



C E R T I F I C A T E

Certificate registration number: P2P.2406.614.1.C7

Certificate holder: STMicroelectronics S.r.l

Platform designation: ST8500

Hardware version EVALMODSTST8500-1,
Firmware version 7.3.0 - v1830C44E - r2_rc2_BA_key0

Certification date: September 10th 2024

This P2P-PLC (“Point-to-Point”) certificate indicates the above-mentioned platform successfully completed certification testing with regards to the G3-Alliance reference specification ITU G.9903 (08-2017) including Amendment 1 (05/21), Amendment 2 (03/23) and Corrigendum 1 (03/23), as published on <https://www.itu.int/rec/T-REC-G.9903>.

This certificate applies to certification profile FCC Multipurpose Worldwide but only covers the PLC PHY and PLC MAC layers of the G3 protocol. The optional features of the G3 protocol coherent mode and support of 12 SYNCP symbols are also covered by this certification.

Test cases have been performed as described in the test report referred to below. This certificate is granted on account of tests conducted by LANPARK in Tauxigny, France in May 2023. 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	LANPARK	LAN24AF016

The device tested is a P2P-PLC platform: a solution providing an implementation of the G3 specification. The P2P-PLC certificate is issued for the part of the platform running the PHY/MAC layers.

The certificate is only applicable to the platform described above and permits the use of the P2P-PLC logo as laid down in the G3-Alliance 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 P2P-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, September 10th 2024

For the G3-Alliance:

Marc Delandre
Chairman

Madeleine Francillard
Chair Certification Program





Annex 2: Protocol Implementation Conformance Statement (PICS)

Feature implementation statement

Name	Value	Description
BAND_PLAN	FCC	Indicates the band-plan supported by the device
FEATURE_COHERENT_MODULATION	TRUE	Indicates whether coherent modulation is supported
FEATURE_D8PSK_MODULATION	TRUE	Indicates whether D8PSK modulation is supported
FEATURE_SECURITY	F1	Indicates the security implemented by the device. Possible values are: F1, F2.
FEATURE_ACTIVE_SCAN	TRUE	Indicates whether the active scan process is done by the IUT after power-up
FEATURE_PREAMBLE_COEXISTENCE_MECHANISM	FALSE	Indicates whether the preamble-based coexistence mechanism is used by the IUT
FEATURE_PREAMBLE_12_SY_NCP	TRUE	Indicates whether the device supports the transmission and reception of frames with preamble of 12 SYNCP symbols
FEATURE_P2P_COMMAND_FRAMES	TRUE	Indicates whether the P2P implementation supports MAC command frames
FEATURE_P2P_TABLES	TRUE	Indicates whether the P2P implementation supports MAC tables

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Annex 3: Protocol Implementation Conformance Statement (PICS)


PICS related to PLC performance

The device tested is a P2P-PLC FCC platform. Testing was performed on phase 1. Operating voltage applied for certification testing was 230V/50Hz .

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

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Annex 4: Copy of test report cover sheet



LANPARK
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G3-HYBRID Certification Test Report

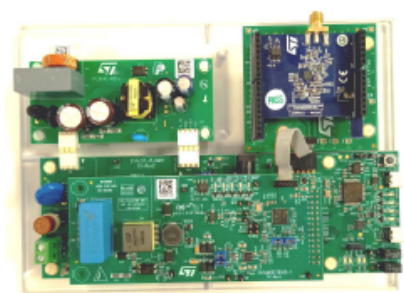
STMicroelectronics S.r.l	ST8500 + S2-LP HW:EVALMODSTST8500-1 FW: 67.3.0 - v1830C44E - r2_rc2_BA_key0
LAN24AF016 Ed.00	Ed.00
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G3-Alliance G3 Hybrid Platform Certification Test Report

Vendor Name STMicroelectronics S.r.l
Model Name ST8500 + S2-LP
Serial N° CL517-1.3
HW version EVALMODSTST8500-1
FW version 7.3.0 - v1830C44E - r2_rc2_BA_key0

Test Report # TR_LAN24AF016 Ed.00
Date June 27, 2024




CONF G3-PLC Tests Specification	version 0.39.	06/06/2023
CONF G3-PLC Tests Suite	version 2.15p2.	10/2023
CONF HYBRID Tests Specification	version 0.13.	29/09/2023
CONF HYBRID Tests Suite	version 1.5p5.	05/2024
IOT G3-PLC Tests Specification	version 0.15.	06/06/202
IOT G3-PLC Tests Suite	version 2.8p1.	10/2023
IOT HYBRID Tests Specification	version 0.8.	06/06/2023
IOT RF Tests Suite	version 1.5.	10/2023
PERF G3-PLC Tests Specification	version 0.28.	06/09/20
PERF G3-PLC Tests Suite	version 2.15p2.	10/2023
PERF HYBRID Tests Specification	version 0.4.	29/09/2023
PERF HYBRID Tests Suite	version 1.5p5.	05/2024



Test Tool PLC+RF version 3.3.1
Tester Modem PLC version 2.0.1
Tester Modem RF version 16_20231024_update.bin
Certification Test Procedures version 7.2 20/12/2023

Certification Profile HYBRID : FCC - RF
Role PAN Coordinator
Overall Verdict PASS

Initiation	Date	Description of modification	Ed.
Omar DIOUF	June 27, 2024	Creation	00

Name	Realised by	Checked by	Approved by
	Omar DIOUF	Vincent BUCHOUX	Thierry DOLIGEZ
Date	June 27, 2024	June 27, 2024	June 27, 2024
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 5: Additional details of the certified platform

Platform model name:	ST8500
Platform hardware version:	EVALMODSTST8500-1
Platform firmware version:	7.3.0 - v1830C44E - r2_rc2_BA_key0
Exact part number of all the chips running G3 stack in the certified platform:	ST8500
What each part number runs: lower MAC (incl. CSMA/CA) or PHY or other parts of the stack:	PLC PHY, PLC MAC
Hardware version of this chip:	RevBB
Software version running on this chip:	7.3.0 - v1830C44E - r2_rc2_BA_key0
Internal CPU frequency:	Cortex @100 MHz, RTE @400 MHz

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