

RF Test Report

Applicant : Fortinet, Inc.
Product Name : Network Security Gateway
Trade Name : FORTINET
Model Number : FG-1501G, FG-1500G, FG-1500G-DC, FG-1501G-DC, FG-801F, FG-800F, FG-800F-DC, FG-801F-DC

Marketing Name : FortiGate 800Fxxxxxxxxxx, FORTIGATE-800Fxxxxxxxxxx, FG-800Fxxxxxxxxxx, FortiGate 801Fxxxxxxxxxx, FORTIGATE-801Fxxxxxxxxxx, FG-801Fxxxxxxxxxx, FortiGate 800F-DCxxxxxxxxxx, FORTIGATE-800F-DCxxxxxxxxxx, FG-800F-DCxxxxxxxxxx, FortiGate 801F-DCxxxxxxxxxx, FORTIGATE-801F-DCxxxxxxxxxx, FG-801F-DCxxxxxxxxxx, FortiGate 1500Gxxxxxxxxxx, FORTIGATE-1500Gxxxxxxxxxx, FG-1500Gxxxxxxxxxx, FortiGate 1501Gxxxxxxxxxx, FORTIGATE-1501Gxxxxxxxxxx, FG-1501Gxxxxxxxxxx, FortiGate 1500G-DCxxxxxxxxxx, FORTIGATE-1500G-DCxxxxxxxxxx, FG-1500G-DCxxxxxxxxxx, FortiGate 1501G-DCxxxxxxxxxx, FORTIGATE-1501G-DCxxxxxxxxxx, FG-1501G-DCxxxxxxxxxx

(where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)

Applicable Standard : FCC 47 CFR PART 15 SUBPART C
ANSI C63.10:2013

Received Date : Sep. 08, 2022
Test Period : Sep. 22 ~ Dec. 30, 2022
Issued Date : Dec. 30, 2022

Issued by

Eurofins E&E Wireless Taiwan Co., Ltd.
No. 140-1, Changan Street, Bade District,
Taoyuan City 334025, Taiwan (R.O.C.)
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330
Frequency Range: 9 kHz to 325 GHz (Bade test site)
Frequency Range: 9 kHz to 40 GHz (Wugu test site)
Test Firm MRA designation number: TW0010

Note:

1. The test results are valid only for samples provided by customers and under the test conditions described in this report.
2. This report shall not be reproduced except in full, without the written approval of Eurofins E&E Wireless Taiwan Co., Ltd.
3. The relevant information is provided by customers in this test report. According to the correctness, appropriateness or completeness of the information provided by the customer, if there is any doubt or error in the information which affects the validity of the test results, the laboratory does not take the responsibility.

Revision History

Version	Issued Date	Revisions	Revised By
00	Nov. 10, 2022	Initial Issue	Snow Wang
01	Dec. 30, 2022	Update Model Number and Marketing Name (P.1/3/7) Update chapter 3.4 (P.12/13) Update chapter 5.1 (P.25~48) Update chapter 5.3 (P.90~114) Update Test Setup Photographs	Snow Wang

Verification of Compliance

Applicant : Fortinet, Inc.
 Product Name : Network Security Gateway
 Trade Name : FORTINET
 Model Number : FG-1501G, FG-1500G, FG-1500G-DC, FG-1501G-DC,
 FG-801F, FG-800F, FG-800F-DC, FG-801F-DC

 Marketing Name : FortiGate 800Fxxxxxxxxxx, FORTIGATE-800Fxxxxxxxxxx,
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 FORTIGATE-800F-DCxxxxxxxxxx, FG-800F-DCxxxxxxxxxx,
 FortiGate 801F-DCxxxxxxxxxx,
 FORTIGATE-801F-DCxxxxxxxxxx, FG-801F-DCxxxxxxxxxx,
 FortiGate 1500Gxxxxxxxxxx, FORTIGATE-1500Gxxxxxxxxxx,
 FG-1500Gxxxxxxxxxx,
 FortiGate 1501Gxxxxxxxxxx, FORTIGATE-1501Gxxxxxxxxxx,
 FG-1501Gxxxxxxxxxx,
 FortiGate 1500G-DCxxxxxxxxxx,
 FORTIGATE-1500G-DCxxxxxxxxxx, FG-1500G-DCxxxxxxxxxx,
 FortiGate 1501G-DCxxxxxxxxxx,
 FORTIGATE-1501G-DCxxxxxxxxxx, FG-1501G-DCxxxxxxxxxx

 (where "x" can be used as "A-Z", or "0-9", or "-", or blank for
 software changes or marketing purposes only)

 FCC ID : TVE-111T15D
 Applicable Standard : FCC 47 CFR PART 15 SUBPART C
 ANSI C63.10:2013

 Test Result : Complied
 Performing Lab. : Eurofins E&E Wireless Taiwan Co., Ltd.
 No. 140-1, Changan Street, Bade District,
 Taoyuan City 334025, Taiwan (R.O.C.)
 Tel : +886-3-2710188 / Fax : +886-3-2710190
 Taiwan Accreditation Foundation accreditation number: 1330



Eurofins E&E Wireless Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Eurofins E&E Wireless Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By :

(Kai Yu Yang)

TABLE OF CONTENTS

1	General Information	5
1.1.	Summary of Test Result	5
1.2.	Testing Location	5
1.3.	Measurement Uncertainty	6
2	EUT Description.....	7
3	Test Methodology.....	8
3.1.	Mode of Operation.....	8
3.2.	EUT Test Step.....	8
3.3.	Configuration of Test System Details.....	9
3.4.	Test Instruments	12
3.5.	Test Site Environment.....	14
4	Measurement Procedure.....	15
4.1.	AC Power Line Conducted Emission Measurement.....	15
4.2.	Radiated Emission Measurement.....	17
4.3.	Maximum Conducted Output Power Measurement.....	21
4.4.	6 dB RF Bandwidth Measurement.....	22
4.5.	Maximum Power Density Measurement.....	23
4.6.	Out of Band Conducted Emissions Measurement.....	24
4.7.	Antenna Measurement	24
5	Test Results	25
5.1.	Conducted Emission	25
5.2.	Conducted Test Results.....	76
5.3.	Radiated Emission Measurement.....	90

Appendix A. Test Setup Photographs

1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
15.207	AC Power Conducted Emission	PASS	-----
15.247(d)	Transmitter Radiated Emissions	PASS	-----
15.247(b)(3)	Max. Output Power	PASS	-----
15.247(a)(2)	6 dB RF Bandwidth	PASS	-----
15.247(e)	Maximum Power Spectral Density	PASS	-----
15.247(d)	Out of Band Conducted Spurious Emission	PASS	-----
15.203	Antenna Requirement	PASS	-----

Decision Rule

- ☒ Uncertainty is not included.
☐ Uncertainty is included.

Standard	Description
CFR47, Part 15, Subpart C	Intentional Radiators
ANSI C63. 10: 2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 558074 D01 15.247 Meas Guidance v05r02	GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES

1.2. Testing Location

Site Name: Eurofins E&E Wireless Taiwan Co., Ltd.
 Site Address: ☐ No. 140-1, Changan Street, Bade District, Taoyuan City 334025, Taiwan (R.O.C.)
 Site Address: ☒ No. 2, Wuquan 5th Rd. Wugu Dist., New Taipei City, Taiwan (R.O.C.)

1.3. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conducted Emission	150 kHz ~ 30 MHz	2.7 dB
Radiated Emission	9 kHz ~ 30 MHz	2.2 dB
	30 MHz ~ 1000 MHz	5.1 dB
	1000 MHz ~ 18000 MHz	5.2 dB
	18000 MHz ~ 26500 MHz	4.6 dB
	26500 MHz ~ 40000 MHz	4.6 dB
Conducted Output Power	1.1 dB	
RF Bandwidth	4.7 %	
Power Spectral Density	1.1 dB	

2 EUT Description

Applicant	Fortinet, Inc. 899 Kifer Road, Sunnyvale, CA 94086, USA			
Product Name	Network Security Gateway			
Trade Name	FORTINET			
Model Number	FG-1501G, FG-1500G, FG-1500G-DC, FG-1501G-DC, FG-801F, FG-800F, FG-800F-DC, FG-801F-DC			
Difference description of model number	Regarding the differences, please see the table below.			
	Model	PSU	SSD	DDR
	FG-1501G	AC	V	16 GB
	FG-801F	AC	V	8 GB
	FG-1500G	AC		16 GB
	FG-800F	AC		8 GB
	FG-1500G-DC	DC		16 GB
	FG-800F-DC	DC		8 GB
	FG-1501G-DC	DC	V	16 GB
	FG-801F-DC	DC	V	8 GB
Marketing Name	FortiGate 800Fxxxxxxxxxx, FORTIGATE-800Fxxxxxxxxxx, FG-800Fxxxxxxxxxx, FortiGate 801Fxxxxxxxxxx, FORTIGATE-801Fxxxxxxxxxx, FG-801Fxxxxxxxxxx, FortiGate 800F-DCxxxxxxxxxx, FORTIGATE-800F-DCxxxxxxxxxx, FG-800F-DCxxxxxxxxxx, FortiGate 801F-DCxxxxxxxxxx, FORTIGATE-801F-DCxxxxxxxxxx, FG-801F-DCxxxxxxxxxx FortiGate 1500Gxxxxxxxxxx, FORTIGATE-1500Gxxxxxxxxxx, FG-1500Gxxxxxxxxxx, FortiGate 1501Gxxxxxxxxxx, FORTIGATE-1501Gxxxxxxxxxx, FG-1501Gxxxxxxxxxx, FortiGate 1500G-DCxxxxxxxxxx, FORTIGATE-1500G-DCxxxxxxxxxx, FG-1500G-DCxxxxxxxxxx, FortiGate 1501G-DCxxxxxxxxxx, FORTIGATE-1501G-DCxxxxxxxxxx, FG-1501G-DCxxxxxxxxxx (where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)			
FCC ID	TVE-111T15D			
Frequency Range	2402 ~ 2480 MHz			
Modulation Type	GFSK			
Operate Temp. Range	0 ~ +40 °C			
EUT Power Rating	DC: -48 VDC to -60 VDC, 7 A AC: 100-240 VAC, 50/60 Hz, 6 A Max			
Antenna information	ANT.	Model	Type	Max. Gain (dBi)
	ANT-0	ARY196-0346-005-00	PIFA Antenna	1.82
	ANT-0	WA-F-LA-02-114	PIFA Antenna	0.73
RF Output Power	LE, GFSK: 0.00179 W			
	2LE, GFSK: 0.00182 W			
	BLR C2, GFSK: 0.00180 W			
	BLR C8, GFSK: 0.00181 W			

3 Test Methodology

3.1. Mode of Operation

In the test report use EUT model: FG-801F to operate testing.

Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode
Transmit Mode
BLE 1M
BLE 2M
BLR C2
BLR C8

Final-Test Mode
Transmit Mode
BLE 2M
BLR C8

Software used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes.

