ETSI EN300 328 RADIO TEST REPORT

Product Name:	Rainproof intelligent power supply
Model Number:	BV-ISLR240S24
Applicant:	Blueview Elec-optic Tech Co., Ltd.

KeySense Testing & Certification International Co., Ltd.

1-3F, Lab Building, No.29 District, ZhongKai Hi-Tech Industrial Development Park, Huizhou, Guangdong, China

Test Report Verification				
Product name	Rainproof intelligent power supply			
Model number	BV-ISLR240S24			
Applicant	**Name**	Blueview Elec-optic Tech Co., Ltd.		
	Address	No.1000, Section 2, 2nd Konggang Road, Southwest Aviation Industrial Development Zone, Shuangliu District, Chengdu City, Sichuan Province, P.R.China		
Manufacturer	**Name**	Blueview Elec-optic Tech Co., Ltd.		
	Address	No.1000, Section 2, 2nd Konggang Road, Southwest Aviation Industrial Development Zone, Shuangliu District, Chengdu City, Sichuan Province, P.R.China		
Factory	**Name**	Blueview Elec-optic Tech Co., Ltd.		
	Address	No.1000, Section 2, 2nd Konggang Road, Southwest Aviation Industrial Development Zone, Shuangliu District, Chengdu City, Sichuan Province, P.R.China		
Trade Name	蓝景 BLUEVIEW			
Receipt date	Feb 24, 2022	**Quantity**	1	
Standard	ETSI EN 300 328 V2.2.2 (2019-07)			
Test period	Feb 25, 2022- Mar 10, 2022	**Issue Date**	Mar 23, 2022	
Test result	The device described above is tested by KeySense Testing & Certification International Co., Ltd. The measurement results were contained in this test report and KeySense Testing & Certification International Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the ETSI EN 300 328 requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of KeySense Testing & Certification International Co., Ltd.			

Tested by: Bing.He	**Sign:** Bing.He	**Date:** 2022.3.23	
Reviewed by: Jack.Li	**Sign:** Jack.Li	**Date:** 2022.3.23	(Stamp)
Approved by:Tony.Xu (General manager)	**Sign:** Tony.Xu	**Date:** 2022.3.23	

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Description Page

1. SUMMARY OF MEASUREMENTS AND RESULTS

1.1.Compliance with ETSI EN 300 328 V2.2.2 (2019-07)

Harmonized Standard EN300 328 The following essential requirements and test specifications are relevant to the presumption of conformity under Article 3.2 of the RE Directive 2014/53/EU				
No	Test Parameter	Clause No	Condition	Results
Transmitter Parameters				
1	RF Output Power	4.3.1.2 or 4.3.2.2	Apply all equipment	PASS
2	Power Spectral Density	4.3.2.3	Only for modulations other than FHSS	PASS
3	Duty Cycle ,Tx-Sequence, Tx-gap	4.3.1.3 or 4.3.2.4	Only for non-adaptive equipment	N/A
4	Accumulated Transmit Time, Frequency Occupation & Hopping Sequence	4.3.1.4	Only for FHSS	N/A
5	Hopping Frequency Separation	4.3.1.5	Only for FHSS	N/A
6	Medium Utilization	4.3.1.6 or 4.3.2.5	Only for non-adaptive equipment	N/A
7	Adaptivity	4.3.1.7 or 4.3.2.6	Only for adaptive equipment	N/A
8	Occupied Channel Bandwidth	4.3.1.8 or 4.3.2.7	Apply all equipment	PASS
9	Transmitter unwanted emissions in the OOB domain	4.3.1.9 or 4.3.2.8	Apply all equipment	PASS
10	Transmitter unwanted emissions in the spurious domain	4.3.1.10 or 4.3.2.9	Apply all equipment	PASS
11	Receiver spurious emissions	4.3.1.11 or 4.3.2.10	Apply all equipment	PASS
12	Receiver Blocking	4.3.1.12 or 4.3.2.11	Apply all equipment	PASS
13	Geo-location capability	4.3.1.13 or 4.3.2.12	If implemented	N/A
Note: N/A is an abbreviation for Not Applicable and means this test item is not applicable for this device according to the technology characteristic of device.				

2. ENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name	:	Remote Control
Model Number	:	BV-ISLR240S24
Modulation	:	O-QPSK(DSSS)
Operation Frequency	:	2405MHz ~ 2480MHz
Number of channel	:	16 Channels
Antenna and Gain	:	External antenna , 3.4dBi Gain
Test Voltage	:	AC 230V/50Hz

2.2.Test Facilities

Site Description	1-3F, Lab Building, No.29 District, ZhongKai Hi-Tech Industrial Development Park, Huizhou, Guangdong, China
Name of Firm:	KeySense Testing & Certification International Co., Ltd.
EMC Lab	Certificated by CNAS, CHINA
	Registration No.: L9678
	Date of registration: Feb 07, 2017

2.3.Measurement uncertainty

Uncertainty for Radiated Spurious Emission test in RF chamber	1 dB (Bilog antenna 30M~1000MHz)
	0.9 dB (Horn antenna 1000M~25000MHz)
Uncertainty for Conduction Spurious emission test	2.10 dB
Uncertainty for Output power test	0.94 dB
Uncertainty for Power density test	2.10 dB
Uncertainty for Temperature and humidity test	2%
	1℃
Uncertainty for Frequency range test	1×10-6
Uncertainty for Bandwidth test	1×10-6
Uncertainty for DC power test	0.042 %
Uncertainty for test site temperature and humidity	0.6℃
	3%

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

2.4.Standard Description

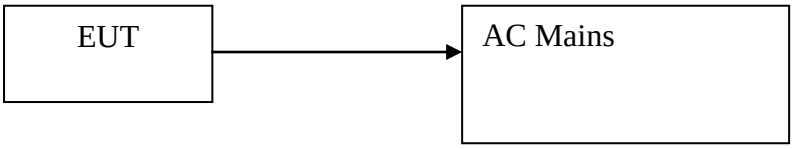
ETSI EN 300 328 V2.2.2 (2019-07): Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU.

2.5.Assistant equipment used for test

2.5.1.Notebook

M / N : 13IML
Manufacturer : Lenovo

2.6.Block Diagram of Test Setup



2.7.Test mode

The test software was used to control EUT work in Continuous TX or RX mode, and select test channel, wireless mode

Test mode	Lower channel	Center channel	Upper channel
Transmitting	2405MHz	2440MHz	2480MHz
Receiving	2405MHz	2440MHz	2480MHz

2.8.Channel List

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
11	2405MHz	15	2425MHz	19	2445MHz	23	2465MHz
12	2410MHz	16	2430MHz	20	2450MHz	24	2470MHz
13	2415MHz	17	2435MHz	21	2455MHz	25	2475MHz
14	2420MHz	18	2440MHz	22	2460MHz	26	2480MHz

3. MEASUREMENTS OF PARAMETERS (ETSI EN 300 328)

3.1.RF Output Power

3.1.1.Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Spectrum	Rohde & Schwarz	FSV	103559	Dec 06,2021	1 Year
Vector signal source	Agilent	N5182A	MY47420382	Dec 06,2021	1 Year
Analog signal source	Rohde & Schwarz	SMB 100A	179706	Dec 06,2021	1 Year
Comprehensive measuring instrument	Rohde & Schwarz	CMW 500	158242	Dec 06,2021	1 Year
control unit	MWRF	MW100-RFCB	10165	Dec 06,2021	1 Year
Testing software	SKET	MTS-8310	10165	Dec 06,2021	1 Year
N/A is an abbreviation for Not Applicable.					

3.1.2.Limit (ETSI EN 300 328 V2.2.2 (2019-07))

Refer to chapter 4.3.2.2 of EN 300 328 V2.2.2 .

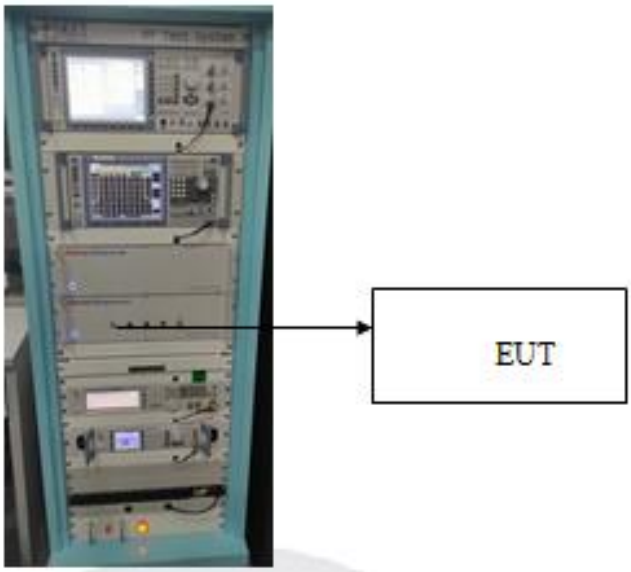
The maximum RF output power for adaptive Frequency Hopping equipment shall be equal to or less than 20 dBm.

The maximum RF output power for non-adaptive Frequency Hopping equipment shall be declared by the manufacturer. See clause 5.4.1 m). The maximum RF output power for this equipment shall be equal to or less than the value declared by the manufacturer. This declared value shall be equal to or less than 20 dBm.

This limit shall apply for any combination of power level and intended antenna assembly.

3.1.3.Test Method

(1) Connected the antenna port to the OSP of MTS-8310 system, read output power of the transmitter. (As below).



(2) Test conditions refer to chapter 5.4.2.1 of EN 300 328 V2.2.2 .

(3) Test method refer to chapter 5.4.2.2.1.2 of EN 300 328 V2.2.2 .

3.1.4.Test Information

EUT: Rainproof intelligent power supply	
M/N: BV-ISLR240S24	
Test Date: 2022.03.09	Tested by:Bing.He
Ambient Temperature: 23℃	Relative Humidity: 54%

3.1.5.Test Results

Test mode:TX			Test result: Pass	
Test condition	Frequency (MHz)	Max EIRP (dBm)	Limit (dBm)	Result
Normal T:23℃ V: AC 230V	2405	6.70	20	Pass
	2440	6.71		Pass
	2480	6.47		Pass
Extreme T:0℃ V: AC 230V	2405	6.70		Pass
	2440	6.71		Pass
	2480	6.47		Pass
Extreme T:45℃ V: AC 230V	2405	6.70		Pass
	2440	6.71		Pass
	2480	6.47		Pass

3.2.Power Spectral Density

3.2.1.Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Spectrum	Rohde & Schwarz	FSV	103559	Dec 06,2021	1 Year
Vector signal source	Agilent	N5182A	MY47420382	Dec 06,2021	1 Year
Analog signal source	Rohde & Schwarz	SMB 100A	179706	Dec 06,2021	1 Year
Comprehensive measuring instrument	Rohde & Schwarz	CMW 500	158242	Dec 06,2021	1 Year
control unit	MWRF	MW100-RFCB	10165	Dec 06,2021	1 Year
Testing software	SKET	MTS-8310	10165	Dec 06,2021	1 Year
N/A is an abbreviation for Not Applicable.					

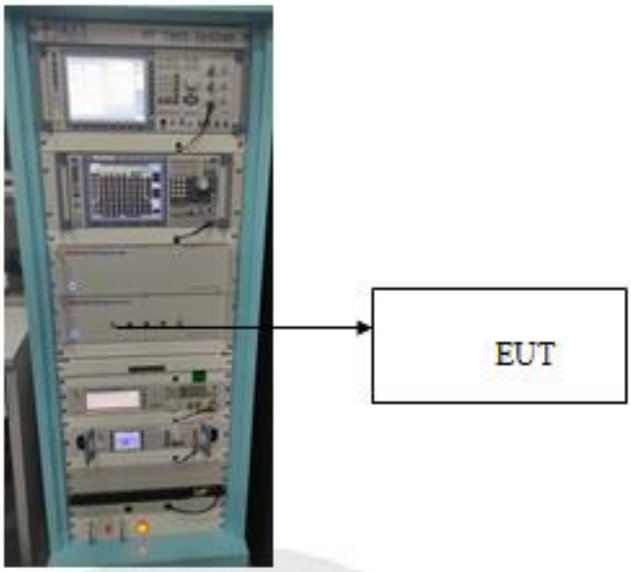
3.2.2.Limit (ETSI EN 300 328 V2.2.2 (2019-07))

Refer to chapter 4.3.2.3 of EN 300 328 V2.2.2 .

For equipment using wide band modulations other than FHSS, the maximum Power Spectral Density is limited to 10 dBm per MHz.

3.2.3.Test Method

(1) Connected the antenna port to the OSP of MTS-8310 system, read output power of the transmitter. (As below).



(2) Configure EUT work in TX operation mode.

(3) Test conditions refer to chapter 5.4.3.1 of EN 300 328 V2.2.2 .

(4) Test method refer to chapter 5.4.3.2.1 of EN 300 328 V2.2.2 .

3.2.4.Test Information

EUT: Rainproof intelligent power supply	
M/N: BV-ISLR240S24	
Test Date: 2022.03.09	Tested by:Bing.He
Ambient Temperature: 23℃	Relative Humidity: 54%

3.2.5.Test Results

Test mode: TX				
Test result: Pass				
Test Mode	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
TX	2405	4.46	**10**	Pass
	2440	4.47		Pass
	2480	4.23		Pass

3.3.Duty Cycle ,Tx-Sequence, Tx-gap

N/A (Not Applicable)

These requirements apply to non-adaptive equipment or to adaptive equipment when operating in a non-adaptive mode. The equipment is using wide band modulations other than FHSS.

These requirements do not apply for equipment with a maximum declared RF Output power level of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

3.4.Accumulated Transmit Time, Frequency Occupation and Hopping

Sequence

N/A (Not Applicable)
Only for FHSS equipment.

3.5.Medium Utilization (MU) factor

N/A (Not Applicable)
This requirement does not apply to adaptive equipment unless operating in a non-adaptive mode.
In addition, this requirement does not apply for equipment with a maximum declared RF Output power level of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

3.6.Adaptivity

N/A (Not Applicable)

This requirement does not apply to non-adaptive equipment or adaptive equipment operating in a non-adaptive mode providing the equipment complies with the requirements and/or restrictions applicable to non-adaptive equipment.

In addition, this requirement does not apply for equipment with a maximum declared RF Output power level of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

3.7.Occupied Channel Bandwidth

3.7.1.Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Spectrum	Rohde & Schwarz	FSV	103559	Dec 06,2021	1 Year
Vector signal source	Agilent	N5182A	MY47420382	Dec 06,2021	1 Year
Analog signal source	Rohde & Schwarz	SMB 100A	179706	Dec 06,2021	1 Year
Comprehensive measuring instrument	Rohde & Schwarz	CMW 500	158242	Dec 06,2021	1 Year
control unit	MWRF	MW100-RFCB	10165	Dec 06,2021	1 Year
Testing software	SKET	MTS-8310	10165	Dec 06,2021	1 Year
N/A is an abbreviation for Not Applicable.					

3.7.2.Limit (ETSI EN 300 328 V2.2.2 (2019-07))

Refer to chapter 4.3.2.7 of EN 300 328 V2.2.2 .
This requirement applies to all types of equipment using wide band modulations other than FHSS.

The Occupied Channel Bandwidth is the bandwidth that contains 99 % of the power of the signal.

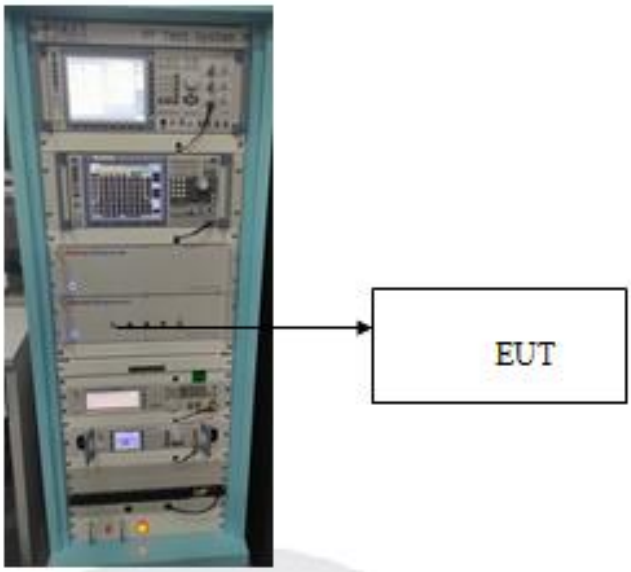
The Occupied Channel Bandwidth shall fall completely within the band given in table 1.
In addition, for non-adaptive equipment using wide band modulations other than FHSS and with e.i.r.p. greater than 10 dBm, the occupied channel bandwidth shall be less than 20 MHz.

Table 1: Service frequency bands

	Service frequency bands
Transmit	2 400 MHz to 2 483,5 MHz
Receive	2 400 MHz to 2 483,5 MHz

3.7.3.Test method

(1) Connected the antenna port to the OSP of MTS-8310 system, read output power of the transmitter. (As below).



(2) Configure EUT work in lowest and highest TX frequency.

(3) Test conditions refer to chapter 5.4.7.1 of EN 300 328 V2.2.2 .

(4) Test method refer to chapter 5.4.7.2.1 of EN 300 328 V2.2.2 .

3.7.4.Test Information

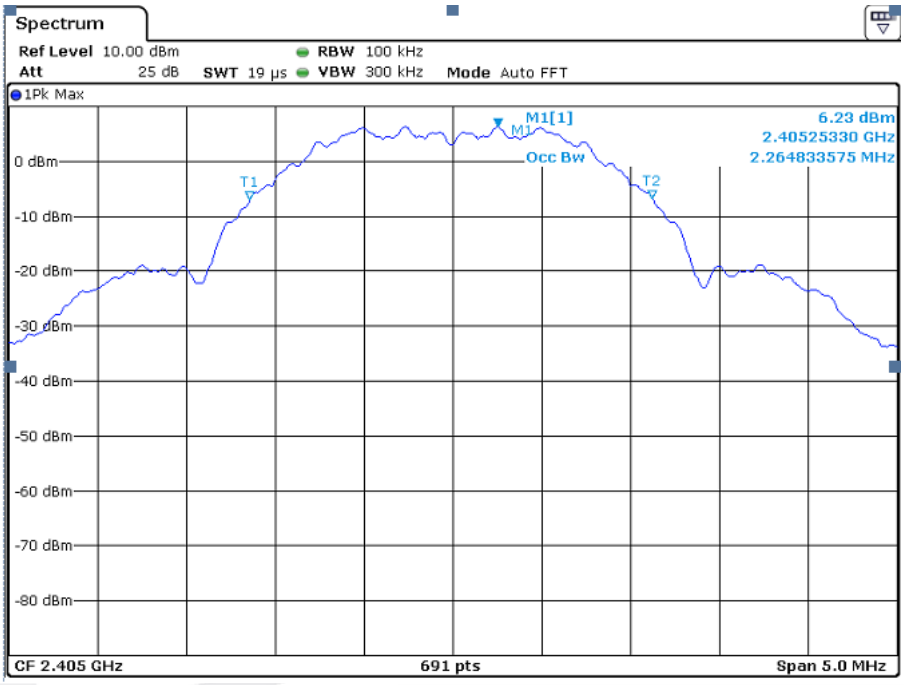
EUT: Rainproof intelligent power supply	
M/N: BV-ISLR240S24	
Test Date:2022.03.07	Tested by:Bing.He
Ambient Temperature: 23℃	Relative Humidity: 54%

3.7.5.Test Results

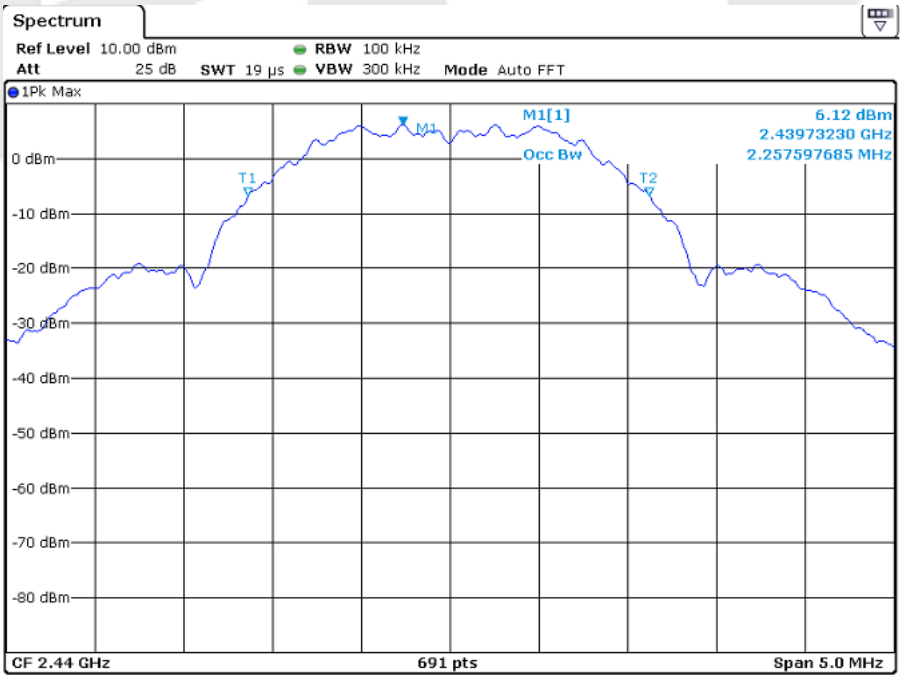
Frequency (MHz)	Antenna	Center Frequency (MHz)	OBW (MHz)	Limit OBW (MHz)	Verdict
2405	Ant1	2405.253	2.265	2400 - 2483.5MHz	Pass
2440	Ant1	2439.732	2.258	2400 - 2483.5MHz	Pass
2480	Ant1	2479.739	2.265	2400 - 2483.5MHz	Pass

