

RELEASE NOTES FOR DRY-CONTACTS APP FW 2.1.0

CONCERNED PRODUCTS

The following products already contain this FW version:

- ARF8170BAF: DRY CONTACTS V2 LoRaWAN EU863-870
- ARF8171BAF: DRY CONTACTS V2 Sigfox RC1

SUMMARY

This version adds some important features:

- LoRaWAN: Data Timestamp.
- LoRaWAN: network quality test at device startup.
- LoRaWAN: Join procedure: Customization of the timing of attempts.
- For each input / output, count of the time spent in the active state

Table of content

CONCERNED PRODUCTS	1
SUMMARY	1
CHANGES COMPARED WITH FW APP VERSION 1.3.8 AND 1.3.9 (8170BAE AND 8171BAD)	2
1.1 IN GENERAL	2
1.2 REGISTERS	2
1.3 UPLINKS	2
1.4 DOWNLINKS	2

CHANGES COMPARED WITH FW APP VERSION 1.3.8 AND 1.3.9 (8170BAE AND 8171BAD)

1.1 In general

LoRaWAN: Added network quality test at device startup. Depending on the test result, the device LED lights up in different colors (green, orange, red). See the complete explanation in the User Guide of the product.

New battery management introduces several changes:

- Product may delay the requested uplink if the battery is low to guarantee measure robustness.
- If the delay is higher than 1 minute, the flag 'battery low' will be activated in the next frames
- Battery low flag is now automatically cleared when the product considers that battery has a better behavior (battery was changed by the customer or temperature is now not extremely low)
- DEAD mode is no longer present

1.2 Registers

- S300 has evolved in its content and accepted values.
- S301 has evolved in its content and accepted values.
- S307 determines now the SFX BIDIR period.
- S308 determines the LED activity.
- New S324, S325, S326 and S327 registers to define the number of events detected before sending an uplink frame.
- New S328 register to define the sending period of time count frame (0x59).
- LoRaWAN: New S312, S313 and S314 registers to customize the timing of attempts for the join procedure.
- LoRaWAN: New S315 and S316 registers to configure daylight saving time management.
- LoRaWAN: New S318 register to activate or deactivate time stamping.

You can find all the related information in the Technical Reference Manual of the concerned product.

1.3 Uplinks

- Starting frames
 - Frame 0x10 no more contains register S306.
 - Sigfox: frame 0x20 now contain additional register S307.
- Periodic frames
 - Frame 0x30 contains the status and number of events of all inputs / outputs.
 - New frame 0x59 which contains, for each input / output, the time spent in the active state.
 - LoRaWAN: Some frames (0x30, 0x40 and 0x59) can now contain a timestamp. To enable compatibility with previous version, the timestamp is added at the end of the frame and is indicated in the Status Byte (refers to the TRM).

1.4 Downlinks

- New 0x06 frame to change the state of an output.
- New 0x07 frame to generate a pulse on an output channel.
- New Set Time frame (0x49) used to set the time of the device.
- New Reboot frame (0x48) used to reboot the device.
- Set register downlink (0x41) now generates an automatic status uplink 0x33 which determines if the request has been successfully handled or rejected. If rejected, it gives the reason and some details.