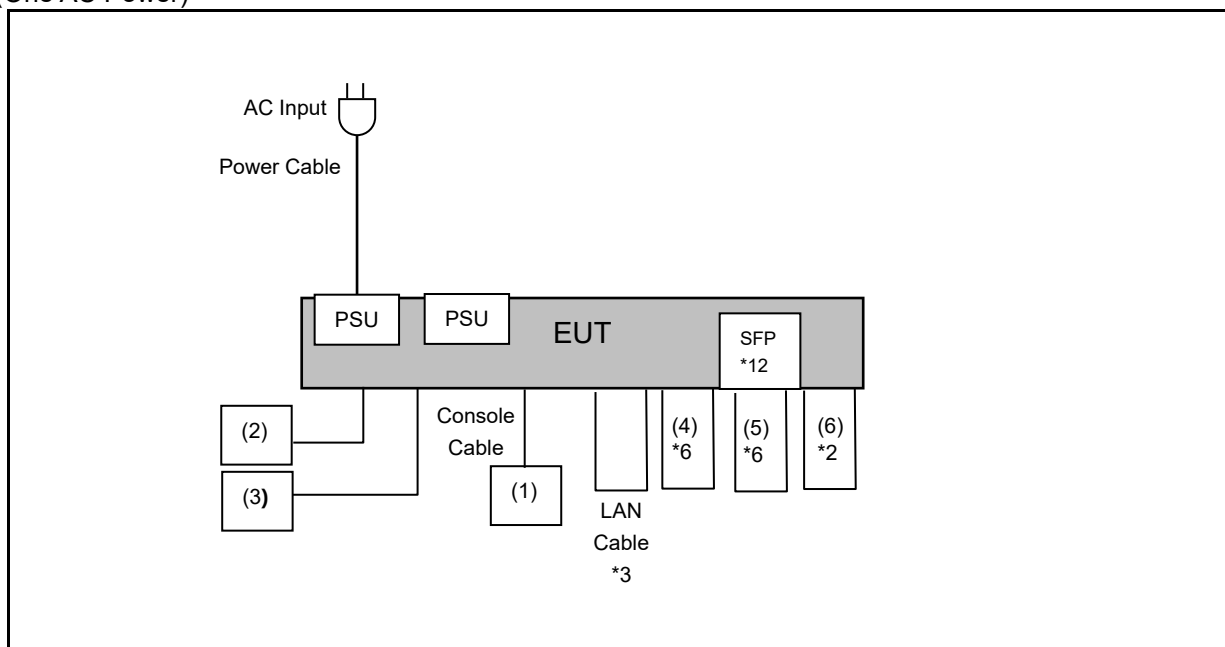
3.2. EUT Test Step

1	Setup the EUT shown on "Configuration of Test System Details".
2	Turn on the power of all equipment.
3	Turn on TX function.
4	EUT run test program.

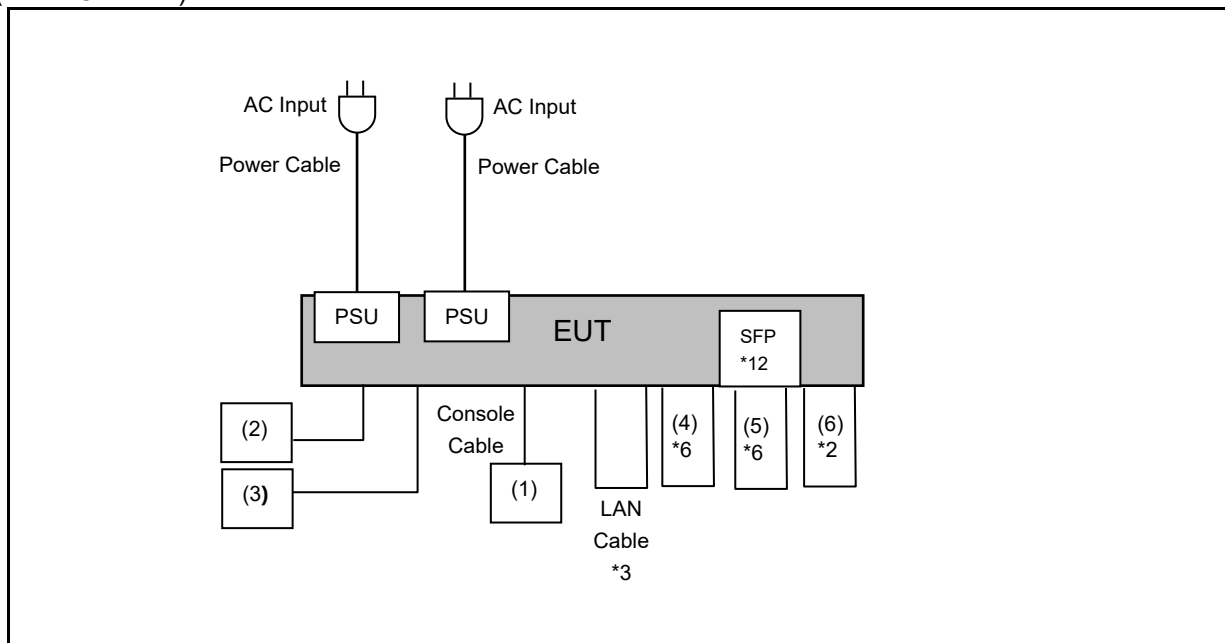
3.3. Configuration of Test System Details

Conducted Emission / Radiated Emission (Below 1 GHz)

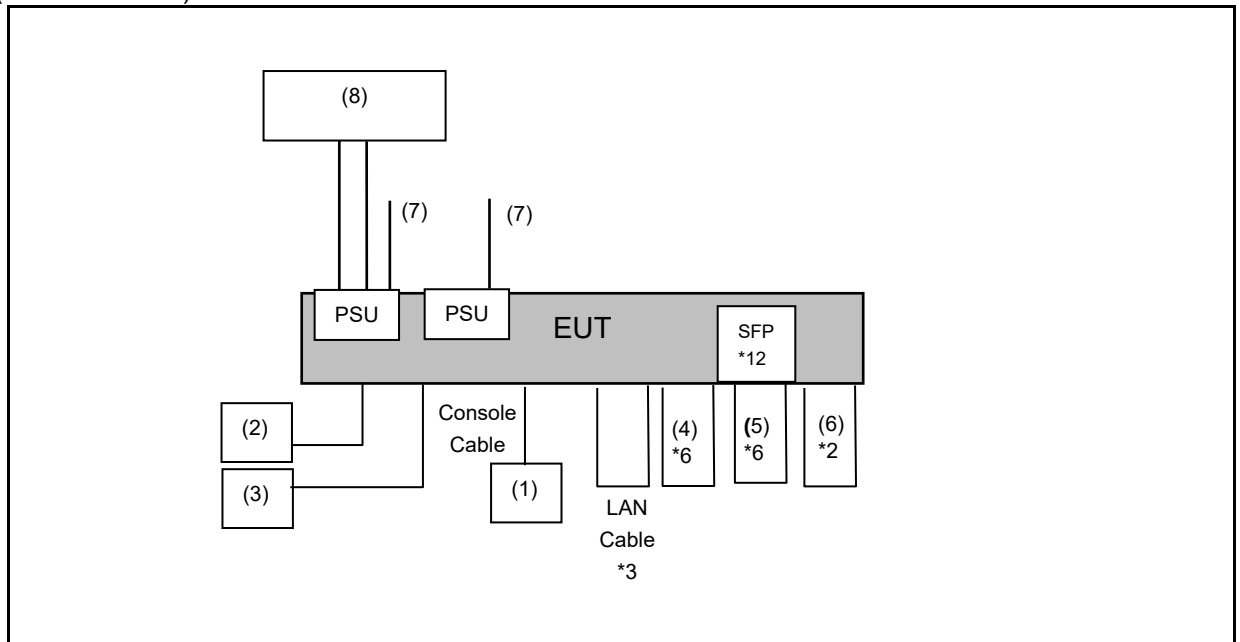
(One AC Power)



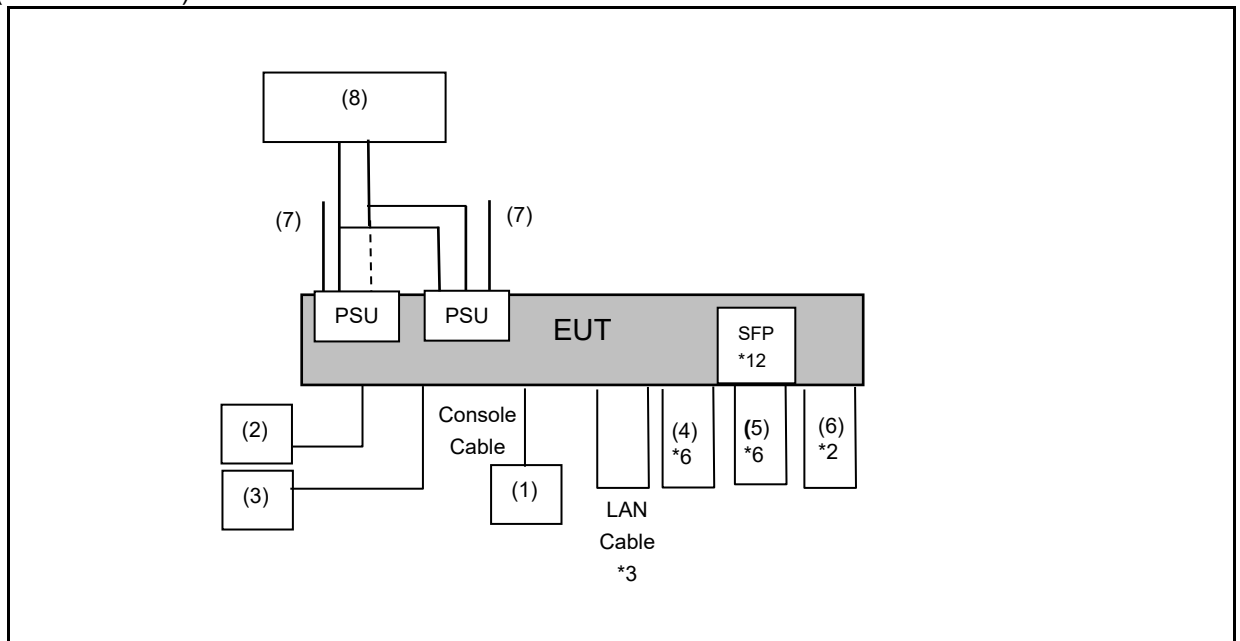
(Two AC Power)



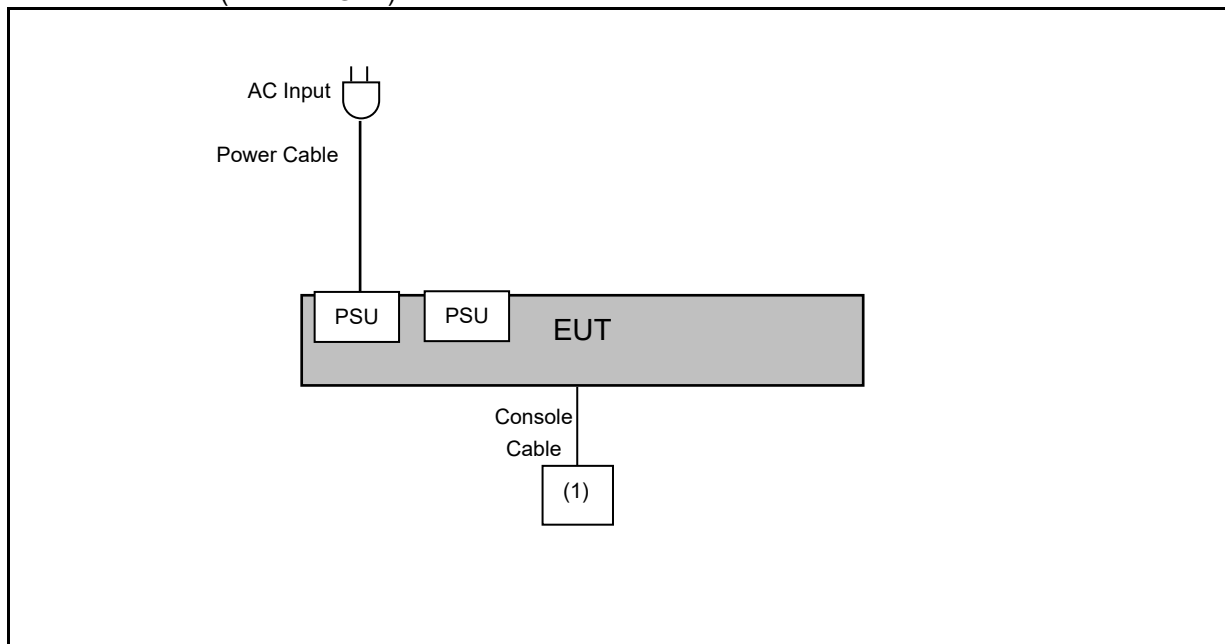
(One DC Power)



