

Prüfbericht-Nr.: <i>Test report no.:</i>	CN23QXFR 001	Auftrags-Nr.: <i>Order no.:</i>	180256997	Seite 1 von 44 Page 1 of 44
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2023.02.17	
Auftraggeber: <i>Client:</i>	Shenzhen LYF Intelligence Co., Ltd. NO.501 Building 1, Shenzhen Software Park Yuehai Street, Nanshan District, Shenzhen City, Guangdong P.R. China			
Prüfgegenstand: <i>Test item:</i>	Charging station			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	91N1-00000-TY, 91N2-00000-TY			
Auftrags-Inhalt: <i>Order content:</i>	TÜV Rheinland – FCC & ISED Service			
Prüfgrundlage: <i>Test specification:</i>	FCC 47 CFR Part 15.203 FCC 47 CFR Part 15.247 FCC Part 15, Subpart B:2021		RSS-247 Issue 3 RSS-Gen Issue 5 ICES-003 Issue 7:2020	
Wareneingangsdatum: <i>Date of sample receipt:</i>	2023.05.22	Refer to Photo Documentation		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003478075			
Prüfzeitraum: <i>Testing period:</i>	2023.06.12 - 2023.07.25			
Ort der Prüfung: <i>Place of testing:</i>	Refer to section 1.1			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland / CCIC (Ningbo) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	<i>Keda Zhou</i>		genehmigt von: <i>authorized by:</i>	<i>Season Yang</i>
Datum: <i>Date:</i>	2023.10.08		Ausstelldatum: <i>Issue date:</i>	2023.10.08
Stellung / Position:	Keda Zhou/PE		Stellung / Position:	Season Yang/Authorizer
Sonstiges / Other:	FCC ID: 2BAQQNOVABOT002 ISED: 30447-NOVABOT002 Contains FCC ID: 2AC7Z-ESPS3WROOM1U ISED: 21098-ESPS3WROOMU			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut 2 = good P(ass) = passed a.m. test specification(s)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n) 3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = ausreichend N/A = nicht anwendbar 4 = sufficient N/A = not applicable
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good 2 = good P(ass) = passed a.m. test specification(s)	3 = satisfactory F(ail) = failed a.m. test specification(s)	5 = mangelhaft N/T = nicht getestet 5 = poor N/T = not tested
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Anmerkungen Remarks

Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.

Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.

The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system.

Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.

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Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.

*Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.*

Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.

The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.

Test Summary

4.1.1 ANTENNA REQUIREMENT

Result:

Pass

4.1.2 6dB BANDWIDTH MEASUREMENT

Result:

Pass

4.1.3 99% EMISSION BANDWIDTH MEASUREMENT

Result:

Pass

4.1.4 MAXIMUM PEAK CONDUCTED OUTPUT POWER

Result:

Pass

4.1.5 EQUIVALENT ISOTROPICALLY RADIATED POWER

Result:

Pass

4.1.6 PEAK POWER SPECTRAL DENSITY

Result:

Pass

4.1.7 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH

Result:

Pass

4.1.8 CONDUCTED EMISSION (AC POWER-LINE)

Result:

Pass

4.1.9 RADIATED EMISSION

Result:

Pass

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1. Test Sites

1.1 Test Facilities

Laboratory: TÜV Rheinland /CCIC (Ningbo) Co., Ltd.

1st Floor, Building 11, Scholar Innovation Park, No.1188 Zhongguan Road, Zhenhai District, Ningbo 315200 P.R. China

The tests were conducted by TÜV Rheinland/CCIC's engineer directly in the above laboratory.

1.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment, Laboratory

Kind of Equipment	Type	Serial No.	Last cal. date	Cal. due date
EMI test receiver	ESR7	101929	2022.10.31	2023.10.30
Spectrum analyzer	FSV40	101412	2022.10.31	2023.10.30
Bilog Antenna	CBL6112D	49033	2021.03.15	2024.03.14
Horn antenna	HF907	102653	2023.07.20	2026.07.19
Broad-Band Horn Antenna	BBHA 9170	899	2021.01.11	2024.01.12
Pre-amplifier	SCU-18F	180051	2022.10.31	2023.10.30
Pre-amplifier	LNPA_1840G-50	SK2021040801	2022.10.31	2023.10.30
RF control Unit	JS0806-2	22G8060598	2022.11.07	2023.11.06
Mains control unit	JS0806-4ADC	21L8060536	2022.11.04	2023.11.03

1.3 Uncertainty of Measurement

Table 2: Measurement Uncertainty

Test Item	Expanded Measurement Uncertainty (k=2)
Conducted Emission (9-150kHz)	3.70dB
Conducted Emission (150k-30MHz)	3.30dB
Occupied Channel Bandwidth	±5 %
Radiated Emission (30-1000MHz)	4.39dB
Radiated Emission (1-18GHz)	4.67dB

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2. General Product Information

2.1 Product Function and Intended Use

The EUT (equipment under test) is a Charging station operated at 902-928MHz and 2400-2483.5MHz.

For more detail information, refer to the user's manual.

2.2 Ratings and System Details

Table 3: General Description of EUT

General Description of EUT	
Input Voltage:	AC 120V
Output Voltage:	DC 28V
Protection Class:	Class II
Adapter 1 Model:	GM152-2800500-1FE; 28V/5A
Adapter 2 Model:	GM95-280300-1DE; 28V/3A
Technical Specification of Lora	
Frequency Range:	903.125 – 927.125MHz
Modulation Type:	Lora DTS
Data Rate:	62.5Kbps
Channel:	53-77
Antenna Type:	FPC Antenna with IPEX
Antenna Gain:	0dBi
Technical Specification of Bluetooth (BLE)	
Frequency Range:	2402 – 2480MHz
Modulation Type:	GFSK
Data Rate:	1Mbps
Channel:	0-39
Antenna Type:	FPC Antenna with IPEX
Antenna Gain:	0.6dBi
Technical Specification of Wi-Fi(2.4GHz)	
Frequency Range:	2412 – 2462MHz
Modulation Type:	802.11b: DSSS 802.11g/n-HT20/HT40: OFDM
Channel:	802.11b/g/n-HT20: 1-11, 802.11n-HT40: 3-9
Data Rate:	802.11b: 11 Mbps max. 802.11g: 54 Mbps max. 802.11n-HT20/HT40: MCS7 max.
Antenna Type:	FPC Antenna with IPEX
Antenna Gain:	0.6dBi

Remark: Adapter 1 for model 91N2-00000-TY; Adapter 2 for model 91N1-00000-TY.

Table 4: Channel List

Channel List for Lora							
Ch.	Freq. (MHz)	Ch.	Freq. (MHz)	Ch.	Freq. (MHz)	Ch.	Freq. (MHz)
53	903.125	60	910.125	67	917.125	74	924.125
54	904.125	61	911.125	68	918.125	75	925.125
55	905.125	62	912.125	69	919.125	76	926.125
56	906.125	63	913.125	70	920.125	77	927.125
57	907.125	64	914.125	71	921.125		
58	908.125	65	915.125	72	922.125		
59	909.125	66	916.125	73	923.125		

2.3 Independent Operation Modes

There are some modes:

Mode A: Transmitting continuously of Lora

1. Channel 903.125MHz
2. Channel 915.125MHz
3. Channel 927.125MHz

Mode B: Transmitting of Wi-Fi module

Mode C: Normal Working

Mode D: Charging

Refer to the user's manual for further information.

2.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram for further information.

2.5 Submitted Documents

Circuit diagram, label, user manual etc.

3. Test Set-up and Operation Modes

3.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

3.2 Test Operation and Test Software

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power was selected according to the instruction given by the manufacturer. The setting of the RF output power expected by the customer shall be fixed on the firmware of the final end product.

All testing were performed according to the procedures in ANSI C63.10: 2013.

Test Software EMC32 V10.30 was used in the radiated emission test.

More details refer to the related paragraph of this report.

3.3 Special Accessories and Auxiliary Equipment

None.

3.4 Countermeasures to Achieve ERM Compliance

The test sample which has been tested contained the noise suppression parts as described in the Circuit Diagram. No additional measures were employed to achieve compliance.

3.5 Test set-up

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

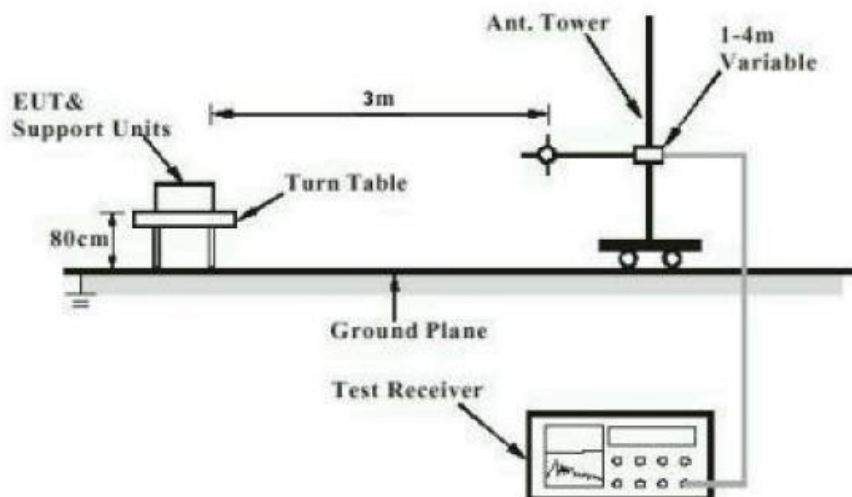


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

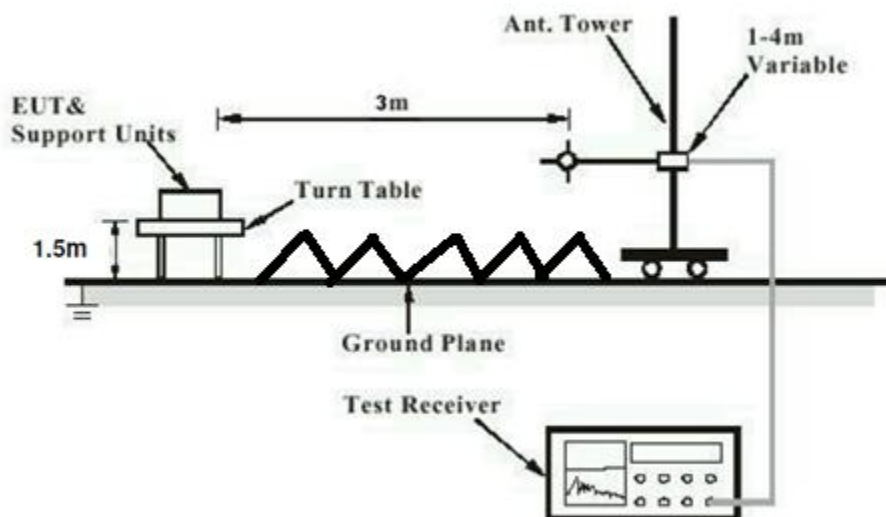
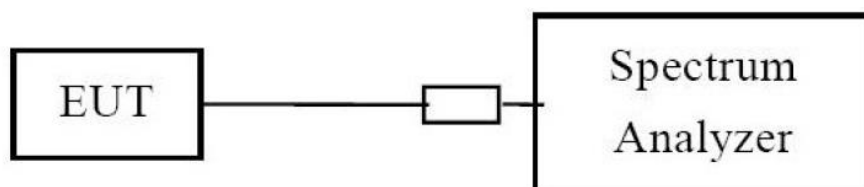


Diagram of Measurement Configuration for Conducted Transmitter Measurement



4. Test Results

4.1 Transmitter Requirement & Test Suites

4.1.1 Antenna Requirement

Result:

Pass

Test Specification

Test standard

: FCC 47 CFR Part 15.203
RSS-Gen Issue 5

Limit

: FCC: the use of antennas with directional gains that do not exceed 6 dBi
RSS: Use of approved antennas only

According to the manufacturer's declaration, the antenna of Lora is a FPC antenna (Max Gain: 0dBi) inside EUT, the antenna of Wi-Fi is a FPC antenna (Max Gain: 0.6dBi) inside EUT that the Max Gain is lower than the antenna (Max Gain: 2.33dBi) used for the Wi-Fi module in FCC ID 2AC7Z-ESPS3WROOM1U, and no consideration of replacement. Therefore, the antennas of this EUT are considered sufficient to comply with the provision.

Refer to the document named Antenna Gain Info for further details.

