Powercore Technology Co., Ltd.

RF TEST REPORT

Report Type:
FCC Part 15.225 & ISED RSS-210 RF report

MODEL:
ADC002ABCD-E

REPORT NUMBER:
2407B2028SHA-001

ISSUE DATE:
October 14, 2024

DOCUMENT CONTROL NUMBER:
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TEST REPORT

Report no.: 2407B2028SHA-001

Applicant:	Powercore Technology Co., Ltd. 4th Floor, Jiangsu Science and Technology Finance Building, No.21 Andemen Street, Yuhuatai District, Nanjing City, Jiangsu Province, P.R. China
Manufacturer:	Powercore Technology Co., Ltd. 4th Floor, Jiangsu Science and Technology Finance Building, No.21 Andemen Street, Yuhuatai District, Nanjing City, Jiangsu Province, P.R. China
Factory:	Powercore Technology Co., Ltd. Zone A, No.1 Yuansi Road, Jiangbei New District, Nanjing City, Jiangsu Province, P.R. China
FCC ID:	2A98K-ADC002V2
IC:	30675-ADC002V2

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

47CFR Part 15 (2023): Radio Frequency Devices (Subpart C)

ANSI C63.10 (2020): American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

RSS-210 Issue 10 (December 2019): Licence-Exempt Radio Apparatus: Category I Equipment

RSS-Gen Issue 5, Amendment 1 (March 2019): General Requirements for Compliance of Radio Apparatus

PREPARED BY:	**REVIEWED BY:**
	
Project Engineer Sky Yang	Reviewer Eric Li

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Revision History

Report No.	Version	Description	Issued Date
2407B2028SHA-001	Rev. 01	Initial issue of report	October 14, 2024

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Measurement result summary

TEST ITEM	FCC REFERENCE	IC REFERENCE	RESULT
Fundamental emission	15.225(a) (b) (c)	RSS 210 B.6	Pass
Spurious emission	15.225(d)	RSS 210 B.6	Pass
Frequency stability	15.225(e)	RSS 210 B.6	Pass
Conducted emissions	15.207	RSS-Gen Issue 5 Clause 8.8	Pass
99% and 20dB Bandwidth	15.215(c)	RSS-Gen Issue 5 Clause 6.6	Pass
Antenna requirement	15.203	RSS-GEN 6.8	Pass

Notes: 1: NA =Not Applicable

2: Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	DC Electric Vehicle Charging Station
Type/Model:	ADC002ABCD-E A may be C1 or NACS, denotes to one of the output connector interface type, C1:CCS1 B may be 30, 60 or 90, denotes to one of the output power, 30:30kW, 60:60kW, 90:90kW C may be C1 or NACS, denotes to the other of the output connector interface type, C1:CCS1 D may be 30, 60 or 90, denotes to one of the output rating, 30:30kW, 60:60kW, 90:90kW E may be 200, 250 or 300, denotes to the max charging current ADC002C130C130-200, ADC002C130NACS30-200, ADC002NACS30NACS30-200, ADC002C160C130-200, ADC002C160NACS30-200, ADC002NACS60NACS30-200, ADC002C160C160-200, ADC002C160NACS60-200, ADC002NACS60NACS60-200, ADC002C190C160-200, ADC002C190NACS60-200, ADC002NACS90NACS60-200, ADC002C190C190-200, ADC002C190NACS90-200, ADC002NACS90NACS90-200, ADC002C160C130-250, ADC002C160NACS30-250, ADC002NACS60NACS30-250, ADC002C160C160-250, ADC002C160NACS60-250, ADC002NACS60NACS60-250, ADC002C190C160-250, ADC002C190NACS60-250, ADC002NACS90NACS60-250, ADC002C190C190-250, ADC002C190NACS90-250, ADC002NACS90NACS90-250, ADC002C160C130-300, ADC002C160NACS30-300, ADC002NACS60NACS30-300, ADC002C160C160-300, ADC002C160NACS60-300, ADC002NACS60NACS60-300, ADC002C190C160-300, ADC002C190NACS60-300, ADC002NACS90NACS60-300, ADC002C190C190-300, ADC002C190NACS90-300, ADC002NACS90NACS90-300,
Description of EUT:	The EUT is electric vehicle DC charger. It contains two certified modules, the WIFI/Bluetooth module FCC ID is 2AL6KBL-M8821CS1, the LTE module FCC ID is XMR201903EG25G, the WIFI/Bluetooth module IC is 20944-BLM8821CS1, the LTE module IC is 10224A-201903EG25G. All models are electric identical except the charging gun, max charging current, number of power module and number of fun.
Rating:	ADC002A30C30-200: Input: 480VAC±10%, 50/60Hz, 76A Max Output: 150-1000VDC, 200A Max, 60kW Max ADC002A60C30-200: Input: 480VAC±10%, 50/60Hz, 114A Max Output: 150-1000VDC, 200A Max, 90kW Max ADC002A60C60-200: Input: 480VAC±10%, 50/60Hz, 152A Max Output: 150-1000VDC, 200A Max, 120kW Max ADC002A90C60-200: Input: 480VAC±10%, 50/60Hz, 190A Max Output: 150-1000VDC, 200A Max, 150kW Max ADC002A90C90-200: Input: 480VAC±10%, 50/60Hz, 228A Max Output: 150-1000VDC, 200A Max, 180kW Max ADC002A60C30-250: Input: 480VAC±10%, 50/60Hz, 114A Max Output: 150-1000VDC, 250A Max, 90kW Max

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	ADC002A60C60-250: Input: 480VAC±10%, 50/60Hz, 152A Max Output: 150-1000VDC, 250A Max, 120kW Max ADC002A90C60-250: Input: 480VAC±10%, 50/60Hz, 190A Max Output: 150-1000VDC, 250A Max, 150kW Max ADC002A90C90-250: Input: 480VAC±10%, 50/60Hz, 228A Max Output: 150-1000VDC, 250A Max, 180kW Max ADC002A60C30-300: Input: 480VAC±10%, 50/60Hz, 114A Max Output: 150-1000VDC, 300A Max, 90kW Max ADC002A60C60-300: Input: 480VAC±10%, 50/60Hz, 152A Max Output: 150-1000VDC, 300A Max, 120kW Max ADC002A90C60-300: Input: 480VAC±10%, 50/60Hz, 190A Max Output: 150-1000VDC, 300A Max, 150kW Max ADC002A90C90-300: Input: 480VAC±10%, 50/60Hz, 228A Max Output: 150-1000VDC, 300A Max, 180kW Max
Category of EUT:	Class A
EUT type:	☐ Table top ☒ Floor standing
Software Version:	-
Hardware Version:	-
Serial numbers:	A240724-40
Sample received date:	July 24, 2024
Date of test:	August 16, 2024 ~ September 6, 2024

