

RELEASE NOTES FOR TEMP AND TEMP2S APP FW 2.1.0

CONCERNED PRODUCTS

The following products already contain this FW version:

- ARF8180BCAC: TEMP V4 LoRaWAN EU863-870
- ARF8181BCAC: TEMP V4 Sigfox RC1
- ARF8180BCBC: TEMP V4 TWO EXTERNAL PROBES LoRaWAN EU863-870
- ARF8181BCBC: TEMP V4 TWO EXTERNAL PROBES Sigfox RC1

SUMMARY

This version adds some important features:

- Data Timestamp
- LoRaWAN network quality test at device startup.
- LoRaWAN join procedure: Customization of the timing of attempts.

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CHANGES COMPARED WITH FW APP VERSION 2.0.0 (8180BCAA, 8180BCBA, 8181BCAA AND 8181BCBA)

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.

1.2 Registers

- 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
 - Sigfox: frame 0x20 now contain additional register S307.
 - A firmware version frame (0x37) is sent at startup (only if KARE+ is enabled).
- Periodic frames
 - LoRaWAN: Frames 0x30, 0x57 and 0x58 can now contain a timestamp. To enable compatibility with V3, 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 Set Time frame (0x49) used to set the time of the device.
- New Reboot frame (0x48) used to reboot the device.

APPLICATION NOTE FOR TIMESTAMP

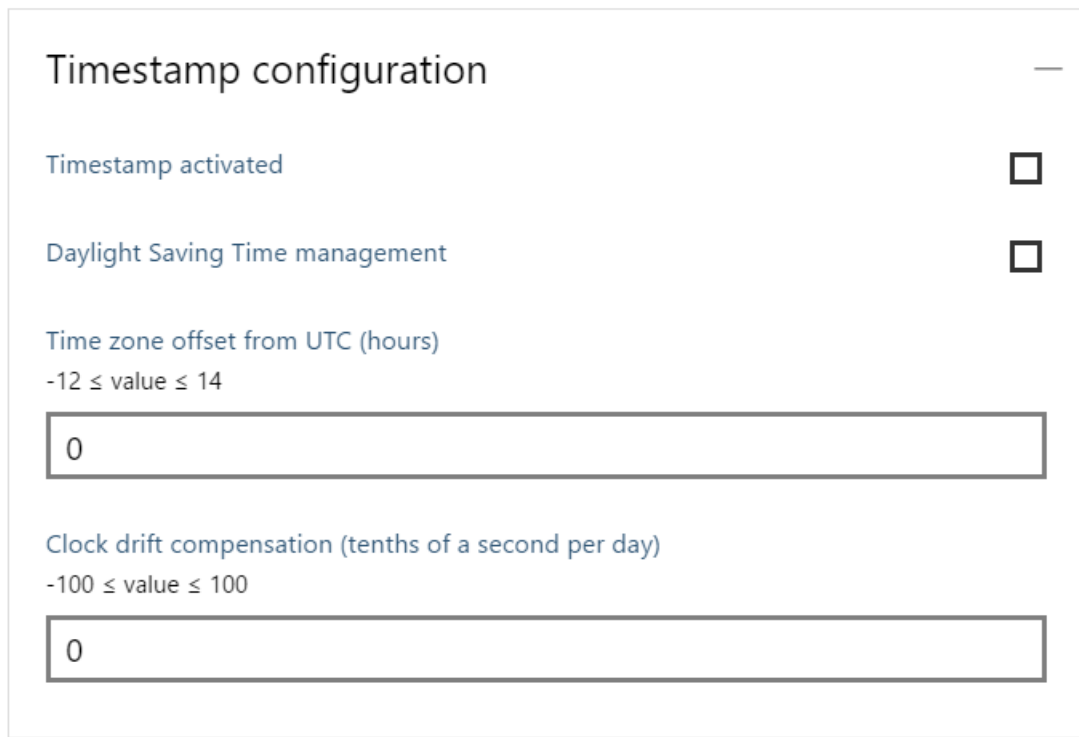
Timestamp is given in EPOCH 2013 (please, refer to the TRM of the product to know the content of each frame).

To configure the timestamp, you have to set the UTC time first.

→ Through the Advanced Menu of the IoT Configurator, click on “Set UTC Time”. You can click on “Get Time” to verify that the UTC time is set into the device.



→ Then you can click on “Applicative configuration”, activate the timestamp, choose if you want to set a time zone and if you want that the product take into account the Daylight Saving Time.



The screenshot shows the 'Timestamp configuration' dialog box. It contains the following fields and options:

- Timestamp activated**:
- Daylight Saving Time management**:
- Time zone offset from UTC (hours)**: $-12 \leq \text{value} \leq 14$. Input field contains **0**.
- Clock drift compensation (tenths of a second per day)**: $-100 \leq \text{value} \leq 100$. Input field contains **0**.