

# bluetooth-llapi

## *User Manual*



**MICROEJ<sup>®</sup>**

Reference:	TLT-XXX-MAN-bluetooth-llapi-bluetooth-llapi
Version:	2.0.1
Revision:	XXX

---

## Confidentiality & Intellectual Property

All rights reserved. Information, technical data and tutorials contained in this document are confidential and proprietary under copyright Law of Industrial Smart Software Technology (IS2T S.A.) operating under the brand name MicroEJ®. Without written permission from IS2T S.A., *copying or sending parts of the document or the entire document by any means to third parties is not permitted*. Granted authorizations for using parts of the document or the entire document do not mean IS2T S.A. gives public full access rights.

The information contained herein is not warranted to be error-free. IS2T® and MicroEJ® and all relative logos are trademarks or registered trademarks of IS2T S.A. in France and other Countries.

Java™ is Sun Microsystems' trademark for a technology for developing application software and deploying it in cross-platform, networked environments. When it is used in this documentation without adding the ™ symbol, it includes implementations of the technology by companies other than Sun.

Java™, all Java-based marks and all related logos are trademarks or registered trademarks of Sun Microsystems Inc, in the United States and other Countries.

Other trademarks are proprietary of their authors.

---

---

# Table of Contents

1. Data Structure Documentation .....	1
1.1. LLBLUETOOTH_address_t struct Reference .....	1
1.1.1. Data Fields .....	1
1.1.2. Field Documentation .....	1
1.2. LLBLUETOOTH_event_gap_advertisement_completed_t struct Reference .....	1
1.2.1. Data Fields .....	1
1.2.2. Field Documentation .....	2
1.3. LLBLUETOOTH_event_gap_connect_failed_t struct Reference .....	2
1.3.1. Data Fields .....	2
1.3.2. Field Documentation .....	2
1.4. LLBLUETOOTH_event_gap_connected_t struct Reference .....	2
1.4.1. Data Fields .....	2
1.4.2. Field Documentation .....	3
1.5. LLBLUETOOTH_event_gap_disconnected_t struct Reference .....	3
1.5.1. Data Fields .....	3
1.5.2. Field Documentation .....	3
1.6. LLBLUETOOTH_event_gap_pair_completed_t struct Reference .....	3
1.6.1. Data Fields .....	3
1.6.2. Field Documentation .....	4
1.7. LLBLUETOOTH_event_gap_pair_request_t struct Reference .....	4
1.7.1. Data Fields .....	4
1.7.2. Field Documentation .....	4
1.8. LLBLUETOOTH_event_gap_passkey_generated_t struct Reference .....	4
1.8.1. Data Fields .....	5
1.8.2. Field Documentation .....	5
1.9. LLBLUETOOTH_event_gap_passkey_request_t struct Reference .....	5
1.9.1. Data Fields .....	5
1.9.2. Field Documentation .....	6
1.10. LLBLUETOOTH_event_gap_scan_completed_t struct Reference .....	6
1.10.1. Data Fields .....	6
1.10.2. Field Documentation .....	6
1.11. LLBLUETOOTH_event_gap_scan_result_t struct Reference .....	6
1.11.1. Data Fields .....	6
1.11.2. Field Documentation .....	7
1.12. LLBLUETOOTH_event_gattc_discovery_completed_t struct Reference .....	7
1.12.1. Data Fields .....	7
1.12.2. Field Documentation .....	7
1.13. LLBLUETOOTH_event_gattc_discovery_result_t struct Reference .....	7
1.13.1. Data Fields .....	7
1.13.2. Field Documentation .....	8
1.14. LLBLUETOOTH_event_gattc_notification_received_t struct Reference .....	8
1.14.1. Data Fields .....	8
1.14.2. Field Documentation .....	9
1.15. LLBLUETOOTH_event_gattc_read_completed_t struct Reference .....	9