1.2 Technical Specification

Frequency Range:	13.56 MHz ~ 13.56 MHz
Modulation:	ASK
Antenna:	PCB antenna

1.3 Description of Test Facility

Name:	Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L21189
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Member No.: 3598 (Registration No.: R-14243, G-10845, C-14723, T-12252)
	A2LA Accreditation Lab Certificate Number: 3309.02

Name:	Guangdong Dongdian Testing Service Co., Ltd.
Address:	Unit 2, Building 1, No.17, Zongbu 2nd Road, Songshan Lake Park, Dongguan City, Guangdong Province, China
Telephone:	+86-0769-38826678
The test facility is recognized, certified, or accredited by these organizations:	FCC Accredited Lab Designation Number: CN1182
	IC Registration Lab Company Number.: 10288A

2 TEST SPECIFICATIONS

2.1 Standards or specification

47CFR Part 15 (2023)
ANSI C63.10 (2020)
RSS-210 Issue 10 (December 2019)
RSS-Gen Issue 5, Amendment 1 (March 2019)

2.2 Mode of operation during the test

While testing, the internal modulation and continuously transmission was applied.

2.3 Test software list

Test Items	Software	Manufacturer	Version
Conducted emission	SKET Auto EMC Test Software	Keleto	V3.0
Radiated emission	SKET Auto EMC Test Software	Keleto	V3.0

2.4 Test peripherals list

Item No	Description	Band and Model	S/No

2.5 Test environment condition:

Test items	Temperature	Humidity
Radiated emission	26°C	53% RH
Power line conducted emission	27°C	53% RH

2.6 Instrument list

Equipment	Manufacturer	Type	Internal no.	Cal. date	Due date
Test Receiver	R&S	ESCI7	101028	2024-07-09	2025-07-08
LISN	Schwarzbeck	NSLK 8163	100017	2024-07--09	2025-07--08
EMI Test Receiver	R&S	ESCI7	100783	2024-04-01	2025-03-31
Active Loop antenna	Schwarzbeck	FMZB1519	1519-038	2023-09-10	2024-09-09
Trilog Broadband Antenna	Schwarzbeck	VULB9163	01426	2024-07-12	2025-07-11
Active loop antenna	Schwarzbeck	FMZB1519	EC 5345	2024-08-11	2025-08-10
Spectrum Analyzer	Keysight	N9030B	EC 6078	2024-03-19	2025-03-18
Climate chamber	GWS	MT3065	EC 6021	2024-03-08	2025-03-07
CE Cable	HSCN	BNC-N	RG223U/11BNC/ 11N/1500	2024-03-19	2025-03-18
RE Cable	SUCOFLEX	N-N	MY25/97/4	2024-03-19	2025-03-18
Thermo-Hygrograph	Testo	175h1	EC 6644	2024-07-28	2025-07-29

2.7 Measurement uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2)
Conducted emission at mains ports	9kHz ~ 150kHz	3.52 dB
	150kHz ~ 30MHz	3.19 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	3.06 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.02 dB
	6GHz ~ 18GHz	5.28 dB

3 Fundamental Emission

Test result: **Pass**

3.1 Limit

Frequencies (MHz)	Limit at 30m (dBuV/m)	Limit at 3m (dBuV/m)
13.110 – 13.410	40.50	80.50
13.410 – 13.553	50.50	90.50
13.553 – 13.567	84.00	124.00
13.567 – 13.710	50.50	90.50
13.710 – 14.010	40.50	80.50

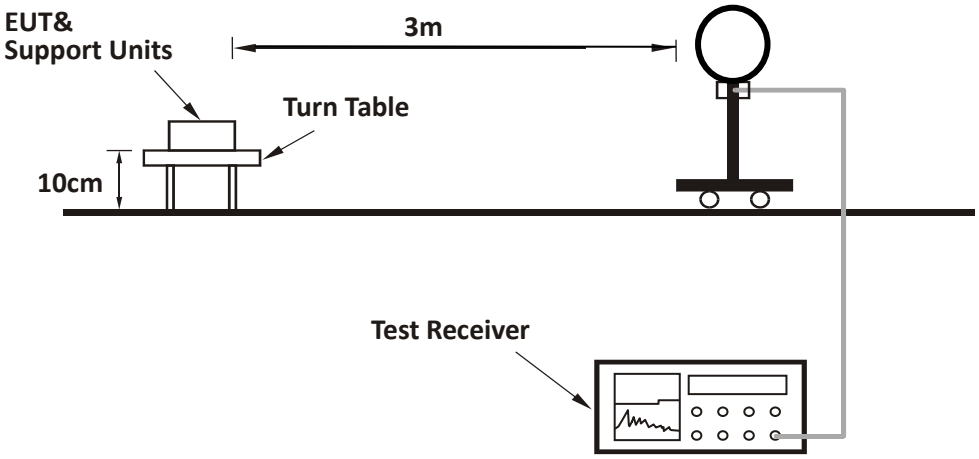
3.2 Measurement Procedure

a) The EUT was placed on a 0.1m plank above the ground at a 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c) Both X and Y axes of the antenna are set to make the measurement.
d) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e) The test-receiver system was set to PK Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

