TEST REPORT

Applicant	Zhiwei Robotics Corp.
Address	Room 603, 2 Boyun Road, Pudong, Shanghai P.R. China

Manufacturer or Supplier	Zhiwei Robotics Corp.
Address	Room 603, 2 Boyun Road, Pudong, Shanghai P.R. China
Product	UNIHIKER
Brand Name	N/A
Model	DFR0706
Additional Model & Model Difference	N/A
Date of tests	Dec. 02, 2022 ~ Feb. 06, 2023

The submitted sample of the above equipment has been tested according to the requirements of the following standards:

☒ **EN 300 328 V2.2.2 (2019-07)**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Andy Zhu Supervisor / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
Andy	Date: Mar. 09, 2023

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RE2211WDG0121-2	Original release	Mar. 09, 2023

1. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

EN 300 328 V2.2.2		
Clause	**Test Parameter**	**Results**
	TRANSMITTER PARAMETERS	
4.3.2.2	RF Output Power	Pass
4.3.2.3	Power Spectral Density	Pass
4.3.2.6	Adaptivity	Pass
4.3.2.7	Occupied Channel Bandwidth	Pass
4.3.2.8	Transmitter unwanted emission in the OOB domain	Pass
4.3.2.9	Transmitter unwanted emissions in the spurious domain	Pass
4.3.2.12	Geo-location capability	Not Applicable
	RECEIVER PARAMETERS	
4.3.2.10	Receiver Spurious Emissions	Pass
4.3.2.11	Receiver Blocking	Pass

1.1. TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Spectrum Analyzer	Rohde&Schwarz	FSV3044	101326	July 20, 23
Bilog Antenna	SCHWARZBECK	VULB 9168	01281	Jun. 19, 23
Pre-Amplifier	Agilent	8447D	2944A10488	Aug. 03, 23
3m Semi-anechoic Chamber	ETS-Lindgren	9m*6m*6m	D3040003DG-1	July 30, 24
Coaxial RF Cable	Joinfront	JFAA6-NMNM-8000	2100033742	July. 11, 23
Coaxial RF Cable	Joinfront	JFAR-NMBNCM-2000	2100033742	July. 11, 23
Coaxial RF Cable	Joinfront	JFAR-BNCMSMM-500	2100033742	July. 11, 23
Test software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Horn Antenna	ETS-Lindgren	3117	00240041	Jun. 19, 23
Horn Antenna	SCHWARZBECK	BBHA 9170	01024	Oct. 16, 23
Pre-Amplifier (1GHz-18GHz)	SCHWARZBECK	BBV 9718C	00142	Jun. 14, 23
Pre-Amplifier (18GHz-40GHz)	Rohde&Schwarz	SCU40	100437	Oct. 27, 23
Coaxial RF Cable	Joinfront	JFAA6-NMSMM-2000	2100033742	July. 11, 23
Coaxial RF Cable	Joinfront	JFAA6-NMSMM-800	2100033742	July. 11, 23
Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Jan. 16, 23
Progammble Temperature&Humidity Chamber	Hongjin	HYC-TH-225DH	DG-180746	Feb. 16, 23
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Agilent	E3640A	MY40004013	Feb. 23, 23
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	N/A
Test software	ADT	ADT_RF Test Software V6.6.5.4	N/A	N/A

NOTES:

1. The test was performed in 966 Chamber and RF Test Shielding Room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
4. Test site: No. 122, Houjie Avenue West Houjie Town, Dongguan City Guangdong Province, 523960, People's Republic of China.

For Receiver Blocking test and Adaptivity test:

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Wireless Connectivity Tester	Rohde&Schwarz	CMW270	101601	Nov. 01, 23
MXA VEXTOR SIGNAL	Agilent	N5182A	MY50140530	Jan. 11, 24
Signal Generator	HP	8665B	3744A1293	Feb. 16, 23
Signal Generator	Agilent	E4421B	US40051152	Oct. 30, 23
MXA signal analyzer	Agilent	N9020A	MY49100060	Apr. 19, 23
Frequency Analyzer	Keysight	N9010B	MY60240432	Nov. 01, 23
Power Sensor(8*8)	Tonscend	JS0806-2	188060112	Feb. 23, 23
DC Source	Agilent	E3640A	MY40004013	Feb. 23, 23
Shield Box	TOJOIN	MS4345-C	SZA18A 3038	N/A
Attenuator	TOJOIN	CHB-8-90-1-B 50SMA	0803002	N/A
COM Power Splitter	TOJOIN	PS-TX-2B	020801	N/A
COM Power Splitter	TOJOIN	PS-TX-2B	020802	N/A
Test software	TonScend	JS1120-3-1	JS-001	N/A

NOTES:

1. The test was performed in RF Test Shielding Room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
3. Test site: No. 122, Houjie Avenue West Houjie Town, Dongguan City Guangdong Province, 523960, People's Republic of China.

1.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

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

Parameter	Uncertainty
Occupied Channel Bandwidth	±1.132 %
RF output power, conducted	±0.56dB
Power Spectral Density, conducted	±1.017dB
Unwanted Emissions, conducted	±1.017dB
All emissions, radiated	±4.84dB
Temperature	±0.23°C
Supply voltages	±0.1 %
Time	±4 %

1.3. MAXIMUM MEASUREMENT UNCERTAINTY

For the test methods, according to ETSI EN 300 328 standard, the measurement uncertainty figures shall be calculated in accordance with ETR 100 028-1 [4] and shall correspond to an expansion factor (coverage factor) k = 1,96 or k = 2 (which provide confidence levels of respectively 95 % and 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Maximum measurement uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1,5 dB
Power Spectral Density, conducted	±3 dB
Unwanted Emissions, conducted	±3 dB
All emissions, radiated	±6 dB
Temperature	±3 °C
Supply voltages	±3 %
Time	±5 %

2. GENERAL INFORMATION

2.1. GENERAL DESCRIPTION OF EUT

PRODUCT	UNIHIKER
TEST MODEL	DFR0706
ADDITIONAL MODELS	N/A
NOMINAL VOLTAGE	DC 5V From USB host unit
OPERATING TEMPERATURE RNAGE	-20 ~ +60℃
MODULATION TECHNOLOGY	DSSS, OFDM
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
OPERATING FREQUENCY	2412-2472MHz for 11b/g/n(HT20) 2422-2462MHz for 11n(HT40)
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 POWER (MAX.)	14.63dBm (Measured Max.)
ANTENNA TYPE	PCB Antenna, -2.16dBi Gain
CABLE SUPPLIED	USB Line: Unshielded, detachable, 1.0m

Note:

1. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or 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. Please refer to the EUT photo document (Reference No.: 2211WDG0121) for detailed product photo.

2.2. DESCRIPTION OF TEST MODES

13 channels are provided for 802.11b, 802.11g and 802.11n (HT20):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412 MHz	8	2447 MHz
2	2417 MHz	9	2452 MHz
3	2422 MHz	10	2457 MHz
4	2427 MHz	11	2462 MHz
5	2432 MHz	12	2467 MHz
6	2437 MHz	13	2472 MHz
7	2442 MHz		

9 channels are provided for 802.11n (HT40):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
3	2422 MHz	8	2447 MHz
4	2427 MHz	9	2452 MHz
5	2432 MHz	10	2457 MHz
6	2437 MHz	11	2462 MHz
7	2442 MHz		

2.2.1. TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO								DESCRIPTION
	ROP	PSD	AD	OCB	OOB	RSE<1G	RSE≥1G	RB	
A	√	√	√	√	√	√	√	√	**Powered by notebook** with WIFI link

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

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

OOB: Transmitter unwanted emissioin in the out-of-band domain **RSE<1G:** Spurious Emissions below 1GHz

RSE≥1G: Spurious Emissions above 1GHz **RB:** Receiver Blocking

RF OUTPUT POWER 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 13	1, 7, 13	DSSS	DBPSK	1.0
802.11g	1 to 13	1, 7, 13	OFDM	BPSK	6.0
802.11n (HT20)	1 to 13	1, 7, 13	OFDM	BPSK	6.5
802.11n (HT40)	3 to 11	3, 7, 11	OFDM	BPSK	13.5

POWER SPECTRAL DENSITY 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 13	1, 7, 13	DSSS	DBPSK	1.0
802.11g	1 to 13	1, 7, 13	OFDM	BPSK	6.0
802.11n (HT20)	1 to 13	1, 7, 13	OFDM	BPSK	6.5
802.11n (HT40)	3 to 11	3, 7, 11	OFDM	BPSK	13.5

ADAPTIVITY TEST:

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
802.11b	1 to 13	1, 13	DSSS
802.11g	1 to 13	1, 13	OFDM
802.11n (HT20)	1 to 13	1, 13	OFDM
802.11n (HT40)	3 to 11	3, 11	OFDM

OCCUPIED CHANNEL BANDWIDTH 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 13	1, 13	DSSS	DBPSK	1.0
802.11g	1 to 13	1, 13	OFDM	BPSK	6.0
802.11n (HT20)	1 to 13	1, 13	OFDM	BPSK	6.5
802.11n (HT40)	3 to 11	3, 11	OFDM	BPSK	13.5

TRANSMITTER UNWANTED EMISSION IN THE OUT-OF-BAND DOMAIN 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 13	1, 13	DSSS	DBPSK	1.0
802.11g	1 to 13	1, 13	OFDM	BPSK	6.0
802.11n (HT20)	1 to 13	1, 13	OFDM	BPSK	6.5
802.11n (HT40)	3 to 11	3, 11	OFDM	BPSK	13.5

SPURIOUS EMISSIONS TEST (BELOW 1 GHz):

☒ 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 13	1	DSSS	DBPSK	1
Receiver	1 to 13	1	-	-	-

SPURIOUS EMISSIONS TEST (ABOVE 1 GHz):

☒ 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 13	1, 13	DSSS	DBPSK	1.0
802.11g	1 to 13	1, 13	OFDM	BPSK	6.0
802.11n (HT20)	1 to 13	1, 13	OFDM	BPSK	6.5
802.11n (HT40)	3 to 11	3, 11	OFDM	BPSK	13.5
Receiver	1 to 13	1, 13	-	-	-

RECEIVER BLOCKING TEST:

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 13	1, 13	DSSS	DBPSK	1.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ROP	25deg. C, 60%RH	DC 5V from notebook	Ryker
PSD	25deg. C, 60%RH	DC 5V from notebook	Ryker
AD	25deg. C, 60%RH	DC 5V from notebook	Ryker
OCB	25deg. C, 60%RH	DC 5V from notebook	Ryker
OOB	25deg. C, 60%RH	DC 5V from notebook	Ryker
RSE<1G	25deg. C, 55%RH	DC 5V from notebook	Jelly
RSE≥1G	25deg. C, 55%RH	DC 5V from notebook	Jelly
RB	25deg. C, 60%RH	DC 5V from notebook	Howard

2.3. 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.