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4.1.2 6dB Bandwidth Measurement

Result:

Pass

Test Specification

Test standard : FCC 47 CFR Part 15.247 (a)(2)
RSS-247 Issue 3, Clause 5.2(a)

Basic standard : ANSI C63.10: 2013, Clause 11.8

Limits : At least 500kHz

Kind of test site : Shielded Room

Test Setup

Date of testing : 2023.06.12-2023.07.25

Input voltage : AC 120V

Operational mode : Refer to below table

Temperature : 23°C

Relative humidity : 56%

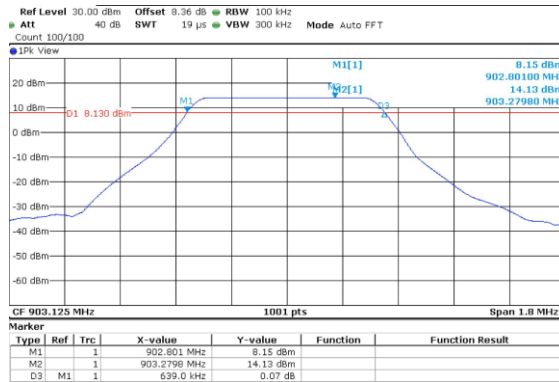
Atmospheric pressure : 101.2 kPa

Table 5: Test result of 6dB Bandwidth

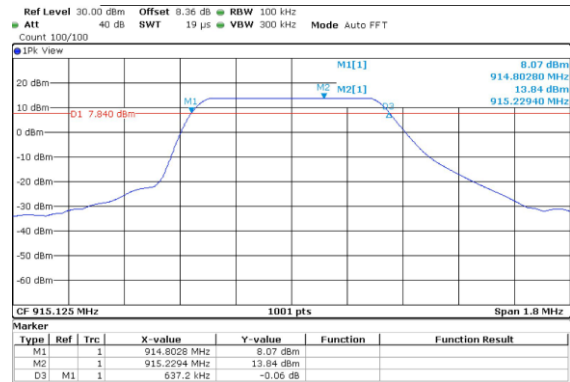
Mode	Bandwidth (kHz)	Limit (kHz)	Verdict
A.1	639.0	≥ 500	Pass
A.2	637.2	≥ 500	Pass
A.3	639.0	≥ 500	Pass

Figure 1: 6dB Bandwidth Measurement

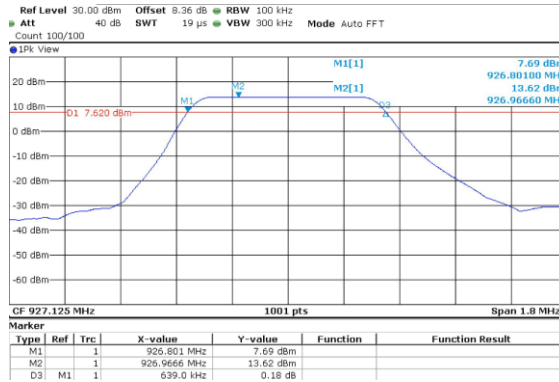
A.1



A.2



A.3



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4.1.3 99% Emission Bandwidth Measurement

Result:

Pass

Test Specification

Test standard : RSS-Gen Issue 5, Clause 6.7

Basic standard : ANSI C63.10: 2013, Clause 6.9.3

Kind of test site : Shielded Room

Test Setup

Date of testing : 2023.06.12-2023.07.25

Input voltage : AC 120V

Operational mode : Refer to below table

Temperature : 23°C

Relative humidity : 56%

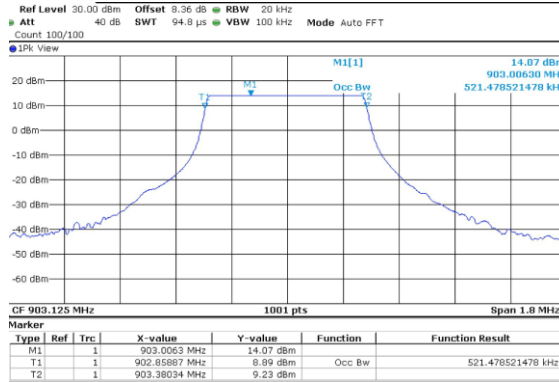
Atmospheric pressure : 101.2 kPa

Table 6: Test result 99% Emission Bandwidth

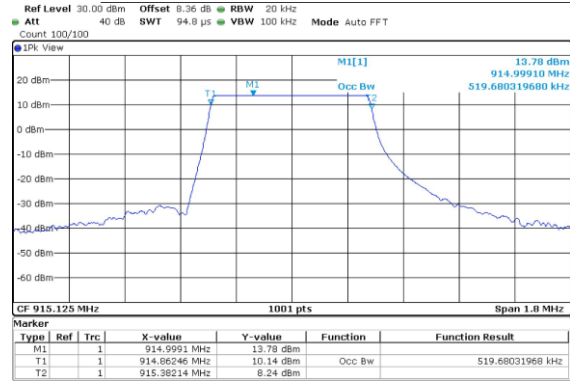
Mode	Bandwidth (KHz)	Limit (KHz)	Verdict
A.1	521.5	N/A	Pass
A.2	519.7	N/A	Pass
A.3	521.5	N/A	Pass

Figure 2: 99% Emission Bandwidth Measurement

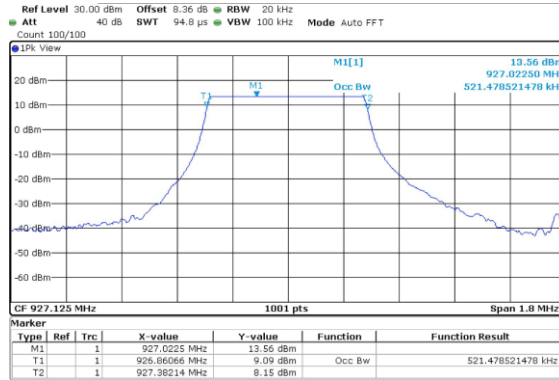
A.1



A.2



A.3



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4.1.4 Maximum Peak Conducted Output Power

Result:

Pass

Test Specification

Test standard : FCC 47 CFR Part 15.247 (b)(3)
RSS-247 Issue 3, Clause 5.4(d)

Basic standard : ANSI C63.10: 2013, Clause 11.9.1

Limits : Not more than 1Watt(30dBm)

Kind of test site : Shielded Room

Test Setup

Date of testing : 2023.06.12-2023.07.25

Input voltage : AC 120V

Operational mode : Refer to below table

Temperature : 23°C

Relative humidity : 56%

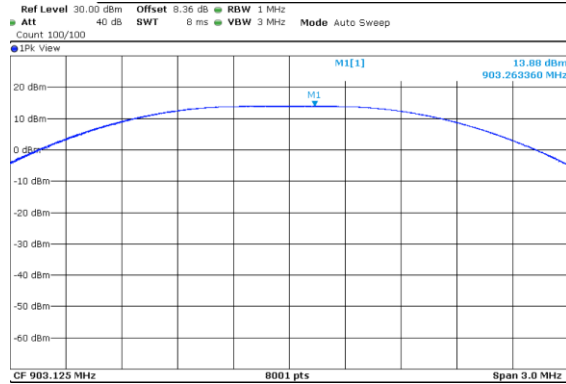
Atmospheric pressure : 101.2 kPa

Table 7: Test result of Maximum Peak Output Power

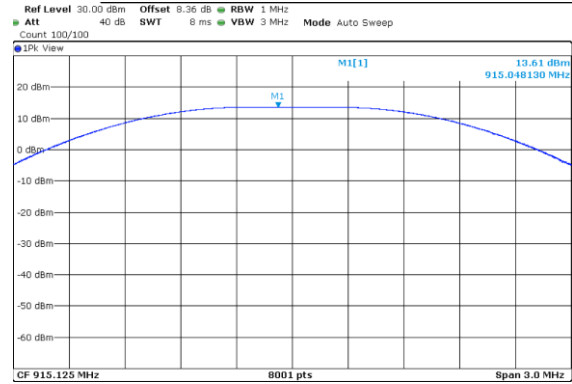
Mode	Peak Output Power (dBm)	Limit (dBm)	Verdict
A.1	13.88	≤30	Pass
A.2	13.61	≤30	Pass
A.3	13.45	≤30	Pass

Figure 3: Maximum Peak Conducted Output Power Measurement

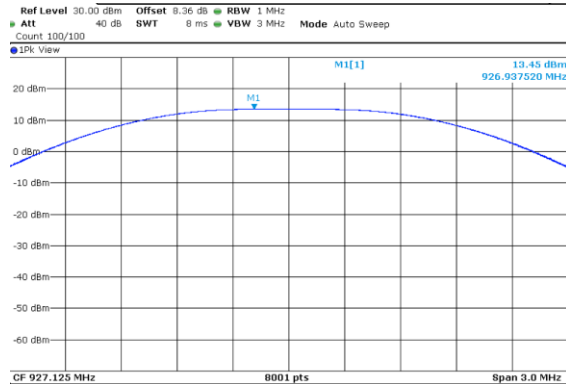
A.1



A.2



A.3



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4.1.5 Equivalent Isotropically Radiated Power

Result:

Pass

Test Specification

Test standard : RSS-247 Issue 3, Clause 5.4(d)

Basic standard : ANSI C63.10: 2013, Clause 9.5

Limits : Not more than 4Watt(36dBm)

Kind of test site : Shielded Room

Test Setup

Date of testing : 2023.06.12-2023.07.25

Input voltage : AC 120V

Operational mode : Refer to below table

Temperature : 23°C

Relative humidity : 56%

Atmospheric pressure : 101.2 kPa

Table 8: Test result of E.I.R.P.

Mode	Peak Output Power (dBm)	Antenna Gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Verdict
A.1	13.88	0	13.88	≤36	Pass
A.2	13.61	0	13.61	≤36	Pass
A.3	13.45	0	13.45	≤36	Pass

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4.1.6 Peak Power Spectral Density

Result:

Pass

Test Specification

Test standard : FCC 47 CFR Part 15.247 (e)
RSS-247 Issue 3, Clause 5.2(b)

Basic standard : ANSI C63.10: 2013, Clause 11.10.2

Limits : Not more than 8 dBm in any 3 kHz band

Kind of test site : Shielded Room

Test Setup

Date of testing : 2023.06.12-2023.07.25

Input voltage : AC 120V

Operational mode : Refer to below table

Temperature : 23°C

Relative humidity : 56%

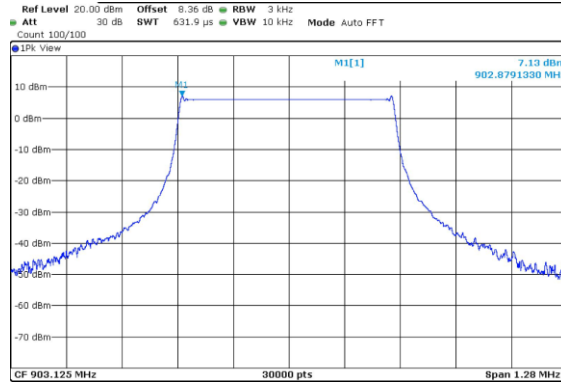
Atmospheric pressure : 101.2 kPa

Table 9: Test result of Peak Power Spectral Density

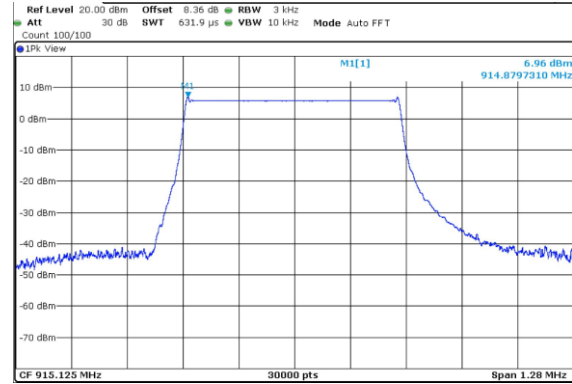
Mode	Peak Power Spectral Density (dBm/3KHz)	Limit (dBm/3KHz)	Verdict
A.1	7.13	≤30	Pass
A.2	6.96	≤30	Pass
A.3	6.64	≤30	Pass

Figure 4: Peak Power Spectral Density Measurement

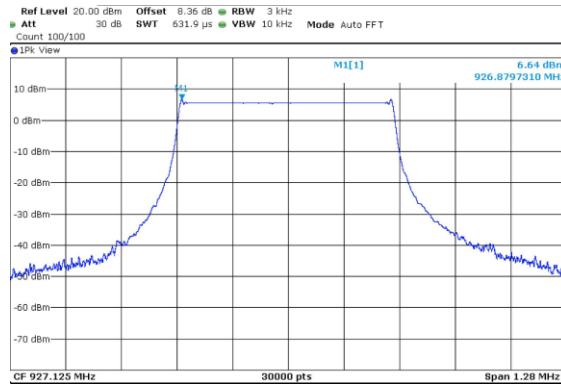
A.1



A.2



A.3



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4.1.7 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Result:

Pass

Test Specification

Test standard

: FCC 47 CFR Part 15.247 (d)
RSS-247 Issue 3, Clause 5.5

Basic standard

: ANSI C63.10: 2013, Clause 11.11

Limits

: 20dB (below that in the 100kHz bandwidth within the
band that contains the highest level of the desired power)

Kind of test site

: Shielded Room

Test Setup

Date of testing

: 2023.06.12-2023.07.25

Input voltage

: AC 120V

Operational mode

: A.1, A.2, A.3

Temperature

: 23°C

Relative humidity

: 56%

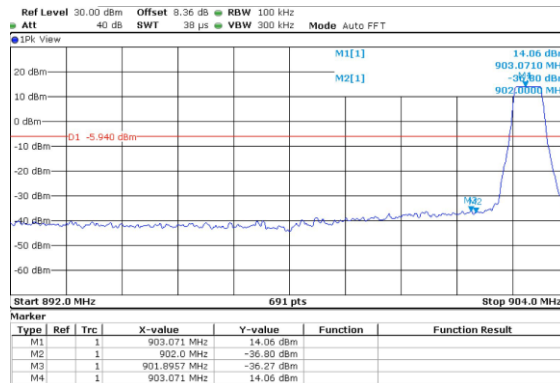
Atmospheric pressure

: 101.2 kPa

All emissions are more than 20dB below fundamental, compliance is achieved as well.