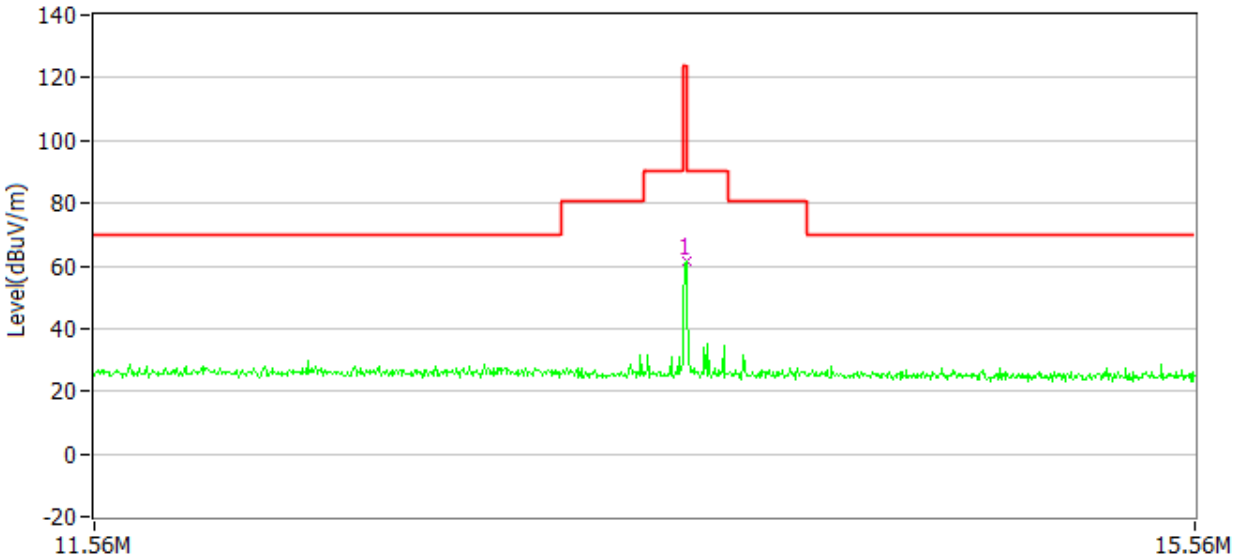
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

3.3 Test Configuration



3.4 Test Results of Fundamental Emissions

We test ADC002C190NACS90-300 as representative and list the result.



Antenna Polarization	Frequency (MHz)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin	Detector
X	13.56	61.7	124.00	62.3	PK
Y	13.56	59.8	124.00	64.2	PK

Remark: 1. Correct Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
2. Corrected Reading = Original Receiver Reading + Correct Factor
3. Margin = Limit - Corrected Reading

Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,
Gain of Preamplifier = 32.00dB, Original Receiver Reading = 10.00dBuV,
Limit = 40.00dBuV/m.
Then Correct Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m;
Corrected Reading = 10dBuV + 0.20dB/m = 10.20dBuV/m;
Margin = 40.00dBuV/m - 10.20dBuV/m = 29.80dB.

4 Spurious Emission

Test result: **Pass**

4.1 Limit

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

4.2 Measurement Procedure

For Radiated emission below 30MHz:

f) The EUT was placed on a 0.1m plank above the ground at a 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
g) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
h) Both X and Y axes of the antenna are set to make the measurement.
i) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
j) The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz:

a) The EUT was placed on a 0.1m plank above the ground at a 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c) The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

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d) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e) The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f) The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. All modes of operation were evaluated and the worst-case emissions were reported

4.3 Test Results of Radiated Emissions

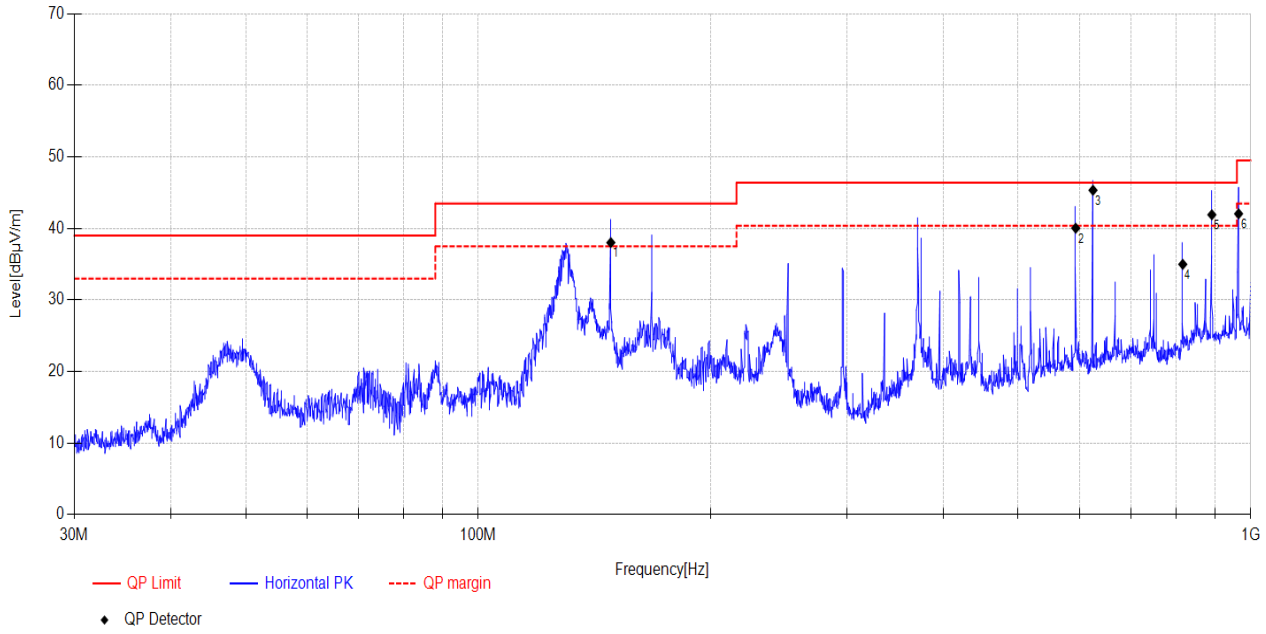
We pretest all types of EUT and list the worst results (ADC002C190NACS90-300).
The EUT has been tested in all two orthogonal planes.

