ACCREDITED
CERT #5473.03

No.:
REDSZ2025-0109-RF1

TEST REPORT

NAME OF SAMPLE	:	**NeoEyes NE101 Sensing Camera**
APPLICANT	:	**Xiamen CamThink Technology Co., Ltd.**
CLASSIFICATION OF TEST	:	**N/A**

CVC Testing Technology (Shenzhen) Co., Ltd.

Applicant	**Name: Xiamen CamThink Technology Co., Ltd.** **Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China**
Manufacturer	**Name: Xiamen CamThink Technology Co., Ltd.** **Address: Building C09, Software Park Phase III, Xiamen 361024, Fujian, China**
Equipment Under Test	**Product Name: NeoEyes NE101 Sensing Camera** **Model Name: NE101-HL00** **Additional Model Name: NT101-HL00** **Brand Name: CamThink** **Serial NO.: N/A** **Sample NO.: 202507115892-7**

Date of Receipt.	**Jul. 14, 2025**	Date of Testing	**Jul. 14, 2025 ～ Aug. 06, 2025**

Test Specification	**Test Result**
EN 300 328 V2.2.2 (2019-07)	PASS

Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Seal of CVC **Issue Date: Aug. 06, 2025**

Compiled by:	Reviewed by:	Approved by:
Zhu Yulin	Mo Xianbiao	Dong Sanbi
Name Signature	Name Signature	Name Signature

Other Aspects: NONE.

Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
REDSZ2025-0109-RF1	Original release	Aug. 06, 2025

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

EN 300 328 V2.2.2			
CLAUSE	**TEST PARAMETER**	**REPORT SECTION**	**RESULT**
Transmitter Parameters			
4.3.2.2	RF Output Power	Refer to Note 2	Pass
4.3.2.3	Power Spectral Density	Refer to Note 2	Pass
4.3.2.6	Adaptivity	Refer to Note 2	Refer to Note 1
4.3.2.7	Occupied Channel Bandwidth	Refer to Note 2	Pass
4.3.2.8	Transmitter Unwanted Emissions In The Out-Of-Band Domain	Refer to Note 2	Pass
4.3.2.9	Transmitter unwanted emissions in the spurious domain	See section 3.6	Pass Refer to Note 3
4.3.2.12	Geo-location capability	Not Applicable	---
Receiver Parameters		**Receiver Parameters**	
4.3.2.10	Receiver Spurious Emissions	See section 3.7	Pass Refer to Note 3
4.3.2.11	Receiver Blocking	Refer to Note 2	Pass

Note:

1. These requirements do not apply for equipment with a maximum declared RF Output power of less than 10 dBm EIRP or for equipment when operating in a mode where the RF Output power is less than 10 dBm EIRP.
2. The device is built with Wi-Fi & Bluetooth Internet of Things Module (Model No.: ESP32-S3-WROOM-1) and the module has been certified. Only radiated spurious emission measurement was test in the report, other test items and test data will refer to the module's report.(Report No.: R2111A1079-R1V1)
3. The difference between NE101-HL00 and NE101-L01GL lies in the replacement of the LTE Module with the WiFi Halow Module, with no other variations. Therefore, the spurious emission measurement data from NE101-L01GL is referenced.(Report No.: REDSZ2025-0066-RF1)

1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial Number	Cal. interval	Cal. Due
Antenna Port Conducted Test (BT/WiFi)					
Spectrum Analyzer	R&S	FSV 30	CS030002	1 year	2026/04/22
Analog signal Generator	R&S	SMB 100A	CS0300015	1 year	2026/04/22
Vector signal Generator	R&S	SGT 100A	CS0300017	1 year	2026/04/22
RF control unit(BT/WIFI)	Tonscend	JS0806-2-8CH	CS0300023	1 year	2026/04/22
RF control unit(DTV)	Tonscend	JS0806-1	CS0300024	1 year	2026/04/22
DC power supply	R&S	HMC8041-G	CS0300026	1 year	2026/04/22
#3Shielding room	MORI	443	CS0300009	3 year	2026/05/16
Digital multimeter	FLUKE	18B+	CS0200056	1 year	2026/05/21
Attenuator	GWAVE	2.92-CA110-E	CS0300145	1 year	2026/06/05
Power Sensor	R&S	NRP18S-10	101843	1 year	2025/09/19
Power splitter	Anritsu	K240CPOWERDIVIDER	012334	1 year	2026/06/05
Temperature and humidity meter	UNI-T	A10T	C193561457	1 year	2026/04/28
RSE Test - 3M Chamber					
Spectrum Analyzer	R&S	FSV 40	CS030001	1 year	2026/04/22
Spectrum Analyzer	R&S	FSVA 3044	CS030004	1 year	2026/05/21
EMI Test Receiver	R&S	ESR3	CS0300005	1 year	2026/05/21
Horn antenna(1GHz-18GHz)	ETS-Lindgren	3117	CS0300007	1 year	2026/03/28
Horn antenna(18GHz-40GHz)	STEATITE	QMS-00880	CS0300008	1 year	2026/03/21
Automatic control unit(RSE)	R&S	OSP220	CS0300019	1 year	2025/07/02
Filter group(RSE-BT/WiFi)	R&S	WiFi/BT Variant 1	CS0300020	1 year	2026/04/22
Filter group(RSE-Cellular)	R&S	Cellular Variant 1	CS0300021	1 year	2026/04/22
Preamplifier(1GHz-18GHz)	R&S	SCU18F	CS0300031-1	1 year	2026/04/22
Preamplifier(1GHz-18GHz)	R&S	SCU-18F	CS0300031	1 year	2026/04/22
Comprehensive Test Instrument	R&S	CMW 500	CS0300033	1 year	2026/05/22
Antenna(30MHz~1001MHz)	SCHWARZBECK	VULB9168	CS0200006	1 year	2026/01/22
Preamplifier(1GHz-18GHz)	R&S	SCU-01F	CS0200042	1 year	2026/04/22
Preamplifier(18GHz-40GHz)	R&S	SCU40A	CS0200045	1 year	2026/04/22
Attenuator	boyang	BY--N-2W-5dB	/	1 year	2026/01/22
Temperature and humidity meter	yuhuaze	/	WK0001	1 year	2026/04/28
#2 control room	MORI	433	CS0300028	3 year	2026/05/16
3m anechoic chamber	MORI	966	CS0300011	3 year	2026/05/16

1.2 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab of CVC Testing Technology (Shenzhen) Co., Ltd.

