

Certificate registration number: G3.2107.452.2.C5

Certificate holder: Smart Metering Solution (Changsha) Co., Ltd.

Product designation: IM151, Hardware version V1.0.0, Firmware version 3.04.05

Certification date: July 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-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 June - July 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	JP21X50S 002

The device tested is a G3-PLC FCC 1-phase meter. The meter is equipped with the G3-PLC certified platform REL-G3PLC-CPX3 with certificate no. G3.1907.306.1.C4. Modifications of the platform have been done by the platform manufacturer. 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 July 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, July 21st, 2021

For the G3-PLC Alliance:

Marc Delandre Chairman

Madeleine Francillard Chair Certification Program



Authenticity of this certificate can be verified at https://www.g3-plc.com/g3-plc-certification/ Page

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Annex 1: Protocol Implementation Conformance Statement (PICS)

G3-PLC FCC

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_MODULAT	TRUE	Indicate if coherent modulation is supported.
	FALSE	Indicate if an EAP-PASK server is implemented by the DUT.
FEATURE_EAP_SERVER	FALSE	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_COEXISTE NCE_MECHANISM	FALSE	Indicate if the preamble-based coexistence mechanism is used by the IUT.
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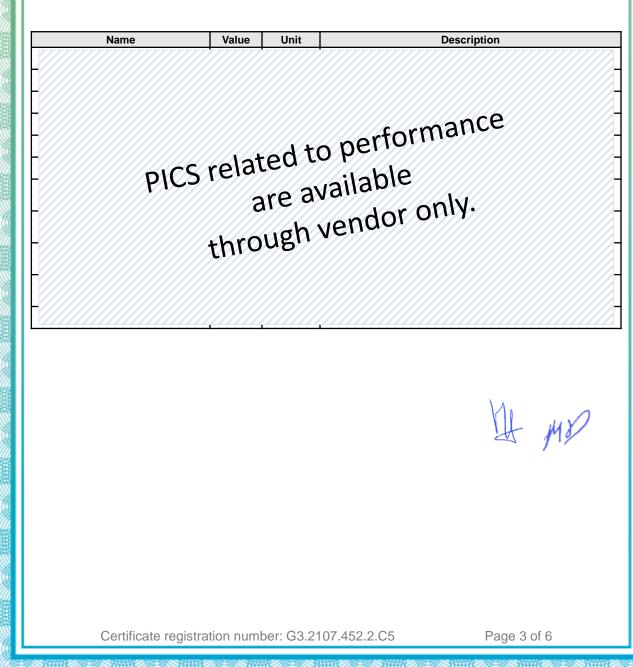
Annex 2: Protocol Implementation Conformance Statement (PICS)