Frequency (MHz)	Limit (dBuV/m)	Level (dBuV/m)	Delta (dB)	Detector	Polarity
0.33	97.23	35.55	61.68	PK	X
0.50	73.63	32.84	40.79	PK	X
1.05	67.20	30.69	36.51	PK	X
1.40	64.71	29.27	35.44	PK	X
3.67	69.50	31.28	38.22	PK	X
23.59	69.50	35.87	33.63	PK	X
0.23	100.37	35.07	65.30	PK	Y
0.83	69.24	29.45	39.79	PK	Y
1.09	66.87	30.05	36.82	PK	Y
3.67	69.50	34.12	35.38	PK	Y
4.20	69.50	31.39	38.11	PK	Y
23.61	69.50	35.39	34.11	PK	Y

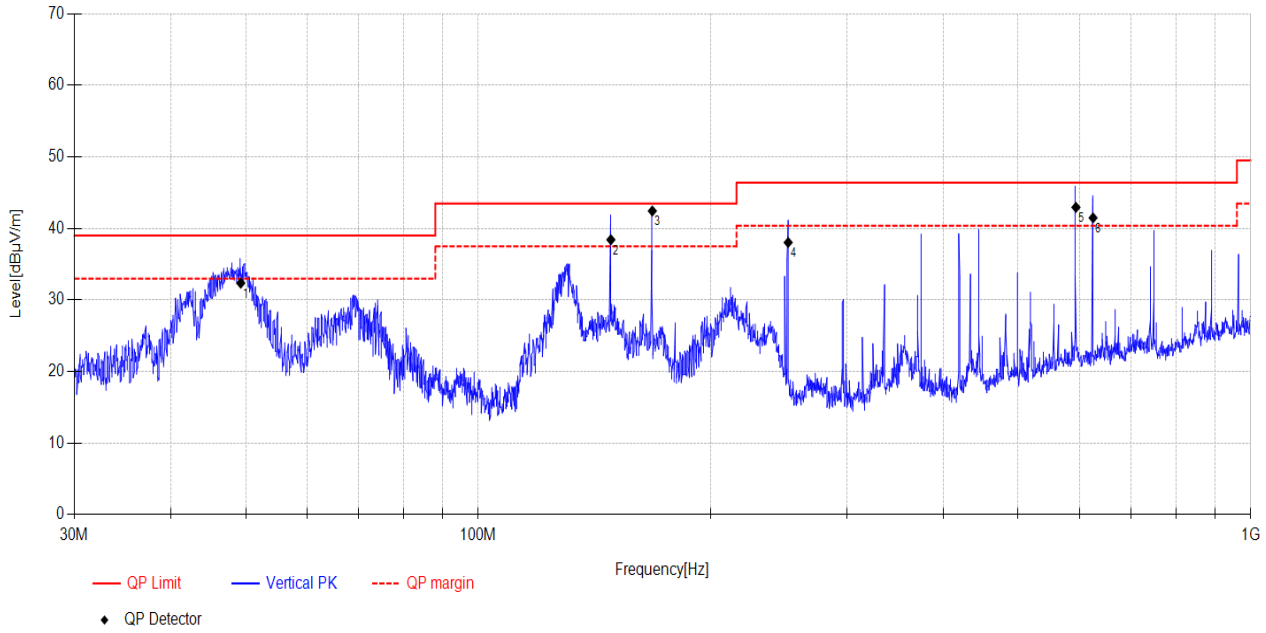
Remark: 1. Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
2. Level = Original Receiver Reading + Correct Factor
3. Delta = Limit - Level

Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,
Gain of Preamplifier = 32.00dB, Original Receiver Reading = 10.00dBuV,
Limit = 40.00dBuV/m.
Then Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m;
Level = 10dBuV + 0.20dB/m = 10.20dBuV/m;
Delta = 44.00dBuV/m - 10.20dBuV/m = 29.80dB.

H


70
60
50
40
30
20
10
0
Level[dBµV/m]
30M
100M
1G
Frequency[Hz]
QP Limit
Horizontal PK
QP margin
QP Detector

V


70
60
50
40
30
20
10
0
Level[dBµV/m]
30M
100M
1G
Frequency[Hz]
QP Limit
Vertical PK
QP margin
QP Detector

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Test data from 30MHz to 1000MHz:

Antenna Polarization	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Detector
H	148.51	38.03	43.50	5.47	QP
H	593.65	40.04	46.40	6.36	QP
H	624.99	45.35	46.40	1.05	QP
H	816.72	34.99	46.40	11.41	QP
H	890.75	41.92	46.40	4.48	QP
H	964.70	42.06	49.50	7.44	QP
V	49.27	32.36	39.00	6.64	QP
V	148.51	38.43	43.50	5.07	QP
V	168.02	42.45	43.50	1.05	QP
V	251.93	38.05	46.40	8.35	QP
V	593.99	42.96	46.40	3.44	QP
V	625.15	41.49	46.40	4.91	QP

Remark: 1. Factor = Antenna Factor + Cable Loss (+ Amplifier, for higher than 1GHz), the value was added to Original Receiver Reading by the software automatically.
2. Level = Original Receiver Reading + Correct Factor
3. Delta = Limit - Level

Example: Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,
Gain of Preamplifier = 32.00dB, Original Receiver Reading = 10.00dBuV,
Limit = 40.00dBuV/m.
Then Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m;
Level = 10dBuV + 0.20dB/m = 10.20dBuV/m;
Delta = 44.00dBuV/m - 10.20dBuV/m = 29.80dB.

