

# BLE DATA LOGGER FIRMWARE UPDATE v1.8.1 RELEASE NOTES | APRIL 15, 2021



**Biomark**

## BLE Data Logger Board Firmware v1.8.1:

- Implemented automatic switching of the attached ASR650 reader's Output Format to "Byte Structure". This is required for new ASR650 readers that have Output Format set by manufacturer to default (ASCII).

## UPDATING FIRMWARE GUIDELINES

The firmware update is done via Biomark Device Manager software. Please refer to BLE Data Logger User Manual or Biomark Device Manager User Manual for the procedure.

**Important! Tags memory may be erased after the application firmware update is complete, so it is recommended to download content of the memory prior to updating.**

**All settings may be reset to manufacturer default values during the update process, so it is recommended to generate a Full Status Report (RFS command) for the reference prior to updating the BLE Data Logger Board.**

**Firmware of all devices must be updated to the latest versions in order for the system to function properly.**

For technical assistance please contact the Technical Services Department of Biomark at (208) 275-0011 or email [biomarkservice@merck.com](mailto:biomarkservice@merck.com).

## BLE DATA LOGGER FIRMWARE UPDATE v1.8.0 RELEASE NOTES | APRIL 1, 2021

### BLE Data Logger Board Firmware v1.8.0:

- Added IMPINJ reader support.
- Modified initialization of the attached ASR650 reader for systems without MUX module installed.
- Removed "Logger Antenna ID Display Format" setting. The Reader and Antenna ID Display Format is always set to "DEC" for attached ASR650 reader and always set to "HEX" for all other attached reader types.
- Added substitutes for attached ASR650 reader's IDs 002, 003, and 016 as 0xF1, 0xF2 and 0xF3 respectively.
- Added Aleis Panel Reader status report support. This report is supported only if Aleis reader connected, not RM310.
- Removed BIOMARK16 key from initializing ASR650 reader.

## BLE DATA LOGGER FIRMWARE UPDATE v1.7.2 RELEASE NOTES | JULY 16, 2020

### BLE Data Logger Board Firmware v1.7.2:

- Replaced "Tag Record Output Format" with "Tag Record Display Format".
- Changed to not to send ASR650 frame for checking attached reader type, if RM310 was detected earlier.

## BLE DATA LOGGER FIRMWARE UPDATE v1.7.1 RELEASE NOTES | JANUARY 30, 2020

### BLE Data Logger Board Firmware v1.7.1:

- Added separate download option for tags and status reports.
- Added "Reader Idling Time" parameter and corresponding functionality for attached RM310 reader type.

- Fixed data collection issue, when DCA starts collecting all memory from the beginning, if the data collection happened to initiate immediately after a tag record is written into Data Logger's memory.
- Added "Numeric" option to "Logger Tag ID Display Format" parameter.
- Added "Logger Tag Record Output Format" command: Full / Short (tag ID only)
- Added support for ASR650 reader and DCA upload of tags and Status Reports for ASR650 reader.  
**Note:** Only compatible with ASR v2.13.2 firmware.
- Added "ASR650" option to "Attached Reader Type" parameter.
- Added "Logger Antenna ID Display Format" setting for attached ASR650 reader type: HEX (two characters) or DEC (three characters).

## BLE DATA LOGGER FIRMWARE UPDATE v1.7.0 RELEASE NOTES | MAY 8, 2019

### BLE Data Logger Board Firmware v1.7.0

- Added support for FDX-B tag detection signal level value and BioTherm tag extended range temperature value in received tag records.
- Tag IDs memory size changed to 1,024,000 records.
- Status Reports memory size changed to 55,296 records.
- Added "Unique Mode" and "Unique Delay" options for tag IDs received from RM310/RM310+SM303 reader.
- Added option not to store Virtual Test Tag IDs received from IS1001 or FS1001A reader.
- Added a confirmation request before switching to RM310 programming mode.
- Added 10-minute time out for RM310 programming mode.
- Modified Bluetooth pairing process, so that pin code is no longer required.
- Implemented automatic Data Logger reset whenever serial port error is detected that can cause suspension of the port.
- Added "Local Communication Port Transfer Rate" setting with "Full" and "Slow" options to be used whenever external communication hardware has limited data transfer capabilities.
- Added "RDP" command to reset all parameters, with the exception of the "Attached Reader Type" parameter, to manufacturer default values. "Attached Reader Type" present value will be preserved and will not be changed to default.
- Implemented automatic update of the attached IS1001 reader Date/Time settings when data logger's Date/Time settings are updated using "LDS"/"LTS" commands or through DCA.

**Important!** The entire BLE Data Logger's memory will be erased after the firmware update due to the memory's structure change, so it is recommended to download content of the memory ("MED" command) prior to initiating the update.