Address: No. 1301-14, Guanguang Road, Xinlan Community, Guanlan Subdistrict, Longhua District, Shenzhen, Guangdong, China

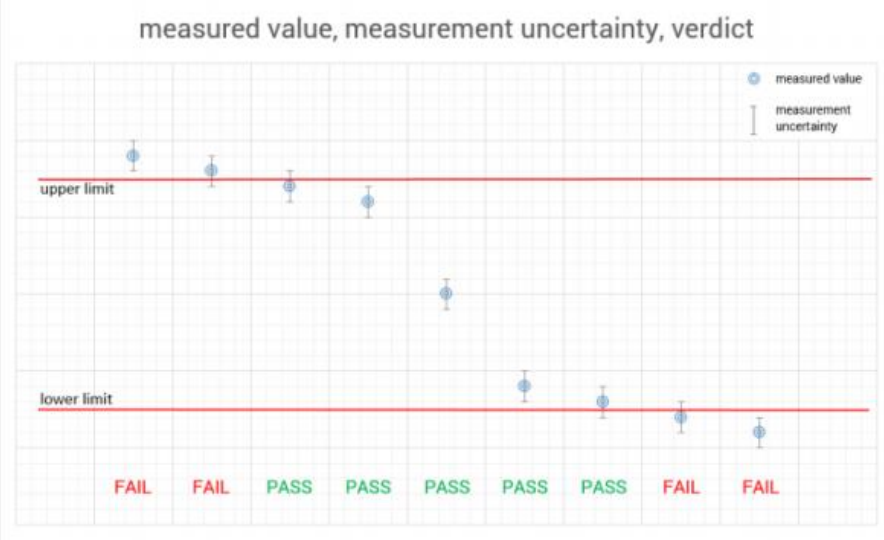
Post Code：518110 Tel：0755-23763060-8805
Fax：0755-23763060 E-mail：sz-kf@cvc.org.cn
FCC(Test firm designation number：CN1363)
IC(Test firm CAB identifier number：CN0137)
CNAS(Test firm designation number：L16091)

1.3 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

No.	Item	Measurement Uncertainty
1	Occupied Channel Bandwidth	±1.86 %
2	RF output power, conducted	±0.9 dB
3	Power Spectral Density, conducted	±0.8 dB
4	Unwanted Emissions, conducted	±2.7 dB
5	Radiated emissions(25MHz-1GHz)	±5.0 dB
	Radiated emissions(1GHz-18GHz)	±4.8 dB
6	Temperature	±0.73 °C
7	Humidity	±3.90 %
8	Supply voltages	±0.37 %
9	Time	±0.27 %
Remark: 95% Confidence Levels, k=2.		

Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed.
The measurement uncertainty is mentioned in this test report, but is not taken into account - neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong.



2 GENERAL INFORMATION

2.1 GENERAL PRODUCT INFORMATION

PRODUCT NAME	NeoEyes NE101 Sensing Camera
BRAND NAME	CamThink
MODEL NAME	NE101-HL00
ADDITIONAL MODEL NAME (Remark 6)	NT101-HL00
POWER SUPPLY	DC 6V(4*1.5V AAA battery)
MODULATIONTECHNOLOGY	DSSS, OFDM, DTS
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM GFSK for DTS
OPERATING FREQUENCY	2412MHz ~ 2472MHz for 802.11b/g/n(HT20) 2422MHz ~ 2462MHz 802.11n(HT40)
NUMBER OF CHANNEL	802.11b/g/n(HT20): 13 802.11n(HT40): 9
OPERATING TEMPERATURE RANGE	-25 ~ 50℃
ADPTIVE/NON-ADPTIVE	☐non-adaptive Equipment ☒adaptive Equipment without the possibility to switch to a non-adaptive mode ☐adaptive Equipment which can also operate in a non-adaptive mode
EIRP (MAX.)	WiFi 2.4G: 19.98dBm
ANTENNA TYPE（Remark 4）	PCB Antenna, with 3.26dBi gain
I/O PORTS	Refer to User's Manual
CABLE SUPPLIED	N/A

Remark:

1. For more detailed features description, please refer to the manufacturer’s specifications or the User's Manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. EUT photo refer to report (Report NO.: REDSZ2025-0109-EUT).
4. Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, CVC is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
5. The EUT have SISO function, provides 1 completed transmitter and 1 receiver.
6. This sample only differs in model name.

2.2 DESCRIPTION OF ACCESSORIES

N/A

2.3 OPERATING FREQUENCY OF EACH CHANNEL

2.4G WIFI					
802.11b/g/n(HT20)					
CHANNEL	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**
1	**2412**	6	2437	11	2462
2	2417	**7**	**2442**	12	2467
3	2422	8	2447	**13**	**2472**
4	2427	9	2452		
5	2432	10	2457		
802.11n(HT40)					
CHANNEL	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**	**CHANNEL**	**FREQ. (MHz)**
3	**2422**	6	2437	9	2452
4	2427	**7**	**2442**	10	2457
5	2432	8	2447	**11**	**2462**

The channels which were indicated in bold type of the above channel list were selected as representative test channel.

Therefore only the data of the test channels were recorded in this report.

2.4 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TEST ITEMS							DESCRIPTION
	ROP	PSD	AD	OCB	OOB	RSE	RB	
A	-	-	-	-	-	√	-	2.4G WIFI Function

Where **ROP:** RF Output Power **PSD:** Power Spectral Density

AD: Adaptivity (Channel Access Mechanism) **OCB:** Occupied Channel Bandwidth

RSE: Radiated Spurious Emissions **RB:** Receiver Blocking

OOB: Transmitter unwanted emissioin in the out-of-band domain

MODULATION	DATA RATE
802.11b	1Mbps
802.11g	6Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0

SPURIOUS EMISSIONS TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE PARAMETER
A	802.11b	1 to 13	1, 7, 13	DSSS	DBPSK	1.0 Mbps
A	802.11g	1 to 13	1, 7, 13	OFDM	BPSK	6.0 Mbps
A	802.11n (HT20)	1 to 13	1, 7, 13	OFDM	BPSK	MCS0
A	802.11n (HT40)	3 to 11	3, 7, 11	OFDM	BPSK	MCS0
A	Receiver	-	-	-	-	-

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	TEST VOLTAGE (SYSTEM)	TESTED BY
RSE	23.9deg. C, 56%RH	DC 6V	Liu Yuan

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

EN 300 328 V2.2.2 (2019-07)

All test items have been performed and recorded as per the above standards

2.6 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support Equipment					
NO	**Description**	**Brand**	**Model No.**	**Serial Number**	**Supplied by**
1	N/A	N/A	N/A	N/A	N/A

Support Cable							
NO	**Description**	**Quantity (Number)**	**Length (m)**	**Detachable (Yes/ No)**	**Shielded (Yes/ No)**	**Cores (Number)**	**Supplied by**
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

3 TEST TYPES AND RESULTS

TRANSMITTER PARAMETERS

3.1 RF OUTPUT POWER

3.1.1 Limit

CONDITION	FREQUENCY BAND	LIMIT (E.I.R.P)
Under all test conditions	2400 ~ 2483.5 MHz	AV: 20dBm

3.1.2 Measurement procedure

Refer to chapter 5.4.2.2 of EN 300 328 V2.2.2.