1.15.1. Data Fields .....	9
1.15.2. Field Documentation .....	9
1.16. LLBLUETOOTH_event_gattc_write_completed_t struct Reference .....	9
1.16.1. Data Fields .....	9
1.16.2. Field Documentation .....	10
1.17. LLBLUETOOTH_event_gatts_notification_sent_t struct Reference .....	10
1.17.1. Data Fields .....	10
1.17.2. Field Documentation .....	11
1.18. LLBLUETOOTH_event_gatts_read_request_t struct Reference .....	11
1.18.1. Data Fields .....	11
1.18.2. Field Documentation .....	11
1.19. LLBLUETOOTH_event_gatts_write_request_t struct Reference .....	11
1.19.1. Data Fields .....	11
1.19.2. Field Documentation .....	12
1.20. LLBLUETOOTH_event_t struct Reference .....	12
1.20.1. Data Fields .....	12
1.20.2. Field Documentation .....	12
1.21. LLBLUETOOTH_gattc_attribute_t struct Reference .....	12
1.21.1. Data Structures .....	13
1.21.2. Data Fields .....	13
1.21.3. Field Documentation .....	13
1.22. LLBLUETOOTH_gatts_attribute_t struct Reference .....	13
1.22.1. Data Structures .....	13
1.22.2. Data Fields .....	13
1.22.3. Field Documentation .....	14
1.23. LLBLUETOOTH_gatts_service_t struct Reference .....	14
1.23.1. Data Fields .....	14
1.23.2. Field Documentation .....	15
1.24. LLBLUETOOTH_uuid_t struct Reference .....	15
1.24.1. Data Fields .....	15
1.24.2. Field Documentation .....	15
2. File Documentation .....	16
2.1. LLBLUETOOTH_defines.h File Reference .....	16
2.1.1. Data Structures .....	16
2.1.2. Macros .....	17
2.2. LLBLUETOOTH_impl.h File Reference .....	18
2.2.1. Functions .....	18

---

# Chapter 1. Data Structure Documentation

## 1.1. LLBLUETOOTH\_address\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.1.1. Data Fields

- uint8\_t type
- uint8\_t addr[6]

### Detailed Description

Address

Definition at line 70 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.1.2. Field Documentation

## 1.2. LLBLUETOOTH\_event\_gap\_advertisement\_completed\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.2.1. Data Fields

- uint8\_t event\_type

### Detailed Description

EVENT\_GAP\_ADVERTISEMENT\_COMPLETED

Definition at line 142 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

## 1.2.2. Field Documentation

## 1.3. LLBLUETOOTH\_event\_gap\_connect\_failed\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.3.1. Data Fields

- uint8\_t event\_type
- LLBLUETOOTH\_address\_t addr

### Detailed Description

EVENT\_GAP\_CONNECT\_FAILED

Definition at line 147 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.3.2. Field Documentation

## 1.4. LLBLUETOOTH\_event\_gap\_connected\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.4.1. Data Fields

- uint8\_t event\_type
- LLBLUETOOTH\_address\_t addr
- uint16\_t conn\_handle

### Detailed Description

EVENT\_GAP\_CONNECTED

Definition at line 153 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

## 1.4.2. Field Documentation

# 1.5. LLBLUETOOTH\_event\_gap\_disconnected\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

## 1.5.1. Data Fields

- uint8\_t event\_type
- uint8\_t \_padding
- uint16\_t conn\_handle

## Detailed Description

EVENT\_GAP\_DISCONNECTED

Definition at line 160 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

## 1.5.2. Field Documentation

# 1.6. LLBLUETOOTH\_event\_gap\_pair\_completed\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

## 1.6.1. Data Fields

- uint8\_t event\_type
- uint8\_t success

- uint16\_t conn\_handle

## Detailed Description

EVENT\_GAP\_PAIR\_COMPLETED

Definition at line 174 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.6.2. Field Documentation

