

TEST REPORT

Applicant: Quanzhou SKYDROID Technology Co., Ltd.

Address of Applicant: 2nd Floor, Building A, Yucheng Base, Fengze District,
Quanzhou City, Fujian Province, China

Manufacturer/Factory: Quanzhou SKYDROID Technology Co., Ltd.

**Address of
Manufacturer/Factory:** 2nd Floor, Building A, Yucheng Base, Fengze District,
Quanzhou City, Fujian Province, China

Factory: Quanzhou SKYDROID Technology Co., Ltd.

Address of Factory: 2nd Floor, Building A, Yucheng Base, Fengze District,
Quanzhou City, Fujian Province, China

Equipment Under Test (EUT)

Product Name: Remote control

Model No.: G20, G20Pro, G20/G20Pro, GR01

Trade Mark: SKYDROID

Applicable standards: ETSI EN 300 440 V2.2.1 (2018-07)

Date of sample receipt: 01/21/2025

Date of Test: 01/21/2025~03/04/2025

Date of report issue: 03/04/2025

Test Result : PASS *

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

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EU Declaration of Conformity and compliance with all relevant EU Directives. The protection requirements with respect to electromagnetic compatibility contained in Directive 2014/53/EU are considered.



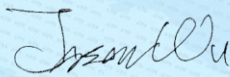
Robinson Luo
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	03/04/2025	Original

Prepared By:

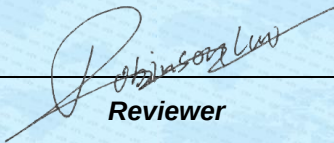


Date:

03/04/2025

Project Engineer

Check By:



Date:

03/04/2025

Reviewer

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4 Test Summary

Radio Spectrum Matter (RSM) Part of Transmitter					
Test item	Test Requirement	Test method	Limit/Severity	Uncertainty	Result
Equivalent isotropically radiated power	EN 300 440 Clause 4.2.2	EN 300 440 Clause 4.2.2.3	Clause 4.2.2.4 Table 2	$\pm 3\text{dB}$	Pass
Permitted Range of Operating Frequencies	EN 300 440 Clause 4.2.3	EN 300 440 Clause 4.2.3.3	Clause 4.2.3.5 & Table 2	$\pm 10^{-7}$	Pass
Duty cycle	EN 300 440 Clause 4.2.5	EN 300 440 Clause 4.2.5.3	Clause 4.2.5.4 Table 4	N/A	N/A
Transmitter spurious emissions	EN 300 440 Clause 4.2.4	EN 300 440 Clause 4.2.4.3	Clause 4.2.4.4 Table 3	$\pm 6\text{ dB}$	Pass
Hopping Channel Number	EN 300 440 Clause 4.2.6	EN 300 440 Clause 4.2.6.3	≥ 20	N/A	N/A
Dwell time	EN 300 440 Clause 4.2.6	EN 300 440 Clause 4.2.6.3	Not exceed 1s	N/A	N/A
Radio Spectrum Matter (RSM) Part of Receiver					
Receiver spurious emissions	EN 300 440 Clause 4.3.5	EN 300 440 Clause 4.3.5.3	$<2\text{nW } <1\text{GHz},$ $<20\text{nW } >1\text{GHz}$	$\pm 6\text{dB}$	Pass
Adjacent channel selectivity	EN 300 440 Clause 4.3.3	Clause 4.3.3.3	Clause 4.3.3.4 Table 6	$\pm 2.5\text{dB}$	Pass
Blocking or desensitization	EN 300 440 Clause 4.3.4	EN 300 440 Clause 4.3.4.3	Clause 4.3.4.4 Table 7	$\pm 2.5\text{dB}$	Pass
Technical requirements specifications					
Spectrum access techniques	EN 300 440 Clause 4.4	PASS (Declared by manufacture)			

Remarks:

Pass: The EUT complies with the essential requirements in the standard.

N/A: Not applicable.

5 General Information

5.1 General Description of EUT

Product Name:	Remote control
Model No.:	G20, G20Pro, G20/G20Pro, GR01
Test Model No.:	G20
Remark: all the models are electrical identical including the same software parameter and hardware design, Only the model name is different	
Operation Frequency:	5745MHz ~ 5825MHz
Channel separation:	20MHz for 802.11a/n(HT20)/ac(VHT20) 40MHz for 802.11n(HT40)/ac(VHT40) 80MHz for 802.11ac(VHT80)
Modulation technology:	Orthogonal Frequency Division Multiplexing(OFDM)
Antenna Type:	External Antenna
Antenna gain:	ANT1 1.03dBi, ANT2 2.73dBi
Power supply:	3.7V DC, 20000mAh Battery

Note:

1. Antenna gain information provided by the customer.
2. The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745MHz	151	5755MHz	153	5765MHz	155	5775MHz
157	5785MHz	159	5795MHz	161	5805MHz	163	5815MHz
165	5825MHz						

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)		
	802.11 a/n/ac(HT20)	802.11 n/ac(HT40)	802.11ac(HT80)
Lowest channel	5745	5755	
Middle channel	5785		5775
Highest channel	5825	5795	

5.2 Test mode

Transmitting mode	Keep the EUT in transmitting mode with modulation.
Receiving mode	Keep the EUT in receiving mode with modulation.

5.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations: ● FCC—Registration No.: 381383 Designation Number: CN5029 Global United Technology Services Co., Ltd., Shenzhen 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 files. ● ISED —Registration No.: 9079A CAB identifier: CN0091 The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing ● NVLAP (LAB CODE:600179-0) Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.4 Test Location

All tests were performed at:
Global United Technology Services Co., Ltd. Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Tel: 0755-27798480 Fax: 0755-27798960

5.5 Description of Support Units

None.

5.6 Deviation from Standards

None.

5.7 Abnormalities from Standard Conditions

None.

5.8 Other Information Requested by the Customer

None.

5.9 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25 \times 10^{-8}$
2	Duty cycle	$\pm 0.37\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF conducted power	$\pm 0.75\text{dB}$
5	RF power density	$\pm 3\text{dB}$
6	Conducted Spurious emissions	$\pm 2.58\text{dB}$
7	AC Power Line Conducted Emission	$\pm 3.44\text{dB}$ (0.15MHz ~ 30MHz)
8	Radiated Spurious emission test	$\pm 3.1\text{dB}$ (9kHz-30MHz)
		$\pm 3.8039\text{dB}$ (30MHz-200MHz)
		$\pm 3.9679\text{dB}$ (200MHz-1GHz)
		$\pm 4.29\text{dB}$ (1GHz-18GHz)
		$\pm 3.30\text{dB}$ (18GHz-40GHz)
9	Temperature test	$\pm 1^\circ\text{C}$
10	Humidity test	$\pm 3\%$
11	Time	$\pm 3\%$

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Jun. 22, 2024	Jun. 21, 2027
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Apr. 11, 2024	Apr. 10, 2025
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	Mar. 19, 2023	Mar. 18, 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	Apr. 17, 2023	Apr. 16, 2025
6	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	Apr. 11, 2024	Apr. 10, 2025
7	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov.12, 2024	Nov.11, 2025
8	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	Apr. 11, 2024	Apr. 10, 2025
9	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	Apr. 11, 2024	Apr. 10, 2025
10	Horn Antenna (15GH-40GHz)	SCHWARZBECK	01296	GTS691	Mar. 07, 2024	Mar. 06, 2025
11	FSV-Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	Mar. 12, 2024	Mar. 11, 2025
12	Amplifier	/	LNA-1000-30S	GTS650	Apr. 11, 2024	Apr. 10, 2025
13	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 07, 2024	Nov. 06, 2025
14	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	Apr. 11, 2024	Apr. 10, 2025
15	Thermo meter	JINCHUANG	GSP-8A	GTS643	Apr. 18, 2024	Apr. 17, 2025
16	RE cable 1	GTS	N/A	GTS675	Jul. 02, 2024	Jul. 01, 2025
17	RE cable 2	GTS	N/A	GTS676	Jul. 02, 2024	Jul. 01, 2025
18	RE cable 3	GTS	N/A	GTS677	Jul. 02, 2024	Jul. 01, 2025
19	RE cable 4	GTS	N/A	GTS678	Jul. 02, 2024	Jul. 01, 2025
20	RE cable 5	GTS	N/A	GTS679	Jul. 02, 2024	Jul. 01, 2025
21	RE cable 6	GTS	N/A	GTS680	Jul. 02, 2024	Jul. 01, 2025
22	RE cable 7	GTS	N/A	GTS681	Jul. 05, 2024	Jul. 04, 2025
23	RE cable 8	GTS	N/A	GTS682	Jul. 05, 2024	Jul. 04, 2025
24	EMI Test Software	AUDIX	E3-6.100614a	GTS725	N/A	N/A

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	April 11, 2024	April 10, 2025
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 11, 2024	April 10, 2025
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	April 11, 2024	April 10, 2025
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	April 11, 2024	April 10, 2025
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	April 11, 2024	April 10, 2025
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	April 11, 2024	April 10, 2025
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	April 11, 2024	April 10, 2025
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	April 11, 2024	April 10, 2025
9	Thermo meter	JINCHUANG	GSP-8A	GTS641	April 18, 2024	April 17, 2025

General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	KUMAO	SF132	GTS647	April 18, 2024	April 17, 2025

7 Radio Technical Requirements Specification in EN 300 440

7.1 Test environment

Test Condition	Temperature	Relative Humidity	Voltage		
			AC mains	Lead-acid battery on vehicles	Other power sources
Normal	+15°C to +35°C	20% to 75%	nominal	1,1 times the nominal voltage	nominal
Extreme	-20°C to +55°C (General use) -20°C to +55°C (Portable use) 5°C to +35°C (Indoor use)	20% to 75%	▼ 0,9 times ▲ 1,1 times	▼ 0,9 times ▲ 1,3 times	▼ 0,85 times (Leclanché or lithium) 0,9 times (mercury or nickel-cadmium) ▲ 1,15 times

Operating Environment:			
Item	Normal condition	Extreme condition	
		HT	LT
Temperature	+15°C to + 35°C	+55°C	-20°C
Voltage(DC)		4.2V	
Humidity		20%-75%	
Atmospheric Pressure:		1008 mbar	

7.2 Spectrum access techniques

PASS, The EUT conform to the requirements of the clause. (Declared by manufacture)

7.3 Transmitter requirement

7.3.1 Equivalent Isotropically Radiated Power

Test Requirement:	ETSI EN 300 440 clause 4.2.2
Test Method:	ETSI EN 300 440 clause 4.2.2.3
Limit:	13.98dBm
Test procedure:	Radiated measurements shall be performed in an anechoic chamber. 1. The transmitter under test shall be placed on the support in its standard position and switched on. 2. The test antenna shall be oriented initially for vertical polarization. The test antenna shall be raised or lowered, through the specified height range until the maximum signal level is detected on the measuring receiver. 3. The transmitter shall be rotated through 360° about a vertical axis to maximize the received signal. 4. 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. 5. This measurement shall be repeated for horizontal polarization. 6. The substitution antenna, shall replace the transmitter antenna in the same position and in vertical polarization. The frequency of the signal generator shall be adjusted to the transmitter (carrier) frequency. 7. Steps 2> to 5> shall be repeated. 8. The input signal to the substitution antenna shall be adjusted in level until an equal or a known related level to that detected from the transmitter is obtained in the test receiver. 9. This measurement shall be repeated with horizontal polarization. 10. The radiated power is equal to the power supplied by the signal generator, increased by the known relationship if necessary and after corrections due to the gain of the substitution antenna and the cable loss between the signal generator and the substitution antenna. Repeated the test in extreme test conditions.
Test mode:	Refer to section 5.2 for details
Test Instruments:	Refer to section 6.0 for details

Measurement Data: The detailed test data see Appendix for SRD 5.8G

7.3.2 Frequency Range

Test Requirement:	ETSI EN 300 440 clause 4.2.3
Test Method:	ETSI EN 300 440 clause 4.2.3.3
Limit:	Within the band 2.4GHz to 2.4835GHz
Test procedure:	Radiated measurements shall be performed in an anechoic chamber. 1 The transmitter under test shall be placed on the support in its standard position and switched on. 2 The test antenna shall be oriented initially for vertical polarization. The test antenna shall be raised or lowered, through the specified height range until the maximum signal level is detected on the measuring receiver. 3 The transmitter shall be rotated through 360° about a vertical axis to maximize the received signal. 4 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. 5 This measurement shall be repeated for horizontal polarization. 6 The substitution antenna, shall replace the transmitter antenna in the same position and in vertical polarization. The frequency of the signal generator shall be adjusted to the transmitter (carrier) frequency. 7 Steps 2> to 5> shall be repeated. 8 The input signal to the substitution antenna shall be adjusted in level until an equal or a known related level to that detected from the transmitter is obtained in the test receiver. 9 This measurement shall be repeated with horizontal polarization. 10 The radiated power is equal to the power supplied by the signal generator, increased by the known relationship if necessary and after corrections due to the gain of the substitution antenna and the cable loss between the signal generator and the substitution antenna. 11 Repeated the test in extreme test conditions. 12 The measurement procedure shall be as follows: 12.1 Put the spectrum analyser in video averaging mode with a minimum of 50 sweeps selected; 12.2 Select the lowest operating frequency of the equipment under test and activate the transmitter with modulation applied. The RF emission of the equipment shall be displayed on the spectrum analyser; 12.3 Using the marker of the spectrum analyser, find the lowest frequency below the operating frequency at which the spectral power density drops below the level of -30dBm/30KHz, This frequency shall be recorded in the test report; 12.4 Select the highest operating frequency of the equipment under test and find the highest frequency at which the spectral power density drops below the level of -30dBm/30KHz. This frequency shall be recorded in the test report; The difference between the frequencies measured in steps 12.3> and 12.4> is the operating frequency range. It shall be recorded in the

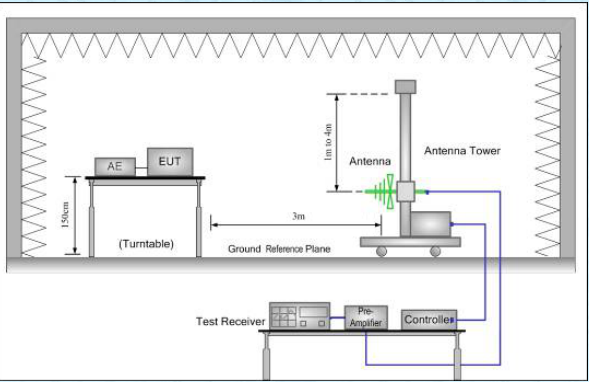
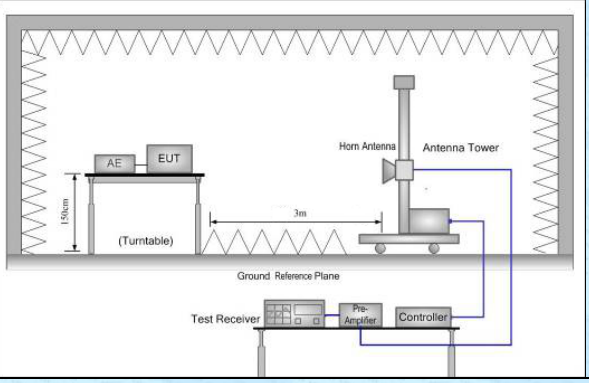
	test report.
Test mode:	Refer to section 5.2 for details
Test Instruments:	Refer to section 6.0 for details

Measurement Data: The detailed test data see Appendix for SRD 5.8G

7.3.3 Duty Cycle

The EUT is general use, duty cycle doesn't require.

7.3.4 Transmitter Spurious emissions

Test Requirement:	ETSI EN 300 440 clause 4.2.4								
Test Method:	ETSI EN 300 440 clause 4.2.4.3								
Receiver setup:	Frequency $\leq$ 1000MHz;RBW=100KHz,VBW=300KHz,Detector=Quasi-Peak Frequency>1000MHz; RBW=1MHz, VBW=3MHz, Detector=peak								
Limit:	<table> <tr> <th>Frequency</th><th>Limit (dBm)</th></tr> <tr> <td>47 MHz to 74 MHz 87.5 MHz to 108 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz</td><td>-54</td></tr> <tr> <td>Other frequencies $\leq$ 1 000 MHz</td><td>-36</td></tr> <tr> <td>Frequencies > 1 000 MHz</td><td>-30</td></tr> </table>	Frequency	Limit (dBm)	47 MHz to 74 MHz 87.5 MHz to 108 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	-54	Other frequencies $\leq$ 1 000 MHz	-36	Frequencies > 1 000 MHz	-30
Frequency	Limit (dBm)								
47 MHz to 74 MHz 87.5 MHz to 108 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	-54								
Other frequencies $\leq$ 1 000 MHz	-36								
Frequencies > 1 000 MHz	-30								
Test Frequency range:	25MHz to 25GHz								
Test setup:	Below 1GHz  Above 1GHz 								
Test procedure:	Substitution method was performed to determine the actual ERP emission levels of the EUT. The following test procedure as below: ■ Below 1GHz test procedure: 1 On the test site as test setup graph above,the EUT shall be placed at the 1.5m support on the turntable and in the position closest to normal use as declared by the provider. 2 The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter. The output of the test antenna shall be connected to the measuring receiver.								

	3 The transmitter shall be switched on, if possible, without modulation and the measuring receiver shall be tuned to the frequency of the transmitter under test. 4 The test antenna shall be raised and lowered from 1m to 4m until a maximum signal level is detected by the measuring receiver. Then the turntable should be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver. 5 Repeat step 4 for test frequency with the test antenna polarized horizontally. 6 Remove the transmitter and replace it with a substitution antenna (the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At the lower frequencies, where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically. In such case the lower end of the antenna should be 0.3 m above the ground. 7 Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends vertically polarized, and with the signal generator tuned to a particular test frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output. 8 Repeat step 7 with both antennas horizontally polarized for each test frequency. 9 Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps 7 and 8 by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula: $ERP(dBm) = Pg(dBm) - \text{cable loss (dB)} + \text{antenna gain (dBd)}$ where: Pg is the generator output power into the substitution antenna. ■ Above 1GHz test procedure: Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber, and the test antenna do not need to raise from 1 to 4m, just test in 1.5m height.
Test mode:	Refer to section 5.2 for details
Test Instruments:	Refer to section 6.0 for details

Measurement Data: The detailed test data see Appendix for SRD 5.8G

7.3.5 Additional Requirement for FHSS Equipment

7.3.6 Hopping Channel Number

Test Requirement:	ETSI EN 300 440 clause 4.2.6
Test Method:	ETSI EN 300 440 clause 4.2.6
Receiver setup:	RBW=100kHz, VBW=300kHz, Frequency range=2400MHz-2483.5MHz, Detector=Peak
Limit:	≥20 channels
Test results:	N/A: The EUT not a FHSS equipment

7.3.7 Dwell time

Test Requirement:	ETSI EN 300 440 Clause 4.2.6
Test Method:	ETSI EN 300 440 Clause 4.2.6
Limit:	FHSS modulation shall make use of at least 20 channels hopping over >90 % of the assigned frequency band. The dwell time per channel shall not exceed 1 s. While the equipment is operating (transmitting and/or receiving) each channel of the hopping sequence shall be occupied at least once during a period not exceeding four times the product of the dwell time per hop and the number of channels.
Result:	N/A: The EUT not a FHSS equipment

7.4 Receiver Requirements

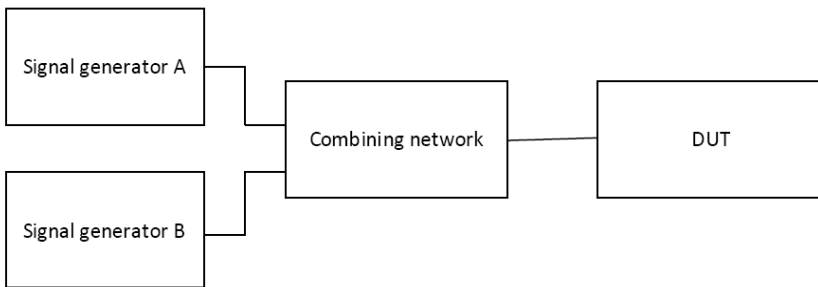
7.4.1 Receiver Classification

Table 5 of ETSI EN 300 440

Receiver category	Relevant receiver clauses	Risk assessment of receiver performance
1	4.3.3, 4.3.4 and 4.3.5	Highly reliable SRD communication media; e.g. serving human life inherent systems (may result in a physical risk to a person).
2	4.3.4 and 4.3.5	Medium reliable SRD communication media e.g. causing inconvenience to persons, which cannot simply be overcome by other means.
3	4.3.5	Standard reliable SRD communication media e.g. Inconvenience to persons, which can simply be overcome by other means (e.g. manual).

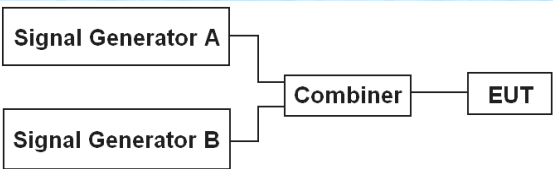
Remark: the EUT belong to Category 1.

7.4.2 Adjacent Channel Selectivity

Test Requirement:	ETSI EN 300 440 Clause 4.3.3								
Test Method:	ETSI EN 300 440 Clause 4.3.3.3								
Limit:	Table 6: Limit for adjacent channel selectivity <table> <tr> <th>Receiver category</th><th>Limit</th></tr> <tr> <td>1</td><td>-30 dBm + k</td></tr> <tr> <td>2</td><td>No limit</td></tr> <tr> <td>3</td><td>No limit</td></tr> </table>	Receiver category	Limit	1	-30 dBm + k	2	No limit	3	No limit
Receiver category	Limit								
1	-30 dBm + k								
2	No limit								
3	No limit								
Test setup:	 <pre> graph LR A[Signal generator A] --- C[Combining network] B[Signal generator B] --- C C --- D[DUT] </pre>								
Test procedure:	Signal generator A shall be at the nominal frequency of the receiver, with normal modulation of the wanted signal. Signal generator B shall be unmodulated and shall be adjusted to the adjacent channel centre frequency immediately above that of the wanted signal. Initially signal generator B shall be switched off and using signal generator A the level that still gives sufficient response shall be established. The output level of generator A shall then be increased by 3 dB. Signal generator B is then switched on and adjusted until the wanted criteria are met. This level shall be recorded. The measurements shall be repeated with signal generator B unmodulated and adjusted to the adjacent channel centre immediately below the wanted signal. The adjacent channel selectivity shall be recorded for the upper and lower adjacent channels as the level in dBm of the unwanted signal.								
Test mode:	Refer to section 5.2 for details								
Test Instruments:	Refer to section 6.0 for details								

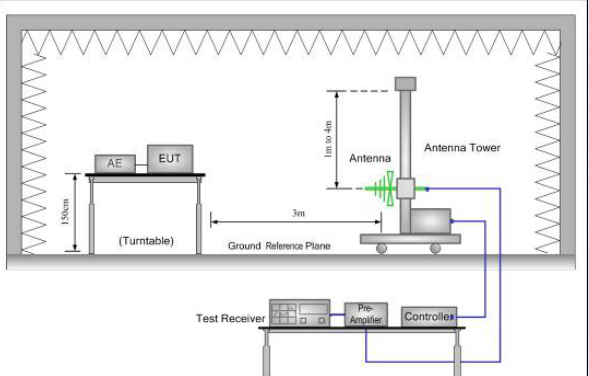
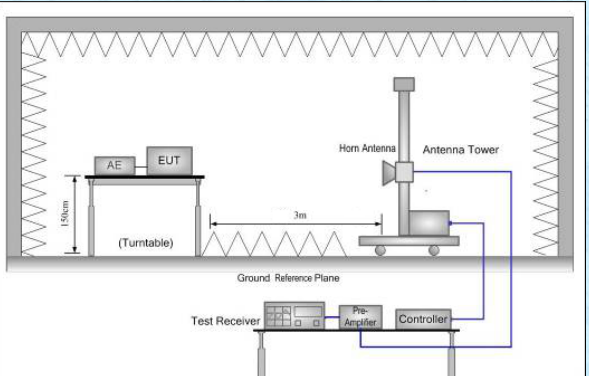
Measurement Data: The detailed test data see Appendix for SRD 5.8G

7.4.3 Blocking or desensitization

Test Requirement:	ETSI EN 300 440 clause 4.3.4								
Test Method:	ETSI EN 300 440 clause 4.3.4.3								
Limit:	Table 7: Limits for blocking or desensitization <table> <tr> <th>Receiver category</th><th>Limit</th></tr> <tr> <td>1</td><td>-30 dBm + k</td></tr> <tr> <td>2</td><td>-45 dBm + k</td></tr> <tr> <td>3</td><td>No limit</td></tr> </table>	Receiver category	Limit	1	-30 dBm + k	2	-45 dBm + k	3	No limit
Receiver category	Limit								
1	-30 dBm + k								
2	-45 dBm + k								
3	No limit								
Test setup:	 <pre> graph LR SGA[Signal Generator A] --- C[Combiner] SGB[Signal Generator B] --- C C --- EUT[EUT] </pre>								
Test procedure:	Two signal generators A and B shall be connected to the receiver via a combining network to the receiver, either: - via a test fixture or a test antenna to the receiver integrated, dedicated or test antenna; or - directly to the receiver permanent or temporary antenna connector. The method of coupling to the receiver shall be stated in the test report. Signal generator A shall be at the nominal frequency of the receiver, with normal modulation of the wanted signal. Signal generator B shall be unmodulated and shall be adjusted to a test frequency at approximately 10 times, 20 times and 50 times of the receive channel bandwidth above upper band edge of the receive channel. Initially signal generator B shall be switched off and using signal generator A the level which still gives sufficient response shall be established. The output level of generator A shall then be increased by 3 dB. Signal generator B is then switched on and adjusted until the wanted criteria are met. This level shall be recorded. The measurement shall be repeated with the test frequency for signal generator B at approximately 10 times, 20 times and 50 times of the receive channel bandwidth below the lower band edge of the receive channel. The blocking or desensitization shall be recorded as the level in dBm of lowest level of the unwanted signal (generator B). For tagging systems (e.g. RF identification, anti-theft, access control, location and similar systems) signal generator A may be replaced by a physical tag positioned at 70 % of the measured system range in metres. In this case, the blocking or desensitization shall be recorded as the ratio in dB of lowest level of the unwanted signal (generator B) resulting in a non-read of the tag. to the declared sensitivity of the receiver +3 dB.								
Test Instruments:	Refer to section 6.0 for details								
Test mode:	Refer to section 5.2 for details								

Measurement Data: The detailed test data see Appendix for SRD 5.8G

7.4.4 Spurious emissions

Test Requirement:	ETSI EN 300 440 clause 4.3.5		
Test Method:	ETSI EN 300 440 clause 4.3.5.3		
Receiver setup:	Frequency≤1000MHz;RBW=100KHz,VBW=300KHz,Detector=Quasi-Peak Frequency>1000MHz; RBW=1000KHz, VBW=3000KHz, Detector= Peak		
Limit:	Frequency	Limit(narrowband)	Limit(wideband)
	25MHz to 1000 MHz	2nW(-57dBm)	-107dBm/Hz
	1GHz to 25GHz	20nW(-47dBm)	-97dBm/Hz
Test Frequency range:	25MHz to 25GHz		
Test setup:	Below 1GHz  Above 1GHz 		
Test procedure:	Substitution method was performed to determine the actual ERP emission levels of the EUT. The following test procedure as below: 1>.Below 1GHz test procedure: 1. On the test site as test setup graph above, the EUT shall be placed at the 1.5m support on the turntable and in the position closest to normal use as declared by the provider. 2. The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter.The output of the test antenna shall be connected to the measuring receiver. 3. The transmitter shall be switched on, if possible, without modulation and the measuring receiver shall be tuned to the frequency of the transmitter under test. 4. The test antenna shall be raised and lowered from 1m to 4m until a maximum signal level is detected by the measuring receiver. Then the		

	turntable should be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver. 5. Repeat step 4 for test frequency with the test antenna polarized horizontally. 6. Remove the transmitter and replace it with a substitution antenna (the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At the lower frequencies, where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically. In such case the lower end of the antenna should be 0.3 m above the ground. 7. Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends vertically polarized, and with the signal generator tuned to a particular test frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output. 8. Repeat step 7 with both antennas horizontally polarized for each test frequency. 9. Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps 7 and 8 by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula: $ERP(dBm) = Pg(dBm) - \text{cable loss (dB)} + \text{antenna gain (dBd)}$ where: Pg is the generator output power into the substitution antenna. 2>.Above 1GHz test procedure: Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber, and the test antenna do not need to raise from 1 to 4m, just test in 1.5m height.
Test mode:	Refer to section 5.2 for details
Test Instruments:	Refer to section 6.0 for details

Measurement Data: The detailed test data see Appendix for SRD 5.8G

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

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