



C E R T I F I C A T E

Certificate registration number: G3.2011.416.1.C4

Certificate holder: Hangzhou Vango Technologies Inc.

Platform designation: Vango PLC V6201B,
Hardware version VTPLCS6201B_S1, Firmware version Phoenix.0.0.1_0.0.0.0

Certification date: November 5th, 2020

This certificate indicates the above mentioned platform successfully completed certification testing with regards to the reference specification ITU G.9903 (08-2017).

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 2020. 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	60399865 005

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 November 5th, 2020.

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 5th, 2020

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	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	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_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 FCC platform. Operating voltage applied for certification testing was 230V / 50Hz.

Name	Value	Unit	Description
<i>PICS related to performance are available through vendor only.</i>			

Annex 3: Copy of test report cover sheet

Produkte
Products



Prüfbericht-Nr.: <i>Test Report No.:</i> 60399865 005		Auftrags-Nr.: <i>Order No.:</i> 150227724		Seite 1 von of 39 Page 1 von of 39	
Kunden Referenz-Nr.: <i>Client Reference No.:</i> N/A		Auftragsdatum: <i>Order date:</i> 2020-07-17			
Auftraggeber: <i>Client:</i> Hangzhou Vango Technologies, Inc		368 Liuhe Rd, Ste B4004, North Bldg, Hi-Tech Park, Binjiang, Hangzhou, China, 310053			
Gegenstand der Prüfung: <i>Test item:</i> G3-PLC FCC Platform (PAN Device)					
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i> Vango PLC V6201B					
Auftrags-Inhalt: <i>Order content:</i> G3-PLC Certification Test					
Prüfgrundlage: <i>Test specification:</i>		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 v1.14			
Wareneingangsdatum: <i>Date of receipt:</i> 2020-09-23					
Prüfmuster-Nr.: <i>Test sample No.:</i> A002929122					
Prüfzeitraum: <i>Testing period:</i> 2020-10-07 – 2020-10-08					
Ort der Prüfung: <i>Place of testing:</i> TÜV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan					
Prüflaboratorium: <i>Testing laboratory:</i> TÜV Rheinland Japan Ltd.					
Prüfergebnis: <i>Test results:</i> The test item passed the test specification(s).					
Geprüft von <i>Tested by:</i>		Genehmigt von <i>Authorized by:</i>			
					
2020-11-04, Tam Tran Thanh		2020-11-04, Atsuhiko Endo			
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Ausstelldatum <i>Issue date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>
Sonstiges / Other Aspects:					
This is correction report of report No. 60399865 003. The item "Hardware" under "1.2 General DUT Information" on page 4 was changed to "VTPLCS6201B_S1" as the client requested.					
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>		
*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. <i>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</i>					



Annex 4: Additional details of the certified platform

Platform model name:	Vango PLC V6201B
Platform hardware version:	VTPLCS6201B_S1
Platform firmware version:	Phoenix.0.0.1_0.0.0.0
Exact part number of all the chips running G3-PLC stack in the certified platform:	V6201B
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:	Revision A0
Software version running on this chip:	Phoenix.0.0.1_0.0.0.0
Internal CPU frequency:	137.5 MHz

[Handwritten signatures]