(Two DC Power)



Radiated Emission (Above 1 GHz)



Devices Description					
	Product	Manufacturer	Model Number	Serial Number	Power Cord
(1)	Notebook	Lenovo	L14	---	---
(2)	Keyboard	DELL	KB522	---	---
(3)	Keyboard	DELL	KB4021	---	---
(4)	LAN Cable	ENERGY FULL	R047169R	---	---
(5)	Fiber cable	Optech	LC/PC-LC/PC/M3/1M/2	---	---
(6)	AOC cable	Wavesplitter	WST-S28-AOC-0H3C	---	---
(7)	Terminal Cable	Eurofins	001	---	---
(8)	Power Supply	APE	ADC100-20	---	---

3.4. Test Instruments

For Conduction Emissions

Test Period: Sep. 22 ~ Dec. 15, 2022

Testing Engineer: Jason Yeh

Test Site		Conduction01-WG				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Test Receiver	R&S	ESR3	102919	Dec. 16, 2021	1 year
☒	LISN	R&S	ENV216	101041	Apr. 15, 2022	1 year
☒	ISN	R&S	ENY81-CA6	101948	Dec. 08, 2021 Dec. 01, 2022	1 year
☒	Current Probe	R&S	EZ-17	101687	Jun. 20, 2022	1 year
☒	Cable	EMCI	EMCCFD300-BM-NM-4000	220402	Jun. 09, 2022	1 year
☒	True RMS Multimeter	FLIKE	87V	15530240	Jun. 15, 2022	1 year
☒	Software	ELEKTRA	94.50.4	N.A.	N.C.R.	N.C.R.

For Conducted

Test Period: Sep. 22 ~ Sep. 27, 2022

Testing Engineer: Jeff Song

Test Site		RF01-WG				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Power Sensor	Anritsu	MA24408A	11998	Feb. 08, 2022	1 year
☒	Spectrum Analyzer (10 Hz~44 GHz)	Agilent	N9020B	MY53120541	Feb. 17, 2022	1 year

Note: N.C.R. = No Calibration Request.

For Radiated Emissions
Test Period: Sep. 22 ~ Dec. 22, 2022
Testing Engineer: Jason Yeh

Test Site		96602-WG				
Use	Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
☒	Active Loop Antenna (9 kHz~30 MHz)	Schwarzbeck Mess-Elektronik	FMZB 1513-60	1513-60-031	Feb. 17, 2022	1 year
☒	Trilog Broadband Antenna (30 kHz~1 GHz)	Schwarzbeck Mess-Elektronik	VULB9168	1276	Jan. 05, 2022	1 year
☒	Broadband Horn Antenna (1 GHz~18 GHz)	RF SPIN	DRH18-E	210305A18ES	Feb. 25, 2022	1 year
☒	Broadband Horn Antenna (15 GHz~40 GHz)	Schwarzbeck Mess-Elektronik	BBHA9170	1133	Feb. 24, 2022	1 year
☒	Spectrum Analyzer (10 Hz~44 GHz)	KEYSIGHT	N9020B	MY60112362	Feb. 17, 2022	1 year
☒	Pre-Amplifier	Agilent	8447D	2944A10961	Jul. 07, 2022	1 year
☒	Pre-Amplifier	EMCI	EMC0518A45SE	980823	Dec. 02, 2021 Nov. 29, 2022	1 year
☒	Pre-Amplifier	EMCI	EMC184045SE	980861	Dec. 27, 2022	1 year
☒	Coaxial Cable (10kHz~3000mHz)	EMCI	EMCCFD400-NM- NM-2000	211006	Dec. 09, 2021 Nov. 14, 2022	1 year
☒	Coaxial Cable (10kHz~3000mHz)	EMCI	EMCCFD400-NM- NM-2000	211007	Dec. 09, 2021 Nov. 14, 2022	1 year
☒	Coaxial Cable (10kHz~3000mHz)	EMCI	EMCCFD400-NM- NM-6000	211015	Dec. 09, 2021 Nov. 14, 2022	1 year
☒	Coaxial Cable (1GHz~18GHz)	EMCI	EMC104-SM-SM- 1000	211026	Dec. 09, 2021 Nov. 14, 2022	1 year
☒	Coaxial Cable (1GHz~18GHz)	EMCI	EMC104-SM-SM- 2000	211035	Dec. 09, 2021 Nov. 14, 2022	1 year
☒	Coaxial Cable (1GHz~18GHz)	EMCI	EMC104-SM-SM- 8000	211036	Dec. 09, 2021 Nov. 14, 2022	1 year
☒	Coaxial Cable (18GHz~40GHz)	EMCI	EMC101G-KM-KM -600	211211	Jan. 18, 2022	1 year
☒	Coaxial Cable (18GHz~40GHz)	EMCI	EMC101G-KM-KM -2000	211210	Jan. 18, 2022	1 year
☒	Coaxial Cable (18GHz~40GHz)	EMCI	EMC101G-KM-KM -6000	211209	Jan. 18, 2022	1 year
☒	Highpass Filter	Warison	WFIL-H3000-2000 0F	WR4BBFWC2B1	Dec. 09, 2021 Nov. 14, 2022	1 year
☒	True RMS Multimeter	FLIKE	87V	15530240	Jun. 15, 2022	1 year

Note: N.C.R. = No Calibration Request.

3.5. Test Site Environment

Items	Required (IEC 60068-1)	Actual
Temperature (°C)	15-35	20-30
Humidity (%RH)	25-75	45-75

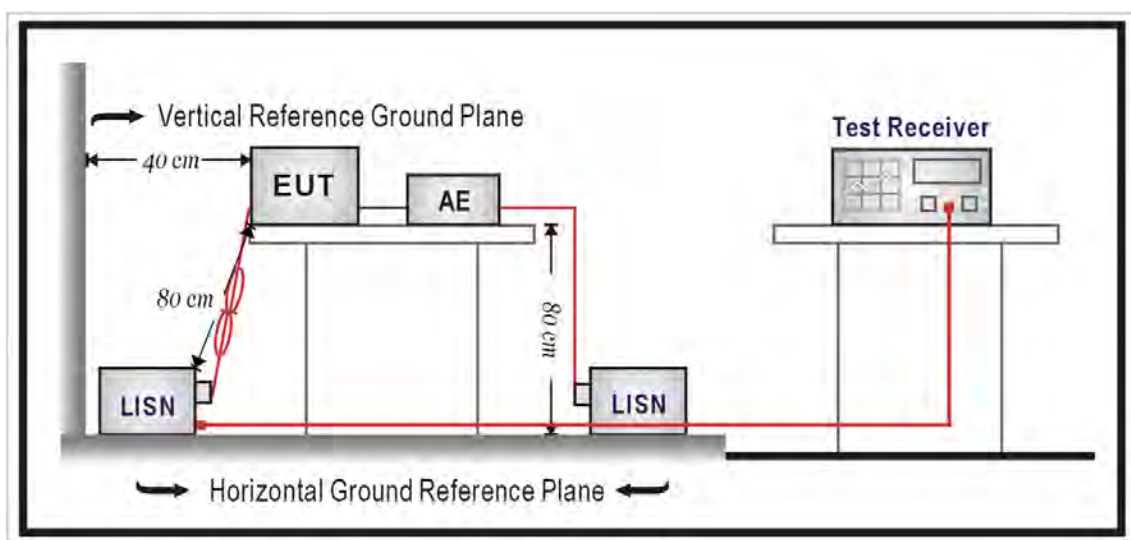
4 Measurement Procedure

4.1. AC Power Line Conducted Emission Measurement

■ Limit

Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

■ Test Setup



■ Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a $50\ \Omega // 50\ \mu\text{H}$ coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a $50\ \Omega // 50\ \mu\text{H}$ coupling impedance with 50 ohm termination.

Tabletop device shall be placed on a non-conducting platform, of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The wall of screened room shall be located 40 cm to the rear of the EUT. Other surfaces of tabletop or floor standing EUT shall be at least 80 cm from any other ground conducting surface including one or more LISNs. For floor-standing device shall be placed under the EUT with a 12 mm insulating material.

Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a resolution bandwidth of 9 kHz. The equipment under test (EUT) shall be meet the limits in section 4.1, as applicable, including the average limit and the quasi-peak limit when using respectively, an average detector and quasi-peak detector measured in accordance with the methods described of related standard. When all of peak value were complied with quasi-peak and average limit from 150 kHz to 30 MHz then quasi-peak and average measurement was unnecessary.

The AMN shall be placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for AMNs mounted on top of the ground reference plane. This distance is between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8 m from the AMN. If the mains power cable is longer than 1 m then the cable shall be folded back and forth at the centre of the lead to form a bundle no longer than 0.4 m. All of interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long. All of EUT and AE shall be separate place more than 0.1 m. All 50 Ω ports of the LISN shall be resistively terminated into 50 Ω loads when not connected to the measuring instrument.

If the reading of the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the higher reading shall be recorded with the exception of any brief isolated high reading which shall be ignored.

4.2. Radiated Emission Measurement

■ Limit

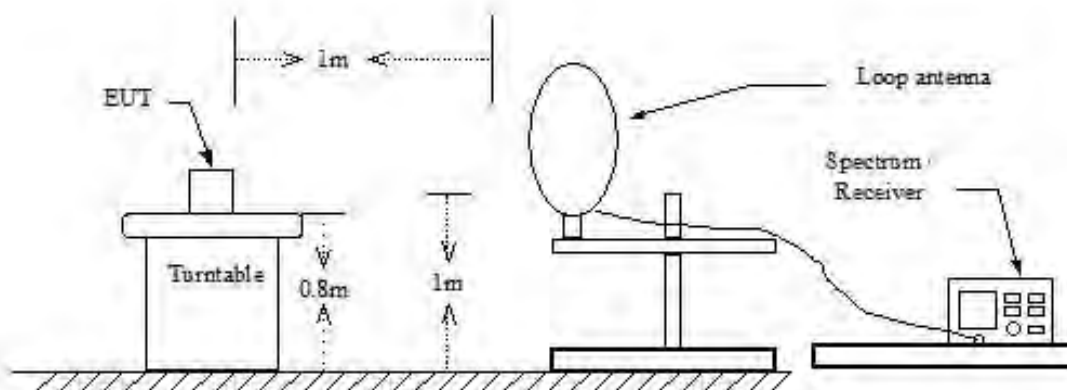
According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ at 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

