

EMC TEST REPORT

For
SMART-GROUP (Dongguan Shima Electronics Co., Ltd.)

S-WAVE

Model No.: SBW-Swave-TC, SBW-Bridge-FL, SBW-Swave2-TC

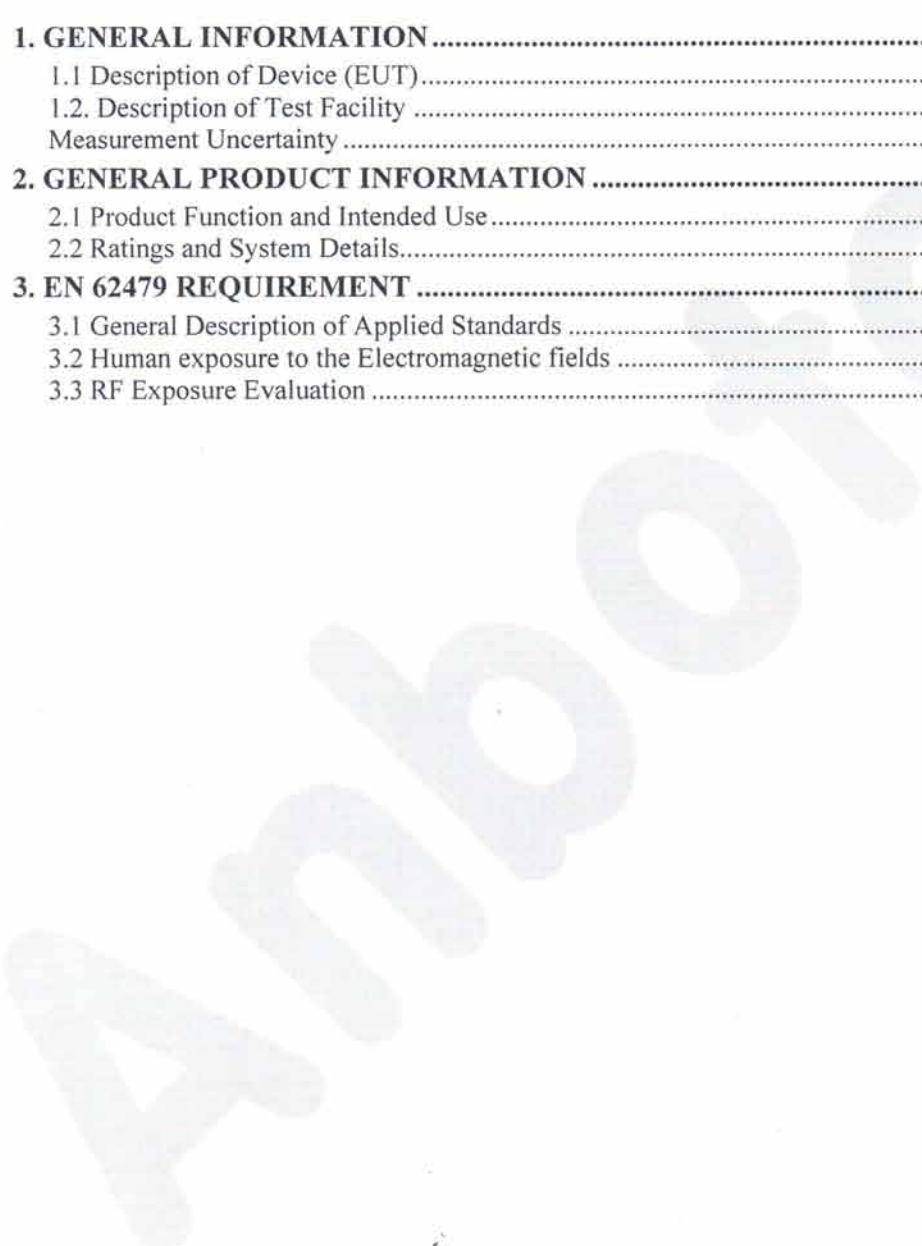
Prepared for : SMART-GROUP (Dongguan Shima Electronics Co., Ltd.)
Address : No. 135, Huancheng Road, Mawu Village, Qiaoli,
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Prepared by : Shenzhen Anbotek Compliance Laboratory Limited
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Report Number : 201307728H
Date of Test : Jul. 12~ 18, 2013
Date of Report : Jul. 26, 2013

