



C E R T I F I C A T E

Certificate registration number: G3.2405.607.2.A6

Certificate holder: Shenzhen Star Instrument Co., Ltd.

Product designation: DTS27,
Hardware version K353-AA, Firmware version MH324-101 V100R100

Certification date: May 23rd 2024

This certificate indicates the above-mentioned product successfully completed certification testing with regards to the G3-Alliance reference specification 06/2021.

The device is certified for both G3-PLC and G3-Hybrid. The optional feature coherent mode of the G3 protocol is also covered by this certification. The certificate applies to certification profile CENELEC A 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 February 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	Laboratoire des Applications Numériques (LAN)	LAN24AF027

The device tested is a G3-Hybrid CENELEC A PLC+RF 3-phase meter. The meter is equipped with the G3-Hybrid certified platform HT8922 with certificate no. G3.2208.526.1.A6. 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 May 23rd 2024.

The certificate is only applicable to the product described above and permits the use of the G3-Hybrid™ logo as laid down in the 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-Hybrid. 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, May 23rd 2023

For the G3-Alliance:


Marc Delandre
Chairman



Madeleine Francillard
Chair Certification Program



Annex 1: Protocol Implementation Conformance Statement (PICS)

Feature implementation statement

Name	Value	Description
BAND_PLAN	CENELEC A	Indicate the band-plan supported by the device
BAND_PLAN_RF	863-870_SingleCarrier_Mode#1 863-870_SingleCarrier_Mode#2 865-868_SingleCarrier_Mode#1 865-868_SingleCarrier_Mode#2 870-876_SingleCarrier_Mode#1 870-876_SingleCarrier_Mode#2	Indicate the RF band plan(s) supported by the device
FEATURE_HYBRID_RF	TRUE	Indicate if Hybrid PLC&RF feature is supported
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	Indicate if D8PSK modulation is supported
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-Hybrid CENELEC A PLC+RF 3-phase meter communicating on 1 phase. Testing was performed on phase 1.

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


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

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 manufacturer only.</p>			

Annex 3: Copy of test report cover sheet



LANPARK
Expanding networks

G3-PLC Certification Test Report

Shenzhen Star Instrument Co., Ltd. DTS27 HW:K353-AA FW: MH324-101 V100R100

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G3-PLC Alliance

G3-PLC Hybrid Product Certification Test Report

Vendor Name Shenzhen Star Instrument Co., Ltd.

Model Name DTS27

Serial N° 24999049

HW version K353-AA

FW version MH324-101 V100R100

Test Report # TR_LAN24AF027 Ed.00

Date May 23, 2024

CONF G3-PLC Tests Specification	version 0.37.	18/01/2022
CONF G3-PLC Tests Suite	version 2.14	02/2022
CONF HYBRID Tests Specification	version 0.10.	15/03/2021
CONF HYBRID Tests Suite	version 1.3.	12/2021
IOT G3-PLC Tests Specification	version 0.14.	11/11/20
IOT G3-PLC Tests Suite	version 2.7.	11/2021
IOT HYBRID Tests Specification	version 0.7.	14/09/2021
IOT RF Tests Suite	version 1.3.	03/2022
PERF G3-PLC Tests Specification	version 0.27.	05/03/2019
PERF G3-PLC Tests Suite	version 2.14.	02/2022

Test Tool PLC+RF	version 3.2	
Tester Modem PLC	version 2.0.1	
Tester Modem PLC+RF	version 7	
Certification Test Procedures	version 6.04	06/09/2022




Certification Profile HYBRID : CENELEC A - RF

Role Meter

Overall Verdict PASS

The results reported in this test report are based on the test done on the DTSY23S CENA Shenzhen Star Instrument Co., Ltd and reported in the test report Ref. TR_LAN22AF090 Ed.00 (according to the manufacturer, both products are identical).

Initiation	Date	Description of modification	Ed.
Omar DIOUF	May 23, 2024	Creation	00

Name	Realised by	Checked by	Approved by
	Omar DIOUF	Vincent BUCHOUX	Thierry DOLIGEZ
Date	May 23, 2024	May 23, 2024	May 23, 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.