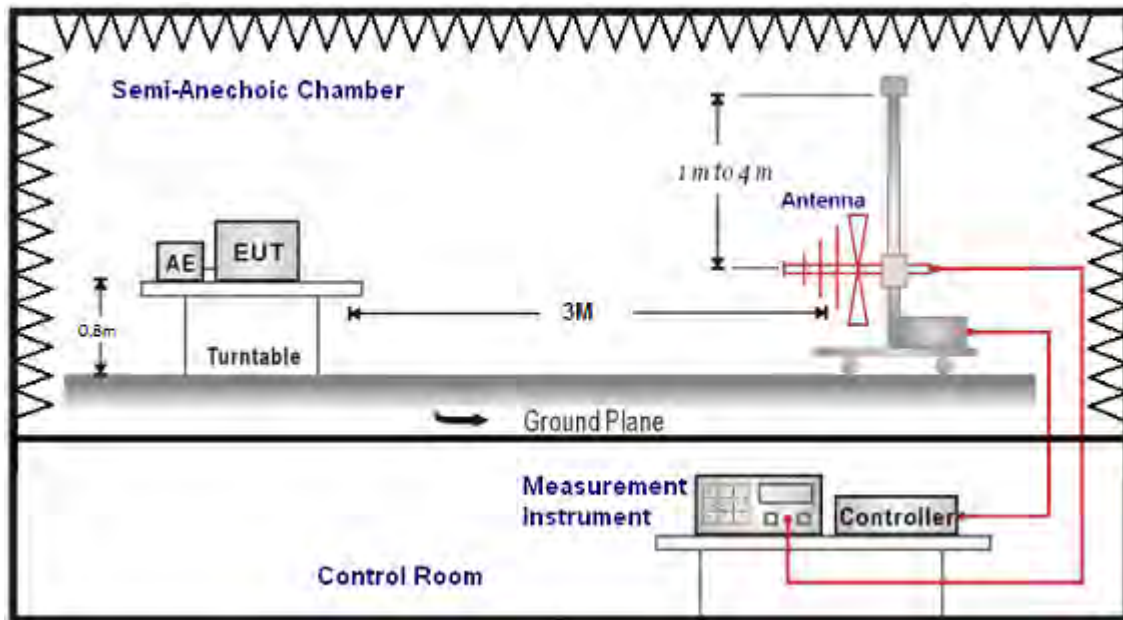
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

■ Setup

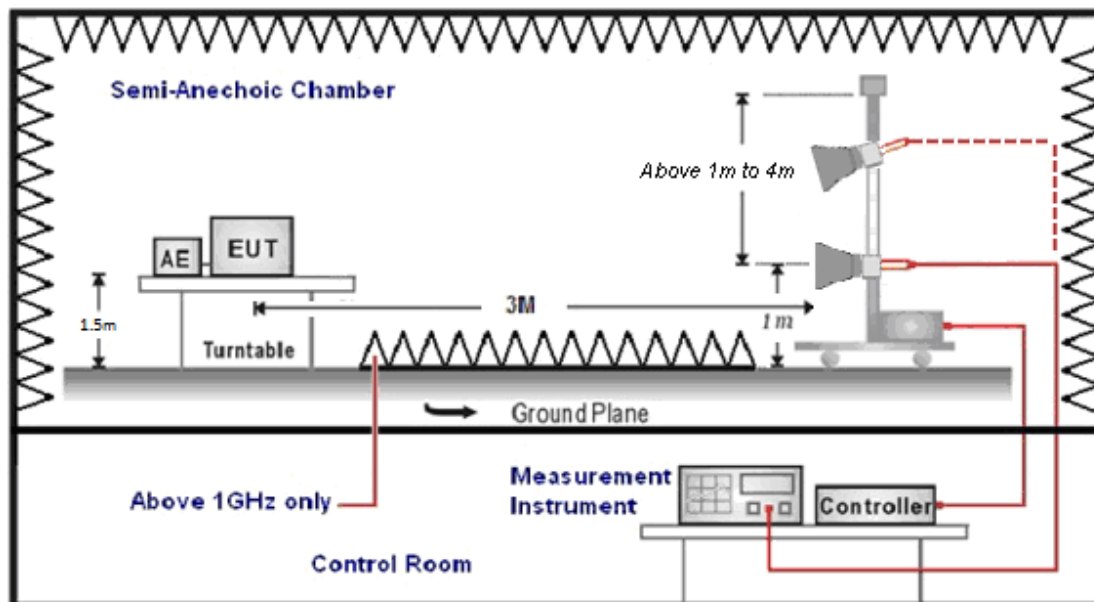
9 kHz ~ 30 MHz



Below 1 GHz



Above 1 GHz



■ Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 or 1.5 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 9 kHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 3 MHz for peak measurements and 10 Hz for average measurements when Duty cycle >0.98 / $1/T$ for average measurements when Duty cycle <0.98 . A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna was used in frequencies 1 –26.5 GHz at a distance of 3 meter. The antenna at an angle toward the source of the emission. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20 dB/decade).

For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field is intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{ Amplitude (dBuV/m) = FI (dBuV) + AF (dBuV) + CL (dBuV) - Gain (dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{ Actual Amplitude (dBuV/m) = Amplitude (dBuV) - Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency : Transmitter Output < +30 dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

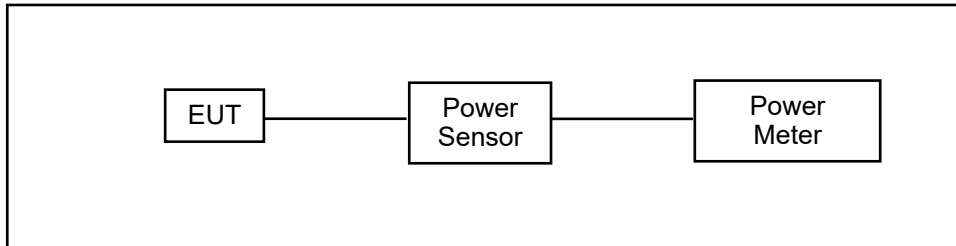
Data of measurement within this frequency range without mark in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.

4.3. Maximum Conducted Output Power Measurement

■ Limit

For systems using digital modulation in the 2400-2483.5 MHz, the limit for peak output power is 30 dBm.

■ Test Setup



■ Test Procedure

The testing follows the Measurement Procedure of ANSI C63.10:2013 section 11.9.2.3.2 Method AVGPM.

The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor..

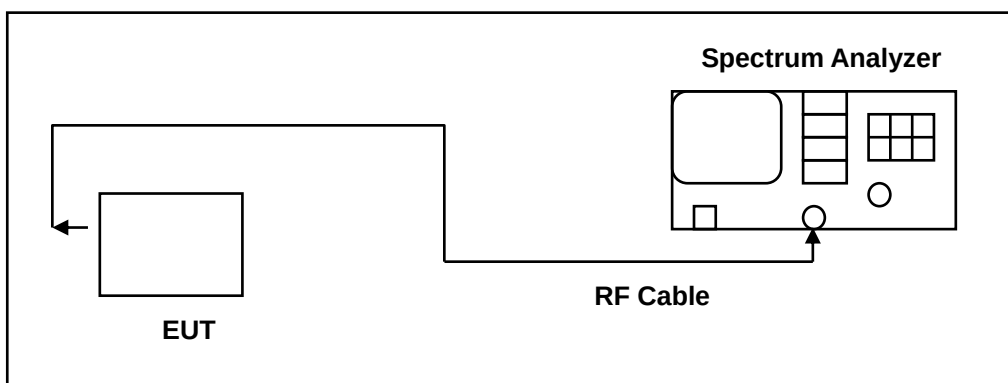
4.4. 6 dB RF Bandwidth Measurement

■ Limit

6 dB RF Bandwidth: Systems using digital modulation techniques may operate in the 2400–2483.5 MHz bands. The minimum 6 dB band-width shall be at least 500 kHz.

99 % Occupied Bandwidth: N/A

■ Test Setup



■ Test Procedure

The EUT tested to DTS test procedure of ANSI C63.10:2013 section 11.8.2 option2 for compliance to FCC 47CFR 15.247 requirements.

6 dB RF Bandwidth: The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A peak output reading was taken, a DISPLAY line was drawn 6 dB lower than peak level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.

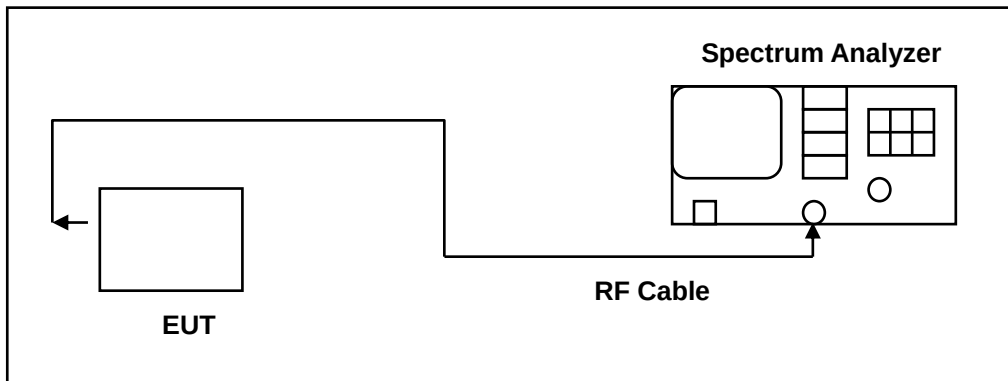
The test was performed at 3 channels (Channel low, middle, high)

4.5. Maximum Power Density Measurement

■ Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

■ Test Setup



■ Test Procedure

The EUT tested to DTS test procedure of ANSI C63.10:2013 section 11.10.2 Method PKPSD.

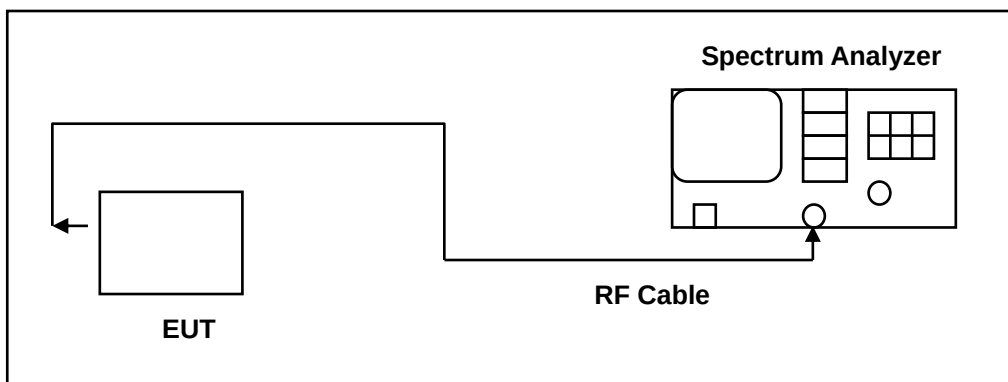
1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

4.6. Out of Band Conducted Emissions Measurement

■ Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

■ Test Setup



■ Test Procedure

In any 100 kHz bandwidth outside the EUT pass band, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission, antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the pass band. The test was performed at 3 channels.

4.7. Antenna Measurement

■ Limit

For intentional device, according to 15.203, 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.

