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# TEST REPORT

Application No.:	SHCR2311002378EV		
Applicant:	CSE Energy&Technology Co.,Ltd		
Address of Applicant:	Building S4, No.777, Sizhuan Road, Shanghai, China		
Manufacturer:	CSE Energy&Technology Co.,Ltd		
Address of Manufacturer:	Building S4, No.777, Sizhuan Road, Shanghai, China		
Equipment Under Test (EUT	):		
EUT Name:	AC charging pile of electric vehicle		
Model No.:	CSE-BCG-AT32-K01-1-CE, CSG-BCG-AT32/K03-3-CE,		
	CSE-BCG-AT32-K01-3-CE, CSE-BCG-AT16-K01-3-CE,		
	CSG-BCG-AT16/K03-3-CE, CSG-BCG-AT16/K04-3-CE,		
	CSE-BCG-AT16-K01-1-CE		
Remark:	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.		
Trade Mark:	CSE, power4 Homeby cse		
Standard(s) :	EN 300 328 V2.2.2		
Date of Receipt:	2023-10-09		
Date of Test:	2023-10-17 to 2023-11-01		
Date of Issue:	2023-11-21		
Test Result:	Pass*		

\* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



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Revision Record				
Version	Description	Date	Remark	
00	Co-license	2023-11-21	Base on SHCR231000209303	

Authorized for issue by:			
Tested By	Bril WN		
	Bill Wu/Project Engineer	-	
Approved By	parlam zhan		
	Parlam Zhan / Reviewer	-	



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# 2 Test Summary

#### Radio Spectrum Matter Part

ltem	Standard	Method	Requirement	Result	
Transmitter unwanted emissions in the spurious domain	EN 300 328 V2.2.2	EN 300 328 Clause 5.4.9.2	EN 300 328 Clause 4.3.2.9.3	Pass	
Receiver spurious emissions		EN 300 328 Clause 5.4.10.2	EN 300 328 Clause 4.3.2.10.3	Pass	

Remark: The device using a wireless module FC41D has been certified. We just fully retest RSE for this product, other test data reference to original module report BTL-ETSP-1-2111H032.

Note1: There are series models mentioned in this report, and they are the similar in electrical and electronic characters. Only the model CSE-BCG-AT32-K01-3-CE was tested since their differences were the model number and appearance.

Note2: This report was an additional report copied from the report SHCR231000209303, just changing the model name, company information and trade mark. Since the electrical circuit design, layout, components used and internal wiring for the model CSE-BCG-AT32-K01-3-CE in this report was exactly the same as the model CSG-BCG-AT32-K01-3-CE in the report SHCR231000209303.



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# 4 General Information

### 4.1 Details of E.U.T.

Power Supply:	AC 380/50Hz
Test Voltage:	AC 380V/50Hz
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2472MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK), 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Channel Spacing:	5MHz
Number of Channels:	802.11b/g/n(HT20): 13
Receiver Category:	1
Antenna Gain:	2 dBi (Provided by manufacturer)
Antenna Type:	PCB Antenna

#### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.	
The EUT has been tested as an independent unit.				

#### 4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10 <sup>-8</sup>
2	Timeout	2s
3	Duty cycle	0.4%
4	Occupied Bandwidth	3%
5	RF conducted power	0.6dB
6	RF power density	2.9dB
7	Conducted Spurious emissions	0.75dB
8	DE De diste dir suver	5.2dB (Below 1GHz)
	RF Radiated power	5.9dB (Above 1GHz)
		4.2dB (Below 30MHz)
0	Dedicted Opurious emission test	4.5dB (30MHz-1GHz)
9	Radiated Spurious emission test	5.1dB (1GHz-6GHz)
		5.4dB (6GHz-18GHz)
10	Temperature test	1°C
11	Humidity test	3%
12	Supply voltages	1.5%
13	Time	3%
	·	

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



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#### 4.4 Test Location

All tests were performed at: SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China Tel: +86 21 6191 5666 Fax: +86 21 6191 5678 No tests were sub-contracted. Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc.) is provided by the applicant. (if applicable). 2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

