4	RBLE_CPP_Collector_Write_Char	Writes the characteristic value.
5	RBLE_CPP_Collector_Write_CP_Control_Point	Sets the CP control point.

6.13.2.1 RBLE_CPP_Collector_Enable

Data format:

RBLE_CMD_CPP_COLLECTOR_ENABLE (OpeCode=0x1981)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	cps_shdl		cps_ehdl		
	cps_cp_meas_char_hdl		cps_cp_meas_val_hdl		
	cps_cp_meas_cfg_hdl		cps_cp_meas_brd_cfg_hdl		
	cps_cp_meas_prop	reserved	cps_cp_feature_char_hdl		
	cps_cp_feature_val_hdl		cps_cp_feature_prop	reserved	
	cps_sensor_loc_char_hdl		cps_sensor_loc_val_hdl		
	cps_sensor_loc_prop	reserved	cps_cp_vector_char_hdl		
	cps_cp_vector_val_hdl		cps_cp_vector_cfg_hdl		
	cps_cp_vector_prop	reserved	cps_cp_cp_char_hdl		
	cps_cp_cp_val_hdl		cps_cp_cp_cfg_hdl		
	cps_cp_cp_prop	reserved	dis_shdl		
	dis_ehdl		dis_sys_id_char_hdl		
	dis_sys_id_val_hdl		dis_sys_id_prop	reserved	
	dis_model_nb_char_hdl		dis_model_nb_val_hdl		
	dis_model_nb_prop	reserved	dis_serial_nb_char_hdl		
	dis_serial_nb_val_hdl		dis_serial_nb_prop	reserved	
	dis_fw_rev_char_hdl		dis_fw_rev_val_hdl		
	dis_fw_rev_prop	reserved	dis_hw_rev_char_hdl		
	dis_hw_rev_val_hdl		dis_hw_rev_prop	reserved	
	dis_sw_rev_char_hdl		dis_sw_rev_val_hdl		
	sw_rev_prop	reserved	dis_manuf_name_char_hdl		
	dis_manuf_name_val_hdl		dis_manuf_name_prop	reserved	
	dis_ieee_certif_char_hdl		dis_ieee_certif_val_hdl		
	dis_ieee_certif_prop	reserved	bas_shdl		
	bas_ehdl		bas_battery_lvl_char_hdl		
	bas_battery_lvl_val_hdl		bas_battery_lvl_cfg_hdl		
	bas_battery_lvl_prop	-	-	-	

6.13.2.2 RBLE_CPP_Collector_Disable

Data format:

RBLE_CMD_CPP_COLLECTOR_DISABLE (OpeCode=0x1982)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.13.2.3   RBLE_CPP_Collector_Read_Char

Data format:

RBLE_CMD_CPP_COLLECTOR_READ_CHAR (OpeCode=0x1983)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	-	

6.13.2.4   RBLE_CPP_Collector_Write_Char

Data format:

RBLE_CMD_CPP_COLLECTOR_WRITE_CHAR (OpeCode=0x1985)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.13.2.5   RBLE_CPP_Collector_Write_CP_Control_Point

Data format:

RBLE_CMD_CPP_COLLECTOR_WRITE_CONTROL_POINT (OpeCode=0x1984)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	reserved	crank_length		
	chain_length		chain_weight		
	span_length		mask_meas_content		

6.14   Time Profile

6.14.1   Server Command

NO.	Command name	Description
1	RBLE_TIP_Server_Enable	Enables the Server role.
2	RBLE_TIP_Server_Disable	Disables the Server role.
3	RBLE_TIP_Server_Send_Current_Time	Sends the current time information.
4	RBLE_TIP_Server_Write_Data	Writes the characteristic value.

6.14.1.1   RBLE_TIP_Server_Enable

Data format:

RBLE_CMD_TIP_SERVER_ENABLE (OpeCode=0x1A01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	current_time_ntf_en		-	-	

6.14.1.2   RBLE_TIP_Server_Disable

Data format:

RBLE_CMD_TIP_SERVER_DISABLE (OpeCode=0x1A02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.14.1.3   RBLE_TIP_Server_Send_Current_Time

Data format:

RBLE_CMD_TIP_SERVER_SEND_CURRENT_TIME (OpeCode=0x1A03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		year		
	month	day	hour	min	
	sec	reserved	day_of_week	fractions256	
	adjust_reason	reserved	-	-	

6.14.1.4   RBLE_TIP_Server_Write_Data

Data format:

RBLE_CMD_TIP_SERVER_WRITE_DATA (OpeCode=0x1A04)

case : char_code = RBLE_TIPS_WR_CTS_CRNT_TIME (0x00)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	char_code	reserved	year		
	month	day	hour	min	
	sec	reserved	day_of_week	fractions256	
	adjust_reason	reserved	-	-	

case : char_code = RBLE_TIPS_WR_CTS_LOCAL_TIME (0x01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	char_code	reserved	time_zone	dst_offset	

case : char_code = RBLE_TIPS_WR_CTS_REF_TIME (0x02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	char_code	reserved	time_source	accuracy	
	days_since_update	hours_since_update	-	-	

case : char_code = RBLE_TIPS_WR_NDCS_TIME_DST (0x03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	char_code	reserved	year		
	month	day	hour	min	
	sec	reserved	dst_offset	reserved	

case : char_code = RBLE_TIPS_WR_RTUS_UPDATE_STATUS (0x04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	char_code	reserved	current_state	update_result	

6.14.2   Client Command

NO.	Command name	Description
1	RBLE_TIP_Client_Enable	Enables the Client role.
2	RBLE_TIP_Client_Disable	Disables the Client role.
3	RBLE_TIP_Client_Read_Char	Reads the characteristic value.
4	RBLE_TIP_Client_Write_Char	Writes the characteristic value.
5	RBLE_TIP_Client_Write_Time_Update_CP	Sets the time update control point.

6.14.2.1   RBLE_TIP_Client_Enable

Data format:

RBLE_CMD_TIP_CLIENT_ENABLE (OpeCode=0x1A81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	cts_shdl		cts_ehdl		
	cts_current_time_char_hdl		cts_current_time_val_hdl		
	cts_current_time_cfg_hdl		cts_current_time_prop	reserved	
	cts_local_time_info_char_hdl		cts_local_time_info_val_hdl		
	cts_local_time_info_prop	reserved	cts_ref_time_info_char_hdl		
	cts_ref_time_info_val_hdl		cts_ref_time_info_prop	reserved	
	ndcs_shdl		ndcs_ehdl		
	ndcs_time_dst_char_hdl		ndcs_time_dst_val_hdl		
	ndcs_time_dst_prop	reserved	rtus_shdl		
	rtus_ehdl		rtus_update_cp_char_hdl		
	rtus_update_cp_val_hdl		rtus_update_cp_prop	reserved	
	rtus_update_state_char_hdl		rtus_update_state_val_hdl		
	rtus_update_state_prop	reserved	-	-	

6.14.2.2   RBLE_TIP_Client_Disable

Data format:

RBLE_CMD_TIP_CLIENT_DISABLE (OpeCode=0x1A82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.14.2.3   RBLE_TIP_Client_Read_Char

Data format:

RBLE_CMD_TIP_CLIENT_READ_CHAR (OpeCode=0x1A83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	

6.14.2.4   RBLE_TIP_Client_Write_Char

Data format:

RBLE_CMD_TIP_CLIENT_WRITE_CHAR (OpeCode=0x1A84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cfg_val		

6.14.2.5   RBLE_TIP_Client_Write_Time_Update_CP

Data format:

RBLE_CMD_TIP_CLIENT_WRITE_TIME_UPDATE_CP (OpeCode=0x1A85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		time_update_cp	reserved	

6.15   Alert Notification Profile

6.15.1   Server Command

NO.	Command name	Description
1	RBLE_ANP_Server_Enable	Enables the Server role.
2	RBLE_ANP_Server_Disable	Disables the Server role.
3	RBLE_ANP_Server_Send_New_Alert	Sends the new alert information.
4	RBLE_ANP_Server_Send_Unread_Alert	Sends the unread alert information.

6.15.1.1   RBLE_ANP_Server_Enable

Data format:

RBLE_CMD_ANP_SERVER_ENABLE (OpeCode=0x1B01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	new_alert_ntf_en		unread_alert_ntf_en		

6.15.1.2   RBLE_ANP_Server_Disable

Data format:

RBLE_CMD_ANP_SERVER_DISABLE (OpeCode=0x1B02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.15.1.3   RBLE_ANP_Server_Send_New_Alert

Data format:

RBLE_CMD_ANP_SERVER_SEND_NEW_ALERT (OpeCode=0x1B03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		category_id	alert_num	
	text_size	text[0]	text[1]	text[2]	
	~				
	text[15]	text[16]	text[17]	-	

6.15.1.4   RBLE_ANP_Server_Send_Unread_Alert

Data format:

RBLE_CMD_ANP_SERVER_SEND_UNREAD_ALERT (OpeCode=0x1B04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		category_id	unread_count	

6.15.2 Client Command

NO.	Command name	Description
1	RBLE_ANP_Client_Enable	Enables the Client role.
2	RBLE_ANP_Client_Disable	Disables the Client role.
3	RBLE_ANP_Client_Read_Char	Reads the characteristic value.
4	RBLE_ANP_Client_Write_Alert_Notification_CP	Sets the alert notification control point.
5	RBLE_ANP_Client_Write_Char	Writes the characteristic value.

6.15.2.1   RBLE_ANP_Client_Enable

Data format:

RBLE_CMD_ANP_CLIENT_ENABLE (OpeCode=0x1B81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	ans_shdl		ans_ehdl		
	ans_supp_new_alert_char_hdl		ans_supp_new_alert_val_hdl		
	ans_supp_new_alert_prop	reserved	ans_new_alert_char_hdl		
	ans_new_alert_val_hdl		ans_new_alert_cfg_hdl		
	ans_new_alert_prop	reserved	ans_supp_unread_alert_char_hdl		
	ans_supp_unread_alert_val_hdl		ans_supp_unread_alert_prop	reserved	
	ans_unread_alert_char_hdl		ans_unread_alert_val_hdl		
	ans_unread_alert_cfg_hdl		ans_unread_alert_prop	reserved	
	ans_alert_ntf_cp_char_hdl		ans_alert_ntf_cp_val_hdl		
	ans_alert_ntf_cp_prop	reserved	-	-	

6.15.2.2   RBLE_ANP_Client_Disable

Data format:

RBLE_CMD_ANP_CLIENT_DISABLE (OpeCode=0x1B82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.15.2.3   RBLE_ANP_Client_Read_Char

Data format:

RBLE_CMD_ANP_CLIENT_READ_CHAR (OpeCode=0x1B83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	-	

6.15.2.4   RBLE_ANP_Client_Write_Alert_Notification_CP

Data format:

RBLE_CMD_ANP_CLIENT_WRITE_ALERT_NOTIFICATION_CP (OpeCode=0x1B84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		command_id	category_id	

6.15.2.5   RBLE_ANP_Client_Write_Char

Data format:

RBLE_CMD_ANP_CLIENT_WRITE_CHAR (OpeCode=0x1B85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.16   Location and Navigation Profile

6.16.1   Sensor Command

NO.	Command name	Description
1	RBLE_LNP_Sensor_Enable	Enables the Sensor role.
2	RBLE_LNP_Sensor_Disable	Disables the Sensor role.
3	RBLE_LNP_Sensor_Send_Location_Speed	Sends the Location and Speed information.
4	RBLE_LNP_Sensor_Set_Position_Quality	Sets the Position Quality information.
5	RBLE_LNP_Sensor_Send_LN_Control_Point	Sends the LN control point information.
6	RBLE_LNP_Sensor_Send_Navigation	Sends the Navigation data.
7	RBLE_LNP_Sensor_Send_Battery_Level	Sends the battery level.

6.16.1.1   RBLE_LNP_Sensor_Enable

Data format:

RBLE_CMD_LNP_SENSOR_ENABLE (OpeCode=0x1C01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	location_speed_ntf_en		ln_cp_ind_en		
	navigation_ntf_en		battery_level_ntf_en		

6.16.1.2   RBLE_LNP_Sensor_Disable

Data format:

RBLE_CMD_LNP_SENSOR_DISABLE (OpeCode=0x1C02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.16.1.3   RBLE_LNP_Sensor_Send_Location_Speed

Data format:

RBLE_CMD_LNP_SENSOR_SEND_LOCATION_SPEED (OpeCode=0x1C03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags		
	instant_speed		total_distance(lower)		
	total_distance(upper)		latitude(lower)		
	latitude(upper)		longitude(lower)		
	longitude(upper)		elevation(lower)		
	elevation(upper)		heading		
	rolling_time	reserved	year		
	month	day	hour	min	
	sec	reserved	-	-	

6.16.1.4   RBLE_LNP_Sensor_Set_Position_Quality

Data format:

RBLE_CMD_LNP_SENSOR_SET_POSITION_QUALITY (OpeCode=0x1C04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	flags		beacon_solution_num	beacon_view_num	
	first_fix_time		ehpe(lower)		
	ehpe(upper)		evpe(lower)		
	evpe(upper)		hdop	vdop	

6.16.1.5 RBLE_LNP_Sensor_Send_LN_Control_Point

Data format:

RBLE_CMD_LNP_SENSOR_SEND_LN_CONTROL_POINT (OpeCode=0x1C05)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	request_op_code	
	response_value	reserved	route_num		
	name_size	route_name[0]	route_name[1]	route_name[2]	
	~				
	route_name[15]	route_name[16]	-	-	

6.16.1.6 RBLE_LNP_Sensor_Send_Navigation

Data format:

RBLE_CMD_LNP_SENSOR_SEND_NAVIGATION (OpeCode=0x1C06)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags		
	bearing		heading		
	remain_dis				
	remain_v_dis				
	year		month	day	
	hour	min	sec	reserved	

6.16.1.7 RBLE_LNP_Sensor_Send_Battery_Level

Data format:

RBLE_CMD_LNP_SENSOR_SEND_BATTERY_LEVEL (OpeCode=0x1C07)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		battery_level	-	

6.16.2   Collector Command

NO.	Command name	Description
1	RBLE_LNP_Collector_Enable	Enables the Collector role.
2	RBLE_LNP_Collector_Disable	Disables the Collector role.
3	RBLE_LNP_Collector_Read_Char	Reads the characteristic value.
4	RBLE_LNP_Collector_Write_LN_Control_Point	Sets the LN control point.
5	RBLE_LNP_Collector_Write_Char	Writes the characteristic value.

6.16.2.1 RBLE_LNP_Collector_Enable

Data format:

RBLE_CMD_LNP_COLLECTOR_ENABLE (OpeCode=0x1C81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	lns_shdl		lns_ehdl		
	lns_ln_feature_char_hdl		lns_ln_feature_val_hdl		
	lns_ln_feature_prop	reserved	lns_location_speed_char_hdl		
	lns_location_speed_val_hdl		lns_location_speed_cfg_hdl		
	lns_location_speed_prop	reserved	lns_position_quality_char_hdl		
	lns_position_quality_val_hdl		lns_position_quality_prop	reserved	
	lns_ln_cp_char_hdl		lns_ln_cp_val_hdl		
	lns_ln_cp_cfg_hdl		lns_ln_cp_prop	reserved	
	lns_navigation_char_hdl		lns_navigation_val_hdl		
	lns_navigation_cfg_hdl		lns_navigation_prop	reserved	
	dis_shdl		dis_ehdl		
	dis_sys_id_char_hdl		dis_sys_id_val_hdl		
	dis_sys_id_prop	reserved	dis_model_nb_char_hdl		
	dis_model_nb_val_hdl		dis_model_nb_prop	reserved	
	dis_serial_nb_char_hdl		dis_serial_nb_val_hdl		
	dis_serial_nb_prop	reserved	dis_fw_rev_char_hdl		
	dis_fw_rev_val_hdl		dis_fw_rev_prop	reserved	
	dis_hw_rev_char_hdl		dis_hw_rev_val_hdl		
	dis_hw_rev_prop	reserved	dis_sw_rev_char_hdl		
	dis_sw_rev_val_hdl		sw_rev_prop	reserved	
	dis_manuf_name_char_hdl		dis_manuf_name_val_hdl		
	dis_manuf_name_prop	reserved	dis_ieee_certif_char_hdl		
	dis_ieee_certif_val_hdl		dis_ieee_certif_prop	reserved	
	bas_shdl		bas_ehdl		
	bas_battery_lvl_char_hdl		bas_battery_lvl_val_hdl		
	bas_battery_lvl_cfg_hdl		bas_battery_lvl_prop	reserved	

6.16.2.2 RBLE_LNP_Collector_Disable

Data format:

RBLE_CMD_LNP_COLLECTOR_DISABLE (OpeCode=0x1C82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.16.2.3 RBLE_LNP_Collector_Read_Char

Data format:

RBLE_CMD_LNP_COLLECTOR_READ_CHAR (OpeCode=0x1C83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	-	

6.16.2.4 RBLE_LNP_Collector_Write_LN_Control_Point

Data format:

RBLE_CMD_LNP_COLLECTOR_WRITE_LN_CONTROL_POINT (OpeCode=0x1C84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	content_mask		route_num		
	control_val	fix_rate	elevation(lower)		
	elevation(upper)		-	-	

6.16.2.5 RBLE_LNP_Collector_Write_Char

Data format:

RBLE_CMD_LNP_COLLECTOR_WRITE_CHAR (OpeCode=0x1C85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.17 Phone Alert Status Profile

6.17.1 Server Command

NO.	Command name	Description
1	RBLE_PASP_Server_Enable	Enables the Server role.
2	RBLE_PASP_Server_Disable	Disables the Server role.
3	RBLE_PASP_Server_Send_Alert_Status	Sends the alert status.
4	RBLE_PASP_Server_Send_Ringer_Setting	Sends the ringer setting.

6.17.1.1   RBLE_PASP_Server_Enable

Data format:

RBLE_CMD_PASP_SERVER_ENABLE (OpeCode=0x1D01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	alert_status_ntf_en		ringer_setting_ntf_en		

6.17.1.2   RBLE_PASP_Server_Disable

Data format:

RBLE_CMD_PASP_SERVER_DISABLE (OpeCode=0x1D02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.17.1.3   RBLE_PASP_Server_Send_Alert_Status

Data format:

RBLE_CMD_PASP_SERVER_SEND_ALERT_STATUS (OpeCode=0x1D03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		alert_status	reserved	

6.17.1.4   RBLE_PASP_Server_Send_Ringer_Setting

Data format:

RBLE_CMD_PASP_SERVER_SEND_RINGER_SETTING (OpeCode=0x1D04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		ringer_setting	reserved	

6.17.2   Client Command

NO.	Command name	Description
1	RBLE_PASP_Client_Enable	Enables the Client role.
2	RBLE_PASP_Client_Disable	Disables the Client role.
3	RBLE_PASP_Client_Read_Char	Reads the characteristic value.
4	RBLE_PASP_Client_Write_Ringer_Control_Point	Sets the ringer control point.
5	RBLE_PASP_Client_Write_Char	Writes the characteristic value.

6.17.2.1   RBLE_PASP_Client_Enable

Data format:

RBLE_CMD_PASP_CLIENT_ENABLE (OpeCode=0x1D81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	shdl		ehdl		
	alert_status_char_hdl		alert_status_val_hdl		
	alert_status_cfg_hdl		alert_status_prop	reserved	
	ringer_setting_char_hdl		ringer_setting_val_hdl		
	ringer_setting_cfg_hdl		ringer_setting_prop	reserved	
	ringer_cp_char_hdl		ringer_cp_val_hdl		
	ringer_cp_prop	reserved	-	-	

6.17.2.2   RBLE_PASP_Client_Disable

Data format:

RBLE_CMD_PASP_CLIENT_DISABLE (OpeCode=0x1D82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.17.2.3   RBLE_PASP_Client_Read_Char

Data format:

RBLE_CMD_PASP_CLIENT_READ_CHAR (OpeCode=0x1D83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	

6.17.2.4   RBLE_PASP_Client_Write_Ringer_Control_Point

Data format:

RBLE_CMD_PASP_CLIENT_WRITE_RINGER_CONTROL_POINT (OpeCode=0x1D84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cp_val	reserved	

6.17.2.5   RBLE_PASP_Client_Write_Char

Data format:

RBLE_CMD_PASP_CLIENT_WRITE_CHAR (OpeCode=0x1D85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.18   Running Speed and Cadence Profile

6.18.1   Sensor Command

NO.	Command name	Description
1	RBLE_RSCP_Sensor_Enable	Enables the Sensor role.
2	RBLE_RSCP_Sensor_Disable	Disables the Sensor role.
3	RBLE_RSCP_Sensor_Send_Measurements	Sends the running speed and cadence measurement information.
4	RBLE_RSCP_Sensor_Send_SC_Control_Point	Sends the SC control point information.

6.18.1.1   RBLE_RSCP_Sensor_Enable

Data format:

RBLE_CMD_RSCP_SENSOR_ENABLE (OpeCode=0x1E01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		sec_lvl	con_type	
	rsc_meas_ntf_en		sc_cp_ind_en		
	sensor_location	reserved	-	-	

6.18.1.2   RBLE_RSCP_Sensor_Disable

Data format:

RBLE_CMD_RSCP_SENSOR_DISABLE (OpeCode=0x1E02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.18.1.3   RBLE_RSCP_Sensor_Send_Measurements

Data format:

RBLE_CMD_RSCP_SENSOR_SEND_MEASUREMENTS (OpeCode=0x1E03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	instant_cadence	
	instant_speed		instant_stride_len		
	total_distance				

6.18.1.4   RBLE_RSCP_Sensor_Send_SC_Control_Point

Data format:

RBLE_CMD_RSCP_SENSOR_SEND_SC_CONTROL_POINT (OpeCode=0x1E04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	request_op_code	response_value	reserved	

6.18.2   Collector Command

NO.	Command name	Description
1	RBLE_RSCP_Collector_Enable	Enables the Collector role.
2	RBLE_RSCP_Collector_Disable	Disables the Collector role.
3	RBLE_RSCP_Collector_Read_Char	Reads the characteristic value.
4	RBLE_RSCP_Collector_Write_SC_Control_Point	Sets the SC control point.
5	RBLE_RSCP_Collector_Write_Char	Writes the characteristic value.