And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ Antenna Connector Construction

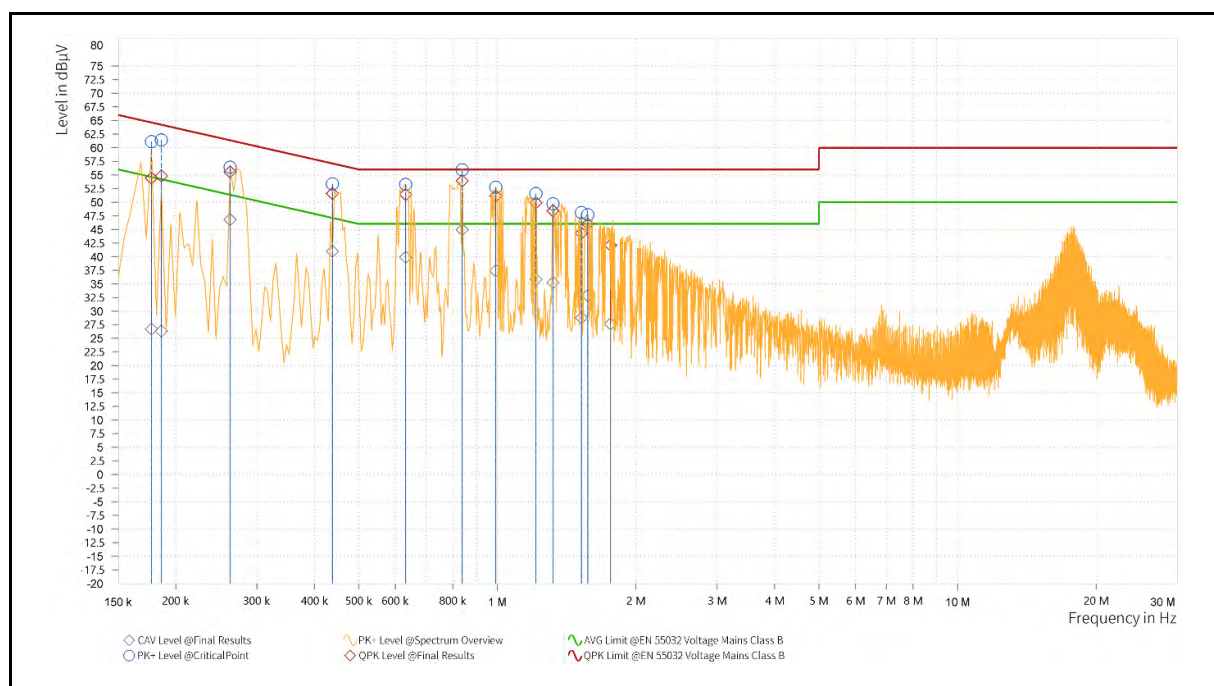
See section 2 – antenna information.

5 Test Results

5.1. Conducted Emission

FG-1501G

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One AC Power(Delta PSU)		

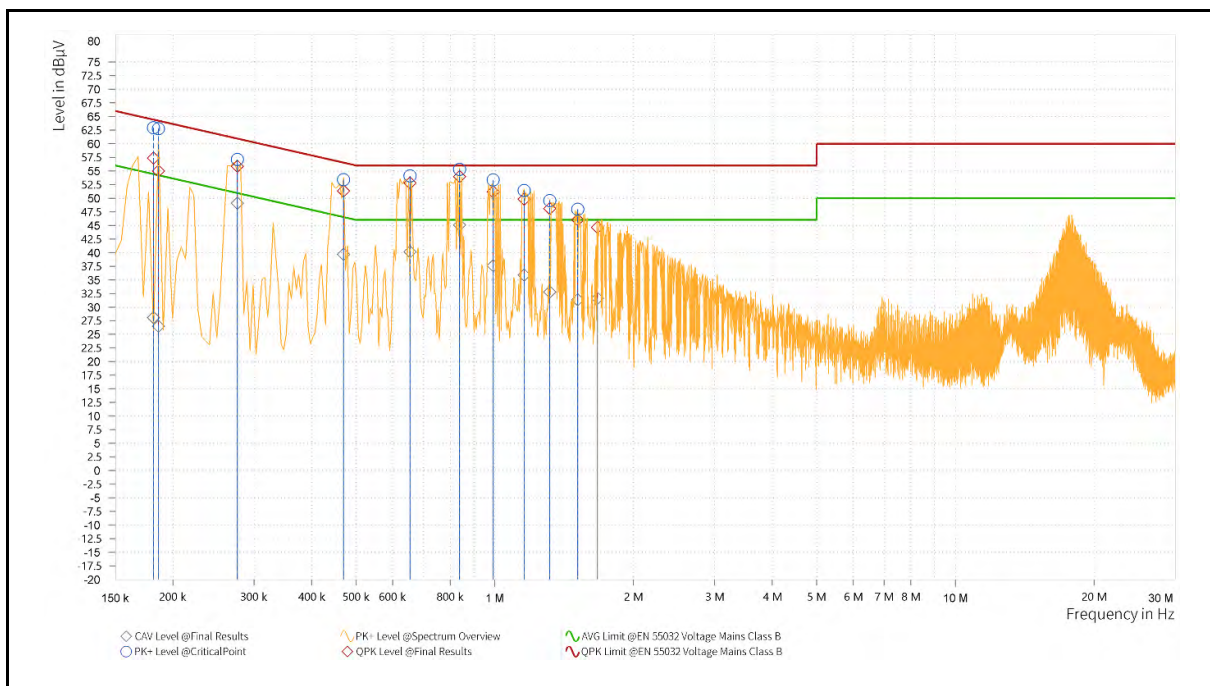


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.177	54.44	64.63	10.18	26.72	54.63	27.90	9.65	L1
1	0.186	54.82	64.21	9.39	26.36	54.21	27.85	9.65	L1
1	0.263	55.54	61.35	5.81	46.81	51.35	4.54	9.65	L1
1	0.438	51.58	57.10	5.52	40.98	47.10	6.12	9.66	L1
1	0.632	51.40	56.00	4.60	39.92	46.00	6.08	9.67	L1
1	0.839	53.90	56.00	2.10	44.94	46.00	1.06	9.67	L1
1	0.992	51.17	56.00	4.83	37.38	46.00	8.62	9.68	L1
1	1.212	49.90	56.00	6.10	35.83	46.00	10.17	9.69	L1
1	1.320	48.44	56.00	7.56	35.24	46.00	10.76	9.70	L1
1	1.523	44.31	56.00	11.69	28.79	46.00	17.21	9.70	L1
1	1.572	46.00	56.00	10.00	32.85	46.00	13.15	9.71	L1
1	1.761	42.09	56.00	13.91	27.65	46.00	18.35	9.71	L1

Note: 1. Result (dBμV) = Correction factor (dB) + Reading (dBμV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One AC Power(Delta PSU)		

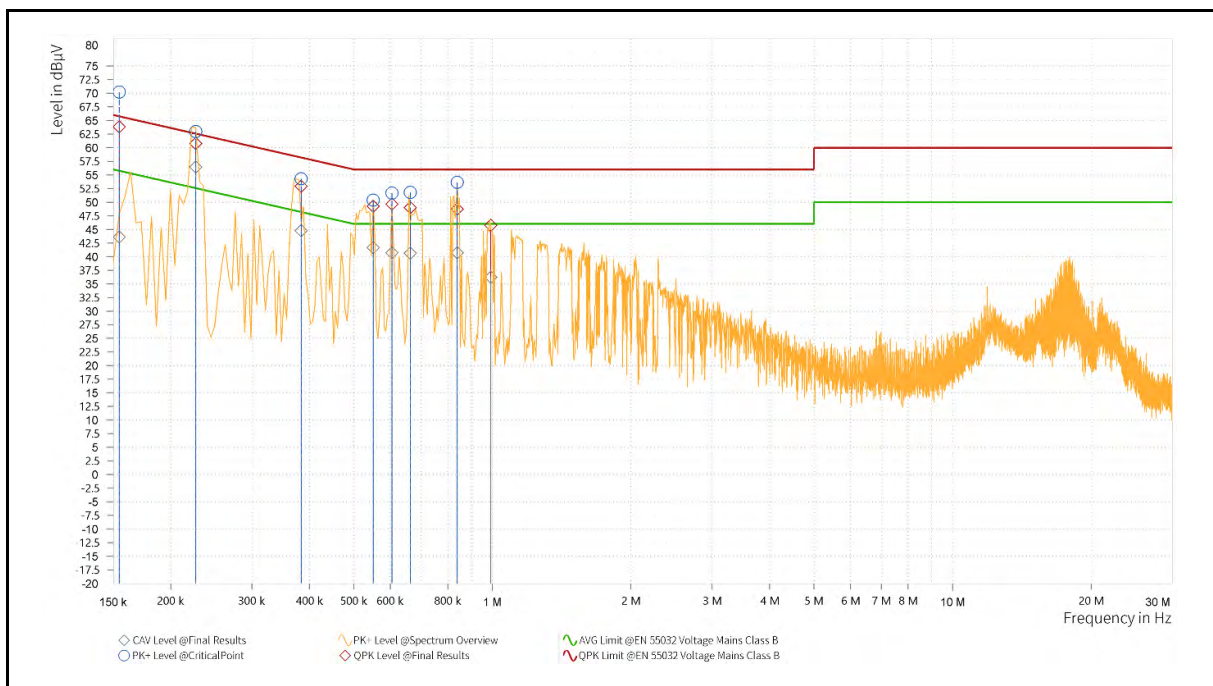


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.182	57.38	64.42	7.04	28.08	54.42	26.33	9.65	N
1	0.186	54.99	64.21	9.23	26.50	54.21	27.72	9.65	N
1	0.276	55.83	60.94	5.10	49.09	50.94	1.84	9.65	N
1	0.470	51.33	56.52	5.19	39.69	46.52	6.83	9.66	N
1	0.654	52.80	56.00	3.20	40.16	46.00	5.84	9.66	N
1	0.839	53.95	56.00	2.05	45.08	46.00	0.92	9.67	N
1	0.992	51.15	56.00	4.85	37.60	46.00	8.40	9.67	N
1	1.158	49.83	56.00	6.17	35.89	46.00	10.11	9.68	N
1	1.316	48.07	56.00	7.93	32.79	46.00	13.21	9.69	N
1	1.514	46.02	56.00	9.98	31.37	46.00	14.63	9.69	N
1	1.671	44.65	56.00	11.35	31.62	46.00	14.38	9.70	N

Note: 1.Result (dBμV) = Correction factor (dB) + Reading(dBμV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two AC Power(Delta PSU)		