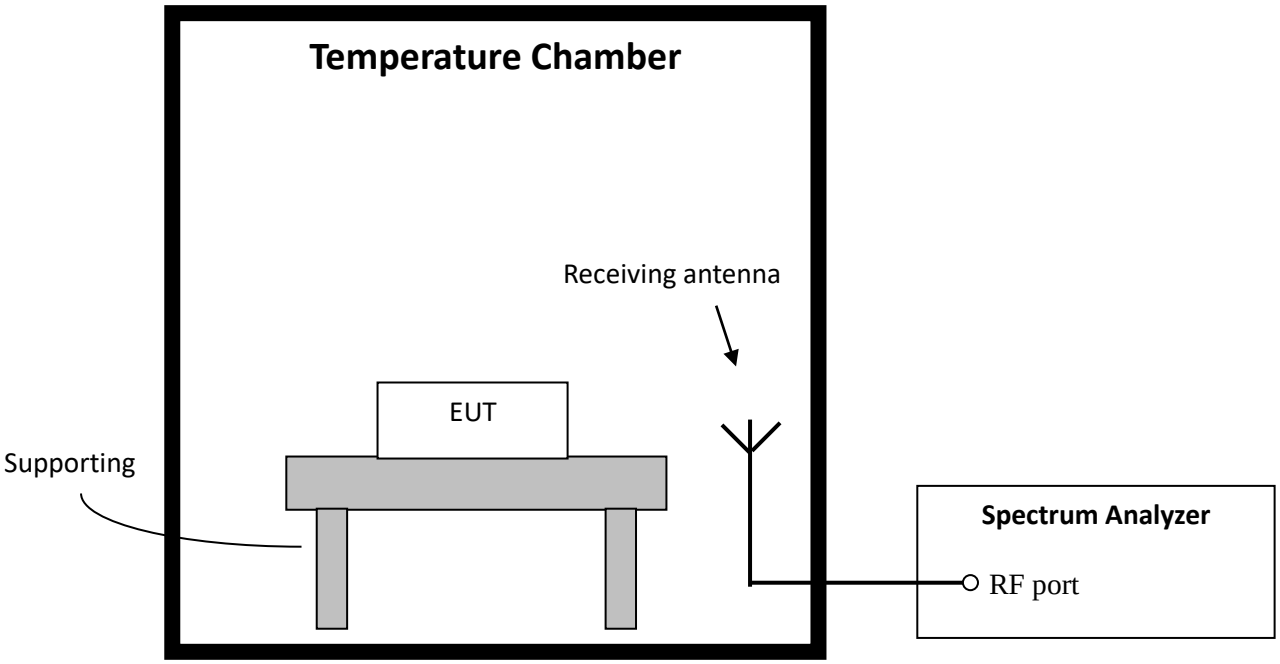
5 Frequency Stability (Temperature Variation)

Test result: PASS

5.1 Test limit

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −30 degrees to +50 degrees C at normal supply voltage.

5.2 Test Configuration



5.3 Test procedure and test setup

Test Procedure as per ANSI 63.10 clause 6.8.1.

5.4 Test protocol

We test ADC002C190NACS90-300 as representative and list the result.

Voltage (V)	Temp (ºC)	Freq measured (MHz)	Freq nominal (MHz)	Tolerance (%)	Limit (%)
480	-30	13.5595	13.56	-0.004	±0.01
	-20	13.5597		-0.002	
	-10	13.5599		-0.0007	
	0	13.5601		0.0007	
	10	13.5601		0.0007	
	20	13.5600		0	
	30	13.5602		0.001	
	40	13.5598		-0.001	
	50	13.5596		-0.003	

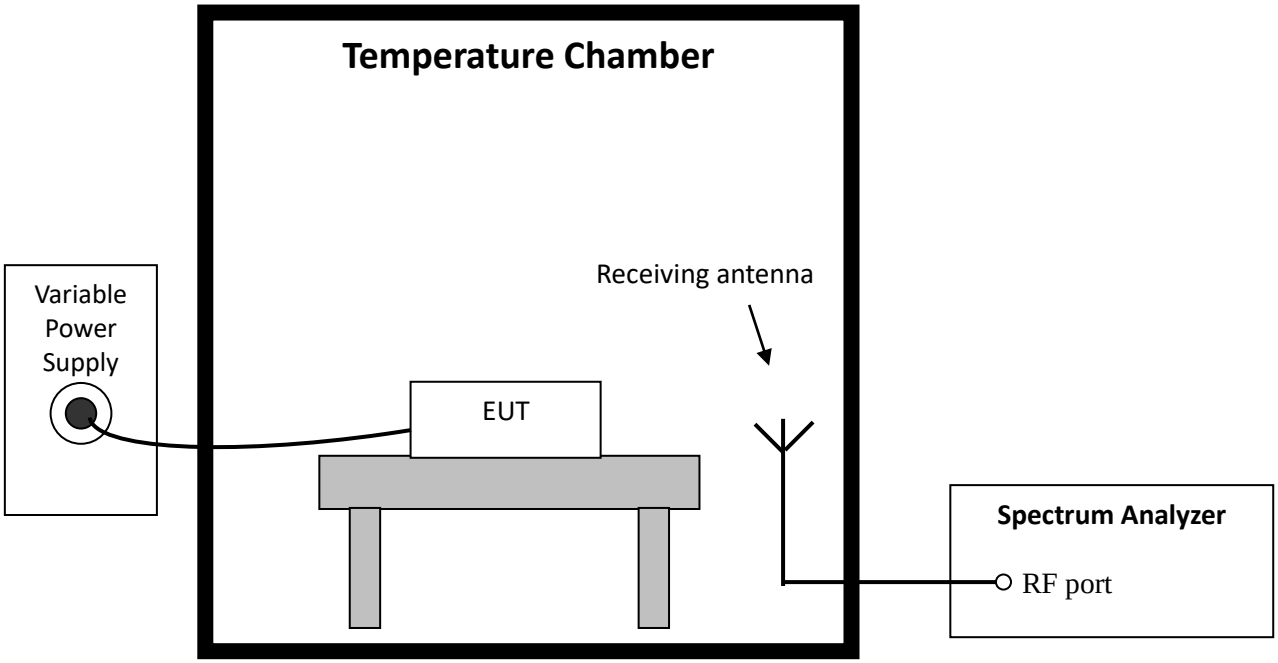
6 Frequency Stability (Voltage Variation)

Test result: PASS

6.1 Test limit

The frequency tolerance of the carrier signal shall be maintained within ±0.01% for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

6.2 Test Configuration



6.3 Test procedure and test setup

Test Procedure as per ANSI 63.10 clause 6.8.2.

6.4 Test protocol

We test ADC002C190NACS90-300 as representative and list the result.