3.7.6.Original test data

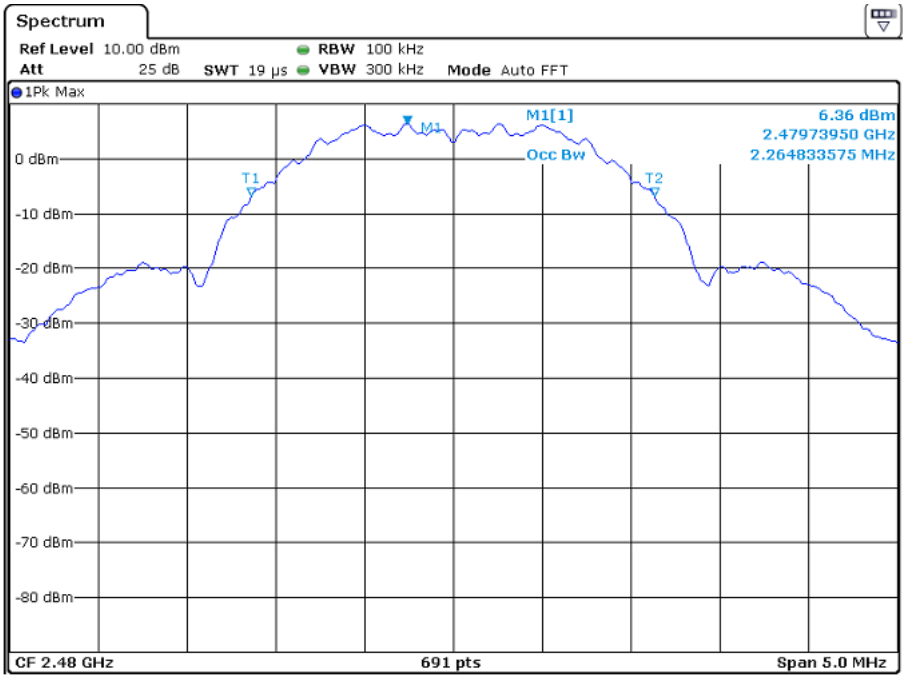
2405MHz Ant1



2440MHz Ant1



2480MHz Ant1



3.8.Transmitter unwanted emissions in the out-of-band domain

3.8.1.Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Spectrum	Rohde & Schwarz	FSV	103559	Dec 06,2021	1 Year
Vector signal source	Agilent	N5182A	MY47420382	Dec 06,2021	1 Year
Analog signal source	Rohde & Schwarz	SMB 100A	179706	Dec 06,2021	1 Year
Comprehensive measuring instrument	Rohde & Schwarz	CMW 500	158242	Dec 06,2021	1 Year
control unit	MWRF	MW100-RFCB	10165	Dec 06,2021	1 Year
Testing software	SKET	MTS-8310	10165	Dec 06,2021	1 Year
N/A is an abbreviation for Not Applicable.					

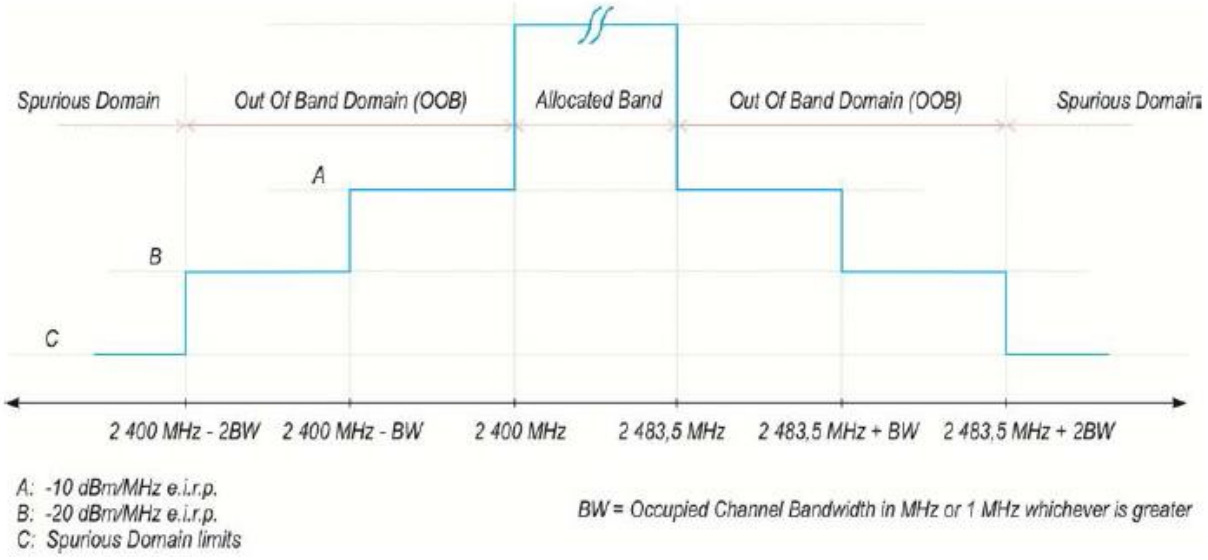
3.8.2.Limit ((ETSI EN 300 328 V2.2.2 (2019-07))

Refer to chapter 4.3.2.8 of EN 300 328 V2.2.2 .

This requirement applies to all types of equipment using wide band modulations other than FHSS.

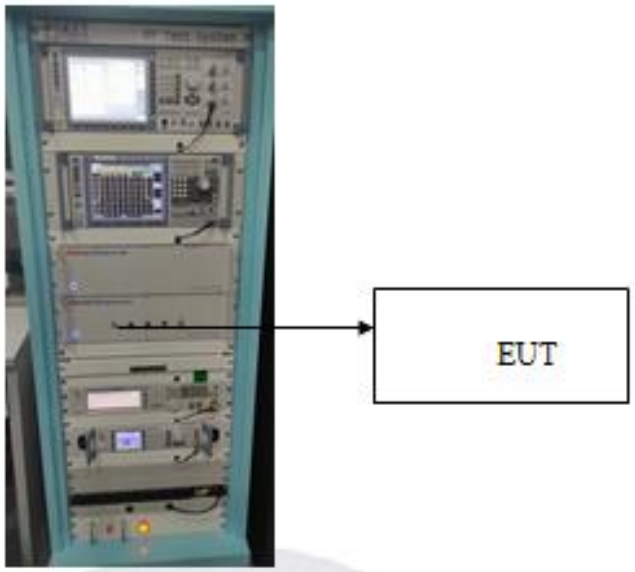
Transmitter unwanted emissions in the out-of-band domain are emissions when the equipment is in Transmit mode, on frequencies immediately outside the necessary bandwidth which results from the modulation process, but excluding spurious emissions.

The transmitter unwanted emissions in the out-of-band domain but outside the allocated band, shall not exceed the values provided by the mask as follow:



3.8.3.Test method

(1) Connected the antenna port to theOSP of MTS-8310 system, read output power of the transmitter. (As below)



(2) Configure EUT work in TX mode.

(3) Test conditions refer to chapter 5.4.8.1 of EN 300 328 V2.2.2 .

(4) Test method refer to chapter 5.4.8.2.1 of EN 300 328 V2.2.2 .

