



C E R T I F I C A T E

Certificate registration number: G3.1712.184.2.C3 v2

Certificate holder: SHENZHEN INHEMETER CO., LTD

Product designation: IHM-4000, Hardware version INHE-DJGZ60-01, Firmware version FCC 0.02.01

Certification date: December 28th, 2017

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 TÜV Rheinland in Yokohama, Japan in November 2017. 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	50110214 002

The device tested is a G3-PLC FCC 3-phase data concentrator. The data concentrator is equipped with the G3-PLC certified platform REL-G3PLC-CPX2-RX6 with certificate no. G3.1709.162.1.C3. 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 28th, 2017.

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 28th, 2017

For the G3-PLC Alliance:


Bernard Lassus
Chairman




Madeleine Francillard
Chair Certification Program



Annex 2: 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.

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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. Testing was conducted on phase 1.

Operating voltage applied for certification testing was 230V L-N (400V L-L) /50Hz. The certification test was performed with module whose serial number is C372174300013.

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

Produkte
Products



Prüfbericht - Nr.: <i>Test Report No.</i>	50110214 002	Seite <i>Page</i>	1	von <i>of</i>	44
Auftraggeber: <i>Client:</i>	SHENZHEN INHEMETER CO., LTD 8/F & 9/F, 1A, Software Park, Southern Hi-Tech Zone, Nanshan District, Shenzhen, China				
Gegenstand der Prüfung: <i>Test item:</i>	Data Concentrator (FCC PAN Coordinator)				
Bezeichnung: <i>Identification:</i>	IHM-4000	Serien-Nr.: <i>Serial No.</i>	37990030894		
Wareneingang-Nr.: <i>Receipt No.:</i>	A000660977	Eingangsdatum: <i>Date of receipt:</i>	2017-11-06		
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of test item at delivery:</i>	Test item complete and undamaged				
Prüfört: <i>Testing location:</i>	TÜV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan				
Prüfgrundlage: <i>Test specification:</i>	G3-PLC Conformance L1-L2 Tests Suite Specification v0.25 G3-PLC 1-to-1 Interoperability Tests Suite Specification v0.10 G3-PLC Performance Test Suite Specification v0.23 G3-PLC Certification Test Procedures v1.11				
Prüfergebnis: <i>Test Result:</i>	Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n). <i>The test item passed the test specification(s).</i>				
Prüflaboratorium: <i>Testing Laboratory:</i>	TÜV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan				
geprüft/ tested by:	2018-01-10 , Tam Tran Thanh		kontrolliert/ reviewed by:		
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>
				2018-01-10 , Shuji Saito	
Sonstiges / Other Aspects:					
This is correction report for report No. 50110214 001. "Power supply connection" under "2.3 Test setup" was corrected to "The device under test has same cables for power supply and for PLC".					
Abkürzungen:	OK, Pass = entspricht Prüfgrundlage	Fail = entspricht nicht Prüfgrundlage	N/A = nicht anwendbar	Abbreviations:	OK, Pass = passed
					Fail = failed
					N/A = not applicable
Dieser Prüfbericht bezieht sich nur auf den o.g. Prüfgegenstand und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report relates to the a. m. test item. 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 on this or similar products.</i>					