3. Sample source: sent by customer.

#### 4.5 Test Facility

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

#### • A2LA (Certificate No. 6332.01)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

#### • FCC (Designation Number: CN1301)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

#### • ISED (CAB Identifier: CN0020)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 8617A

#### • VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

#### 4.6 Deviation from Standards

None

#### 4.7 Abnormalities from Standard Conditions

None



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#### **Equipment List** 5

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Radiated Test					
EMI test Receiver	R&S	ESU40	SHEM051-1	2022-12-20	2023-12-19
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2022-12-20	2023-12-19
Communication Tester	R&S	CMW500	SHEM268-1	2023-06-01	2024-05-31
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2022-12-20	2023-12-19
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2022-09-11	2024-09-10
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM202-1	2022-05-07	2024-05-06
Horn Antenna (1-18GHz)	Schwarzbeck	HF906	SHEM009-1	2022-08-11	2024-08-10
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2022-09-18	2024-09-17
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2022-09-18	2024-09-17
Pre-Amplifier	HP	8447D	SHEM236-1	2023-08-02	2024-08-01
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2022-12-20	2023-12-19
Band Filter	LORCH	9BRX-875/X150	SHEM156-1	1	/
Band Filter	LORCH	13BRX-1950/X500	SHEM083-2	1	/
Band Filter	LORCH	5BRX-2400/X200	SHEM155-1	1	/
Band Filter	LORCH	5BRX-5500/X1000	SHEM157-2	/	/
High pass Filter	Wainwright	WHK3.0/18G	SHEM157-1	/	/
High pass Filter	Wainwright	WHKS1700	SHEM157-3	/	/
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2021-05-25	2024-05-24
RE test Cable	/	RE01, RE02, RE06	/	2023-01-07	2024-01-06
Test software	ESE	E3	Version: 6.111221a	/	/



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## 6 Radio Spectrum Matter Test Results

#### 6.1 Transmitter unwanted emissions in the spurious domain

Test Requirement	EN 300 328 Clause 4.3.2.9.3
Test Method:	EN 300 328 Clause 5.4.9.2

Limit:

#### Table 1: Transmitter limits for spurious emissions

	Maximum power,	
Frequency range	e.r.p. (≤ 1 GHz)	Bandwidth
	e.i.r.p. (> 1 GHz)	
30 MHz to 47 MHz	-36dBm	100 kHz
47 MHz to 74 MHz	-54dBm	100 kHz
74 MHz to 87,5 MHz	-36dBm	100 kHz
87,5 MHz to 118 MHz	-54dBm	100 kHz
118 MHz to 174 MHz	-36dBm	100 kHz
174 MHz to 230 MHz	-54dBm	100 kHz
230 MHz to 470 MHz	-36dBm	100 kHz
470 MHz to 694 MHz	-54dBm	100 kHz
694 MHz to 1 GHz	-36dBm	100 kHz
1 GHz to 12,75 GHz	-30dBm	1MHz

#### 6.1.1 E.U.T. Operation

Operating Enviro	nment:					
Temperature:	26.3 °C	Humidity:	55.4 % RH	Atmospheric Pressure:	1010	mbar

#### 6.1.2 Test Mode Description

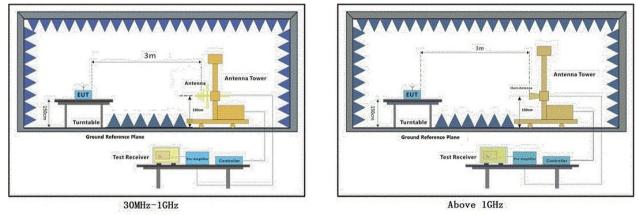
Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.