3.8.4.Test Information

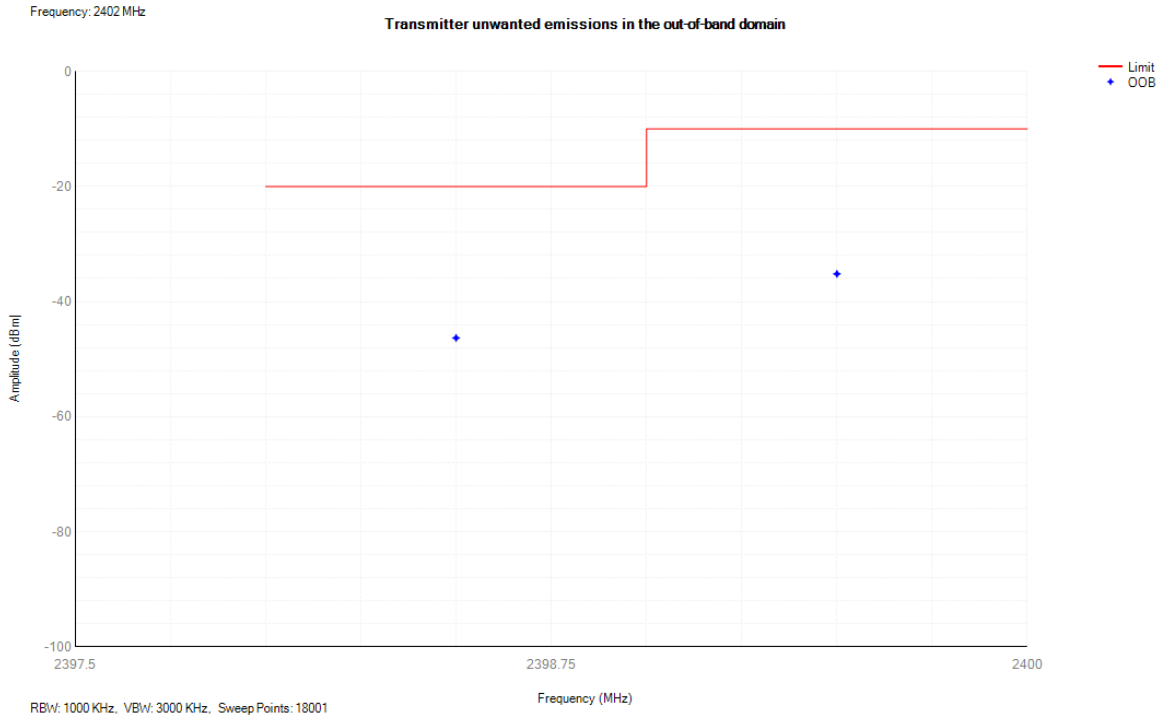
EUT: Rainproof intelligent power supply	
M/N: BV-ISLR240S24	
Test Date: 2022.03.07	Tested by:Bing.He
Ambient Temperature: 23℃	Relative Humidity: 54%

3.8.5.Test Results

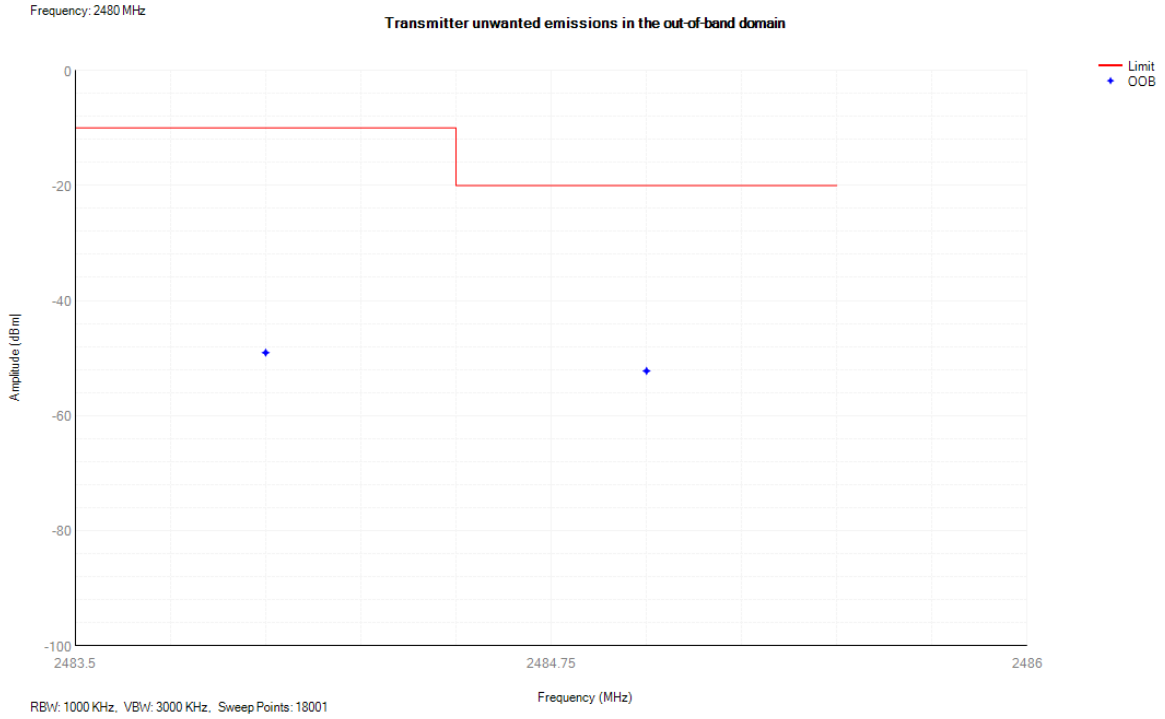
Condition	Mode	Frequency (MHz)	Antenna	OOB Frequency (MHz)	Level (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	TX	2405	Ant1	2399.5	-35.19	-10	Pass
NVNT	TX	2405	Ant1	2398.5	-46.32	-20	Pass
NVNT	TX	2480	Ant1	2484	-49.05	-10	Pass
NVNT	TX	2480	Ant1	2485	-52.23	-20	Pass

3.8.6.Original test data

Tx. Emissions OOB NVNT BLE 1M 2405MHz Ant1



Tx. Emissions OOB NVNT BLE 1M 2480MHz Ant1



3.9. Transmitter unwanted emissions in the spurious domain

3.9.1. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
Spectrum analyzer	R&S	FSV30	103559	Dec 06,2021	1 year
Trilog-boardband antenna	Schwarzbeck	VULB 9163D	9163-971	Dec 06,2021	3 years
Horn antenna	Schwarzbeck	BBHA 9120D	9120D-1590	Dec 06,2021	3 years
Horn antenna	ETS	3160-09	00208373	Dec 06,2021	3 years
Pre-amplifier (Low Freq)	Claviio	BDLNA-0001-272007	1600015	Dec 06,2021	3 years
Pre-amplifier (High Freq)	Claviio	BDLNA-0118-352810	1600019	Dec 06,2021	3 years
Pre-amplifier (High Freq)	Claviio	BDLNA-1826-483105	1600013	Dec 06,2021	3 years

3.9.2. Limit (ETSI EN 300 328 V2.2.2 (2019-07))

Refer to chapter 4.3.2.9 of EN 300 328 V2.2.2 .

The transmitter unwanted emissions in the spurious domain shall not exceed the values given in table 12.