METHOD OF MEASUREMENT	
☒Conducted measurements	☐ Radiated measurements

3.1.3 Test setup

The measurement was performed at both normal environmental conditions and at the extremes of the operating temperature.The measurement was performed at the lowest, the middle, and the highest channel. The equipment was configured to operate under its worst case situation with respect to output power. (In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator.) Controlling software has been activated to set the EUT on specific channel and power level.

3.2 POWER SPECTRAL DENSITY

3.2.1 Limits

CONDITION	FREQUENCY BAND	LIMIT (E.I.R.P)
Under normal conditions	2400 ~ 2483.5 MHz	10dBm / 1MHz

3.2.2 Measurement procedure

Refer to chapter 5.4.3.2 of EN 300 328 V2.2.2.

METHOD OF MEASUREMENT	
☒Conducted measurements	☐ Radiated measurements
☒ Option 1: For equipment with continuous and non-continuous transmissions	
☐ Option 2: For equipment with continuous transmission capability or for equipment operating (orwith the capability to operate) with a constant duty cycle (e.g. Frame Based equipment)	

3.2.3 Test setup

The measurement was performed at normal environmental conditions only. The measurement was performed at the lowest, the middle, and the highest channel. The equipment was configured to operate under its worst case situation with respect to output power. (In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator.) Controlling software has been activated to set the EUT on specific status.

3.3 OCCUPIED CHANNEL BANDWIDTH

3.3.1 Limits

CONDITION		LIMIT
All types of equipment		Shall fall completely within the band 2400to 2483.5 MHz.
Additional requirement	For non-adaptive using wide band modulations other than FHSS system and e.i.r.p>10dBm.	Less than 20MHz
	For non-adaptive Frequency Hopping system and e.i.r.p>10dBm.	Less than 5MHz

3.3.2 Measurement procedure

Refer to chapter 5.4.7.2 of EN 300 328 V2.2.2.

METHOD OF MEASUREMENT	
☒Conducted measurements	☐ Radiated measurements

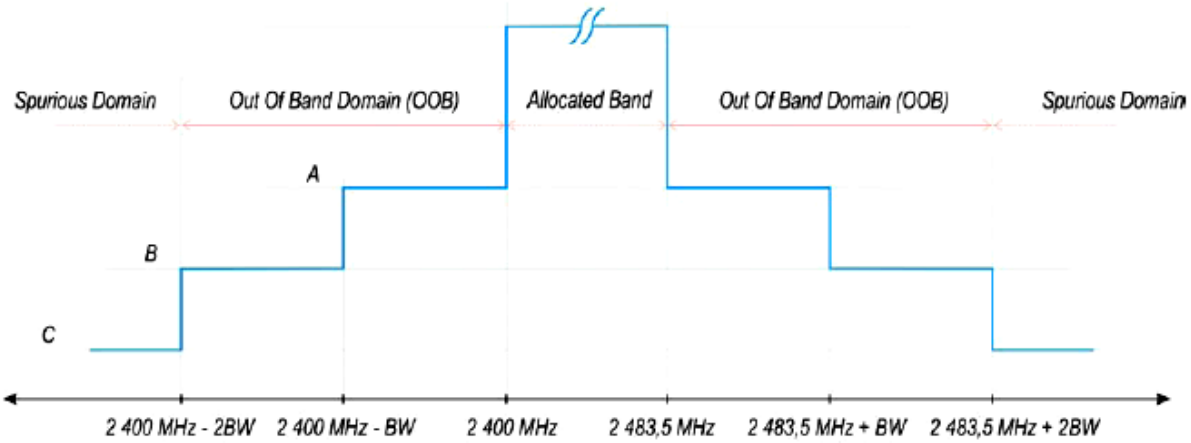
3.3.3 Test setup

The measurement was performed at normal environmental conditions only. This measurement was performed at the lowest and the highest channel.The equipment was configured to operate under its worst case situation with respect to output power. (In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator.) Controlling software has been activated to set the EUT on specific status.

3.4 TRANSMITTER UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN

3.4.1 Limits

CONDITION	LIMIT
Under all test conditions	The transmitter unwanted emissions in the out-of-band domain but outside the allocated band, shall not exceed thevalues provided by the mask in below figure.



A: -10 dBm/MHz e.i.r.p.
B: -20 dBm/MHz e.i.r.p.
C: Spurious Domain limits

BW = Occupied Channel Bandwidth in MHz or 1 MHz whichever is greater

3.4.2 Measurement procedure

Refer to chapter 5.4.8.2 of EN 300 328 V2.2.2.

METHOD OF MEASUREMENT	
☒Conducted measurements	☐ Radiated measurements

3.4.3 Test setup

The measurement was performed at normal environmental conditions only. This measurement was performed at the lowest and the high est channel. The equipment was configured to operate under its worst case situation with respect to output power. (In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator.) The frequency has to be recorded for the right and left end above threshold of highest and lowest channel respectively.

3.5 ADAPTIVE (CHANNEL ACCESS MECHANISM)

3.5.1 Limits

Requirement	LIMIT			
	☐Adaptive non-FHSS using DAA	☒LBT based Detect and Avoid		
		☐Frame Based Equipment	Load Based Equipment	
			☐CCA using energy detect	☒CCA not using any of the mechanisms referenced as note 2
Minimum Clear Channel Assessment (CCA) Time	NA	18 us (see note 1)	(see note 2)	18 us (see note 1)
Maximum Channel Occupancy(COT) Time	40 ms	1 ms to 10 ms	(see note 2)	13 ms
Minimum Idle Period	5us	5% of COT	(see note 2)	18us (see note 3)
Extended CCA check	NA	NA	(see note 2)	18us~160us
Short Control Signalling Transmissions	Maximum duty cycle of 10 % within an observation period of 50 ms (see note 4)			

NOTE 1: The CCA time used by the equipment shall be declared by the supplier.
NOTE 2: Load Based Equipment may implement an LBT based spectrum sharing mechanism based on the Clear Channel Assessment (CCA) mode using energy detect, as described in IEEE 802.11™-2012 clause 9, clause 10, clause 16,clause 17, clause 19 and clause 20, or in IEEE 802.15.4™-2011 [i.4], clause 4, clause 5 and clause 8
NOTE 3: The Idle Period in between transmissions is considered to be the CCA or the Extended CCA checkas there are no transmissions during this period.
NOTE 4: Adaptive equipment may or may not have Short Control Signalling Transmissions

Interference threshold level

Maximum transmit power (P_H) EIRP dBm	Threshold level (TL) (see notes 1 and 2)
20	-70 dBm / MHz

NOTE 1: For a 20dBm e.i.r.p. transmitter the CCA threshold level (TL) shall be equal to or less than -70 dBm/MHz at the input to the receiver assuming a 0 dBi (receive) antenna assembly. This threshold level (TL) may be corrected for the (receive) antenna assembly gain (G)
NOTE 2: For power levels less than 20 dBm e.i.r.p. the CCA threshold level may be relaxed to: TL = -70 dBm/MHz + 10 × log10 (100 mW / Pout) ;(Pout in mW e.i.r.p.)

