

CERTIFICATE

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 12th, 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 12th, 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 12th, 2021

For the G3-PLC Alliance:

Marc Delandre Chairman MILLS

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

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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_MODULAT ION	TRUE	Indicate if coherent modulation is supported.
FEATURE FAR OFFICE	FALOE	Indicate if an EAP-PASK server is implemented by the DUT.
FEATURE_EAP_SERVER	FALSE	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_COEXISTE NCE_MECHANISM	FALSE	Indicate if the preamble-based coexistence mechanism is used by the IUT.

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Annex 2: Protocol Implementation Conformance Statement (PICS)

PICS related to performance (1/2)

Name

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.

Value Unit

PICS T	elated to perform are available hrough vendor on	ance ily.
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Annex 2: Protocol Implementation Conformance Statement (PICS)

PICS related to performance (2/2)

Name	Value	Unit	Description
PICS	relat	ed t	o performance
	a	re a	vailable
	thro	ugh	vendor only.

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Annex 3: Copy of test report cover sheet



G3-PLC

G3-PLC Product Certification Test Report

Vendor Name M&F SMART TECHNOLOGY

Model Name MAD RED
Serial N° 21000000000047C

HW version V1.3

FW version 4.4.9 - v1390B5EC - r1.6

Test Report # TR_LAN21AF005 Ed.00

Date April 7, 2021

CONF Tests Specification version 0.30. 03/12/2018 **CONF Tests Suite** version 2.9.p1. 09/2019 28/12/2018 IOT Tests Specification version 0.13. IOT Tests Suite version 2.6.p1. 09/2019 PERF Tests Specification version 0.27. 05/03/2019 PERF Tests Suite version 2.9.p1. 09/2019

Test Tool version 2.3
Tester Modem version 2.0

Certification Test Procedures version 1.14 21/09/2019

Certification Profile
Role
Overall Verdict

A (CENELEC B)
End Device
PASS



Initiation	Date	Description of modification	Ed.
Omar DIOUF	April 7, 2021	Creation	00
	Realised by	Checked by	Approved by
Name	Omar DIOUF	Vincent BUCHOUX	Thierry DOLIGEZ
Date	April 7, 2021	April 7, 2021	April 7, 2021
Sign	SW/	V. B. X	
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The current report and the test results produced in this current are given for information only and must not be relied on by any third person for any reason

This report contains an assessment of the apparatus carried out on samples submitted to the laboratory. The results in this report relate only to the items tested and were obtained in the period between the initial receipt of samples and the issue of the report. It should be noted that technical hardware or software modifications on the apparatus may impact the results reported in this document.

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