Figure 5: Band Edge

A.1



A.3

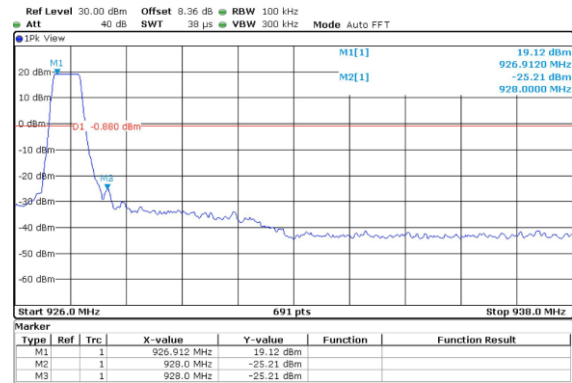
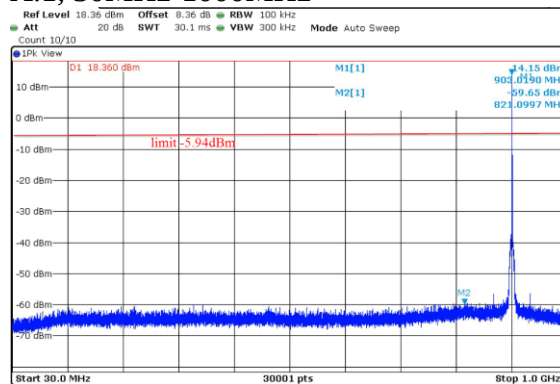
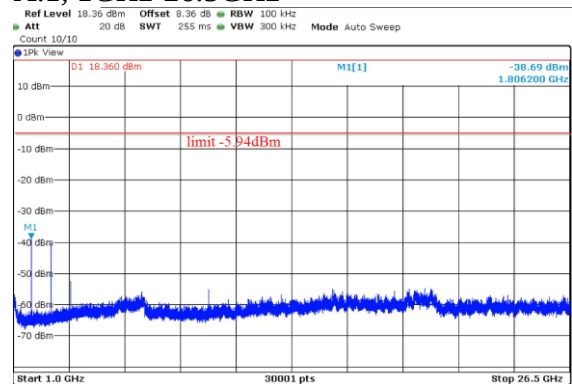


Figure 6: Conducted Spurious Emission

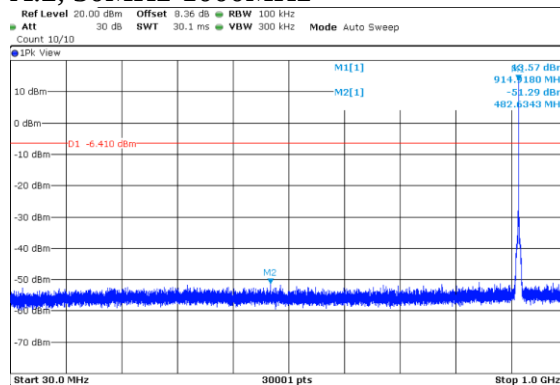
A.1, 30MHz-1000MHz



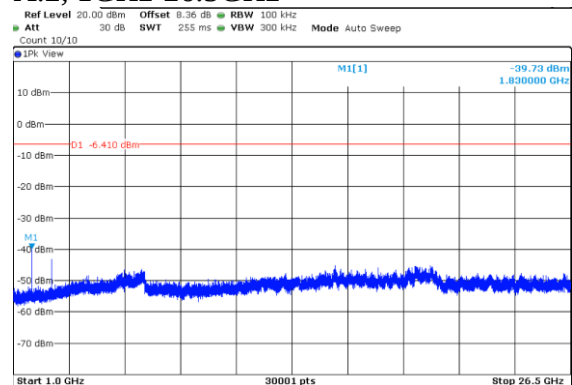
A.1, 1GHz-26.5GHz



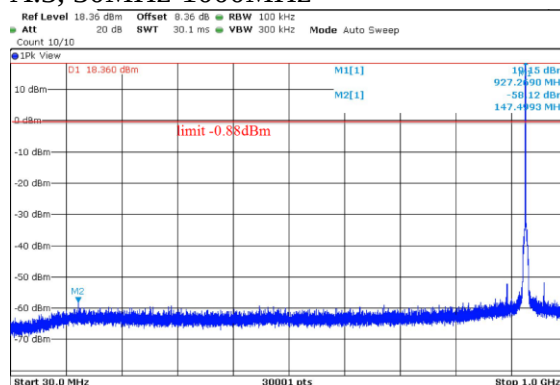
A.2, 30MHz-1000MHz



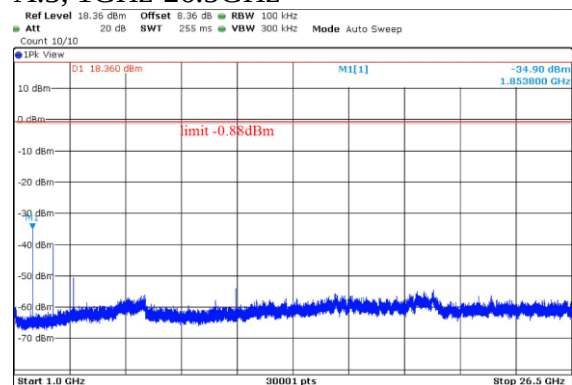
A.2, 1GHz-26.5GHz



A.3, 30MHz-1000MHz



A.3, 1GHz-26.5GHz



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4.1.8 Conducted Emission (AC power-line)

Result:

Pass

Test Specification

Test standard

: CFR47 FCC Part 15.107

CFR47 FCC Part 15.207

ICES-003 Issue 7:2020

RSS-Gen Issue 5, Clause 8.8

Basic standard

: ANSI C63.10: 2013, Clause 6.2

Port

: Mains

Frequency range

: 0.15 – 30MHz

Limits

: CFR47 FCC Part 15.107/CFR47 FCC Part 15.207

ICES-003 Issue 7:2020, table 1/RSS-Gen Issue 5, table 4

Kind of test site

: Shielding Room

Test Setup

Date of testing

: 2023.06.12-2023.07.25

Input voltage

: AC 120V

Operational mode

: C, D

Temperature

: 21°C

Relative humidity

: 63%

Atmospheric pressure

: 101.2 kPa

The measurement setup was made according to ANSI C63.4:2014 in a shielded room.

The measurement equipment like test receivers, quasi-peak detector and artificial mains network (AMN) are in compliance with ANSI C63.4:2014 and CISPR 16-1 series standards.

The tested object was set-up on a wooden table. The EUT was set 0.8m away from the AMN. The cord longer than necessary to be connected to the AMN was folded forth and back parallel so as to form a bundle with a length between 0.3m and 0.4m.

The disturbance voltage test was performed on the neutral line and phase line of the power supply of the EUT respectively.

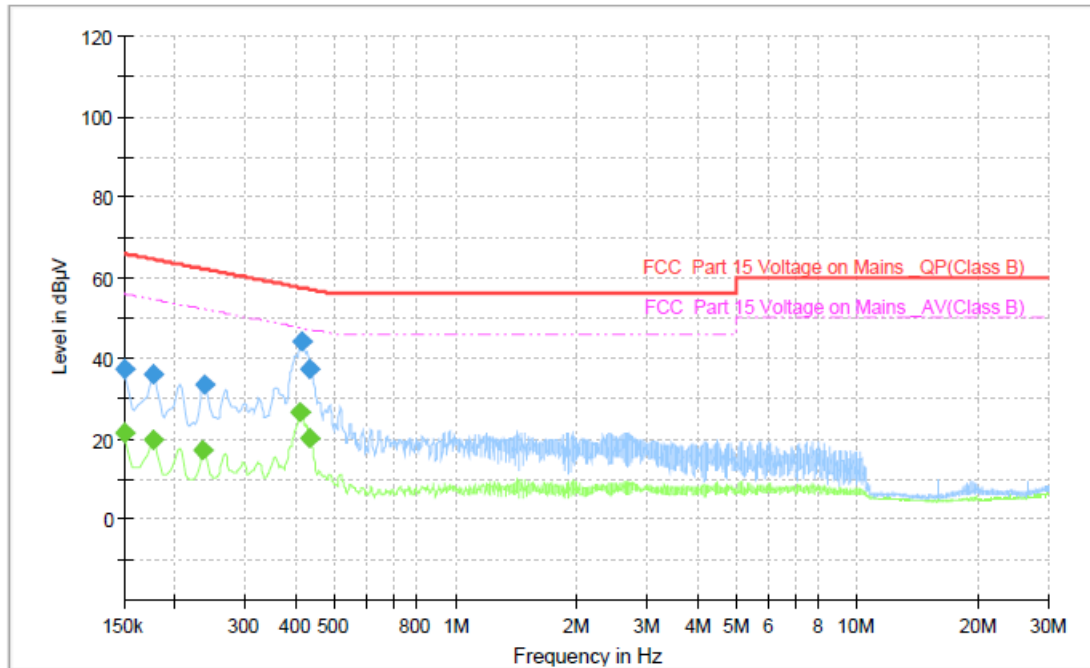
Before measurement, a survey was made to determine in which state the maximum disturbance was obtained. And the measurement was made in the state the maximum disturbance was obtained.

The following figures and tables were those measured by an automatic measuring system. Both Quasi Peak and Average Value were measured. Quasi-Peak and Average Value were measured and listed respectively where they had a maximum in previous scanning survey. In the Figures, “•” means Quasi-Peak Value and Average Value which were measured in final measurement.