Wanted signal mean power from companion device	Unwanted signal frequency (MHz)	Unwanted signal power (dBm)
sufficient to maintain the link (see note 2)	2 395 or 2 488,5 (see note 1)	-35 (see note 3)

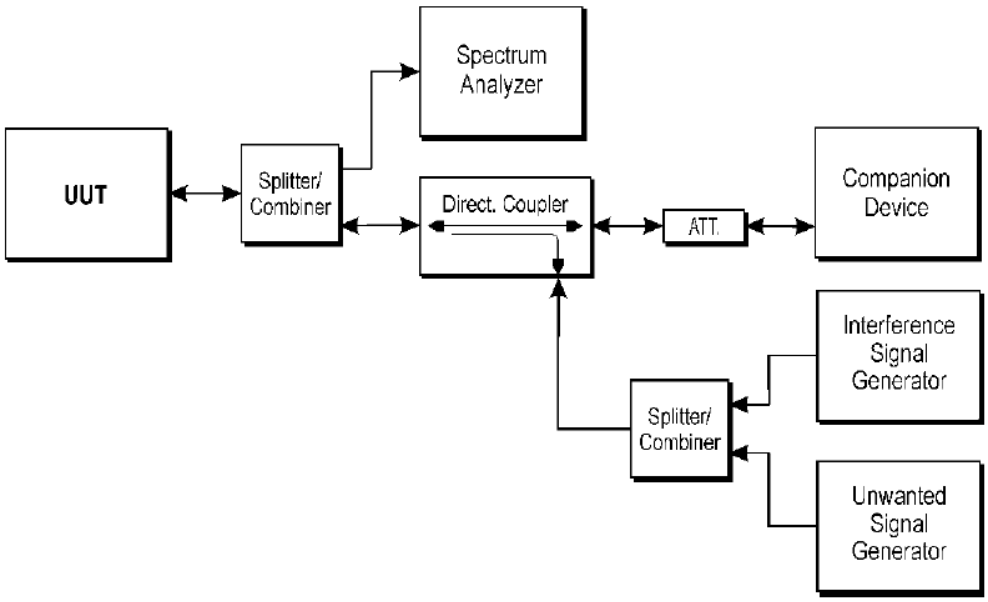
NOTE 1: The highest frequency shall be used for testing operating channels within the range 2 400 MHz to 2 442 MHz, while the lowest frequency shall be used for testing operating channels within the range 2 442 MHz to 2 483,5 MHz. See clause 5.4.6.1.
NOTE 2: A typical value which can be used in most cases is -50dBm/MHz.
NOTE 3: The level specified is the level in front of the UUT antenna. In case of conducted measurements, this level has to be corrected by the actual antenna assembly gain.

3.5.2 Measurement procedure

Refer to chapter 5.4.6.2 of EN 300 328 V2.2.2.

METHOD OF MEASUREMENT	
☒Conducted measurements	☐ Radiated measurements

3.5.3 Test setup



3.6 TRANSMITTER SPURIOUS EMISSIONS

3.6.1 Limits

Transmitter limits for spurious emissions(e.r.p.(≤ 1 GHz)e.i.r.p. (> 1 GHz))		
Frequency Range	**Maximum Power Limit**	**Bandwidth**
30 MHz to 47 MHz	-36dBm	100kHz
47 MHz to 74 MHz	-54dBm	100kHz
74 MHz to 87,5 MHz	-36dBm	100kHz
87,5 MHz to 118 MHz	-54dBm	100kHz
118 MHz to 174 MHz	-36dBm	100kHz
174 MHz to 230 MHz	-54dBm	100kHz
230 MHz to 470 MHz	-36dBm	100kHz
470 MHz to 694 MHz	-54dBm	100kHz
694 MHz to 1 GHz	-36dBm	100kHz
1GHz ~ 12.75GHz	-30dBm	1MHz
Note: These limits are e.r.p. for emissions below 1 GHz and as e.i.r.p. for emissions above 1 GHz.		

3.6.2 Measurement procedure

Refer to chapter 5.4.9.2 of EN 300 328 V2.2.2.

METHOD OF MEASUREMENT	
☐Conducted measurements	☒Radiated measurements
For Conducted measurement: The level of unwanted emissions shall be measured as their power in a specified load (conducted spurious emissions) and their effective radiated power when radiated by the cabinet or structure of the equipment with the antenna connector(s) terminated by a specified load (cabinet radiation).	
Conducted measurement (For equipment with multiple transmit chains): ☐Option 1: The results for each of the transmit chains for the corresponding 1MHz segments shall be added and compared with the limits. ☐Option 2: The results for each of the transmit chains shall be individually compared with the limits after these limits have been reduced by 10 x log (N) (number of active transmit chains)	

3.6.3 Test setup

a. For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration).
b. The equipment was configured to operate under its worst case situation with respect to output power.
c. The measurement was performed at normal environmental conditions only. Controlling software has been activated to set the EUT on specific status.
d. This measurement was performed at the lowest and thehighest channel.

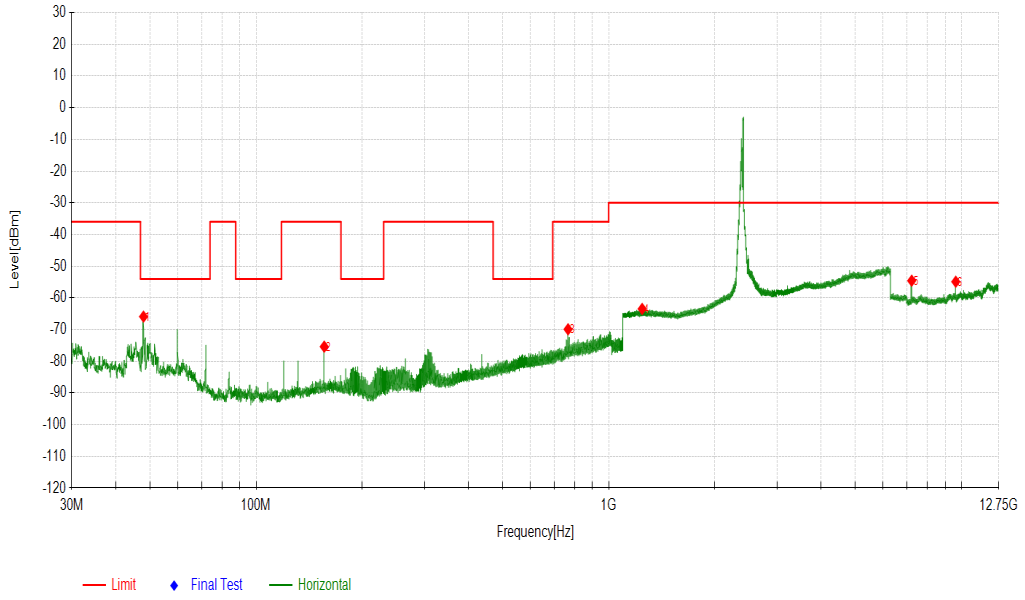
3.6.4 Test result

All modes have been tested, and the worst-case was recorded in this report.