6.18.2.1   RBLE_RSCP_Collector_Enable

Data format:

RBLE_CMD_RSCP_COLLECTOR_ENABLE (OpeCode=0x1E81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		con_type	reserved	
	rscs_shdl		rscs_ehdl		
	rscs_rsc_meas_char_hdl		rscs_rsc_meas_val_hdl		
	rscs_rsc_meas_cfg_hdl		rscs_rsc_meas_prop	reserved	
	rscs_rsc_feature_char_hdl		rscs_rsc_feature_val_hdl		
	rsc_feature_prop	reserved	rscs_sensor_loc_char_hdl		
	rscs_sensor_loc_val_hdl		rscs_sensor_loc_prop	reserved	
	rscs_sc_cp_char_hdl		rscs_sc_cp_val_hdl		
	rscs_sc_cp_cfg_hdl		rscs_sc_cp_prop	reserved	
	dis_shdl		dis_ehdl		
	dis_sys_id_char_hdl		dis_sys_id_val_hdl		
	dis_sys_id_prop	reserved	dis_model_nb_char_hdl		
	dis_model_nb_val_hdl		dis_model_nb_prop	reserved	
	dis_serial_nb_char_hdl		dis_serial_nb_val_hdl		
	dis_serial_nb_prop	reserved	dis_fw_rev_char_hdl		
	dis_fw_rev_val_hdl		dis_fw_rev_prop	reserved	
	dis_hw_rev_char_hdl		dis_hw_rev_val_hdl		
	dis_hw_rev_prop	reserved	dis_sw_rev_char_hdl		
	dis_sw_rev_val_hdl		dis_sw_rev_prop	reserved	
	dis_manuf_name_char_hdl		dis_manuf_name_val_hdl		
	dis_manuf_name_prop	reserved	dis_ieee_certif_char_hdl		
	dis_ieee_certif_val_hdl		dis_ieee_certif_prop	reserved	

6.18.2.2   RBLE_RSCP_Collector_Disable

Data format:

RBLE_CMD_RSCP_COLLECTOR_DISABLE (OpeCode=0x1E82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		-	-	

6.18.2.3   RBLE_RSCP_Collector_Read_Char

Data format:

RBLE_CMD_RSCP_COLLECTOR_READ_CHAR (OpeCode=0x1E83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	

6.18.2.4   RBLE_RSCP_Collector_Write_SC_Control_Point

Data format:

RBLE_CMD_RSCP_COLLECTOR_WRITE_SC_CONTROL_POINT (OpeCode=0x1E84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	request_op_code	response_value	reserved	

6.18.2.5   RBLE_RSCP_Collector_Write_Char

Data format:

RBLE_CMD_RSCP_COLLECTOR_WRITE_CHAR (OpeCode=0x1E85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

6.19   Vendor Specific

NO.	Command name	Description
1	RBLE_VS_Enable	Enables VS.
2	RBLE_VS_Test_Rx_Start	Starts a reception test.
3	RBLE_VS_Test_Tx_Start	Starts a transmission test.
4	RBLE_VS_Test_End	Ends a transmission/reception test.
5	RBLE_VS_Set_Test_Parameter	Sets the extended parameter in Direct Test Mode.
6	RBLE_VS_Read_Test_RSSI	Reads RSSI in Direct Test Mode.
7	RBLE_VS_Write_Bd_Address	Writes a DB address.
8	RBLE_VS_Set_Tx_Power	Sets a transmission power.
9	RBLE_VS_GPIO_Dir	Sets the input/output direction of GPIO.
10	RBLE_VS_GPIO_Access	Accesses to the GPIO.
11	RBLE_VS_Flash_Management	Executes a Data Flash access management command.
12	RBLE_VS_Flash_Access	Accesses to Data Flash.
13	RBLE_VS_Flash_Operation	Executes a Data Flash block operation
14	RBLE_VS_Flash_Get_Space	Gets a free space of Data Flash.
15	RBLE_VS_Flash_Get_EEL_Ver	Gets the version of EEL.
16	RBLE_VS_Adapt_Enable	Enables / Disables adaptable function.
17	RBLE_VS_Set_Params	Sets a parameter.
18	RBLE_VS_RF_Control	Controls the power supply of the RF chip.

6.19.1   RBLE_VS_Enable
Data format:

RBLE_CMD_VS_ENABLE (OpeCode=0x7F01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.19.2   RBLE_VS_Test_Rx_Start
Data format:

RBLE_CMD_VS_TEST_RX_START (OpeCode=0x7F02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	rx_freq	-	-	-	

6.19.3   RBLE_VS_Test_Tx_Start
Data format:

RBLE_CMD_VS_TEST_TX_START (OpeCode=0x7F03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	tx_freq	test_data_len	pk_payload_type	-	

6.19.4   RBLE_VS_Test_End
Data format:

RBLE_CMD_VS_TEST_END (OpeCode=0x7F04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.19.5   RBLE_VS_Set_Test_Parameter
Data format:

RBLE_CMD_VS_SET_TEST_PARAMETER (OpeCode=0x7F05)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	rx_nb_packet		tx_nb_packet		
	infinite_setting	-	-	-	

6.19.6   RBLE_VS_Read_Test_RSSI
Data format:

RBLE_CMD_VS_READ_TEST_RSSI (OpeCode=0x7F06)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.19.7   RBLE_VS_Write_Bd_Address
Data format:

RBLE_CMD_VS_WRITE_BD_ADDRESS (OpeCode=0x7F07)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	addr[0]	addr[1]	addr[2]	addr[3]	
	addr[4]	addr[5]	-	-	

6.19.8   RBLE_VS_Set_Tx_Power
Data format:

RBLE_CMD_VS_SET_TX_POWER (OpeCode=0x7F08)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		pw_lvl	state	

6.19.9   RBLE_VS_GPIO_Dir
Data format:

RBLE_CMD_VS_GPIO_DIR (OpeCode=0x7F09)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	dir	-	-	-	

6.19.10   RBLE_VS_GPIO_Access
Data format:

RBLE_CMD_VS_GPIO_ACCESS (OpeCode=0x7F0A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	mode	value	-	-	

6.19.11   RBLE_VS_Flash_Management
Data format:

RBLE_CMD_VS_FLASH_MANAGEMENT (OpeCode=0x7F0B)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	cmd	-	-	-	

6.19.12   RBLE_VS_Flash_Access
Data format:

RBLE_CMD_VS_FLASH_ACCESS (OpeCode=0x7F0C)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	cmd	id	size	reserved	
	addr[0]	addr[1]	addr[2]	addr[3]	
	~				
	addr[size - 2]	addr[size - 1]	-	-	

6.19.13   RBLE_VS_Flash_Operation
Data format:

RBLE_CMD_VS_FLASH_OPERATION (OpeCode=0x7F0D)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	cmd	-	-	-	

6.19.14   RBLE_VS_Flash_Get_Space
Data format:

RBLE_CMD_VS_FLASH_GET_SPACE (OpeCode=0x7F0E)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.19.15 RBLE_VS_Flash_Get_EEL_Ver
Data format:

RBLE_CMD_VS_FLASH_GET_EEL_VER (OpeCode=0x7F0F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

6.19.16 RBLE_VS_Adapt_Enable
Data format:

RBLE_CMD_VS_ADAPT_ENABLE (OpeCode=0x7F10)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	cmd	-	-	-	

6.19.17 RBLE_VS_Set_Params
Data format:

RBLE_CMD_VS_SET_PARAMS (OpeCode=0x7F11)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	param_id	param_len	param_data[0]	param_data[1]	
	~				
	param_data [param_len - 2]	param_data [param_len - 1]	-	-	

6.19.18 RBLE_VS_RF_Control
Data format:

RBLE_CMD_VS_RF_CONTROL (OpeCode=0x7F12)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	cmd	-	-	-	

7. rBLE Event

This chapter is described about data format of rBLE event which notified by Bluetooth Low Energy protocol stack.

Note: Refer to API Reference Manual for Bluetooth Low Energy protocol stack event and each the data.

7.1 Generic Access Profile

NO	Command name	Description
1	RBLE_GAP_EVENT_RESET_RESULT	Reset completion event
2	RBLE_GAP_EVENT_SET_NAME_COMP	Device name setup completion event
3	RBLE_GAP_EVENT_OBSERVATION_ENABLE_COMP	Observation enable event
4	RBLE_GAP_EVENT_OBSERVATION_DISABLE_COMP	Observation disable event
5	RBLE_GAP_EVENT_BROADCAST_ENABLE_COMP	Broadcast enable event
6	RBLE_GAP_EVENT_BROADCAST_DISABLE_COMP	Broadcast disable event
7	RBLE_GAP_EVENT_SET_BONDING_MODE_COMP	Bonding mode setup event
8	RBLE_GAP_EVENT_SET_SECURITY_REQUEST_COMP	Security mode setup event
9	RBLE_GAP_EVENT_GET_DEVICE_INFO_COMP	Device information acquisition completion event
10	RBLE_GAP_EVENT_GET_WHITE_LIST_SIZE_COMP	Local device White List size read completion event
11	RBLE_GAP_EVENT_ADD_TO_WHITE_LIST_COMP	White List device add completion event
12	RBLE_GAP_EVENT_DEL_FROM_WHITE_LIST_COMP	White List device delete completion event
13	RBLE_GAP_EVENT_GET_REMOTE_DEVICE_NAME_COMP	Remote device information acquisition completion event
14	RBLE_GAP_EVENT_GET_REMOTE_DEVICE_INFO_COMP	Remote device name acquisition completion event
15	RBLE_GAP_EVENT_DEVICE_SEARCH_COMP	Device search command completion event
16	RBLE_GAP_EVENT_DEVICE_SEARCH_RESULT_IND	Device search result notification event
17	RBLE_GAP_EVENT_RPA_RESOLVED	Resolvable Private Address resolution completion event
18	RBLE_GAP_EVENT_SET_RANDOM_ADDRESS_COMP	Random address setup command completion event
19	RBLE_GAP_EVENT_SET_PRIVACY_FEATURE_COMP	Privacy feature setup completion event
20	RBLE_GAP_EVENT_CONNECTION_COMP	LE link connection event
21	RBLE_GAP_EVENT_CONNECTION_CANCEL_COMP	LE link connection cancel completion event
22	RBLE_GAP_EVENT_DISCONNECT_COMP	LE link disconnection completion event
23	RBLE_GAP_EVENT_ADVERTISING_REPORT_IND	Advertising report and data report indication event
24	RBLE_GAP_EVENT_BONDING_COMP	Bonding completion event
25	RBLE_GAP_EVENT_BONDING_REQ_IND	Peer device bonding request indication event
26	RBLE_GAP_EVENT_CHANGE_CONNECTION_PARAM_REQ_IND	Connection parameter change request indication event
27	RBLE_GAP_EVENT_CHANGE_CONNECTION_PARAM_COMP	Connection parameter change completion event
28	RBLE_GAP_EVENT_CHANGE_CONNECTION_PARAM_RESPONSE	Connection parameter change request response notification event
29	RBLE_GAP_EVENT_CHANNEL_MAP_REQ_COMP	Channel map setup/acquisition completion event
30	RBLE_GAP_EVENT_READ_RSSI_COMP	RSSI acquisition completion event

| 31 | RBLE_GAP_EVENT_WR_CHAR_IND | GAP characteristics write indication event |
| 32 | RBLE_GAP_EVENT_COMMAND_DISALLOWED_IND | Command disallowed indication event |

7.1.1   RBLE_GAP_EVENT_RESET_RESULT

Data format:

RBLE_EVT_GAP_RESET_RESULT (EventCode=0x101)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	rBLE_major_ver	rBLE_minor_ver	-	

7.1.2   RBLE_GAP_EVENT_SET_NAME_COMP

Data format:

RBLE_EVT_GAP_SET_NAME_COMP (EventCode=0x102)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.3   RBLE_GAP_EVENT_OBSERVATION_ENABLE_COMP

Data format:

RBLE_EVT_GAP_OBSERVATION_ENABLE_COMP (EventCode=0x103)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.4   RBLE_GAP_EVENT_OBSERVATION_DISABLE_COMP

Data format:

RBLE_EVT_GAP_OBSERVATION_DISABLE_COMP (EventCode=0x104)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.5   RBLE_GAP_EVENT_BROADCAST_ENABLE_COMP

Data format:

RBLE_EVT_GAP_BROADCAST_ENABLE_COMP (EventCode=0x105)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.6   RBLE_GAP_EVENT_BROADCAST_DISABLE_COMP

Data format:

RBLE_EVT_GAP_BROADCAST_DISABLE_COMP (EventCode=0x106)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.7   RBLE_GAP_EVENT_SET_BONDING_MODE_COMP

Data format:

RBLE_EVT_GAP_SET_BONDING_MODE_COMP (EventCode=0x107)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.8   RBLE_GAP_EVENT_SET_SECURITY_REQUEST_COMP

Data format:

RBLE_EVT_GAP_SET_SECURITY_REQUEST_COMP (EventCode=0x108)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	sec	-	-	

7.1.9   RBLE_GAP_EVENT_GET_DEVICE_INFO_COMP

Data format:

RBLE_EVT_GAP_GET_DEVICE_INFO_COMP (EventCode=0x109)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	addr[0]	addr[1]	addr[2]	
	addr[3]	addr[4]	addr[5]	reserved	
	hci_ver	lmp_ver	host_ver	reserved	
	hci_subver		lmp_subver		
	host_subver		company_id		

7.1.10   RBLE_GAP_EVENT_GET_WHITE_LIST_SIZE_COMP

Data format:

RBLE_EVT_GAP_GET_WHITE_LIST_SIZE_COMP (EventCode=0x10A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	wlist_size	-	-	

7.1.11   RBLE_GAP_EVENT_ADD_TO_WHITE_LIST_COMP

Data format:

RBLE_EVT_GAP_ADD_TO_WHITE_LIST_COMP (EventCode=0x10B)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.12   RBLE_GAP_EVENT_DEL_FROM_WHITE_LIST_COMP

Data format:

RBLE_EVT_GAP_DEL_FROM_WHITE_LIST_COMP (EventCode=0x10C)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.13   RBLE_GAP_EVENT_GET_REMOTE_DEVICE_NAME_COMP
Data format:

RBLE_EVT_GAP_GET_REMOTE_DEVICE_NAME_COMP (EventCode=0x10D)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	namelen	name[0]	name[1]	
	~				
	name[62]	name[63]	name[64]	-	

7.1.14   RBLE_GAP_EVENT_GET_REMOTE_DEVICE_INFO_COMP
Data format:

RBLE_EVT_GAP_GET_REMOTE_DEVICE_INFO_COMP (EventCode=0x10E)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	vers		compid		
	subvers		feats_used[0]	feats_used[1]	
	feats_used[2]	feats_used[3]	feats_used[4]	feats_used[5]	
	feats_used[6]	feats_used[7]	-	-	

7.1.15   RBLE_GAP_EVENT_DEVICE_SEARCH_COMP
Data format:

RBLE_EVT_GAP_DEVICE_SEARCH_COMP (EventCode=0x11F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.16   RBLE_GAP_EVENT_DEVICE_SEARCH_RESULT_IND
Data format:

RBLE_EVT_GAP_DEVICE_SEARCH_RESULT_IND (EventCode=0x110)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	evt_type	adv_addr_type	addr[0]	addr[1]	
	addr[2]	addr[3]	addr[4]	addr[5]	
	adv_data_len	adv_data[0]	adv_data[1]	adv_data[2]	
	~				
	adv_data[27]	adv_data[28]	adv_data[29]	adv_data[30]	
	rssi	-	-	-	

7.1.17　RBLE_GAP_EVENT_RPA_RESOLVED
Data format:

RBLE_EVT_GAP_RPA_RESOLVED (EventCode=0x111)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	res_addr[0]	res_addr[1]	res_addr[2]	res_addr[3]	
	res_addr[4]	res_addr[5]	res_addr_type	addr[0]	
	addr[1]	addr[2]	addr[3]	addr[4]	
	addr[5]	addr_type	-	-	

7.1.18　RBLE_GAP_EVENT_SET_RANDOM_ADDRESS_COMP
Data format:

RBLE_EVT_GAP_SET_RANDOM_ADDRESS_COMP (EventCode=0x112)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	addr[0]	addr[1]	addr[2]	
	addr[3]	addr[4]	addr[5]	-	

7.1.19　RBLE_GAP_EVENT_SET_PRIVACY_FEATURE_COMP
Data format:

RBLE_EVT_GAP_SET_PRIVACY_FEATURE_COMP (EventCode=0x113)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.20　RBLE_GAP_EVENT_CONNECTION_COMP
Data format:

RBLE_EVT_GAP_CONNECTION_COMP (EventCode=0x114)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	role	conhdl		
	peer_addr_type	addr[0]	addr[1]	addr[2]	
	addr[3]	addr[4]	addr[5]	idx	
	con_interval		con_latency		
	sup_to		clk_accuracy	reserved	

7.1.21　RBLE_GAP_EVENT_CONNECTION_CANCEL_COMP
Data format:

RBLE_EVT_GAP_CONNECTION_CANCEL_COMP (EventCode=0x115)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.1.22　RBLE_GAP_EVENT_DISCONNECT_COMP
Data format:

RBLE_EVT_GAP_DISCONNECT_COMP (EventCode=0x116)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	reason	status	conhdl		

7.1.23   RBLE_GAP_EVENT_ADVERTISING_REPORT_IND
Data format:

RBLE_EVT_GAP_ADVERTISING_REPORT_IND (EventCode=0x117)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	evt_type	adv_addr_type	addr[0]	addr[1]	
	addr[2]	addr[3]	addr[4]	addr[5]	
	adv_data_len	adv_data[0]	adv_data[1]	adv_data[2]	
	~				
	adv_data[27]	adv_data[28]	adv_data[29]	adv_data[30]	
	rssi	-	-	-	

7.1.24   RBLE_GAP_EVENT_BONDING_COMP
Data format:

RBLE_EVT_GAP_BONDING_COMP (EventCode=0x118)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		idx	status	
	key_size	sec_prop	-	-	

7.1.25   RBLE_GAP_EVENT_BONDING_REQ_IND
Data format:

RBLE_EVT_GAP_BONDING_REQ_IND (EventCode=0x119)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	addr[0]	addr[1]	addr[2]	addr[3]	
	addr[4]	addr[5]	index	auth_req	
	io_cap	oob_data_flg	max_enc_size	ikey_dist	
	rkey_dist	-	-	-	

7.1.26   RBLE_GAP_EVENT_CHANGE_CONNECTION_PARAM_REQ_IND
Data format:

RBLE_EVT_GAP_CHANGE_CONNECTION_PARAM_REQ_IND (EventCode=0x11A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		intv_min		
	intv_max		latency		
	time_out		-	-	

7.1.27   RBLE_GAP_EVENT_CHANGE_CONNECTION_PARAM_COMP
Data format:

RBLE_EVT_GAP_CHANGE_CONNECTION_PARAM_COMP (EventCode=0x11B)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	con_interval		
	con_latency		sup_to		

7.1.28   RBLE_GAP_EVENT_CHANGE_CONNECTION_PARAM_RESPONSE
Data format:

RBLE_EVT_GAP_CHANGE_CONNECTION_PARAM_RESPONSE (EventCode=0x11C)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	result		
	conhdl		-	-	

7.1.29   RBLE_GAP_EVENT_CHANNEL_MAP_REQ_COMP
Data format:

RBLE_EVT_GAP_CHANNEL_MAP_REQ_CMP_EVT (EventCode=0x11D)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	chmap[0]	
	chmap[1]	chmap[2]	chmap[3]	chmap[4]	

7.1.30   RBLE_GAP_EVENT_READ_RSSI_COMP
Data format:

RBLE_EVT_GAP_READ_RSSI_COMP (EventCode=0x11E)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	rssi	

7.1.31   RBLE_GAP_EVENT_WR_CHAR_IND
Data format:

RBLE_EVT_GAP_WR_CHAR_IND (EventCode=0x11F)

For type = RBLE_GAP_WR_CHAR_NAME

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdle		type		
	namelen	name[0]	name[1]	name[2]	
	~				
	name[63]	name[64]	-	-	

For type = RBLE_GAP_WR_CHAR_APPEARANCE

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		type		
	appearance				

7.1.32   RBLE_GAP_EVENT_COMMAND_DISALLOWED_IND
Data format:

RBLE_EVT_GAP_CMD_DISALLOWED_IND (EventCode=0x13F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.2   Security Manager

NO.	Command name	Description
1	RBLE_SM_EVENT_SET_CNF	Key setup completion event
2	RBLE_SM_ENC_START_IND	Encryption start indication event
3	RBLE_SM_TK_REQ_IND	TK request indication event
4	RBLE_SM_LTK_REQ_IND	LTK request indication event
5	RBLE_SM_IRK_REQ_IND	IRK request indication event
6	RBLE_SM_CSRK_REQ_IND	CSRK request indication event
7	RBLE_SM_KEY_IND	Key indication event
8	RBLE_SM_CHK_BD_ADDR_REQ	BD address check request event
9	RBLE_SM_TIMEOUT_EVT	SM processing timeout notification event
10	RBLE_SM_LTK_REQ_FOR_ENC_IND	LTK request indication for encryption event
11	RBLE_SM_EVENT_COMMAND_DISALLOWED_IND	SM command disallowed indication event

7.2.1   RBLE_SM_EVENT_SET_CNF

Data format:

RBLE_EVT_SM_SET_KEY_CNF (EventCode=0x201)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	key_code	-	-	

7.2.2   RBLE_SM_ENC_START_IND

Data format:

RBLE_EVT_SM_SEC_START_IND (EventCode=0x202)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	status	key_size	sec_prop	
	bonded	-	-	-	

7.2.3   RBLE_SM_TK_REQ_IND

Data format:

RBLE_EVT_SM_TK_REQ_IND (EventCode=0x203)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	oob_en	disp_en	-	

7.2.4   RBLE_SM_LTK_REQ_IND

Data format:

RBLE_EVT_SM_LTK_REQ_IND (EventCode=0x204)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	auth_req	-	-	

7.2.5   RBLE_SM_IRK_REQ_IND

Data format:

RBLE_EVT_SM_IRK_REQ_IND (EventCode=0x205)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	-	-	-	

7.2.6   RBLE_SM_CSRK_REQ_IND

Data format:

RBLE_EVT_SM_CSRK_REQ_IND (EventCode=0x206)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	addr[0]	addr[1]	addr[2]	
	addr[3]	addr[4]	addr[5]	reserved	
	signcnt				

7.2.7   RBLE_SM_KEY_IND

Data format:

RBLE_EVT_SM_KEY_IND (EventCode=0x207)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	key_code	ediv		
	rand_nb[0]	rand_nb[1]	rand_nb[2]	rand_nb[3]	
	rand_nb[4]	rand_nb[5]	rand_nb[6]	rand_nb[7]	
	key[0]	key[1]	key[2]	key[3]	
	key[4]	key[5]	key[6]	key[7]	
	key[8]	key[9]	key[10]	key[11]	
	key[12]	key[13]	key[14]	key[15]	

7.2.8   RBLE_SM_CHK_BD_ADDR_REQ

Data format:

RBLE_EVT_SM_CHK_BD_ADDR_REQ_IND (EventCode=0x208)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	type	addr[0]	addr[1]	
	addr[2]	addr[3]	addr[4]	addr[5]	

7.2.9   RBLE_SM_TIMEOUT_EVT

Data format:

RBLE_EVT_SM_TIMEOUT_EVT (EventCode=0x209)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	-	-	-	

7.2.10   RBLE_SM_LTK_REQ_FOR_ENC_IND

Data format:

RBLE_EVT_SM_LTK_REQ_FOR_ENC_IND (EventCode=0x20A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	idx	auth_req	ediv		
	rand_nb[0]	rand_nb[1]	rand_nb[2]	rand_nb[3]	
	rand_nb[4]	rand_nb[5]	rand_nb[6]	rand_nb[7]	

7.2.11   RBLE_SM_EVENT_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_SM_CMD_DISALLOWED_IND (EventCode=0x23F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.3   Generic Attribute Profile

NO.	Command name	Description
1	RBLE_GATT_EVENT_DISC_SVC_ALL_CMP	All 16bit UUID service discovery completion event
2	RBLE_GATT_EVENT_DISC_SVC_ALL_128_CMP	All 128bit UUID service discovery completion event
3	RBLE_GATT_EVENT_DISC_SVC_BY_UUID_CMP	Service discovery completion event by UUID
4	RBLE_GATT_EVENT_DISC_SVC_INCL_CMP	Include service discovery completion event
5	RBLE_GATT_EVENT_DISC_CHAR_ALL_CMP	All 16bit UUID characteristics discovery completion event
6	RBLE_GATT_EVENT_DISC_CHAR_ALL_128_CMP	All 128bit UUID characteristics discovery completion event
7	RBLE_GATT_EVENT_DISC_CHAR_BY_UUID_CMP	16bit UUID characteristic discovery completion event
8	RBLE_GATT_EVENT_DISC_CHAR_BY_UUID_128_CMP	128bit UUID characteristic discovery completion event
9	RBLE_GATT_EVENT_DISC_CHAR_DESC_CMP	16bit characteristic descriptor discovery completion event
10	RBLE_GATT_EVENT_DISC_CHAR_DESC_128_CMP	128bit characteristic descriptor discovery completion event
11	RBLE_GATT_EVENT_READ_CHAR_RESP	Read characteristic and characteristic descriptor response event
12	RBLE_GATT_EVENT_READ_CHAR_LONG_RESP	Read long characteristic response event
13	RBLE_GATT_EVENT_READ_CHAR_MULT_RESP	Read multiple characteristics response event
14	RBLE_GATT_EVENT_READ_CHAR_LONG_DESC_RESP	Read characteristic descriptor response event
15	RBLE_GATT_EVENT_WRITE_CHAR_RESP	Write characteristic response event
16	RBLE_GATT_EVENT_WRITE_CHAR_RELIABLE_RESP	Write reliable characteristic response event
17	RBLE_GATT_EVENT_CANCEL_WRITE_CHAR_RESP	Cancel write response event
18	RBLE_GATT_EVENT_HANDLE_VALUE_NOTIF	Characteristic value notification event
19	RBLE_GATT_EVENT_HANDLE_VALUE_IND	Characteristic value indication event
20	RBLE_GATT_EVENT_HANDLE_VALUE_CFM	Characteristic value indication confirmation event
21	RBLE_GATT_EVENT_DISCOVERY_CMP	Discovery completion event
22	RBLE_GATT_EVENT_COMPLETE	GATT processing completion event
23	RBLE_GATT_EVENT_WRITE_CMD_IND	Write indication event
24	RBLE_GATT_EVENT_RESP_TIMEOUT	GATT response timeout event
25	RBLE_GATT_EVENT_SET_PERM_CMP	Set permission completion event
26	RBLE_GATT_EVENT_SET_DATA_CMP	Set data completion event
27	RBLE_GATT_EVENT_NOTIFY_COMP	Notification complete event
28	RBLE_GATT_EVENT_COMMAND_DISALLOWED_IND	GATT command disallowed indication event

7.3.1 RBLE_GATT_EVENT_DISC_SVC_ALL_CMP
Data format:

RBLE_EVT_GATT_DISC_SVC_ALL_CMP (EventCode=0x301)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	nb_resp	
	list[0].start_hdl		list[0].end_hdl		
	list[0].attr_hdl		list[1].start_hdl		
	~				
	list[n-1].attr_hdl		list[n].start_hdl		
	list[n].end_hdl		list[n].attr_hdl		

(Note) n isRBLE_GATT_MAX_HDL_LIST - 1

7.3.2 RBLE_GATT_EVENT_DISC_SVC_ALL_128_CMP
Data format:

RBLE_EVT_GATT_DISC_SVC_ALL_128_CMP (EventCode=0x302)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	nb_resp	
	start_hdl		end_hdl		
	attr_hdl[0]	attr_hdl[1]	attr_hdl[2]	attr_hdl[3]	
	attr_hdl[4]	attr_hdl[5]	attr_hdl[6]	attr_hdl[7]	
	attr_hdl[8]	attr_hdl[9]	attr_hdl[10]	attr_hdl[11]	
	attr_hdl[12]	attr_hdl[13]	attr_hdl[14]	attr_hdl[15]	

7.3.3 RBLE_GATT_EVENT_DISC_SVC_BY_UUID_CMP
Data format:

RBLE_EVT_GATT_DISC_SVC_BY_UUID_CMP (EventCode=0x303)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	nb_resp	
	list[0].start_hdl		list[0].end_hdl		
	~				
	list[n].start_hdl		list[n].end_hdl		

(Note) n isRBLE_GATT_MAX_HDL_LIST - 1

7.3.4   RBLE_GATT_EVENT_DISC_SVC_INCL_CMP
Data format:

RBLE_EVT_GATT_DISC_SVC_INCL_CMP (EventCode=0x304)

case : entry_len = RBLE_GATT_128BIT_UUID_OCTET

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		nb_entry	entry_len	
	attr_hdl		start_hdl		
	end_hdl		uuid[0]	uuid[1]	
	uuid[2]	uuid[3]	uuid[4]	uuid[5]	
	uuid[6]	uuid[7]	uuid[8]	uuid[9]	
	uuid[10]	uuid[11]	uuid[12]	uuid[13]	
	uuid[14]	uuid[15]	-	-	

case : entry_len = RBLE_GATT_16BIT_UUID_OCTET

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		nb_entry	entry_len	
	list[0].attr_hdl		list[0].start_hdl		
	list[0].end_hdl		list[0].uuid		
	～				
	list[n].attr_hdl		list[n].start_hdl		
	list[n].end_hdl		list[n].uuid		

(Note) n isRBLE_GATT_MAX_HDL_LIST - 1

7.3.5   RBLE_GATT_EVENT_DISC_CHAR_ALL_CMP
Data format:

RBLE_EVT_GATT_DISC_CHAR_ALL_CMP (EventCode=0x305)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	nb_entry	
	list[0].attr_hdl		list[0].prop	list[0].reserved	
	list[0].pointer_hdl		list[0].uuid		
	～				
	list[n].attr_hdl		list[n].prop	list[n].reserved	
	list[n].pointer_hdl		list[n].uuid		

(Note) n isRBLE_GATT_MAX_HDL_LIST - 1

7.3.6   RBLE_GATT_EVENT_DISC_CHAR_ALL_128_CMP
Data format:

RBLE_EVT_GATT_DISC_CHAR_ALL_128_CMP (EventCode=0x306)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	nb_entry	
	attr_hdl		prop	reserved	
	pointer_hdl		uuid[0]	uuid[1]	
	uuid[2]	uuid[3]	uuid[4]	uuid[5]	
	uuid[6]	uuid[7]	uuid[8]	uuid[9]	
	uuid[10]	uuid[11]	uuid[12]	uuid[13]	
	uuid[14]	uuid[15]	-	-	

7.3.7   RBLE_GATT_EVENT_DISC_CHAR_BY_UUID_CMP
Data format:

RBLE_EVT_GATT_DISC_CHAR_BY_UUID_CMP (EventCode=0x307)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	nb_entry	
	list[0].attr_hdl		list[0].prop	list[0].reserved	
	list[0].pointer_hdl		list[0].uuid		
	∼				
	list[n].attr_hdl		list[n].prop	list[n].reserved	
	list[n].pointer_hdl		list[n].uuid		

(Note) n isRBLE_GATT_MAX_HDL_LIST - 1

7.3.8   RBLE_GATT_EVENT_DISC_CHAR_BY_UUID_128_CMP
Data format:

RBLE_EVT_GATT_DISC_CHAR_BY_UUID_128_CMP (EventCode=0x308)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	nb_entry	
	attr_hdl		prop	reserved	
	pointer_hdl		uuid[0]	uuid[1]	
	uuid[2]	uuid[3]	uuid[4]	uuid[5]	
	uuid[6]	uuid[7]	uuid[8]	uuid[9]	
	uuid[10]	uuid[11]	uuid[12]	uuid[13]	
	uuid[14]	uuid[15]	-	-	

7.3.9   RBLE_GATT_EVENT_DISC_CHAR_DESC_CMP
Data format:

RBLE_EVT_GATT_DISC_CHAR_DESC_CMP (EventCode=0x309)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		nb_entry	reserved	
	list[0].attr_hdl		list[0].desc_hdl		
	∼				
	list[n].attr_hdl		list[n].desc_hdl		

(Note) n isRBLE_GATT_MAX_HDL_LIST - 1

7.3.10 RBLE_GATT_EVENT_DISC_CHAR_DESC_128_CMP

Data format:

RBLE_EVT_GATT_DISC_CHAR_DESC_128_CMP (EventCode=0x30A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		nb_entry	reserved	
	attr_hdl		uuid[0]	uuid[1]	
	uuid[2]	uuid[3]	uuid[4]	uuid[5]	
	uuid[6]	uuid[7]	uuid[8]	uuid[9]	
	uuid[10]	uuid[11]	uuid[12]	uuid[13]	
	uuid[14]	uuid[15]	-	-	

7.3.11 RBLE_GATT_EVENT_READ_CHAR_RESP

Data format:

RBLE_EVT_GATT_READ_CHAR_RESP (EventCode=0x30B)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	each_len	
	data.len	data[0]	data[1]	data[2]	
	∼				
	data[19]	data[20]	data[21]	data[22]	
	data[23]	-	-	-	

7.3.12 RBLE_GATT_EVENT_READ_CHAR_LONG_RESP

Data format:

RBLE_EVT_GATT_READ_CHAR_LONG_RESP (EventCode=0x30C)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	val_len	
	attr_hdl		value[0]	value[1]	
	∼				
	value[18]	value[19]	value[20]	value[21]	
	value[22]	value[23]	-	-	

7.3.13 RBLE_GATT_EVENT_READ_CHAR_MULT_RESP

Data format:

RBLE_EVT_GATT_READ_CHAR_MULT_RESP (EventCode=0x30D)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	val_len	
	data[0].len	data[0].value[0]	data[0].value[1]	data[0].value[2]	
	∼				
	data[0].value[19]	data[0].value[20]	data[0].value[21]	data[0].value[22]	
	data[0].value[23]	data[1].len	data[1].value[0]	data[1].value[1]	
	∼				
	data[n-1].value[21]	data[n-1].value[22]	data[n-1].value[23]	data[n].len	
	∼				
	data[n].value[20]	data[n].value[21]	data[n].value[22]	data[n].value[23]	

(Note) n: RBLE_GATT_MAX_NB_HDLS - 1

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7.3.14   RBLE_GATT_EVENT_READ_CHAR_LONG_DESC_RESP

Data format:

RBLE_EVT_GATT_READ_CHAR_LONG_DESC_RESP (EventCode=0x30E)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	val_len	
	value[0]	value[1]	value[2]	value[3]	
	~				
	value[20]	value[21]	value[22]	value[23]	
	attr_hdl		-	-	

7.3.15   RBLE_GATT_EVENT_WRITE_CHAR_RESP

Data format:

RBLE_EVT_GATT_WRITE_CHAR_RESP (EventCode=0x30F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.3.16   RBLE_GATT_EVENT_WRITE_CHAR_RELIABLE_RESP

Data format:

RBLE_EVT_GATT_WRITE_CHAR_RELIABLE_RESP (EventCode=0x310)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.3.17   RBLE_GATT_EVENT_CANCEL_WRITE_CHAR_RESP

Data format:

RBLE_EVT_GATT_CANCEL_WRITE_CHAR_RESP (EventCode=0x311)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.3.18   RBLE_GATT_EVENT_HANDLE_VALUE_NOTIF

Data format:

RBLE_EVT_GATT_HANDLE_VALUE_NOTIF (EventCode=0x312)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		charhdl		
	size	value[0]	value[1]	value[2]	
	~				
	value[19]	value[20]	value[21]	value[22]	
	value[23]	reserved	-	-	

7.3.19   RBLE_GATT_EVENT_HANDLE_VALUE_IND
Data format:

RBLE_EVT_GATT_HANDLE_VALUE_IND (EventCode=0x313)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		charhdl		
	size	value[0]	value[1]	value[2]	
	~				
	value[19]	value[20]	value[21]	value[22]	
	value[23]	reserved	-	-	

7.3.20   RBLE_GATT_EVENT_HANDLE_VALUE_CFM
Data format:

RBLE_EVT_GATT_HANDLE_VALUE_CFM (EventCode=0x314)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.3.21   RBLE_GATT_EVENT_DISCOVERY_CMP
Data format:

RBLE_EVT_GATT_DISCOVERY_CMP (EventCode=0x315)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.3.22   RBLE_GATT_EVENT_COMPLETE
Data format:

RBLE_EVT_GATT_COMPLETE (EventCode=0x316)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.3.23   RBLE_GATT_EVENT_WRITE_CMD_IND
Data format:

RBLE_EVT_GATT_WRITE_CMD_IND (EventCode=0x317)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		elmt		
	size		offset	resp	
	value[0]	value[1]	value[2]	value[3]	
	~				
	value[16]	value[17]	value[18]	value[19]	
	value[20]	value[21]	value[22]	value[23]	

7.3.24   RBLE_GATT_EVENT_RESP_TIMEOUT
Data format:

RBLE_EVT_GATT_RESP_TIMEOUT (EventCode=0x318)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	-	-	-	-	

7.3.25   RBLE_GATT_EVENT_SET_PERM_CMP
Data format:

RBLE_EVT_GATT_SET_PERM_CMP (EventCode=0x319)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.3.26   RBLE_GATT_EVENT_SET_DATA_CMP
Data format:

RBLE_EVT_GATT_SET_DATA_CMP (EventCode=0x31A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.3.27   RBLE_GATT_EVENT_NOTIFY_COMP
Data format:

RBLE_EVT_GATT_NOTIFY_CMP (EventCode=0x31B)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		charhdl		
	status	reserved	-	-	

7.3.28   RBLE_GATT_EVENT_COMMAND_DISALLOWED_IND
Data format:

RBLE_EVT_GATT_CMD_DISALLOWED_IND (EventCode=0x33F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.4   Find Me Profile

7.4.1   Target Event

NO.	Command name	Description
1	RBLE_FMP_EVENT_TARGET_ENABLE_COMP	Target role enable completion event
2	RBLE_FMP_EVENT_TARGET_DISABLE_COMP	Target role disable completion event
3	RBLE_FMP_EVENT_TARGET_ALERT_IND	Alert indication event
4	RBLE_FMP_EVENT_TARGET_COMMAND_DISALLOWED_IND	Target role command disallowed indication event

7.4.1.1 RBLE_FMP_EVENT_TARGET_ENABLE_COMP

Data format:

RBLE_EVT_FMP_TARGET_ENABLE_COMP (EventCode=0x1001)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.4.1.2 RBLE_FMP_EVENT_TARGET_DISABLE_COMP

Data format:

RBLE_EVT_FMP_TARGET_DISABLE_COMP (EventCode=0x1002)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.4.1.3 RBLE_FMP_EVENT_TARGET_ALERT_IND

Data format:

RBLE_EVT_FMP_TARGET_ALERT_IND (EventCode=0x1003)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		alert_lvl	-	

7.4.1.4 RBLE_FMP_EVENT_TARGET_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_FMP_TARGET_CMD_DISALLOWED_IND (EventCode=0x103F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.4.2   Locator Event

NO.	Command name	Description
1	RBLE_FMP_EVENT_LOCATOR_ENABLE_COMP	Locator role enable completion event
2	RBLE_FMP_EVENT_LOCATOR_DISABLE_COMP	Locator role disable completion event
3	RBLE_FMP_EVENT_LOCATOR_ERROR_IND	Locator role error indication event
4	RBLE_FMP_EVENT_LOCATOR_COMMAND_DISALLOWED_IND	Locator role command disallowed indication event

7.4.2.1 RBLE_FMP_EVENT_LOCATOR_ENABLE_COMP

Data format:

RBLE_EVT_FMP_LOCATOR_ENABLE_COMP (EventCode=0x1081)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	shdl		ehdl		
	alert_char_hdl		alert_val_hdl		
	alert_char_prop	-	-	-	

7.4.2.2 RBLE_FMP_EVENT_LOCATOR_DISABLE_COMP

Data format:

RBLE_EVT_FMP_LOCATOR_DISABLE_COMP (EventCode=0x1082)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.4.2.3 RBLE_FMP_EVENT_LOCATOR_ERROR_IND

Data format:

RBLE_EVT_FMP_LOCATOR_ERROR_IND (EventCode=0x1083)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.4.2.4 RBLE_FMP_EVENT_LOCATOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_FMP_LOCATOR_CMD_DISALLOWED_IND (EventCode=0x10BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.5   Proximity Profile

7.5.1   Reporter Event

NO.	Command name	Description
1	RBLE_PXP_EVENT_REPORTER_ENABLE_COMP	Reporter role enable completion event
2	RBLE_PXP_EVENT_REPORTER_DISABLE_COMP	Reporter role disable completion event
3	RBLE_PXP_EVENT_REPORTER_ALERT_IND	Alert indication event
4	RBLE_PXP_EVENT_REPORTER_COMMAND_DISALLOWED_IND	Reporter role command disallowed indication event

7.5.1.1   RBLE_PXP_EVENT_REPORTER_ENABLE_COMP

Data format:

RBLE_EVT_PXP_REPORTER_ENABLE_COMP (EventCode=0x1101)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.5.1.2   RBLE_PXP_EVENT_REPORTER_DISABLE_COMP

Data format:

RBLE_EVT_PXP_REPORTER_DISABLE_COMP (EventCode=0x1102)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		lls_alert_lvl	-	

7.5.1.3   RBLE_PXP_EVENT_REPORTER_ALERT_IND

Data format:

RBLE_EVT_PXP_REPORTER_ALERT_IND (EventCode=0x1103)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		alert_lvl	-	

7.5.1.4   RBLE_PXP_EVENT_REPORTER_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_PXP_REPORTER_CMD_DISALLOWED_IND (EventCode=0x113F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.5.2 Monitor Event

NO.	Command name	Description
1	RBLE_PXP_EVENT_MONITOR_ENABLE_COMP	Monitor role enable completion event
2	RBLE_PXP_EVENT_MONITOR_DISABLE_COMP	Monitor role disable completion event
3	RBLE_PXP_EVENT_MONITOR_ERROR_IND	Monitor role error indication event
4	RBLE_PXP_EVENT_MONITOR_READ_CHAR_RESPONSE	Characteristic value read request response event
5	RBLE_PXP_EVENT_MONITOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
6	RBLE_PXP_EVENT_MONITOR_COMMAND_DISALLOWED_IND	Monitor role command disallowed indication event

7.5.2.1   RBLE_PXP_EVENT_MONITOR_ENABLE_COMP

Data format:

RBLE_EVT_PXP_MONITOR_ENABLE_COMP (EventCode=0x1181)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	lls_shdl		lls_ehdl		
	lls_char_hdl		lls_val_hdl		
	lls_prop	lls_value	ias_shdl		
	ias_ehdl		ias_char_hdl		
	ias_val_hdl		ias_prop	ias_value	
	tps_shdl		tps_ehdl		
	txpw_lvl_char_hdl		txpw_lvl_val_hdl		
	txpw_lvl_cfg_hdl		txpw_lvl_prop	txpw_lvl	

7.5.2.2   RBLE_PXP_EVENT_MONITOR_DISABLE_COMP

Data format:

RBLE_EVT_PXP_MONITOR_DISABLE_COMP (EventCode=0x1182)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.5.2.3   RBLE_PXP_EVENT_MONITOR_ERROR_IND

Data format:

RBLE_EVT_PXP_MONITOR_ERROR_IND (EventCode=0x1183)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.5.2.4   RBLE_PXP_EVENT_MONITOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_PXP_MONITOR_READ_CHAR_RESPONSE (EventCode=0x1184)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	each_len	
	len	data[0]	data[1]	data[2]	
	~				
	data[23]	-	-	-	

7.5.2.5   RBLE_PXP_EVENT_MONITOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_PXP_MONITOR_WRITE_CHAR_RESPONSE (EventCode=0x1185)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.5.2.6   RBLE_PXP_EVENT_MONITOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_PXP_MONITOR_CMD_DISALLOWED_IND (EventCode=0x11BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.6 Health Thermometer Profile