## 1.7. LLBLUETOOTH\_event\_gap\_pair\_request\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.7.1. Data Fields

- uint8\_t event\_type
- uint8\_t\_padding
- uint16\_t conn\_handle

## Detailed Description

EVENT\_GAP\_PAIR\_REQUEST

Definition at line 167 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.7.2. Field Documentation

## 1.8. LLBLUETOOTH\_event\_gap\_passkey\_generated\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```



### 1.8.1. Data Fields

- uint8\_t event\_type
- uint8\_t \_padding
- uint16\_t conn\_handle
- uint32\_t passkey

## Detailed Description

EVENT\_GAP\_PASKEY\_GENERATED

Definition at line 188 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.8.2. Field Documentation

## 1.9. LLBLUETOOTH\_event\_gap\_passkey\_request\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.9.1. Data Fields

- uint8\_t event\_type
- uint8\_t \_padding
- uint16\_t conn\_handle

## Detailed Description

EVENT\_GAP\_PASKEY\_REQUEST

Definition at line 181 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

## 1.9.2. Field Documentation

# 1.10. LLBLUETOOTH\_event\_gap\_scan\_completed\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

## 1.10.1. Data Fields

- uint8\_t event\_type

## Detailed Description

EVENT\_GAP\_SCAN\_COMPLETED

Definition at line 137 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

## 1.10.2. Field Documentation

# 1.11. LLBLUETOOTH\_event\_gap\_scan\_result\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

## 1.11.1. Data Fields

- uint8\_t event\_type
- LLBLUETOOTH\_address\_t addr
- uint8\_t rssi
- uint8\_t adv\_data\_size

## Detailed Description

EVENT\_GAP\_SCAN\_RESULT

Definition at line 128 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.11.2. Field Documentation

## 1.12. LLBLUETOOTH\_event\_gattc\_discovery\_completed\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.12.1. Data Fields

- uint8\_t event\_type
- uint8\_t \_padding
- uint16\_t conn\_handle

## Detailed Description

EVENT\_GATTC\_DISCOVERY\_COMPLETED

Definition at line 206 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.12.2. Field Documentation

## 1.13. LLBLUETOOTH\_event\_gattc\_discovery\_result\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.13.1. Data Fields

- uint8\_t event\_type

- uint8\_t num\_attributes
- uint16\_t conn\_handle
- uint16\_t service\_handle
- LLBLUETOOTH\_uuid\_t service\_uuid

## Detailed Description

EVENT\_GATTC\_DISCOVERY\_RESULT

Definition at line 196 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.13.2. Field Documentation

## 1.14. LLBLUETOOTH\_event\_gattc\_notification\_received\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.14.1. Data Fields

- uint8\_t event\_type
- uint8\_t \_padding
- uint16\_t conn\_handle
- uint16\_t attr\_handle
- uint16\_t value\_size

## Detailed Description

EVENT\_GATTC\_NOTIFICATION\_RECEIVED

Definition at line 231 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.14.2. Field Documentation

## 1.15. LLBLUETOOTH\_event\_gattc\_read\_completed\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.15.1. Data Fields

- uint8\_t event\_type
- uint8\_t status
- uint16\_t conn\_handle
- uint16\_t attr\_handle
- uint16\_t value\_size

## Detailed Description

EVENT\_GATTC\_READ\_COMPLETED

Definition at line 213 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.15.2. Field Documentation

## 1.16. LLBLUETOOTH\_event\_gattc\_write\_completed\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.16.1. Data Fields

- uint8\_t event\_type

- uint8\_t status
- uint16\_t conn\_handle
- uint16\_t attr\_handle

## Detailed Description

EVENT\_GATTC\_WRITE\_COMPLETED

Definition at line 223 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.16.2. Field Documentation

## 1.17. LLBLUETOOTH\_event\_gatts\_notification\_sent\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.17.1. Data Fields

- uint8\_t event\_type
- uint8\_t success
- uint16\_t conn\_handle
- uint16\_t attr\_handle

