



C E R T I F I C A T E

Certificate registration number: G3.2201.481.2.A5

Certificate holder: Hexing Electrical Co., Ltd.

Product designation: HXE310,
Hardware version PHXE310R4800106 (Meter), P61337R1100102 (Module),
Firmware version 5.0

Certification date: January 7th 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 TÜV Rheinland in Yokohama, Japan in December 2021. 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	TÜV Rheinland Japan	JP21HXJ6 002

The device tested is a G3-PLC CENELEC A 3-phase meter. The meter is equipped with the G3-PLC certified platform SMG-EV51-A1-EV8000 with certificate no. G3.2002.374.1.A4v2. 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 January 7th 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.

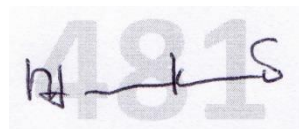
Only performance testing was done for this meter because the G3-PLC module was identical to the G3-PLC module in the certified 1-phase meter HXE110 with reference G3.2112.472.2.A5v2. This 1-phase meter was successfully tested for conformance and 1-to-1 Interoperability as well as for performance.

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, January 7th 2021

For the G3-PLC Alliance:


Marc Delandre
Chairman

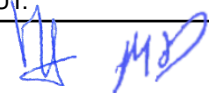


Madeleine Francillard
Chair Certification Program

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	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 A 3-phase meter communicating on 1 phase. Testing was performed on phase 1.

Operating voltage applied for certification testing was 3 x 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

Prüfbericht - Produkte
Test Report - Products



Prüfbericht-Nr.: <i>Test report no.:</i>	JP21HXJ6 002	Auftrags-Nr.: <i>Order no.:</i>	150249136 10	Seite 1 von 52 Page 1 of 52
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	HXE310	Auftragsdatum: <i>Order date:</i>	2021-11-19	
Auftraggeber: <i>Client:</i>	Hexing Electrical Co., Ltd. 1418 Moganshan Road, Shangcheng Industrial Zone, 310011, Hangzhou City, China			
Prüfgegenstand: <i>Test item:</i>	Meter 3-Phase CENELEC-A			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	HXE310			
Auftrags-Inhalt: <i>Order content:</i>	G3-PLC Certification Test			
Prüfgrundlage: <i>Test specification:</i>	G3 PLC Conformance Tests Specification v0.32 G3-PLC 1-to-1 Interoperability Tests Specification v0.13 G3-PLC Performance Test Suite Specification v0.27 G3-PLC Certification Test Procedures v2.0			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2021-12-02			
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003176287			
Prüfzeitraum: <i>Testing period:</i>	2021-12-03 – 2021-12-15			
Ort der Prüfung: <i>Place of testing:</i>	4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland Japan Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>		genehmigt von: <i>authorized by:</i>		
Datum: <i>Date:</i>	2022-01-06	Ausstellungsdatum: <i>Issue date:</i>	2022-01-06	
Stellung / Position:	Tester	Stellung / Position:	Reviewer	
Sonstiges / Other:	The PLC module has been tested in meter HXE110 as reported in test report JP21Z4JL 001 of 2021-12-09. Hence, the test data for Conformance and 1-1 IOT testing were taken from that report without further testing. Corrigendum of report JP21HXJ6 001: On page 1 the bandplan was corrected from FCC to CENELEC-A.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
<p>* Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(all) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(all) = failed a.m. test specification(s) N/A = not applicable N/T = not tested</p>				
<p>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</p>				