2.4. 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.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	Latitude 5420	127710614	N/A
2	Wireless router	ASUS	RT-AX86U	M9IG3800G773JZN	N/A
3	TF Card(8G)	Kingston	SDC4/8GB	J4L8F-9P6T27-8XBD6	N/A
4	USB Driver 3.0(16G)	Kingston	DTSE9G2/16GB	YVLP9-B8HTAQ-XXAYB	N/A
5	IO Extender	N/A	N/A	N/A	N/A
6	LED Module *5	N/A	N/A	N/A	N/A
7	Rotation Sensor	N/A	N/A	N/A	N/A
8	Digital Push Button	N/A	N/A	N/A	N/A
9	IR Ther mometer	N/A	N/A	N/A	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 1.0m;DC Line: Unshielded, Detachable 2.0m.
2	AC Line: Unshielded, Detachable 0.8m;DC Line: Unshielded, Detachable 1.2m.
3-5	N/A
6-9	Input/Output Line: Unshielded,Detachable 0.2m

3 TEST PROCEDURES AND RESULTS

TRANSMITTER PARAMETERS

3.1. RF OUTPUT POWER

3.1.1. LIMITS OF RF OUTPUT POWER

CONDITION	FREQUENCY BAND	LIMIT (e.i.r.p.)
Under all test conditions	2400 ~ 2483.5 MHz	AV: 20dBm

3.1.2. TEST PROCEDURE

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

Measurement	
☒Conducted measurement	☐ Radiated measurement

3.1.3. DEVIATION FROM TEST STANDARD

No deviation.

3.1.4. 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.

3.1.5. TEST RESULTS

TEST CONDITION			EIRP POWER (dBm)		
			(CH1) 2412 MHz	(CH7) 2442 MHz	(CH13) 2472 MHz
802.11b					
T_{nom}(℃)	+25	V_{nom}(v)	14.05	14.32	14.35
T_{min}(℃)	-20		14.35	14.43	**14.63**
T_{max}(℃)	+60		13.85	14.05	13.96
802.11g					
T_{nom}(℃)	+25	V_{nom}(v)	13.40	13.82	13.99
T_{min}(℃)	-20		13.68	13.91	14.25
T_{max}(℃)	+60		13.19	13.54	13.59
802.11n (HT20)					
T_{nom}(℃)	+25	V_{nom}(v)	12.29	12.53	12.71
T_{min}(℃)	-20		12.46	12.93	13.07
T_{max}(℃)	+60		12.21	12.06	12.27

TEST CONDITION			EIRP POWER (dBm)		
			(CH3) 2422 MHz	(CH7) 2442 MHz	(CH11) 2462 MHz
802.11n (HT40)					
T_{nom}(℃)	+25	V_{nom}(v)	11.79	11.99	12.12
T_{min}(℃)	-20		11.94	12.37	12.46
T_{max}(℃)	+60		11.64	11.45	11.61

NOTE: EIRP = Conducted output power + ANT Gain.

3.2. POWER SPECTRAL DENSITY

3.2.1. LIMIT OF POWER SPECTRAL DENSITY

CONDITION	FREQUENCY BAND	LIMIT (e.i.r.p.)
Under normal conditions	2400 ~ 2483.5 MHz	10dBm / 1MHz

3.2.2. TEST PROCEDURE

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

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

3.2.3. DEVIATION FROM TEST STANDARD

No deviation.

3.2.4. 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.

3.2.5. TEST RESULTS

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	POWER DENSITY (dBm/1MHz) (E.I.R.P)	LIMIT (dBm/1MHz) (E.I.R.P)	PASS/FAIL
1	2412.00	5.41	10	PASS
7	2442.00	5.68	10	PASS
13	2472.00	5.73	10	PASS

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	POWER DENSITY (dBm/1MHz) (E.I.R.P)	LIMIT (dBm/1MHz) (E.I.R.P)	PASS/FAIL
1	2412.00	1.70	10	PASS
7	2442.00	2.10	10	PASS
13	2472.00	2.27	10	PASS

802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	POWER DENSITY (dBm/1MHz) (E.I.R.P)	LIMIT (dBm/1MHz) (E.I.R.P)	PASS/FAIL
1	2412.00	0.37	10	PASS
7	2442.00	0.58	10	PASS
13	2472.00	0.75	10	PASS

802.11n (HT40)

CHANNEL	CHANNEL FREQUENCY (MHz)	POWER DENSITY (dBm/1MHz) (E.I.R.P)	LIMIT (dBm/1MHz) (E.I.R.P)	PASS/FAIL
3	2422.00	-3.06	10	PASS
7	2442.00	-2.87	10	PASS
11	2462.00	-2.74	10	PASS

3.3. OCCUPIED CHANNEL BANDWIDTH

3.3.1. LIMIT OF OCCUPIED CHANNEL BANDWIDTH

CONDITION		LIMIT
All types of equipment		Shall fall completely within the band 2400 to 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. TEST PROCEDURE

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

Measurement	
☒Conducted measurement	☐ Radiated measurement

3.3.3. DEVIATION FROM TEST STANDARD

No deviation.

3.3.4. 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.

3.3.5. TEST RESULTS

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHZ)	Measured frequencies		LIMIT	PASS/FAIL
			FL (MHz)	FH (MHz)		
1	2412	15.04	2404.56	2419.6	FL > 2400 MHz and FH < 2483.5 MHz	PASS
13	2472	15.04	2464.56	2479.6		PASS

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHZ)	Measured frequencies		LIMIT	PASS/FAIL
			FL (MHz)	FH (MHz)		
1	2412	17.12	2403.52	2420.64	FL > 2400 MHz and FH < 2483.5 MHz	PASS
13	2472	17.12	2463.52	2480.64		PASS

802.11n(HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHZ)	Measured frequencies		LIMIT	PASS/FAIL
			FL (MHz)	FH (MHz)		
1	2412	18.24	2402.96	2421.2	FL > 2400 MHz and FH < 2483.5 MHz	PASS
13	2472	18.24	2462.96	2481.2		PASS

802.11n(HT40)

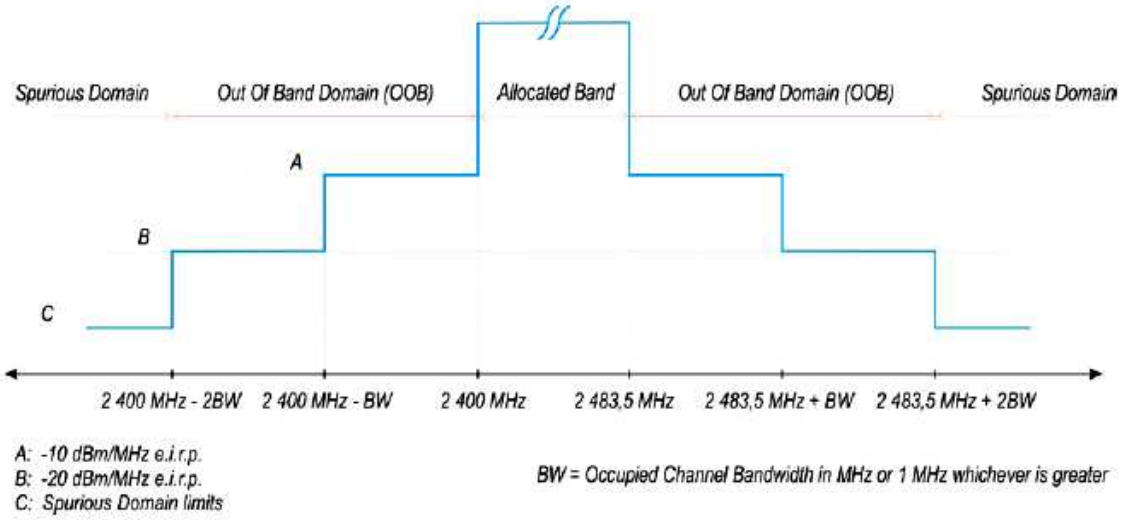
CHANNEL	CHANNEL FREQUENCY (MHz)	OCCUPIED BANDWIDTH (MHZ)	Measured frequencies		LIMIT	PASS/FAIL
			FL (MHz)	FH (MHz)		
3	2422	36.32	2403.92	2440.24	FL > 2400 MHz and FH < 2483.5 MHz	PASS
11	2462	36.32	2443.92	2480.24		PASS

Note: FL is the lowest frequency of the 99% occupied bandwidth of power envelope.
FH is the highest frequency of the 99% occupied bandwidth of power envelope.

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

3.4.1. LIMITS OF TRANSMITTER UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN

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



3.4.2. TEST PROCEDURE

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

Measurement	
☒ Conducted measurement	☐ Radiated measurement

3.4.3. DEVIATION FROM TEST STANDARD

No deviation.

3.4.4. 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.) The frequency has to be recorded for the right and left end above threshold of highest and lowest channel respectively.