7.6.1 Thermometer Event

NO.	Command name	Description
1	RBLE_HTP_EVENT_THERMOMETER_ENABLE_COMP	Thermometer role enable completion event
2	RBLE_HTP_EVENT_THERMOMETER_DISABLE_COMP	Thermometer role disable completion event
3	RBLE_HTP_EVENT_THERMOMETER_ERROR_IND	Thermometer role error indication event
4	RBLE_HTP_EVENT_THERMOMETER_SEND_TEMP_COMP	Temperature measurement information send completion event
5	RBLE_HTP_EVENT_THERMOMETER_REQ_MEASUREMENT_PERIOD_IND_COMP	Measurement period indication completion notification event
6	RBLE_HTP_EVENT_THERMOMETER_MEAS_INTV_CHG_IND	Measurement interval change indication event
7	RBLE_HTP_EVENT_THERMOMETER_CFG_INDNTF_IND	Characteristic value indication event
8	RBLE_HTP_EVENT_THERMOMETER_COMMAND_DISALLOWED_IND	Thermometer role command disallowed indication event

7.6.1.1   RBLE_HTP_EVENT_THERMOMETER_ENABLE_COMP

Data format:

RBLE_EVT_HTP_THERMOMETER_ENABLE_COMP (EventCode=0x1201)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.6.1.2   RBLE_HTP_EVENT_THERMOMETER_DISABLE_COMP

Data format:

RBLE_EVT_HTP_THERMOMETER_DISABLE_COMP (EventCode=0x1202)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		temp_meas_ind_en		
	interm_temp_ntf_en		meas_intv_ind_en		
	meas_intv		-	-	

7.6.1.3   RBLE_HTP_EVENT_THERMOMETER_ERROR_IND

Data format:

RBLE_EVT_HTP_THERMOMETER_ERROR_IND (EventCode=0x1203)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.6.1.4   RBLE_HTP_EVENT_THERMOMETER_SEND_TEMP_COMP

Data format:

RBLE_EVT_HTP_THERMOMETER_SEND_TEMP_COMP (EventCode=0x1204)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.6.1.5   RBLE_HTP_EVENT_THERMOMETER_REQ_MEASUREMENT_PERIOD_IND_COMP

Data format:

RBLE_EVT_HTP_THERMOMETER_REQ_MEASUREMENT_PERIOD_IND_COMP
(EventCode=0x1205)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.6.1.6   RBLE_HTP_EVENT_THERMOMETER_MEAS_INTV_CHG_IND

Data format:

RBLE_EVT_HTP_THERMOMETER_MEAS_INTV_CHG_IND (EventCode=0x1206)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		intv		

7.6.1.7   RBLE_HTP_EVENT_THERMOMETER_CFG_INDNTF_IND

Data format:

RBLE_EVT_HTP_THERMOMETER_CFG_INDNTF_IND (EventCode=0x1207)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.6.1.8   RBLE_HTP_EVENT_THERMOMETER_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_HTP_THERMOMETER_CMD_DISALLOWED_IND (EventCode=0x123F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.6.2   Collector Event

NO.	Command name	Description
1	RBLE_HTP_EVENT_COLLECTOR_ENABLE_COMP	Collector role enable completion event
2	RBLE_HTP_EVENT_COLLECTOR_DISABLE_COMP	Collector role disable completion event
3	RBLE_HTP_EVENT_COLLECTOR_ERROR_IND	Collector role error indication event
4	RBLE_HTP_EVENT_COLLECTOR_TEMP_IND	Temperature measurement information indication event
5	RBLE_HTP_EVENT_COLLECTOR_MEAS_INTV_IND	Measurement interval indication event
6	RBLE_HTP_EVENT_COLLECTOR_READ_CHAR_RESPONSE	Characteristic value read request response event
7	RBLE_HTP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
8	RBLE_HTP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND	Collector role command disallowed indication event

7.6.2.1　RBLE_HTP_EVENT_COLLECTOR_ENABLE_COMP

Data format:

RBLE_EVT_HTP_COLLECTOR_ENABLE_COMP (EventCode=0x1281)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	hts_shdl		hts_ehdl		
	temp_meas_char_hdl		temp_meas_val_hdl		
	temp_meas_cfg_hdl		temp_meas_prop	reserved	
	temp_type_char_hdl		temp_type_val_hdl		
	temp_type_prop	reserved	interm_temp_char_hdl		
	interm_temp_val_hdl		interm_temp_cfg_hdl		
	interm_temp_prop	reserved	meas_intv_char_hdl		
	meas_intv_val_hdl		meas_intv_cfg_hdl		
	valid_range_hdl		meas_intv_prop	reserved	
	dis_shdl		dis_ehdl		
	sys_id_char_hdl		sys_id_val_hdl		
	sys_id_prop	reserved	model_nb_char_hdl		
	model_nb_val_hdl		model_nb_prop	reserved	
	serial_nb_char_hdl		serial_nb_val_hdl		
	serial_nb_prop	reserved	fw_rev_char_hdl		
	fw_rev_val_hdl		fw_rev_prop	reserved	
	hw_rev_char_hdl		hw_rev_val_hdl		
	hw_rev_prop	reserved	sw_rev_char_hdl		
	sw_rev_val_hdl		sw_rev_prop	reserved	
	manuf_name_char_hdl		manuf_name_val_hdl		
	manuf_name_prop	reserved	ieee_certif_char_hdl		
	ieee_certif_val_hdl		ieee_certif_prop	reserved	

7.6.2.2　RBLE_HTP_EVENT_COLLECTOR_DISABLE_COMP

Data format:

RBLE_EVT_HTP_COLLECTOR_DISABLE_COMP (EventCode=0x1282)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.6.2.3　RBLE_HTP_EVENT_COLLECTOR_ERROR_IND

Data format:

RBLE_EVT_HTP_COLLECTOR_ERROR_IND (EventCode=0x1283)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.6.2.4   RBLE_HTP_EVENT_COLLECTOR_TEMP_IND

Data format:

RBLE_EVT_HTP_COLLECTOR_TEMP_IND (EventCode=0x1284)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flag_stable_meas	flags	
	temp_val				
	year		month	day	
	hour	min	sec	reserved	
	type	-	-	-	

7.6.2.5   RBLE_HTP_EVENT_COLLECTOR_MEAS_INTV_IND

Data format:

RBLE_EVT_HTP_COLLECTOR_MEAS_INTV_IND (EventCode=0x1285)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		intv		

7.6.2.6   RBLE_HTP_EVENT_COLLECTOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_HTP_COLLECTOR_READ_CHAR_RESPONSE (EventCode=0x1286)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	each_len	
	len	data[0]	data[1]	data[2]	
	~				
	data[23]	-	-	-	

7.6.2.7   RBLE_HTP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_HTP_COLLECTOR_WRITE_CHAR_RESPONSE (EventCode=0x1287)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.6.2.8   RBLE_HTP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_HTP_COLLECTOR_CMD_DISALLOWED_IND (EventCode=0x12BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.7   Blood Pressure Profile

7.7.1   Sensor Event

NO.	Command name	Description
1	RBLE_BLP_EVENT_SENSOR_ENABLE_COMP	Sensor role enable completion event
2	RBLE_BLP_EVENT_SENSOR_DISABLE_COMP	Sensor role disable completion event
3	RBLE_BLP_EVENT_SENSOR_ERROR_IND	Sensor role error indication event
4	RBLE_BLP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP	Measured value send completion event
5	RBLE_BLP_EVENT_SENSOR_CFG_INDNTF_IND	Characteristic value indication event
6	RBLE_BLP_EVENT_SENSOR_COMMAND_DISALLOWED_IND	Sensor role command disallowed indication event

7.7.1.1   RBLE_BLP_EVENT_SENSOR_ENABLE_COMP

Data format:

RBLE_EVT_BLP_SENSOR_ENABLE_COMP (EventCode=0x1301)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.7.1.2   RBLE_BLP_EVENT_SENSOR_DISABLE_COMP

Data format:

RBLE_EVT_BLP_SENSOR_DISABLE_COMP (EventCode=0x1302)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		bldprs_meas_ind_en		
	interm_cufprs_ntf_en		-	-	

7.7.1.3   RBLE_BLP_EVENT_SENSOR_ERROR_IND

Data format:

RBLE_EVT_BLP_SENSOR_ERROR_IND (EventCode=0x1303)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.7.1.4   RBLE_BLP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP

Data format:

RBLE_EVT_BLP_SENSOR_SEND_MEASUREMENTS_COMP (EventCode=0x1304)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.7.1.5   RBLE_BLP_EVENT_SENSOR_CFG_INDNTF_IND

Data format:

RBLE_EVT_BLP_SENSOR_CFG_INDNTF_IND (EventCode=0x1305)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.7.1.6   RBLE_BLP_EVENT_SENSOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_BLP_SENSOR_CMD_DISALLOWED_IND (EventCode=0x133F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.7.2   Collector Event

NO.	Command name	Description
1	RBLE_BLP_EVENT_COLLECTOR_ENABLE_COMP	Collector role enable completion event
2	RBLE_BLP_EVENT_COLLECTOR_DISABLE_COMP	Collector role disable completion event
3	RBLE_BLP_EVENT_COLLECTOR_ERROR_IND	Collector role error indication event
4	RBLE_BLP_EVENT_COLLECTOR_MEASUREMENTS_IND	Measured value indication event
5	RBLE_BLP_EVENT_COLLECTOR_READ_CHAR_RESPONSE	Characteristic value read request response event
6	RBLE_BLP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
7	RBLE_BLP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND	Collector role command disallowed indication event

7.7.2.1   RBLE_BLP_EVENT_COLLECTOR_ENABLE_COMP

Data format:

RBLE_BLP_EVENT_COLLECTOR_ENABLE_COMP (EventCode=0x1381)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	bls_shdl		bls_ehdl		
	bldprs_meas_char_hdl		bldprs_meas_val_hdl		
	bldprs_meas_cfg_hdl		bldprs_meas_prop	reserved	
	interm_cufprs_char_hdl		interm_cufprs_val_hdl		
	interm_cufprs_cfg_hdl		interm_cufprs_prop	reserved	
	bldprs_feat_char_hdl		bldprs_feat_val_hdl		
	bldprs_feat_prop	reserved	dis_shdl		
	dis_ehdl		sys_id_char_hdl		
	sys_id_val_hdl		sys_id_prop	reserved	
	model_nb_char_hdl		model_nb_val_hdl		
	model_nb_prop	reserved	serial_nb_char_hdl		
	serial_nb_val_hdl		serial_nb_prop	reserved	
	fw_rev_char_hdl		fw_rev_val_hdl		
	fw_rev_prop	reserved	hw_rev_char_hdl		
	hw_rev_val_hdl		hw_rev_prop	reserved	
	sw_rev_char_hdl		sw_rev_val_hdl		
	sw_rev_prop	reserved	manuf_name_char_hdl		
	manuf_name_val_hdl		manuf_name_prop	reserved	
	ieee_certif_char_hdl		ieee_certif_val_hdl		
	ieee_certif_prop				

7.7.2.2   RBLE_BLP_EVENT_COLLECTOR_DISABLE_COMP

Data format:

RBLE_EVT_BLP_COLLECTOR_DISABLE_COMP (EventCode=0x1382)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.7.2.3   RBLE_BLP_EVENT_COLLECTOR_ERROR_IND

Data format:

RBLE_EVT_BLP_COLLECTOR_ERROR_IND (EventCode=0x1383)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.7.2.4 RBLE_BLP_EVENT_COLLECTOR_MEASUREMENTS_IND

Data format:

RBLE_EVT_BLP_COLLECTOR_MEASUREMENTS_IND (EventCode=0x1384)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flag_stable_meas	flags	
	press_val_field1		press_val_field2		
	press_val_field3		year		
	month	day	hour	min	
	sec	reserved	rate		
	id	reserved	meas_sts		

7.7.2.5 RBLE_BLP_EVENT_COLLECTOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_BLP_COLLECTOR_READ_CHAR_RESPONSE (EventCode=0x1385)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	each_len	
	len	data[0]	data[1]	data[2]	
	~				
	data[23]	-	-	-	

7.7.2.6 RBLE_BLP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_BLP_COLLECTOR_WRITE_CHAR_RESPONSE (EventCode=0x1386)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.7.2.7 RBLE_BLP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_BLP_COLLECTOR_CMD_DISALLOWED_IND (EventCode=0x13BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.8　HID over GATT Profile

7.8.1　HID Device Role Event

NO.	Command name	Description
1	RBLE_HGP_EVENT_HDEVICE_ENABLE_COMP	HID Device role enable completion event
2	RBLE_HGP_EVENT_HDEVICE_DISABLE_COMP	HID Device role disable completion event
3	RBLE_HGP_EVENT_HDEVICE_ERROR_IND	HID Device role error indication event
4	RBLE_HGP_EVENT_HDEVICE_CFG_INDNTF_IND	Configured value change indication event
5	RBLE_HGP_EVENT_HDEVICE_REPORT_IND	Report value change indication event
6	RBLE_HGP_EVENT_HDEVICE_PROTOCOL_MODE_CHG_EVT	Protocol Mode change notification event
7	RBLE_HGP_EVENT_HDEVICE_REPORT_EVT	Report value notification event
8	RBLE_HGP_EVENT_HDEVICE_HID_CP_CHG_EVT	Control Point change notification event
9	RBLE_HGP_EVENT_HDEVICE_REPORT_COMP	Report value send completion event
10	RBLE_HGP_EVENT_HDEVICE_SEND_BATTERY_LEVEL_COMP	Battery Level send completion event
11	RBLE_HGP_EVENT_HDEVICE_COMMAND_DISALLOWED_IND	Command disallowed indication event

7.8.1.1   RBLE_HGP_EVENT_HDEVICE_ENABLE_COMP

Data format:

RBLE_EVT_HGP_HDEVICE_ENABLE_COMP (EventCode=0x1401)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.8.1.2   RBLE_HGP_EVENT_HDEVICE_DISABLE_COMP

Data format:

RBLE_EVT_HGP_HDEVICE_DISABLE_COMP (EventCode=0x1402)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	
	hids_inst_num	bas_inst_num	report_input_ntf_en[0]		
	report_input_ntf_en[1]		kb_report_ntf_en[0]		
	kb_report_ntf_en[1]		mo_report_ntf_en[0]		
	mo_report_ntf_en[1]		protocol_mode_val [0]	protocol_mode_val [1]	
	battery_level_ntf_en[0]		battery_level_ntf_en[1]		

7.8.1.3   RBLE_HGP_EVENT_HDEVICE_ERROR_IND

Data format:

RBLE_EVT_HGP_HDEVICE_ERROR_IND (EventCode=0x1403)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.8.1.4   RBLE_HGP_EVENT_HDEVICE_CFG_INDNTF_IND

Data format:

RBLE_EVT_HGP_HDEVICE_CFG_INDNTF_IND (EventCode=0x1404)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	char_code	
	cfg_val		-	-	

7.8.1.5   RBLE_HGP_EVENT_HDEVICE_REPORT_IND

Data format:

RBLE_EVT_HGP_HDEVICE_REPORT_IND (EventCode=0x1405)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

7.8.1.6   RBLE_HGP_EVENT_HDEVICE_PROTOCOL_MODE_CHG_EVT

Data format:

RBLE_EVT_HGP_HDEVICE_PROTOCOL_MODE_CHG_EVT (EventCode=0x1406)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	protocol_mode_val	

7.8.1.7   RBLE_HGP_EVENT_HDEVICE_REPORT_EVT

Data format:

RBLE_EVT_HGP_HDEVICE_REPORT_EVT (EventCode=0x1407)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

7.8.1.8   RBLE_HGP_EVENT_HDEVICE_HID_CP_CHG_EVT

Data format:

RBLE_EVT_HGP_HDEVICE_HID_CP_CHG_EVT (EventCode=0x1408)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	control_point_val	

7.8.1.9   RBLE_HGP_EVENT_HDEVICE_REPORT_COMP

Data format:

RBLE_EVT_HGP_HDEVICE_REPORT_COMP (EventCode=0x1409)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.8.1.10   RBLE_HGP_EVENT_HDEVICE_SEND_BATTERY_LEVEL_COMP

Data format:

RBLE_EVT_HGP_HDEVICE_SEND_BATTERY_LEVEL_COMP (EventCode=0x140A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.8.1.11   RBLE_HGP_EVENT_HDEVICE_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_HGP_HDEVICE_CMD_DISALLOWED_IND (EventCode=0x143F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.8.2   Boot Host Event

NO.	Command name	Description
1	RBLE_HGP_EVENT_BHOST_ENABLE_COMP	Boot Host enable completion event
2	RBLE_HGP_EVENT_BHOST_DISABLE_COMP	Boot Host disable completion event
3	RBLE_HGP_EVENT_BHOST_ERROR_IND	Boot Host error indication event
4	RBLE_HGP_EVENT_BHOST_READ_CHAR_RESPONSE	Characteristic read request response event
5	RBLE_HGP_EVENT_BHOST_WRITE_CHAR_RESPONSE	Characteristic write request response event
6	RBLE_HGP_EVENT_BHOST_REPORT_NTF	Report value notification event
7	RBLE_HGP_EVENT_BHOST_COMMAND_DISALLOWED_IND	Command disallowed indication event

7.8.2.1   RBLE_HGP_EVENT_BHOST_ENABLE_COMP

Data format:

RBLE_EVT_HGP_BHOST_ENABLE_COMP (EventCode=0x1481)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	hids_inst_num	
	bas_inst_num	reserved	hids[0].shdl		
	hids[0].ehdl		hids[0].protocol_md_char_hdl		
	hids[0].protocol_md_val_hdl		hids[0].protocol_md_prop	reserved	
	hids[0].report_input_char_hdl		hids[0].report_input_val_hdl		
	hids[0].report_input_cfg_hdl		hids[0].input_rep_ref_hdl		
	hids[0].report_input_prop	reserved	hids[0].report_output_char_hdl		
	hids[0].report_output_val_hdl		hids[0].output_rep_ref_hdl		
	hids[0].report_output_prop	reserved	hids[0].report_feature_char_hdl		
	hids[0].report_feature_val_hdl		hids[0].feature_rep_ref_hdl		
	hids[0].report_feature_prop	reserved	hids[0].report_map_char_hdl		
	hids[0].report_map_val_hdl		hids[0].external_rep_ref_hdl		
	hids[0].report_map_prop	reserved	hids[0].bootkb_input_char_hdl		
	hids[0].bootkb_input_val_hdl		hids[0].bootkb_input_cfg_hdl		
	hids[0].bootkb_input_prop	reserved	hids[0].bootkb_output_char_hdl		
	hids[0].bootkb_output_val_hdl		hids[0].bootkb_output_prop	reserved	
	hids[0].bootmo_input_char_hdl		hids[0].bootmo_input_val_hdl		
	hids[0].bootmo_input_cfg_hdl		hids[0].bootmo_input_prop	reserved	
	hids[0].hid_info_char_hdl		hids[0].hid_info_val_hdl		
	hids[0].hid_info_prop	reserved	hids[0].hid_cp_char_hdl		
	hids[0].hid_cp_val_hdl		hids[0].hid_cp_prop	reserved	
	hids[0].include_svc_hdl		hids[0].include_svc_uuid		
	hids[0].incl_shdl		hids[0].incl_ehdl		
	hids[1].shdl		hids[1].ehdl		
	~				
	hids[1].incl_ehdl		dis_shdl		
	dis_ehdl		dis_pnp_id_char_hdl		
	dis_pnp_id_val_hdl		dis_pnp_id_prop	reserved	
	bas[0].shdl		bas[0].ehdl		
	bas[0].battery_lvl_char_hdl		bas[0].battery_lvl_val_hdl		
	bas[0].battery_lvl_cfg_hdl		bas[0].battery_lvl_rep_ref_hdl		
	bas[0].battery_lvl_prop	reserved	bas[1].shdl		
	~				
	bas[1].battery_lvl_rep_ref_hdl		bas[1].battery_lvl_prop	reserved	

7.8.2.2　RBLE_HGP_EVENT_BHOST_DISABLE_COMP

Data format:

RBLE_EVT_HGP_BHOST_DISABLE_COMP (EventCode=0x1482)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.8.2.3　RBLE_HGP_EVENT_BHOST_ERROR_IND

Data format:

RBLE_EVT_HGP_BHOST_ERROR_IND (EventCode=0x1483)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.8.2.4　RBLE_HGP_EVENT_BHOST_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_HGP_BHOST_READ_CHAR_RESPONSE (EventCode=0x1484)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	~				
	data[22]	data[23]	-	-	

7.8.2.5　RBLE_HGP_EVENT_BHOST_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_HGP_BHOST_WRITE_CHAR_RESPONSE (EventCode=0x1485)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.8.2.6　RBLE_HGP_EVENT_BHOST_REPORT_NTF

Data format:

RBLE_EVT_HGP_BHOST_REPORT_NTF (EventCode=0x1486)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

7.8.2.7   RBLE_HGP_EVENT_BHOST_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_HGP_BHOST_CMD_DISALLOWED_IND (EventCode=0x14BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.8.3   Report Host Event

NO.	Command name	Description
1	RBLE_HGP_EVENT_RHOST_ENABLE_COMP	Report Host enable completion event
2	RBLE_HGP_EVENT_RHOST_DISABLE_COMP	Report Host disable completion event
3	RBLE_HGP_EVENT_RHOST_ERROR_IND	Report Host error indication event
4	RBLE_HGP_EVENT_RHOST_READ_CHAR_RESPONSE	Characteristic read request response event
5	RBLE_HGP_EVENT_RHOST_READ_LONG_CHAR_RESPONSE	Long characteristic read request response event
6	RBLE_HGP_EVENT_RHOST_WRITE_CHAR_RESPONSE	Characteristic write request response event
7	RBLE_HGP_EVENT_RHOST_REPORT_NTF	Report value notification event
8	RBLE_HGP_EVENT_RHOST_BATTERY_LEVEL_NTF	Battery Level notification event
9	RBLE_HGP_EVENT_RHOST_COMMAND_DISALLOWED_IND	Command disallowed indication event

7.8.3.1   RBLE_HGP_EVENT_RHOST_ENABLE_COMP

Data format:

RBLE_EVT_HGP_RHOST_ENABLE_COMP (EventCode=0x14C1)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	hids_inst_num	bas_inst_num	hids[0].shdl		
	hids[0].ehdl		hids[0].protocol_md_char_hdl		
	hids[0].protocol_md_val_hdl		hids[0].protocol_md_prop	reserved	
	hids[0].report_input_char_hdl		hids[0].report_input_val_hdl		
	hids[0].report_input_cfg_hdl		hids[0].input_rep_ref_hdl		
	hids[0].report_input_prop	reserved	hids[0].report_output_char_hdl		
	hids[0].report_output_val_hdl		hids[0].output_rep_ref_hdl		
	hids[0].report_output_prop	reserved	hids[0].report_feature_char_hdl		
	hids[0].report_feature_val_hdl		hids[0].feature_rep_ref_hdl		
	hids[0].report_feature_prop	reserved	hids[0].report_map_char_hdl		
	hids[0].report_map_val_hdl		hids[0].external_rep_ref_hdl		
	hids[0].report_map_prop	reserved	hids[0].bootkb_input_char_hdl		
	hids[0].bootkb_input_val_hdl		hids[0].bootkb_input_cfg_hdl		
	hids[0].bootkb_input_prop	reserved	hids[0].bootkb_output_char_hdl		
	hids[0].bootkb_output_val_hdl		hids[0].bootkb_output_prop	reserved	
	hids[0].bootmo_input_char_hdl		hids[0].bootmo_input_val_hdl		
	hids[0].bootmo_input_cfg_hdl		hids[0].bootmo_input_prop	reserved	
	hids[0].hid_info_char_hdl		hids[0].hid_info_val_hdl		
	hids[0].hid_info_prop	reserved	hids[0].hid_cp_char_hdl		
	hids[0].hid_cp_val_hdl		hids[0].hid_cp_prop	reserved	
	hids[0].include_svc_hdl		hids[0].include_svc_uuid		
	hids[0].incl_shdl		hids[0].incl_ehdl		
	hids[0].shdl		hids[0].ehdl		
	~				
	hids[0].incl_ehdl		dis_shdl		
	dis_ehdl		dis_pnp_id_char_hdl		
	dis_pnp_id_val_hdl		dis_pnp_id_prop	reserved	
	bas[0].shdl		bas[0].ehdl		
	bas[0].battery_lvl_char_hdl		bas[0].battery_lvl_val_hdl		
	bas[0].battery_lvl_cfg_hdl		bas[0].battery_lvl_rep_ref_hdl		
	bas[0].battery_lvl_prop	reserved	bas[1].shdl		
	~				
	bas[1].battery_lvl_rep_ref_hdl		bas[1].battery_lvl_prop	reserved	

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7.8.3.2   RBLE_HGP_EVENT_RHOST_DISABLE_COMP

Data format:

RBLE_EVT_HGP_RHOST_DISABLE_COMP (EventCode=0x14C2)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.8.3.3   RBLE_HGP_EVENT_RHOST_ERROR_IND

Data format:

RBLE_EVT_HGP_RHOST_ERROR_IND (EventCode=0x14C3)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.8.3.4   RBLE_HGP_EVENT_RHOST_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_HGP_RHOST_READ_CHAR_RESPONSE (EventCode=0x14C4)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	~				
	data[22]	data[23]	-	-	

7.8.3.5   RBLE_HGP_EVENT_RHOST_READ_LONG_CHAR_RESPONSE

Data format:

RBLE_EVT_HGP_RHOST_READ_LONG_CHAR_RESPONSE (EventCode=0x14C5)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	val_len	reserved	attr_hdl		
	value[0]	value[1]	value[2]	value[3]	
	~				
	value[20]	value[21]	value[22]	value[23]	

7.8.3.6   RBLE_HGP_EVENT_RHOST_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_HGP_RHOST_WRITE_CHAR_RESPONSE (EventCode=0x14C6)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.8.3.7　RBLE_HGP_EVENT_RHOST_REPORT_NTF

Data format:

RBLE_EVT_HGP_RHOST_REPORT_NTF (EventCode=0x14C7)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	reserved	
	device_type	report_type	value[0]	value[1]	
	~				
	value[30]	value[31]	value_size		

7.8.3.8　RBLE_HGP_EVENT_RHOST_BATTERY_LEVEL_NTF

Data format:

RBLE_EVT_HGP_RHOST_BATTERY_LEVEL_NTF (EventCode=0x14C8)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		inst_idx	battery_level	

7.8.3.9　RBLE_HGP_EVENT_RHOST_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_HGP_RHOST_CMD_DISALLOWED_IND (EventCode=0x14FF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.9   Scan Parameters Profile

7.9.1   Scan Server Event

NO.	Command name	Description
1	RBLE_SPP_EVENT_SERVER_ENABLE_COMP	Scan Server enable completion event
2	RBLE_SPP_EVENT_SERVER_DISABLE_COMP	Scan Server disable completion event
3	RBLE_SPP_EVENT_SERVER_CFG_INDNTF_IND	Configured value change indication event
4	RBLE_SPP_EVENT_SERVER_SEND_REFRESH_COMP	Scan refresh request send completion event
5	RBLE_SPP_EVENT_SERVER_INTERVAL_CHG_EVT	Scan interval window notification event
6	RBLE_SPP_EVENT_SERVER_COMMAND_DISALLOWED_IND	Command disallowed indication event

7.9.1.1   RBLE_SPP_EVENT_SERVER_ENABLE_COMP

Data format:

RBLE_EVT_SPP_SERVER_ENABLE_COMP (EventCode=0x1501)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.9.1.2   RBLE_SPP_EVENT_SERVER_DISABLE_COMP

Data format:

RBLE_EVT_SPP_SERVER_DISABLE_COMP (EventCode=0x1502)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	
	s_refresh_ntf_en		-	-	

7.9.1.3   RBLE_SPP_EVENT_SERVER_CFG_INDNTF_IND

Data format:

RBLE_EVT_SPP_SERVER_CFG_INDNTF_IND (EventCode=0x1503)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cfg_val		

7.9.1.4   RBLE_SPP_EVENT_SERVER_SEND_REFRESH_COMP

Data format:

RBLE_EVT_SPP_SERVER_SEND_REFRESH_COMP (EventCode=0x1504)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.9.1.5   RBLE_SPP_EVENT_SERVER_INTERVAL_CHG_EVT

Data format:

RBLE_EVT_SPP_SERVER_INTERVAL_CHG_EVT (EventCode=0x1505)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		le_scan_interval		
	le_scan_window		-	-	

7.9.1.6   RBLE_SPP_EVENT_SERVER_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_SPP_SERVER_CMD_DISALLOWED_IND (EventCode=0x153F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.9.2   Scan Client Event

NO.	Command name	Description
1	RBLE_SPP_EVENT_CLIENT_ENABLE_COMP	Scan Client enable completion event
2	RBLE_SPP_EVENT_CLIENT_DISABLE_COMP	Scan Client disable completion event
3	RBLE_SPP_EVENT_CLIENT_ERROR_IND	Scan Client error indication event
4	RBLE_SPP_EVENT_CLIENT_WRITE_CHAR_RESPONSE	Characteristic write request response event
5	RBLE_SPP_EVENT_CLIENT_COMMAND_DISALLOWED_IND	Command disallowed indication event

7.9.2.1   RBLE_SPP_EVENT_CLIENT_ENABLE_COMP

Data format:

RBLE_EVT_SPP_CLIENT_ENABLE_COMP (EventCode=0x1581)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	
	shdl		ehdl		
	intv_window_char_hdl		intv_window_val_hdl		
	intv_window_prop	reserved	refresh_char_hdl		
	refresh_val_hdl		refresh_cfg_hdl		
	refresh_prop	reserved	-	-	

7.9.2.2   RBLE_SPP_EVENT_CLIENT_DISABLE_COMP

Data format:

RBLE_EVT_SPP_CLIENT_DISABLE_COMP (EventCode=0x1582)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.9.2.3   RBLE_SPP_EVENT_CLIENT_ERROR_IND

Data format:

RBLE_EVT_SPP_CLIENT_ERROR_IND (EventCode=0x1583)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	reserved	

7.9.2.4   RBLE_SPP_EVENT_CLIENT_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_SPP_CLIENT_WRITE_CHAR_RESPONSE (EventCode=0x1584)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.9.2.5   RBLE_SPP_EVENT_CLIENT_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_SPP_CLIENT_CMD_DISALLOWED_IND (EventCode=0x15BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.10 Heart Rate Profile

7.10.1 Sensor Event

NO.	Command name	Description
1	RBLE_HRP_EVENT_SENSOR_ENABLE_COMP	Sensor role enable completion event
2	RBLE_HRP_EVENT_SENSOR_DISABLE_COMP	Sensor role disable completion event
3	RBLE_HRP_EVENT_SENSOR_ERROR_IND	Sensor role error indication event
4	RBLE_HRP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP	Heart rate measurement information send completion event
5	RBLE_HRP_EVENT_SENSOR_CHG_CP_IND	Heart rate control point change indication event
6	RBLE_HRP_EVENT_SENSOR_CFG_NTF_IND	Characteristic value indication event
7	RBLE_HRP_EVENT_SENSOR_COMMAND_DISALLOWED_IND	Sensor role command disallowed indication event

7.10.1.1 RBLE_HRP_EVENT_SENSOR_ENABLE_COMP

Data format:

RBLE_EVT_HRP_SENSOR_ENABLE_COMP (EventCode=0x1601)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.10.1.2 RBLE_HRP_EVENT_SENSOR_DISABLE_COMP

Data format:

RBLE_EVT_HRP_SENSOR_DISABLE_COMP (EventCode=0x1602)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		hrtrate_meas_ntf_en		

7.10.1.3 RBLE_HRP_EVENT_SENSOR_ERROR_IND

Data format:

RBLE_EVT_HRP_SENSOR_ERROR_IND (EventCode=0x1603)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.10.1.4 RBLE_HRP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP

Data format:

RBLE_EVT_HRP_SENSOR_SEND_MEASUREMENTS_COMP (EventCode=0x1604)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.10.1.5 RBLE_HRP_EVENT_SENSOR_CHG_CP_IND

Data format:

RBLE_EVT_HRP_SENSOR_CHG_CP_IND (EventCode=0x1605)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cp_val	-	

7.10.1.6 RBLE_HRP_EVENT_SENSOR_CFG_NTF_IND

Data format:

RBLE_EVT_HRP_SENSOR_CFG_NTF_IND (EventCode=0x1606)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cfg_val		

7.10.1.7   RBLE_HRP_EVENT_SENSOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_HRP_SENSOR_CMD_DISALLOWED_IND (EventCode=0x163F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.10.2 Collector Event

NO.	Command name	Description
1	RBLE_HRP_EVENT_COLLECTOR_ENABLE_COMP	Collector role enable completion event
2	RBLE_HRP_EVENT_COLLECTOR_DISABLE_COMP	Collector role disable completion event
3	RBLE_HRP_EVENT_COLLECTOR_ERROR_IND	Collector role error indication event
4	RBLE_HRP_EVENT_COLLECTOR_MEASUREMENTS_NTF	Heart rate measurement information notification event
5	RBLE_HRP_EVENT_COLLECTOR_READ_CHAR_RESPONSE	Characteristic value read request response event
6	RBLE_HRP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
7	RBLE_HRP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND	Collector role command disallowed indication event

7.10.2.1   RBLE_HRP_EVENT_COLLECTOR_ENABLE_COMP

Data format:

RBLE_EVT_HRP_COLLECTOR_ENABLE_COMP (EventCode=0x1681)

LSB Octet0	Octet1	Octet2	Octet3 MSB
conhdl		status	reserved
hrs_shdl		hrs_ehdl	
hrtrate_meas_char_hdl		hrtrate_meas_val_hdl	
hrtrate_meas_cfg_hdl		hrtrate_meas_prop	reserved
body_sensor_loc_char_hdl		body_sensor_loc_val_hdl	
body_sensor_loc_prop	reserved	hrtrate_cp_char_hdl	
hrtrate_cp_val_hdl		hrtrate_cp_prop	reserved
dis_shdl		dis_ehdl	
sys_id_char_hdl		sys_id_val_hdl	
sys_id_prop	reserved	model_nb_char_hdl	
model_nb_val_hdl		model_nb_prop	reserved
serial_nb_char_hdl		serial_nb_val_hdl	
serial_nb_prop	reserved	fw_rev_char_hdl	
fw_rev_val_hdl		fw_rev_prop	reserved
hw_rev_char_hdl		hw_rev_val_hdl	
hw_rev_prop	reserved	sw_rev_char_hdl	
sw_rev_val_hdl		sw_rev_prop	reserved
manuf_name_char_hdl		manuf_name_val_hdl	
manuf_name_prop	reserved	ieee_certif_char_hdl	
ieee_certif_val_hdl		ieee_certif_prop	reserved

7.10.2.2   RBLE_HRP_EVENT_COLLECTOR_DISABLE_COMP

Data format:

RBLE_EVT_HRP_COLLECTOR_DISABLE_COMP (EventCode=0x1682)

LSB Octet0	Octet1	Octet2	Octet3 MSB
conhdl		status	-

7.10.2.3   RBLE_HRP_EVENT_COLLECTOR_ERROR_IND

Data format:

RBLE_EVT_HRP_COLLECTOR_ERROR_IND (EventCode=0x1683)

LSB Octet0	Octet1	Octet2	Octet3 MSB
conhdl		status	-

7.10.2.4 RBLE_HRP_EVENT_COLLECTOR_MEASUREMENTS_NTF

Data format:

RBLE_EVT_HRP_COLLECTOR_MEASUREMENTS_NTF (EventCode=0x1684)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	rr_interval_num	
	heart_rate_measure		energy_expended		
	rr_interval[0]		rr_interval[1]		
	~				
	rr_interval[8]		-	-	

7.10.2.5 RBLE_HRP_EVENT_COLLECTOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_HRP_COLLECTOR_READ_CHAR_RESPONSE (EventCode=0x1685)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	~				
	data[22]	data[23]	-	-	

7.10.2.6 RBLE_HRP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_HRP_COLLECTOR_WRITE_CHAR_RESPONSE (EventCode=0x1686)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.10.2.7 RBLE_HRP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_HRP_COLLECTOR_CMD_DISALLOWED_IND (EventCode=0x16BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.11 Cycling Speed and Cadence Profile

7.11.1 Sensor Event

NO.	Command name	Description
1	RBLE_CSCP_EVENT_SENSOR_ENABLE_COMP	Sensor role enable completion event
2	RBLE_CSCP_EVENT_SENSOR_DISABLE_COMP	Sensor role disable completion event
3	RBLE_CSCP_EVENT_SENSOR_ERROR_IND	Sensor role error indication event
4	RBLE_CSCP_EVENT_SENSOR_SEND_MEASUREMEN TS_COMP	Sensor measurements send completion event
5	RBLE_CSCP_EVENT_SENSOR_SEND_SC_CP_COMP	SC Control Point send completion event
6	RBLE_CSCP_EVENT_SENSOR_CHG_SC_CP_IND	SC Control Point change indication event
7	RBLE_CSCP_EVENT_SENSOR_CFG_INDNTF_IND	Characteristic configuration change indication event
8	RBLE_CSCP_EVENT_SENSOR_COMMAND_DISALLO WED_IND	Sensor role command disallowed indication event

7.11.1.1   RBLE_CSCP_EVENT_SENSOR_ENABLE_COMP

Data format:

RBLE_EVT_CSCP_SENSOR_ENABLE_COMP (EventCode=0x1701)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.11.1.2   RBLE_CSCP_EVENT_SENSOR_DISABLE_COMP

Data format:

RBLE_EVT_CSCP_SENSOR_DISABLE_COMP (EventCode=0x1702)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cycspd_meas_ntf_en		
	sc_cp_ind_en		sensor_location	-	

7.11.1.3   RBLE_CSCP_EVENT_SENSOR_ERROR_IND

Data format:

RBLE_EVT_CSCP_SENSOR_ERROR_IND (EventCode=0x1703)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.11.1.4   RBLE_CSCP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP

Data format:

RBLE_EVT_CSCP_SENSOR_SEND_MEASUREMENTS_COMP (EventCode=0x1704)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.11.1.5   RBLE_CSCP_EVENT_SENSOR_SEND_SC_CP_COMP

Data format:

RBLE_EVT_CSCP_SENSOR_SEND_SC_CP_COMP (EventCode=0x1705)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.11.1.6   RBLE_CSCP_EVENT_SENSOR_CHG_SC_CP_IND

Data format:

RBLE_EVT_CSCP_SENSOR_CHG_SC_CP_IND (EventCode=0x1706)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	request_op_code	response_value	reserved	

7.11.1.7 RBLE_CSCP_EVENT_SENSOR_CFG_INDNTF_IND

Data format:

RBLE_EVT_CSCP_SENSOR_CFG_INDNTF_IND (EventCode=0x1707)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.11.1.8 RBLE_CSCP_EVENT_SENSOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_CSCP_SENSOR_CMD_DISALLOWED_IND (EventCode=0x173F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.11.2 Collector Event

NO.	Command name	Description
1	RBLE_CSCP_EVENT_COLLECTOR_ENABLE_COMP	Collector role enable completion event
2	RBLE_CSCP_EVENT_COLLECTOR_DISABLE_COMP	Collector role disable completion event
3	RBLE_CSCP_EVENT_COLLECTOR_ERROR_IND	Collector role error indication event
4	RBLE_CSCP_EVENT_COLLECTOR_MEASUREMENTS_NTF	Measured value notification event
5	RBLE_CSCP_EVENT_COLLECTOR_SC_CP_IND	SC Control Point indication event
6	RBLE_CSCP_EVENT_COLLECTOR_READ_CHAR_RESPONSE	Characteristic value read request response event
7	RBLE_CSCP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
8	RBLE_CSCP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND	Collector role command disallowed indication event

7.11.2.1 RBLE_CSCP_EVENT_COLLECTOR_ENABLE_COMP

Data format:

RBLE_EVT_CSCP_COLLECTOR_ENABLE_COMP (EventCode=0x1781)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	cscs_shdl		cscs_ehdl		
	cycspd_meas_char_hdl		cycspd_meas_val_hdl		
	cycspd_meas_cfg_hdl		cycspd_meas_prop	reserved	
	csc_feature_char_hdl		csc_feature_val_hdl		
	csc_feature_prop	reserved	sensor_loc_char_hdl		
	sensor_loc_val_hdl		sensor_loc_prop	reserved	
	sc_cp_char_hdl		sc_cp_val_hdl		
	sc_cp_cfg_hdl		sc_cp_prop	reserved	
	dis_shdl		dis_ehdl		
	sys_id_char_hdl		sys_id_val_hdl		
	sys_id_prop	reserved	model_nb_char_hdl		
	model_nb_val_hdl		model_nb_prop	reserved	
	serial_nb_char_hdl		serial_nb_val_hdl		
	serial_nb_prop	reserved	fw_rev_char_hdl		
	fw_rev_val_hdl		fw_rev_prop	reserved	
	hw_rev_char_hdl		hw_rev_val_hdl		
	hw_rev_prop	reserved	sw_rev_char_hdl		
	sw_rev_val_hdl		sw_rev_prop	reserved	
	manuf_name_char_hdl		manuf_name_val_hdl		
	manuf_name_prop	reserved	ieee_certif_char_hdl		
	ieee_certif_val_hdl		ieee_certif_prop	reserved	

7.11.2.2 RBLE_CSCP_EVENT_COLLECTOR_DISABLE_COMP

Data format:

RBLE_EVT_CSCP_COLLECTOR_DISABLE_COMP (EventCode=0x1782)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.11.2.3 RBLE_CSCP_EVENT_COLLECTOR_ERROR_IND

Data format:

RBLE_EVT_CSCP_COLLECTOR_ERROR_IND (EventCode=0x1783)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.11.2.4   RBLE_CSCP_EVENT_COLLECTOR_MEASUREMENTS_NTF

Data format:

RBLE_EVT_CSCP_COLLECTOR_MEASUREMENTS_NTF (EventCode=0x1784)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	reserved	
	wheel_revolutions				
	wheel_event_time		crank_revolutions		
	crank_event_time		-	-	

7.11.2.5   RBLE_CSCP_EVENT_COLLECTOR_SC_CP_IND

Data format:

RBLE_EVT_CSCP_COLLECTOR_SC_CP_IND (EventCode=0x1785)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	request_op_code	response_value	reserved	
	location_num	response_param [0]	response_param [1]	response_param [2]	
	~				
	response_param [15]	response_param [16]	-	-	

7.11.2.6   RBLE_CSCP_EVENT_COLLECTOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_CSCP_COLLECTOR_READ_CHAR_RESPONSE (EventCode=0x1786)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	~				
	data[22]	data[23]	-	-	

7.11.2.7   RBLE_CSCP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_CSCP_COLLECTOR_WRITE_CHAR_RESPONSE (EventCode=0x1787)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.11.2.8 RBLE_CSCP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_CSCP_COLLECTOR_CMD_DISALLOWED_IND (EventCode=0x17BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.12   Glucose Profile

7.12.1   Sensor Event

NO.	Command name	Description
1	RBLE_GLP_EVENT_SENSOR_ENABLE_COMP	Sensor role enable completion event
2	RBLE_GLP_EVENT_SENSOR_DISABLE_COMP	Sensor role disable completion event
3	RBLE_GLP_EVENT_SENSOR_ERROR_IND	Sensor role error indication event
4	RBLE_GLP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP	Sensor measurements send completion event
5	RBLE_GLP_EVENT_SENSOR_SEND_MEASUREMENTS_CONTEXT_COMP	Sensor measurements context send completion event
6	RBLE_GLP_EVENT_SENSOR_SEND_RA_CP_COMP	RA Control Point send completion event
7	RBLE_GLP_EVENT_SENSOR_CHG_RA_CP_IND	RA Control Point change indication event
8	RBLE_GLP_EVENT_SENSOR_CFG_INDNTF_IND	Characteristic configuration change indication event
9	RBLE_GLP_EVENT_SENSOR_COMMAND_DISALLOWED_IND	Sensor role command disallowed indication event

7.12.1.1   RBLE_GLP_EVENT_SENSOR_ENABLE_COMP

Data format:

RBLE_EVT_GLP_SENSOR_ENABLE_COMP (EventCode=0x1801)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.12.1.2   RBLE_GLP_EVENT_SENSOR_DISABLE_COMP

Data format:

RBLE_EVT_GLP_SENSOR_DISABLE_COMP (EventCode=0x1802)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		glp_meas_ntf_en		
	glp_meas_context_ntf_en		ra_cp_ind_en		

7.12.1.3   RBLE_GLP_EVENT_SENSOR_ERROR_IND

Data format:

RBLE_EVT_GLP_SENSOR_ERROR_IND (EventCode=0x1803)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.12.1.4   RBLE_GLP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP

Data format:

RBLE_EVT_GLP_SENSOR_SEND_MEASUREMENTS_COMP (EventCode=0x1804)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.12.1.5   RBLE_GLP_EVENT_SENSOR_SEND_MEASUREMENTS_CONTEXT_COMP

Data format:

RBLE_EVT_GLP_SENSOR_SEND_MEASUREMENTS_CONTEXT_COMP (EventCode=0x1805)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.12.1.6   RBLE_GLP_EVENT_SENSOR_SEND_RA_CP_COMP

Data format:

RBLE_EVT_GLP_SENSOR_SEND_RA_CP_COMP (EventCode=0x1806)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.12.1.7   RBLE_GLP_EVENT_SENSOR_CHG_RA_CP_IND

Data format:

RBLE_EVT_GLP_SENSOR_CHG_RA_CP_IND (EventCode=0x1807)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	racp_operator	
	operand_value	reserved	min_sequence_num		
	max_sequence_num		min_stamp_year		
	min_month	min_day	min_hour	min_min	
	min_sec	reserved	max_stamp_year		
	max_month	max_day	max_hour	max_min	
	max_sec	reserved	-	-	

7.12.1.8   RBLE_GLP_EVENT_SENSOR_CFG_INDNTF_IND

Data format:

RBLE_EVT_GLP_SENSOR_CFG_INDNTF_IND (EventCode=0x1808)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.12.1.9   RBLE_GLP_EVENT_SENSOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_GLP_SENSOR_CMD_DISALLOWED_IND (EventCode=0x183F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.12.2   Collector Event

NO.	Command name	Description
1	RBLE_GLP_EVENT_COLLECTOR_ENABLE_COMP	Collector role enable completion event
2	RBLE_GLP_EVENT_COLLECTOR_DISABLE_COMP	Collector role disable completion event
3	RBLE_GLP_EVENT_COLLECTOR_ERROR_IND	Collector role error indication event
4	RBLE_GLP_EVENT_COLLECTOR_MEASUREMENTS_NTF	Measured value notification event
5	RBLE_GLP_EVENT_COLLECTOR_MEASUREMENTS_CONTEXT_NTF	Measured context value notification event
6	RBLE_GLP_EVENT_COLLECTOR_RA_CP_IND	RA Control Point indication event
7	RBLE_GLP_EVENT_COLLECTOR_READ_CHAR_RESPONSE	Characteristic value read request response event
8	RBLE_GLP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
9	RBLE_GLP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND	Collector role command disallowed indication event

7.12.2.1 RBLE_GLP_EVENT_COLLECTOR_ENABLE_COMP

Data format:

RBLE_EVT_GLP_COLLECTOR_ENABLE_COMP (EventCode=0x1881)

LSB Octet0	Octet1	Octet2	Octet3 MSB
status	reserved	conhdl	
gls_shdl		gls_ehdl	
gls_glucose_meas_char_hdl		gls_glucose_meas_val_hdl	
gls_glucose_meas_cfg_hdl		gls_glucose_meas_prop	reserved
gls_glucose_meas_context_char_hdl		gls_glucose_meas_context_val_hdl	
gls_glucose_meas_context_cfg_hdl		gls_glucose_meas_context_prop	reserved
gls_glucose_feature_char_hdl		gls_glucose_feature_val_hdl	
gls_glucose_feature_prop	reserved	gls_glucose_ra_cp_char_hdl	
gls_glucose_ra_cp_val_hdl		gls_glucose_ra_cp_cfg_hdl	
gls_glucose_ra_cp_prop	reserved	dis_shdl	
dis_ehdl		dis_sys_id_char_hdl	
dis_sys_id_val_hdl		dis_sys_id_prop	reserved
dis_model_nb_char_hdl		dis_model_nb_val_hdl	
dis_model_nb_prop	reserved	dis_serial_nb_char_hdl	
dis_serial_nb_val_hdl		dis_serial_nb_prop	reserved
dis_fw_rev_char_hdl		dis_fw_rev_val_hdl	
dis_fw_rev_prop	reserved	dis_hw_rev_char_hdl	
dis_hw_rev_val_hdl		dis_hw_rev_prop	reserved
dis_sw_rev_char_hdl		dis_sw_rev_val_hdl	
dis_sw_rev_prop	reserved	dis_manuf_name_char_hdl	
dis_manuf_name_val_hdl		dis_manuf_name_p dis_rop	reserved
dis_ieee_certif_char_hdl		dis_ieee_certif_val_hdl	
dis_ieee_certif_prop	reserved	-	-

7.12.2.2 RBLE_GLP_EVENT_COLLECTOR_DISABLE_COMP

Data format:

RBLE_EVT_GLP_COLLECTOR_DISABLE_COMP (EventCode=0x1882)

LSB Octet0	Octet1	Octet2	Octet3 MSB
status	reserved	conhdl	

7.12.2.3 RBLE_GLP_EVENT_COLLECTOR_ERROR_IND

Data format:

RBLE_EVT_GLP_COLLECTOR_ERROR_IND (EventCode=0x1883)

LSB Octet0	Octet1	Octet2	Octet3 MSB
status	reserved	conhdl	

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7.12.2.4   RBLE_GLP_EVENT_COLLECTOR_MEASUREMENTS_NTF

Data format:

RBLE_EVT_GLP_COLLECTOR_MEASUREMENTS_NTF (EventCode=0x1884)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	reserved	
	seq_num		year		
	month	day	hour	min	
	sec	reserved	time_offset		
	concentration		type	sample_location	
	sensor_status_annun		-	-	

7.12.2.5   RBLE_GLP_EVENT_COLLECTOR_MEASUREMENTS_CONTEXT_NTF

Data format:

RBLE_EVT_GLP_COLLECTOR_MEASUREMENTS_CONTEXT_NTF (EventCode=0x1885)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	reserved	
	seq_num		ex_flags	carbohydrate_id	
	carbohydrate_kg		meal	tester	
	health	reserved	exercise_duration		
	exercise_intensity	medication_id	medication		
	HbA1c		-	-	

7.12.2.6   RBLE_GLP_EVENT_COLLECTOR_RA_CP_IND

Data format:

RBLE_EVT_GLP_COLLECTOR_RA_CP_IND (EventCode=0x1886)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	racp_operator	
	num_of_records		request_op_code	response_code_value	

7.12.2.7   RBLE_GLP_EVENT_COLLECTOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_GLP_COLLECTOR_READ_CHAR_RESPONSE (EventCode=0x1887)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	data[2]	data[3]	data[4]	data[5]	
	data[6]	data[7]	data[8]	data[9]	
	data[10]	data[11]	data[12]	data[13]	
	data[14]	data[15]	data[16]	data[17]	
	data[18]	data[19]	data[20]	data[21]	
	data[22]	data[23]	-	-	

7.12.2.8   RBLE_GLP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_GLP_COLLECTOR_WRITE_CHAR_RESPONSE (EventCode=0x1888)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.12.2.9   RBLE_GLP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_GLP_COLLECTOR_CMD_DISALLOWED_IND (EventCode=0x18BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.13   Cycling Power Profile

7.13.1   Sensor Event

NO.	Command name	Description
1	RBLE_CPP_EVENT_SENSOR_ENABLE_COMP	Sensor role enable completion event
2	RBLE_CPP_EVENT_SENSOR_DISABLE_COMP	Sensor role disable completion event
3	RBLE_CPP_EVENT_SENSOR_ERROR_IND	Sensor role error indication event
4	RBLE_CPP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP	Cycling power measurement information send completion event
5	RBLE_CPP_EVENT_SENSOR_BROADCAST_MEASUREMENTS_COMP	Cycling power measurement information broadcast completion event
6	RBLE_CPP_EVENT_SENSOR_SEND_VECTOR_COMP	Cycling power vector information send completion event
7	RBLE_CPP_EVENT_SENSOR_SEND_CP_CP_COMP	CP control point information send completion event
8	RBLE_CPP_EVENT_SENSOR_SEND_BATTERY_LEVEL_COMP	Battery level information send completion event
9	RBLE_CPP_EVENT_SENSOR_CHG_CP_CP_IND	CP control point change indication event
10	RBLE_CPP_EVENT_SENSOR_CFG_INDNTFBRD_IND	Characteristic value indication event
11	RBLE_CPP_EVENT_SENSOR_COMMAND_DISALLOWED_IND	Sensor role command disallowed indication event

7.13.1.1 RBLE_CPP_EVENT_SENSOR_ENABLE_COMP

Data format:

RBLE_EVT_CPP_SENSOR_ENABLE_COMP (EventCode=0x1901)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.13.1.2 RBLE_CPP_EVENT_SENSOR_DISABLE_COMP

Data format:

RBLE_EVT_CPP_SENSOR_DISABLE_COMP (EventCode=0x1902)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cp_meas_ntf_en		
	cp_meas_brd_en		cp_vector_ntf_en		
	cp_cp_ind_en		battery_level_ntf_en		
	sensor_location	-	-	-	

7.13.1.3 RBLE_CPP_EVENT_SENSOR_ERROR_IND

Data format:

RBLE_EVT_CPP_SENSOR_ERROR_IND (EventCode=0x1903)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.13.1.4 RBLE_CPP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP

Data format:

RBLE_EVT_CPP_SENSOR_SEND_MEASUREMENTS_COMP (EventCode=0x1904)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.13.1.5 RBLE_CPP_EVENT_SENSOR_BROADCAST_MEASUREMENTS_COMP

Data format:

RBLE_EVT_CPP_SENSOR_BROADCAST_MEASUREMENTS_COMP (EventCode=0x1905)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.13.1.6 RBLE_CPP_EVENT_SENSOR_SEND_VECTOR_COMP

Data format:

RBLE_EVT_CPP_SENSOR_SEND_VECTOR_COMP (EventCode=0x1906)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.13.1.7   RBLE_CPP_EVENT_SENSOR_SEND_CP_CP_COMP

Data format:

RBLE_EVT_CPP_SENSOR_SEND_CP_CP_COMP (EventCode=0x1907)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.13.1.8   RBLE_CPP_EVENT_SENSOR_SEND_BATTERY_LEVEL_COMP

Data format:

RBLE_EVT_CPP_SENSOR_SEND_BATTERY_LEVEL_COMP (EventCode=0x1908)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.13.1.9   RBLE_CPP_EVENT_SENSOR_CHG_CP_CP_IND

Data format:

RBLE_EVT_CPP_SENSOR_CHG_CP_CP_IND (EventCode=0x1909)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	reserved	crank_length		
	chain_length		chain_weight		
	span_length		mask_meas_content		

7.13.1.10 RBLE_CPP_EVENT_SENSOR_CFG_INDNTFBRD_IND

Data format:

RBLE_EVT_CPP_SENSOR_CFG_INDNTFBRD_IND (EventCode=0x190A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.13.1.11 RBLE_CPP_EVENT_SENSOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_CPP_SENSOR_CMD_DISALLOWED_IND (EventCode=0x193F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.13.2　Collector Event

NO.	Command name	Description
1	RBLE_CPP_EVENT_COLLECTOR_ENABLE_COMP	Collector role enable completion event
2	RBLE_CPP_EVENT_COLLECTOR_DISABLE_COMP	Collector role disable completion event
3	RBLE_CPP_EVENT_COLLECTOR_ERROR_IND	Collector role error indication event
4	RBLE_CPP_EVENT_COLLECTOR_MEASUREMENTS_NTF	Cycling power measurement notification event
5	RBLE_CPP_EVENT_COLLECTOR_VECTOR_NTF	Cycling power vector notification event
6	RBLE_CPP_EVENT_COLLECTOR_CP_CP_IND	CP control point indication event
7	RBLE_CPP_EVENT_COLLECTOR_BATTERY_LEVEL_NTF	Battery level notification event
8	RBLE_CPP_EVENT_COLLECTOR_READ_CHAR_RESPONSE	Characteristic value read request response event
9	RBLE_CPP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
10	RBLE_CPP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND	Collector role command disallowed indication event

7.13.2.1 RBLE_CPP_EVENT_COLLECTOR_ENABLE_COMP

Data format:

RBLE_EVT_CPP_COLLECTOR_ENABLE_COMP (EventCode=0x1981)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	cps_shdl		cps_ehdl		
	cp_meas_char_hdl		cp_meas_val_hdl		
	cp_meas_val_hdl		cp_meas_brd_cfg_hdl		
	cp_meas_prop	reserved	cp_feature_char_hdl		
	cp_feature_val_hdl		cp_feature_prop	reserved	
	sensor_loc_char_hdl		sensor_loc_val_hdl		
	sensor_loc_prop	reserved	cp_vector_char_hdl		
	cp_vector_val_hdl		cp_vector_cfg_hdl		
	cp_vector_prop	reserved	cp_cp_char_hdl		
	cp_cp_val_hdl		cp_cp_cfg_hdl		
	cp_cp_prop	reserved	dis_shdl		
	dis_ehdl		sys_id_char_hdl		
	sys_id_val_hdl		sys_id_prop	reserved	
	model_nb_char_hdl		model_nb_val_hdl		
	model_nb_prop	reserved	serial_nb_char_hdl		
	serial_nb_val_hdl		serial_nb_prop	reserved	
	fw_rev_char_hdl		fw_rev_val_hdl		
	fw_rev_prop	reserved	hw_rev_char_hdl		
	hw_rev_val_hdl		hw_rev_prop	reserved	
	sw_rev_char_hdl		sw_rev_val_hdl		
	sw_rev_prop	reserved	manuf_name_char_hdl		
	manuf_name_val_hdl		manuf_name_prop	reserved	
	ieee_certif_char_hdl		ieee_certif_val_hdl		
	ieee_certif_prop	reserved	bas_shdl		
	bas_ehdl		battery_lvl_char_hdl		
	battery_lvl_val_hdl		battery_lvl_cfg_hdl		
	battery_lvl_prop	reserved	-	-	

7.13.2.2 RBLE_CPP_EVENT_COLLECTOR_DISABLE_COMP

Data format:

RBLE_EVT_CPP_COLLECTOR_DISABLE_COMP (EventCode=0x1982)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.13.2.3 RBLE_CPP_EVENT_COLLECTOR_ERROR_IND

Data format:

RBLE_EVT_CPP_COLLECTOR_ERROR_IND (EventCode=0x1983)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.13.2.4 RBLE_CPP_EVENT_COLLECTOR_MEASUREMENTS_NTF

Data format:

RBLE_EVT_CPP_COLLECTOR_MEASUREMENTS_NTF (EventCode=0x1984)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags		
	instant_power		pedal_balance	reserved	
	accumulated_torque		wheel_revolutions(lower)		
	wheel_revolutions(upper)		wheel_event		
	crank_revolutions		crank_event		
	max_force_magnitude		min_force_magnitude		
	max_torque_magnitude		min_torque_magnitude		
	max_angle		min_angle		
	top_dead_spot		bottom_dead_spot		
	accumulated_energy		-	-	

7.13.2.5 RBLE_CPP_EVENT_COLLECTOR_VECTOR_NTF

Data format:

RBLE_EVT_CPP_COLLECTOR_VECTOR_NTF (EventCode=0x1985)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	reserved	
	crank_revolutions		crank_event		
	first_crank_angle		array_num	reserved	
	magnitude[0]		magnitude[1]		
	~				
	magnitude[8]		-	-	

7.13.2.6 RBLE_CPP_EVENT_COLLECTOR_CP_CP_IND

Data format:

RBLE_EVT_CPP_COLLECTOR_CP_CP_IND (EventCode=0x1986)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	request_op_code	
	response_value	reserved	crank_length		
	chain_length		chain_weight		
	span_length		offset_compensation		
	sampling_rate	reserved	year		
	month	day	hour	min	
	sec	reserved	location_num	supported_location [0]	
	~				
	supported_location [13]	supported_location [14]	supported_location [15]	supported_location [16]	

7.13.2.7   RBLE_CPP_EVENT_COLLECTOR_BATTERY_LEVEL_NTF

Data format:

RBLE_EVT_CPP_COLLECTOR_BATTERY_LEVEL_NTF (EventCode=0x1987)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		battery_level	reserved	

7.13.2.8   RBLE_CPP_EVENT_COLLECTOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_CPP_COLLECTOR_READ_CHAR_RESPONSE (EventCode=0x1988)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	~				
	data[22]	data[23]	-	-	

7.13.2.9   RBLE_CPP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_CPP_COLLECTOR_WRITE_CHAR_RESPONSE (EventCode=0x1989)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.13.2.10 RBLE_CPP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_CPP_COLLECTOR_CMD_DISALLOWED_IND (EventCode=0x19BF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.14   Time Profile

7.14.1   Server Event

NO.	Command name	Description
1	RBLE_TIP_EVENT_SERVER_ENABLE_COMP	Server role enable completion event
2	RBLE_TIP_EVENT_SERVER_DISABLE_COMP	Server role disable completion event
3	RBLE_TIP_EVENT_SERVER_ERROR_IND	Server role error indication event
4	RBLE_TIP_EVENT_SERVER_SEND_CURRENT_TIME_COMP	Current time information send completion event
5	RBLE_TIP_EVENT_SERVER_WRITE_DATA_COMP	Write data completion event
6	RBLE_TIP_EVENT_SERVER_CHG_TIME_UPDATE_CP_IND	Time update control point change indication event
7	RBLE_TIP_EVENT_SERVER_CFG_NTF_IND	Characteristic value indication event
8	RBLE_TIP_EVENT_SERVER_COMMAND_DISALLOWED_IND	Server role command disallowed indication event

7.14.1.1   RBLE_TIP_EVENT_SERVER_ENABLE_COMP

Data format:

RBLE_EVT_TIP_SERVER_ENABLE_COMP (EventCode=0x1A01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.14.1.2   RBLE_TIP_EVENT_SERVER_DISABLE_COMP

Data format:

RBLE_EVT_TIP_SERVER_DISABLE_COMP (EventCode=0x1A02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		current_time_ntf_en		

7.14.1.3   RBLE_TIP_EVENT_SERVER_ERROR_IND

Data format:

RBLE_EVT_TIP_SERVER_ERROR_IND (EventCode=0x1A03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.14.1.4   RBLE_TIP_EVENT_SERVER_SEND_CURRENT_TIME_COMP

Data format:

RBLE_EVT_TIP_SERVER_SEND_CURRENT_TIME_COMP (EventCode=0x1A04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.14.1.5   RBLE_TIP_EVENT_SERVER_WRITE_DATA_COMP

Data format:

RBLE_EVT_TIP_SERVER_WRITE_DATA_COMP (EventCode=0x1A05)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	-	-	

7.14.1.6   RBLE_TIP_EVENT_SERVER_CHG_TIME_UPDATE_CP_IND

Data format:

RBLE_EVT_TIP_SERVER_CHG_TIME_UPDATE_CP_IND (EventCode=0x1A06)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		update_cp	reserved	

7.14.1.7   RBLE_TIP_EVENT_SERVER_CFG_NTF_IND

Data format:

RBLE_EVT_TIP_SERVER_CFG_NTF_IND (EventCode=0x1A07)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cfg_val		

7.14.1.8   RBLE_TIP_EVENT_SERVER_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_TIP_SERVER_CMD_DISALLOWED_IND (EventCode=0x1A3F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.14.2   Client Event

NO.	Command name	Description
1	RBLE_TIP_EVENT_CLIENT_ENABLE_COMP	Client role enable completion event
2	RBLE_TIP_EVENT_CLIENT_DISABLE_COMP	Client role disable completion event
3	RBLE_TIP_EVENT_CLIENT_ERROR_IND	Client role error indication event
4	RBLE_TIP_EVENT_CLIENT_CURRENT_TIME_NTF	Current time notification event
5	RBLE_TIP_EVENT_CLIENT_READ_CHAR_RESPONSE	Characteristic value read request response event
6	RBLE_TIP_EVENT_CLIENT_WRITE_CHAR_RESPONSE	Characteristic value write request response event
7	RBLE_TIP_EVENT_CLIENT_COMMAND_DISALLOWED_IND	Client role command disallowed indication event

7.14.2.1   RBLE_TIP_EVENT_CLIENT_ENABLE_COMP

Data format:

RBLE_EVT_TIP_CLIENT_ENABLE_COMP (EventCode=0x1A81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	cts_shdl		cts_ehdl		
	cts_current_time_char_hdl		cts_current_time_val_hdl		
	cts_current_time_cfg_hdl		cts_current_time_prop	reserved	
	cts_local_time_info_char_hdl		cts_local_time_info_val_hdl		
	cts_local_time_info_prop	reserved	cts_ref_time_info_char_hdl		
	cts_ref_time_info_val_hdl		cts_ref_time_info_prop	reserved	
	ndcs_shdl		ndcs_ehdl		
	ndcs_time_dst_char_hdl		ndcs_time_dst_val_hdl		
	ndcs_time_dst_prop	reserved	rtus_shdl		
	rtus_ehdl		rtus_update_cp_char_hdl		
	rtus_update_cp_val_hdl		rtus_update_cp_prop	reserved	
	rtus_pdate_state_char_hdl		rtus_update_state_val_hdl		
	rtus_update_state_prop	reserved	-	-	

7.14.2.2   RBLE_TIP_EVENT_CLIENT_DISABLE_COMP

Data format:

RBLE_EVT_TIP_CLIENT_DISABLE_COMP (EventCode=0x1A82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.14.2.3   RBLE_TIP_EVENT_CLIENT_ERROR_IND

Data format:

RBLE_EVT_TIP_CLIENT_ERROR_IND (EventCode=0x1A83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.14.2.4   RBLE_TIP_EVENT_CLIENT_CURRENT_TIME_NTF