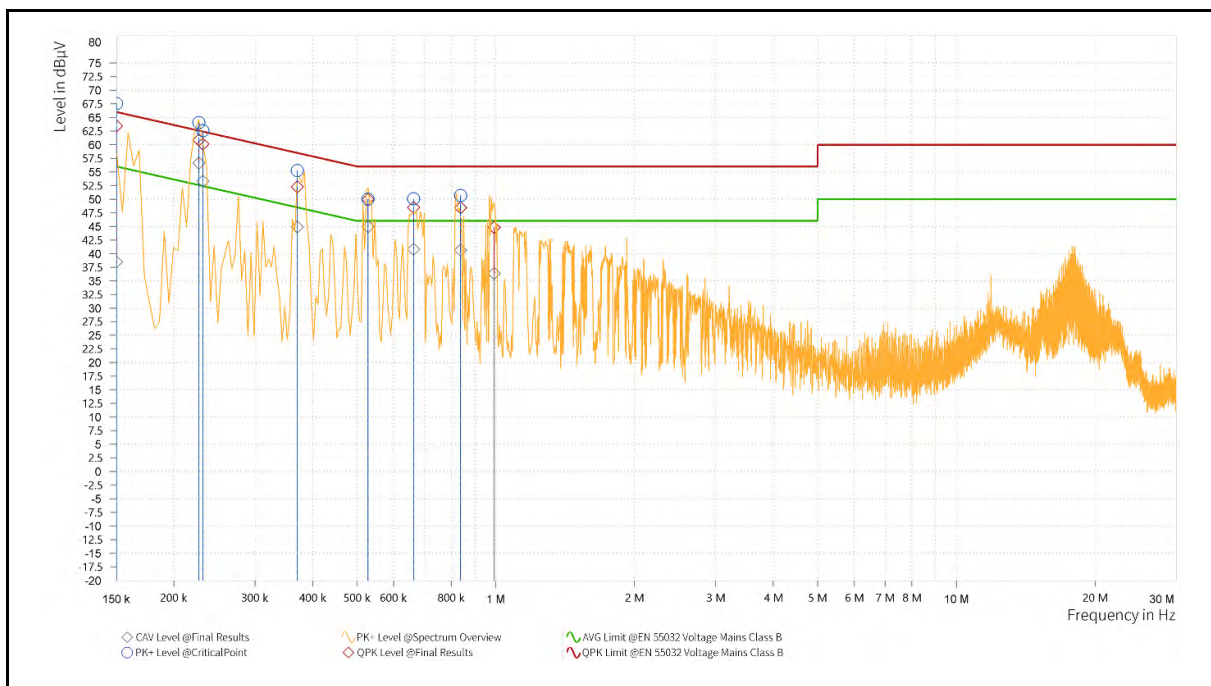
Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	63.85	65.75	1.90	43.63	55.75	12.13	9.65	L1
1	0.227	60.78	62.58	1.79	56.48	52.58	-3.90	9.65	L1
1	0.384	52.94	58.19	5.25	44.78	48.19	3.41	9.66	L1
1	0.551	49.23	56.00	6.77	41.64	46.00	4.36	9.66	L1
1	0.605	49.63	56.00	6.37	40.70	46.00	5.30	9.67	L1
1	0.663	49.00	56.00	7.00	40.65	46.00	5.35	9.67	L1
1	0.839	48.75	56.00	7.25	40.73	46.00	5.27	9.67	L1
1	0.992	45.76	56.00	10.24	36.25	46.00	9.75	9.68	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

3.Via turn off the radio function, this digital device emission is from the non transmitter portion of the EUT and it is an harmonic of the digital circuitry. This emission complies with part 15 Subpart B class A limit.

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two AC Power(Delta PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.150	63.43	66.00	2.57	38.49	56.00	17.51	9.65	N
1	0.227	60.83	62.58	1.74	56.63	52.58	-4.05	9.65	N
1	0.231	60.13	62.41	2.28	53.33	52.41	-0.91	9.65	N
1	0.371	52.28	58.49	6.21	44.88	48.49	3.61	9.66	N
1	0.528	49.94	56.00	6.06	44.94	46.00	1.06	9.66	N
1	0.663	48.48	56.00	7.52	40.81	46.00	5.19	9.66	N
1	0.839	48.44	56.00	7.56	40.65	46.00	5.35	9.67	N
1	0.992	44.82	56.00	11.18	36.34	46.00	9.66	9.67	N

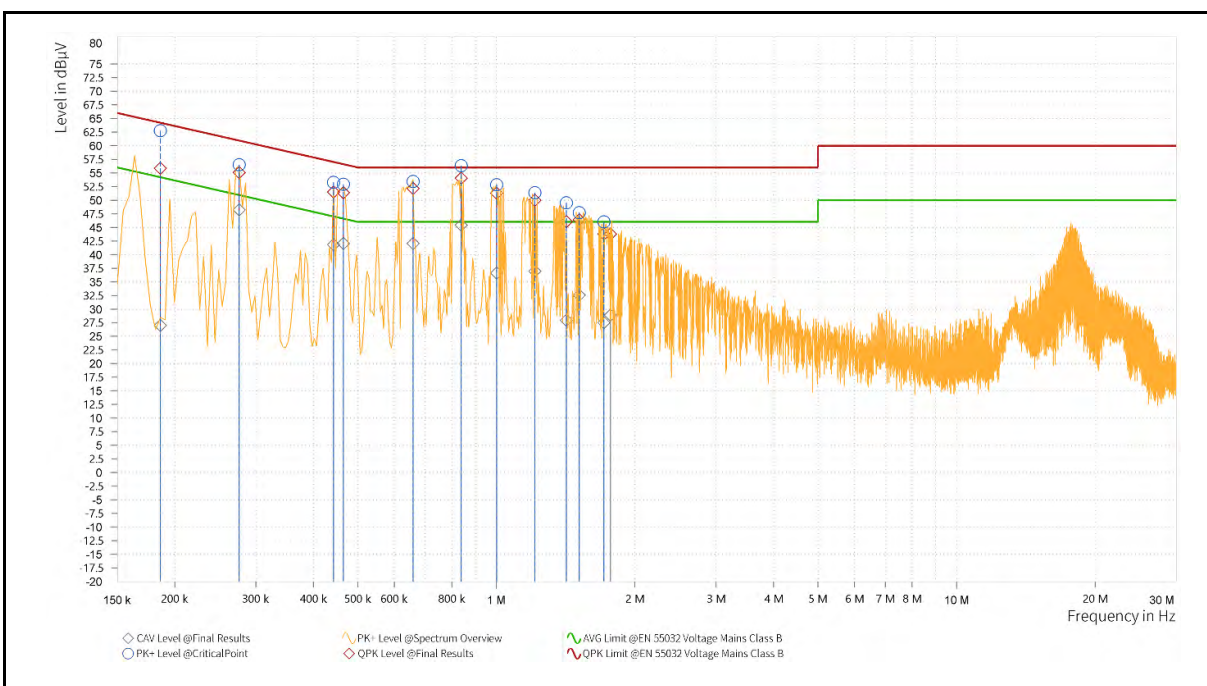
Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

3.Via turn off the radio function, this digital device emission is from the non transmitter portion of the EUT and it is an harmonic of the digital circuitry. This emission complies with part 15 Subpart B class A limit.

FG-1500G

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	One AC Power(Delta PSU)		

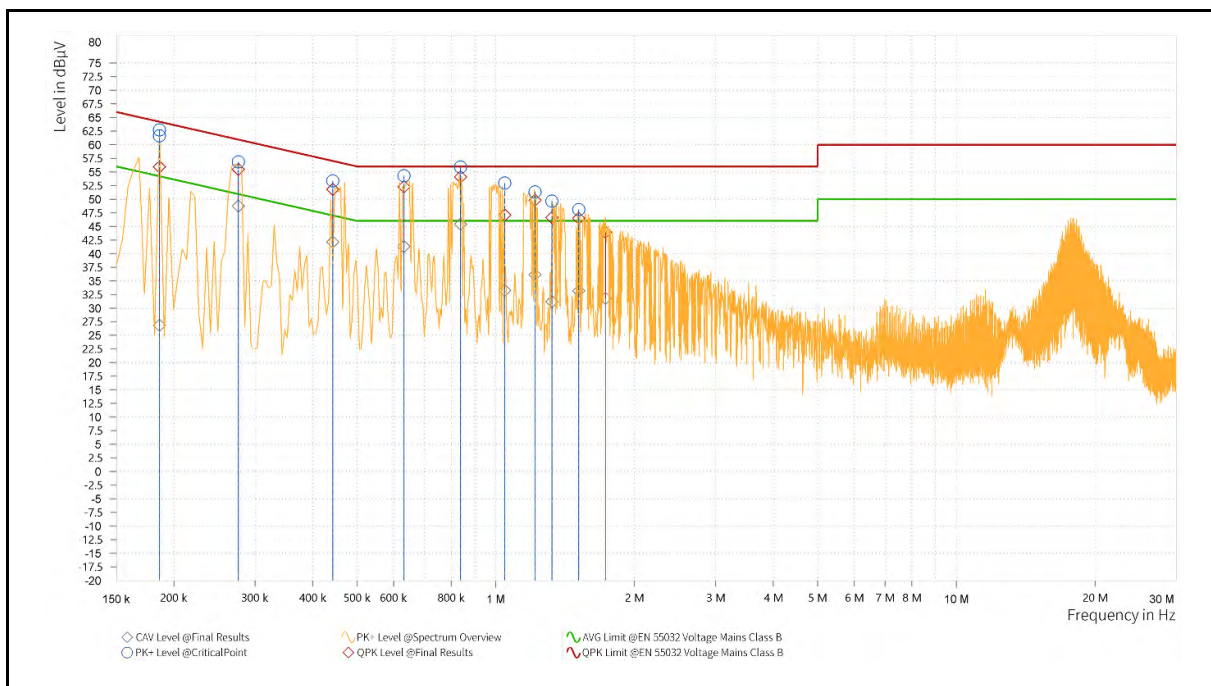


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.186	55.83	64.21	8.38	26.99	54.21	27.23	9.65	L1
1	0.276	55.09	60.94	5.85	48.24	50.94	2.70	9.65	L1
1	0.443	51.50	57.01	5.51	41.86	47.01	5.16	9.66	L1
1	0.465	51.35	56.60	5.26	42.06	46.60	4.54	9.66	L1
1	0.659	52.12	56.00	3.88	42.07	46.00	3.93	9.67	L1
1	0.839	54.03	56.00	1.97	45.43	46.00	0.57	9.67	L1
1	1.001	51.29	56.00	4.71	36.64	46.00	9.36	9.68	L1
1	1.212	49.98	56.00	6.02	36.97	46.00	9.03	9.69	L1
1	1.419	46.08	56.00	9.92	27.97	46.00	18.03	9.70	L1
1	1.514	46.41	56.00	9.59	32.55	46.00	13.45	9.70	L1
1	1.712	43.81	56.00	12.19	27.54	46.00	18.46	9.71	L1
1	1.770	43.78	56.00	12.22	28.88	46.00	17.12	9.71	L1

Note: 1. Result (dBμV) = Correction factor (dB) + Reading (dBμV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	One AC Power(Delta PSU)		

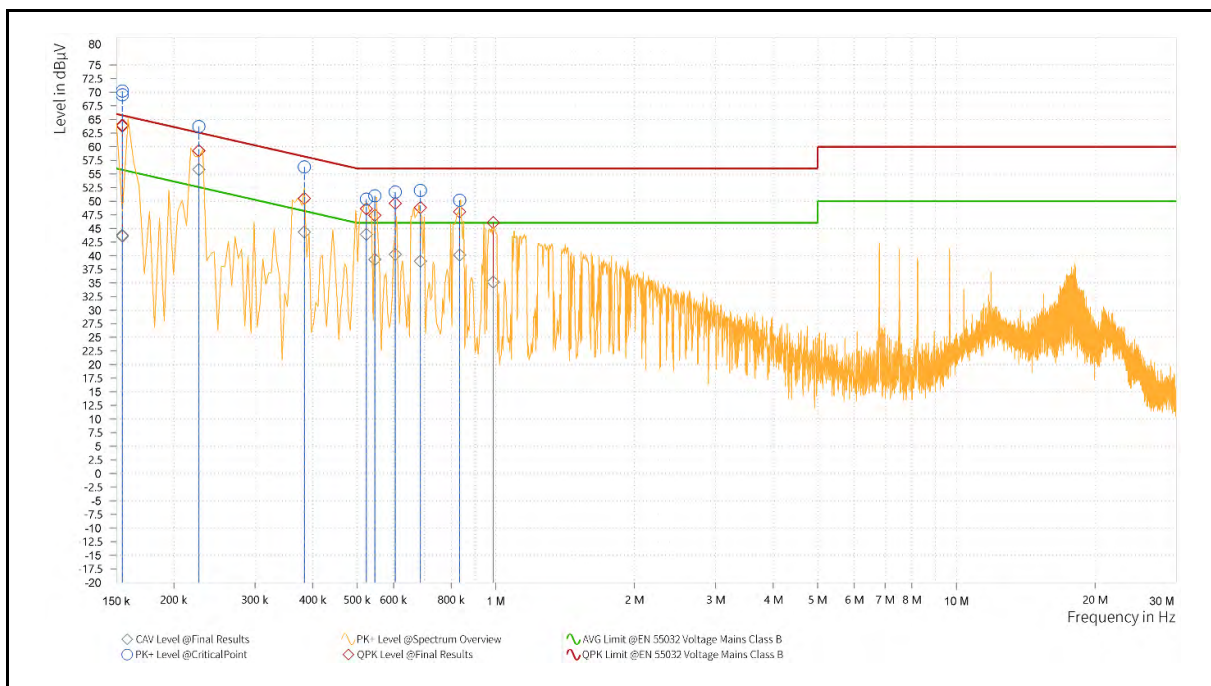


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.186	55.93	64.21	8.28	26.84	54.21	27.37	9.65	N
1	0.186	55.95	64.21	8.26	26.81	54.21	27.40	9.65	N
1	0.276	55.48	60.94	5.46	48.75	50.94	2.19	9.65	N
1	0.443	51.78	57.01	5.23	42.15	47.01	4.86	9.66	N
1	0.632	52.28	56.00	3.72	41.30	46.00	4.70	9.66	N
1	0.839	54.09	56.00	1.91	45.41	46.00	0.59	9.67	N
1	1.046	47.09	56.00	8.91	33.25	46.00	12.75	9.67	N
1	1.217	49.83	56.00	6.17	36.17	46.00	9.83	9.68	N
1	1.325	46.63	56.00	9.37	31.18	46.00	14.82	9.69	N
1	1.514	46.48	56.00	9.52	33.18	46.00	12.82	9.69	N
1	1.730	43.93	56.00	12.07	31.80	46.00	14.20	9.70	N

