G3-PLC CERTIFIED CEN B

C E R T I F I C A T E

Certificate registration number: G3.1902.276.2.Dv2

Certificate holder: M&F SMART TECHNOLOGY

Product designation: C-MAD,
Hardware version V4.2, Firmware version V4.4.1 - v13118659

Certification date: February 12th, 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-Coordinator.

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 January 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)	LAN19AF0006

The device tested is a G3-PLC CENELEC B 3-phase data concentrator. The data concentrator is equipped with the G3-PLC certified platform ST8500 with certificate no. G3.1902.275.1.D 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 February 12th, 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, February 12th, 2019

For the G3-PLC Alliance:

Marc Delandre
Chairman

Madeleine Francillard
Chair Certification Program

G3-PLC Alliance

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

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	TRUE	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	TRUE	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 3-phase data concentrator 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
PICS related to performance are available through vendor only.			

Annex 2: Protocol Implementation Conformance Statement (PICS)

PICS related to performance (2/2)

Name	Value	Unit	Description
PICS related to performance are available through vendor only.			

Annex 3:
Copy of test report cover sheet

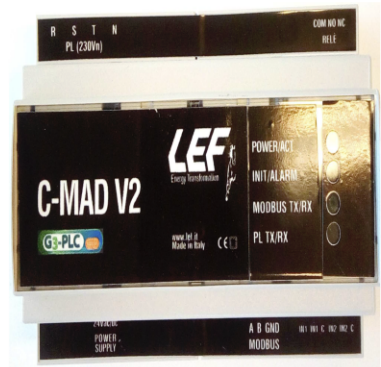
G3-PLC Alliance

G3-PLC Product Certification Test Report

Vendor Name	M&F SMART TECHNOLOGY
Model Name	C-MAD
Serial N°	**434D414400000000**
HW version	**V4.2**
FW version	**V4.4.1 - v13118659**
Test Report #	**TR_LAN19AF0006 Ed.01**
Date	**March 8, 2019**

CONF Tests Specification	**version 0.27.**	**08/04/2018**
CONF Tests Suite	**version 2.7p1p2p3.**	**03/2019**
IOT Tests Specification	**version 0.12.**	**08/04/2018**
IOT Tests Suite	**version 2.4p1.**	**04/2018**
PERF Tests Specification	**version 0.25.**	**28/09/2018**
PERF Tests Suite	**version 2.7p1p2p3.**	**03/2019**
Test Tool	**version 2.0**	
Tester Modem	**version 2.0**	
Certification Test Procedures	**version 1.12**	**08/04/2018**

Certification Profile	**CENELEC B**
Role	**Data Concentrator**
Overall Verdict	**PASS**



Initiation	Date	Description of modification	Ed.
Omar DIOUF	February 7, 2019	Creation	00
Omar DIOUF	March 8, 2019	PERF_TONEMAP_002_ACHIVABLE_DATA_RATE Updated	01

	Realised by	Checked by	Approved by
Name	Omar DIOUF	Vincent BUCHOUX	Thierry DOLIGEZ
Date	March 8, 2019	March 8, 2019	March 8, 2019
Sign			