802.11b

Frequency Range	30MHz-12.75GHz	OPERATING CHANNEL	CH1

Horizontal

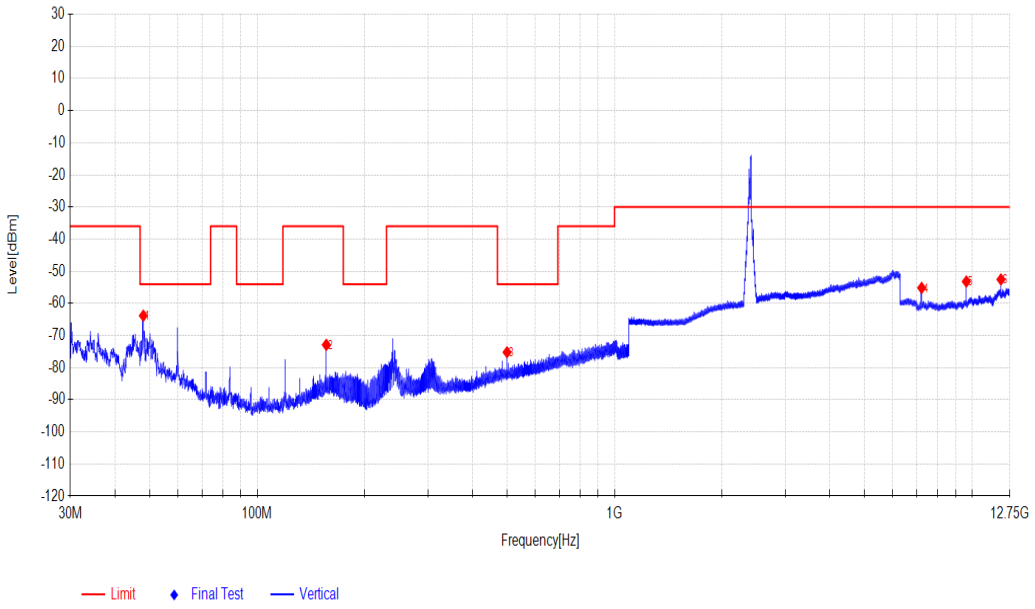


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]
1	47.9225	-92.72	-65.91	-54.00	11.91	26.81	236
2	155.9925	-100.59	-75.37	-36.00	39.37	25.22	49
3	766.802	-105.23	-69.90	-36.00	33.90	35.33	112
4	1244.2417	-67.11	-63.47	-30.00	33.47	3.64	174
5	7234.4438	-73.37	-54.56	-30.00	24.56	18.81	118
6	9648.0875	-74.82	-54.89	-30.00	24.89	19.93	298

Remark: The emission levels of other frequencies were very low against the limit.

Frequency Range	30MHz-12.75GHz	OPERATING CHANNEL	CH1

Vertical

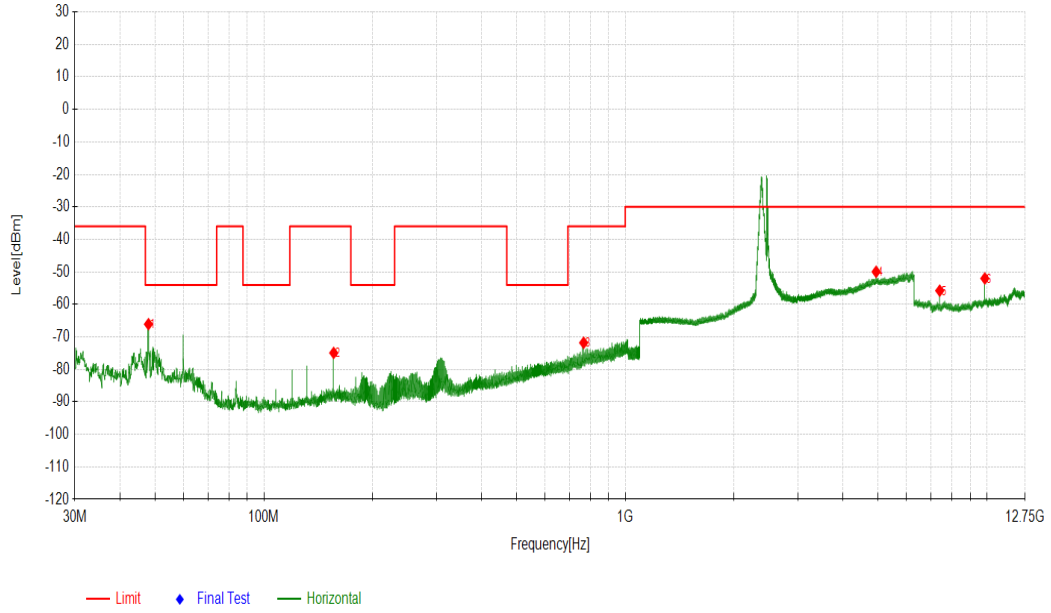


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]
1	47.976	-92.06	-63.83	-54.00	9.83	28.23	133
2	155.9925	-98.74	-72.89	-36.00	36.89	25.85	72
3	500.051	-106.17	-75.20	-54.00	21.20	30.97	11
4	7234.7125	-74.19	-55.16	-30.00	25.16	19.03	314
5	9647.8188	-72.96	-53.19	-30.00	23.19	19.77	251
6	12060.6562	-76.05	-52.55	-30.00	22.55	23.50	251

Remark: The emission levels of other frequencies were very low against the limit.

