



C E R T I F I C A T E

Certificate registration number: G3.1511.053.2.A

Certificate holder: SAGEMCOM ENERGY and TELECOM SAS

Device designation: CX2000-9,
Hardware version 253653983, Firmware version 7.5.7.110

Certification date: November 2nd, 2015

This certificate indicates the above mentioned product successfully completed certification testing with regards to the reference specification ITU G.9903 (02-2014) plus the changes listed in the annex to this certificate.

The certificate applies to certification profile Metering 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 October 2015. 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)	LAN15AF055

The device tested is a G3-PLC CENELEC A 3-phase meter. The meter is equipped with the G3-PLC certified platform CX2000-9 with certificate no. G3.1510.051.1.A. 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 2nd, 2015.

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. The certificate may only be reproduced in full.

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 2nd, 2015

For the G3-PLC Alliance:

Marc Boillot
Chairman

Madeleine Francillard
Chair Certification Program

G3-PLC
Alliance

Annex 1: Reference Version for Certification

The reference version for this certificate is published in 'Narrowband OFDM PLC specifications for G3-PLC network, October 2014'.

The reference version for this certification is:

ITU-T G.9903 (02-2014)

- + CCTT #24-25-30: Implementation of MAC security (anti-replay) solution F1
- + CCTT #61 : ADPM-Buffer behavior clarification
- + CCTT #143: AC Phase Detection v2
- + CCTT #144: Hop Limit usage during route repair v3
- + CCTT #145: Value of RCoord when the node is at adpMaxHops hops from the coordinator
- + CCTT #146: Pilot tone generation
- + CCTT #147: Link-cost computation for Path discovery v2
- + CCTT #148: Path discovery frame routing v3
- + CCTT #152: Scrambler reset
- + CCTT #154: Clarification of PANCount and PANDescriptor
- + CCTT #156: Clarification of ADPM-NETWORK-STATUS.indication
- + CCTT #157: Interleaver Equation v2
- + CCTT #158: Unicast Routing Process
- + CCTT #159: Correct the windowing function description
- + CCTT #160: Clarify 16QAM quantisation and optionality
- + CCTT #161: Correct aMaxFrameSize and aMinFrameSize for FCC/ARIB bandplans
- + CCTT #162: Interleaver co-prime number clarification v2
- + CCTT #163: CRC5 and CRC8 packing order
- + CCTT #164: Route Repair v2
- + CCTT #165: Clarification Neighbour Table v2
- + CCTT #167: HOP COUNT metric identifier v2
- + CCTT #169: Clarification on PLME_GET v4
- + CCTT #170: Clarification to Frame Counter Handling Mechanism v2
- + CCTT #173: Clarification of LOADng mechanism used to detect bidirectional links

Annex 2: 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	FALSE	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



Annex 2: Protocol Implementation Conformance Statement (PICS)

PICS related to performance (1/2)

The device tested is a G3-PLC CENELEC A 3-phase meter communicating on 1 phase. Testing was performed on phase 1.

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

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

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

SAGEMCOM	CX2000-9 HW:253653983 FW:7.5.7.110
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G3-PLC Alliance
G3-PLC Product Certification Test Report

Vendor Name **SAGEMCOM**
Model Name **CX2000-9**
Serial N° **1461000149**
HW version **253653983**
FW version **7.5.7.110**

Test Report # **TR_LAN15AF055 Ed.00**
Date **October 29, 2015**

CONF Tests Specification	version 0.14.	19/11/2014
CONF Tests Suite	version 1.10.	05/2015
IOT Tests Specification	version 0.6.	12/12/2014
IOT Tests Suite	version 1.4.	05/2015
PERF Tests Specification	version 0.12.	20/11/2014
PERF Tests Suite	version 1.10.	05/2015

Test Tool **version 1.6**
Tester Modem **version 1.09**
Certification Test Procedures **version 1.4 10/06/2015**

Certification Profile **A (GENELEC A)**
Role **Meter Tri Phase**
Overall Verdict **PASS**



Initiation	Date	Description of modification	Ed.
Omar DIOUF	October 29, 2015	Creation	00

Name	Realised by	Checked by	Approved by
	Omar DIOUF	Vincent BUCHOLDT	Thierry DOLIGEZ
Date	October 29, 2015	October 29, 2015	October 29, 2015
Sign			

The current report and the test results produced by this current are given for information only and must not be relied on by any third party for any reason.
This report covers 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 to the apparatus may impact the result reported in this document.