

VERIFICATION OF COMPLIANCE

● Equipment : RBCube-60ad
Model Name : RBCube-60ad
Applicant : Mikrotiks SIA
Brivibas gatve 214i, Riga, LV-1039 Latvia



I HEREBY

DECLARE THAT :

The equipment was **Passed** the test performed according to EN 302 567 V1.2.1(2012-01).

The test was carried out on Sep. 02, 2019 at SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory.


Cliff Chang
SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory



Testing Laboratory
1190




CE RADIO TEST REPORT

Equipment : RBCube-60ad
Brand Name : MikroTik
Model Name : RBCube-60ad
Applicant : Mikrotikls SIA
Brivibas gatve 214i, Riga, LV-1039 Latvia
Manufacturer : MIKROTIKLS SIA
Brivibas gatve 214i, Riga, LV-1039 Latvia
Standard : EN 302 567 V1.2.1(2012-01)

The product was received on Jul. 29, 2019, and testing was started from Aug. 13, 2019 and completed on Sep. 02, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in EN 302 567 V1.2.1(2012-01) and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.


Approved by: Cliff Chang

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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Appendix A. Test Photos

Photographs of EUT v01



History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-E20_1 Ver1.0

Page Number : 3 of 48
Issued Date : Jan. 07, 2020
Report Version : 01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	3.1	6dBc Bandwidth	PASS	-
3.2	4.2.1	Spectral Power Density	PASS	-
3.3	4.2.2	RF Output Power	PASS	-
3.4	4.2.3	Transmitter Unwanted Emissions	PASS	-
4.1	4.2.4	Receiver Unwanted Emissions	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Wendy Pan

1 General Description

1.1 Information

1.1.1 The Channel Plan(s)

Frequency Range	57-66 GHz
The Channel Plan(s)	
Channel 1: 58.32 GHz	
Channel 2: 60.48 GHz	
Channel 3: 62.64 GHz	
Channel 4: 64.80 GHz	

1.1.2 Modulation

IEEE 802.11ad Modulation Scheme

MCS Index	Modulation	Code rate	Data rate (Mbit/s)
0	$\pi/2$ -BPSK	1/2	27.5
1	$\pi/2$ -BPSK	1/2	385
2	$\pi/2$ -BPSK	1/2	770
3	$\pi/2$ -BPSK	5/8	962.5
4	$\pi/2$ -BPSK	3/4	1155
5	$\pi/2$ -BPSK	13/16	1251.25
6	$\pi/2$ -QPSK	1/2	1540
7	$\pi/2$ -QPSK	5/8	1925
8	$\pi/2$ -QPSK	3/4	2310
9	$\pi/2$ -QPSK	13/16	2502.5
10	$\pi/2$ -16QAM	1/2	3080
11	$\pi/2$ -16QAM	5/8	3850
12	$\pi/2$ -16QAM	3/4	4620
12.1	$\pi/2$ -16QAM	13/16	5005

1.1.3 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Mikrotik	60G-phased-array	Dish	N/A	30

Note: The above information was declared by manufacturer.

1.1.4 Power Levels

Applicable power levels	<input type="checkbox"/> Conducted <input checked="" type="checkbox"/> EIRP
Frequency (GHz)	Highest setting (P_{high}): (dBm)
	AV Power
58.32	34.67
60.48	34.92
62.64	32.25
64.80	24.96

1.1.5 User Condition

Intended Operation	
<input type="checkbox"/> Indoor only	
<input type="checkbox"/> Outdoor only (Point-to-multipoint)	
<input checked="" type="checkbox"/> Indoor & Outdoor (Outdoor Point-to-multipoint)	

1.1.6 Power Type

Power Type	
EUT Power Type	From PoE
Supply Voltage	<input checked="" type="checkbox"/> AC State AC voltage 230 V
Supply Voltage	<input type="checkbox"/> DC State DC voltage V

1.1.7 Duty Cycle

Duty Cycle		Duty Cycle Factor
The transmitter is intended for	100 %	0.00



1.2 Accessories

Accessories				
Equipment Name	Brand Name	Model Name	Rating	Remark
Adapter	MLF	MLF-A00122400380FE0141	Input: 100-240V ~ 50/60Hz, 0.4Amax Output: 24V, 0.38A	-
PoE	MikroTik	RBGPOE	Input: 9-48V	For PoE use
Bracket*1				

1.3 Support Equipment

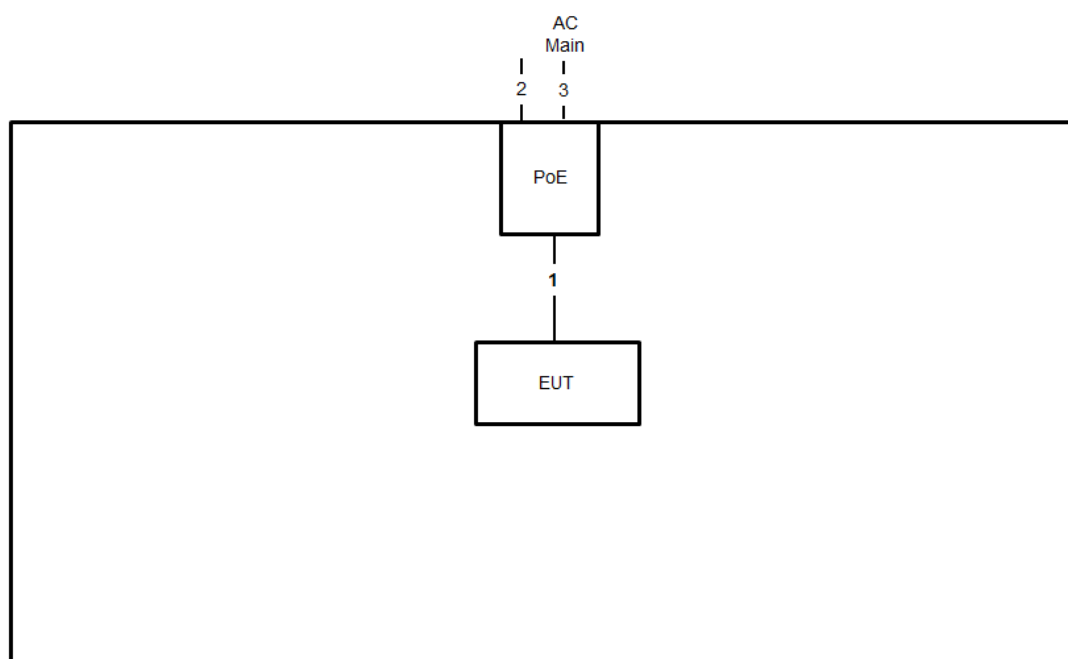
N/A

1.4 EUT Setups

During the test, executed the test program to control the EUT continuously transmit/receive RF signal.

1.5 Test Setup Diagram

Test Setup Diagram – Radiated Test



Item	Connection	Shielded	Length
1	RJ-45 cable	Yes	1.8m
2	RJ-45 cable	Yes	0.18m
3	Power cable	No	1.68m



1.6 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ EN 302 567 V1.2.1(2012-01)

1.7 Testing Location

Testing Location				
<input type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1 st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)		
		TEL : 886-3-327-3456	FAX : 886-3-327-0973	
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.		
		TEL : 886-3-656-9065	FAX : 886-3-656-9085	

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated	05CH01-CB	Brian Sun	24.3~25.8°C / 65~68%	Aug. 13, 2019~Sep. 02, 2019



2 Test Configuration of Equipment under Test

2.1 Test Channel Frequencies

Test Channel Frequencies Configuration			
Channel 1 (GHz)	Channel 2 (GHz)	Channel 3 (GHz)	Channel 4 (GHz)
58.32	60.48	62.64	64.80

2.2 Conformance Tests and Related Test Frequencies

Test Item	Test Frequencies (GHz)
6dBc Bandwidth	58.32, 60.48, 62.64, 64.80
Spectral Power Density	58.32, 60.48, 62.64, 64.80
RF Output Power	58.32, 60.48, 62.64, 64.80
Transmitter Unwanted Emissions	58.32, 60.48, 62.64, 64.80
Receiver Unwanted Emissions	58.32, 60.48, 62.64, 64.80

Note: The EUT can only be used at Y axis position.

3 Transmitter Test Result

3.1 6dBc Bandwidth

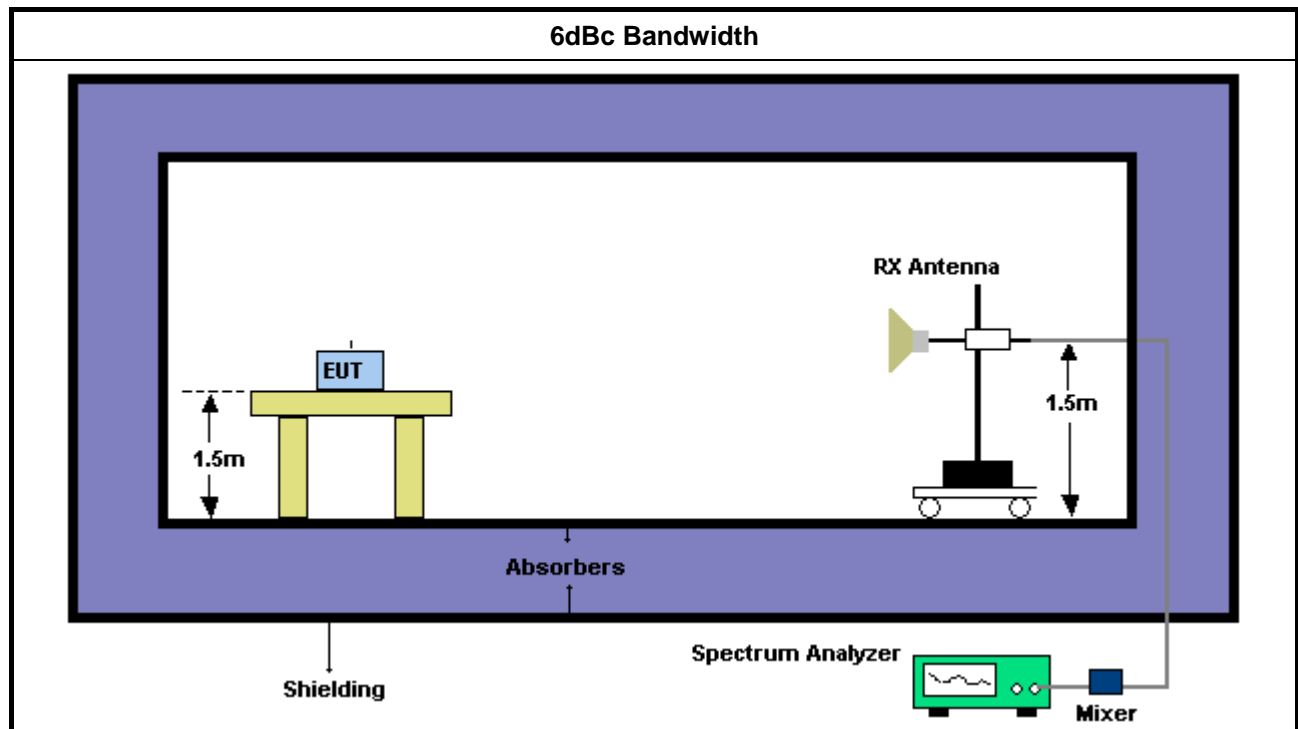
3.1.1 Limit of 6dBc Bandwidth

Item	Limit
6dBc Bandwidth (see Note)	None
NOTE: The 6dBc bandwidth is the frequency bandwidth of the signal power at the -6 dBc points when measured with a 1000 kHz resolution bandwidth. These measurements shall also be performed at normal test conditions. According to EN 302 567 V1.2.1(2012-01) Section 3.1, occupied bandwidth is defined as frequency bandwidth of the signal power at the -6 dBc points	

3.1.2 Measuring Instruments

Refer a measuring instruments list in this test report.

3.1.3 Test Setup



3.1.4 Test Result of 6dBc Bandwidth

Test Conditions	see EN 302 567, clause 5.3.2
Test Setup	see EN 302 567, Annex C1.2

Test Distance	2.5 m		
Test Results			
Test Freq. (GHz)	6dBc Bandwidth (MHz)	Limit (MHz)	Margin (MHz)
58.32	1765.60	N/A	N/A
60.48	1765.60	N/A	N/A
62.64	1526.80	N/A	N/A
64.80	1309.70	N/A	N/A
Note: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.			

3.2 Spectral Power Density

3.2.1 Limit of EIRP Spectral Power Density

Power Density Limit	
Use Condition	EIRP Average Power Density
Indoor and Outdoor	13 dBm / MHz

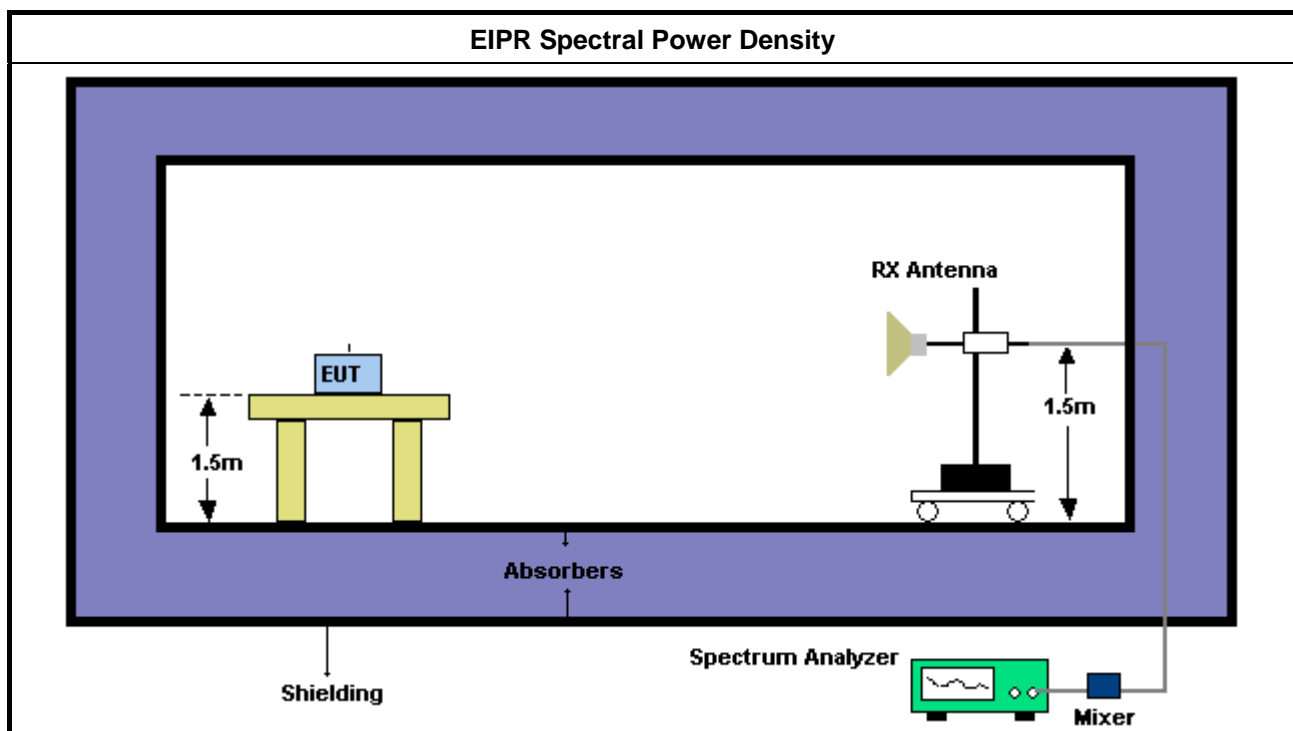
3.2.2 Measuring Instruments

Refer a measuring instruments list in this test report.

3.2.3 Test Procedures

Method of measurement: Refer as EN 302 567, clause 5.3.3.

3.2.4 Test Setup



3.2.5 Test Result of EIRP Spectral Power Density

Test Conditions	see EN 302 567, clause 5.3.2
Test Setup	see EN 302 567, Annex C1.2
NOTE: If the equipment supports different modulations and/or data rates, simple comparison of engineering test across all operating modes, modulations and data rates may need to be performed to define the worse case combination to be used for the conformance testing.	

Test Distance		2.5 m				
Test Results						
Test Freq. (GHz)	Meas. Level (dBm/MHz)	Rx Gain (dBi)	Duty Cycle Factor (dB)	PSD (E.I.R.P) (dBm/MHz)	PSD (E.I.R.P) Limit (dBm/MHz)	Result
58.32	-46.02	23.6	0	6.10	13	PASS
60.48	-46.31	23.6	0	6.12	13	PASS
62.64	-48.63	23.6	0	4.11	13	PASS
64.80	-56.17	23.6	0	-3.14	13	PASS

Note :

The measured power level is converted to EIRP using the Friis equation:

$$EIRP = P_T * G_T = (P_R / G_R) * (4 * \pi * D / \lambda)^2$$

P_R = measured channel power

G_R = 23.6 dBi, The gain of the receive measurement antenna

D = The measurement distance

λ = The wavelength.

DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

3.3 RF Output Power

3.3.1 Limit of RF Output Power

EIRP RF Output Power Limit	
Use Condition	EIRP Average RF Output Power
Indoor and Outdoor	40 dBm

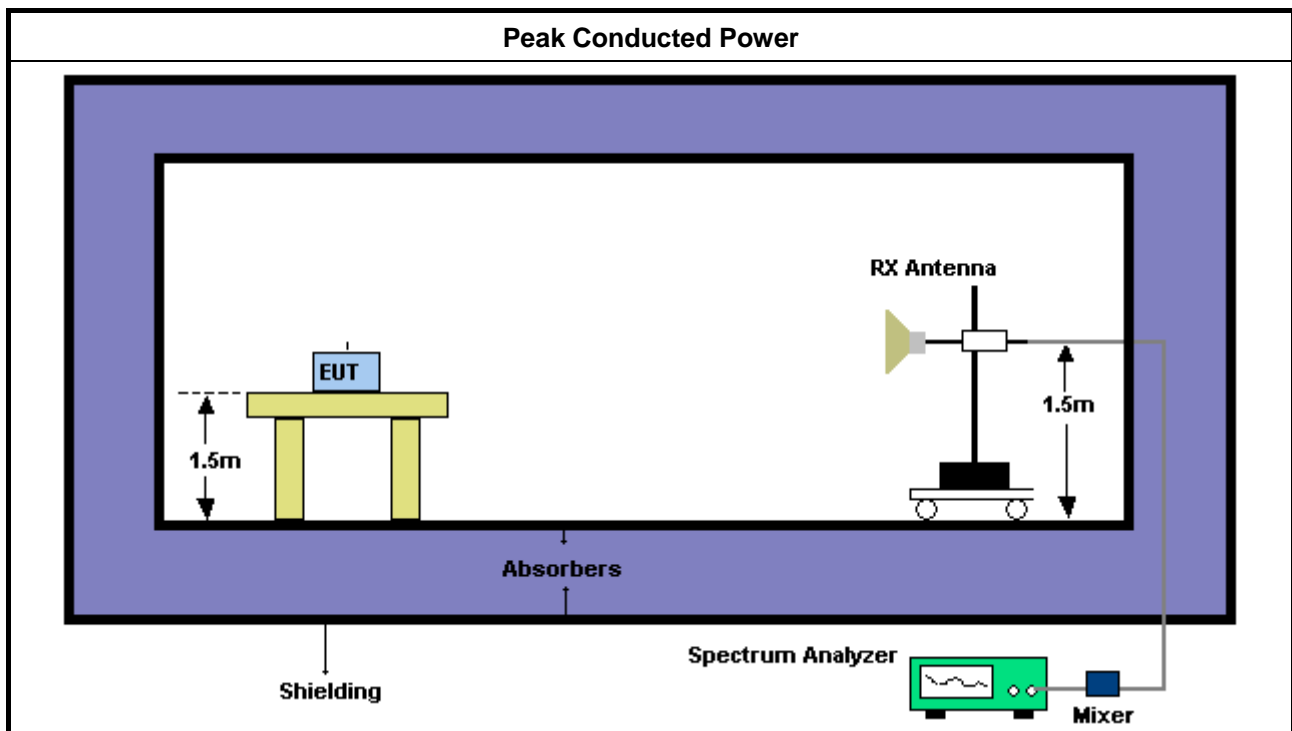
3.3.2 Measuring Instruments

Refer a measuring instruments list in this test report.

3.3.3 Test Procedures

Method of measurement: Refer as EN 302 567, clause 5.3.4.

3.3.4 Test Setup



3.3.5 Test Result of EIRP RF Output Power

Test Conditions	see EN 302 567, clause 5.3.2
Test Setup	see EN 302 567, Annex C1.2
NOTE: If the equipment supports different modulations and/or data rates, simple comparison of engineering test across all operating modes, modulations and data rates may need to be performed to define the worse case combination to be used for the conformance testing.	

Test Distance		2.5 m				
Test Results						
Test Freq. (GHz)	Meas. Level (dBm)	Rx Gain (dBi)	Duty Cycle Factor (dB)	E.I.R.P (dBm)	E.I.R.P Limit (dBm)	Result
58.32	-17.45	23.6	0	34.67	40	PASS
60.48	-17.51	23.6	0	34.92	40	PASS
62.64	-20.49	23.6	0	32.25	40	PASS
64.80	-28.07	23.6	0	24.96	40	PASS

Note :

The measured power level is converted to EIRP using the Friis equation:

$$EIRP = P_T * G_T = (P_R / G_R) * (4 * \pi * D / \lambda)^2$$

P_R = measured channel power

G_R = 23.6 dBi, The gain of the receive measurement antenna

D = The measurement distance

λ = The wavelength.

DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

3.4 Transmitter Unwanted Emissions

3.4.1 Limit of Transmitter Unwanted Emissions

Frequency Range	Emission Limit	Measurement 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 132 GHz	-30 dBm	1 MHz

NOTE: The boundary where the spurious domain begins as given by ITU-R Recommendation SM.1539-1 [6] is considered to be the offset from the nominal centre frequency of the transmission by $\pm 250\%$ of the relevant occupied bandwidth (OBw) for $OBw \leq 500$ MHz and $\pm (500 \text{ MHz} + 1,5 \times OBw)$ for $OBw > 500$ MHz.

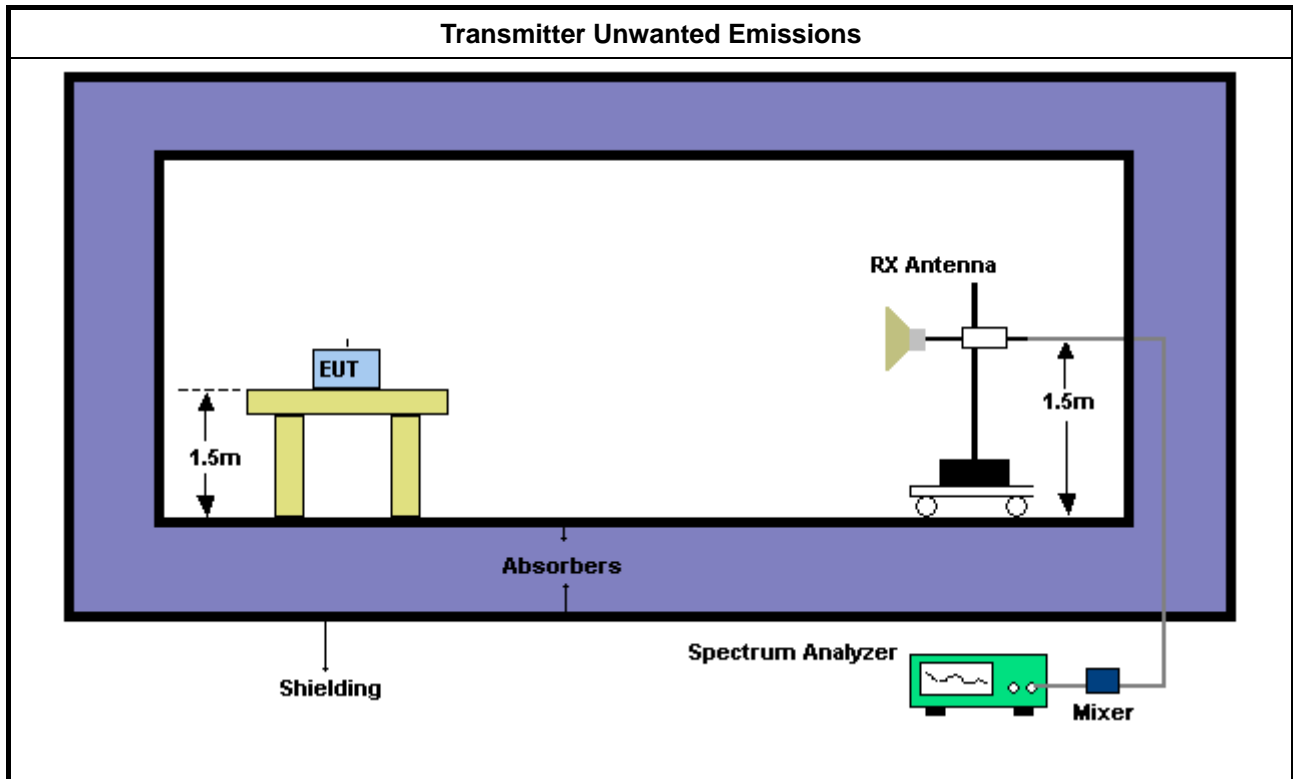
3.4.2 Measuring Instruments

Refer a measuring instruments list in this test report.

3.4.3 Test Procedures

Method of measurement: Refer as Refer as EN 302 567, clause 5.3.5.

3.4.4 Test Setup



3.4.5 Test Result of Transmitter Unwanted Emissions

Test Conditions	see EN 302 567, clause 5.3.2
Test Setup	see EN 302 567, Annex C1.2
NOTE: If equipment having different channel plan and nominal channel bandwidth modes (see test report clause 1.1.1), the measurements are uninfluenced by different channel plan and nominal channel bandwidth modes, may not need to be repeated for all modes.	



3.4.5.1 Test Result of Transmitter Unwanted Emissions (30MHz~1GHz)

Test Range	30 MHz – 1000 MHz	Test Distance	3 m
Test Configuration	58.32 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	60.07	-66.36	-12.36	-54.00	-54.32	-12.04	VERTICAL
2	95.96	-72.11	-18.11	-54.00	-64.61	-7.50	VERTICAL
3	106.63	-74.62	-20.62	-54.00	-67.40	-7.22	VERTICAL
4	704.15	-67.13	-13.13	-54.00	-69.19	2.06	VERTICAL
5	740.04	-63.41	-9.41	-54.00	-65.71	2.30	VERTICAL
6	745.86	-63.44	-9.44	-54.00	-65.78	2.34	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	103.72	-77.36	-23.36	-54.00	-69.29	-8.07	HORIZONTAL
2	500.45	-73.74	-19.74	-54.00	-73.08	-0.66	HORIZONTAL
3	627.52	-76.70	-22.70	-54.00	-78.11	1.41	HORIZONTAL
4	712.88	-75.16	-21.16	-54.00	-77.21	2.05	HORIZONTAL
5	749.74	-73.23	-19.23	-54.00	-75.45	2.22	HORIZONTAL
6	773.99	-73.25	-19.25	-54.00	-75.57	2.32	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	30 MHz – 1000 MHz	Test Distance	3 m
Test Configuration	60.48 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	60.07	-73.15	-19.15	-54.00	-61.11	-12.04	VERTICAL
2	70.74	-73.85	-19.85	-54.00	-61.11	-12.74	VERTICAL
3	97.90	-75.56	-21.56	-54.00	-68.22	-7.34	VERTICAL
4	500.45	-77.61	-23.61	-54.00	-76.77	-0.84	VERTICAL
5	600.36	-74.25	-20.25	-54.00	-75.51	1.26	VERTICAL
6	711.91	-72.12	-18.12	-54.00	-74.24	2.12	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	59.10	-67.36	-13.36	-54.00	-53.22	-14.14	HORIZONTAL
2	102.75	-74.75	-20.75	-54.00	-66.71	-8.04	HORIZONTAL
3	500.45	-73.21	-19.21	-54.00	-72.55	-0.66	HORIZONTAL
4	624.61	-75.34	-21.34	-54.00	-76.73	1.39	HORIZONTAL
5	713.85	-67.46	-13.46	-54.00	-69.52	2.06	HORIZONTAL
6	773.99	-72.05	-18.05	-54.00	-74.37	2.32	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	30 MHz – 1000 MHz	Test Distance	3 m
Test Configuration	62.64 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	71.71	-71.91	-17.91	-54.00	-59.47	-12.44	VERTICAL
2	97.90	-74.81	-20.81	-54.00	-67.47	-7.34	VERTICAL
3	500.45	-76.39	-22.39	-54.00	-75.55	-0.84	VERTICAL
4	600.36	-73.46	-19.46	-54.00	-74.72	1.26	VERTICAL
5	696.39	-75.31	-21.31	-54.00	-77.32	2.01	VERTICAL
6	763.32	-74.61	-20.61	-54.00	-77.07	2.46	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	95.96	-75.07	-21.07	-54.00	-66.44	-8.63	HORIZONTAL
2	500.45	-74.59	-20.59	-54.00	-73.93	-0.66	HORIZONTAL
3	600.36	-72.28	-18.28	-54.00	-73.44	1.16	HORIZONTAL
4	624.61	-71.89	-17.89	-54.00	-73.28	1.39	HORIZONTAL
5	704.15	-66.60	-12.60	-54.00	-68.61	2.01	HORIZONTAL
6	749.74	-69.65	-15.65	-54.00	-71.87	2.22	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	30 MHz – 1000 MHz	Test Distance	3 m
Test Configuration	64.80 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	89.17	-71.20	-17.20	-54.00	-62.97	-8.23	VERTICAL
2	600.36	-74.60	-20.60	-54.00	-75.86	1.26	VERTICAL
3	647.89	-75.81	-21.81	-54.00	-77.45	1.64	VERTICAL
4	685.72	-76.48	-22.48	-54.00	-78.40	1.92	VERTICAL
5	749.74	-72.18	-18.18	-54.00	-74.55	2.37	VERTICAL
6	764.29	-74.63	-20.63	-54.00	-77.09	2.46	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	95.96	-72.94	-18.94	-54.00	-64.31	-8.63	HORIZONTAL
2	104.69	-74.04	-20.04	-54.00	-65.96	-8.08	HORIZONTAL
3	191.02	-75.35	-21.35	-54.00	-64.88	-10.47	HORIZONTAL
4	500.45	-72.27	-18.27	-54.00	-71.61	-0.66	HORIZONTAL
5	624.61	-74.38	-20.38	-54.00	-75.77	1.39	HORIZONTAL
6	749.74	-73.12	-19.12	-54.00	-75.34	2.22	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.

**3.4.5.2 Test Result of Transmitter Unwanted Emissions (1GHz~40GHz)**

Test Range	1 GHz – 18 GHz	Test Distance	3 m
Test Configuration	58.32 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1799.82	-52.99	-22.99	-30.00	-37.15	-15.84	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1799.82	-56.46	-26.46	-30.00	-40.30	-16.16	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	1 GHz – 18 GHz	Test Distance	3 m
Test Configuration	60.48 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-52.46	-22.46	-30.00	-36.62	-15.84	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-56.78	-26.78	-30.00	-40.62	-16.16	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	1 GHz – 18 GHz	Test Distance	3 m
Test Configuration	62.64 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-52.23	-22.23	-30.00	-36.39	-15.84	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-56.52	-26.52	-30.00	-40.36	-16.16	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	1 GHz – 18 GHz	Test Distance	3 m
Test Configuration	64.80 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-52.55	-22.55	-30.00	-36.71	-15.84	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-56.44	-26.44	-30.00	-40.28	-16.16	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	18 GHz – 40 GHz	Test Distance	1 m
Test Configuration	58.32 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18195.59	-62.69	-15.69	-47.00	-66.87	4.18	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18475.58	-62.46	-15.46	-47.00	-66.92	4.46	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	18 GHz – 40 GHz	Test Distance	1 m
Test Configuration	60.48 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	19765.67	-63.11	-16.11	-47.00	-66.96	3.85	HORIZONTAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18113.20	-62.87	-15.87	-47.00	-66.91	4.04	VERTICAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	18 GHz – 40 GHz	Test Distance	1 m
Test Configuration	62.64 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18271.86	-62.02	-15.02	-47.00	-66.33	4.31	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18155.33	-62.32	-15.32	-47.00	-66.82	4.50	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	18 GHz – 40 GHz	Test Distance	1 m
Test Configuration	64.80 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18180.39	-62.25	-15.25	-47.00	-66.38	4.13	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18250.26	-63.23	-16.23	-47.00	-67.72	4.49	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.
Level= Read Level + Factor.

**3.4.5.3 Test Result of Transmitter Unwanted Emissions (40GHz~132GHz)**

Test Range	40 GHz – 132 GHz	Test Distance	2.5 m
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Test Results							
Test Freq. (GHz)	Meas. Freq. (GHz)	Meas. Level (dBm)	Rx Gain (dBi)	Duty Cycle Factor (dB)	E.I.R.P (dBm)	Limit (dBm)	Result
58.32	53.84	-82.75	23.6	0	-31.33	-30	PASS
60.48	56.52	-82.59	23.6	0	-30.75	-30	PASS
62.64	56.54	-83.24	23.6	0	-31.39	-30	PASS
64.80	56.77	-83.66	23.6	0	-31.78	-30	PASS

Note :

The measured power level is converted to EIRP using the Friis equation:

$$EIRP = P_T * G_T = (P_R / G_R) * (4 * \pi * D / \lambda)^2$$

P_R = measured channel power

G_R = 23.6 dBi, The gain of the receive measurement antenna

D = The measurement distance

λ = The wavelength.

DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

4 Receiver Test Result

4.1 Receiver Unwanted Emissions

4.1.1 Limit of Receiver Unwanted Emissions

Frequency Range	Limit
30 MHz - 1 GHz	38 dBuV/m at 3m (-57dBm eirp)
1 GHz - 132 GHz	48 dBuV/m at 3m (-47dBm eirp)

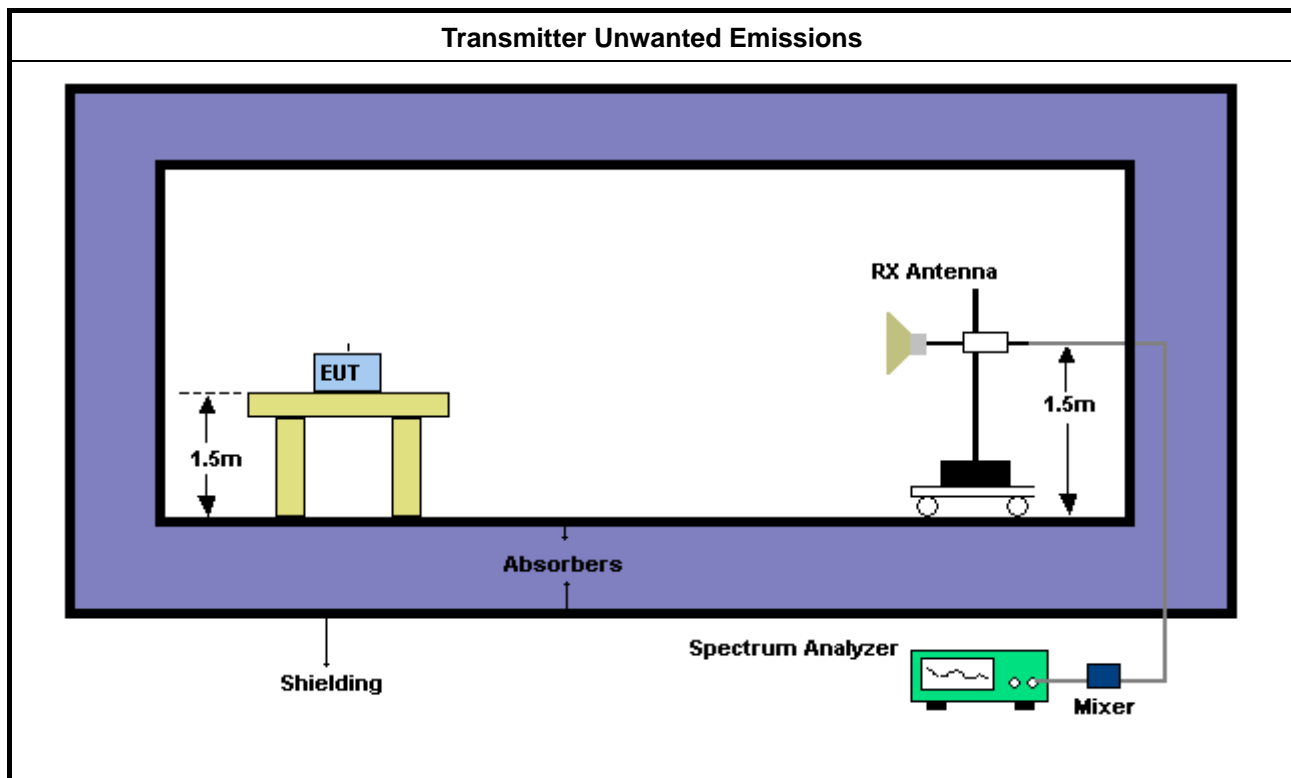
4.1.2 Measuring Instruments

Refer a measuring instruments list in this test report.

4.1.3 Test Procedures

Method of measurement: Refer as Refer as EN 302 567, clause 5.3.6.

4.1.4 Test Setup





4.1.5 Test Result of Receiver Unwanted Emissions

Test Conditions:	Standby Mode, the EUT doesn't have a receive only mode
Test Setup:	see EN 302 567, Annex C1.2
NOTE: If equipment having different channel plan and nominal channel bandwidth modes (see test report clause 1.1.1), the measurements are uninfluenced by different channel plan and nominal channel bandwidth modes, may not need to be repeated for all modes.	

**4.1.5.1 Test Result of Receiver Unwanted Emissions (30MHz~1GHz)**

Test Range	30 MHz – 1000 MHz	Test Distance	3 m
Test Configuration	58.32 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	30.97	-64.68	-7.68	-57.00	-61.81	-2.87	VERTICAL
2	39.70	-67.94	-10.94	-57.00	-60.88	-7.06	VERTICAL
3	703.18	-69.09	-12.09	-57.00	-71.10	2.01	VERTICAL
4	885.54	-71.56	-14.56	-57.00	-74.68	3.12	VERTICAL
5	900.09	-70.84	-13.84	-57.00	-74.08	3.24	VERTICAL
6	973.81	-73.65	-16.65	-57.00	-77.12	3.47	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	34.85	-70.45	-13.45	-57.00	-63.09	-7.36	HORIZONTAL
2	39.70	-70.20	-13.20	-57.00	-63.14	-7.06	HORIZONTAL
3	250.19	-73.92	-16.92	-57.00	-67.99	-5.93	HORIZONTAL
4	600.36	-71.60	-14.60	-57.00	-72.76	1.16	HORIZONTAL
5	886.51	-67.14	-10.14	-57.00	-70.28	3.14	HORIZONTAL
6	899.12	-68.89	-11.89	-57.00	-72.13	3.24	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	30 MHz – 1000 MHz	Test Distance	3 m
Test Configuration	60.48 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	40.67	-67.61	-10.61	-57.00	-60.17	-7.44	VERTICAL
2	50.37	-68.98	-11.98	-57.00	-56.16	-12.82	VERTICAL
3	54.25	-64.93	-7.93	-57.00	-51.49	-13.44	VERTICAL
4	60.07	-69.02	-12.02	-57.00	-54.73	-14.29	VERTICAL
5	886.51	-64.54	-7.54	-57.00	-67.68	3.14	VERTICAL
6	954.41	-71.26	-14.26	-57.00	-74.68	3.42	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	34.85	-71.26	-14.26	-57.00	-63.90	-7.36	HORIZONTAL
2	39.70	-68.36	-11.36	-57.00	-61.30	-7.06	HORIZONTAL
3	275.41	-74.80	-17.80	-57.00	-68.86	-5.94	HORIZONTAL
4	600.36	-72.21	-15.21	-57.00	-73.37	1.16	HORIZONTAL
5	886.51	-66.62	-9.62	-57.00	-69.76	3.14	HORIZONTAL
6	894.27	-69.82	-12.82	-57.00	-73.01	3.19	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	30 MHz – 1000 MHz	Test Distance	3 m
Test Configuration	62.64 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	40.67	-69.06	-12.06	-57.00	-61.62	-7.44	VERTICAL
2	60.07	-72.58	-15.58	-57.00	-58.29	-14.29	VERTICAL
3	73.65	-73.99	-16.99	-57.00	-60.14	-13.85	VERTICAL
4	89.17	-71.89	-14.89	-57.00	-61.93	-9.96	VERTICAL
5	900.09	-70.28	-13.28	-57.00	-73.52	3.24	VERTICAL
6	1000.00	-70.19	-13.19	-57.00	-73.75	3.56	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	34.85	-70.79	-13.79	-57.00	-63.43	-7.36	HORIZONTAL
2	40.67	-70.56	-13.56	-57.00	-63.12	-7.44	HORIZONTAL
3	265.71	-74.82	-17.82	-57.00	-68.88	-5.94	HORIZONTAL
4	600.36	-71.95	-14.95	-57.00	-73.11	1.16	HORIZONTAL
5	886.51	-65.42	-8.42	-57.00	-68.56	3.14	HORIZONTAL
6	954.41	-70.80	-13.80	-57.00	-74.22	3.42	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	30 MHz – 1000 MHz	Test Distance	3 m
Test Configuration	64.80 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	32.91	-72.46	-15.46	-57.00	-67.35	-5.11	VERTICAL
2	40.67	-67.14	-10.14	-57.00	-59.70	-7.44	VERTICAL
3	49.40	-74.52	-17.52	-57.00	-62.16	-12.36	VERTICAL
4	89.17	-72.34	-15.34	-57.00	-62.38	-9.96	VERTICAL
5	600.36	-72.25	-15.25	-57.00	-73.41	1.16	VERTICAL
6	954.41	-71.31	-14.31	-57.00	-74.73	3.42	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	34.85	-71.25	-14.25	-57.00	-63.89	-7.36	HORIZONTAL
2	40.67	-71.67	-14.67	-57.00	-64.23	-7.44	HORIZONTAL
3	51.34	-73.04	-16.04	-57.00	-60.07	-12.97	HORIZONTAL
4	600.36	-71.05	-14.05	-57.00	-72.21	1.16	HORIZONTAL
5	704.15	-64.55	-7.55	-57.00	-66.56	2.01	HORIZONTAL
6	887.48	-64.70	-7.70	-57.00	-67.84	3.14	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.

**4.1.5.2 Test Result of Receiver Unwanted Emissions (1GHz~40GHz)**

Test Range	1 GHz – 18 GHz	Test Distance	3 m
Test Configuration	58.32 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2399.99	-53.38	-6.38	-47.00	-39.51	-13.87	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	2399.97	-53.60	-6.60	-47.00	-39.33	-14.27	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.
Level= Read Level + Factor.



Test Range	1 GHz – 18 GHz	Test Distance	3 m
Test Configuration	60.48 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-52.58	-5.58	-47.00	-36.74	-15.84	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-56.48	-9.48	-47.00	-40.32	-16.16	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	1 GHz – 18 GHz	Test Distance	3 m
Test Configuration	62.64 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-52.40	-5.40	-47.00	-36.56	-15.84	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-56.51	-9.51	-47.00	-40.35	-16.16	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	1 GHz – 18 GHz	Test Distance	3 m
Test Configuration	64.80 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-52.74	-5.74	-47.00	-36.90	-15.84	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	1800.39	-56.76	-9.76	-47.00	-40.60	-16.16	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.
Level= Read Level + Factor.



Test Range	18 GHz – 40 GHz	Test Distance	1 m
Test Configuration	58.32 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18226.53	-61.92	-14.92	-47.00	-66.15	4.23	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18480.92	-62.15	-15.15	-47.00	-66.61	4.46	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.
Level= Read Level + Factor.



Test Range	18 GHz – 40 GHz	Test Distance	1 m
Test Configuration	60.48 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18168.39	-61.82	-14.82	-47.00	-65.95	4.13	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18205.46	-62.84	-15.84	-47.00	-67.33	4.49	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	18 GHz – 40 GHz	Test Distance	1 m
Test Configuration	62.64 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18339.32	-62.21	-15.21	-47.00	-66.61	4.40	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18091.86	-62.15	-15.15	-47.00	-66.66	4.51	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.

Level= Read Level + Factor.



Test Range	18 GHz – 40 GHz	Test Distance	1 m
Test Configuration	64.80 GHz		

Vertical

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18199.06	-61.98	-14.98	-47.00	-66.16	4.18	VERTICAL

Horizontal

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	18180.93	-62.36	-15.36	-47.00	-66.86	4.50	HORIZONTAL

Note 1: DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

Note 2: Factor: Transmit Antenna Gain + Signal Generator Level - SA reading - Transmit Cable Loss.
Level= Read Level + Factor.

**4.1.5.3 Test Result of Receiver Unwanted Emissions (40GHz~132GHz)**

Test Range	40 GHz – 132 GHz	Test Distance	2.5 m
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Test Results							
Test Freq. (GHz)	Meas. Freq. (GHz)	Meas. Level (dBm)	Rx Gain (dBi)	Duty Cycle Factor (dB)	E.I.R.P (dBm)	Limit (dBm)	Result
58.32	41.61	-96.77	23.6	0	-47.59	-47	PASS
60.48	42.84	-96.89	23.6	0	-47.45	-47	PASS
62.64	45.12	-96.93	23.6	0	-47.04	-47	PASS
64.80	43.79	-96.87	23.6	0	-47.24	-47	PASS

Note :

The measured power level is converted to EIRP using the Friis equation:

$$EIRP = P_T * G_T = (P_R / G_R) * (4 * \pi * D / \lambda)^2$$

P_R = measured channel power

G_R = 23.6 dBi, The gain of the receive measurement antenna

D = The measurement distance

λ = The wavelength.

DUT - Receive Antenna Distance = Test Distance, all test was conducted at far-field distance.

5 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101024	9kHz ~ 40GHz	Sep. 06, 2018	Sep. 05, 2019	Radiation (05CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980537	30MHz~1GHz	Mar. 06, 2019	Mar. 05, 2020	Radiation (05CH01-CB)
Pre-Amplifier	EMCI	EMC01264 5SE	980341	1GHz ~ 26.5GHz	Dec. 12, 2018	Dec. 11, 2019	Radiation (05CH01-CB)
Bilog Antenna	Schaffner	CBL6112B	2894	30MHz ~ 1GHz	Feb. 11, 2019	Feb. 10, 2020	Radiation (05CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9120 D	BBHA 9120D-01816	1GHz~18GHz	Dec. 18, 2018	Dec. 17, 2019	Radiation (05CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 27, 2019	Jun. 26, 2020	Radiation (05CH01-CB)
CABLE	Marvelous	N/A	Low Cable-6	30MHz ~ 1GHz	Apr. 03, 2019	Apr. 02, 2020	Radiation (05CH01-CB)
CABLE	Woken	N/A	High Cable-25+26	1GHz ~ 26.5GHz	Jan. 04, 2019	Jan. 03, 2020	Radiation (05CH01-CB)
Test Software	Audix	E3	5.04.1019f	N/A	N/A	N/A	Radiation (05CH01-CB)
Mixer	OML	M19HW/A	U91113-1	40 ~ 60 GHz	Oct. 12, 2017*	Oct. 11, 2019	Radiation (05CH01-CB)
Mixer	OML	M15HW/A	V91113-1	50 ~ 75 GHz	Oct. 12, 2017*	Oct. 11, 2019	Radiation (05CH01-CB)
Mixer	OML	M12HW/A	E91113-1	60 ~ 90 GHz	Oct. 12, 2017*	Oct. 11, 2019	Radiation (05CH01-CB)
Mixer	OML	M08HW/A	F91113-1	90 ~ 140 GHz	Oct. 12, 2017*	Oct. 11, 2019	Radiation (05CH01-CB)
Standard Horn Antenna	Custom Microwave	M19RH	U91113-A	40 ~ 60 GHz	N.C.R	N.C.R	Radiation (05CH01-CB)
Standard Horn Antenna	Custom Microwave	M15RH	V91113-A	50 ~ 75 GHz	N.C.R	N.C.R	Radiation (05CH01-CB)
Standard Horn Antenna	Custom Microwave	M12RH	E91113-A	60 ~ 90 GHz	N.C.R	N.C.R	Radiation (05CH01-CB)
Standard Horn Antenna	Custom Microwave	M08RH	F91113-A	90 ~ 140 GHz	N.C.R	N.C.R	Radiation (05CH01-CB)

Note: Calibration Interval of instruments listed above is one year.

*** Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.

6 Measurement Uncertainty

Parameter	Uncertainty	Remark
RF Frequency	5.2×10^{-10}	Confidence levels of 95%
RF Power Radiated	5.1 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (40GHz ~ 60GHz)	4.6 dB	Confidence levels of 95%
Radiated Emission (60GHz ~ 90GHz)	5.1 dB	Confidence levels of 95%
Radiated Emission (90GHz ~ 140GHz)	5.8 dB	Confidence levels of 95%
Temperature	1 °C	Confidence levels of 95%
Humidity	3.8%	Confidence levels of 95%
Time	1.2%	Confidence levels of 95%

1. Photographs of Test Configuration

Test Configuration: Below 40GHz

FRONT VIEW



REAR VIEW



Test Configuration: Above 40GHz

FRONT VIEW



————THE END————