Temp (ºC)	Voltage (V)	Freq Measured (MHz)	Freq nominal (MHz)	Tolerance (%)	Limit (%)
20	408	13.5603	13.56	0.002	±0.01
	480	13.5600		0	
	552	13.5598		-0.001	

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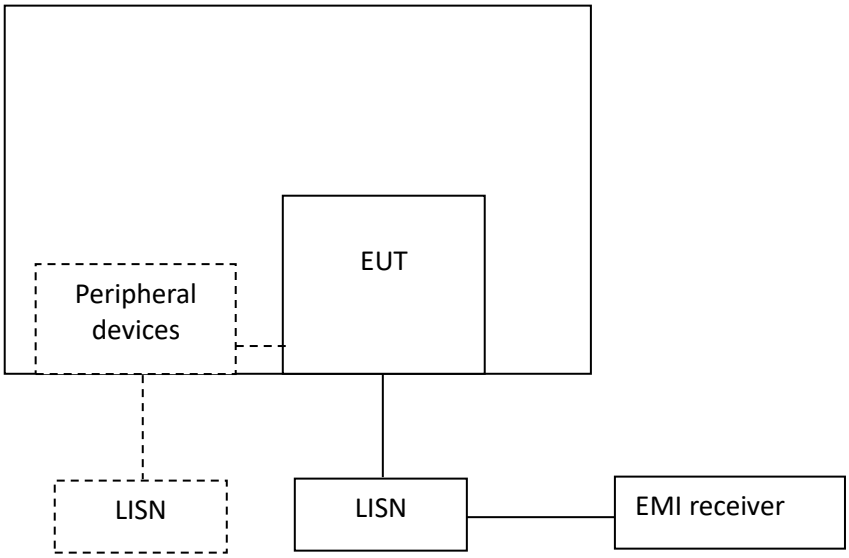
7 Conducted emissions

Test result: **Pass**

7.1 Limit

Frequency range (MHz)	Limits dB(μV)	
	Quasi-peak	Average
0.15 ~ 0.5	79	66
0.5 ~ 30	73	60

7.2 Test Configuration



7.3 Measurement Procedure

Measured levels of ac power-line conducted emission shall be the emission voltages from the voltage probe, where permitted, or across the 50 Ω LISN port (to which the EUT is connected), where permitted, terminated into a 50 Ω measuring instrument. All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer. For those measurements using a LISN, the 50 Ω measuring port is terminated by a measuring instrument having 50 Ω input impedance. All other ports are terminated in 50 Ω loads.

Tabletop devices shall be placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The vertical conducting plane or wall of an RF-shielded (screened) room shall be located 40 cm to the rear of the EUT. Floor-standing devices shall be placed either directly on the reference ground-plane or on insulating material as described in ANSI C63.4. All other surfaces of tabletop or floor-standing EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

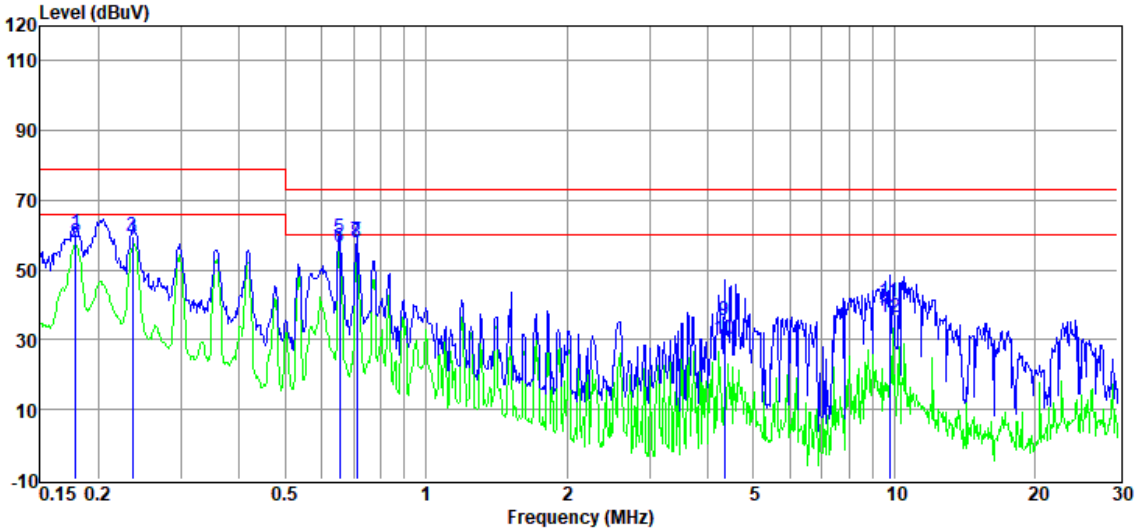
The bandwidth of the test receiver is set at 9 kHz.

7.4 Test Results of Conducted Emissions

We pretest all types of and list the worst results (ADC002C190NACS90-300).

Test Voltage: 480VAC/60Hz

L1 Line



Test Data:

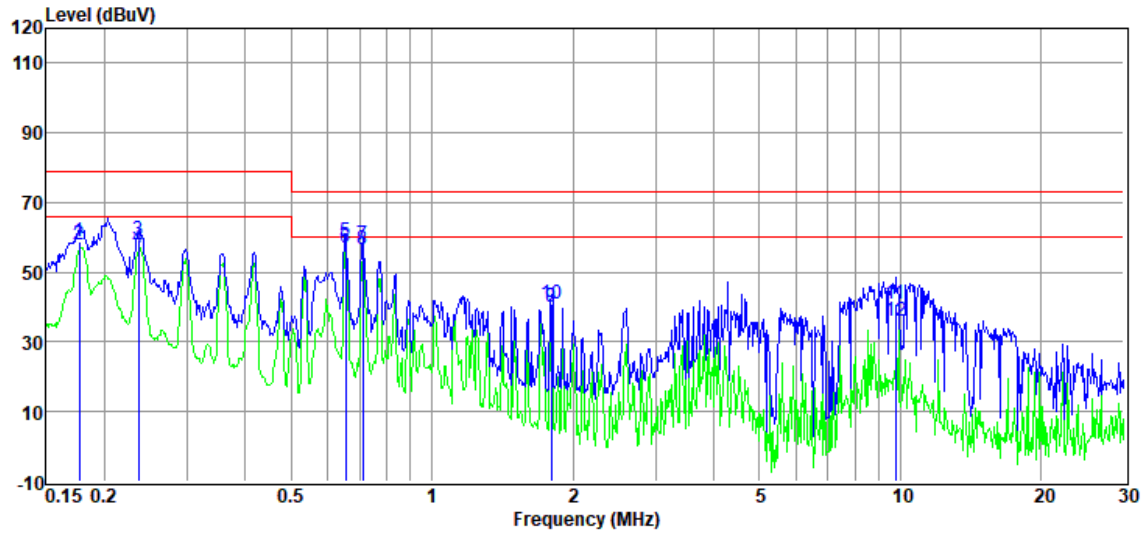
NO.	Freq. [MHz]	Level [dBµV]	Limit [dBµV]	Delta [dB]	Detector	Verdict
1	0.18	60.72	79.00	18.28	QP	PASS
2	0.18	57.91	66.00	8.09	AV	PASS
3	0.24	59.69	79.00	19.31	QP	PASS
4	0.24	58.58	66.00	7.42	AV	PASS
5	0.65	59.13	73.00	13.87	QP	PASS
6	0.65	56.51	60.00	3.49	AV	PASS
7	0.71	58.29	73.00	14.71	QP	PASS
8	0.71	57.77	60.00	2.23	AV	PASS
9	4.34	35.35	73.00	37.65	QP	PASS
10	4.34	30.13	60.00	29.87	AV	PASS
11	9.76	40.86	73.00	32.14	QP	PASS
12	9.76	36.68	60.00	23.32	AV	PASS