Frequency Range	30MHz-12.75GHz	OPERATING CHANNEL	CH13

Horizontal

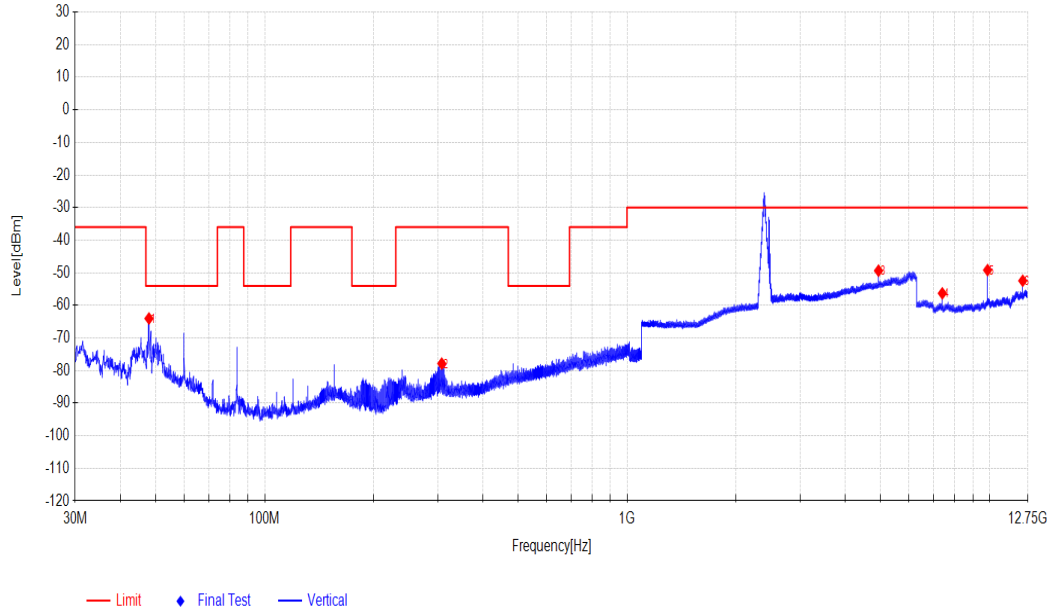


NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]
1	47.9225	-92.89	-66.08	-54.00	12.08	26.81	321
2	155.9925	-100.15	-74.93	-36.00	38.93	25.22	135
3	767.0695	-107.14	-71.80	-36.00	35.80	35.34	74
4	4943.975	-68.22	-49.96	-30.00	19.96	18.26	112
5	7415.0438	-74.16	-55.78	-30.00	25.78	18.38	191
6	9888.0812	-72.64	-52.01	-30.00	22.01	20.63	71

Remark: The emission levels of other frequencies were very low against the limit.

Frequency Range	30MHz-12.75GHz	OPERATING CHANNEL	CH13

Vertical



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]
1	47.9225	-92.22	-64.02	-54.00	10.02	28.20	172
2	308.0395	-104.34	-77.85	-36.00	41.85	26.49	357
3	4944.25	-66.79	-49.35	-30.00	19.35	17.44	72
4	7415.0438	-74.77	-56.30	-30.00	26.30	18.47	235
5	9888.0812	-69.95	-49.17	-30.00	19.17	20.78	295
6	12360.85	-75.96	-52.44	-30.00	22.44	23.52	175

Remark: The emission levels of other frequencies were very low against the limit.

RECEIVER PARAMETERS

3.7 RECEIVER SPURIOUS RADIATION

3.7.1 Limits

Spurious emission limits for receivers(e.r.p.(≤ 1 GHz)e.i.r.p. (> 1 GHz))		
Frequency Range	**Maximum Power Limit**	**Bandwidth**
30 MHz to 1GHz	-57 dBm	100 kHz
1 GHz to 12.75 GHz	-47 dBm	1 MHz
Note: These limits are e.r.p. for emissions below 1 GHz and as e.i.r.p. for emissions above 1 GHz.		

3.7.2 Measurement procedure

Refer to chapter 5.4.10.2 of EN 300 328 V2.2.2.

METHOD OF MEASUREMENT	
☐Conducted measurements	☒Radiated measurements
For Conducted measurement: The level of unwanted emissions shall be measured as their power in a specified load (conducted spuriousemissions) and their effective radiated power when radiated by the cabinet or structure of the equipment withthe antenna connector(s) terminated by a specified load (cabinet radiation).	
Conducted measurement (For equipment with multiple transmit chains): ☐Option 1: The results for each of the transmit chains for the corresponding 1MHz segments shall be added and compared with the limits. ☐Option 2: The results for each of the transmit chains shall be individually compared with the limits after these limits have been reduced by 10 x log (N) (number of active transmit chains)	

3.7.3 Test setup

a. For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration).
b. The equipment was configured to operate under its worst case situation with respect to output power.
c. The measurement was performed at normal environmental conditions only. Controlling software has been activated to set the EUT on specific status.
d. This measurement was performed at the lowest and thehighest channel.