Data format:

RBLE_EVT_TIP_CLIENT_CURRENT_TIME_NTF (EventCode=0x1A84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		year		
	month	day	hour	min	
	sec	reserved	day_of_week	fractions256	
	adjust_reason	reserved	-	-	

7.14.2.5   RBLE_TIP_EVENT_CLIENT_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_TIP_CLIENT_READ_CHAR_RESPONSE (EventCode=0x1A85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	data[2]	data[3]	data[4]	data[5]	
	data[6]	data[7]	data[8]	data[9]	
	data[10]	data[11]	data[12]	data[13]	
	data[14]	data[15]	data[16]	data[17]	
	data[18]	data[19]	data[20]	data[21]	
	data[22]	data[23]	-	-	

7.14.2.6   RBLE_TIP_EVENT_CLIENT_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_TIP_CLIENT_WRITE_CHAR_RESPONSE (EventCode=0x1A86)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	

7.14.2.7   RBLE_TIP_EVENT_CLIENT_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_TIP_CLIENT_CMD_DISALLOWED_IND (EventCode=0x1ABF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.15   Alert Notification Profile

7.15.1   Server Event

NO.	Command name	Description
1	RBLE_ANP_EVENT_SERVER_ENABLE_COMP	Server role enable completion event
2	RBLE_ANP_EVENT_SERVER_DISABLE_COMP	Server role disable completion event
3	RBLE_ANP_EVENT_SERVER_ERROR_IND	Server role error indication event
4	RBLE_ANP_EVENT_SERVER_SEND_NEW_ALERT_COMP	New Alert information send completion event
5	RBLE_ANP_EVENT_SERVER_SEND_UNREAD_ALERT_COMP	Unread Alert information send completion event
6	RBLE_ANP_EVENT_SERVER_CHG_ALERT_NTF_CP_IND	Alert notification control point change indication event
7	RBLE_ANP_EVENT_SERVER_CFG_NTF_IND	Characteristic value indication event
8	RBLE_ANP_EVENT_SERVER_COMMAND_DISALLOWED_IND	Server role command disallowed indication event

7.15.1.1 RBLE_ANP_EVENT_SERVER_ENABLE_COMP

Data format:

RBLE_EVT_ANP_SERVER_ENABLE_COMP (EventCode=0x1B01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.15.1.2 RBLE_ANP_EVENT_SERVER_DISABLE_COMP

Data format:

RBLE_EVT_ANP_SERVER_DISABLE_COMP (EventCode=0x1B02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		new_alert_ntf_en		
	unread_alert_ntf_en		-	-	

7.15.1.3 RBLE_ANP_EVENT_SERVER_ERROR_IND

Data format:

RBLE_EVT_ANP_SERVER_ERROR_IND (EventCode=0x1B03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.15.1.4 RBLE_ANP_EVENT_SERVER_SEND_NEW_ALERT_COMP

Data format:

RBLE_EVT_ANP_SERVER_SEND_NEW_ALERT_COMP (EventCode=0x1B04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.15.1.5 RBLE_ANP_EVENT_SERVER_SEND_UNREAD_ALERT_COMP

Data format:

RBLE_EVT_ANP_SERVER_SEND_UNREAD_ALERT_COMP (EventCode=0x1B05)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.15.1.6 RBLE_ANP_EVENT_SERVER_CHG_ALERT_NTF_CP_IND

Data format:

RBLE_EVT_ANP_SERVER_CHG_ALERT_NTF_CP_IND (EventCode=0x1B06)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		command_id	category_id	

7.15.1.7 RBLE_ANP_EVENT_SERVER_CFG_NTF_IND

Data format:

RBLE_EVT_ANP_SERVER_CFG_NTF_IND (EventCode=0x1B07)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.15.1.8 RBLE_ANP_EVENT_SERVER_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_ANP_SERVER_CMD_DISALLOWED_IND (EventCode=0x1B3F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.15.2   Client Event

NO.	Command name	Description
1	RBLE_ANP_EVENT_CLIENT_ENABLE_COMP	Client role enable completion event
2	RBLE_ANP_EVENT_CLIENT_DISABLE_COMP	Client role disable completion event
3	RBLE_ANP_EVENT_CLIENT_ERROR_IND	Client role error indication event
4	RBLE_ANP_EVENT_CLIENT_NEW_ALERT_NTF	New Alert notification event
5	RBLE_ANP_EVENT_CLIENT_UNREAD_ALERT_NTF	Unread Alert notification event
6	RBLE_ANP_EVENT_CLIENT_READ_CHAR_RESPONSE	Characteristic value read request response event
7	RBLE_ANP_EVENT_CLIENT_WRITE_CHAR_RESPONSE	Characteristic value write request response event
8	RBLE_ANP_EVENT_CLIENT_COMMAND_DISALLOWED_IND	Client role command disallowed indication event

7.15.2.1   RBLE_ANP_EVENT_CLIENT_ENABLE_COMP

Data format:

RBLE_EVT_ANP_CLIENT_ENABLE_COMP (EventCode=0x1B81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	ans_shdl		ans_ehdl		
	supp_new_alert_char_hdl		supp_new_alert_val_hdl		
	supp_new_alert_prop	reserved	new_alert_char_hdl		
	new_alert_val_hdl		new_alert_cfg_hdl		
	new_alert_prop	reserved	supp_unread_alert_char_hdl		
	supp_unread_alert_val_hdl		supp_unread_alert_prop	reserved	
	unread_alert_char_hdl		unread_alert_val_hdl		
	unread_alert_cfg_hdl		unread_alert_prop	reserved	
	alert_ntf_cp_char_hdl		alert_ntf_cp_val_hdl		
	alert_ntf_cp_prop	reserved	-	-	

7.15.2.2   RBLE_ANP_EVENT_CLIENT_DISABLE_COMP

Data format:

RBLE_EVT_ANP_CLIENT_DISABLE_COMP (EventCode=0x1B82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.15.2.3   RBLE_ANP_EVENT_CLIENT_ERROR_IND

Data format:

RBLE_EVT_ANP_CLIENT_ERROR_IND (EventCode=0x1B83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.15.2.4   RBLE_ANP_EVENT_CLIENT_NEW_ALERT_NTF

Data format:

RBLE_EVT_ANP_CLIENT_NEW_ALERT_NTF (EventCode=0x1B84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		category_id	alert_num	
	text_size	text[0]	text[1]	text[2]	
	~				
	text[15]	text[16]	text[17]	-	

7.15.2.5   RBLE_ANP_EVENT_CLIENT_UNREAD_ALERT_NTF

Data format:

RBLE_EVT_ANP_CLIENT_UNREAD_ALERT_NTF (EventCode=0x1B85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		category_id	unread_count	

7.15.2.6   RBLE_ANP_EVENT_CLIENT_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_ANP_CLIENT_READ_CHAR_RESPONSE (EventCode=0x1B86)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	~				
	data[22]	data[23]	-	-	

7.15.2.7   RBLE_ANP_EVENT_CLIENT_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_ANP_CLIENT_WRITE_CHAR_RESPONSE (EventCode=0x1B87)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.15.2.8   RBLE_ANP_EVENT_CLIENT_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_ANP_CLIENT_CMD_DISALLOWED_IND (EventCode=0x1BBF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.16   Location and Navigation Profile

7.16.1   Sensor Event

NO.	Command name	Description
1	RBLE_LNP_EVENT_SENSOR_ENABLE_COMP	Sensor role enable completion event
2	RBLE_LNP_EVENT_SENSOR_DISABLE_COMP	Sensor role disable completion event
3	RBLE_LNP_EVENT_SENSOR_ERROR_IND	Sensor role error indication event
4	RBLE_LNP_EVENT_SENSOR_SEND_LOCATION_SPEED_COMP	Location and Speed send completion event
5	RBLE_LNP_EVENT_SENSOR_SET_POSITON_QUALITY_COMP	Position Quality set completion event
6	RBLE_LNP_EVENT_SENSOR_SEND_LN_CP_COMP	LN control point information send completion event
7	RBLE_LNP_EVENT_SENSOR_SEND_NAVIGATION_COMP	Navigation data send completion event
8	RBLE_LNP_EVENT_SENSOR_SEND_BATTERY_LEVEL_COMP	Battery level information send completion event
9	RBLE_LNP_EVENT_SENSOR_CHG_LN_CP_IND	LN control point change indication event
10	RBLE_LNP_EVENT_SENSOR_CFG_INDNTF_IND	Characteristic configuration change indication event
11	RBLE_LNP_EVENT_SENSOR_COMMAND_DISALLOWED_IND	Sensor role command disallowed indication event

7.16.1.1   RBLE_LNP_EVENT_SENSOR_ENABLE_COMP

Data format:

RBLE_EVT_LNP_SENSOR_ENABLE_COMP (EventCode=0x1C01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.16.1.2   RBLE_LNP_EVENT_SENSOR_DISABLE_COMP

Data format:

RBLE_EVT_LNP_SENSOR_DISABLE_COMP (EventCode=0x1C02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		location_speed_ntf_en		
	ln_cp_ind_en		navigation_ntf_en		
	battery_level_ntf_en		-	-	

7.16.1.3   RBLE_LNP_EVENT_SENSOR_ERROR_IND

Data format:

RBLE_EVT_LNP_SENSOR_ERROR_IND (EventCode=0x1C03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.16.1.4   RBLE_LNP_EVENT_SENSOR_SEND_LOCATION_SPEED_COMP

Data format:

RBLE_EVT_LNP_SENSOR_SEND_LOCATION_SPEED_COMP (EventCode=0x1C04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.16.1.5   RBLE_LNP_EVENT_SENSOR_SET_POSITION_QUALITY_COMP

Data format:

RBLE_EVT_LNP_SENSOR_SET_POSITION_QUALITY_COMP (EventCode=0x1C05)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.16.1.6   RBLE_LNP_EVENT_SENSOR_SEND_LN_CP_COMP

Data format:

RBLE_EVT_LNP_SENSOR_SEND_LN_CP_COMP (EventCode=0x1C06)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.16.1.7   RBLE_LNP_EVENT_SENSOR_SEND_NAVIGATION_COMP

Data format:

RBLE_EVT_LNP_SENSOR_SEND_NAVIGATION_COMP (EventCode=0x1C07)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.16.1.8   RBLE_LNP_EVENT_SENSOR_SEND_BATTERY_LEVEL_COMP

Data format:

RBLE_EVT_LNP_SENSOR_SEND_BATTERY_LEVEL_COMP (EventCode=0x1C08)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.16.1.9   RBLE_LNP_EVENT_SENSOR_CHG_LN_CP_IND

Data format:

RBLE_EVT_LNP_SENSOR_CHG_LN_CP_IND (EventCode=0x1C09)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	content_mask		route_num		
	control_val	fix_rate	elevation(lower)		
	elevation(upper)		-	-	

7.16.1.10 RBLE_LNP_EVENT_SENSOR_CFG_INDNTF_IND

Data format:

RBLE_EVT_LNP_SENSOR_CFG_INDNTF_IND (EventCode=0x1C0A)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.16.1.11 RBLE_LNP_EVENT_SENSOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_LNP_SENSOR_CMD_DISALLOWED_IND (EventCode=0x1C3F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.16.2   Collector Event

NO.	Command name	Description
1	RBLE_LNP_EVENT_COLLECTOR_ENABLE_COMP	Collector role enable completion event
2	RBLE_LNP_EVENT_COLLECTOR_DISABLE_COMP	Collector role disable completion event
3	RBLE_LNP_EVENT_COLLECTOR_ERROR_IND	Collector role error indication event
4	RBLE_LNP_EVENT_COLLECTOR_LOCATION_SPEED_NTF	Location and Speed notification event
5	RBLE_LNP_EVENT_COLLECTOR_LN_CP_IND	LN control point indication event
6	RBLE_LNP_EVENT_COLLECTOR_NAVIGATION_NTF	Navigation data notification event
7	RBLE_LNP_EVENT_COLLECTOR_BATTERY_LEVEL_NTF	Battery level notification event
8	RBLE_LNP_EVENT_COLLECTOR_READ_CHAR_RESPONSE	Characteristic value read request response event
9	RBLE_LNP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
10	RBLE_LNP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND	Collector role command disallowed indication event

7.16.2.1 RBLE_LNP_EVENT_COLLECTOR_ENABLE_COMP

Data format:

RBLE_EVT_LNP_COLLECTOR_ENABLE_COMP (EventCode=0x1C81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	lns_shdl		lns_ehdl		
	ln_feature_char_hdl		ln_feature_val_hdl		
	ln_feature_prop	reserved	location_speed_char_hdl		
	location_speed_val_hdl		location_speed_cfg_hdl		
	location_speed_prop	reserved	position_quality_char_hdl		
	position_quality_val_hdl		position_quality_prop	reserved	
	ln_cp_char_hdl		ln_cp_val_hdl		
	ln_cp_cfg_hdl		ln_cp_prop	reserved	
	navigation_char_hdl		navigation_val_hdl		
	navigation_cfg_hdl		navigation_prop	reserved	
	dis_shdl		dis_ehdl		
	sys_id_char_hdl		sys_id_val_hdl		
	sys_id_prop	reserved	model_nb_char_hdl		
	model_nb_val_hdl		model_nb_prop	reserved	
	serial_nb_char_hdl		serial_nb_val_hdl		
	serial_nb_prop	reserved	fw_rev_char_hdl		
	fw_rev_val_hdl		fw_rev_prop	reserved	
	hw_rev_char_hdl		hw_rev_val_hdl		
	hw_rev_prop	reserved	sw_rev_char_hdl		
	sw_rev_val_hdl		sw_rev_prop	reserved	
	manuf_name_char_hdl		manuf_name_val_hdl		
	manuf_name_prop	reserved	ieee_certif_char_hdl		
	ieee_certif_val_hdl		ieee_certif_prop	reserved	
	bas_shdl		bas_ehdl		
	battery_lvl_char_hdl		battery_lvl_val_hdl		
	battery_lvl_cfg_hdl		battery_lvl_prop	reserved	

7.16.2.2 RBLE_LNP_EVENT_COLLECTOR_DISABLE_COMP

Data format:

RBLE_EVT_LNP_COLLECTOR_DISABLE_COMP (EventCode=0x1C82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.16.2.3 RBLE_LNP_EVENT_COLLECTOR_ERROR_IND

Data format:

RBLE_EVT_LNP_COLLECTOR_ERROR_IND (EventCode=0x1C83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.16.2.4 RBLE_LNP_EVENT_COLLECTOR_LOCATION_SPEED_NTF

Data format:

RBLE_EVT_LNP_COLLECTOR_LOCATION_SPEED_NTF (EventCode=0x1C84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags		
	instant_speed		total_distance(lower)		
	total_distance(upper)		latitude(lower)		
	latitude(upper)		longitude(lower)		
	longitude(upper)		elevation(lower)		
	elevation(upper)		heading		
	rolling_time	reserved	year		
	month	day	hour	min	
	sec	reserved	-	-	

7.16.2.5 RBLE_LNP_EVENT_COLLECTOR_LN_CP_IND

Data format:

RBLE_EVT_LNP_COLLECTOR_LN_CP_IND (EventCode=0x1C85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	request_op_code	
	response_value	reserved	route_num		
	name_size	route_name[0]	route_name[1]	route_name[2]	
	~				
	route_name[15]	route_name[16]	-	-	

7.16.2.6 RBLE_LNP_EVENT_COLLECTOR_NAVIGATION_NTF

Data format:

RBLE_EVT_LNP_COLLECTOR_NAVIGATION_NTF (EventCode=0x1C86)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags		
	bearing		heading		
	remain_dis				
	remain_v_dis				
	year		month	day	
	hour	min	sec	reserved	

7.16.2.7 RBLE_LNP_EVENT_COLLECTOR_BATTERY_LEVEL_NTF

Data format:

RBLE_EVT_LNP_COLLECTOR_BATTERY_LEVEL_NTF (EventCode=0x1C87)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		battery_level	-	

7.16.2.8   RBLE_LNP_EVENT_COLLECTOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_LNP_COLLECTOR_READ_CHAR_RESPONSE (EventCode=0x1C88)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	~				
	data[22]	data[23]	-	-	

7.16.2.9   RBLE_LNP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_LNP_COLLECTOR_WRITE_CHAR_RESPONSE (EventCode=0x1C89)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.16.2.10 RBLE_LNP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_LNP_COLLECTOR_CMD_DISALLOWED_IND (EventCode=0x1CBF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.17   Phone Alert Status Profile

7.17.1   Server Event

NO.	Command name	Description
1	RBLE_PASP_EVENT_SERVER_ENABLE_COMP	Server role enable completion event
2	RBLE_PASP_EVENT_SERVER_DISABLE_COMP	Server role disable completion event
3	RBLE_PASP_EVENT_SERVER_ERROR_IND	Server role error indication event
4	RBLE_PASP_EVENT_SERVER_SEND_ALERT_ST ATUS_COMP	Alert status send completion event
5	RBLE_PASP_EVENT_SERVER_SEND_RINGER_S ETTING_COMP	Ringer setting send completion event
6	RBLE_PASP_EVENT_SERVER_CHG_RINGER_CP _IND	Ringer control point change indication event
7	RBLE_PASP_EVENT_SERVER_CFG_NTF_IND	Characteristic value indication event
8	RBLE_PASP_EVENT_SERVER_COMMAND_DISAL LOWED_IND	Server role command disallowed indication event

7.17.1.1   RBLE_PASP_EVENT_SERVER_ENABLE_COMP

Data format:

RBLE_EVT_PASP_SERVER_ENABLE_COMP (EventCode=0x1D01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.17.1.2   RBLE_PASP_EVENT_SERVER_DISABLE_COMP

Data format:

RBLE_EVT_PASP_SERVER_DISABLE_COMP (EventCode=0x1D02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		alert_status_ntf_en		
	ringer_setting_ntf_en		-	-	

7.17.1.3   RBLE_PASP_EVENT_SERVER_ERROR_IND

Data format:

RBLE_EVT_PASP_SERVER_ERROR_IND (EventCode=0x1D03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.17.1.4   RBLE_PASP_EVENT_SERVER_SEND_ALERT_STATUS_COMP

Data format:

RBLE_EVT_PASP_SERVER_SEND_ALERT_STATUS_COMP (EventCode=0x1D04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.17.1.5   RBLE_PASP_EVENT_SERVER_SEND_RINGER_SETTING_COMP

Data format:

RBLE_EVT_PASP_SERVER_SEND_RINGER_SETTING_COMP (EventCode=0x1D05)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.17.1.6   RBLE_PASP_EVENT_SERVER_CHG_RINGER_CP_IND

Data format:

RBLE_EVT_PASP_SERVER_CHG_RINGER_CP_IND (EventCode=0x1D06)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		cp_val	-	

7.17.1.7　　　RBLE_PASP_EVENT_SERVER_CFG_NTF_IND

Data format:

RBLE_EVT_PASP_SERVER_CFG_NTF_IND (EventCode=0x1D07)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.17.1.8　　　RBLE_PASP_EVENT_SERVER_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_PASP_SERVER_CMD_DISALLOWED_IND (EventCode=0x1D3F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.17.2 Client Event

NO.	Command name	Description
1	RBLE_PASP_EVENT_CLIENT_ENABLE_COMP	Client role enable completion event
2	RBLE_PASP_EVENT_CLIENT_DISABLE_COMP	Client role disable completion event
3	RBLE_PASP_EVENT_CLIENT_ERROR_IND	Client role error indication event
4	RBLE_PASP_EVENT_CLIENT_ALERT_STATUS_NTF	Alert status notification event
5	RBLE_PASP_EVENT_CLIENT_RINGER_SETTING_NTF	Ringer setting notification event
6	RBLE_PASP_EVENT_CLIENT_READ_CHAR_RESPONSE	Characteristic value read request response event
7	RBLE_PASP_EVENT_CLIENT_WRITE_CHAR_RESPONSE	Characteristic value write request response event
8	RBLE_PASP_EVENT_CLIENT_COMMAND_DISALLOWED_IND	Client role command disallowed indication event

7.17.2.1   RBLE_PASP_EVENT_CLIENT_ENABLE_COMP

Data format:

RBLE_EVT_PASP_CLIENT_ENABLE_COMP (EventCode=0x1D81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	shdl		ehdl		
	alert_status_char_hdl		alert_status_val_hdl		
	alert_status_cfg_hdl		alert_status_prop	reserved	
	ringer_setting_char_hdl		ringer_setting_val_hdl		
	ringer_setting_cfg_hdl		ringer_setting_prop	reserved	
	ringer_cp_char_hdl		ringer_cp_val_hdl		
	ringer_cp_prop	reserved	-	-	

7.17.2.2   RBLE_PASP_EVENT_CLIENT_DISABLE_COMP

Data format:

RBLE_EVT_PASP_CLIENT_DISABLE_COMP (EventCode=0x1D82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.17.2.3   RBLE_PASP_EVENT_CLIENT_ERROR_IND

Data format:

RBLE_EVT_PASP_CLIENT_ERROR_IND (EventCode=0x1D83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.17.2.4   RBLE_PASP_EVENT_CLIENT_ALERT_STATUS_NTF

Data format:

RBLE_EVT_PASP_CLIENT_ALERT_STATUS_NTF (EventCode=0x1D84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		alert_status	-	

7.17.2.5   RBLE_PASP_EVENT_CLIENT_RINGER_SETTING_NTF

Data format:

RBLE_EVT_PASP_CLIENT_RINGER_SETTING_NTF (EventCode=0x1D85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		ringer_setting	-	

7.17.2.6   RBLE_PASP_EVENT_CLIENT_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_PASP_CLIENT_READ_CHAR_RESPONSE (EventCode=0x1D86)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	each_len	
	len	data[0]	data[1]	data[2]	
	data[3]	data[4]	data[5]	data[6]	
	data[7]	data[8]	data[9]	data[10]	
	data[11]	data[12]	data[13]	data[14]	
	data[15]	data[16]	data[17]	data[18]	
	data[19]	data[20]	data[21]	data[22]	
	data[23]	-	-	-	