## Detailed Description

EVENT\_GATTS\_NOTIFICATION\_SENT

Definition at line 259 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

## 1.17.2. Field Documentation

## 1.18. LLBLUETOOTH\_event\_gatts\_read\_request\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.18.1. Data Fields

- uint8\_t event\_type
- uint8\_t \_padding
- uint16\_t conn\_handle
- uint16\_t attr\_handle

### Detailed Description

EVENT\_GATTS\_READ\_REQUEST

Definition at line 241 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

## 1.18.2. Field Documentation

## 1.19. LLBLUETOOTH\_event\_gatts\_write\_request\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.19.1. Data Fields

- uint8\_t event\_type
- uint8\_t \_padding
- uint16\_t conn\_handle

- uint16\_t attr\_handle
- uint16\_t value\_size

## Detailed Description

EVENT\_GATTS\_WRITE\_REQUEST

Definition at line 249 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.19.2. Field Documentation

## 1.20. LLBLUETOOTH\_event\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.20.1. Data Fields

- uint8\_t event\_type

## Detailed Description

Generic event - can be casted to one of the event structures depending on event type

Definition at line 123 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.20.2. Field Documentation

## 1.21. LLBLUETOOTH\_gattc\_attribute\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```



### 1.21.1. Data Structures

### 1.21.2. Data Fields

- uint8\_t type
- uint8\_t \_padding
- LLBLUETOOTH\_uuid\_t uuid
- uint16\_t value\_handle
- uint8\_t properties
- struct LLBLUETOOTH\_gattc\_attribute\_t::@4::@6 characteristic
- uint16\_t handle
- struct LLBLUETOOTH\_gattc\_attribute\_t::@4::@7 descriptor
- union LLBLUETOOTH\_gattc\_attribute\_t::@4 @5

## Detailed Description

Client attribute

Definition at line 106 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.21.3. Field Documentation

## 1.22. LLBLUETOOTH\_gatts\_attribute\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.22.1. Data Structures

### 1.22.2. Data Fields

- uint8\_t type

- uint8\_t \_padding
- LLBLUETOOTH\_uuid\_t uuid
- uint8\_t permissions
- uint8\_t properties
- struct LLBLUETOOTH\_gatts\_attribute\_t::@0::@2 characteristic
- struct LLBLUETOOTH\_gatts\_attribute\_t::@0::@3 descriptor
- union LLBLUETOOTH\_gatts\_attribute\_t::@0 @1

## Detailed Description

Server attribute

Definition at line 81 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.22.3. Field Documentation

## 1.23. LLBLUETOOTH\_gatts\_service\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.23.1. Data Fields

- LLBLUETOOTH\_uuid\_t uuid
- uint8\_t num\_characteristics
- uint8\_t num\_descriptors

## Detailed Description

Server service

Definition at line 98 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.23.2. Field Documentation

## 1.24. LLBLUETOOTH\_uuid\_t struct Reference

```
#include <LLBLUETOOTH_defines.h>
```

### 1.24.1. Data Fields

- uint8\_t uuid[16]

## Detailed Description

UUID

Definition at line 76 of file LLBLUETOOTH\_defines.h

The Documentation for this struct was generated from the following file:

- LLBLUETOOTH\_defines.h

### 1.24.2. Field Documentation

---

# Chapter 2. File Documentation

## 2.1. LLBLUETOOTH\_defines.h File Reference

```
#include <stdint.h>
```

### 2.1.1. Data Structures

- struct LLBLUETOOTH\_address\_t
- struct LLBLUETOOTH\_uuid\_t
- struct LLBLUETOOTH\_gatts\_attribute\_t
- struct LLBLUETOOTH\_gatts\_service\_t
- struct LLBLUETOOTH\_gattc\_attribute\_t
- struct LLBLUETOOTH\_event\_t
- struct LLBLUETOOTH\_event\_gap\_scan\_result\_t
- struct LLBLUETOOTH\_event\_gap\_scan\_completed\_t
- struct LLBLUETOOTH\_event\_gap\_advertisement\_completed\_t
- struct LLBLUETOOTH\_event\_gap\_connect\_failed\_t
- struct LLBLUETOOTH\_event\_gap\_connected\_t
- struct LLBLUETOOTH\_event\_gap\_disconnected\_t
- struct LLBLUETOOTH\_event\_gap\_pair\_request\_t
- struct LLBLUETOOTH\_event\_gap\_pair\_completed\_t
- struct LLBLUETOOTH\_event\_gap\_passkey\_request\_t
- struct LLBLUETOOTH\_event\_gap\_passkey\_generated\_t
- struct LLBLUETOOTH\_event\_gattc\_discovery\_result\_t
- struct LLBLUETOOTH\_event\_gattc\_discovery\_completed\_t
- struct LLBLUETOOTH\_event\_gattc\_read\_completed\_t
- struct LLBLUETOOTH\_event\_gattc\_write\_completed\_t
- struct LLBLUETOOTH\_event\_gattc\_notification\_received\_t

- struct LLBLUETOOTH\_event\_gatts\_read\_request\_t
- struct LLBLUETOOTH\_event\_gatts\_write\_request\_t
- struct LLBLUETOOTH\_event\_gatts\_notification\_sent\_t

## 2.1.2. Macros

- #define ATTRIBUTE\_TYPE\_CHARACTERISTIC (0)
- #define ATTRIBUTE\_TYPE\_DESCRIPTOR (1)
- #define ATTRIBUTE\_PERMISSION\_NONE (0x00)
- #define ATTRIBUTE\_PERMISSION\_READ (0x01)
- #define ATTRIBUTE\_PERMISSION\_READ\_ENCRYPT (0x02)
- #define ATTRIBUTE\_PERMISSION\_READ\_AUTH (0x04)
- #define ATTRIBUTE\_PERMISSION\_WRITE (0x08)
- #define ATTRIBUTE\_PERMISSION\_WRITE\_ENCRYPT (0x10)
- #define ATTRIBUTE\_PERMISSION\_WRITE\_AUTH (0x20)
- #define ADDRESS\_TYPE\_PUBLIC (0)
- #define ADDRESS\_TYPE\_PRIVATE (1)
- #define SCAN\_FILTER\_ACTION\_NONE (0)
- #define SCAN\_FILTER\_ACTION\_FIELD\_EXISTS (1)
- #define SCAN\_FILTER\_ACTION\_FIELD\_EQUALS (2)
- #define SCAN\_FILTER\_ACTION\_FIELD\_STARTS\_WITH (3)
- #define EVENT\_GAP\_SCAN\_RESULT (1)
- #define EVENT\_GAP\_SCAN\_COMPLETED (2)
- #define EVENT\_GAP\_ADVERTISEMENT\_COMPLETED (3)
- #define EVENT\_GAP\_CONNECT\_FAILED (4)
- #define EVENT\_GAP\_CONNECTED (5)
- #define EVENT\_GAP\_DISCONNECTED (6)
- #define EVENT\_GAP\_PAIR\_REQUEST (7)
- #define EVENT\_GAP\_PAIR\_COMPLETED (8)
- #define EVENT\_GAP\_PASSKEY\_REQUEST (9)

- #define EVENT\_GAP\_PASSKEY\_GENERATED (10)
- #define EVENT\_GATTC\_DISCOVERY\_RESULT (11)
- #define EVENT\_GATTC\_DISCOVERY\_COMPLETED (12)
- #define EVENT\_GATTC\_READ\_COMPLETED (13)
- #define EVENT\_GATTC\_WRITE\_COMPLETED (14)
- #define EVENT\_GATTC\_NOTIFICATION\_RECEIVED (15)
- #define EVENT\_GATTS\_READ\_REQUEST (16)
- #define EVENT\_GATTS\_WRITE\_REQUEST (17)
- #define EVENT\_GATTS\_NOTIFICATION\_SENT (18)

## Detailed Description

MicroEJ BLUETOOTH low level API.

