G3-PLC CERTIFIED FCC

C E R T I F I C A T E

Certificate registration number: G3.1811.259.1.C3

Certificate holder: VertexCom Technologies, Inc.

Platform designation: VertexCom VC6310 PLC,
Hardware version Phoenix_EVB_BOARD_V1-0, Firmware version v1.0.2

Certification date: November 27th, 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 TÜV Rheinland in Yokohama, Japan in October 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	TÜV Rheinland Japan	50199549 002

The device tested is a G3-PLC platform: a solution providing an implementation of the G3-PLC specification. This certificate is valid from November 27th, 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, November 27th, 2018
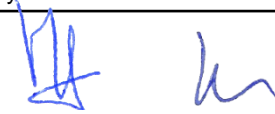
For the G3-PLC Alliance:

Bernard Lassus
Chairman

Madeleine Francillard
Chair Certification Program

G3-PLC Alliance

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

Produkte
Products

TÜVRheinland®

Prüfbericht-Nr.: *Test Report No.:*	**50199549 002**	Auftrags-Nr.: *Order No.:*	**214104187**	Seite 1 von *of* 22 *Page* 1 von *of* 22

Kunden Referenz-Nr.: *Client Reference No.:*	**N/A**	Auftragsdatum: *Order date:*	**2018-09-27**

Auftraggeber: *Client:*	**VertexCom Technologies, Inc.** **3F-9, No.1, Taiyuan 2nd St., Zhubei City, Hsinchu County 30288, Taiwan**

Gegenstand der Prüfung: *Test item:*	**G3-PLC FCC Platform (PAN Device)**

Bezeichnung / Typ-Nr.: *Identification / Type No.:*	**VertexCom VC6310 PLC**

Auftrags-Inhalt: *Order content:*	**G3-PLC Certification Test**

Prüfgrundlage: *Test specification:*	**G3-PLC Conformance L1-L2 Tests Suite Specification v0.25** **G3-PLC 1-to-1 Interoperability Tests Suite Specification v0.10** **G3-PLC Certification Test Procedures v1.12**

Wareneingangsdatum: *Date of receipt:*	**2018-10-29**
Prüfmuster-Nr.: *Test sample No.:*	**A000837920**
Prüfzeitraum: *Testing period:*	**2018-10-31**
Ort der Prüfung: *Place of testing:*	**TUV 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:*		
2018-11-12, Tam Tran Thanh			**2018-11-16, 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

**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.*

Annex 4: Additional details of the certified platform

Platform model name:	VertexCom VC6310 PLC
Platform hardware version:	Phoenix_EVB_BOARD_V1-0
Platform firmware version:	v1.0.2
Exact part number of all the chips running G3-PLC stack in the certified platform:	VC6310
What each part number runs: lower MAC (incl. CSMA/CA) or PHY or other parts of the stack:	PHY, MAC and 6LowPAN
Hardware version of this chip:	Phoenix_EVB_BOARD_V1-0
Software version running on this chip:	v1.0.2
Internal CPU frequency:	150 MHz