7.17.2.7   RBLE_PASP_EVENT_CLIENT_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_PASP_CLIENT_WRITE_CHAR_RESPONSE (EventCode=0x1D87)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.17.2.8   RBLE_PASP_EVENT_CLIENT_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_PASP_CLIENT_CMD_DISALLOWED_IND (EventCode=0x1DBF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.18   Running Speed and Cadence Profile

7.18.1   Sensor Event

NO.	Command name	Description
1	RBLE_RSCP_EVENT_SENSOR_ENABLE_COMP	Sensor role enable completion event
2	RBLE_RSCP_EVENT_SENSOR_DISABLE_COMP	Sensor role disable completion event
3	RBLE_RSCP_EVENT_SENSOR_ERROR_IND	Sensor role error indication event
4	RBLE_RSCP_EVENT_SENSOR_SEND_MEASURE MENTS_COMP	Sensor measurements send completion event
5	RBLE_RSCP_EVENT_SENSOR_SEND_SC_CP_CO MP	SC Control Point send completion event
6	RBLE_RSCP_EVENT_SENSOR_CHG_SC_CP_IND	SC Control Point change indication event
7	RBLE_RSCP_EVENT_SENSOR_CFG_INDNTF_IND	Characteristic configuration change indication event
8	RBLE_RSCP_EVENT_SENSOR_COMMAND_DISAL LOWED_IND	Sensor role command disallowed indication event

7.18.1.1   RBLE_RSCP_EVENT_SENSOR_ENABLE_COMP

Data format:

RBLE_EVT_RSCP_SENSOR_ENABLE_COMP (EventCode=0x1E01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.18.1.2   RBLE_RSCP_EVENT_SENSOR_DISABLE_COMP

Data format:

RBLE_EVT_RSCP_SENSOR_DISABLE_COMP (EventCode=0x1E02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		rsc_meas_ntf_en		
	sc_cp_ind_en		sensor_location	reserved	

7.18.1.3   RBLE_RSCP_EVENT_SENSOR_ERROR_IND

Data format:

RBLE_EVT_RSCP_SENSOR_ERROR_IND (EventCode=0x1E03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.18.1.4   RBLE_RSCP_EVENT_SENSOR_SEND_MEASUREMENTS_COMP

Data format:

RBLE_EVT_RSCP_SENSOR_SEND_MEASUREMENTS_COMP (EventCode=0x1E04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.18.1.5   RBLE_RSCP_EVENT_SENSOR_SEND_SC_CP_COMP

Data format:

RBLE_EVT_RSCP_SENSOR_SEND_SC_CP_COMP (EventCode=0x1E05)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		status	-	

7.18.1.6   RBLE_RSCP_EVENT_SENSOR_CHG_SC_CP_IND

Data format:

RBLE_EVT_RSCP_SENSOR_CHG_SC_CP_IND (EventCode=0x1E06)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	request_op_code	response_value	reserved	

7.18.1.7   RBLE_RSCP_EVENT_SENSOR_CFG_INDNTF_IND

Data format:

RBLE_EVT_RSCP_SENSOR_CFG_INDNTF_IND (EventCode=0x1E07)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		char_code	reserved	
	cfg_val		-	-	

7.18.1.8   RBLE_RSCP_EVENT_SENSOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_RSCP_SENSOR_CMD_DISALLOWED_IND (EventCode=0x1E3F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.18.2   Collector Event

NO.	Command name	Description
1	RBLE_RSCP_EVENT_COLLECTOR_ENABLE_COMP	Collector role enable completion event
2	RBLE_RSCP_EVENT_COLLECTOR_DISABLE_COMP	Collector role disable completion event
3	RBLE_RSCP_EVENT_COLLECTOR_ERROR_IND	Collector role error indication event
4	RBLE_RSCP_EVENT_COLLECTOR_MEASUREMENTS_NTF	Measured value notification event
5	RBLE_RSCP_EVENT_COLLECTOR_SC_CP_IND	SC Control Point indication event
6	RBLE_RSCP_EVENT_COLLECTOR_READ_CHAR_RESPONSE	Characteristic value read request response event
7	RBLE_RSCP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE	Characteristic value write request response event
8	RBLE_RSCP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND	Collector role command disallowed indication event

7.18.2.1   RBLE_RSCP_EVENT_COLLECTOR_ENABLE_COMP

Data format:

RBLE_EVT_RSCP_COLLECTOR_ENABLE_COMP (EventCode=0x1E81)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		
	rscs_shdl		rscs_ehdl		
	rscs_rsc_meas_char_hdl		rscs_rsc_meas_val_hdl		
	rscs_rsc_meas_cfg_hdl		rscs_rsc_meas_prop	reserved	
	rscs_rsc_feature_char_hdl		rscs_rsc_feature_val_hdl		
	rscs_rsc_feature_prop	reserved	rscs_sensor_loc_char_hdl		
	rscs_sensor_loc_val_hdl		rscs_sensor_loc_prop	reserved	
	rscs_sc_cp_char_hdl		rscs_sc_cp_val_hdl		
	rscs_sc_cp_cfg_hdl		rscs_sc_cp_prop	reserved	
	dis_shdl		dis_ehdl		
	dis_sys_id_char_hdl		dis_sys_id_val_hdl		
	dis_sys_id_prop	reserved	dis_model_nb_char_hdl		
	dis_model_nb_val_hdl		dis_model_nb_prop	reserved	
	dis_serial_nb_char_hdl		dis_serial_nb_val_hdl		
	dis_serial_nb_prop	reserved	dis_fw_rev_char_hdl		
	dis_fw_rev_val_hdl		dis_fw_rev_prop	reserved	
	dis_hw_rev_char_hdl		dis_hw_rev_val_hdl;		
	dis_hw_rev_prop	reserved	dis_sw_rev_char_hdl		
	dis_sw_rev_val_hdl		dis_sw_rev_prop	reserved	
	dis_manuf_name_char_hdl		dis_manuf_name_val_hdl		
	dis_manuf_name_prop	reserved	dis_ieee_certif_char_hdl		
	dis_ieee_certif_val_hdl		dis_ieee_certif_prop	reserved	

7.18.2.2   RBLE_RSCP_EVENT_COLLECTOR_DISABLE_COMP

Data format:

RBLE_EVT_RSCP_COLLECTOR_DISABLE_COMP (EventCode=0x1E82)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.18.2.3   RBLE_RSCP_EVENT_COLLECTOR_ERROR_IND

Data format:

RBLE_EVT_RSCP_COLLECTOR_ERROR_IND (EventCode=0x1E83)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	conhdl		

7.18.2.4   RBLE_RSCP_EVENT_COLLECTOR_MEASUREMENTS_NTF

Data format:

RBLE_EVT_RSCP_COLLECTOR_MEASUREMENTS_NTF (EventCode=0x1E84)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		flags	instant_cadence	
	instant_speed		instant_stride_len		
	total_distance				

7.18.2.5   RBLE_RSCP_EVENT_COLLECTOR_SC_CP_IND

Data format:

RBLE_EVT_RSCP_COLLECTOR_SC_CP_IND (EventCode=0x1E85)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		OpCode	reserved	
	cumulative_value				
	sensor_location	request_op_code	response_value	reserved	
	location_num	response_param [0]	response_param [1]	response_param [2]	
	response_param [3]	response_param [4]	response_param [5]	response_param [6]	
	response_param [7]	response_param [8]	response_param [9]	response_param [10]	
	response_param [11]	response_param [12]	response_param [13]	response_param [14]	
	response_param [15]	response_param [16]	-	-	

7.18.2.6   RBLE_RSCP_EVENT_COLLECTOR_READ_CHAR_RESPONSE

Data format:

RBLE_EVT_RSCP_COLLECTOR_READ_CHAR_RESPONSE (EventCode=0x1E86)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	reserved	
	each_len	len	data[0]	data[1]	
	data[2]	data[3]	data[4]	data[5]	
	data[6]	data[7]	data[8]	data[9]	
	data[10]	data[11]	data[12]	data[13]	
	data[14]	data[15]	data[16]	data[17]	
	data[18]	data[19]	data[20]	data[21]	
	data[22]	data[23]	-	-	

7.18.2.7   RBLE_RSCP_EVENT_COLLECTOR_WRITE_CHAR_RESPONSE

Data format:

RBLE_EVT_RSCP_COLLECTOR_WRITE_CHAR_RESPONSE (EventCode=0x1E87)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	conhdl		att_code	-	

7.18.2.8   RBLE_RSCP_EVENT_COLLECTOR_COMMAND_DISALLOWED_IND

Data format:

RBLE_EVT_RSCP_COLLECTOR_CMD_DISALLOWED_IND (EventCode=0x1EBF)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.19   Vendor Specific

NO.	Command name	Description
1	RBLE_VS_EVENT_TEST_RX_START_COMP	Reception test start completion event
2	RBLE_VS_EVENT_TEST_TX_START_COMP	Transmission test start completion event
3	RBLE_VS_EVENT_TEST_END_COMP	Test end event
4	RBLE_VS_EVENT_WR_BD_ADDR_COMP	BD address write completion event
5	RBLE_VS_EVENT_SET_TEST_PARAM_COMP	Extended parameter setup completion event in Direct Test mode
6	RBLE_VS_EVENT_READ_TEST_RSSI_COMP	RSSI acquisition completion event in Direct Test Mode
7	RBLE_VS_EVENT_GPIO_DIR_COMP	GPIO input/output direction setting completion event
8	RBLE_VS_EVENT_GPIO_ACCESS_COMP	GPIO access completion event
9	RBLE_VS_EVENT_FLASH_MANAGEMENT_COMP	Data Flash data access command completion event
10	RBLE_VS_EVENT_FLASH_ACCESS_COMP	Data Flash data access command completion event
11	RBLE_VS_EVENT_FLASH_OPERATION_COMP	Data Flash block operation completion event
12	RBLE_VS_EVENT_FLASH_GET_SPACE_COMP	Data Flash free space acquisition completion event
13	RBLE_VS_EVENT_FLASH_GET_EEL_VER_COMP	Data Flash EEL version acquisition completion event
14	RBLE_VS_EVENT_ADAPT_ENABLE_COMP	Adaptable function command completion event
15	RBLE_VS_EVENT_ADAPT_STATE_IND	Adaptable mode state change notification event
16	RBLE_VS_EVENT_COMMAND_DISALLOWED_IND	VS command disallowed notification event
17	RBLE_VS_EVENT_SET_TX_POWER_COMP	Transmit power setup completion event
18	RBLE_VS_EVENT_SET_PARAMS_COMP	Parameter setting completion event
19	RBLE_VS_EVENT_RF_CONTROL_COMP	RF power supply control completion event

7.19.1   RBLE_VS_EVENT_TEST_RX_START_COMP
Data format:

RBLE_EVT_VS_TEST_RX_START_COMP (EventCode=0x7F01)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.19.2   RBLE_VS_EVENT_TEST_TX_START_COMP
Data format:

RBLE_EVT_VS_TEST_TX_START_COMP (EventCode=0x7F02)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.19.3   RBLE_VS_EVENT_TEST_END_COMP
Data format:

RBLE_EVT_VS_TEST_END_COMP (EventCode=0x7F03)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	nb_packet_received		

7.19.4   RBLE_VS_EVENT_WR_BD_ADDR_COMP
Data format:

RBLE_EVT_VS_WR_BD_ADDR_COMP (EventCode=0x7F04)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.19.5   RBLE_VS_EVENT_SET_TEST_PARAM_COMP
Data format:

RBLE_EVT_VS_SET_TEST_PARAM_COMP (EventCode=0x7F05)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.19.6   RBLE_VS_EVENT_READ_TEST_RSSI_COMP
Data format:

RBLE_EVT_VS_READ_TEST_RSSI_COMP (EventCode=0x7F06)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	rssi	-	-	

7.19.7   RBLE_VS_EVENT_GPIO_DIR_COMP
Data format:

RBLE_EVT_VS_GPIO_DIR_COMP (EventCode=0x7F08)

	Octet0	Octet1	Octet2	Octet3	
LSB	status	mask	-	-	MSB

7.19.8   RBLE_VS_EVENT_GPIO_ACCESS_COMP
Data format:

RBLE_EVT_VS_GPIO_ACCESS_COMP (EventCode=0x7F09)

	Octet0	Octet1	Octet2	Octet3	
LSB	status	value	-	-	MSB

7.19.9   RBLE_VS_EVENT_FLASH_MANAGEMENT_COMP
Data format:

RBLE_EVT_VS_FLASH_MANAGEMENT_COMP (EventCode=0x7F0A)

	Octet0	Octet1	Octet2	Octet3	
LSB	status	cmd	-	-	MSB

7.19.10   RBLE_VS_EVENT_FLASH_ACCESS_COMP
Data format:

RBLE_EVT_VS_FLASH_ACCESS_COMP (EventCode=0x7F0B)

	Octet0	Octet1	Octet2	Octet3	
LSB	status	cmd	id	size	MSB

7.19.11   RBLE_VS_EVENT_FLASH_OPERATION_COMP
Data format:

RBLE_EVT_VS_FLASH_OPERATION_COMP (EventCode=0x7F0C)

	Octet0	Octet1	Octet2	Octet3	
LSB	status	cmd	-	-	MSB

7.19.12   RBLE_VS_EVENT_FLASH_GET_SPACE_COMP
Data format:

RBLE_EVT_VS_FLASH_GET_SPACE_COMP (EventCode=0x7F0D)

	Octet0	Octet1	Octet2	Octet3	
LSB	status	reserved	size		MSB

7.19.13   RBLE_VS_EVENT_FLASH_GET_EEL_VER_COMP
Data format:

RBLE_EVT_VS_FLASH_GET_EEL_VER_COMP (EventCode=0x7F0E)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	version[0]	version[1]	version[2]	
	version[3]	version[4]	version[5]	version[6]	
	version[7]	version[8]	version[9]	version[10]	
	version[11]	version[12]	version[13]	version[14]	
	version[15]	version[16]	version[17]	version[18]	
	version[19]	version[20]	version[21]	version[22]	
	version[23]	-	-	-	

7.19.14   RBLE_VS_EVENT_ADAPT_ENABLE_COMP
Data format:

RBLE_EVT_VS_ADAPT_ENABLE_COMP (EventCode=0x7F0F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	cmd	-	-	

7.19.15   RBLE_VS_EVENT_ADAPT_STATE_IND
Data format:

RBLE_EVT_VS_ADAPT_STATE_IND (EventCode=0x7F10)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	state	-	-	-	

7.19.16   RBLE_VS_EVENT_COMMAND_DISALLOWED_IND
Data format:

RBLE_EVT_VS_CMD_DISALLOWED_IND (EventCode=0x7F3F)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	reserved	opcode		

7.19.17   RBLE_VS_EVENT_SET_TX_POWER_COMP
Data format:

RBLE_EVT_VS_SET_TX_POWER_IND (EventCode=0x7F07)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.19.18   RBLE_VS_EVENT_SET_PARAMS_COMP
Data format:

RBLE_EVT_VS_SET_PARAMS_COMP (EventCode=0x7F11)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

7.19.19   RBLE_VS_EVENT_RF_CONTROL_COMP

Data format:

RBLE_EVT_VS_RF_CONTROL_COMP (EventCode=0x7F12)

LSB	Octet0	Octet1	Octet2	Octet3	MSB
	status	-	-	-	

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Revision Record

Rev.	Issued on	Description	
		Page	Summary
1.00	Dec 28, 2012	-	First edition issued
1.10	Mar 27, 2013	-	Applicable to BLE software version 2.0. • Description about fragmented rBLE command/event packet is added • Description about GATT API is added
1.11	Jun 28, 2013	-	Bookmark is added.
1.12	Nov 29, 2013	-	Applicable to BLE software version 2.3. • Commands/events of LNP HRP, CSCP, CPP, and ANP are added.
1.13	Sep 19, 2014		Changed the following GAP command parameters.
		24	- RBLE_GAP_Get_Remote_Device_Name
			- RBLE_GAP_Set_Privacy_Feature
		25	- RBLE_GAP_Bonding_Info_Ind
			Removed the following GAP commands.
			- RBLE_GAP_Set_Reconnect_Address
			- RBLE_GAP_Set_Privacy_Feature
			Removed the following GAP events.
			- RBLE_GAP_EVENT_KNOWN_ADDRESS_IND
			- RBLE_GAP_EVENT_KNOWN_DEVICE_ SEARCH_RESULT_IND
			- RBLE_GAP_EVENT_SET_RECONNECT_ ADDRESS_COMP
			- RBLE_GAP_EVENT_SET_PERIPHERAL_ PRIVACY_FEATURE_COMP
			Added the following GAP events.
		124	- RBLE_GAP_EVENT_RPA_RESOLVED
		126	- RBLE_GAP_EVENT_WR_CHAR_IND
			With the above, changed the commands/events code of GAP.
			Changed the following SM command parameters.
		29	- RBLE_SM_Irk_Req_Resp
		-	Changed each CMD_DISALLOWED_IND events code.
1.14	Apr 17, 2015	10	Removed a note by the variable retransmission interval of SYNC message.
			Add the following GAP command list.
		21	- RBLE_GAP_Authorized_Ind
			Changed the following GAP command parameters.
		25	- RBLE_GAP_Start_Bonding Add the bd address field
			Add the following GAP command.
		26	- RBLE_GAP_Authorized_Ind
			Changed the following SM command parameters.
		29	- RBLE_SM_Csrk_Req_Resp Add the lk_sec_status
			Add the following GAP event list.
		137	- RBLE_GATT_EVENT_NOTIFY_COMP
			Changed the following GAP event parameters.
			- Structure member name is collected.
		126	RBLE_GAP_EVENT_WR_CHAR_IND "name."
			Changed the following GATT event parameters.
		130	- Add the conhdl parameters.
			- Structure member name is collected.
		131	RBLE_GATT_EVENT_DISC_SVC_ALL_128_CMP "list."
		132	RBLE_GATT_EVENT_DISC_SVC_INCL_CMP "incl."
		133	RBLE_GATT_EVENT_DISC_CHAR_ALL_128_CMP "list."
		133	RBLE_GATT_EVENT_DISC_CHAR_BY_UUID_128_CMP "list."

		134	RBLE_GATT_EVENT_DISC_CHAR_DESC_128_CMP "list."
		134	RBLE_GATT_EVENT_READ_CHAR_RESP "data."
			Add the following GATT event.
		137	- RBLE_GATT_EVENT_NOTIFY_COMP
			Changed the following HTP event parameters.
		148	- RBLE_HTP_EVENT_THERMOMETER_SEND_TEMP_COMP
			Dual the conhdl field.
		-	Add the following command and event.
			- Glucose Profile
			- Time Profile
			- Phone Alert Status Profile
			- Running Speed and Cadence Profile
			- Vendor Specific
		-	Add the following command and event parameters field.
			- "-" was added to a blank column of a table end.
		-	Add IIC interface of serial communication
1.15	Oct 30, 2015		Changed the following GAP command parameters.
		22	- RBLE_GAP_Broadcast_Enable
			Changed adv_data and resp_data field length.
			Add the following VS command and event.
		118	- RBLE_VS_RF_Control
		236	- RBLE_VS_EVENT_RF_CONTROL_COMP
1.16	Nov 24, 2015		Changed the following GAP event parameters.
		122	- RBLE_GAP_EVENT_GET_DEVICE_INFO_COMP
			Changed lmp_subver and host_subver field length.
1.17	Feb 19, 2016		Changed the following LNP event code.
		214	- RBLE_LNP_EVENT_SENSOR_COMMAND_DISALLOWED_IND
1.18	Aug 31, 2016	6	Changed to the same error determination condition as implementation.
			Changed the following GAT command parameters.
		32	- RBLE_GATT_Write_Char_Request
		33	- RBLE_GATT_Set_Data
			Changed "value" field length.
			Changed the following GAP event parameters.
		124	- RBLE_GAP_EVENT_CONNECTION_COMP
			Add "role" and "idx" field.
			Add the following SM event
		129	- RBLE_SM_LTK_REQ_FOR_ENC_IND

General Precautions in the Handling of Microprocessing Unit and Microcontroller Unit Products

The following usage notes are applicable to all Microprocessing unit and Microcontroller unit products from Renesas. For detailed usage notes on the products covered by this document, refer to the relevant sections of the document as well as any technical updates that have been issued for the products.

1. Handling of Unused Pins

   Handle unused pins in accordance with the directions given under Handling of Unused Pins in the manual.

   ¾ The input pins of CMOS products are generally in the high-impedance state. In operation with an unused pin in the open-circuit state, extra electromagnetic noise is induced in the vicinity of LSI, an associated shoot-through current flows internally, and malfunctions occur due to the false recognition of the pin state as an input signal become possible. Unused pins should be handled as described under Handling of Unused Pins in the manual.

2. Processing at Power-on

   The state of the product is undefined at the moment when power is supplied.

   ¾ The states of internal circuits in the LSI are indeterminate and the states of register settings and pins are undefined at the moment when power is supplied.
   In a finished product where the reset signal is applied to the external reset pin, the states of pins are not guaranteed from the moment when power is supplied until the reset process is completed. In a similar way, the states of pins in a product that is reset by an on-chip power-on reset function are not guaranteed from the moment when power is supplied until the power reaches the level at which resetting has been specified.

3. Prohibition of Access to Reserved Addresses

   Access to reserved addresses is prohibited.

   ¾ The reserved addresses are provided for the possible future expansion of functions. Do not access these addresses; the correct operation of LSI is not guaranteed if they are accessed.

4. Clock Signals

   After applying a reset, only release the reset line after the operating clock signal has become stable. When switching the clock signal during program execution, wait until the target clock signal has stabilized.

   ¾ When the clock signal is generated with an external resonator (or from an external oscillator) during a reset, ensure that the reset line is only released after full stabilization of the clock signal. Moreover, when switching to a clock signal produced with an external resonator (or by an external oscillator) while program execution is in progress, wait until the target clock signal is stable.

5. Differences between Products

   Before changing from one product to another, i.e. to a product with a different part number, confirm that the change will not lead to problems.

   ¾ The characteristics of Microprocessing unit or Microcontroller unit products in the same group but having a different part number may differ in terms of the internal memory capacity, layout pattern, and other factors, which can affect the ranges of electrical characteristics, such as characteristic values, operating margins, immunity to noise, and amount of radiated noise. When changing to a product with a different part number, implement a system-evaluation test for the given product.

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