The measurement result is calculated based on the following formula by the test software:

Emission Level = Reading level + Correction (LISN factor + cable loss)

Figure 7: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, L, Adapter 1, Mode C



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.150000	37.41	---	66.00	28.59	1000.0	9.000	L1	ON	9.6
0.150000	---	21.39	56.00	34.61	1000.0	9.000	L1	ON	9.6
0.177000	35.96	---	64.63	28.66	1000.0	9.000	L1	ON	9.6
0.177000	---	20.01	54.63	34.61	1000.0	9.000	L1	ON	9.6
0.235500	---	17.22	52.25	35.04	1000.0	9.000	L1	ON	9.6
0.237750	33.34	---	62.17	28.83	1000.0	9.000	L1	ON	9.6
0.411000	---	26.47	47.63	21.16	1000.0	9.000	L1	ON	9.6
0.413250	44.41	---	57.58	13.18	1000.0	9.000	L1	ON	9.6
0.433500	37.26	---	57.19	19.92	1000.0	9.000	L1	ON	9.6
0.433500	---	20.09	47.19	27.10	1000.0	9.000	L1	ON	9.6

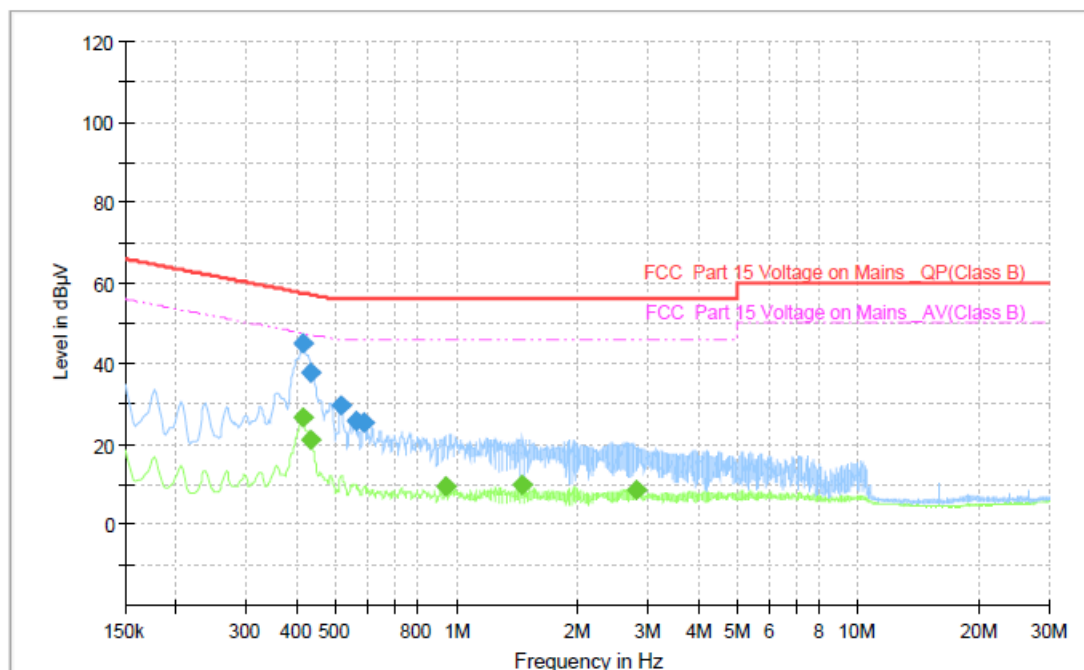
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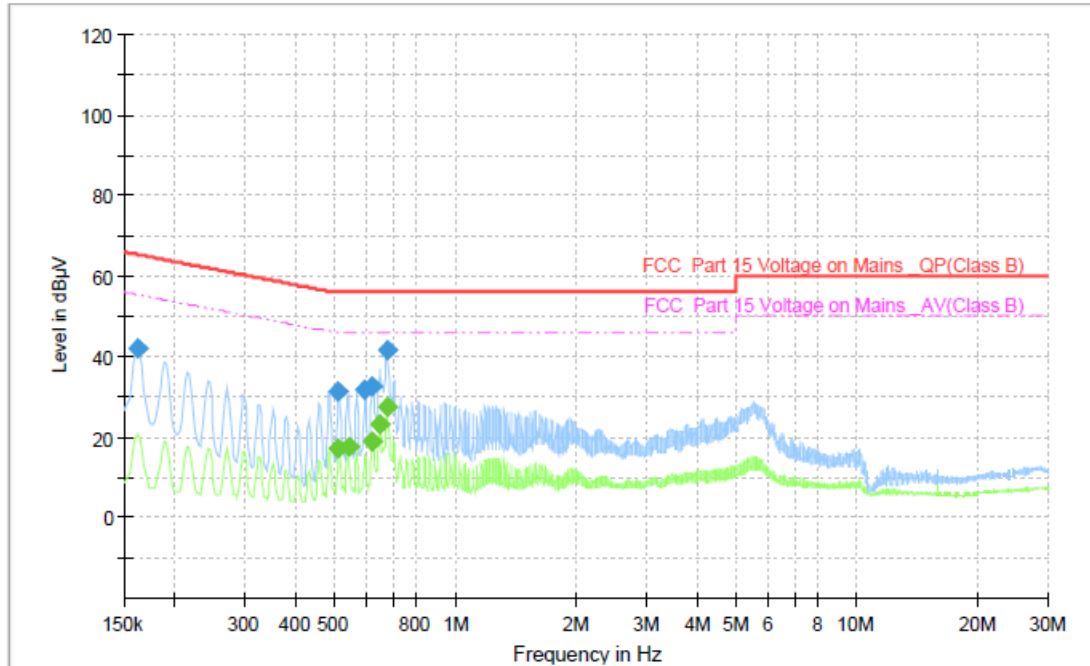
Figure 8: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, N, Adapter 1, Mode C



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.413250	45.07	---	57.58	12.51	1000.0	9.000	N	ON	9.6
0.413250	---	26.78	47.58	20.81	1000.0	9.000	N	ON	9.6
0.433500	37.95	---	57.19	19.24	1000.0	9.000	N	ON	9.6
0.433500	---	20.96	47.19	26.23	1000.0	9.000	N	ON	9.6
0.516750	29.68	---	56.00	26.32	1000.0	9.000	N	ON	9.6
0.559500	25.80	---	56.00	30.20	1000.0	9.000	N	ON	9.6
0.588750	25.26	---	56.00	30.74	1000.0	9.000	N	ON	9.6
0.939750	---	9.47	46.00	36.53	1000.0	9.000	N	ON	9.7
1.459500	---	9.91	46.00	36.09	1000.0	9.000	N	ON	9.7
2.789250	---	8.62	46.00	37.38	1000.0	9.000	N	ON	9.7

Figure 9: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, L, Adapter 2, Mode C



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.161250	42.05	---	65.40	23.35	1000.0	9.000	L1	ON	9.6
0.512250	31.30	---	56.00	24.70	1000.0	9.000	L1	ON	9.6
0.512250	---	17.42	46.00	28.58	1000.0	9.000	L1	ON	9.6
0.541500	---	17.61	46.00	28.39	1000.0	9.000	L1	ON	9.6
0.595500	31.84	---	56.00	24.16	1000.0	9.000	L1	ON	9.6
0.622500	32.84	---	56.00	23.16	1000.0	9.000	L1	ON	9.6
0.622500	---	18.90	46.00	27.10	1000.0	9.000	L1	ON	9.6
0.649500	---	23.06	46.00	22.94	1000.0	9.000	L1	ON	9.6
0.676500	---	27.37	46.00	18.63	1000.0	9.000	L1	ON	9.6
0.678750	41.52	---	56.00	14.48	1000.0	9.000	L1	ON	9.6

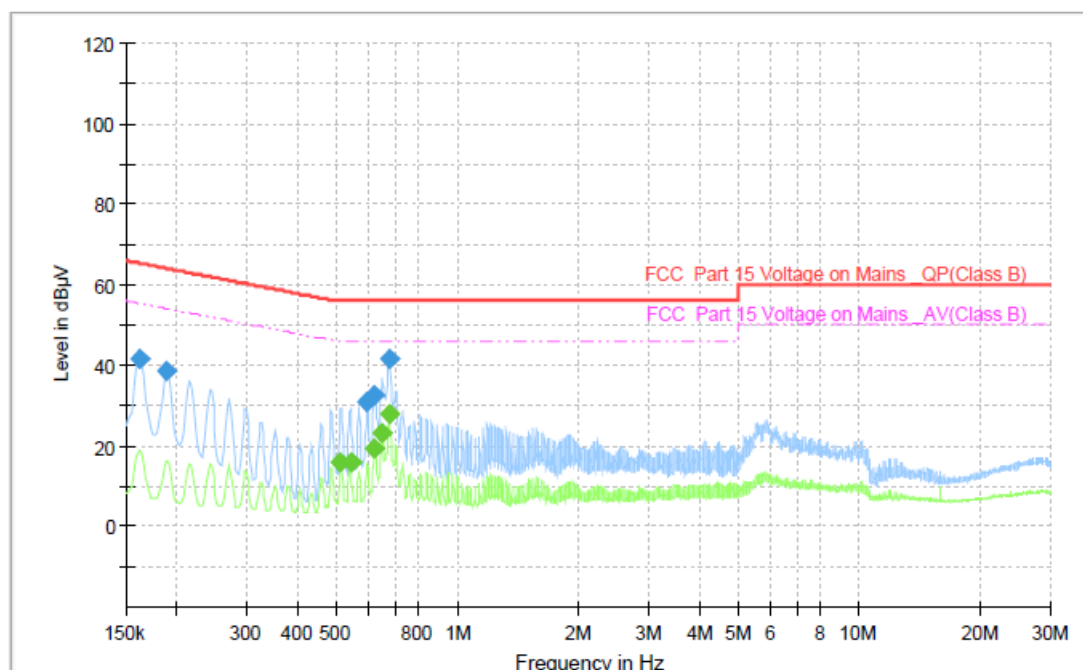
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Figure 10: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, N, Adapter 2, Mode C



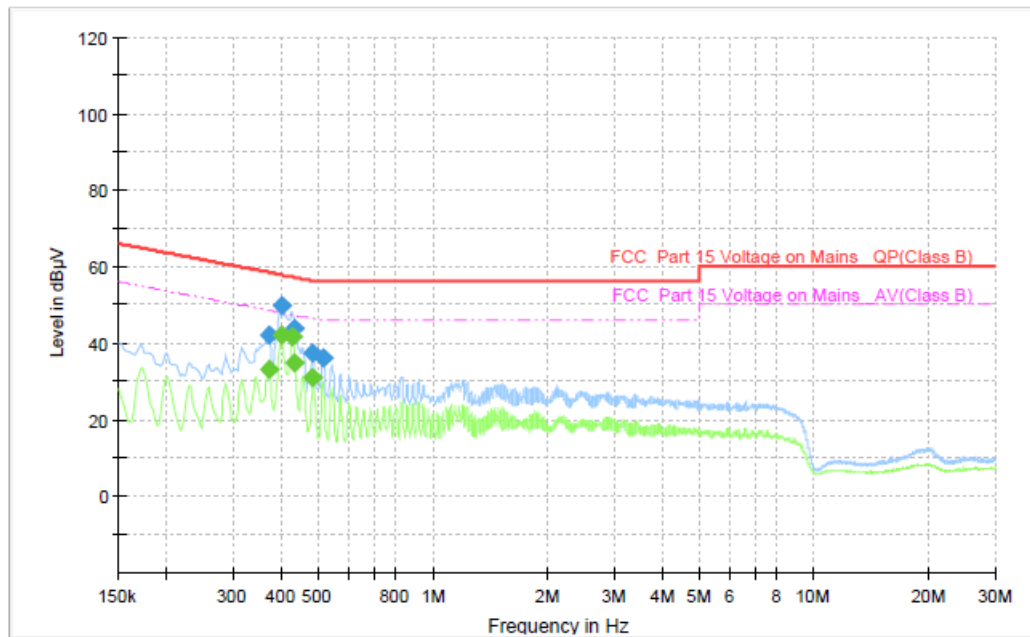
Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.161250	41.77	---	65.40	23.63	1000.0	9.000	N	ON	9.6
0.188250	38.68	---	64.11	25.43	1000.0	9.000	N	ON	9.6
0.512250	---	16.02	46.00	29.98	1000.0	9.000	N	ON	9.6
0.541500	---	15.81	46.00	30.19	1000.0	9.000	N	ON	9.6
0.595500	31.00	---	56.00	25.00	1000.0	9.000	N	ON	9.6
0.622500	32.81	---	56.00	23.19	1000.0	9.000	N	ON	9.6
0.622500	---	19.22	46.00	26.78	1000.0	9.000	N	ON	9.6
0.649500	---	23.38	46.00	22.62	1000.0	9.000	N	ON	9.6
0.676500	---	27.88	46.00	18.12	1000.0	9.000	N	ON	9.6
0.678750	41.86	---	56.00	14.14	1000.0	9.000	N	ON	9.6

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Figure 11: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, L, Adapter 1, Mode D



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.370500	---	32.95	48.49	15.54	1000.0	9.000	L1	ON	9.6
0.370500	41.94	---	58.49	16.55	1000.0	9.000	L1	ON	9.6
0.399750	---	42.20	47.86	5.66	1000.0	9.000	L1	ON	9.6
0.399750	49.84	---	57.86	8.02	1000.0	9.000	L1	ON	9.6
0.426750	---	41.57	47.32	5.74	1000.0	9.000	L1	ON	9.6
0.433500	43.79	---	57.19	13.40	1000.0	9.000	L1	ON	9.6
0.433500	---	34.96	47.19	12.23	1000.0	9.000	L1	ON	9.6
0.485250	37.42	---	56.25	18.83	1000.0	9.000	L1	ON	9.6
0.485250	---	30.86	46.25	15.39	1000.0	9.000	L1	ON	9.6
0.514500	35.91	---	56.00	20.09	1000.0	9.000	L1	ON	9.6

