



C E R T I F I C A T E

Certificate registration number: G3.1908.311.2.C3

Certificate holder: Ningbo Sanxing Smart Electric Co. Ltd..

Product designation: P12G04,
Hardware version: P12G07 S11.Y1.J0 M,
Firmware version 3.03.00

Certification date: August 6th, 2019

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 July 2019. 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 | 50249820 003 |

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. G3.1806.218.1.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 August 6th, 2019.

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, August 6th, 2019

For the G3-PLC Alliance:


Marc Delandre
Chairman



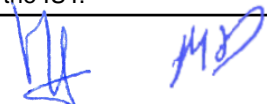
Madeleine Francillard
Chair Certification Program



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 | 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 | 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 1-phase meter. Testing was performed on phase 1.

Operating voltage applied for certification testing was 220V / 50Hz.

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

Annex 3: Copy of test report cover sheet

Produkte
Products



| | | | | | |
|---|---|--|---|--|---|
| Prüfbericht-Nr.: <i>Test Report No.:</i> | 50249820 003 | Auftrags-Nr.: <i>Order No.:</i> | 150111206 | Seite 1 von of 42 Page 1 von of 42 | |
| Kunden Referenz-Nr.: <i>Client Reference No.:</i> | N/A | Auftragsdatum: <i>Order date:</i> | 2019-04-30 | | |
| Auftraggeber: <i>Client:</i> | Ningbo Sanxing Smart Electric Co., Ltd. No.16, Fengwan Road, Cicheng Town, Jiangbei District, Ningbo, CHINA | | | | |
| Gegenstand der Prüfung: <i>Test item:</i> | 1-phase meter (FCC PAN Device) | | | | |
| Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i> | P12G04 | | | | |
| Auftrags-Inhalt: <i>Order content:</i> | G3-PLC Certification Test | | | | |
| 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 v1.13 | | | | |
| Wareneingangsdatum: <i>Date of receipt:</i> | 2019-07-12 |  | | | |
| Prüfmuster-Nr.: <i>Test sample No.:</i> | A000960792 | | | | |
| Prüfzeitraum: <i>Testing period:</i> | 2019-07-16 – 2019-07-18 | | | | |
| Ort der Prüfung: <i>Place of testing:</i> | TÜV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021, Japan | | | | |
| Prüflaboratorium: <i>Testing laboratory:</i> | TÜV Rheinland Japan Ltd. | | | | |
| Prüfergebnis: <i>Test results:</i> | The test item passed the test specification(s). | | | | |
| Geprüft von <i>Tested by:</i> |  | Kontrolliert von <i>Reviewed by:</i> |  | | |
| 2019-08-02, Tam Tran Thanh | | 2019-08-02, Atsuhiko Endo | | | |
| 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> |
| Sonstiges / Other Aspects: | | | | | |
| This report is correction report for report number 50249820 002. The "Hardware" under "1.2 General DUT Information" on page 4 was changed to "P12G07 S11.Y1.J0 M" as the client requested. | | | | | |
| Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i> | | | Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i> | | |
| *Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested | | | | | |
| Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. 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</i> | | | | | |