Remark: 1. Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.
2. Level = Original Receiver Reading + Factor
3. Delta = Limit - Level

Example: Assuming LISN Factor = 10.00dB, Cable Loss = 2.00dB,
Original Receiver Reading = 10.00dBuV, Limit = 66.00dBuV.
Then Factor = 10.00 + 2.00 = 12.00dB;
Level = 10dBuV + 12.00dB = 22.00dBuV;
Delta = 66.00dBuV - 22.00dBuV = 44.00dB.

TEST REPORT

L2 Line



Test Data:

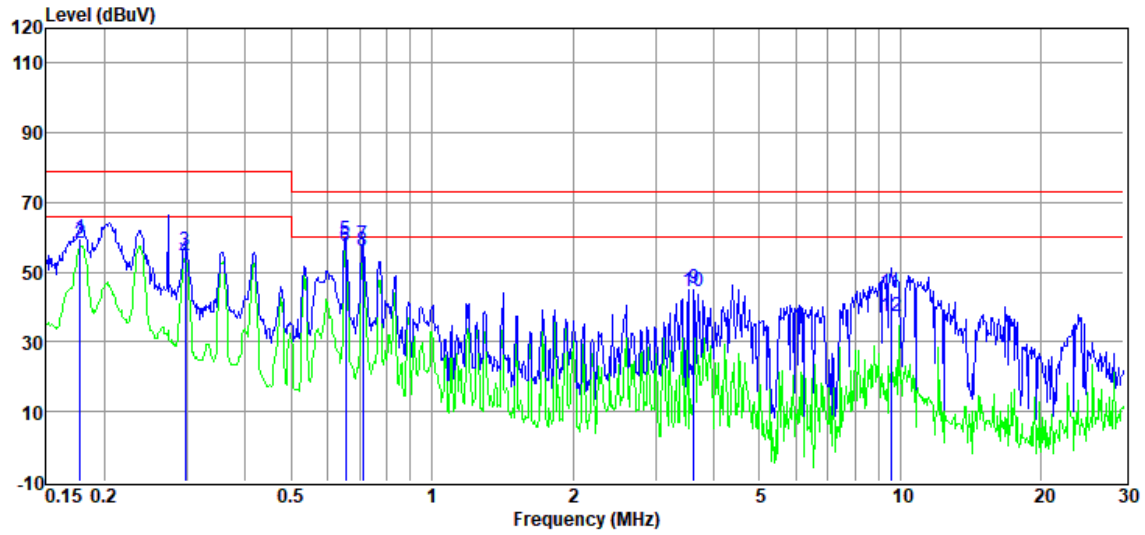
NO.	Freq. [MHz]	Level [dBµV]	Limit [dBµV]	Delta [dB]	Detector	Verdict
1	0.18	58.74	79.00	20.26	QP	PASS
2	0.18	58.09	66.00	7.91	AV	PASS
3	0.24	59.22	79.00	19.78	QP	PASS
4	0.24	56.80	66.00	9.20	AV	PASS
5	0.66	59.01	73.00	13.99	QP	PASS
6	0.66	57.20	60.00	2.80	AV	PASS
7	0.71	57.89	73.00	15.11	QP	PASS
8	0.71	56.36	60.00	3.64	AV	PASS
9	1.80	39.94	73.00	33.06	QP	PASS
10	1.80	41.11	60.00	18.89	AV	PASS
11	9.76	41.02	73.00	31.98	QP	PASS
12	9.76	36.06	60.00	23.94	AV	PASS

Remark: 1. Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.
2. Level = Original Receiver Reading + Factor
3. Delta = Limit - Level

Example: Assuming LISN Factor = 10.00dB, Cable Loss = 2.00dB,
Original Receiver Reading = 10.00dBuV, Limit = 66.00dBuV.
Then Factor = 10.00 + 2.00 = 12.00dB;
Level = 10dBuV + 12.00dB = 22.00dBuV;
Delta = 66.00dBuV - 22.00dBuV = 44.00dB.

TEST REPORT

L3 Line



Test Data:

NO.	Freq. [MHz]	Level [dBµV]	Limit [dBµV]	Delta [dB]	Detector	Verdict
1	0.18	59.55	79.00	19.45	QP	PASS
2	0.18	58.17	66.00	7.83	AV	PASS
3	0.30	56.23	79.00	22.77	QP	PASS
4	0.30	54.07	66.00	11.93	AV	PASS
5	0.65	59.42	73.00	13.58	QP	PASS
6	0.65	57.36	60.00	2.64	AV	PASS
7	0.71	58.02	73.00	14.98	QP	PASS
8	0.71	56.07	60.00	3.93	AV	PASS
9	3.63	45.56	73.00	27.44	QP	PASS
10	3.63	44.40	60.00	15.60	AV	PASS
11	9.55	44.16	73.00	28.84	QP	PASS
12	9.55	37.32	60.00	22.68	AV	PASS

Remark: 1. Factor = LISN Factor + Cable Loss, the value was added to Original Receiver Reading by the software automatically.
2. Level = Original Receiver Reading + Factor
3. Delta = Limit - Level

Example: Assuming LISN Factor = 10.00dB, Cable Loss = 2.00dB,
Original Receiver Reading = 10.00dBuV, Limit = 66.00dBuV.
Then Factor = 10.00 + 2.00 = 12.00dB;
Level = 10dBuV + 12.00dB = 22.00dBuV;
Delta = 66.00dBuV - 22.00dBuV = 44.00dB.

