



C E R T I F I C A T E

Certificate registration number: G3.2207.522.2.A5

Certificate holder: Shenzhen Kaifa Technology (Chengdu) Co., Ltd.

Product designation: MA110M
Hardware version V1.3, Firmware version V096011

Certification date: July 14th 2022

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

The certificate applies to certification profile CENELEC A 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 May-June 2022. The results and remarks can be found in the complete test report.

Applied tests	Performed by	Document evidence
Performance testing according to the test specification referenced by the test report	Laboratoire des Applications Numériques (LAN)	LAN22AF032

The device tested is a G3-PLC CENELEC A 1-phase meter. The meter is equipped with the G3-PLC certified platform ST8500 with certificate no. G3.1911.354.1.A4. Modifications of the platform have been done by the platform manufacturer. 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 July 14th 2022.

Only performance testing was done for this meter because the G3-PLC module was identical to the G3-PLC module in the certified 3-phase meter MA309M with reference G3.2207.523.2.A5. This 3-phase meter was successfully tested for conformance and 1-to-1 Interoperability as well as for performance.

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.

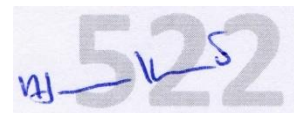
This certificate does not imply assessment of the production. This certificate shall not be defined, or used as a guarantee covering quality of a product which includes G3-PLC. The liability of the Alliance and the test laboratory or any of her representatives is excluded for any damages or losses of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

Paris, July 14th 2022

For the G3-PLC Alliance:


Marc Delandre
Chairman

G3-PLC
Alliance

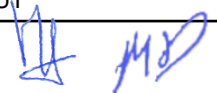

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Madeleine Francillard
Chair Certification Program

Annex 1: Protocol Implementation Conformance Statement (PICS)

Feature implementation statement

Name	Value	Description
BAND_PLAN	CENELEC A	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	Indicate if D8PSK modulation is supported
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 A 1-phase meter.
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 4: Additional details of the platform on which the product is based

Platform model name on which product is based:	ST8500
Platform G3-PLC certificate number:	G3.1911.354.1.A4
Exact part number of all the chips running G3-PLC stack in the certified platform:	ST8500
What each part number runs: lower MAC (incl. CSMA/CA) or PHY or other parts of the stack:	PHY, MAC and 6LowPAN
Hardware version of this chip:	revBB
Software version running on this chip:	4.4.19 -v15a1464e r1.9rc1
Internal CPU frequency:	100MHz for Cortex core and 400 MHz for RTE