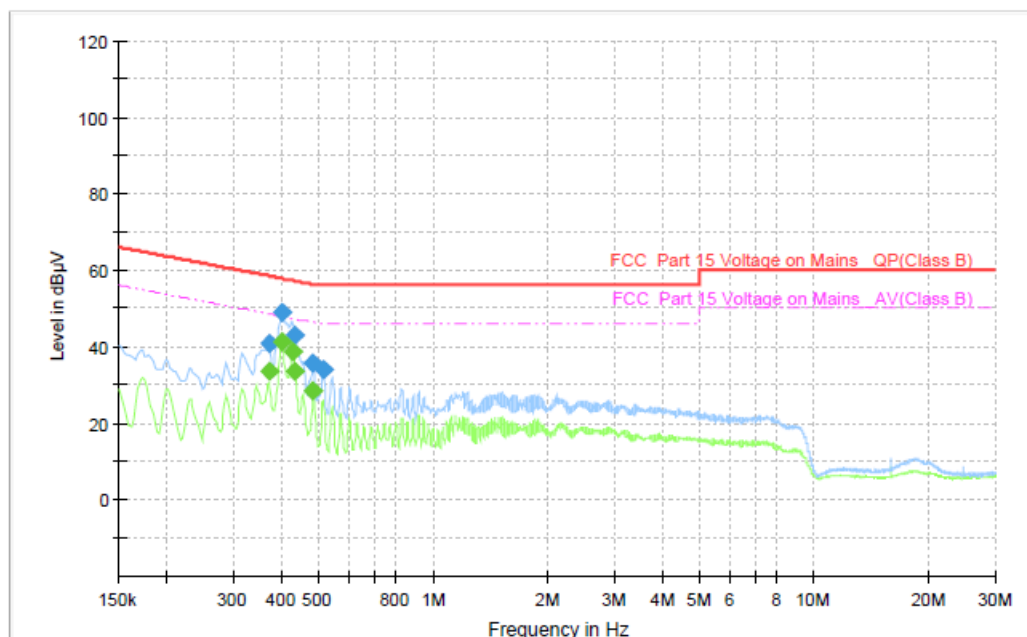
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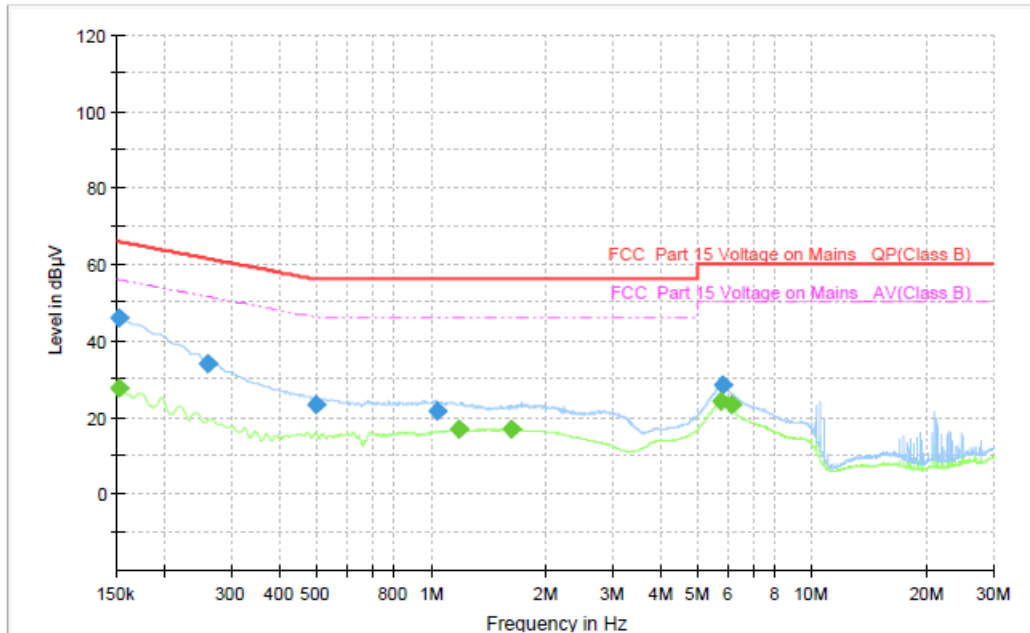
Figure 12: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, N, Adapter 1, Mode D



Final Result

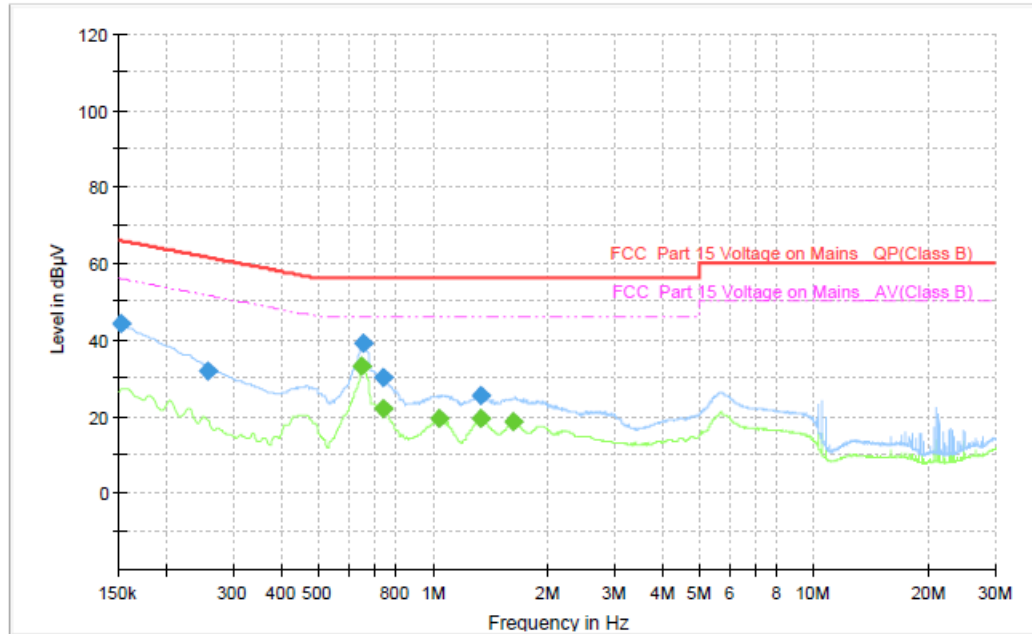
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.370500	---	33.67	48.49	14.82	1000.0	9.000	N	ON	9.6
0.370500	40.78	---	58.49	17.71	1000.0	9.000	N	ON	9.6
0.399750	---	41.01	47.86	6.85	1000.0	9.000	N	ON	9.6
0.399750	48.94	---	57.86	8.92	1000.0	9.000	N	ON	9.6
0.426750	---	38.85	47.32	8.46	1000.0	9.000	N	ON	9.6
0.433500	42.81	---	57.19	14.37	1000.0	9.000	N	ON	9.6
0.433500	---	33.66	47.19	13.53	1000.0	9.000	N	ON	9.6
0.485250	35.72	---	56.25	20.53	1000.0	9.000	N	ON	9.6
0.485250	---	28.43	46.25	17.82	1000.0	9.000	N	ON	9.6
0.514500	33.81	---	56.00	22.19	1000.0	9.000	N	ON	9.6

Figure 13: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, L, Adapter 2, Mode D



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.152250	---	27.60	55.88	28.28	1000.0	9.000	L1	ON	9.6
0.152250	45.90	---	65.88	19.98	1000.0	9.000	L1	ON	9.6
0.258000	33.83	---	61.50	27.67	1000.0	9.000	L1	ON	9.6
0.496500	23.30	---	56.06	32.76	1000.0	9.000	L1	ON	9.6
1.038750	21.32	---	56.00	34.68	1000.0	9.000	L1	ON	9.7
1.178250	---	16.67	46.00	29.33	1000.0	9.000	L1	ON	9.7
1.630500	---	16.83	46.00	29.17	1000.0	9.000	L1	ON	9.7
5.784000	---	24.05	50.00	25.95	1000.0	9.000	L1	ON	9.9
5.817750	28.24	---	60.00	31.76	1000.0	9.000	L1	ON	9.9
6.128250	---	23.21	50.00	26.79	1000.0	9.000	L1	ON	9.9

Figure 14: Spectral Diagrams, Conducted Emission, 150KHz - 30MHz, N, Adapter 2, Mode D


Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.152250	44.32	---	65.88	21.56	1000.0	9.000	N	ON	9.6
0.255750	32.01	---	61.57	29.56	1000.0	9.000	N	ON	9.6
0.651750	---	33.05	46.00	12.95	1000.0	9.000	N	ON	9.6
0.654000	39.19	---	56.00	16.81	1000.0	9.000	N	ON	9.6
0.737250	30.14	---	56.00	25.86	1000.0	9.000	N	ON	9.6
0.737250	---	21.92	46.00	24.08	1000.0	9.000	N	ON	9.6
1.032000	---	19.23	46.00	26.77	1000.0	9.000	N	ON	9.7
1.329000	25.40	---	56.00	30.60	1000.0	9.000	N	ON	9.7
1.335750	---	19.29	46.00	26.71	1000.0	9.000	N	ON	9.7
1.621500	---	18.60	46.00	27.40	1000.0	9.000	N	ON	9.7

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4.1.9 Radiated Emission

Result:

Pass

Test Specification

Test standard

: CFR47 FCC Part 15.107
CFR47 FCC Part 15.207
ICES-003 Issue 7:2020
RSS-Gen Issue 5, Clause 8.9, 8.10

Basic standard

: ANSI C63.10: 2013, Clause 11.12

Port

: Enclosure

Frequency range

: 30MHz-1000MHz for normal
30MHz-10th Harmonic for intentional radiator

Limits

: CFR47 FCC Part 15.109
CFR47 FCC Part 15.205
CFR47 FCC Part 15.209
ICES-003 Issue 7:2020, table 2
RSS-Gen Issue 5, table 6, table 7

Kind of test site

: 3m Semi-anechoic Chamber

Test Setup

Date of testing

: 2023.06.12-2023.07.25

Input voltage

: AC 120V

Operational mode

: A.1, A.2, A.3, A+B, C, D

Temperature

: 21°C

Relative humidity

: 63%

Atmospheric pressure

: 101.2 kPa

The measurement result is calculated based on the following formula by the test software:
Emission Level = Reading level + Correction (Antenna factor + Cable loss Preamplifier)

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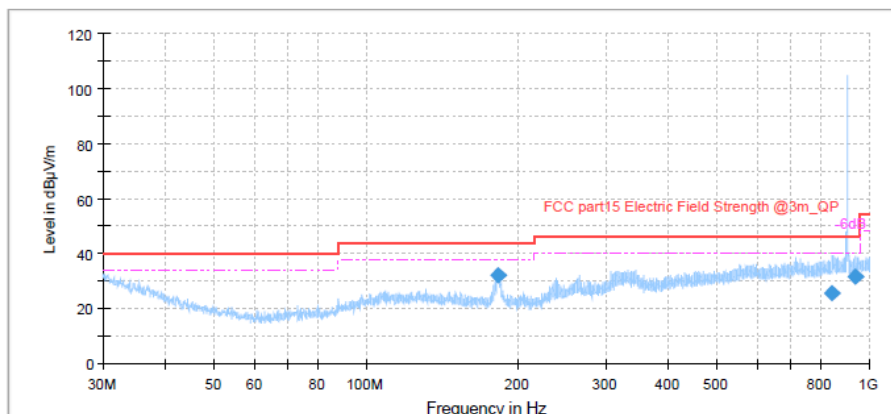
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Figure 15: Spectral Diagrams, Radiated Spurious Emission, Mode A.1

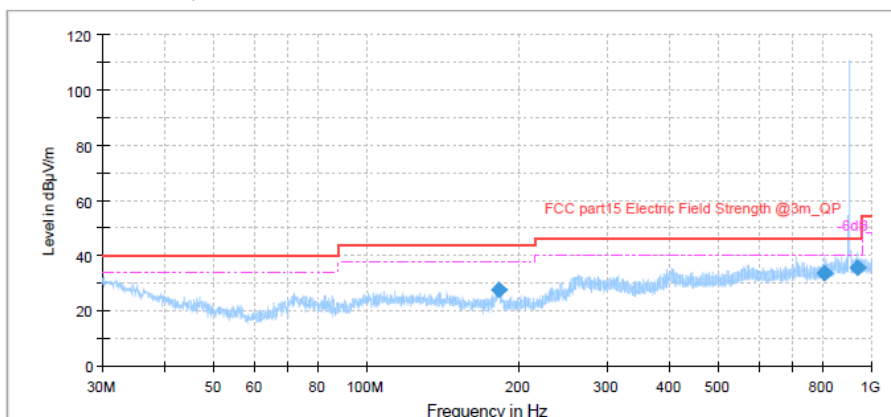
30MHz-1000MHz, Horizontal



Final Result

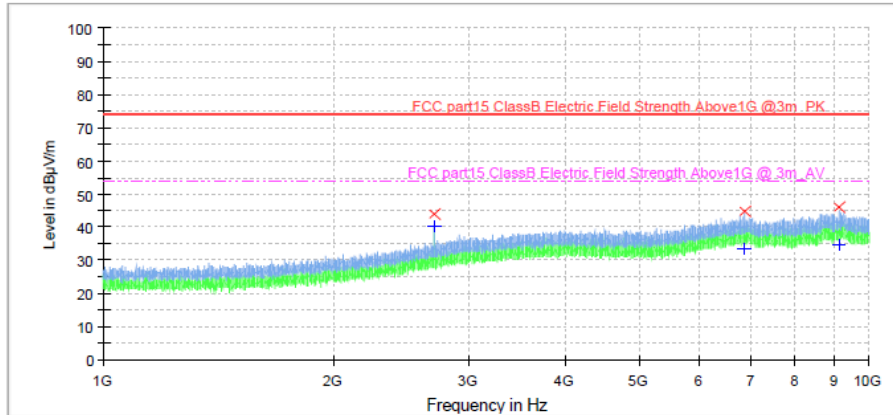
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
182.676667	32.36	43.50	11.14	1000.0	120.000	202.0	H	114.0	16.4
844.767778	25.45	46.00	20.55	1000.0	120.000	177.0	H	17.0	29.4
935.137778	31.64	46.00	14.36	1000.0	120.000	117.0	H	113.0	30.1

30MHz-1000MHz, Vertical



Final Result

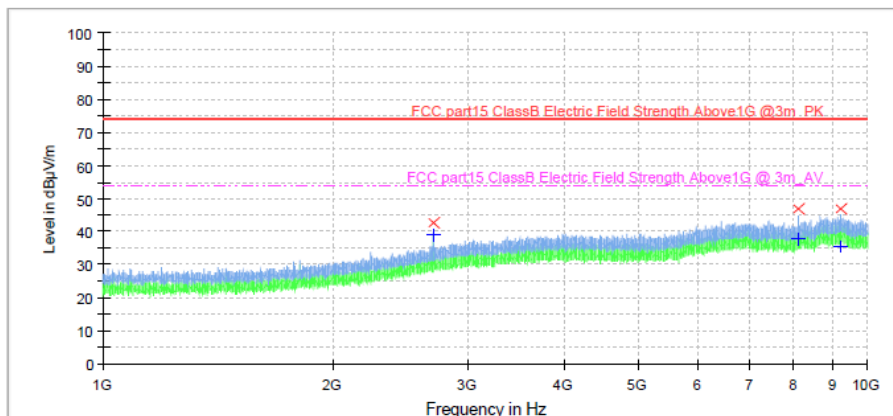
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
182.377778	27.42	43.50	16.08	1000.0	120.000	104.0	V	33.0	16.4
806.974444	33.50	46.00	12.50	1000.0	120.000	114.0	V	330.0	28.9
935.005556	35.45	46.00	10.55	1000.0	120.000	150.0	V	29.0	30.1

1GHz-10GHz, Horizontal

Limit and Margin-PK

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2709.155000	43.8	1000.0	1000.000	150.0	H	0.0	-4.8	30.2	74.0
6883.750000	44.8	1000.0	1000.000	150.0	H	0.0	4.8	29.2	74.0
9139.095000	45.8	1000.0	1000.000	150.0	H	0.0	6.6	28.2	74.0

Limit and Margin-AV

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2709.155000	40.4	1000.0	1000.000	150.0	H	0.0	-4.8	13.7	54.0
6883.750000	33.6	1000.0	1000.000	150.0	H	0.0	4.8	20.4	54.0
9139.095000	34.8	1000.0	1000.000	150.0	H	0.0	6.6	19.2	54.0

1GHz-10GHz, Vertical

Limit and Margin-PK

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2709.720000	42.8	1000.0	1000.000	150.0	V	0.0	-4.8	31.2	74.0
8128.560000	47.0	1000.0	1000.000	150.0	V	0.0	6.0	27.0	74.0
9229.095000	47.0	1000.0	1000.000	150.0	V	0.0	6.6	27.0	74.0

Limit and Margin-AV

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2709.720000	38.8	1000.0	1000.000	150.0	V	0.0	-4.8	15.2	54.0
8128.560000	37.5	1000.0	1000.000	150.0	V	0.0	6.0	16.5	54.0
9229.095000	35.4	1000.0	1000.000	150.0	V	0.0	6.6	18.6	54.0

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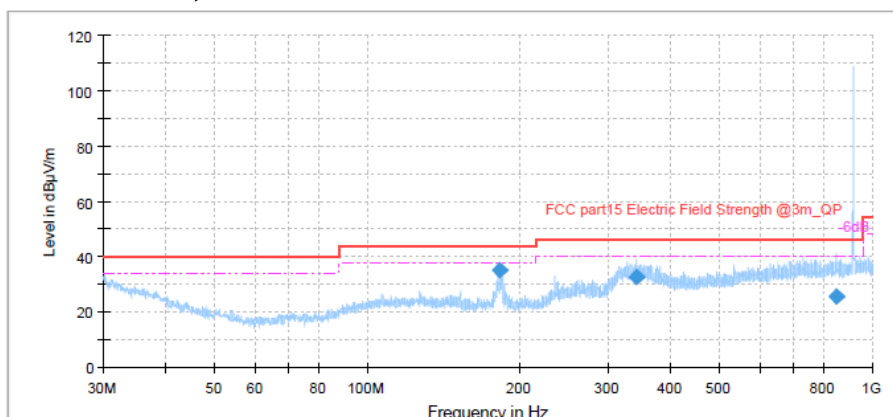
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Figure 16: Spectral Diagrams, Radiated Spurious Emission, Mode A.2

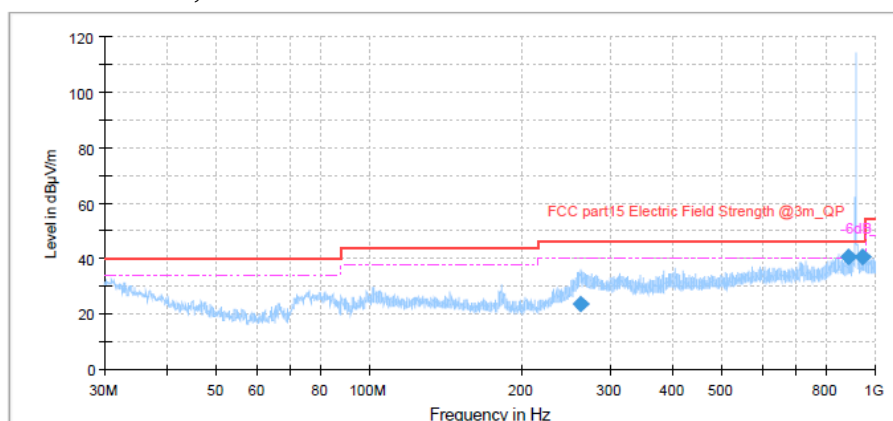
30MHz-1000MHz, Horizontal



Final Result

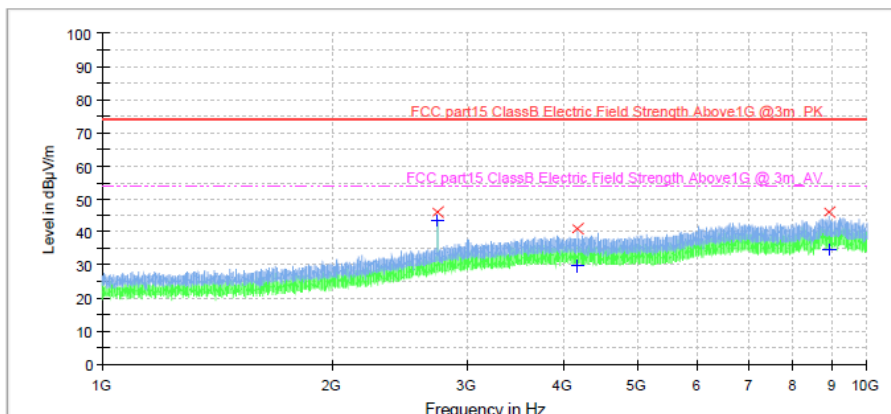
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
182.471667	34.98	43.50	8.52	1000.0	120.000	201.0	H	304.0	16.4
340.461667	32.47	46.00	13.53	1000.0	120.000	100.0	H	13.0	21.8
845.078889	25.84	46.00	20.16	1000.0	120.000	137.0	H	248.0	29.4

30MHz-1000MHz, Vertical



Final Result

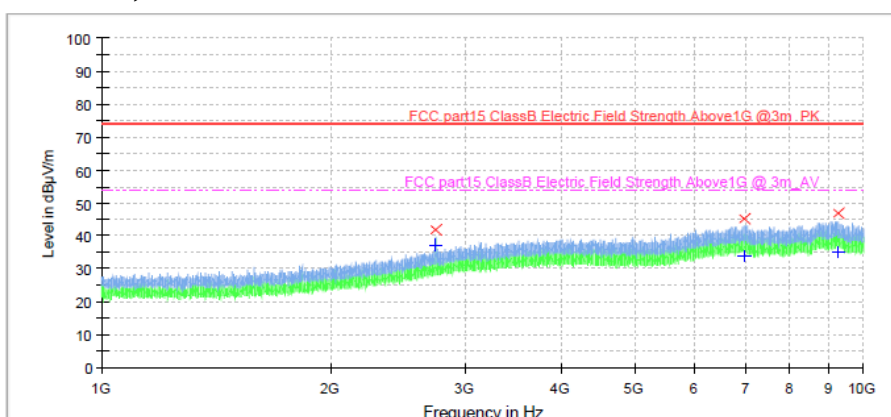
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
261.516111	23.74	46.00	22.26	1000.0	120.000	190.0	V	335.0	21.5
883.173333	40.52	46.00	5.48	1000.0	120.000	108.0	V	47.0	29.7
947.116667	40.64	46.00	5.36	1000.0	120.000	104.0	V	299.0	30.3

1GHz-10GHz, Horizontal

Limit and Margin-PK

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2745.720000	46.1	1000.0	1000.000	150.0	H	0.0	-4.6	28.0	74.0
4177.845000	41.2	1000.0	1000.000	150.0	H	0.0	-0.2	32.8	74.0
8926.750000	45.9	1000.0	1000.000	150.0	H	0.0	6.5	28.1	74.0

Limit and Margin-AV

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2745.720000	43.6	1000.0	1000.000	150.0	H	0.0	-4.6	10.4	54.0
4177.845000	29.7	1000.0	1000.000	150.0	H	0.0	-0.2	24.3	54.0
8926.750000	34.9	1000.0	1000.000	150.0	H	0.0	6.5	19.1	54.0

1GHz-10GHz, Vertical

Limit and Margin-PK

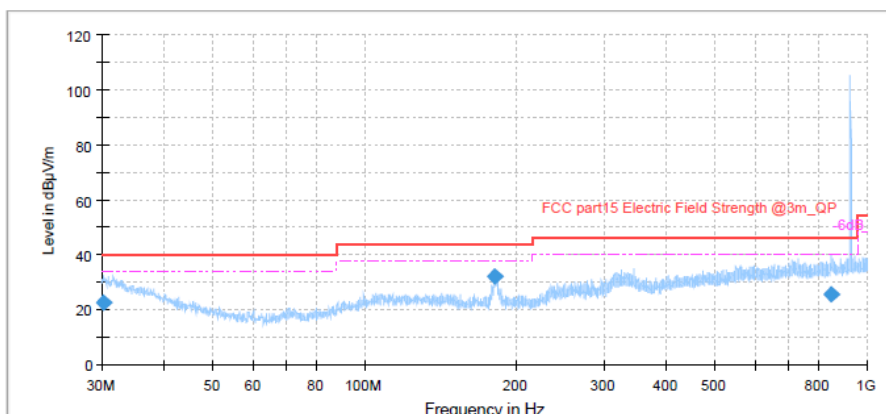
Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2745.435000	42.0	1000.0	1000.000	150.0	V	0.0	-4.6	32.0	74.0
6967.845000	45.0	1000.0	1000.000	150.0	V	0.0	4.9	29.0	74.0
9267.345000	46.7	1000.0	1000.000	150.0	V	0.0	6.6	27.3	74.0

Limit and Margin-AV

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2745.435000	37.1	1000.0	1000.000	150.0	V	0.0	-4.6	16.9	54.0
6967.845000	33.9	1000.0	1000.000	150.0	V	0.0	4.9	20.2	54.0
9267.345000	35.3	1000.0	1000.000	150.0	V	0.0	6.6	18.7	54.0

