Shenzhen BCTC Testing Co., Ltd.





EN 62311 TEST REPORT

Product : Sonoff GSM/GPRS Smart Switch

Trademark :



Model Name : Sonoff G1

Sonoff G2, Sonoff G12, Sonoff G14, Serial Model : Sonoff G16, Sonoff G18, Sonoff G22, Sonoff G24, Sonoff G26, Sonoff G28

Report No. : BCTC-FY170603852-1E

Prepared for

ITEAD Intelligent Systems Co., Ltd

5F, Building A, Yuxing Multiple-use Building, Huaya Industrial Park, Jihua Road., Longhua Dist, Shenzhen, GD, 518000, China

Prepared by

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EMC Report



TEST RESULT CERTIFICATION

Applicant's name	ITEAD Intelligent Systems Co., Ltd	
Address:	5F, Building A, Yuxing Multiple-use Building, Huaya Industrial Park, Jihua Road., Longhua Dist, Shenzhen, GD, 518000, China	
Manufacture's Name	ITEAD Intelligent Systems Co., Ltd	
Address	5F, Building A, Yuxing Multiple-use Building, Huaya Industrial Park, Jihua Road., Longhua Dist, Shenzhen, GD, 518000, China	

Sonoff GSM/GPRS Smart Switch

Product description

Product name.....:

Trademark



Model and/or type reference:	Sonoff G1
Serial Model:	Sonoff G2, Sonoff G12, Sonoff G14, Sonoff G16,
	Sonoff G18, Sonoff G22, Sonoff G24, Sonoff G26, Sonoff G28
Standards	EN 62311:2008

This device described above has been tested by BCTC, and the test results show that the equipment under test (EUT) is in compliance with the 2014/53/EU RED Directive Art.3.1(a) requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test	
Date (s) of performance of tests. :	
Date of Issue	
Test Result	

Jul. 14 - Jul. 19, 2017 Jul. 19, 2017 Pass



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen BCTC Testing Co., Ltd.





1 General Information

1.1 General Description of E.U.T.

EUT Name	:	Sonoff GSM/GPRS Smart Switch			
Model No.	:	Sonoff G1			
Serial Model	:	Sonoff G2, Sonoff G12, Sonoff G14, Sonoff G16,			
		Sonoff G18, Sonoff G22, Sonoff G24, Sonoff G26,			
		Sonoff G28			
Model Difference	: (The product is different for model number and outlook color.			
Trademark	:	— ")			
		SONDEE			
Power supply	:	90V~250V AC 50Hz-60Hz 3000W 16A			
Operation frequency	:	GSM 900/1800Mhz			
Modulation	:	GSM / DCS: GMSK			
Antenna Type	:	Internal Antenna			
Intend use environment	:	Residential, commercial and light industrial environment			

EMC Report





1.2 Maximum Permissible Exposure

1, Applicable Standard

EN 62311 Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz–300 GHz) is to demonstrate the compliance of apparatus with the basic restrictions or reference levels on exposure of the general public related to electric, magnetic, electromagnetic fields as well as induced and contact current.

2, Limit

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density S _{eq} (W/m²)
0-1 Hz	_	3,2 × 104	4×10^4	_
1-8 Hz	10 000	$3,2 \times 10^{4}/f^{2}$	4×10^{4} f ²	_
8-25 Hz	10 000	4 000/f	5 000/f	_
0,025-0,8 kHz	250/f	4/f	5/f	_
0,8-3 kHz	250/f	5	6,25	_
3-150 kHz	87	5	6,25	_
0,15-1 MHz	87	0,73/f	0,92/f	_
1-10 MHz	87/f ^{1/2}	0,73/f	0,92/f	_
10-400 MHz	28	0,073	0,092	2
400-2000 MHz	1,375 f ^{1/2}	0,0037 f ^{1/2}	0,0046 f ^{1/2}	f/200
2-300 GHz	61	0,16	0,20	10

Reference levels for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz, unperturbed rms values)

Notes:

1. f as indicated in the frequency range column.

EMC Report

Shenzhen BCTC Testing Co., Ltd.



3, Test Method

- $E (V/m) = (30*P*G)^{0.5}/d$
- E = Electric Field (V/m)
- P = Peak RF output Power (W)
- G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m) From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.

Calculated Result and Limit

	Max output	Max output	Antenna gain	Electric Field	Limit of Electric	Popult
	power (dBm)	Power (W)	(dBi)	(V/m)	Field(V/m)	Result
GSM850	32.74	1.87931682	0.0	4.62	41.30	Pass
GSM1900	30.02	1.00461579	0.0	4.51	57.50	Pass
				-		

END