## BLE DATA LOGGER FIRMWARE UPDATE v1.6.0 RELEASE NOTES | MAY 3, 2018

### BLE Data Logger Board Firmware v1.6.0:

- Added support for FS1001A Transceiver tag IDs and status reports.
- Added "RAT" command to set "Attached Reader Type": RAT1 - IS1001, RAT2 - RM310, RAT3 - FS1001A.
- Added "RSD" command to set "Automatic Reader Status Report Request Delay" in minutes. Enables requesting status report periodically from readers that do not have automatic status report sending functionality, specifically FS1001A. This command will work with IS1001 but will be redundant since IS1001 has automatic status report sending functionality. RM310 does not provide status report, so the command is not applicable to this reader.

## BLE DATA LOGGER FIRMWARE UPDATE v1.5.0 RELEASE NOTES | APRIL 18, 2018

### BLE Data Logger Board Firmware v1.5.0:

- Added "RIT" command to set "RM310 Reader Idling Time". Enables switching RM310 into Read Mode periodically, according to the selected time interval (in seconds). RM310's Read Mode must be set to Requested (I0020 command), so the reader returns to Standby Mode after one scan cycle (up to 2 seconds). Configuring BLE Data Logger and RM310 Reader this way reduces system power consumption. This command is only applicable with RM310 firmware v3.36 and v3.49. Below are recommended RM310 Reader settings:

\*B-8113CC

\*S-0C00

\*I-0020

\*W-01

\*A-3

\*L-0003

\*F-2997.

## BLE DATA LOGGER FIRMWARE UPDATE v1.4.0 RELEASE NOTES | JULY 21, 2017

### BLE Data Logger Board Firmware v1.4.0:

- Added support for BM78 series Bluetooth 4.2 module and automatic module type detection with corresponding initialization steps.
- Added support for both PCB Rev 1 and Rev A. Last manufactured PCB Rev 1 has serial number 0161. First manufactured PCB Rev A is 0162. Input voltage is converted using 2 different formulas depending on the serial number of the board.

## BLE DATA LOGGER FIRMWARE UPDATE v1.3.0 RELEASE NOTES | FEBRUARY 6, 2017

### BLE Data Logger Board Firmware v1.3.0:

- Changed to cancel erasing memory only if a non-"Y" character received from the same port as "MEE" command. Previously a non-"Y" character received from any port caused erasing to be aborted.
- Added "MTD" command to download tags memory only.
- Added "MSD" command to download status reports memory only (applicable only when BLE Data Logger is attached to an IS1001 reader).

## BLE DATA LOGGER FIRMWARE UPDATE v1.2.1 RELEASE NOTES | NOVEMBER 21, 2016

### BLE Data Logger Board Firmware v1.2.1:

- Bluetooth configuration pin P24 changed to initialize as input. Previously Bluetooth module was setting P24 as output for a short period of time during initialization causing high current surge.

## BLE DATA LOGGER FIRMWARE UPDATE v1.1.1 RELEASE NOTES | JULY 22, 2016

### BLE Data Logger Board Firmware v1.1.1:

- Added input voltage check before erasing each next block of memory to prevent Logger restart during memory erase at a low input voltage. Minimum input voltage required to erase memory is 5.8 volts. Erase process is paused during input voltage below 5.8V. Memory erase might take longer time if input voltage is below 6.0 volts.
- Added "Communication Tags To Local Port" command.

## BLE DATA LOGGER FIRMWARE UPDATE v1.1.0 RELEASE NOTES | JULY 13, 2016

### BLE Data Logger Board Firmware v1.1.0:

- Added "LPM" command to switch BLE Data Logger into RM310 programming mode.

## BLE DATA LOGGER FIRMWARE UPDATE v1.0.3 RELEASE NOTES | JULY 11, 2016

### BLE Data Logger Board Firmware v1.0.3:

- Fixed download timestamp. Previous version logged erroneous time 24:xx:xx from midnight to 01:00:00 a.m.

## BLE DATA LOGGER FIRMWARE UPDATE v1.0.2 RELEASE NOTES | APRIL 26, 2016

### BLE Data Logger Board Firmware v1.0.2:

- Fixed issue with memory can be erased only once after reset.

- This version now remembers if memory erase was initiated before logger restart or power off. If memory erase was not complete before logger restart or power off - the erase will be repeated after next power on.
- Input voltage is averaged over several measurements for a better accuracy.

## BLE DATA LOGGER FIRMWARE UPDATE v1.0.1 RELEASE NOTES | APRIL 26, 2016

### BLE Data Logger Board Firmware v1.0.1:

- Added support for tag IDs without dot for older RM310 firmware versions.
- Added support for tag IDs without reader ID and without Antenna ID for older RM310 firmware versions.