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TEST REPORT DESCRIPTION

Applicant : SMART-GROUP (Dongguan Shima Electronics Co., Ltd.)
Manufacturer : SMART-GROUP (Dongguan Shima Electronics Co., Ltd.)
EUT : S-WAVE
Model No. : SBW-Swave-TC, SBW-Bridge-FL, SBW-Swave2-TC
Serial No. : N/A
Trade Mark : 
SMART-BUS/ PREUSSEN/ S-MESH
Rating : Input: AC 110-240V, 50/60Hz, 6W
Output: DC 24V, 200mA

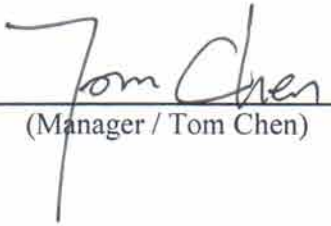
Test Procedure Used:
EN 62479: 2010

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. This report shows the EUT to be technically compliant with the EN 62479: 2010 requirements. The test results are contained in this report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full responsibility for the accuracy and completeness of these tests. This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Test : Jul. 12~ 18, 2013

Prepared by :  
(Engineer / Rock Zeng)

Reviewer : 
(Project Manager / Sally Zhang)

Approved & Authorized Signer : 
(Manager / Tom Chen)

1. GENERAL INFORMATION

1.1 Description of Device (EUT)

EUT : S-WAVE

Model Number : SBW-Swave-TC, SBW-Bridge-FL, SBW-Swave2-TC

(Note: The above samples are same except the model number & appearance, so we prepare "SBW-Swave-TC" for EMC test only.)

Test Voltage : AC 230V/50Hz

Frequency : 433.920MHz

Antenna Gain : 0 dBi

Max. Transmitting Power : 5.77mW

Applicant : SMART-GROUP (Dongguan Shima Electronics Co., Ltd.)
Address : No. 135, Huancheng Road, Mawu Village, Qiaoli, Changping Town, Dongguan City, Guangdong Province, China

Manufacturer : SMART-GROUP (Dongguan Shima Electronics Co., Ltd.)
: No. 135, Huancheng Road, Mawu Village, Qiaoli, Changping Town, Dongguan City, Guangdong Province, China

Date of receiver : Jul. 09, 2013

Date of Test : Jul. 12~ 18, 2013

1.2. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 752021

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 752021, July 10, 2013.

IC-Registration No.: 8058A-1

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration 8058A-1, February 22, 2013.

CNAS - LAB Code: L3503

Shenzhen Anbotek Compliance Laboratory Limited., Laboratory has been assessed and in compliance with CNAS/CL01: 2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing Laboratories.

Test Location

All Emissions tests were performed.

Shenzhen Anbotek Compliance Laboratory Limited. at 1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China

1.3. Measurement Uncertainty

Radiation Uncertainty : Ur = 4.3 dB

Conduction Uncertainty : Uc = 3.4 dB

2. GENERAL PRODUCT INFORMATION

2.1 Product Function and Intended Use

The submitted sample is wireless transceiver includes transmitter and receiver.

2.2 Ratings and System Details

		Transmitter
Frequency Range	:	433.920MHz
Power Supply	:	TX: AC 230V/50Hz
Protection Class	:	III

3. EN 62479 REQUIREMENT

3.1 General Description of Applied Standards

Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz).

3.2 Human exposure to the Electromagnetic fields

This International Standard provides simple conformity assessment methods for low-power electronic and electrical equipment to an exposure limit relevant to electromagnetic fields (EMF). If such equipment cannot be shown to comply with the applicable EMF exposure requirements using the methods included in this standard for EMF assessment, then other standards, including IEC 62311 or other (EMF) product standards, may be used for conformity assessment.

3.3 RF Exposure Evaluation

3.3.1 Limit:

According to EN 62479 clause 4.2 Low-power electronic and electrical equipment is deemed to comply with the provisions of this standard if it can be demonstrated using routes B, C or D that the available antenna power and/or the average total radiated power is less than or equal to the applicable low-power exclusion level P_{max} .

$P_{max} = 20 \text{ mW}$ (13.8 dBm) according to ICNIRP guidelines, since the EUT is General public used.

Remark:

B: The input power level to electrical or electronic components that are capable of radiating electromagnetic energy in the relevant frequency range is so low that the available antenna power and/or the average total radiated power cannot exceed the low-power exclusion level defined in EN 62479 clause 4.2

C: The available antenna power and/or the average total radiated power are limited by product standards for transmitters to levels below the low-power exclusion level defined in EN 62479 clause 4.2

D: Measurements or calculations show that the available antenna power and/or the average total radiated power are below the low-power exclusion level defined in EN 62479 clauses 4.2.

3.3.2 Test result

The EIRP of the EUT which are below the max permitted sending level of 20 mW, and then the EUT is not need to conduct SAR measurement.

More details please refer to 201307728T.