C E R T I F I C A T E

Certificate registration number: G3.1907.304.1.A4

Certificate holder: Renesas Electronics Corporation

Platform designation: REL-G3PLC-CPX3,
Hardware version R9A06G037GNP, Firmware version 3.04.00

Certification date: July 10th, 2019

This certificate indicates the above mentioned platform 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 June 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	TÜV Rheinland Japan	50256750 002

The device tested is a G3-PLC platform: a solution providing an implementation of the G3-PLC specification. 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 10th, 2019.

The certificate is only applicable to the platform 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 10th, 2019

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

The device tested is a G3-PLC CENELEC A platform. Operating voltage applied for certification testing was 100V / 50Hz.

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

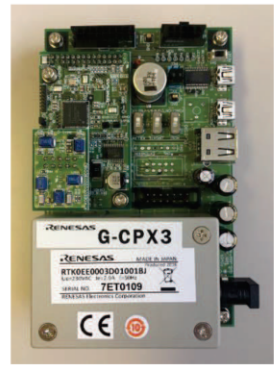
Annex 3:
Copy of test report cover sheet

Produkte
Products

TÜVRheinland®

Prüfbericht-Nr.: *Test Report No.:*	**50256750 002**	**Auftrags-Nr.:** *Order No.:*	**150112055**	Seite 1 von *of* 42 *Page* 1 von *of* 42

Kunden Referenz-Nr.: *Client Reference No.:*	**EGEM3-AE-19-0006-01**
Auftragsdatum: *Order date:*	**2019-05-24**
Auftraggeber: *Client:*	**Renesas Electronics Corporation** **5-20-1, Josuihon-cho, Kodaira-shi, Tokyo, 187-8588, Japan**
Gegenstand der Prüfung: *Test item:*	**G3-PLC CENELEC-A Platform (PAN Device)**
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	**REL-G3PLC-CPX3**
Auftrags-Inhalt: *Order content:*	**G3-PLC Certification Test**
Prüfgrundlage: *Test specification:*	**G3-PLC Conformance L1-L2 Test Suite Specification v0.30** **G3-PLC 1-to-1 Interoperability Test Suite Specification v0.13** **G3-PLC Performance Test Suite Specification v0.27** **G3-PLC Certification Test Procedures v1.13**
Wareneingangsdatum: *Date of receipt:*	**2019-06-07**
Prüfmuster-Nr.: *Test sample No.:*	**A000949042**
Prüfzeitraum: *Testing period:*	**2019-06-24 – 2019-06-27**
Ort der Prüfung: *Place of testing:*	**TÜV Rheinland Japan Ltd.** Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland Japan Ltd.
Prüfergebnis: *Test results:*	*The test item passed the test specification(s).*



Geprüft von *Tested by:*			**Kontrolliert von** *Reviewed by:*		
2019-07-01, Tam Tran Thanh			2019-07-03, Atsuhiro Endo		
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*	**Datum** *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other Aspects:*

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:*	**Prüfmuster vollständig und unbeschädigt** *Test item complete and undamaged*

*Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft
P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet
Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor
P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested