



# C E R T I F I C A T E

**Certificate registration number:** G3.1911.356.2.D4

**Certificate holder:** M&F SMART TECHNOLOGY

**Product designation:** PMAE,  
Hardware version V1.1, Firmware version 4.4.9 - v1390B5EC - r1.6

**Certification date:** November 27<sup>th</sup>, 2019

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 November 2019. 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)	LAN19AF077

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. 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 November 27<sup>th</sup>, 2019.

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, November 27<sup>th</sup>, 2019

For the G3-PLC Alliance:

  
**Marc Delandre**  
Chairman

**Madeleine Francillard**  
Chair Certification Program





# Annex 1: Reference Version for Certification

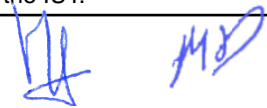
The reference version for this certification is ITU-T G.9903 (08-2017)  
+ CCTT #210: Number of tones per sub-band for CENELEC B  
+ CCTT #211: Clarification and corrections for CENELEC-B band

Two handwritten signatures in blue ink are located in the bottom right area of the page.

# 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. 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. Testing was performed on phase 1.

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

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



# Annex 3: Copy of test report cover sheet



G3-PLC Certification Test Report			
M&F SMART TECHNOLOGY	PMAE HW:V1.1 FW: 4.4.9 - v1390B5EC - r1.6		
LAN19AF077	Ed.01	January 9, 2020	Page 1/44

**G3-PLC Alliance**  
**G3-PLC Product Certification Test Report**

Vendor Name **M&F SMART TECHNOLOGY**  
 Model Name **PMAE**  
 Serial N° **T\_0000036**  
 HW version **V1.1**  
 FW version **4.4.9 - v1390B5EC - r1.6**

Test Report # **TR\_LAN19AF077 Ed.01**  
 Date **January 9, 2020**

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

Test Tool **version 2.3**  
 Tester Modem **version 2.0**  
 Certification Test Procedures **version 1.14**      **21/09/2019**

Certification Profile **(GENELEC B)**  
 Role **End Device**  
 Overall Verdict **PASS**



Initiation	Date	Description of modification	Ed.
Omar DIOUF	November 15, 2019	Creation	00
Omar DIOUF	January 9, 2020	Picture updated	01

	Realised by	Checked by	Approved by
Name	Omar DIOUF	Vincent BUCHOUX	Thierry DOLIGEZ
Date	January 9, 2020	January 9, 2020	January 9, 2020
Sign			

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.