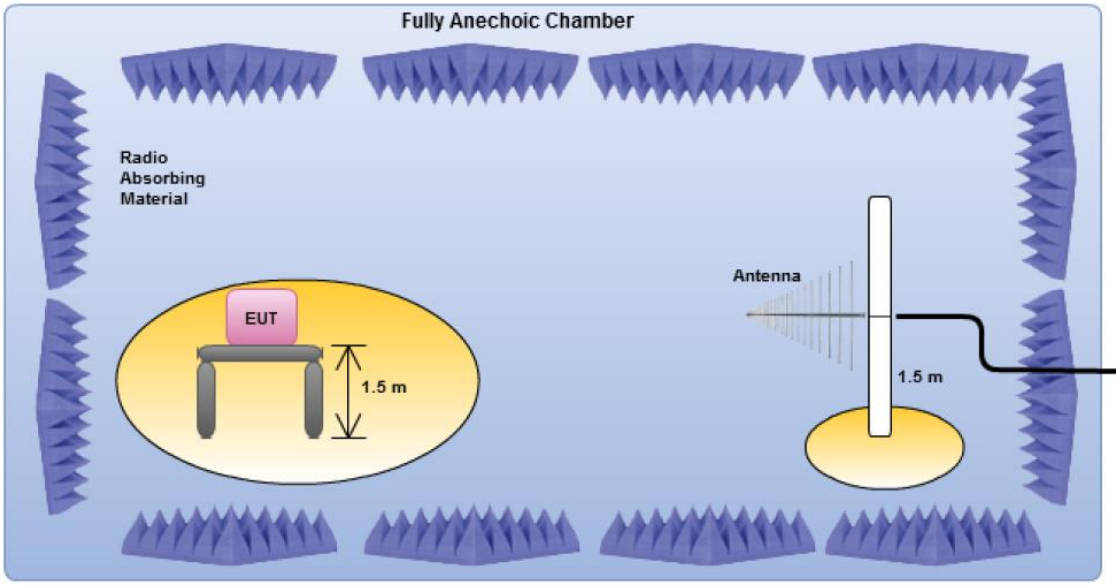
n case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted). For emissions radiated by the cabinet or emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p. for emissions up to 1 GHz and as e.i.r.p. for emissions above 1 GHz.

Table 12: Transmitter limits for spurious emissions

Frequency range	Maximum power	Bandwidth
30 MHz to 47 MHz	-36 dBm	100 kHz
47 MHz to 74 MHz	-54 dBm	100 kHz
74 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 862 MHz	-54 dBm	100 kHz
862 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 12,75 GHz	-30 dBm	1 MHz

3.9.3.Test Method

(1) Test Setup.(As Below)



(2) Test conditions refer to chapter 5.4.9.1 of EN 300 328 V2.2.2 .

(3) Test method refer to chapter 5.4.9.2.2 of EN 300 328 V2.2.2 .

3.9.4.Test Information

EUT:	Rainproof intelligent power supply
M/N:	BV-ISLR240S24
Test Date:	2022.02.28
Test standard:	ETSI EN 300 328 V2.2.2 (2019-07)
Test mode:	BLE(GFSK)
Test By:	Bing.He

3.9.5.Test Results

30MHz to 1GHz					
EUT mode	Frequency (MHz)	Spurious emissions level (dBm)	Limit (dBm)	Conclusion	Antenna Pole (H/V)
TX Mode	44.76	-58.21	-54.00	Pass	H
	87.99	-60.01	-54.00	Pass	V
1、“H” mean is horizontal direction, “V” mean is vertical direction.。 2、The worst case has recorded in the report.					

Above 1GHz					
EUT mode	Frequency (MHz)	Spurious emissions level (dBm)	Limit (dBm)	Conclusion	Antenna Pole (H/V)
2405MHz	4810.00	-30.78	-30.00	Pass	H
	7215.00	-50.00	-30.00	Pass	H
	4810.00	-46.20	-30.00	Pass	V
	7215.00	-51.19	-30.00	Pass	V
2480MHz	4960.00	-45.01	-30.00	Pass	H
	7440.00	-50.10	-30.00	Pass	H
	4960.00	-44.66	-30.00	Pass	V
	7440.00	-51.00	-30.00	Pass	V
Note: “H” mean is horizontal direction, “V” mean is vertical direction.					

3.10.Receiver Spurious Emissions

3.10.1.Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Spectrum analyzer	R&S	FSV30	103559	Dec 06,2021	1 year
Trilog-boardband antenna	Schwarzbeck	VULB 9163D	9163-971	Dec 06,2021	3 years
Horn antenna	Schwarzbeck	BBHA 9120D	9120D-1590	Dec 06,2021	3 years
Horn antenna	ETS	3160-09	00208373	Dec 06,2021	3 years
Pre-amplifier (Low Freq)	Claviio	BDLNA-0001-272007	1600015	Dec 06,2021	3 years
Pre-amplifier (High Freq)	Claviio	BDLNA-0118-352810	1600019	Dec 06,2021	3 years
Pre-amplifier (High Freq)	Claviio	BDLNA-1826-483105	1600013	Dec 06,2021	3 years
Calibration Lab: CEPREI Calibration and Testing Center					

3.10.2.Limit (ETSI EN 300 328 V2.2.2 (2019-07)

Refer to chapter 4.3.2.10 of EN 300 328 V2.2.2 .

This requirement applies to all types of equipment using wide band modulations other than FHSS.

Receiver spurious emissions are emissions at any frequency when the equipment is in receive mode.

The spurious emissions of the receiver shall not exceed the values given in table 13.

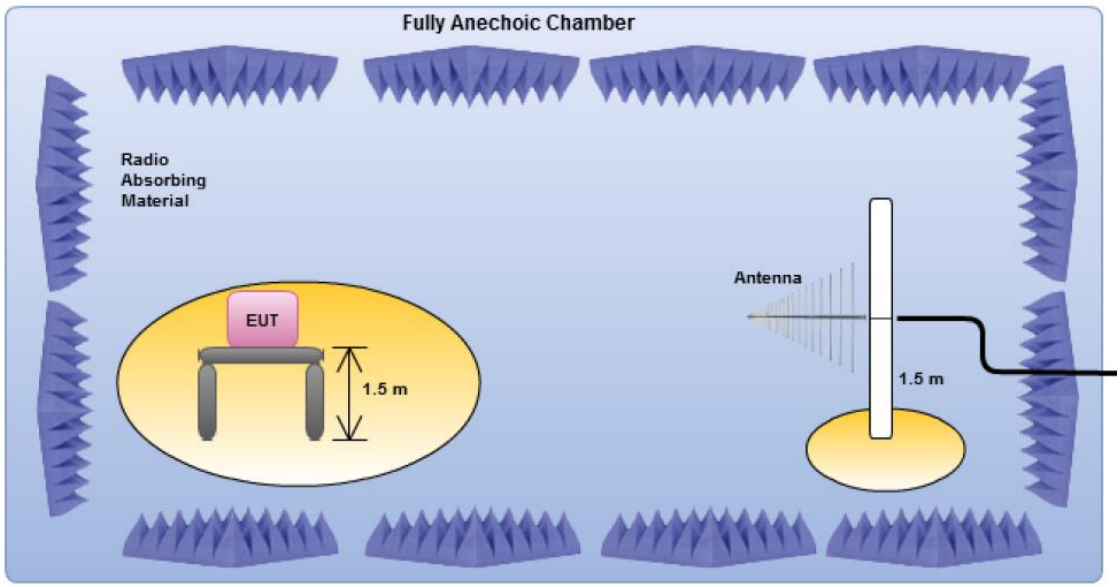
In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted). For emissions radiated by the cabinet or for emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p. for emissions up to 1 GHz and e.i.r.p. for emissions above 1 GHz.

Table 13: Spurious emission limits for receivers

Frequency range	Maximum power	Bandwidth
30 MHz to 1 GHz	-57 dBm	100 kHz
1 GHz to 12,75 GHz	-47 dBm	1 MHz

3.10.3.Test Method

(1) Test Setup.(As Below)



(2) Test conditions refer to chapter 5.4.10.1 of EN 300 328 V2.2.2 .

(3) Test method refer to chapter 5.4.10.2.2 of EN 300 328 V2.2.2 .