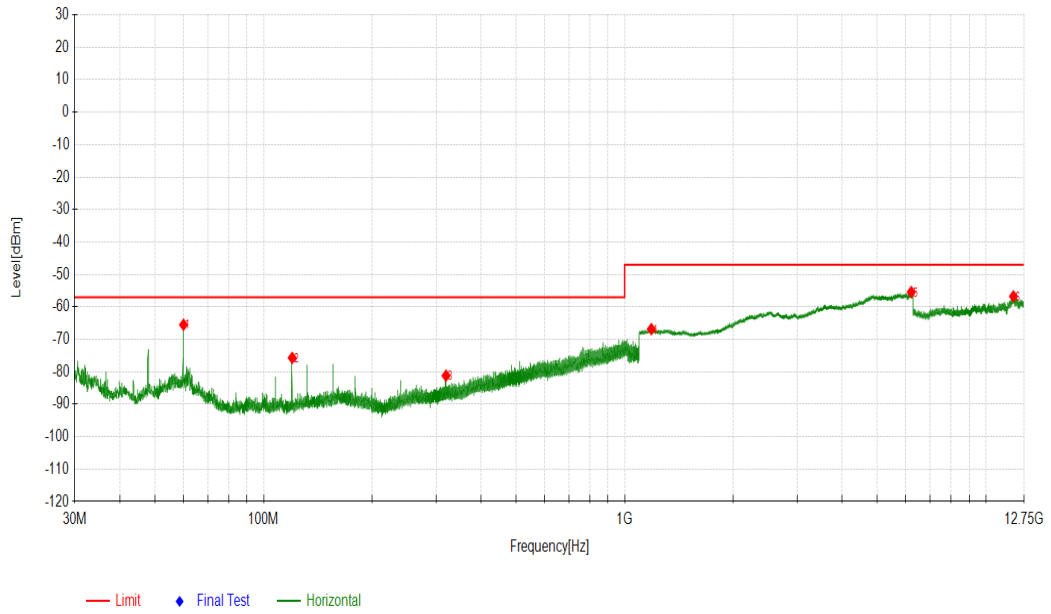
3.7.4 Test result

RX WORST-CASE DATA

802.11b

Frequency Range	30MHz-12.75GHz	OPERATING CHANNEL	CH1

Horizontal

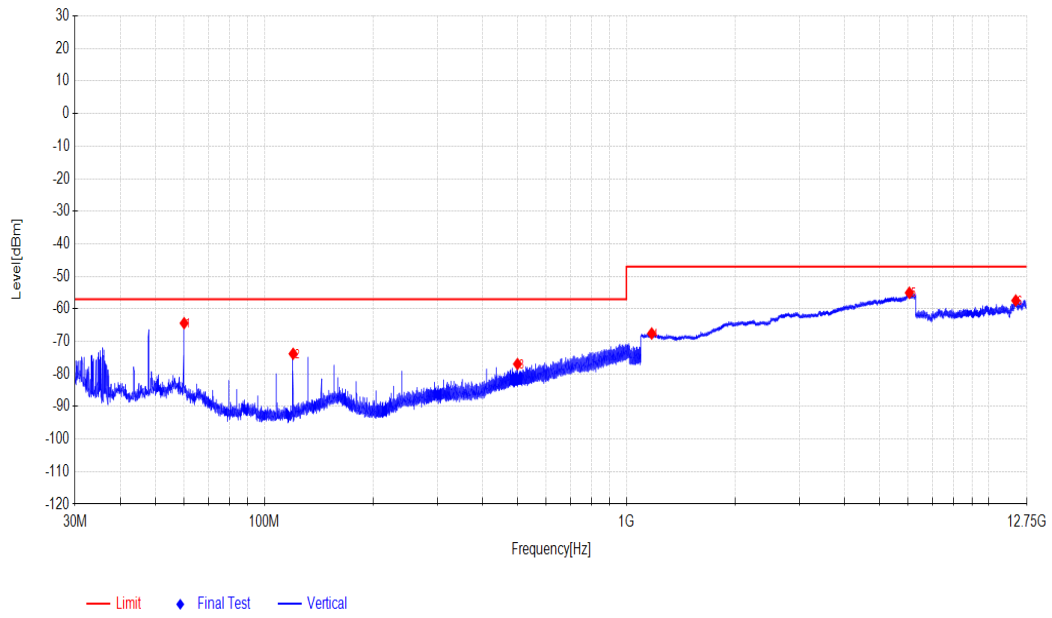


NO.	Frequency (MHz)	Reading [dBm]	Result (dBm)	Limit (dBm)	Margin (dB)	Factor [dB]	Azimuth (deg)
1	59.9957	-92.97	-65.50	-57.00	8.50	27.47	321
2	119.987	-98.71	-75.71	-57.00	18.71	23.00	12
3	320.0057	-107.62	-81.18	-57.00	24.18	26.44	321
4	1185.2885	-68.35	-66.84	-47.00	19.84	1.51	321
5	6218.8719	-71.50	-55.43	-47.00	8.43	16.07	12
6	11933.3483	-80.92	-56.74	-47.00	9.74	24.18	52

Remark: The emission levels of other frequencies were very low against the limit.

Frequency Range	30MHz-12.75GHz	OPERATING CHANNEL	CH1

Vertical

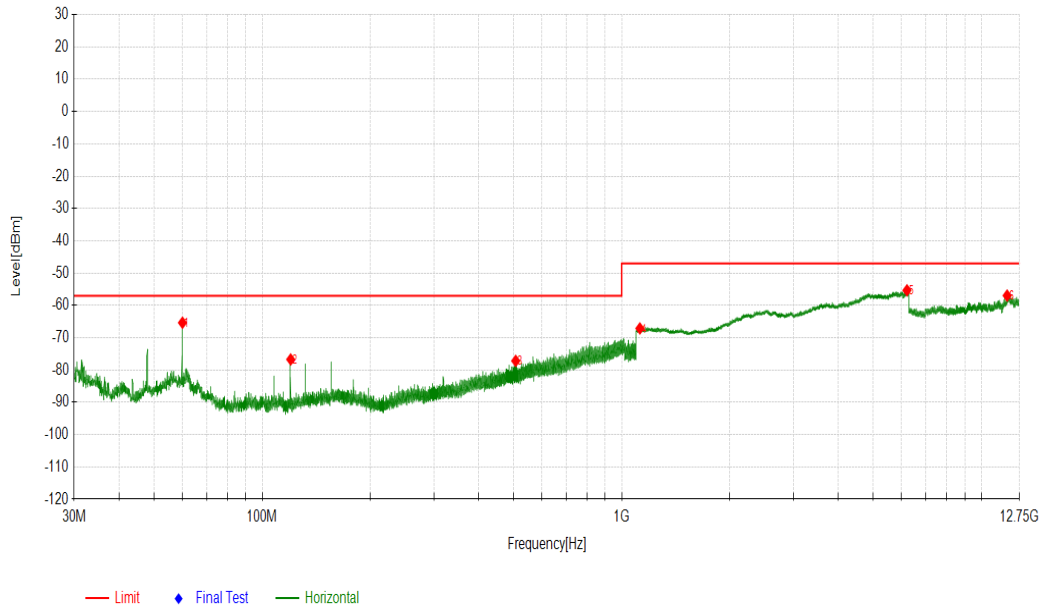


NO.	Frequency (MHz)	Reading [dBm]	Result (dBm)	Limit (dBm)	Margin (dB)	Factor [dB]	Azimuth (deg)
1	59.9957	-91.48	-64.39	-57.00	7.39	27.09	200
2	119.987	-95.09	-73.79	-57.00	16.79	21.30	138
3	500.051	-107.90	-76.93	-57.00	19.93	30.97	260
4	1173.8474	-68.36	-67.57	-47.00	20.57	0.79	12
5	6045.1745	-71.92	-55.04	-47.00	8.04	16.88	200
6	11895.2895	-81.14	-57.42	-47.00	10.42	23.72	357

Remark: The emission levels of other frequencies were very low against the limit.