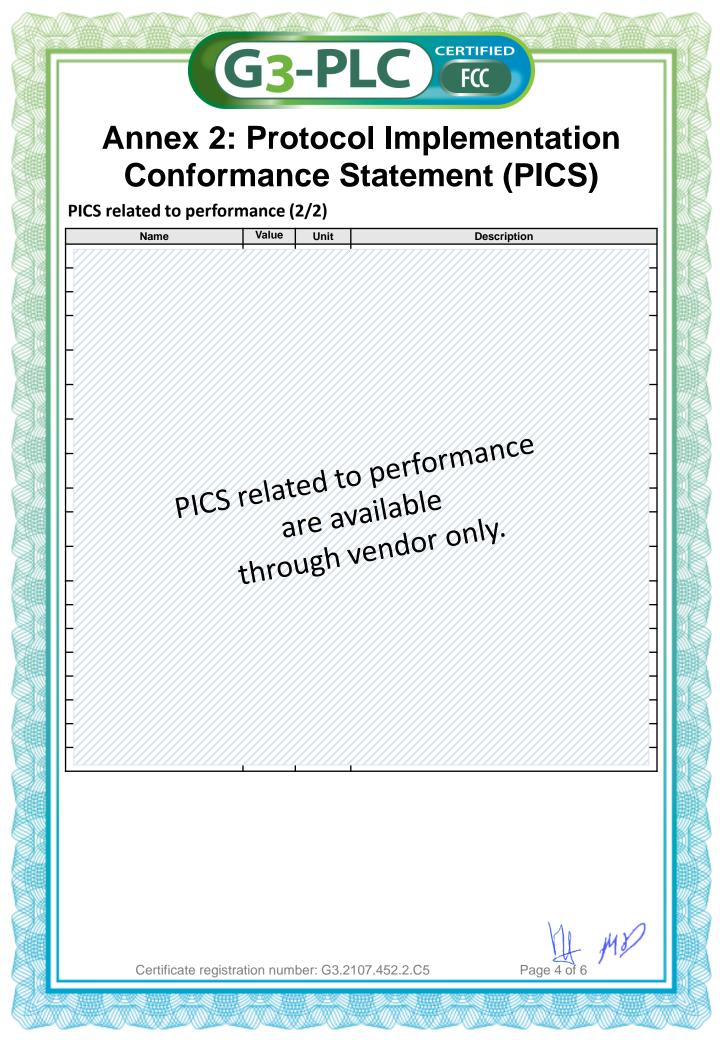
G3-PLC FCC

PICS related to performance (1/2)

The device tested is a G3-PLC FCC 1-phase meter. Testing was performed on phase 1.

Operating voltage applied for certification testing was 230V L-N/50Hz.





Annex 3: Copy of test report cover sheet

G3-PLC FCC

Prüfbericht-Nr.: Test report no.:	JP21X50S 002	Auftrags-Nr.: Order no.:	150243329 10	Seite 1 von 49 Page 1 of 49
Kunden-Referenz-Nr.:	IM151	Auftragsdatum: Order date:	2021-05-28	Fage 1 01 43
Auftraggeber: Client:	Smart Metering Solutions (C No.468 West Tongzipo Road Changsha City Hunan Provi	hangsha) Co., Ltd. d High-Tech Industr	ial Development Zon	ie,410205,
Prüfgegenstand: Test item:	Single Phase,Active Import/	Export(kWh),Electric	city Meter (FCC)	
Bezeichnung / Typ-Nr.: Identification / Type no.:	IM151			
Auftrags-Inhalt: Order content:	G3-PLC Certification Test			
Prüfgrundlage: Test specification:	G3 PLC Conformance Tests G3-PLC 1-to-1 Interoperabili G3-PLC Performance Test S G3-PLC Certification Test Pr	ity Tests Specification	on v0.13	
Wareneingangsdatum: Date of sample receipt:	2021-06-24		SECHARNS IM151 V1.0.0 Englis Plane front Energy Water	
Prüfmuster-Nr.: Test sample no:	A003076095	-		
Prüfzeitraum: Testing period:	2021-06-28 – 2021-07-12	C C	Land a radia i mark Control and Control a	
Ort der Prüfung: Place of testing:	4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224- 0021, Japan		FOC	0
Prüflaboratorium: Testing laboratory:	TÜV Rheinland Japan Ltd.	0		
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:		genehmigt von: authorized by:		
Datum: <i>Date:</i> 2021-07-14	13	Ausstellungsdat Issue date: 2021		haite
Stellung / Position: T	ester	Stellung / Positio		
Sonstiges / Other.				
Zustand des Prüfgegens Condition of the test item a			indig und unbeschäd e and undamaged	igt
* Legende: P(ass) = entspricht o. * Legend: P(ass) = passed a.m		nicht o.g. Prüfgrundlage(n) test specification(s)	N/A = nicht anwendbar N/A = not applicable	N/T = nicht getestet N/T = not tested
auszugsweise vervielfältigt This test report only relates to	ich nur auf das o.g. Prüfmuster werden. Dieser Bericht berechti the a. m. test sample. Without pe st report does not entitle to carry a	gt nicht zur Verwend rmission of the test ce	lung eines Prüfzeiche	ens.
TÜV Rheinland Japan Ltd	., Global Technology Assessment Cen Mail: g3plc@tuv.com	ter 4-25-2 Kita-Yamata, · Web: www.tuv.com/	Tsuzuki-ku Yokohama 22	4-0021, Japan
Cortificato rogist	ration number: G3.210		D	age 5 of 6