



C E R T I F I C A T E

Certificate registration number: G3.2104.435.2.D4

Certificate holder: M&F SMART TECHNOLOGY

Product designation: MAD RED,  
Hardware version V1.3, Firmware version 4.4.9 – v1390B5EC – r1.6

Certification date: April 12<sup>th</sup>, 2021

This certificate indicates the above mentioned product successfully completed certification testing with regards to the reference specification ITU G.9903 (08-2017) plus the changes listed in an annex to this certificate. The optional feature coherent mode of the G3-PLC protocol is also covered by this certification.

The certificate applies to certification profile CENELEC B and the device was configured as a PAN-Device.

Test cases have been performed as described in the test report referred to below. This certificate is granted on account of tests conducted by Laboratoire des Applications Numériques (LAN) in Tauxigny, France in March 2021. The results and remarks can be found in the complete test report.

| Applied tests   | Performed by                                  | Document evidence |
|---|---|-------------------|
| Conformance, interoperability and performance testing according to the test specification referenced by the test report | Laboratoire des Applications Numériques (LAN) | LAN21AF005        |

The device tested is a G3-PLC CENELEC B 1-phase end-device. The product is equipped with the G3-PLC certified platform ST8500 with certificate no. G3.1910.320.1.D4 and was directly tested at its PLC terminals, which is further detailed in the test report. The Protocol Implementation Conformance Statement in the Annex includes the PICS related to performance and is an integral part of this certificate. This certificate is valid from April 12<sup>th</sup>, 2021.

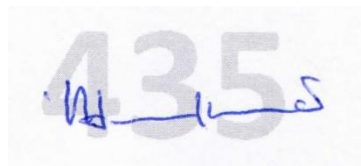
The certificate is only applicable to the product described above and permits the use of the G3-PLC™ logo as laid down in the G3-PLC logo license agreement.

This certificate does not imply assessment of the production. This certificate shall not be defined, or used as a guarantee covering quality of a product which includes G3-PLC. The liability of the Alliance and the test laboratory or any of her representatives is excluded for any damages or losses of the certified company.

Paris, April 12<sup>th</sup>, 2021

For the G3-PLC Alliance:

Marc Delandre  
Chairman



Madeleine Francillard  
Chair Certification Program





# Annex 1: Reference Version for Certification

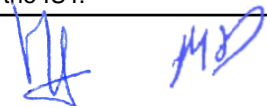
The reference version for this certification is ITU-T G.9903 (08-2017)  
+ CCTT #210: Number of tones per sub-band for CENELEC B  
+ CCTT #211: Clarification and corrections for CENELEC-B band

Two handwritten signatures in blue ink, one to the left and one to the right, positioned above the footer.

# Annex 2: Protocol Implementation Conformance Statement (PICS)

## Feature implementation statement

| Name                                   | Value     | Description  |
|--|-----------|--|
| BAND_PLAN                              | CENELEC B | Indicate the band-plan supported by the device.  |
| FEATURE_PAN_COORDINATOR                | FALSE     | Indicate if the device is a PAN-Coordinator (true) or a normal device (false).                             |
| FEATURE_COHERENT_MODULATION            | TRUE      | Indicate if coherent modulation is supported.  |
| FEATURE_EAP_SERVER                     | FALSE     | Indicate if an EAP-PASK server is implemented by the DUT.<br>Apply only if FEATURE_PAN_COORDINATOR = true. |
| FEATURE_D8PSK_MODULATION               | TRUE      | True / False   |
| FEATURE_ROUTING                        | TRUE      | Indicate if the routing is implemented by the IUT.   |
| FEATURE_SECURITY                       | F1        | Indicate the security implemented by the device. Possible values are: F1, F2.                              |
| FEATURE_ACTIVE_SCAN                    | TRUE      | Indicate if the active scan process is done by the IUT after power-up.                                     |
| FEATURE_PREAMBLE_COEXISTENCE_MECHANISM | FALSE     | Indicate if the preamble-based coexistence mechanism is used by the IUT.                                   |



# Annex 2: Protocol Implementation Conformance Statement (PICS)

## PICS related to performance (1/2)

The device tested is a G3-PLC CENELEC B 1-phase end-device which has separate cables for power supply and for PLC and was directly tested at its PLC terminals. In the certification testing (including the performance testing) only the PLC part was tested.

Operating voltage applied for certification testing was 230V / 50Hz.

| Name  | Value | Unit | Description |
|---|-------|------|-------------|
| <p>PICS related to performance<br/>are available<br/>through vendor only.</p> |       |      |             |



# Annex 2: Protocol Implementation Conformance Statement (PICS)

PICS related to performance (2/2)

| Name  | Value | Unit | Description |
|---|-------|------|-------------|
| <p>PICS related to performance<br/>are available<br/>through vendor only.</p> |       |      |             |