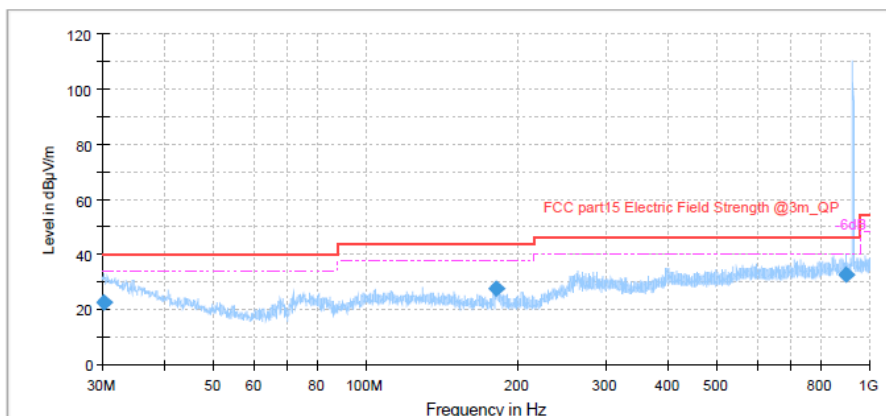
Figure 17: Spectral Diagrams, Radiated Spurious Emission, Mode A.3

30MHz-1000MHz, Horizontal

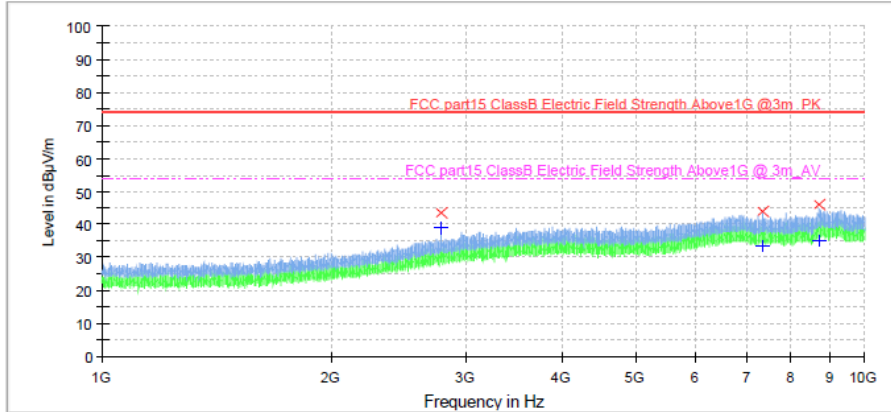

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.240000	22.72	40.00	17.28	1000.0	120.000	242.0	H	294.0	25.8
181.732778	32.05	43.50	11.45	1000.0	120.000	137.0	H	320.0	16.5
845.532778	25.84	46.00	20.16	1000.0	120.000	135.0	H	61.0	29.3

30MHz-1000MHz, Vertical


Final Result

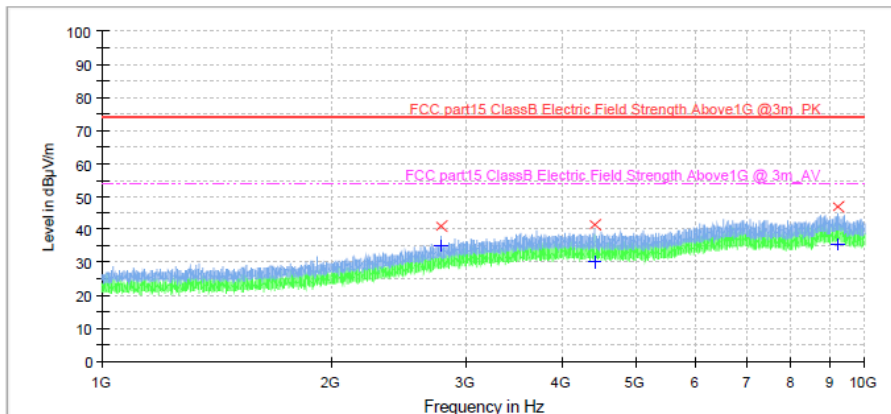
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.320000	22.70	40.00	17.30	1000.0	120.000	220.0	V	19.0	25.8
181.598889	27.53	43.50	15.97	1000.0	120.000	100.0	V	24.0	16.5
895.300000	32.85	46.00	13.15	1000.0	120.000	111.0	V	277.0	29.7

1GHz-10GHz, Horizontal

Limit and Margin-PK

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2781.720000	43.4	1000.0	1000.000	150.0	H	0.0	-4.5	30.6	74.0
7366.375000	44.0	1000.0	1000.000	150.0	H	0.0	5.3	30.0	74.0
8716.655000	46.2	1000.0	1000.000	150.0	H	0.0	6.4	27.8	74.0

Limit and Margin-AV

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2781.720000	39.1	1000.0	1000.000	150.0	H	0.0	-4.5	14.9	54.0
7366.375000	33.3	1000.0	1000.000	150.0	H	0.0	5.3	20.7	54.0
8716.655000	35.0	1000.0	1000.000	150.0	H	0.0	6.4	19.0	54.0

1GHz-10GHz, Vertical

Limit and Margin-PK

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
2780.875000	41.1	1000.0	1000.000	150.0	V	0.0	-4.5	32.9	74.0
4429.000000	41.6	1000.0	1000.000	150.0	V	0.0	0.3	32.4	74.0
9235.845000	47.0	1000.0	1000.000	150.0	V	0.0	6.6	27.0	74.0

Limit and Margin-AV

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
2780.875000	35.3	1000.0	1000.000	150.0	V	0.0	-4.5	18.7	54.0
4429.000000	30.1	1000.0	1000.000	150.0	V	0.0	0.3	23.9	54.0
9235.845000	35.5	1000.0	1000.000	150.0	V	0.0	6.6	18.5	54.0

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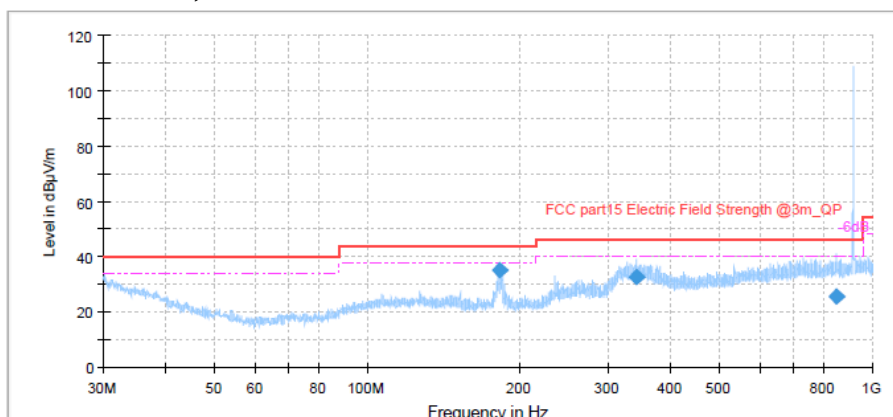
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Figure 18: Spectral Diagrams, Radiated Spurious Emission, Mode A+B

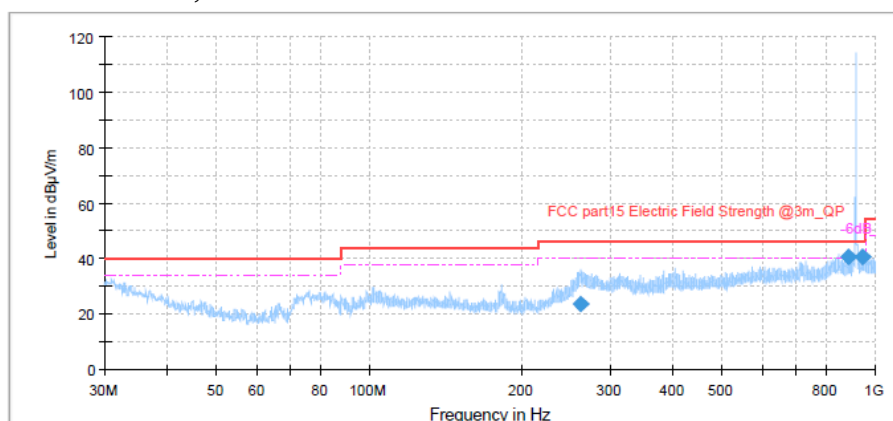
30MHz-1000MHz, Horizontal



Final Result

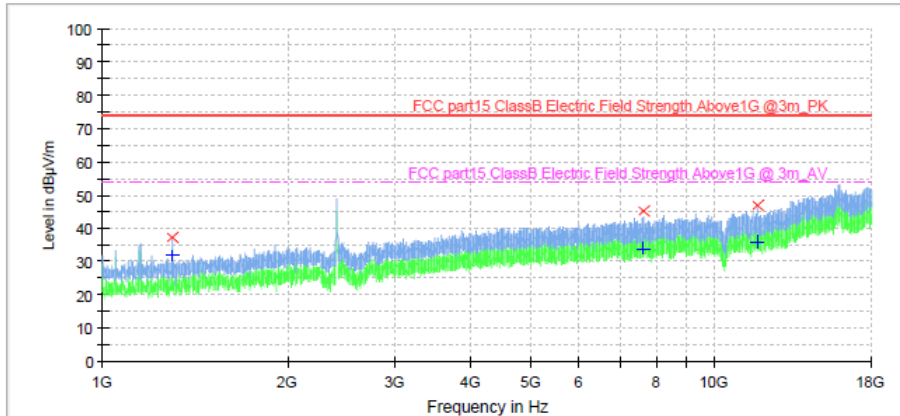
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
182.471667	34.98	43.50	8.52	1000.0	120.000	201.0	H	304.0	16.4
340.461667	32.47	46.00	13.53	1000.0	120.000	100.0	H	13.0	21.8
845.078889	25.84	46.00	20.16	1000.0	120.000	137.0	H	248.0	29.4

30MHz-1000MHz, Vertical



Final Result

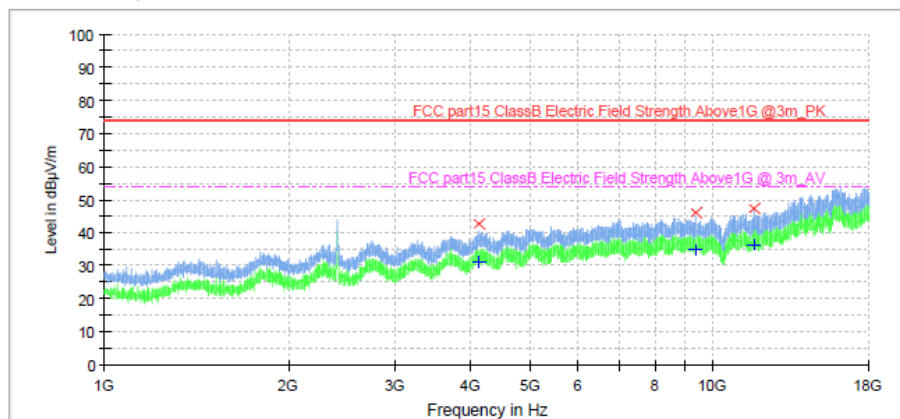
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
261.516111	23.74	46.00	22.26	1000.0	120.000	190.0	V	335.0	21.5
883.173333	40.52	46.00	5.48	1000.0	120.000	108.0	V	47.0	29.7
947.116667	40.64	46.00	5.36	1000.0	120.000	104.0	V	299.0	30.3

1GHz-18GHz, Horizontal

Limit and Margin-PK

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
1299.625000	37.4	1000.0	1000.000	150.0	H	0.0	-12.8	36.6	74.0
7657.625000	45.1	1000.0	1000.000	150.0	H	0.0	5.5	28.9	74.0
11730.185000	46.8	1000.0	1000.000	150.0	H	0.0	8.5	27.2	74.0

Limit and Margin-AV

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
1299.625000	31.7	1000.0	1000.000	150.0	H	0.0	-12.8	22.3	54.0
7657.625000	34.0	1000.0	1000.000	150.0	H	0.0	5.5	20.1	54.0
11730.185000	36.2	1000.0	1000.000	150.0	H	0.0	8.5	17.8	54.0

1GHz-18GHz, Vertical

Limit and Margin-PK

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - PK+ (dB)	Limit - PK+ (dBµV/m)
4119.500000	42.6	1000.0	1000.000	150.0	V	0.0	-0.3	31.4	74.0
9376.750000	46.2	1000.0	1000.000	150.0	V	0.0	6.7	27.8	74.0
11646.250000	47.1	1000.0	1000.000	150.0	V	0.0	8.4	26.9	74.0

Limit and Margin-AVG

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)
4119.500000	30.9	1000.0	1000.000	150.0	V	0.0	-0.3	23.1	54.0
9376.750000	34.8	1000.0	1000.000	150.0	V	0.0	6.7	19.2	54.0
11646.250000	36.4	1000.0	1000.000	150.0	V	0.0	8.4	17.7	54.0

Remark: All the modes had been tested, but only the worst data was recorded in the report.