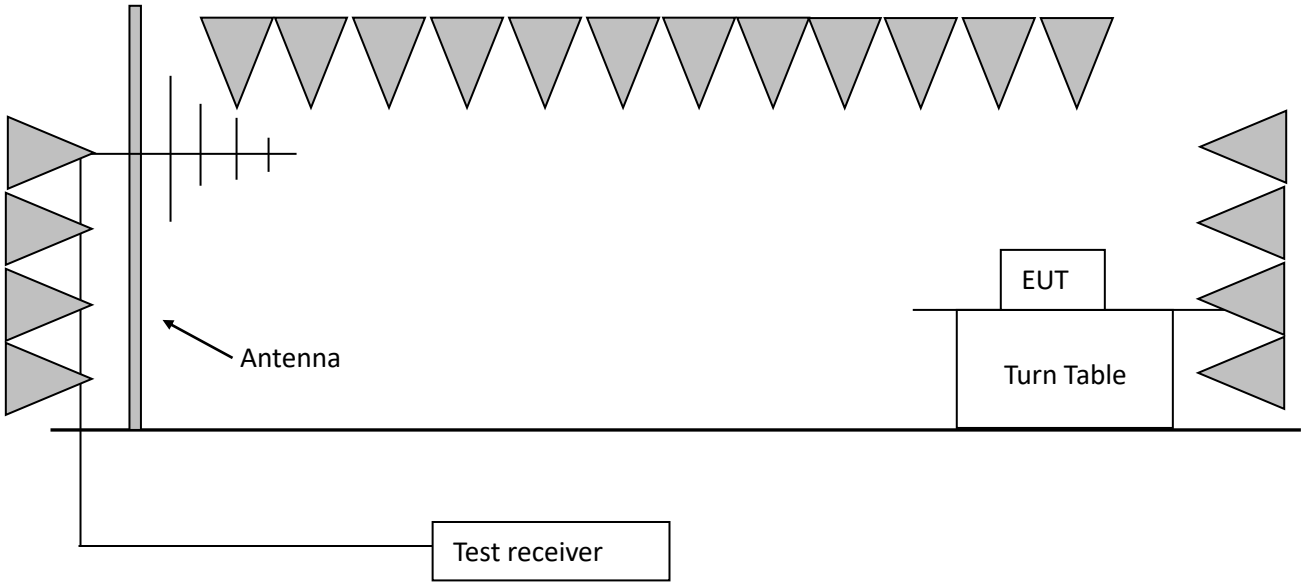
8 20dB Bandwidth

Test result: Pass

8.1 Limit

The 20dB bandwidth should be fallen in the allocated operating frequency range.
No limit for 99% bandwidth.

8.2 Test configuration



8.3 Test procedure and test set up

The measurement was applied in a 3m semi-anechoic chamber.

The center of the loop antenna shall be 1 m above the horizontal metal ground plane.

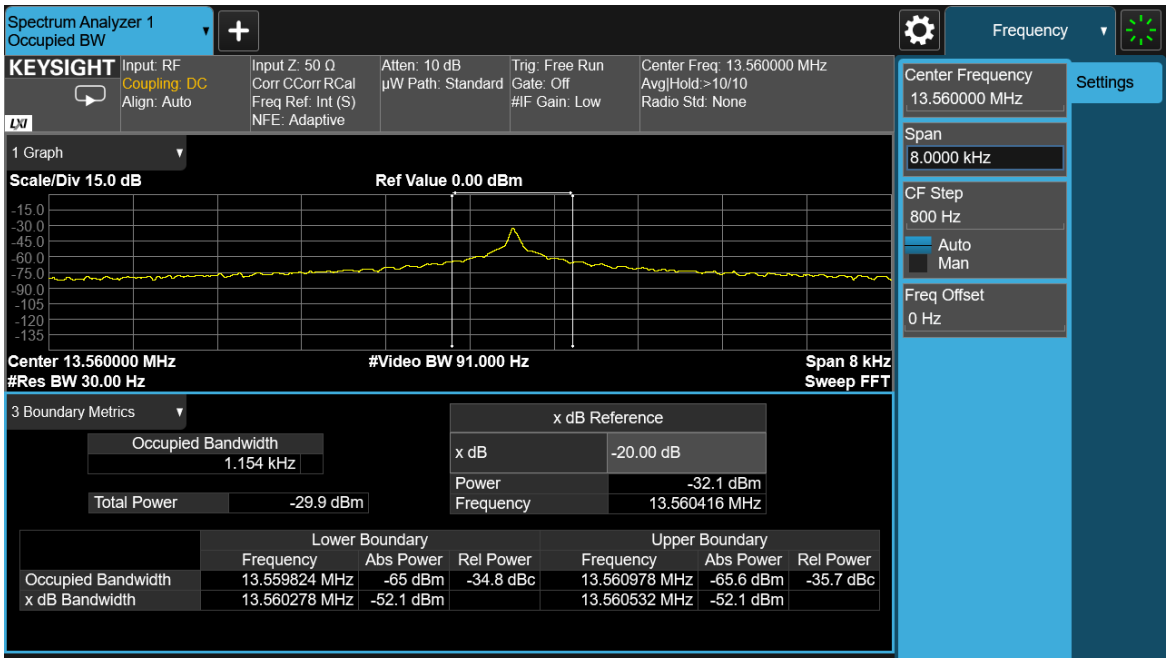
The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set RBW = 1 % to 5 % of the OBW
3. Set VBW ≥ 3 · RBW
4. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
5. Use the 99 % power bandwidth function of the instrument (if available).
6. the 20dB bandwidth is also measured with the same setting.

8.4 Test protocol

We test ADC002C190NACS90-300 as representative and list the result.

	Lower point (MHz)	Higher point (MHz)	Bandwidth (kHz)	Allocated bandwidth (MHz)
20dB Bandwidth	13.560278	13.560532	0.254	13.553 ~ 13.567
Occupied bandwidth	13.559824	13.560978	1.154	13.553 ~ 13.567



9 Antenna requirement

Requirement:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

Result:
EUT uses permanently attached antenna to the intentional radiator, so it can comply with the provisions of this section.

********** END **********