Note: 1. Result (dBμV) = Correction factor (dB) + Reading (dBμV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	Two AC Power(Delta PSU)		



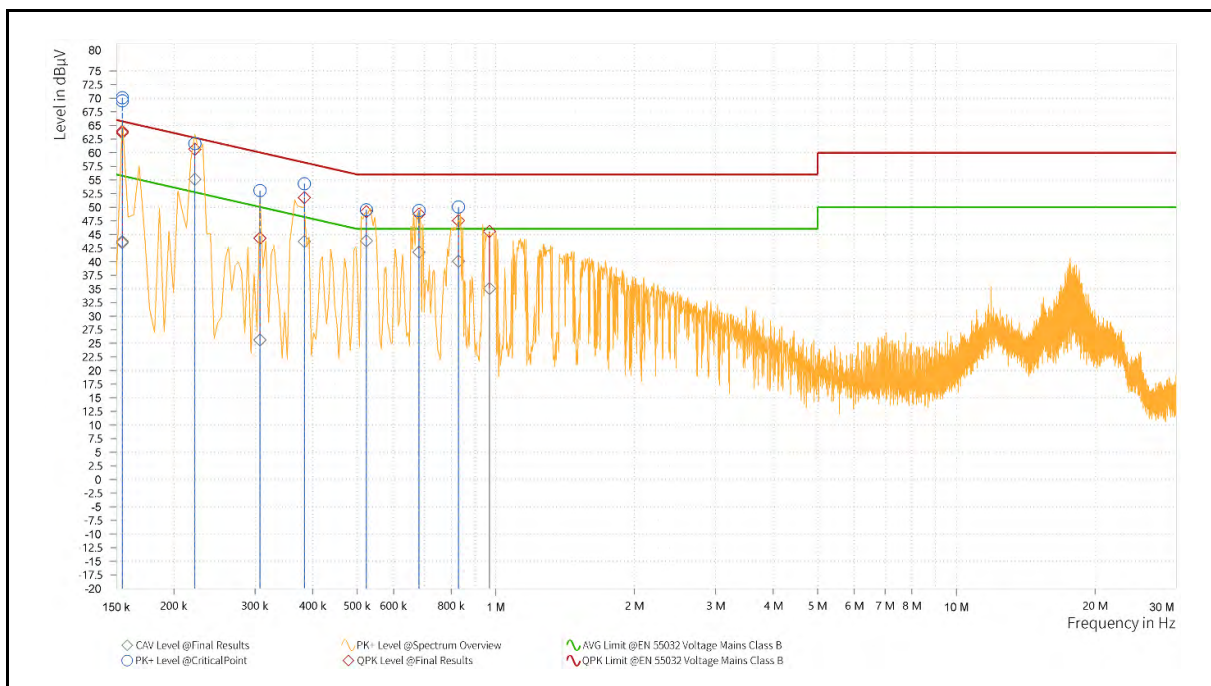
Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	63.78	65.75	1.98	43.58	55.75	12.17	9.65	L1
1	0.155	63.95	65.75	1.80	43.74	55.75	12.02	9.65	L1
1	0.227	59.24	62.58	3.34	55.81	52.58	-3.23	9.65	L1
1	0.384	50.48	58.19	7.71	44.35	48.19	3.84	9.66	L1
1	0.524	48.60	56.00	7.40	43.93	46.00	2.07	9.66	L1
1	0.546	47.41	56.00	8.59	39.28	46.00	6.72	9.66	L1
1	0.605	49.59	56.00	6.41	40.24	46.00	5.76	9.67	L1
1	0.686	48.84	56.00	7.16	38.99	46.00	7.01	9.67	L1
1	0.834	48.04	56.00	7.96	40.10	46.00	5.90	9.67	L1
1	0.987	46.05	56.00	9.95	35.14	46.00	10.86	9.68	L1

Note: 1. Result (dBuV) = Correction factor (dB) + Reading (dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

3. Via turn off the radio function, this digital device emission is from the non transmitter portion of the EUT and it is an harmonic of the digital circuitry. This emission complies with part 15 Subpart B class A limit.

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	Two AC Power(Delta PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	63.66	65.75	2.09	43.47	55.75	12.29	9.65	N
1	0.155	63.92	65.75	1.83	43.69	55.75	12.06	9.65	N
1	0.222	60.65	62.74	2.10	55.12	52.74	-2.38	9.65	N
1	0.308	44.30	60.04	15.74	25.63	50.04	24.41	9.65	N
1	0.384	51.74	58.19	6.45	43.68	48.19	4.51	9.66	N
1	0.524	49.18	56.00	6.82	43.82	46.00	2.18	9.66	N
1	0.681	48.75	56.00	7.25	41.73	46.00	4.27	9.66	N
1	0.830	47.51	56.00	8.49	40.07	46.00	5.93	9.67	N
1	0.969	45.55	56.00	10.45	35.07	46.00	10.93	9.67	N

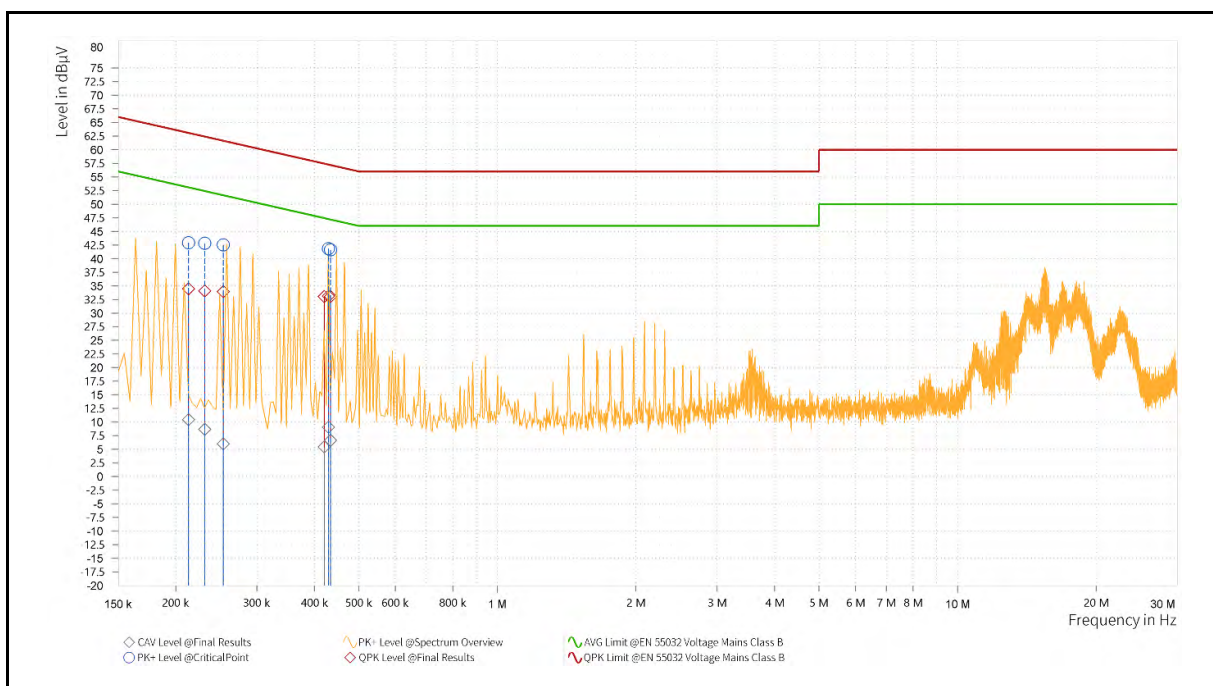
Note: 1. Result (dBμV) = Correction factor (dB) + Reading (dBμV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

3. Via turn off the radio function, this digital device emission is from the non transmitter portion of the EUT and it is an harmonic of the digital circuitry. This emission complies with part 15 Subpart B class A limit.

FG-1501G-DC

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Delta PSU)		

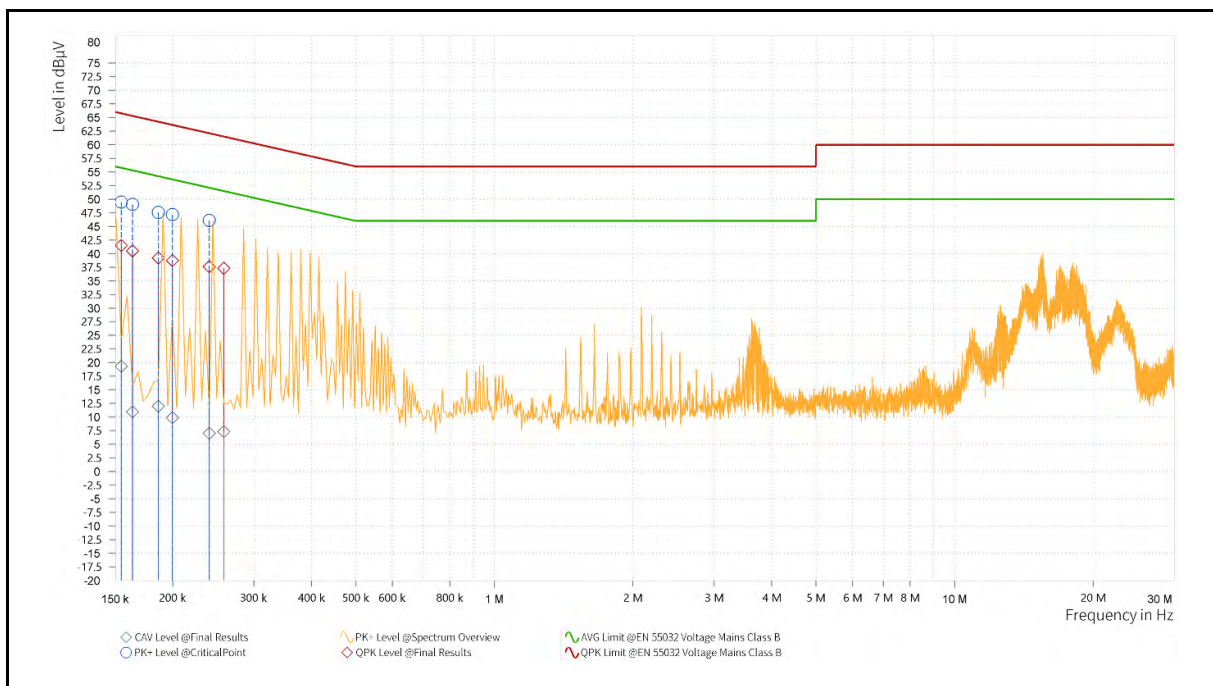


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.213	34.46	63.09	28.63	10.45	53.09	42.63	9.65	L1
1	0.231	34.07	62.41	28.34	8.67	52.41	43.75	9.65	L1
1	0.254	33.93	61.64	27.71	6.01	51.64	45.63	9.65	L1
1	0.420	33.02	57.45	24.42	5.42	47.45	42.03	9.66	L1
1	0.429	33.15	57.27	24.13	9.07	47.27	38.20	9.66	L1
1	0.434	33.05	57.19	24.13	6.67	47.19	40.52	9.66	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Delta PSU)		

