



# C E R T I F I C A T E

**Certificate registration number:** G3.1410.001.1.2

**Certificate holder:** Renesas Electronics Corporation

**Platform designation:** REL-G3PLC-CPX1,  
Hardware version UPD809504K8-712-BAA-A, Firmware version ARIB 1.0.1

**Certification date:** October 24<sup>th</sup>, 2014

This certificate indicates the above mentioned platform successfully completed certification testing with regards to the reference specification ITU G.9903 (05-2013) plus the changes listed in the annex to this certificate.

The certificate applies to certification profile Japan Route B and the device was configured as a PAN device.

Test cases have been performed as described in the test reports referred to below. This certificate is granted on account of tests conducted by TÜVRheinland in Yokohama, Japan in September 2014. The results and remarks can be found in the complete test reports.

Applied tests	Performed by	Document evidence
Conformance and interoperability testing according to the test specification referenced by the test report	TÜVRheinland	Test report # 5001 5657 008 Test report # 5001 5657 010

The device tested is a G3-PLC platform: a solution providing an implementation of the G3-PLC specification. This certificate is valid from October 24<sup>th</sup>, 2014.

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. 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, October 24<sup>th</sup>, 2014

For the G3-PLC Alliance:

  
**Marc Boitlot**  
 Chairman

  
**Lonneke Driessen**  
 Chair Certification Program





## **Annex 1: Reference Version for Certification**

The reference version for this certificate is:

Recommendation ITU-T G.9903 (05-2013)

- + CCTT\_121: Correction of Beacon payload encoding
- + CCTT\_122: Japan HEMS requirements for ID\_S and ID\_P
- + ETT\_DLL30 and ETT\_DLL32: Routing disabling
- + ETT\_PHY14: Interleaver fix (conditional swapping)
- + CCTT\_171: Implementation of MAC security solution F2



## Annex 2: Protocol Implementation Conformance Statement (PICS)

### Feature implementation statement

Name	Value	Description
BAND_PLAN	ARIB	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_ROUTING	FALSE	Indicate if the routing is implemented by the IUT
FEATURE_SECURITY	F2	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 3: Copy of test report cover sheet (1/2)

Produkte  
Products



<b>Prüfbericht - Nr.:</b> 5001 5657 008 <i>Test Report No.</i>		Seite Page		1 von of		14	
<b>Auftraggeber:</b> <i>Client:</i>		Renesas Electronics Corporation 1763 Shimonumabe, Nakahara-Ku, Kawasaki, Kanagawa 211-8668, Japan					
<b>Gegenstand der Prüfung:</b> <i>Test item:</i>		REL-G3PLC-CPX1					
<b>Bezeichnung:</b> <i>Identification:</i>		REL-G3PLC-CPX1		<b>Serien-Nr.:</b> <i>Serial No.</i>		F0240, F0190	
<b>Wareneingangs-Nr.:</b> <i>Receipt No.:</i>		A000113934		<b>Eingangdatum:</b> <i>Date of receipt:</i>		2014-09-17	
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of test item at delivery:</i>		Test item complete and undamaged					
<b>Prüfart:</b> <i>Testing location:</i>		TÜV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan					
<b>Prüfgrundlage:</b> <i>Test specification:</i>		G3-PLC Alliance - 1to1 PHY Interoperability Tests Suite Specification - v0.4 G3-PLC Certification Test Procedures version 1.0					
<b>Prüfresultat:</b> <i>Test Result:</i>		Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). <i>The test item passed the test specification(s).</i>					
<b>Prüflaboratorium:</b> <i>Testing Laboratory:</i>		TÜV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan					
<b>geprüft/ tested by:</b>				<b>kontrolliert/ reviewed by:</b>			
2014-10-02, Olga Kozeruk				2014-10-02, Tran Thanh Tam			
<i>Datum</i> Date	<i>Name/Stellung</i> Name/Position	<i>Unterschrift</i> Signature		<i>Datum</i> Date	<i>Name/Stellung</i> Name/Position	<i>Unterschrift</i> Signature	
<b>Sonstiges / Other Aspects:</b>							
Correction report for report "5001 5657 004".							
List of corrections: removed photo of reference devices, removed IUT additional parameters.							
<b>Abkürzungen:</b>		OK, Pass = entspricht Prüfgrundlage Fail = entspricht nicht Prüfgrundlage NA = nicht anwendbar		<b>Abbreviations:</b>		OK, Pass = passed Fail = failed NA = not applicable	
Dieser Prüfbericht bezieht sich nur auf den o.g. Prüfgegenstand und darf ohne Genehmigung der Prüfstelle nicht auszugaweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report relates to the a. m. test item. 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 on this or similar products.							



## Annex 3: Copy of test report cover sheet (2/2)

Produkte  
Products



<b>Prüfbericht - Nr.:</b> 5001 5657 010 <i>Test Report No.</i>		Seite 1 von 16 <i>Page of</i>	
<b>Auftraggeber:</b> Renesas Electronics Corporation <i>Client:</i>		1753 Shimonumabe, Nakahara-Ku, Kawasaki, Kanagawa 211-8668, Japan	
<b>Gegenstand der Prüfung:</b> REL-G3PLC-CPX1 <i>Test item:</i>			
<b>Bezeichnung:</b> REL-G3PLC-CPX1 <i>Identification:</i>		<b>Serien-Nr.:</b> F0190 <i>Serial No.</i>	
<b>Wareneingangs-Nr.:</b> A000113934 <i>Receipt No.:</i>		<b>Eingangsdatum:</b> 2014-09-17 <i>Date of receipt:</i>	
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> Test item complete and undamaged <i>Condition of test item at delivery:</i>			
<b>Prüfart:</b> TÜV Rheinland Japan Ltd. <i>Testing location:</i>		Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan	
<b>Prüfgrundlage:</b> G3-PLC Conformance Tests Suite Specification v0.12 <i>Test specification:</i>		G3-PLC Certification Test Procedures version 1.1	
<b>Prüfergebnis:</b> Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). <i>Test Result:</i>		The test item passed the test specification(s).	
<b>Prüflaboratorium:</b> TÜV Rheinland Japan Ltd. <i>Testing Laboratory:</i>		Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan	
<b>geprüft / tested by:</b>		<b>kontrolliert / reviewed by:</b>	
2014-10-06, Olga Kozerek <i>Datum Name/Stellung Unterschrift</i> <i>Date Name/Position Signature</i>		2014-10-06, Tran Thanh Tam <i>Datum Name/Stellung Unterschrift</i> <i>Date Name/Position Signature</i>	
<b>Sonstiges / Other Aspects:</b>			
The above mentioned product has been tested according to the G3-PLC Certification Test Procedures version 1.0 as documented in the test report 5001 5657 007. The tests which status has changed from "n/a" to "mandatory" in G3-PLC Certification Test Procedures version 1.1 had been executed as well, but not listed in the test report.			
Hence the following test items are added as passed to this test report CONF_BLOWPAN_FRAGMENTATION_VB_003_FRAGMENTATION_OUT_OF_ORDER and CONF_MAC_BEACON_VB_001_BEACON_REQUEST_SENDING			
<b>Abkürzungen:</b> OK, Pass = entspricht Prüfgrundlage Fail = entspricht nicht Prüfgrundlage NA = nicht anwendbar		<b>Abkürzungen:</b> OK, Pass = passed Fail = failed NA = not applicable	