3.10.4.Test Information

EUT:	Rainproof intelligent power supply
M/N:	BV-ISLR240S24
Test Date:	2022.02.28
Test standard:	ETSI EN 300 328 V2.2.2 (2019-07)
Test mode:	BLE(GFSK)
Test By:	Bing.He

3.10.5.Test Results

EUT mode	Frequency (MHz)	Spurious emissions level (dBm)	Limit (dBm)	Conclusion	Antenna Pole (H/V)
RX Mode	30.11	-60.33	–57.00	Pass	H
	1450.11	-61.99	–47.00	Pass	H
	32.81	-62.90	–57.00	Pass	V
	1901.66	-61.00	–47.00	Pass	V
1、“H” mean is horizontal direction, “V” mean is vertical direction.。 2、The worst case has recorded in the report.					

3.11.Receiver Blocking

3.11.1.Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Spectrum	Rohde & Schwarz	FSV	103559	Dec 06,2021	1 Year
Vector signal source	Agilent	N5182A	MY47420382	Dec 06,2021	1 Year
Analog signal source	Rohde & Schwarz	SMB 100A	179706	Dec 06,2021	1 Year
Comprehensive measuring instrument	Rohde & Schwarz	CMW 500	158242	Dec 06,2021	1 Year
control unit	MWRF	MW100-RFCB	10165	Dec 06,2021	1 Year
Testing software	SKET	MTS-8310	10165	Dec 06,2021	1 Year
N/A is an abbreviation for Not Applicable.					

3.11.2.Limit (ETSI EN 300 328 V2.2.2 (2019-07))

Refer to chapter 4.3.2.11 of EN 300 328 V2.2.2 .

While maintaining the minimum performance criteria as defined in clause 4.3.2.11.3, the blocking levels at specified frequency offsets shall be equal to or greater than the limits defined for the applicable receiver category provided in table 14, table 15 or table 16.

This requirement applies to all receiver categories.

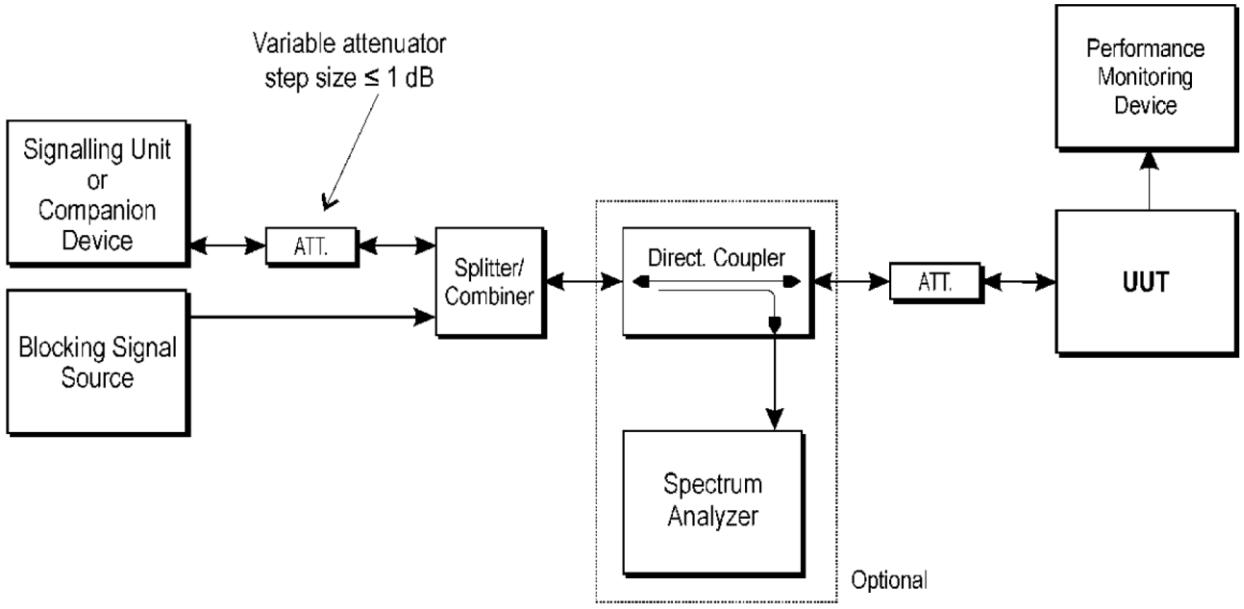
Receiver Catergory		
☒Category 1	☐ Category 2	☐ Category 3
Minimum performance criterion	☒PER ≤ 10%	
	☐Alternative performance criteria(See Note)	
Note: The manufacturer was declared performance criteria is x% for the intended use of the equipment		

Table 14: Receiver Blocking parameters for Receiver Category 1 equipment

Wanted signal mean power from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power (dBm) (see note 2)	Type of blocking signal
P_{min} + 6 dB	2 380 2 503,5	-53	CW
P_{min} + 6 dB	2 300 2 330 2 360	-47	CW
P_{min} + 6 dB	2 523,5 2 553,5 2 583,5 2 613,5 2 643,5 2 673,5	-47	CW
NOTE 1: P_{min} is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria as defined in clause 4.3.2.11.3 in the absence of any blocking signal. NOTE 2: The levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels have to be corrected by the actual antenna assembly gain.			

3.11.3.Test Method

(1) Test Setup.(As Below)



(2) Test conditions refer to chapter 5.4.11.1 of EN 300 328 V2.2.2 .

(3) Test method refer to chapter 5.4.11.2.1 of EN 300 328 V2.2.2 .

3.11.4.Test information

EUT:	Rainproof intelligent power supply
M/N:	BV-ISLR240S24
Test Date:	2022.02.28
Test standard:	ETSI EN 300 328 V2.2.2
Test mode:	BLE(GFSK) Low Channel and High Channel (Worst)
Test By:	Bing.He

3.11.5.Test Results

Test Mode	Frequency (MHz)	Wanted signal mean power from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power (dBm)	PER (%)	Limit (%)	Result
GFSK	2405	-68	2380	-34	1.6	10.00	Pass
		-74	2300		1.6	10.00	Pass
			2330		1.3	10.00	Pass
			2360		1.2	10.00	Pass
	2480	-68	2504		0.4	10.00	Pass
		-74	2524		1.3	10.00	Pass
			2584		1.7	10.00	Pass
			2674		1.1	10.00	Pass

3.12.Geo-location capability

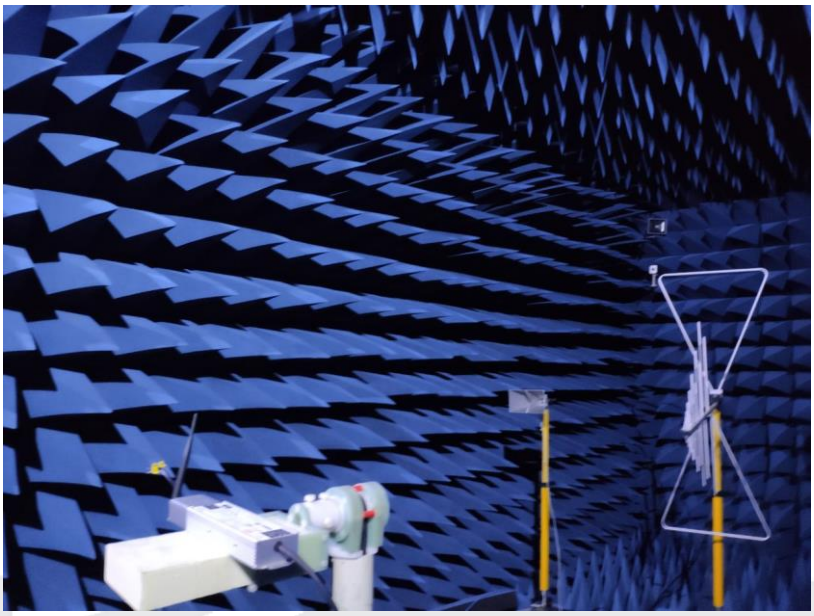
N/A (Not Applicable)
This requirement only applies to equipment with geo-location capability.