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#### 6.1.3 Test Setup Diagram



#### 6.1.4 Measurement Procedure and Data

1. Using test software to set up the lowest channel, the middle channel and the highest channel.

2. Scan from 30MHz to 12.75GHz, find the maximum radiation frequency to measure. No Standby Mode apply for the EUT.

3. The technique used to find the Spurious Emissions of the transmitter was a pre-calibration method which is measure the path loss from the measurement antenna to the substitution antenna and subtract this from the signal generator level to reach the measurement result. The method was performed to determine the actual ERP/EIRP emission levels of the EUT.

Test procedure as below:

1) The EUT was powered ON and placed on a table in the chamber. The antenna of the transmitter was extended to its maximum length. Receiver mode and the measuring receiver shall be tuned to the frequency of the transmitter under test.

2) The disturbance of the transmitter was maximized on the test receiver display by raising and lowering the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.

3) The test antenna shall be raised or lowered again, if necessary, through the specified height range until a maximum is obtained. This level shall be recorded.

4) This measurement shall be repeated for horizontal and vertical polarization.

Remark:

The disturbance below 1GHz was very low and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



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Test Mode: 04	1; Polarity: H	orizontal; Moc	lulation:802.1	1b; Band	width:20MHz; Channel:Low
Frequency	Emission	Limit	Over l	_imit	Detector
MHz	dBm	dBm	dB		
4824	-36.28	-30	-6.28		RMS
7236	-38.76	-30	-8.76		RMS
9648	-36.46	-30	-6.46		RMS
Test Mode: 04	1; Polarity: V	ertical; Modula	ation:802.11b;	; Bandwi	dth:20MHz; Channel:Low
Frequency	Emission	Limit	Over l	_imit	Detector
MHz	dBm	dBm	dB		
4824	-36.32	-30	-6.32		RMS
7236	-34.87	-30	-4.87		RMS
9648	-35.28	-30	-5.28		RMS
Test Mode: 04	1; Polarity: H	orizontal; Moc	lulation:802.1	1b; Banc	lwidth:20MHz; Channel:High
Frequency	Emission	Limit	Over l	_imit	Detector
MHz	dBm	dBm	dB		
4944	-38.44	-30	-8.44		RMS
7416	-38.74	-30	-8.74		RMS
9888	-35.91	-30	-5.91		RMS
Test Mode: 04	1; Polarity: V	ertical; Modula	ation:802.11b;	; Bandwi	dth:20MHz; Channel:High
Frequency	Emission	Limit	Over l		Detector
MHz	dBm	dBm	dB		
4944	-36.58	-30	-6.58		RMS
7416	-38.34	-30	-8.34		RMS
9888	-36.07	-30	-6.07		RMS
Test Mode: 04	1; Polarity: H	orizontal; Moc	Iulation:802.1	1g; Band	width:20MHz; Channel:Low
	Emission	Limit	Over Limit	Detect	
	dBm	dBm	dB		
	-37.14	-30	-7.14	RMS	
	-35.28	-30	-5.28	RMS	
	-39.63	-30	-9.63	RMS	
0040	00.00	00	0.00	Tamo	
Test Mode: 04	1: Polarity: V	ertical: Modula	ation:802.11a	: Bandwi	dth:20MHz; Channel:Low
Frequency	Emission	Limit	Over L		Detector
MHz	dBm	dBm	dB		
4824	-37.07	-30	-7.07		RMS
7236	-36.19	-30	-6.19		RMS
9648	-35.26	-30	-5.26		RMS
50-0	-00.20	-30	-5.20		



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Test Mode: 04;	Polarity: Horizo	ontal; Modulatior	n:802.11g; Band	width:20MHz; Channel:High
Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4944	-38.62	-30	-8.62	RMS
7416	-36.33	-30	-6.33	RMS
9888	-35.47	-30	-5.47	RMS
Test Mode: 04;	Polarity: Vertic	al; Modulation:8	02.11g; Bandwi	dth:20MHz; Channel:High
Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4944	-37.61	-30	-7.61	RMS
7416	-37.08	-30	-7.08	RMS
9888	-35.49	-30	-5.49	RMS
Test Mode: 04;	Polarity: Horizo	ontal; Modulatior	n:802.11n; Band	width:20MHz; Channel:Low
Test Mode: 04; Frequency	Polarity: Horizo Emission	ontal; Modulatior Limit	n:802.11n; Band Over Limit	width:20MHz; Channel:Low Detector
	-			
Frequency	Emission	Limit	Over Limit	
Frequency MHz	Emission dBm	Limit dBm	Over Limit dB	Detector
Frequency MHz 4824	Emission dBm -38.26	Limit dBm -30	Over Limit dB -8.26	Detector
Frequency MHz 4824 7236	Emission dBm -38.26 -36.34	Limit dBm -30 -30	Over Limit dB -8.26 -6.34	Detector RMS RMS
Frequency MHz 4824 7236 9648 Test Mode: 04;	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertic	Limit dBm -30 -30 -30 al; Modulation:8	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwie	Detector RMS RMS RMS dth:20MHz; Channel:Low
Frequency MHz 4824 7236 9648 Test Mode: 04; Frequency	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertica Emission	Limit dBm -30 -30 -30 al; Modulation:8 Limit	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwid Over Limit	Detector RMS RMS RMS
Frequency MHz 4824 7236 9648 Test Mode: 04;	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertic	Limit dBm -30 -30 -30 al; Modulation:8	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwid Over Limit dB	Detector RMS RMS RMS dth:20MHz; Channel:Low
Frequency MHz 4824 7236 9648 Test Mode: 04; Frequency MHz 4824	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertice Emission dBm -36.44	Limit dBm -30 -30 -30 al; Modulation:8 Limit dBm -30	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwid Over Limit dB -6.44	Detector RMS RMS RMS dth:20MHz; Channel:Low Detector RMS
Frequency MHz 4824 7236 9648 Test Mode: 04; Frequency MHz	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertica Emission dBm -36.44 -36.32	Limit dBm -30 -30 al; Modulation:8 Limit dBm -30 -30	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwid Over Limit dB -6.44 -6.32	Detector RMS RMS RMS dth:20MHz; Channel:Low Detector RMS RMS
Frequency MHz 4824 7236 9648 Test Mode: 04; Frequency MHz 4824	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertice Emission dBm -36.44	Limit dBm -30 -30 -30 al; Modulation:8 Limit dBm -30	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwid Over Limit dB -6.44	Detector RMS RMS RMS dth:20MHz; Channel:Low Detector RMS
Frequency MHz 4824 7236 9648 Test Mode: 04; Frequency MHz 4824 7236	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertica Emission dBm -36.44 -36.32	Limit dBm -30 -30 al; Modulation:8 Limit dBm -30 -30	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwid Over Limit dB -6.44 -6.32	Detector RMS RMS RMS dth:20MHz; Channel:Low Detector RMS RMS
Frequency MHz 4824 7236 9648 Test Mode: 04; Frequency MHz 4824 7236 9648	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertica Emission dBm -36.44 -36.32 -35.31	Limit dBm -30 -30 al; Modulation:8 Limit dBm -30 -30 -30	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwid Over Limit dB -6.44 -6.32 -5.31	Detector RMS RMS RMS dth:20MHz; Channel:Low Detector RMS RMS RMS
Frequency MHz 4824 7236 9648 Test Mode: 04; Frequency MHz 4824 7236 9648	Emission dBm -38.26 -36.34 -35.78 Polarity: Vertica Emission dBm -36.44 -36.32 -35.31	Limit dBm -30 -30 al; Modulation:8 Limit dBm -30 -30 -30	Over Limit dB -8.26 -6.34 -5.78 02.11n; Bandwid Over Limit dB -6.44 -6.32 -5.31	Detector RMS RMS RMS dth:20MHz; Channel:Low Detector RMS RMS

MHz	dBm	dBm	dB	
4944	-37.62	-30	-7.62	RMS
7416	-38.14	-30	-8.14	RMS
9888	-35.08	-30	-5.08	RMS

Test Mode: 04	; Polarity: Vertic	al; Modulation:8	02.11n; Bandwi	dth:20MHz; Channel:High
Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4944	-36.85	-30	-6.85	RMS
7416	-37.94	-30	-7.94	RMS
9888	-36.04	-30	-6.04	RMS



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low				
Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4844	-37.46	-30	-7.46	RMS
7266	-36.29	-30	-6.29	RMS
9688	-37.19	-30	-7.19	RMS

Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low				
Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4844	-35.49	-30	-5.49	RMS
7266	-38.58	-30	-8.58	RMS
9688	-36.82	-30	-6.82	RMS

Test Mode: 04	; Polarity: Horiz	ontal; Modulatio	n:802.11n; Band	dwidth:40MHz; Channel:High
Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4924	-36.42	-30	-6.42	RMS
7386	-35.29	-30	-5.29	RMS
9848	-38.77	-30	-8.77	RMS

Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High				
Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4924	-36.19	-30	-6.19	RMS
7386	-38.74	-30	-8.74	RMS
9848	-36.03	-30	-6.03	RMS



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#### 6.2 Receiver spurious emissions

Test Requirement	EN 300 328 Clause 4.3.2.10.3
Test Method:	EN 300 328 Clause 5.4.10.2

Limit:

The spurious emissions of the receiver shall not exceed the values in tables in the indicated bands:

Frequency Range	Limit
30 MHz to 1 GHz	2nW(-57dBm)
Above 1GHz	20nW(-47dBm)

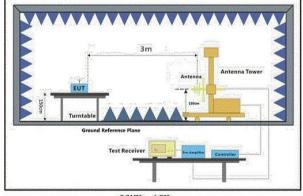
#### 6.2.1 E.U.T. Operation

Operating Enviro	nment:				
Temperature:	26.3 °C	Humidity:	55.4 % RH	Atmospheric Pressure: 1010	mbar

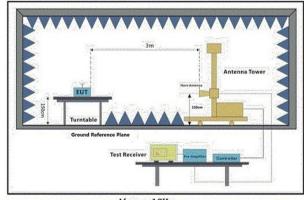
#### 6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	RX_Keep the EUT in receiving mode with all modulation types. Only the data of worst case for 20MHz bandwidth and 40MHz bandwidth is recorded in the report.

#### 6.2.3 Test Setup Diagram







Above 1GHz



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#### 6.2.4 Measurement Procedure and Data

1. Using test software to set up the lowest channel, the middle channel and the highest channel.

2. Scan from 30MHz to 12.75GHz, find the maximum radiation frequency to measure. No Standby Mode apply for the EUT.

3. The technique used to find the Spurious Emissions of the transmitter was a pre-calibration method which is measure the path loss from the measurement antenna to the substitution antenna and subtract this from the signal generator level to reach the measurement result. The method was performed to determine the actual ERP/EIRP emission levels of the EUT.

Test procedure as below:

1) The EUT was powered ON and placed on a table in the chamber. The antenna of the transmitter was extended to its maximum length. Receiver mode and the measuring receiver shall be tuned to the frequency of the transmitter under test.

2) The disturbance of the transmitter was maximized on the test receiver display by raising and lowering the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.

3) The test antenna shall be raised or lowered again, if necessary, through the specified height range until a maximum is obtained. This level shall be recorded.

4) This measurement shall be repeated for horizontal and vertical polarization.

#### Remark:

The disturbance below 1GHz was very low and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

Test Mode: 05; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:Low

Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4824	-52.05	-47	-5.05	RMS
7236	-53.14	-47	-6.14	RMS
9648	-54.17	-47	-7.17	RMS

Test Mode: 05; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low

Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4824	-52.19	-47	-5.19	RMS
7236	-53.35	-47	-6.35	RMS
9648	-53.61	-47	-6.61	RMS

Test Mode: 05; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High	

Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4944	-55.02	-47	-8.02	RMS
7416	-54.25	-47	-7.25	RMS
9888	-51.74	-47	-4.74	RMS



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Test Mode: 05; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High						
Emission	Limit	Over Limit	Detector			
dBm	dBm	dB				
-55.34	-47	-8.34	RMS			
-54.44	-47	-7.44	RMS			
-53.08	-47	-6.08	RMS			
	Emission dBm -55.34 -54.44	Emission Limit dBm dBm -55.34 -47 -54.44 -47	Emission         Limit         Over Limit           dBm         dBm         dB           -55.34         -47         -8.34           -54.44         -47         -7.44			

Test Mode: 05; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:Low						
Frequency	Emission	Limit	Over Limit	Detector		
MHz	dBm	dBm	dB			
4824	-52.16	-47	-5.16	RMS		
7236	-54.74	-47	-7.74	RMS		
9648	-53.77	-47	-6.77	RMS		

Test Mode: 05; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:Low						
Frequency	Emission	Limit	Over Limit	Detector		
MHz	dBm	dBm	dB			
4824	-53.01	-47	-6.01	RMS		
7236	-55.43	-47	-8.43	RMS		
9648	-52.36	-47	-5.36	RMS		

Test Mode: 05; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High						
Frequency	Emission	Limit	Over Limit	Detector		
MHz	dBm	dBm	dB			
4944	-53.77	-47	-6.77	RMS		
7416	-54.39	-47	-7.39	RMS		
9888	-54.88	-47	-7.88	RMS		

Test Mode: 05; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High							

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low							
Frequency	Emission	Limit	Over Limit	Detector			
MHz	dBm	dBm	dB				
4824	-53.82	-47	-6.82	RMS			
7236	-53.25	-47	-6.25	RMS			
9648	-52.94	-47	-5.94	RMS			



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Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low					
Frequency	Emission	Limit	Over Limit	Detector	
MHz	dBm	dBm	dB		
4824	-52.09	-47	-5.09	RMS	
7236	-54.66	-47	-7.66	RMS	
9648	-51.35	-47	-4.35	RMS	

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High					
Frequency	Emission	Limit	Over Limit	Detector	
MHz	dBm	dBm	dB		
4944	-54.37	-47	-7.37	RMS	
7416	-52.05	-47	-5.05	RMS	
9888	-53.17	-47	-6.17	RMS	

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High

Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4944	-52.95	-47	-5.95	RMS
7416	-55.68	-47	-8.68	RMS
9888	-54.81	-47	-7.81	RMS

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low					
Frequency	Emission	Limit	Over Limit	Detector	
MHz	dBm	dBm	dB		
4844	-54.15	-47	-7.15	RMS	
7266	-53.45	-47	-6.45	RMS	
9688	-52.44	-47	-5.44	RMS	

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

Frequenc y	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4844	-52.33	-47	-5.33	RMS
7266	-53.34	-47	-6.34	RMS
9688	-51.54	-47	-4.54	RMS



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High					
Frequency	Emission	Limit	Over Limit	Detector	
MHz	dBm	dBm	dB		
4924	-52.45	-47	-5.45	RMS	
7386	-53.91	-47	-6.91	RMS	
9848	-54.37	-47	-7.37	RMS	
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High					

Frequency	Emission	Limit	Over Limit	Detector
MHz	dBm	dBm	dB	
4924	-52.51	-47	-5.51	RMS
7386	-53.44	-47	-6.44	RMS
9848	-55.76	-47	-8.76	RMS



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#### **Test Setup Photo** 7

Radiated Spurious Emissions below 1GHz



**Radiated Spurious Emissions above 1GHz** 

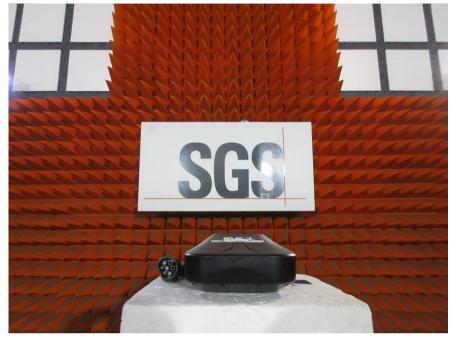




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The EUT Details of Zoom



## 8 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for SHCR2311002378EV

- End of the Report -