Frequency Range	30MHz-12.75GHz	OPERATING CHANNEL	CH13

Horizontal

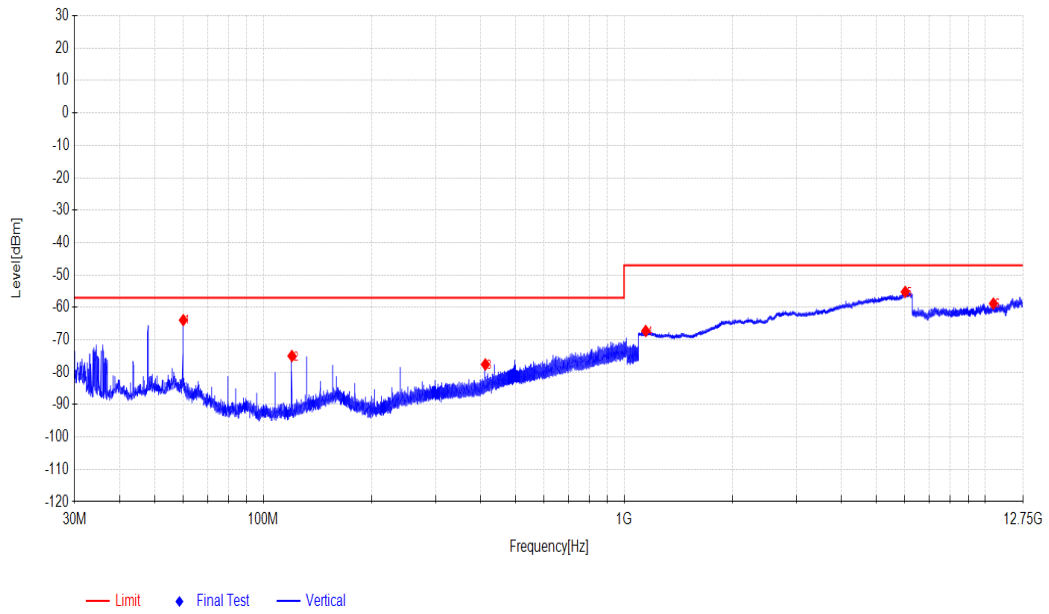


NO.	Frequency (MHz)	Reading [dBm]	Result (dBm)	Limit (dBm)	Margin (dB)	Factor [dB]	Azimuth (deg)
1	59.9957	-92.83	-65.36	-57.00	8.36	27.47	318
2	119.987	-99.73	-76.73	-57.00	19.73	23.00	360
3	506.9703	-107.88	-77.17	-57.00	20.17	30.71	198
4	1123.4023	-68.43	-67.13	-47.00	20.13	1.30	135
5	6214.7115	-71.39	-55.33	-47.00	8.33	16.06	135
6	11806.9157	-80.39	-56.96	-47.00	9.96	23.43	295

Remark: The emission levels of other frequencies were very low against the limit.

Frequency Range	30MHz-12.75GHz	OPERATING CHANNEL	CH13

Vertical



NO.	Frequency (MHz)	Reading [dBm]	Result (dBm)	Limit (dBm)	Margin (dB)	Factor [dB]	Azimuth (deg)
1	59.9957	-91.02	-63.93	-57.00	6.93	27.09	192
2	119.987	-96.30	-75.00	-57.00	18.00	21.30	192
3	412.5607	-105.76	-77.61	-57.00	20.61	28.15	252
4	1147.8448	-68.12	-67.27	-47.00	20.27	0.85	72
5	6014.4914	-71.96	-55.22	-47.00	8.22	16.74	315
6	10559.3609	-79.86	-58.83	-47.00	11.83	21.03	51

Remark: The emission levels of other frequencies were very low against the limit.

3.8 RECEIVER BLOCKING

3.8.1 Limits

For equipment that supports a PER or FER test to be performed, the minimum performance criterion shall be a PER or FER less than or equal to 10 %.

For equipment that does not support a PER or a FER test to be performed, the minimum performance criterion shall be no loss of the wireless transmission function needed for the intended use of the equipment.

Receiver Category 1 Equipment			
Wanted signal mean power from companion device (dBm)(See note 1 and 4)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (See note 4)**	**Type of blocking signal**
(-133dBm+10x$\log_{10}$(OCBW) Or -68dBm whichever is less (See note 2)	2 380 2 504	-34	CW
(-139dBm+10x$\log_{10}$(OCBW) Or -74dBm whichever is less (See note 3)	2 300 2 330 2 360 2 524 2 584 2 674		

NOTE 1: OCBW is in Hz.

NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min}+ 26 dB where $P_{min}$is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

NOTE 3: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min}+ 20 dB where $P_{min}$is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.

NOTE 4: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.

Receiver Category 2 Equipment			
Wanted signal meanpower from companion device (dBm)(See note 1 and 3)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (See note 3)**	**Type of blocking signal**
(-139dBm+10xlog$_{10}$(OCBW)+10dB) Or -74dBm+10dB) whichever is less(See note 2)	2 380 2 504 2 300 2 584	-34	CW
NOTE 1: OCBW is in Hz. NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to P_{min}+ 26 dB where $P_{min}$is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal. NOTE 3: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.			

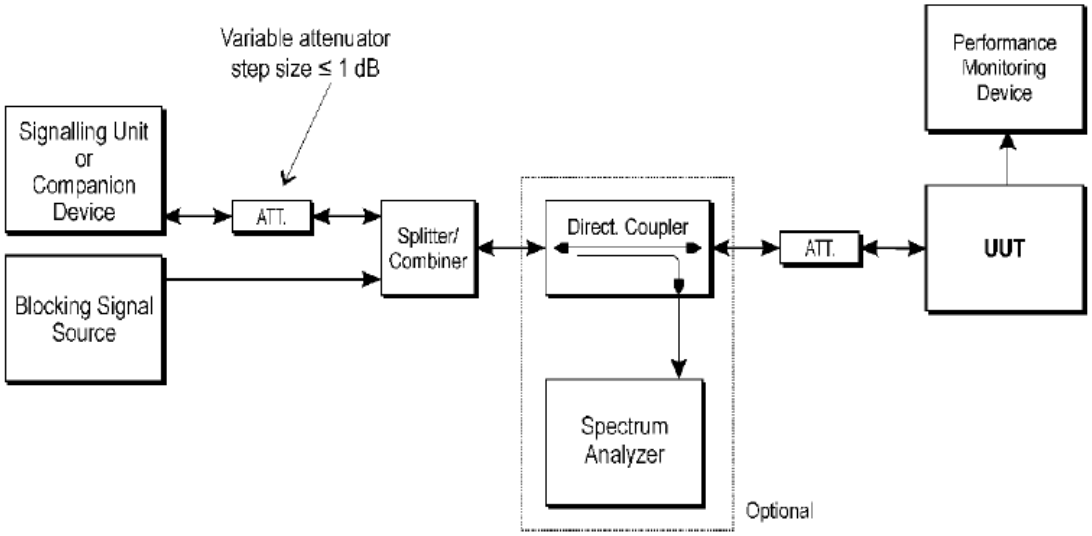
Receiver Category 3 Equipment			
Wanted signal meanpower from companion device (dBm) (See note 1 and 3)	**Blocking Signal Frequency (MHz)**	**Blocking Signal Power (dBm) (See note 3)**	**Type of blocking signal**
(-139dBm+10xlog$_{10}$(OCBW)+20dB) Or -74dBm+20dB) whichever is less(See note 2)	2 380 2 504 2 300 2 584	-34	CW
NOTE 1: OCBW is in Hz. NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative the test may be performed using a wanted signal up to P_{min}+ 30 dB where $P_{min}$is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal. NOTE 3: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.			

3.8.2 Measurement procedure

Refer to chapter 5.4.11.2 of EN 300 328 V2.2.2.

METHOD OF MEASUREMENT	
☒Conducted measurements	☐Radiated measurements

3.8.3 Test setup



4 PHOTOGRAPHS OF TEST SETUP

RADIATED SPURIOUS EMISSION TEST -1

RADIATED SPURIOUS EMISSION TEST -2

------ End of the Report ------

Important

(1) The test report is invalid without the official stamp of CVC;

(2) Any part photocopies of the test report are forbidden without the written permission from CVC;

(3) The test report is invalid without the signatures of tester, reviewer and approver;

(4) The test report is invalid if altered;

(5) Objections to the test report must be submitted to CVC within 15 days;

(6) Generally, commission test results apply to the samples as received. The sample information is provided by the customer and laboratory is not responsible for its authenticity;

(7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

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