Author: . MicroEJ Developer Team

Version: . 2.0.1

Date: . 17 November 2020

Definition in file /home/is2t/workspace/M0132\_Bluetooth-LLAPI/bluetooth-llapi/target~/componentWorking/bsp/bluetooth/inc/LLBLUETOOTH\_defines.h

## 2.2. LLBLUETOOTH\_impl.h File Reference

```
#include <stdint.h>
```

```
#include <intern/LLBLUETOOTH_impl.h>
```

```
#include <LLBLUETOOTH_defines.h>
```

### 2.2.1. Functions

- uint8\_t LLBLUETOOTH\_IMPL\_enable ( void )
- void LLBLUETOOTH\_IMPL\_disable ( void )
- uint32\_t LLBLUETOOTH\_IMPL\_waitEvent ( LLBLUETOOTH\_event\_t \* event, uint32\_t max\_event\_size)

- `uint8_t LLBLUETOOTH_IMPL_startScanning ( uint8_t filter_action, uint8_t filter_type, const uint8_t * filter_data, uint32_t filter_data_size)`
- `uint8_t LLBLUETOOTH_IMPL_stopScanning ( void )`
- `uint8_t LLBLUETOOTH_IMPL_startAdvertising ( const uint8_t * adv_data, uint32_t adv_data_size)`
- `uint8_t LLBLUETOOTH_IMPL_stopAdvertising ( void )`
- `uint8_t LLBLUETOOTH_IMPL_connect ( const LLBLUETOOTH_address_t * addr)`
- `uint8_t LLBLUETOOTH_IMPL_disconnect ( uint16_t conn_handle)`
- `uint8_t LLBLUETOOTH_IMPL_sendPairRequest ( uint16_t conn_handle)`
- `uint8_t LLBLUETOOTH_IMPL_sendPairResponse ( uint16_t conn_handle, uint8_t accept)`
- `uint8_t LLBLUETOOTH_IMPL_sendPasskeyResponse ( uint16_t conn_handle, uint8_t accept, uint32_t passkey)`
- `uint8_t LLBLUETOOTH_IMPL_discoverServices ( uint16_t conn_handle, const LLBLUETOOTH_uuid_t * uuid)`
- `uint8_t LLBLUETOOTH_IMPL_addService ( const LLBLUETOOTH_gatts_service_t * service, uint16_t * handles)`
- `uint8_t LLBLUETOOTH_IMPL_sendReadRequest ( uint16_t conn_handle, uint16_t attr_handle)`
- `uint8_t LLBLUETOOTH_IMPL_sendWriteRequest ( uint16_t conn_handle, uint16_t attr_handle, const uint8_t * value, uint32_t value_size, uint8_t no_response)`
- `uint8_t LLBLUETOOTH_IMPL_sendReadResponse ( uint16_t conn_handle, uint16_t attr_handle, uint8_t status, const uint8_t * value, uint32_t value_size)`
- `uint8_t LLBLUETOOTH_IMPL_sendWriteResponse ( uint16_t conn_handle, uint16_t attr_handle, uint8_t status)`
- `uint8_t LLBLUETOOTH_IMPL_sendNotification ( uint16_t conn_handle, uint16_t attr_handle, const uint8_t * value, uint32_t value_size, uint8_t confirm)`

## Detailed Description

MicroEJ BLUETOOTH low level API.

Author: . MicroEJ Developer Team

Version: . 2.0.1

Date: . 17 November 2020

Definition in file `/home/is2t/workspace/M0132_Bluetooth-LLAPI/bluetooth-llapi/target~/componentWorking/bsp/bluetooth/inc/LLBLUETOOTH_impl.h`