3.4.5. TEST RESULTS

802.11b

CHANNEL FREQ.(MHz)			2412				2472			
TEST CONDITION			OOB Emission (MHz)				OOB Emission (MHz)			
			2384.96 ~ 2400		2369.92 ~ 2384.96		2483.5 ~ 2498.54		2498.54 ~ 2513.58	
Temperature		Voltage	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)
Tnorm(℃)	25	Normal	2399.50	-33.63	2383.46	-54.58	2484.00	-32.65	2499.04	-53.57
Limit (dBm/MHz)			-10.00		-20.00		-10.00		-20.00	
PASS/FAIL			PASS		PASS		PASS		PASS	

802.11g

CHANNEL FREQ.(MHz)			2412				2472			
TEST CONDITION			OOB Emission (MHz)				OOB Emission (MHz)			
			2382.88 ~ 2400		2365.76 ~ 2382.88		2483.5 ~ 2500.62		2500.62 ~ 2517.74	
Temperature		Voltage	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)
Tnorm(℃)	25	Normal	2399.50	-32.51	2382.38	-49.54	2484.00	-16.65	2501.12	-44.92
Limit (dBm/MHz)			-10.00		-20.00		-10.00		-20.00	
PASS/FAIL			PASS		PASS		PASS		PASS	

802.11n (HT20)

CHANNEL FREQ.(MHz)			2412				2472			
TEST CONDITION			OOB Emission (MHz)				OOB Emission (MHz)			
			2381.76 ~ 2400		2363.52 ~ 2381.76		2483.5 ~ 2501.74		2501.74 ~ 2519.98	
Temperature		Voltage	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)
Tnorm(℃)	25	Normal	2399.50	-21.26	2381.26	-52.96	2484.00	-29.40	2503.24	-51.47
Limit (dBm/MHz)			-10.00		-20.00		-10.00		-20.00	
PASS/FAIL			PASS		PASS		PASS		PASS	

802.11n (HT40)

CHANNEL FREQ.(MHz)			2422				2462			
TEST CONDITION			OOB Emission (MHz)				OOB Emission (MHz)			
			2363.68 ~ 2400		2327.36 ~ 2363.68		2483.5 ~ 2519.82		2519.82 ~ 2556.14	
Temperature		Voltage	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)	Freq. (MHz)	Power (dBm)
Tnorm(℃)	25	Normal	2399.50	-41.80	2361.18	-54.25	2484.00	-40.97	2524.32	-53.86
Limit (dBm/MHz)			-10.00		-20.00		-10.00		-20.00	
PASS/FAIL			PASS		PASS		PASS		PASS	

3.5. ADAPTIVE (CHANNEL ACCESS MECHANISM)

3.5.1. APPLICABILITY OF ADAPTIVE REQUIREMENTS AND LIMIT FOR WIDE BAND MODULATION TECHNIQUES

Requirement	Operational Mode			
	Adaptive non-FHSS using LBT			
	Adaptive non-FHSS using DAA	Frame Based Equipment	Load Based Equipment (CCA using 'energy detect')	Load Based Equipment (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	NA	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 ChannelAssessment (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 check as 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 20 dBm 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 × $\log_{10}$ (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)

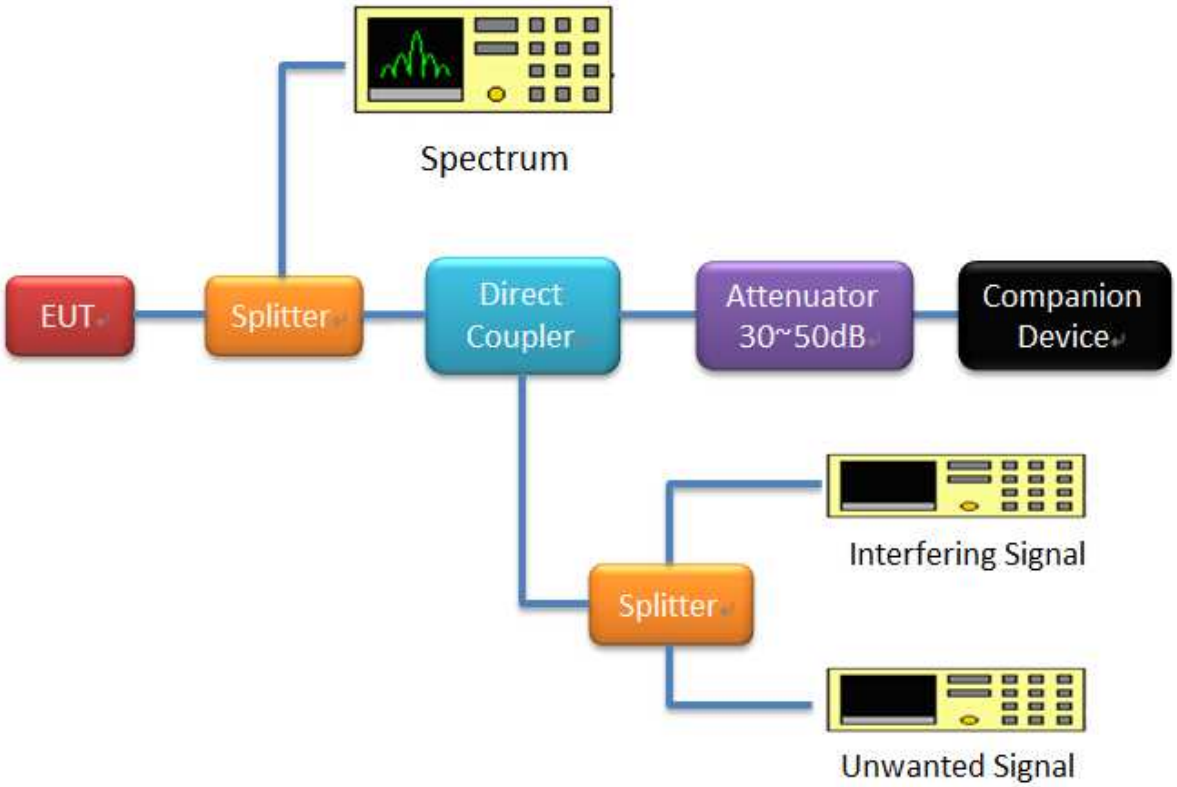
NOTE 1: The highest frequency shall be used for testing operating channels within the range 2 400 MHz to 2 442 MHz, while the lowest frequency shall be used for testing operating channels within the range 2 442 MHz to 2 483,5 MHz. See clause 5.4.6.1.
NOTE 2: A typical value which can be used in most cases is -50 dBm/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. TEST PROCEDURES

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

Measurement	
☒ Conducted measurement	☐ Radiated measurement

3.5.3. TEST SETUP CONFIGURATION



3.5.4. INTERFERENCE THRESHOLD LEVEL

Detection Threshold Level
The maximum EIRP power is 14.63dBm and antenna gain is -2.16dBi. Detection Threshold level= -70 dBm/MHz + 10 × log10 (100 mW / (29.04mW))-2.16= -66.79dBm/MHz, The interference signal level to the UUT is -66.79dBm/MHz

3.5.5. LIST OF MEASUREMENTS

UUT Operational Mode	Applicable	Limit	
		The Maximum Channel Occupancy Time	The Minimum idle Period
Frame Based Equipment		meet in 1ms ~ 10ms	>5% x channel occupancy time
Load Based Equipment (Base on 'Spectrum Sharing' mechanisms)		Follow IEEE 802.11 Less than _____ms	Follow IEEE 802.11 More than _____ms
Load Based Equipment (Not using any of the mechanisms referenced)	v	13ms	18us

Clause	Test Parameter	Remarks	Pass/Fail
4.3.2.6.3.2.2	Adaptive (Frame Based Equipment)	Not Applicable	NA
4.3.2.6.3.2.3	Adaptive (Load Based Equipment)	Applicable	Pass
4.3.2.6.4	Short Control Signalling Transmissions	Applicable	Pass

3.5.6. TEST RESULT

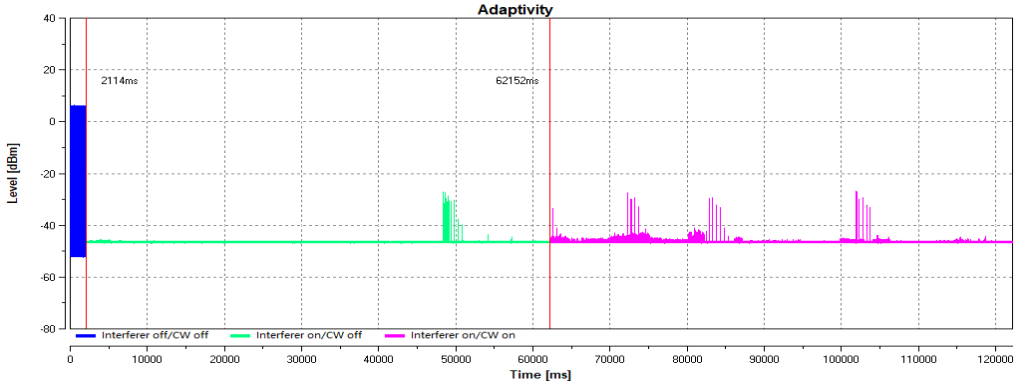
3.5.6.1. ADAPTIVE RESULT

OPERATING FREQUENCY BANDS AND MODE OF EUT

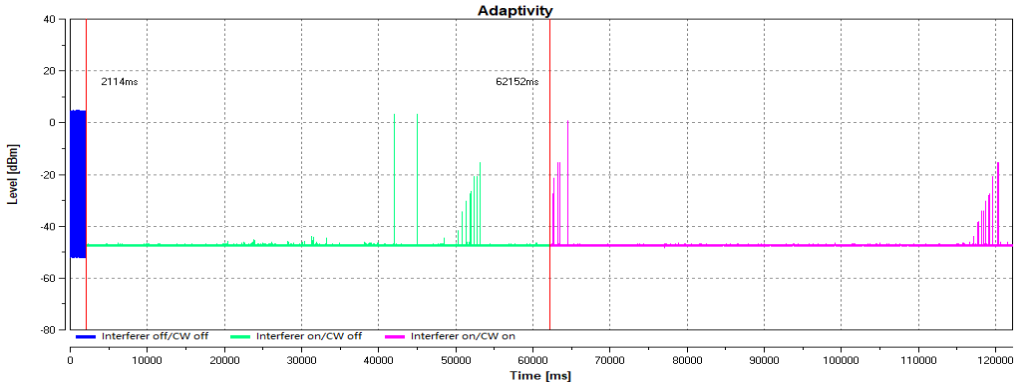
Operational Mode	Operating Frequency - Low Channel (MHz)	Operating Frequency -High Channel (MHz)	Test Result
802.11b	2412	2472	PASS
802.11g	2412	2472	PASS
802.11n (HT20)	2412	2472	PASS
802.11n (HT40)	2422	2462	PASS

802.11b

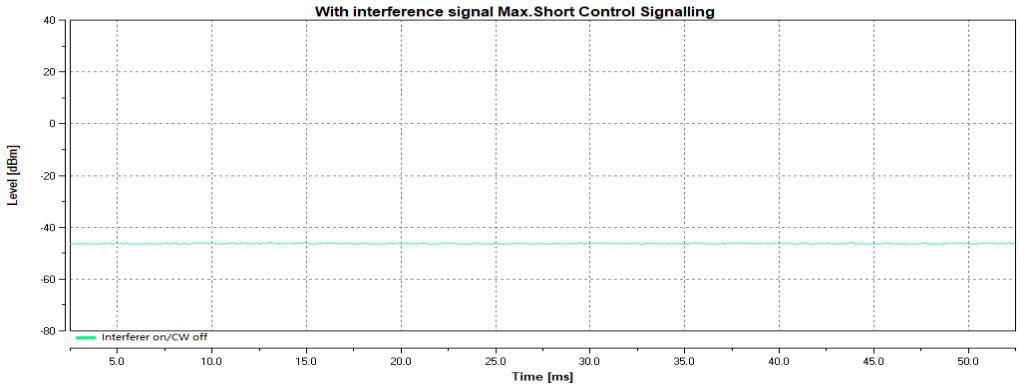
2412MHz



2472MHz

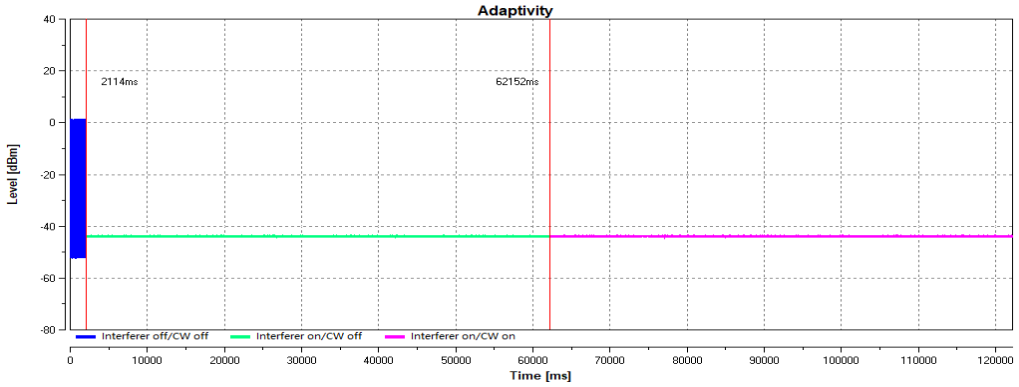


Max. TxOn: 0 ms; Duty cycle: 0%

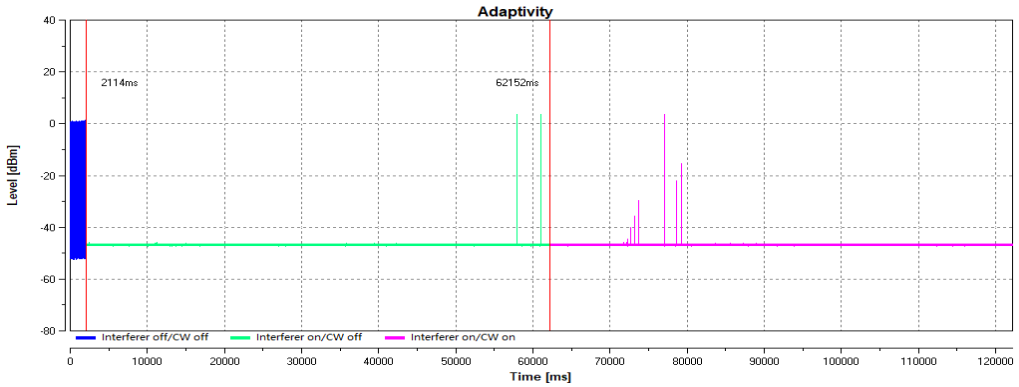


802.11g

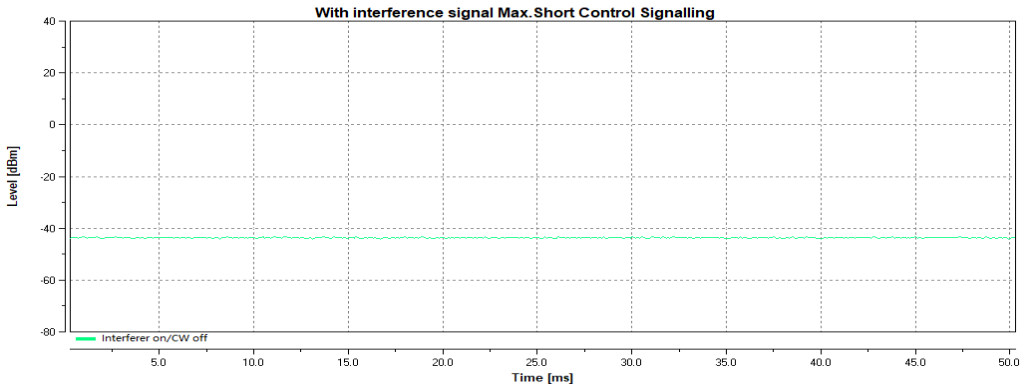
2412MHz



2472MHz

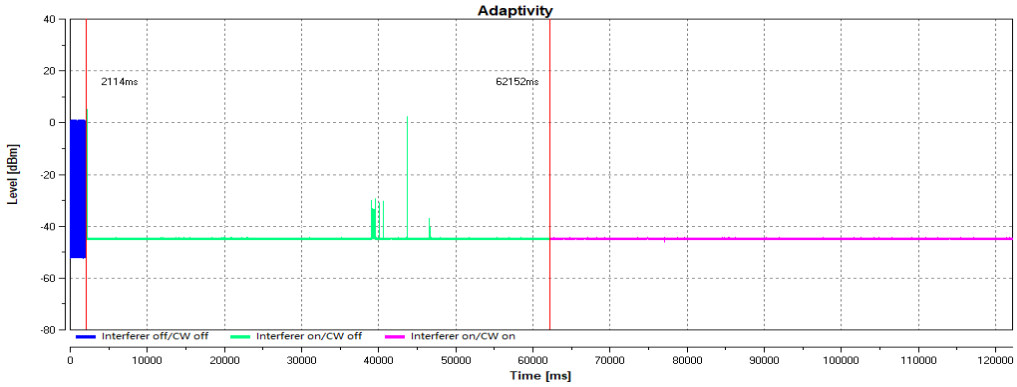


Max. TxOn: 0ms; Duty cycle: 0%

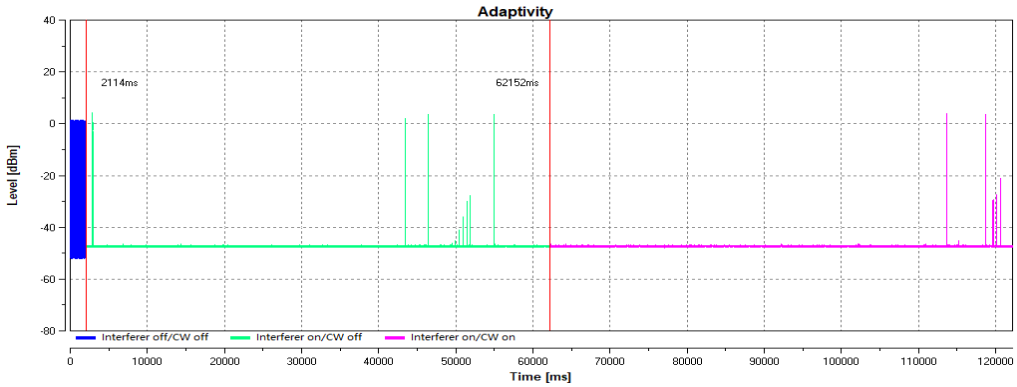


802.11n(HT20)

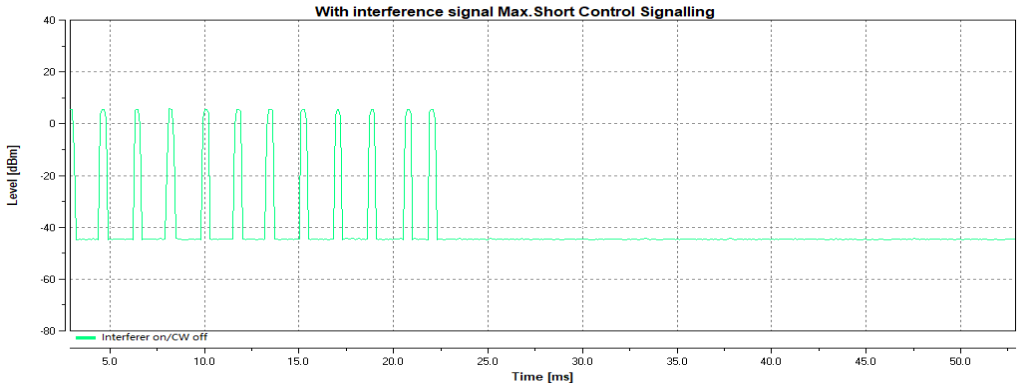
2412MHz



2472MHz

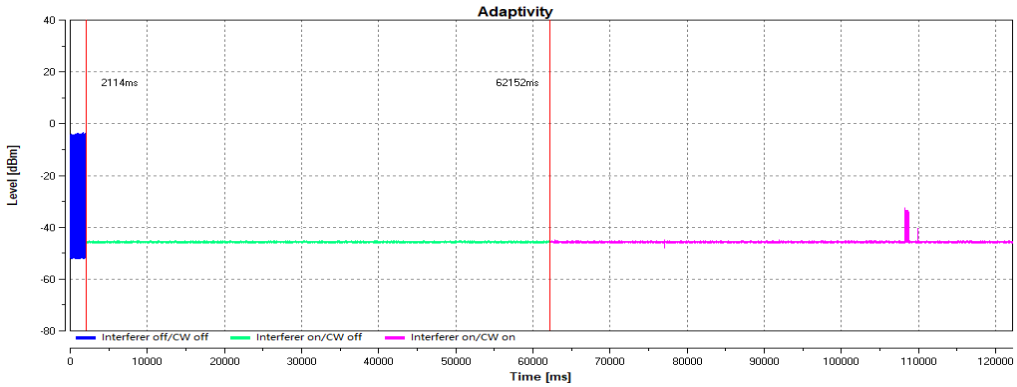


Max. TxOn: 4.80ms; Duty cycle: 9.6%

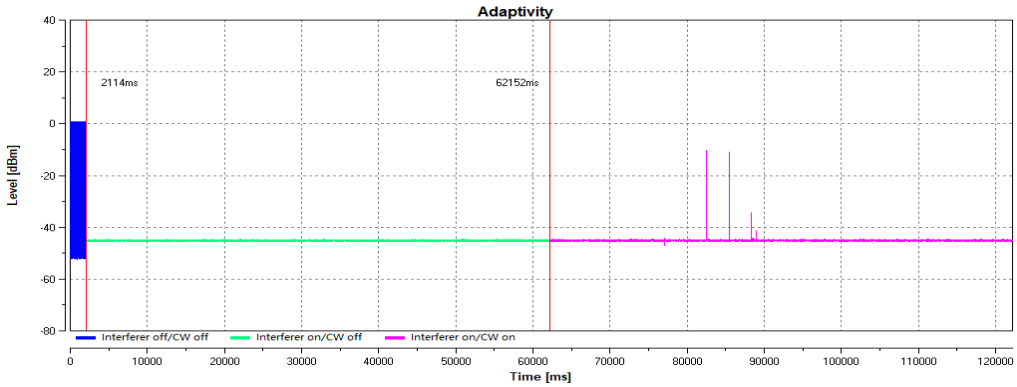


802.11n(HT40)

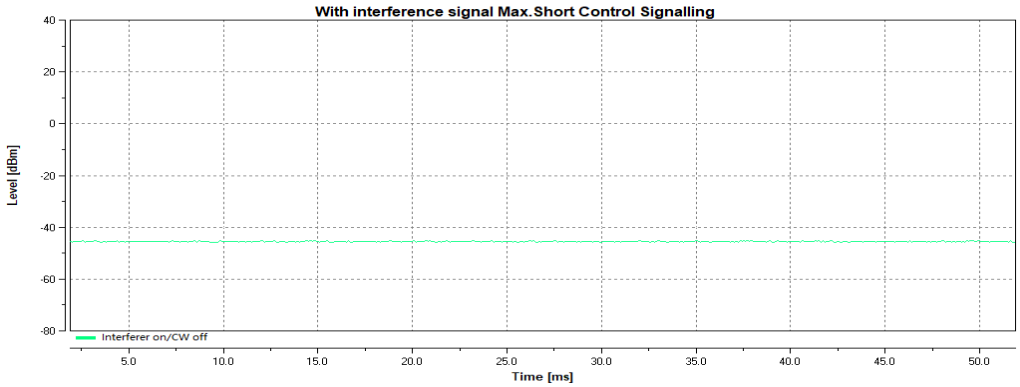
2422MHz



2462MHz



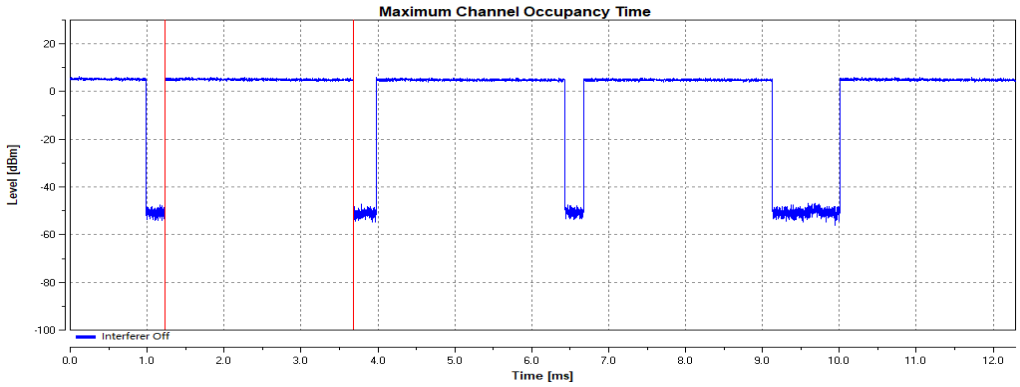
Max. TxOn: 0ms; Duty cycle: 0%



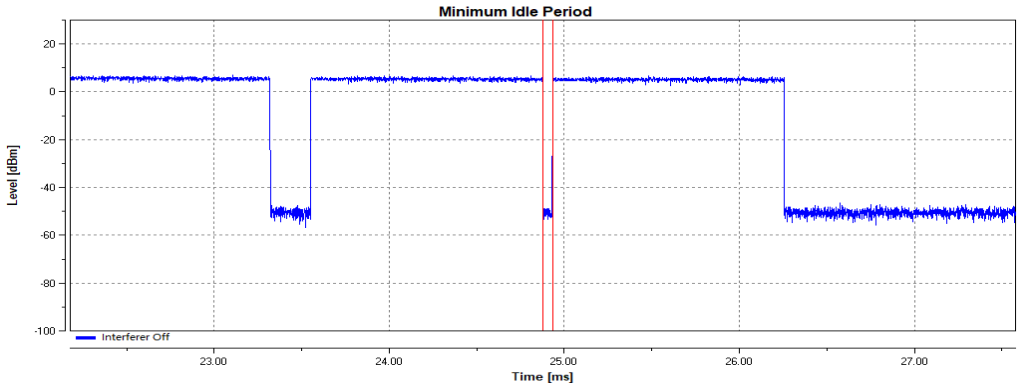
3.5.6.2. THE CHANNEL OCCUPANCY TIME RESULT

802.11b mode

The Channel occupancy Time: 2.458ms

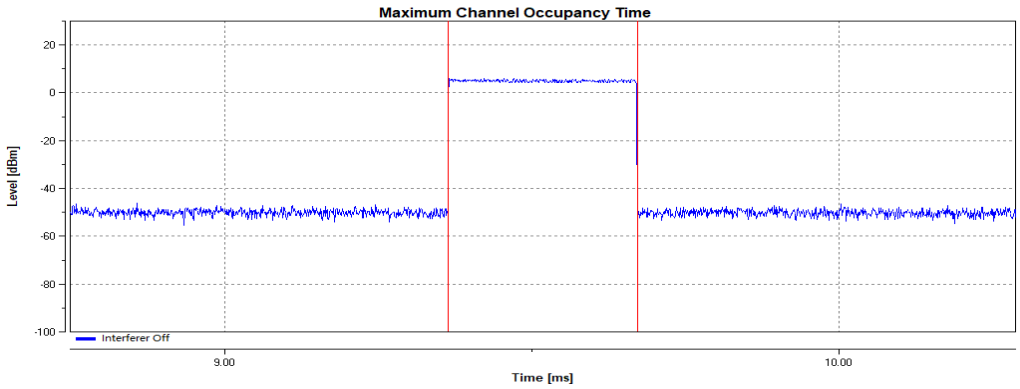


Minimum idle time: 0.054ms

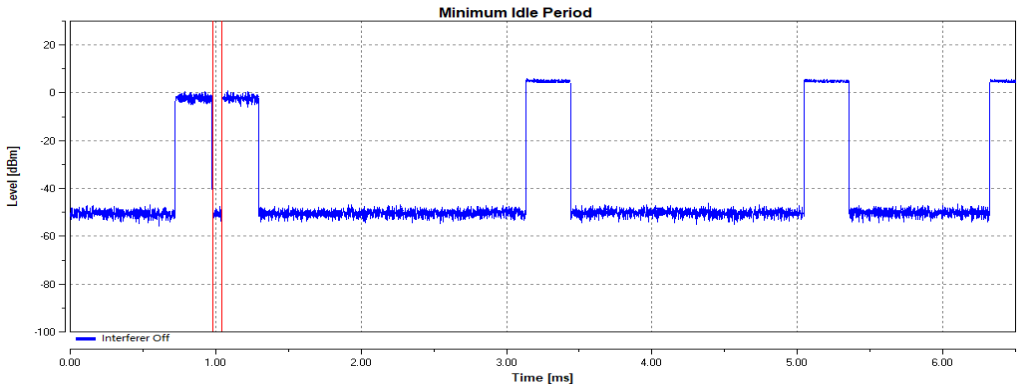


802.11g mode

The Channel occupancy Time: 0.308ms

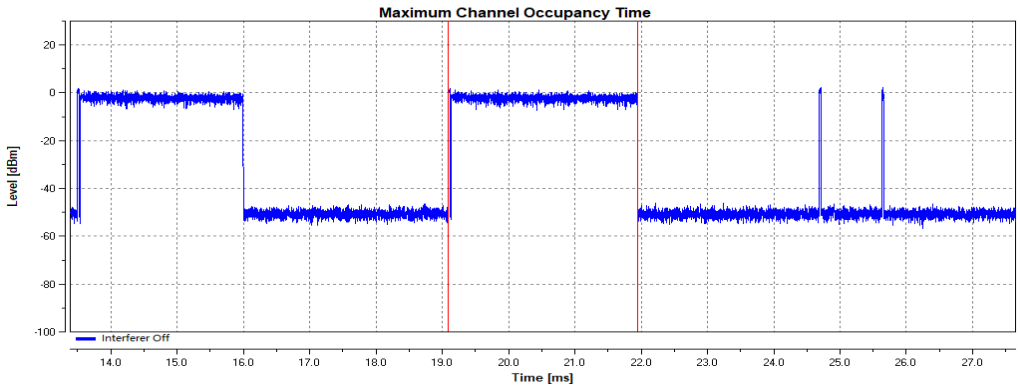


Minimum idle time: 0.065ms

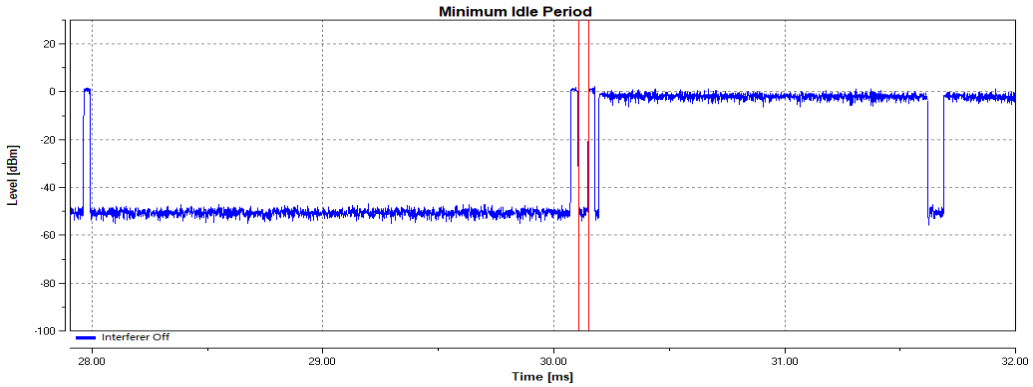


802.11nHT20 mode

The Channel occupancy Time: 2.852ms

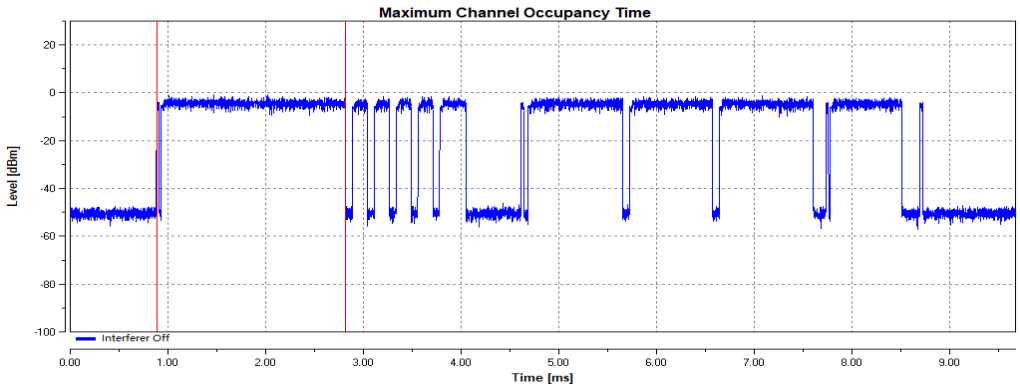


Minimum idle time: 0.044ms

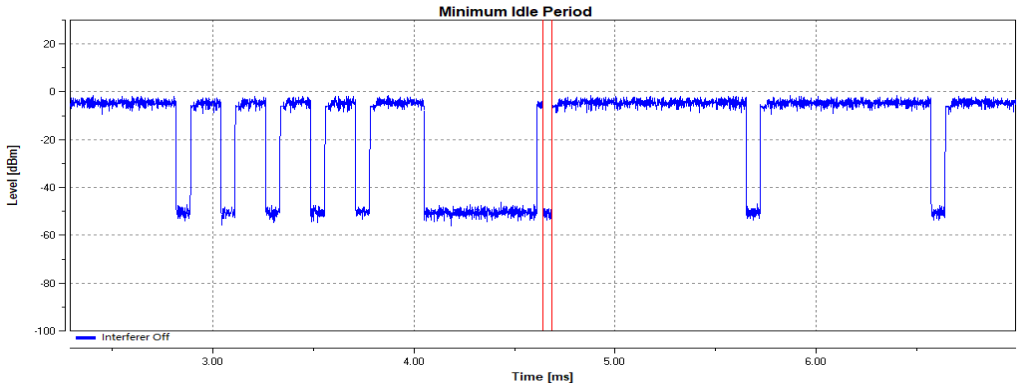


802.11nHT40 mode

The Channel occupancy Time: 1.935ms



Minimum idle time: 0.047ms



3.6. TRANSMITTER SPURIOUS EMISSIONS

3.6.1. LIMITS OF TRANSMITTER SPURIOUS EMISSIONS

Transmitter limits for narrowband spurious emissions:

Frequency Range	Maximum Power Limit (e.r.p. (≤ 1 GHz) e.i.r.p. (> 1 GHz))	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 up to 1 GHz and as e.i.r.p. for emissions above 1 GHz.

3.6.2. TEST PROCEDURE

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

Measurement	
☐ Conducted measurement	☒ Radiated measurement
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. DEVIATION FROM TEST STANDARD

No deviation.

3.6.4. TEST SETUP

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

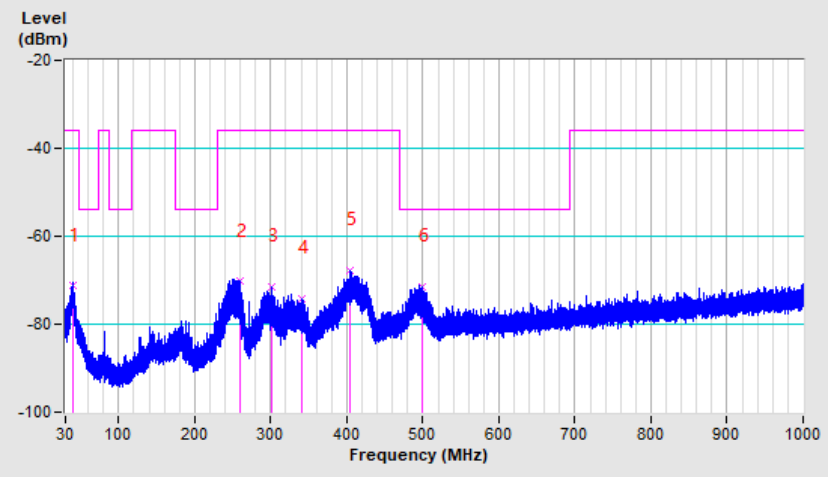
3.6.5. TEST RESULTS

BELOW 1GHz WORST-CASE DATA

802.11b

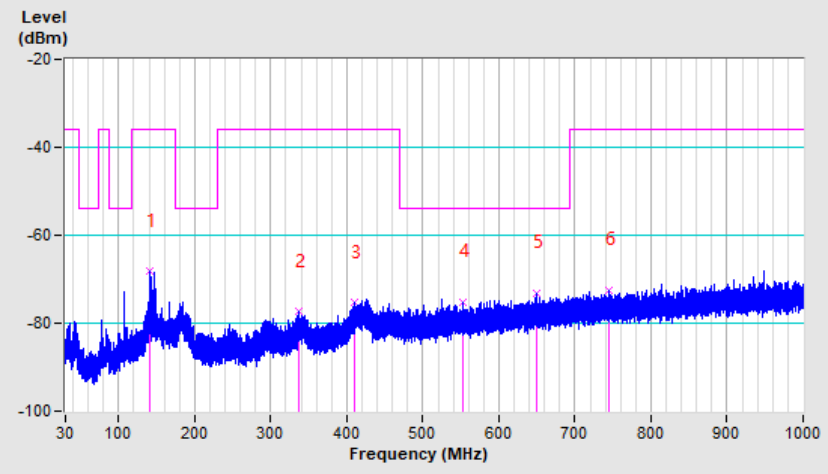
FREQUENCY RANGE	30MHz ~ 1GHz	OPERATING CHANNEL	1

SPURIOUS EMISSION LEVEL				
Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
39.12	H	-71.33	-36.00	-35.33
259.21	H	-70.26	-36.00	-34.26
300.69	H	-71.53	-36.00	-35.53
340.76	H	-74.18	-36.00	-38.18
405.13	H	-67.79	-36.00	-31.79
500.03	H	-71.55	-54.00	-17.55



FREQUENCY RANGE	30MHz ~ 1GHz	OPERATING CHANNEL	1

SPURIOUS EMISSION LEVEL				
Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
140.55	V	-68.27	-36.00	-32.27
336.42	V	-77.45	-36.00	-41.45
409.46	V	-75.36	-36.00	-39.36
552.02	V	-75.16	-54.00	-21.16
649.77	V	-73.21	-54.00	-19.21
745.31	V	-72.48	-36.00	-36.48



ABOVE 1GHz WORST-CASE DATA

802.11b

FREQUENCY RANGE	1GHz ~ 12.75GHz	OPERATING CHANNEL	1, 13

SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
1	4824.00	H	-51.05	-30.00	-21.05
	4824.00	V	-51.38	-30.00	-21.38
	7236.00	H	-50.10	-30.00	-20.10
	7236.00	V	-50.42	-30.00	-20.42
13	4944.00	H	-50.66	-30.00	-20.66
	4944.00	V	-50.45	-30.00	-20.45
	7416.00	H	-49.23	-30.00	-19.23
	7416.00	V	-49.56	-30.00	-19.56

802.11g

FREQUENCY RANGE	1GHz ~ 12.75GHz	OPERATING CHANNEL	1, 13

SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
1	4824.00	H	-50.45	-30.00	-20.45
	4824.00	V	-50.96	-30.00	-20.96
	7236.00	H	-49.05	-30.00	-19.05
	7236.00	V	-49.67	-30.00	-19.67
13	4944.00	H	-51.36	-30.00	-21.36
	4944.00	V	-51.08	-30.00	-21.08
	7416.00	H	-49.55	-30.00	-19.55
	7416.00	V	-49.28	-30.00	-19.28

802.11n (HT20)

FREQUENCY RANGE	1GHz ~ 12.75GHz	OPERATING CHANNEL	1, 13

SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
1	4824.00	H	-51.00	-30.00	-21.00
	4824.00	V	-50.20	-30.00	-20.20
	7236.00	H	-48.55	-30.00	-18.55
	7236.00	V	-48.73	-30.00	-18.73
13	4944.00	H	-50.36	-30.00	-20.36
	4944.00	V	-50.45	-30.00	-20.45
	7416.00	H	-49.28	-30.00	-19.28
	7416.00	V	-49.22	-30.00	-19.22

802.11n (HT40)

FREQUENCY RANGE	1GHz ~ 12.75GHz	OPERATING CHANNEL	3, 11

SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
3	4844.00	H	-51.35	-30.00	-21.35
	4844.00	V	-51.44	-30.00	-21.44
	7266.00	H	-49.00	-30.00	-19.00
	7266.00	V	-48.96	-30.00	-18.96
11	4924.00	H	-52.44	-30.00	-22.44
	4924.00	V	-52.00	-30.00	-22.00
	7386.00	H	-50.15	-30.00	-20.15
	7386.00	V	-50.85	-30.00	-20.85

RECEIVER PARAMETERS

3.7. RECEIVER SPURIOUS RADIATION

3.7.1. LIMITS OF RECEIVER SPURIOUS RADIATION

Frequency Range	Maximum Power Limit (e.r.p. (≤ 1 GHz) e.i.r.p. (> 1 GHz))
30MHz ~ 1GHz	-57dBm
1GHz ~ 12.75GHz	-47dBm

Note: These limits are e.r.p. for emissions up to 1 GHz and as e.i.r.p. for emissions above 1 GHz.

3.7.2. TEST PROCEDURE

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

Measurement	
☐ Conducted measurement	☒ Radiated measurement
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)	

3.7.3. DEVIATION FROM TEST STANDARD

No deviation.

3.7.4. TEST SETUP

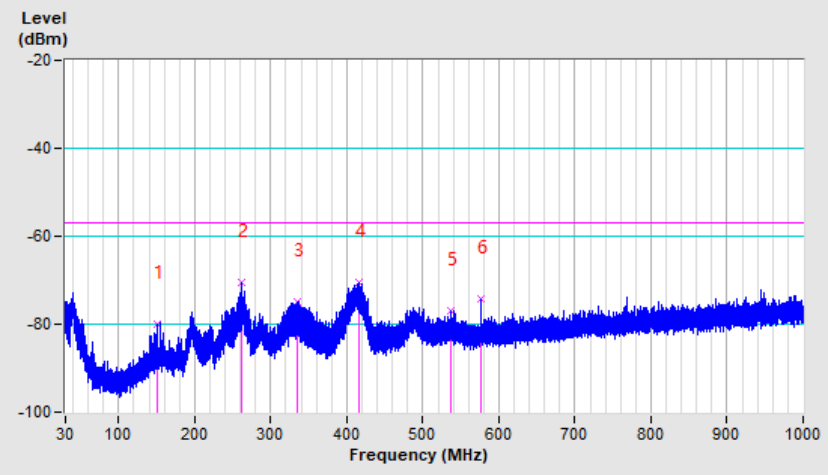
1. For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Configuration).
2. Testing was performed when the equipment was in a receive-only mode.
3. The measurement was performed at normal environmental conditions only. Controlling software has been activated to set the EUT on specific status.
4. This measurement was performed at the lowest and the highest channel.

3.7.5. TEST RESULTS

RX WORST-CASE DATA

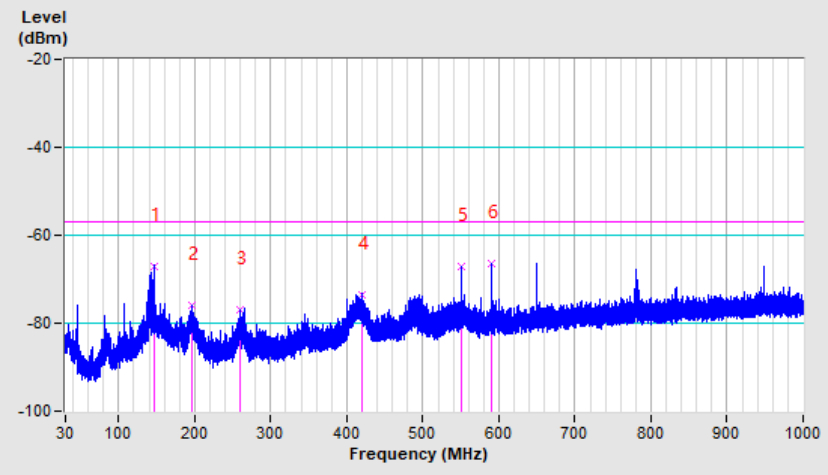
FREQUENCY RANGE	30MHz ~ 1GHz	OPERATING CHANNEL	1

SPURIOUS EMISSION LEVEL				
Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
150.51	H	-80.06	-57.00	-23.06
261.02	H	-70.41	-57.00	-13.41
334.45	H	-74.89	-57.00	-17.89
415.35	H	-70.56	-57.00	-13.56
537.31	H	-76.99	-57.00	-19.99
575.98	H	-74.30	-57.00	-17.30



FREQUENCY RANGE	30MHz ~ 1GHz	OPERATING CHANNEL	1

SPURIOUS EMISSION LEVEL				
Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
145.85	V	-66.98	-57.00	-9.98
195.58	V	-75.89	-57.00	-18.89
260.34	V	-76.84	-57.00	-19.84
419.65	V	-73.52	-57.00	-16.52
550.08	V	-67.07	-57.00	-10.07
589.85	**V**	**-66.49**	**-57.00**	**-9.49**



RX ABOVE 1GHz DATA

FREQUENCY RANGE	1GHz ~ 12.75GHz	OPERATING CHANNEL	1, 13

SPURIOUS EMISSION LEVEL					
Channel	Frequency (MHz)	Antenna Polarization	Level (dBm)	Limit (dBm)	Margin (dB)
1	4824.00	H	-52.83	-47.00	-5.83
	4824.00	V	-52.65	-47.00	-5.65
	7236.00	**H**	**-52.29**	**-47.00**	**-5.29**
	7236.00	V	-52.44	-47.00	-5.44
13	4944.00	H	-52.68	-47.00	-5.68
	4944.00	V	-52.86	-47.00	-5.86
	7416.00	H	-53.00	-47.00	-6.00
	7416.00	V	-53.25	-47.00	-6.25

3.8. RECEIVER BLOCKING

3.8.1. LIMITS OF RECEIVER BLOCKING

This requirement applies to all receiver categories.

Receiver Category		
☒Category 1(EIRP>10dBm)	☐Category 2(EIRP≦10dBm)	☐Category 3(EIRP≦0dBm)
Minimum performance criterion	☒PER ≦ 10%	
	☐Alternative performance criteria (See note)	
Note: The manufacturer was declared 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+10xlog$_{10}$(OCBW) Or -68dBm whichever is less (See note 2)	2 380 2 504	-34	CW
(-139dBm+10xlog$_{10}$(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 mean power 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 mean power 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. TEST PROCEDURE

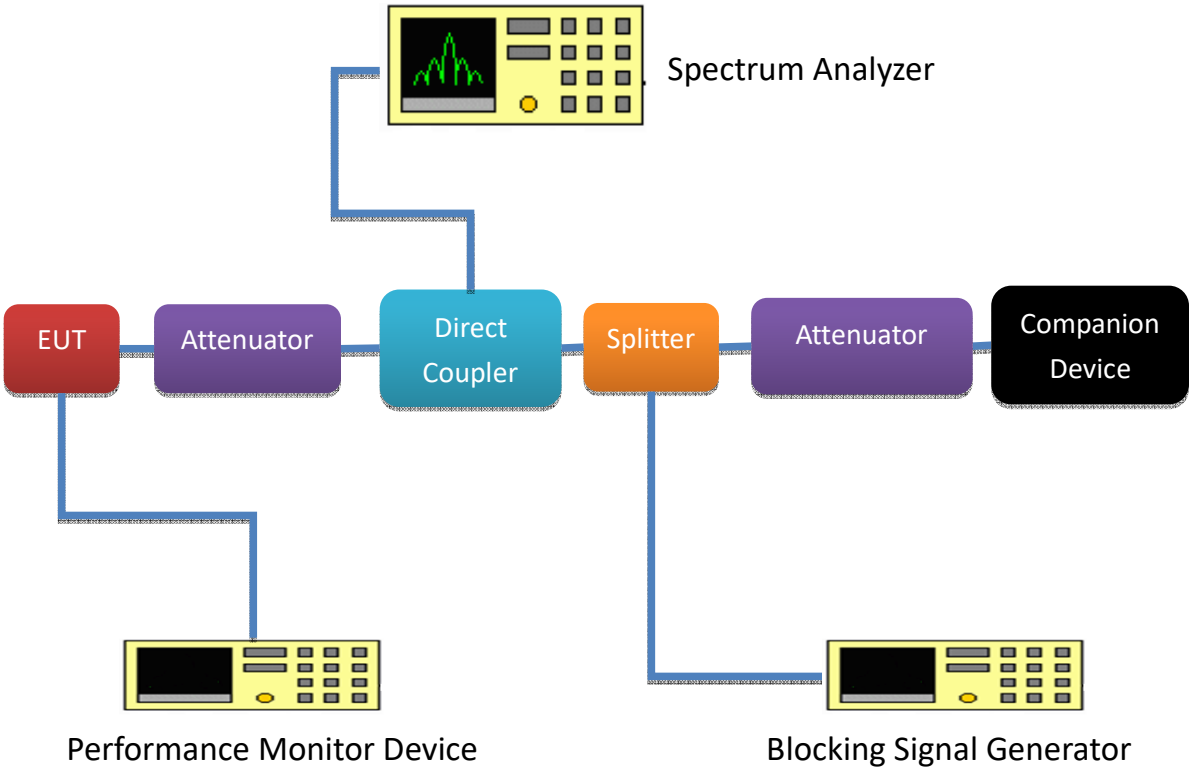
Refer to chapter 5.4.11.2. of ETSI EN 300 328 V2.2.2.

Measurement	
☒ Conducted measurement	☐ Radiated measurement

3.8.3. DEVIATION FROM TEST STANDARD

No deviation.

3.8.4. TEST SETUP CONFIGURATION



3.8.5. TEST RESULT

802.11b

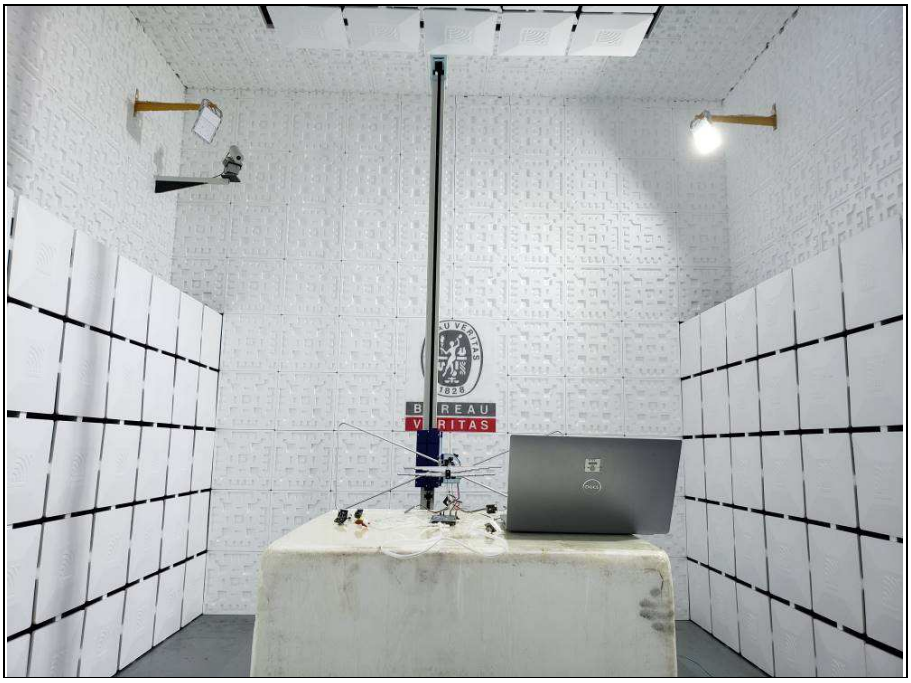
Receiver Category 1 Equipment

Receiver blocking performance when operating at the lowest operating channel(CH1)				
$OCBW_{min}$: 15.04MHz			antenna gain(G) : -2.16dBi	
The actual blocking signal power(Note1)			☒ at the antenna connector ☐ in front of the antenna	
Note1: For the conducted measurements , the level shall be corrected as follows: the actual blocking signal power = blocking signal power + antenna gain				
Wanted signal mean power from companion device (dBm)	**Blocking signal frequency (MHz)**	**The actual blocking signal power (dBm)**	**PER(%)**	**Pass/Fail**
-70.16	2380	-36.16	0.7	PASS
-76.16	2300		0.5	PASS
	2330		1.1	PASS
	2360		1.8	PASS

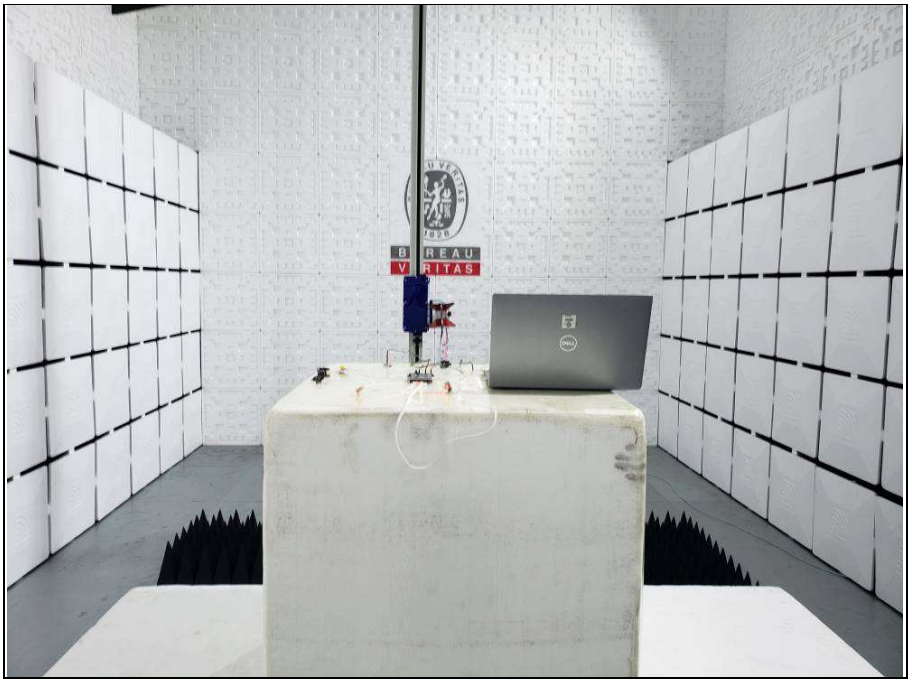
Receiver blocking performance when operating at the Highest operating channel(CH13)				
$OCBW_{min}$: 15.04MHz			antenna gain(G) : -2.16dBi	
The actual blocking signal power(Note1)			☒ at the antenna connector ☐ in front of the antenna	
Note1: For the conducted measurements , the level shall be corrected as follows: the actual blocking signal power = blocking signal power + antenna gain				
Wanted signal mean power from companion device (dBm)	**Blocking signal frequency (MHz)**	**The actual blocking signal power (dBm)**	**PER(%)**	**Pass/Fail**
-70.16	2504	-36.16	2.3	PASS
-76.16	2524		4.6	PASS
	2584		0.8	PASS
	2674		1.5	PASS

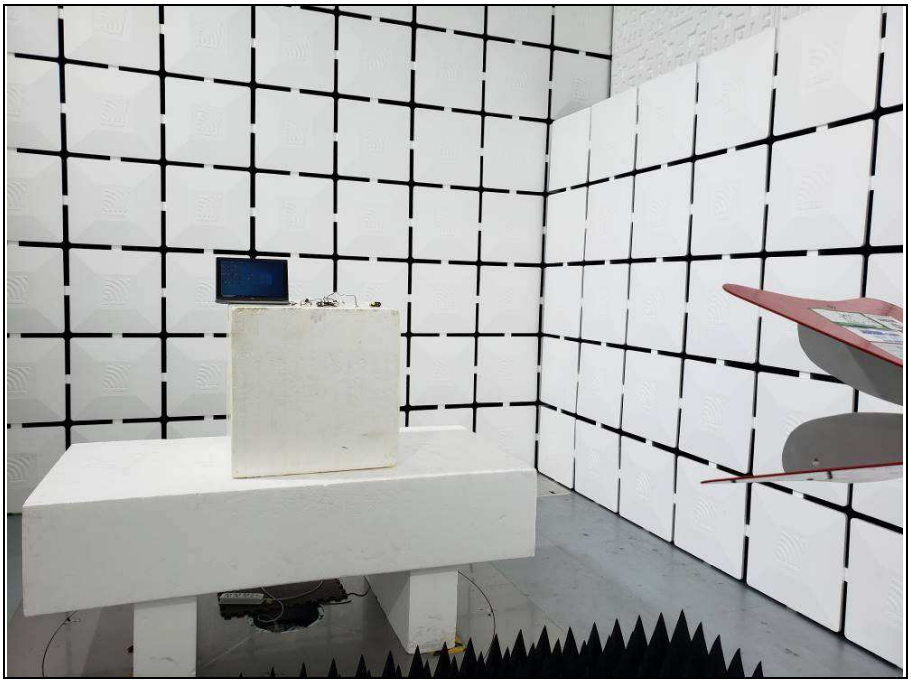
4 PHOTOGRAPHS OF THE TEST CONFIGURATION

SPURIOUS EMISSION TEST BELOW 1GHZ

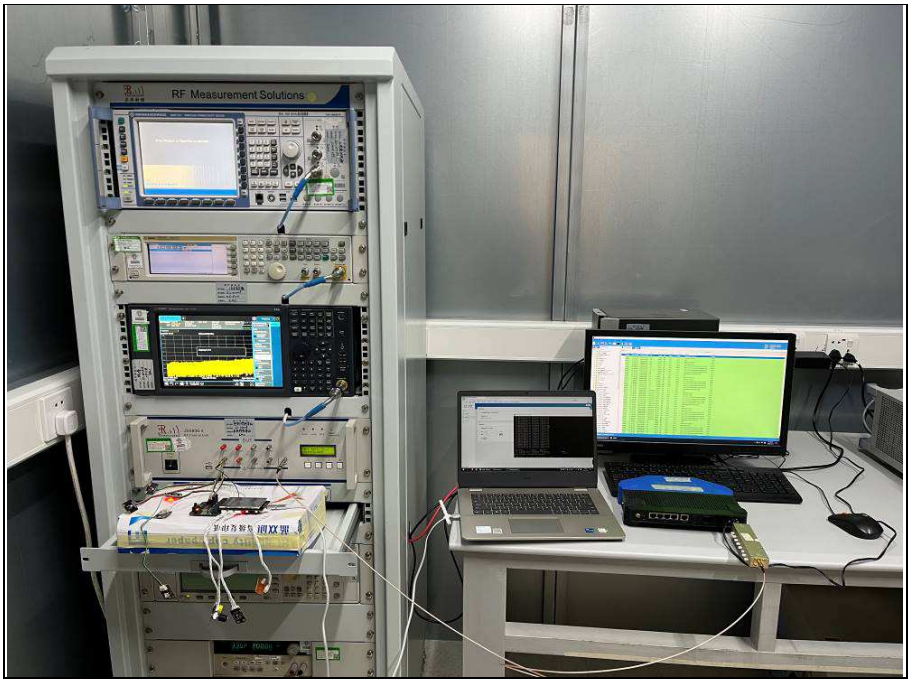


SPURIOUS EMISSION TEST ABOVE 1GHz

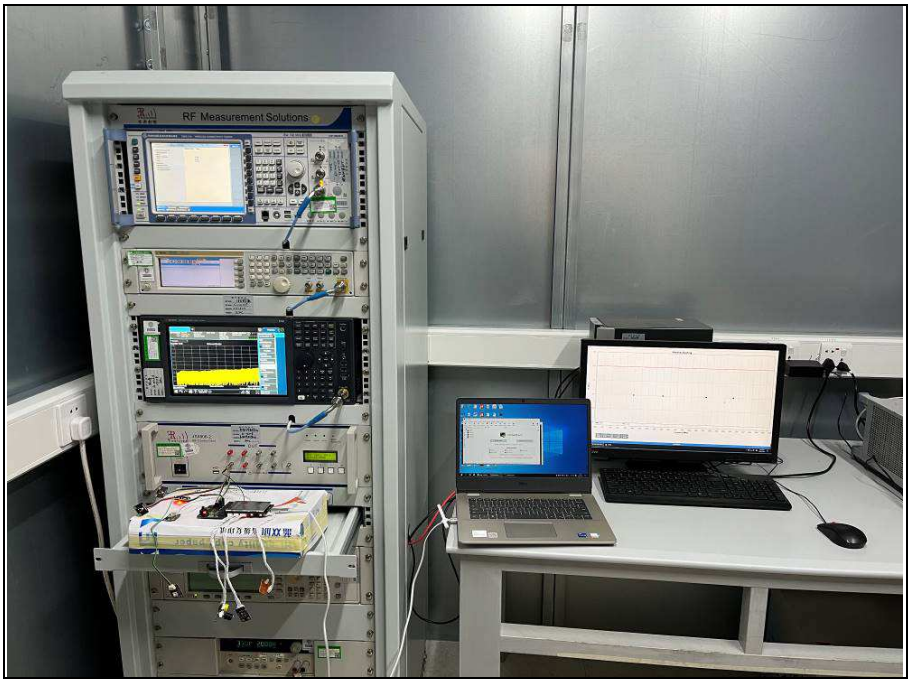




ADAPTIVITY TEST



RECEIVING BLOCKING



5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

--- END ---