Geo-location capability is a feature of the equipment to determine its geographical location with the purpose to configure itself according to the regulatory requirements applicable at the geographical location where it operates.

The geo-location capability may be present in the equipment or in an external device (temporary) associated with the equipment operating at the same geographical location during the initial power up of the equipment. The geographical location may also be available in equipment already installed and operating at the same geographical location.

4. PHOTOGRAPHS OF TEST SETUP

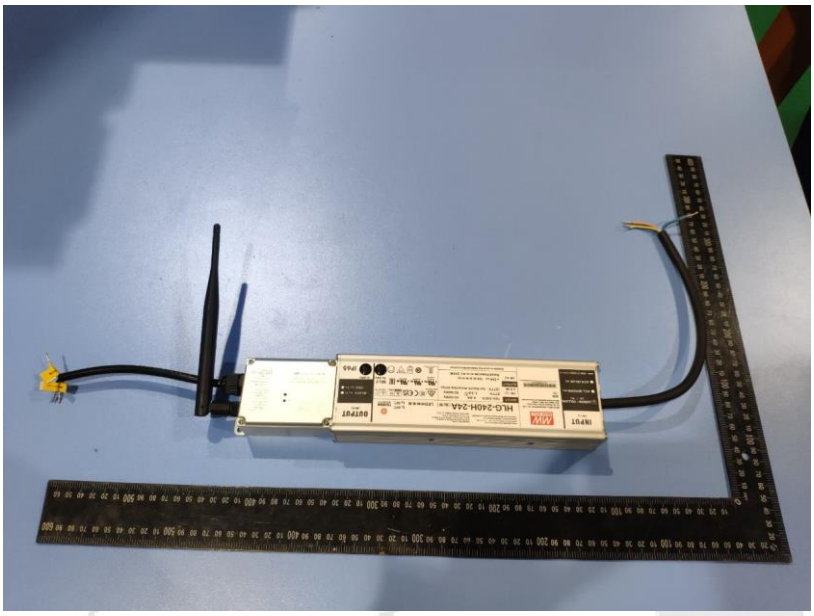
4.1. Set-up for Transmitter & Receiver Spurious Emissions, Below 1GHz & Above 1GHz

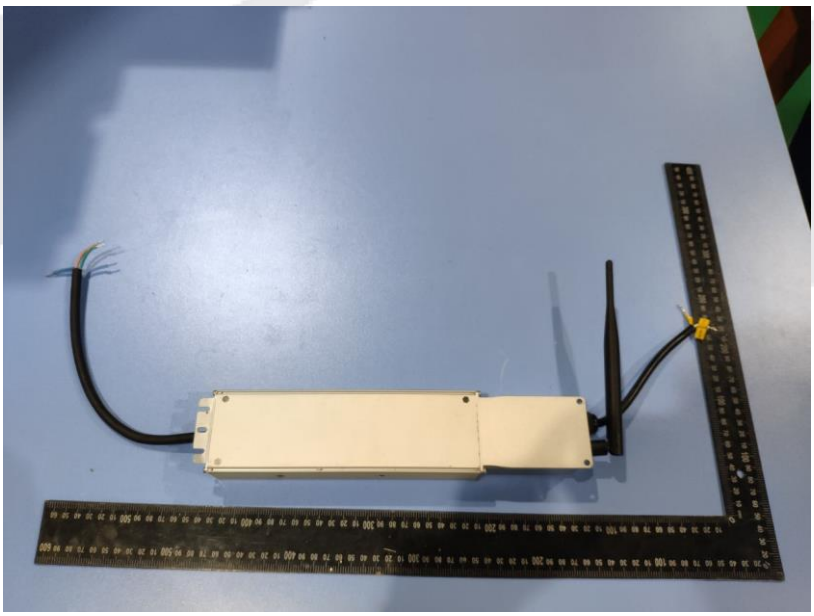


4.2. Set-up for Radio Spectrum Testing, Condition

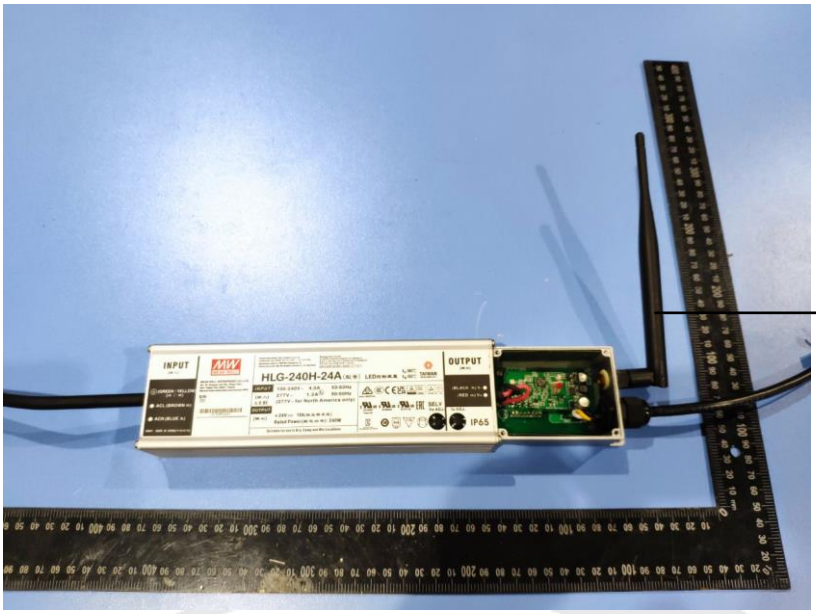
5. PHOTOGRAPHS OF EUT

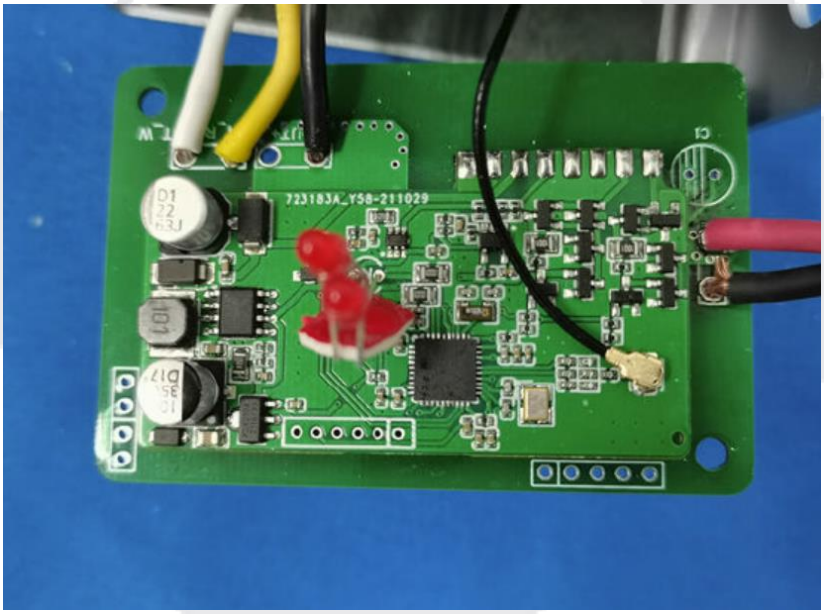
External Photos





Internal Photos





..... End of Report .....

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