



C E R T I F I C A T E

Certificate registration number: G3.1808.231.1.C3

Certificate holder: Renesas Electronics Corporation

Platform designation: Y-G-OFDM-PLC-X2,
Hardware version UPD809508K8 (Cool Phoenix 2) / RX631, Firmware version FCC ES5.2

Certification date: August 30th, 2018

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 FCC Multipurpose Worldwide 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 August 2018. The results and remarks can be found in the complete test report.

Applied tests	Performed by	Document evidence
Conformance and interoperability testing according to the test specification referenced by the test report	Laboratoire des Applications Numériques (LAN)	LAN18AF063

The device tested is a G3-PLC platform: a solution providing an implementation of the G3-PLC specification. This certificate is valid from August 30th, 2018.

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, August 30th, 2018

For the G3-PLC Alliance:


Bernard Lassus
 Chairman


Madeleine Francillard
 Chair Certification Program





Annex 2: Protocol Implementation Conformance Statement (PICS)

Feature implementation statement

Name	Value	Description
BAND_PLAN	FCC	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 3: Copy of test report cover sheet



G3-PLC Certification Test Report

Renesas Electronics Corporation Y-G-OFDM-PLC-X2 HW:UPD809508K8 (Cool Phoenix 2) / RX631
FW: FCC ES5.2

LAN18AF063 Ed.00 August 27, 2018 Page 1/25



G3-PLC Platform Certification Test Report

Vendor Name **Renesas Electronics Corporation**
 Model Name **Y-G-OFDM-PLC-X2**
 Serial N° **0200028**
 HW version **UPD809508K8 (Cool Phoenix 2) / RX631**
 FW version **FCC ES5.2**

Test Report # **TR_LAN18AF063 Ed.00**
 Date **August 27, 2018**

CONF Tests Specification **version 0.25. 13/09/2017**
 CONF Tests Suite **version 2.6. 10/2017**
 IOT Tests Specification **version 0.10. 08/09/2017**
 IOT Tests Suite **version 2.3. 09/2017**

Test Tool **version 1.8**
 Tester Modem **version 1.10**
 Certification Test Procedures **version 1.12. 08/04/2018**

Certification Profile **C (FCC)**
 Role **PAN Device**
 Overall Verdict **PASS**



Initiation	Date	Description of modification	Ed.
Omar DIOUF	August 27, 2018	Creation	00

Name	Realised by	Checked by	Approved by
	Omar DIOUF	Vincent BUCHOUX	Thierry DOLIGEZ
Date	August 27, 2018	August 27, 2018	August 27, 2018

Sign			

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



Annex 4: Additional details of the certified platform

Platform model name:	Y-G-OFDM-PLC-X2	
Platform hardware version:	UPD809508K8 (Cool Phoenix 2) / RX631	
Platform firmware version:	FCC ES5.2	
Exact part number of all the chips running G3-PLC stack in the certified platform:	Chip #1: UPD809508K8 (Cool Phoenix 2)	Chip #2: RX631
What each part number runs: lower MAC (incl. CSMA/CA) or PHY or other parts of the stack:	PHY, MAC	6LowPAN
Hardware version of this chip:	UPD809508K8 -711 BAA-A	R5F5631EDDFP
Software version running on this chip:	v0445	ES5.2
Internal CPU frequency:	16MHz	96 MHz

Handwritten signature