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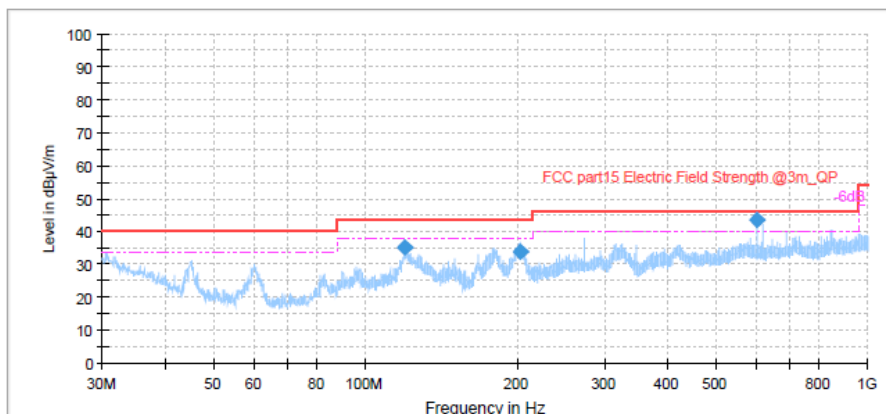
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Figure 19: Spectral Diagrams, Radiated Emission, Mode C, Adapter 1

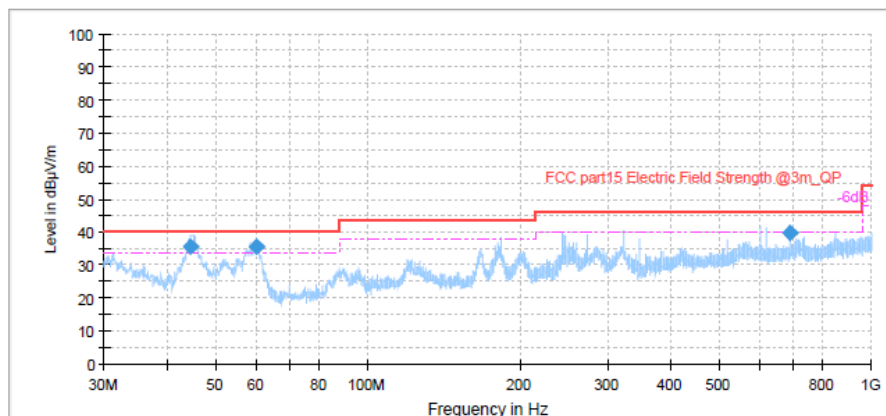
30MHz-1000MHz, Horizontal



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
120.014444	35.05	43.50	8.45	1000.0	120.000	290.0	H	4.0	19.1
202.852222	33.84	43.50	9.66	1000.0	120.000	177.0	H	341.0	17.0
601.579444	43.31	46.00	2.69	1000.0	120.000	150.0	H	224.0	27.4

30MHz-1000MHz, Vertical



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
44.651667	35.61	40.00	4.39	1000.0	120.000	104.0	V	244.0	17.9
60.156111	35.40	40.00	4.60	1000.0	120.000	133.0	V	307.0	13.1
687.532222	39.60	46.00	6.40	1000.0	120.000	210.0	V	11.0	27.8

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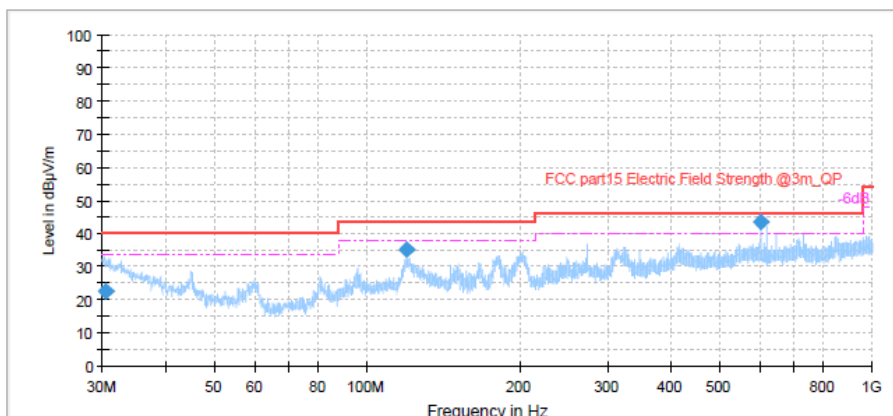
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Figure 20: Spectral Diagrams, Radiated Emission, Mode C, Adapter 2

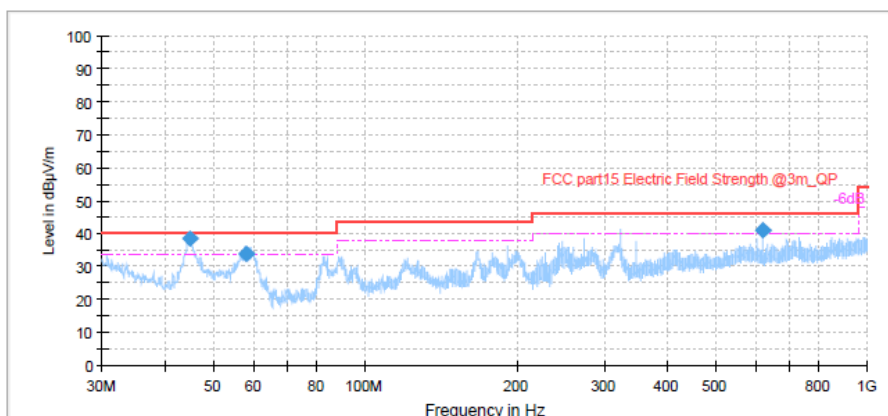
30MHz-1000MHz, Horizontal



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.480000	22.63	40.00	17.37	1000.0	120.000	186.0	H	208.0	25.7
119.974444	34.99	43.50	8.51	1000.0	120.000	250.0	H	29.0	19.1
601.579444	43.70	46.00	2.30	1000.0	120.000	122.0	H	56.0	27.4

30MHz-1000MHz, Vertical



Final Result

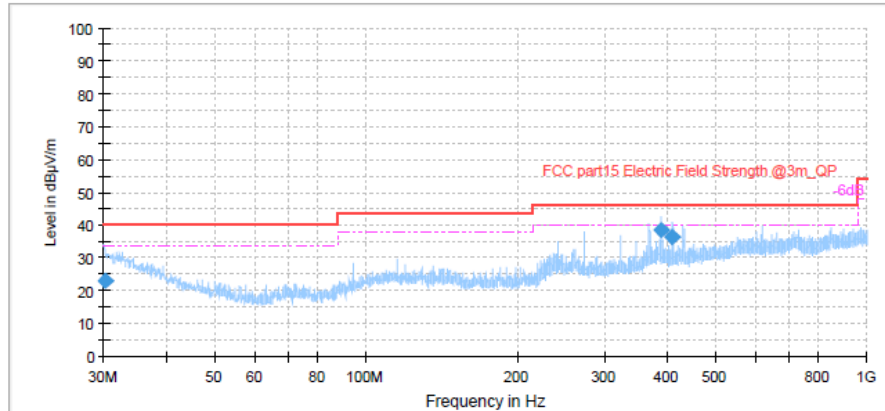
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
44.811667	38.53	40.00	1.47	1000.0	120.000	104.0	V	1.0	17.9
58.120556	33.74	40.00	6.26	1000.0	120.000	137.0	V	298.0	13.4
618.770000	41.15	46.00	4.85	1000.0	120.000	208.0	V	10.0	27.2

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Figure 21: Spectral Diagrams, Radiated Emission, Mode D, Adapter 1

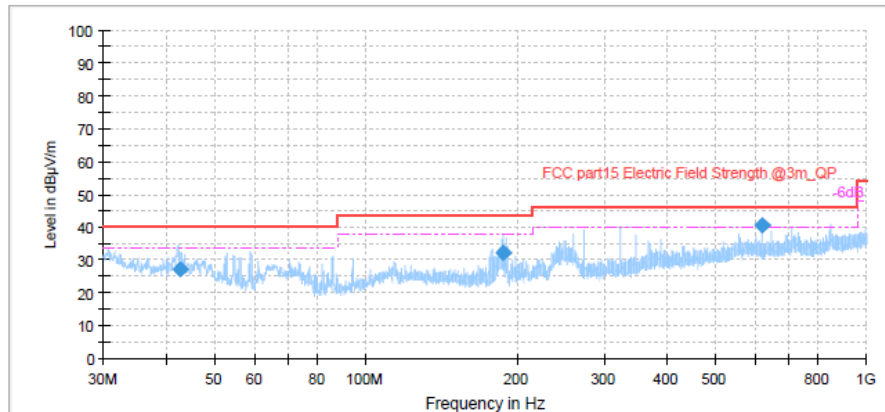
30MHz-1000MHz, Horizontal



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.120000	23.03	40.00	16.97	1000.0	120.000	127.0	H	146.0	25.9
388.422778	38.65	46.00	7.35	1000.0	120.000	194.0	H	244.0	23.2
409.251667	36.41	46.00	9.59	1000.0	120.000	174.0	H	9.0	24.2

30MHz-1000MHz, Vertical



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
42.478889	27.35	40.00	12.65	1000.0	120.000	111.0	V	276.0	18.7
188.585556	32.24	43.50	11.26	1000.0	120.000	104.0	V	107.0	16.3
618.770000	40.49	46.00	5.51	1000.0	120.000	217.0	V	18.0	27.2

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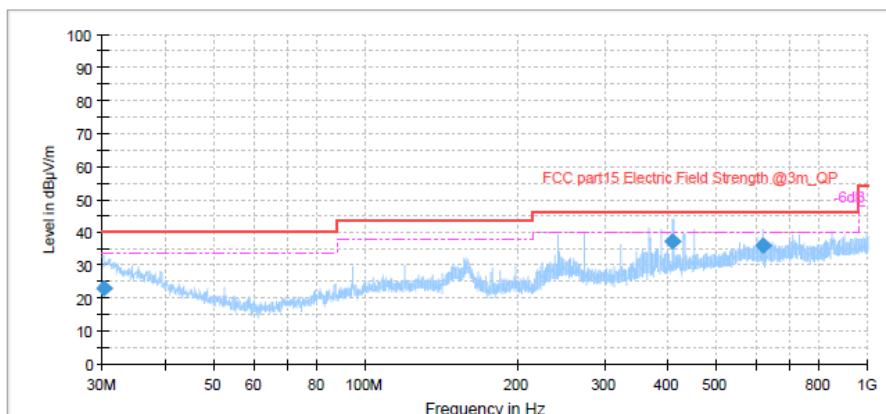
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Figure 22: Spectral Diagrams, Radiated Emission, Mode D, Adapter 2

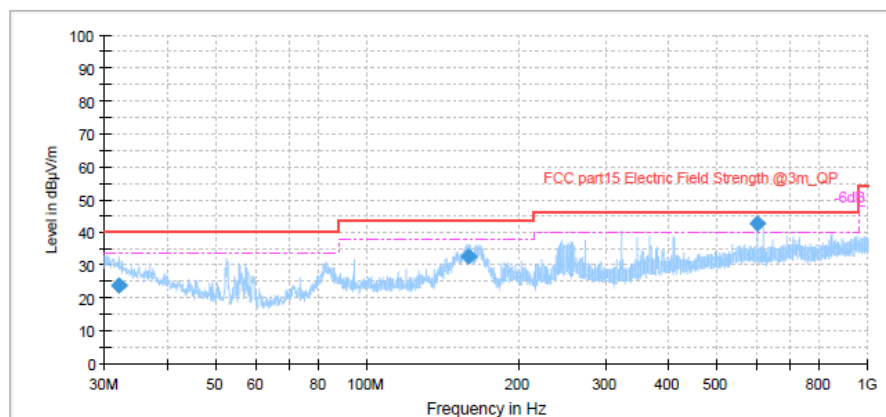
30MHz-1000MHz, Horizontal



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
30.280000	22.86	40.00	17.14	1000.0	120.000	206.0	H	351.0	25.8
409.185556	37.09	46.00	8.91	1000.0	120.000	193.0	H	248.0	24.2
618.650000	35.96	46.00	10.04	1000.0	120.000	114.0	H	239.0	27.2

30MHz-1000MHz, Vertical



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
32.107778	23.77	40.00	16.23	1000.0	120.000	114.0	V	350.0	24.4
159.960000	32.51	43.50	10.99	1000.0	120.000	121.0	V	48.0	17.3
601.579444	42.81	46.00	3.19	1000.0	120.000	193.0	V	11.0	27.4

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--The END --