



C E R T I F I C A T E

Certificate registration number: G3.2112.477.2.C5

Certificate holder: Shenzhen Star Instrument Co., Ltd.

Product designation: TJ12,
Hardware version TJ12-L4, Firmware version MJTJ524-03 V100R100

Certification date: December 21st 2021

This certificate indicates the above mentioned product 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-Coordinator.

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 November – December 2021. 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	LAN21AF006

The device tested is a G3-PLC FCC 3-phase data concentrator. The data concentrator is equipped with the G3-PLC certified platform TJ12 with certificate no. G3.2112.473.1.C5. 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 December 21st, 2021.

The certificate is only applicable to the product 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, December 21st, 2021

For the G3-PLC Alliance.

Marc Delandre
Chairman

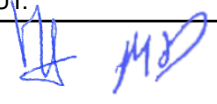
Madeleine Francillard
Chair Certification Program



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	TRUE	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	TRUE	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 (1/2)

The device tested is a G3-PLC FCC 3-phase data concentrator communicating on 3 phases. Testing was performed on phase 1.

Operating voltage applied for certification testing was 3 x 230V/50Hz.

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



Annex 2: Protocol Implementation Conformance Statement (PICS)

PICS related to performance (2/2)

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

Annex 3: Copy of test report cover sheet



G3-PLC Certification Test Report			
Shenzhen Star Instrument Co., Ltd	TJ12 HW:TJ12-L4 FW: MJTJ524-03 V100R100		
LAN21AF006	Ed.00	December 20, 2021	Page 1/47

G3-PLC Alliance
G3-PLC Product Certification Test Report

Vendor Name **Shenzhen Star Instrument Co., Ltd**
 Model Name **TJ12**
 Serial N° **002110001**
 HW version **TJ12-L4**
 FW version **MJTJ524-03 V100R100**

Test Report # **TR_LAN21AF006 Ed.00**
 Date **December 20, 2021**

CONF Tests Specification **version 0.32.** **15/03/2021**
 CONF Tests Suite **version 2.11.p2.** **04/2021**
 IOT Tests Specification **version 0.13.** **28/12/2018**
 IOT Tests Suite **version 2.6.p2.** **03/2021**
 PERF Tests Specification **version 0.27.** **05/03/2019**
 PERF Tests Suite **version 2.11.p2.** **04/2021**

Test Tool **version 2.3**
 Tester Modem **version 2.0**
 Certification Test Procedures **version 2.0** **12/04/2021**

Certification Profile **C (FCC)**
 Role **Data Concentrator**
 Overall Verdict **PASS**



Initiation	Date	Description of modification	Ed.
Omar DIOUF	December 20, 2021	Creation	00

	Realised by	Checked by	Approved by
Name	Omar DIOUF	Vincent BUCHOUX	Thierry DOLIGEZ
Date	December 20, 2021	December 20, 2021	December 20, 2021

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.

Handwritten signatures and initials in blue ink.