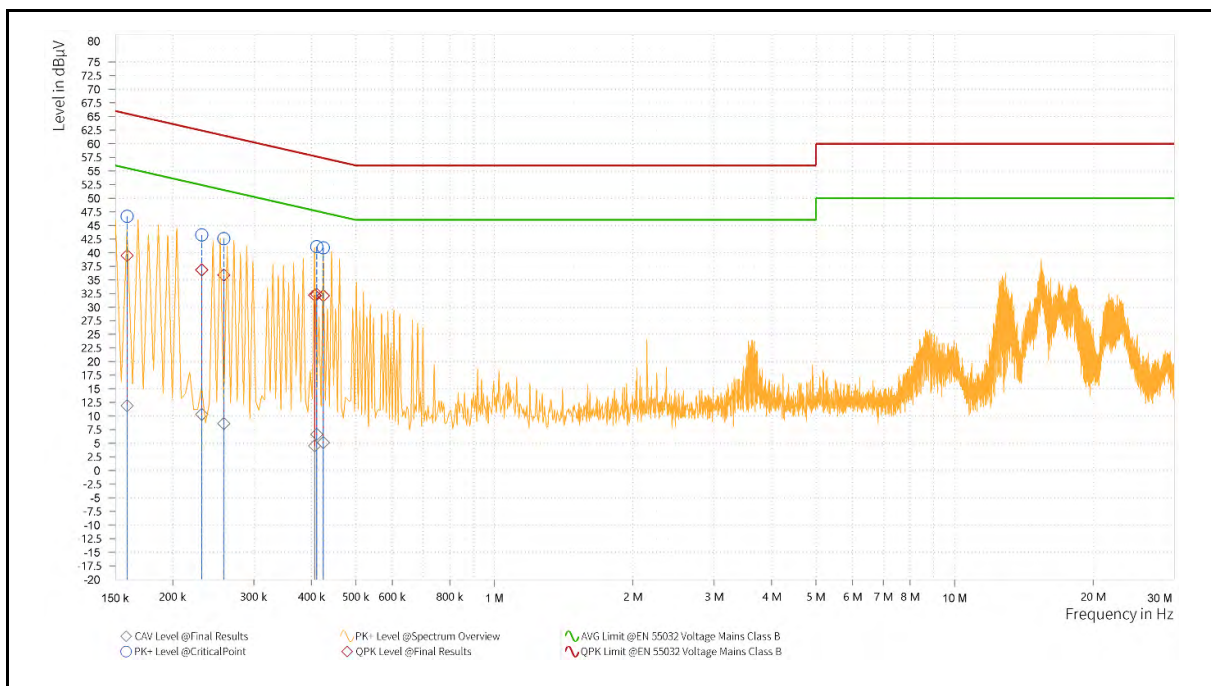


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	41.51	65.75	24.24	19.31	55.75	36.45	9.65	N
1	0.164	40.49	65.28	24.79	10.95	55.28	44.33	9.65	N
1	0.186	39.20	64.21	25.01	12.01	54.21	42.20	9.65	N
1	0.200	38.74	63.63	24.90	9.89	53.63	43.74	9.65	N
1	0.240	37.59	62.10	24.50	7.06	52.10	45.04	9.65	N
1	0.258	37.32	61.50	24.18	7.35	51.50	44.15	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Delta PSU)		

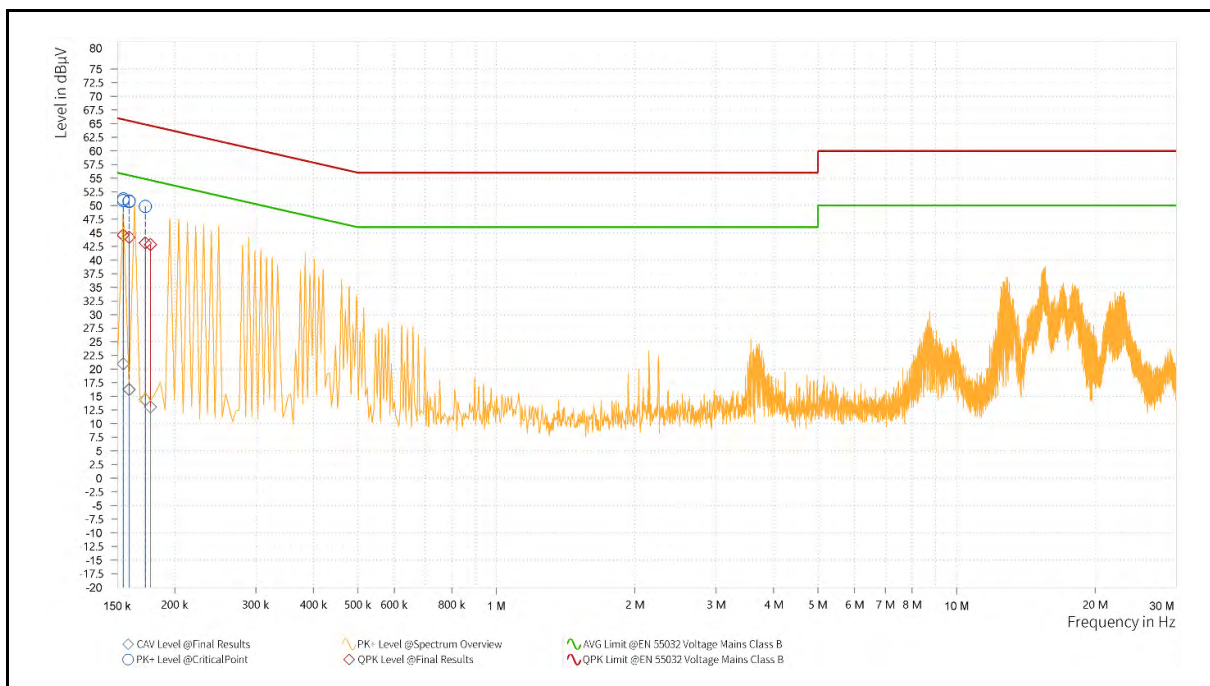


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.159	39.48	65.52	26.04	11.91	55.52	43.60	9.65	L1
1	0.231	36.84	62.41	25.57	10.31	52.41	42.11	9.65	L1
1	0.258	35.91	61.50	25.59	8.63	51.50	42.87	9.65	L1
1	0.407	32.22	57.72	25.50	4.53	47.72	43.19	9.66	L1
1	0.411	32.35	57.63	25.28	6.64	47.63	40.99	9.66	L1
1	0.425	32.10	57.36	25.26	5.15	47.36	42.21	9.66	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Delta PSU)		

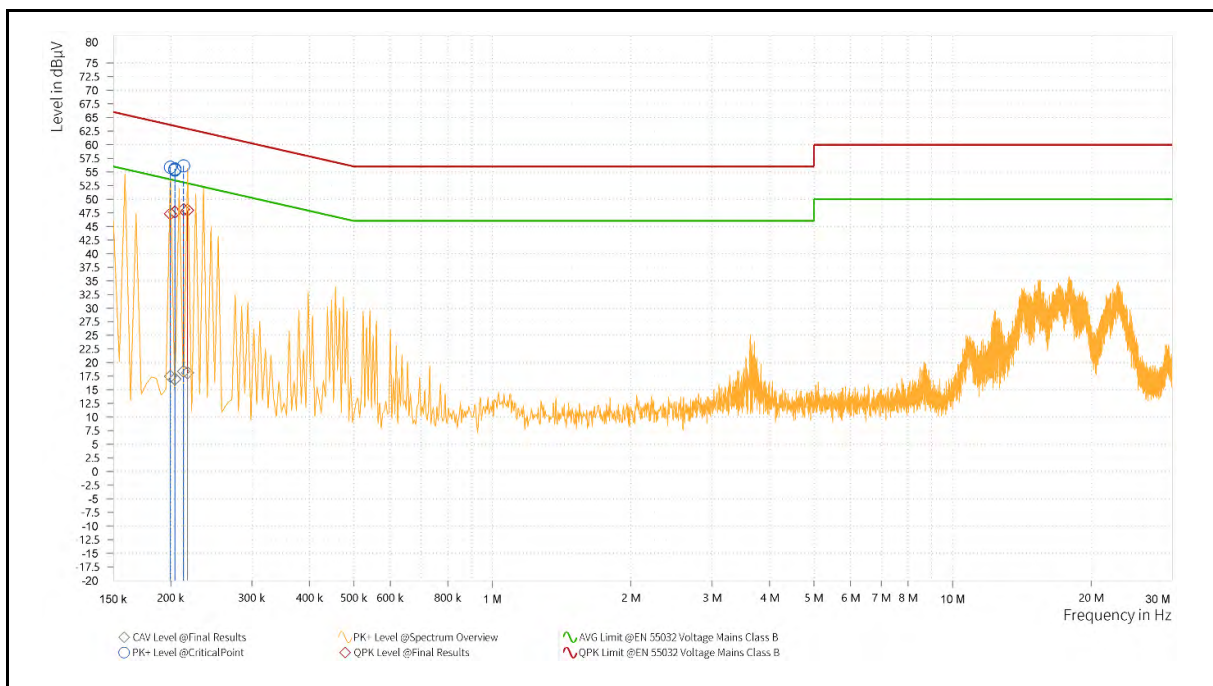


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	44.61	65.75	21.14	20.98	55.75	34.77	9.65	N
1	0.155	44.57	65.75	21.18	20.95	55.75	34.81	9.65	N
1	0.159	44.15	65.52	21.37	16.31	55.52	39.20	9.65	N
1	0.159	44.17	65.52	21.35	16.23	55.52	39.29	9.65	N
1	0.173	43.14	64.84	21.70	14.40	54.84	40.44	9.65	N
1	0.177	42.83	64.63	21.80	13.07	54.63	41.56	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Murata PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.200	47.30	63.63	16.33	17.47	53.63	36.16	9.65	L1
1	0.204	47.62	63.45	15.83	16.99	53.45	36.45	9.65	L1
1	0.204	47.67	63.45	15.78	16.98	53.45	36.47	9.65	L1
1	0.204	47.62	63.45	15.83	16.95	53.45	36.49	9.65	L1
1	0.213	48.08	63.09	15.00	18.40	53.09	34.69	9.65	L1
1	0.218	47.96	62.91	14.95	18.12	52.91	34.80	9.65	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Murata PSU)		

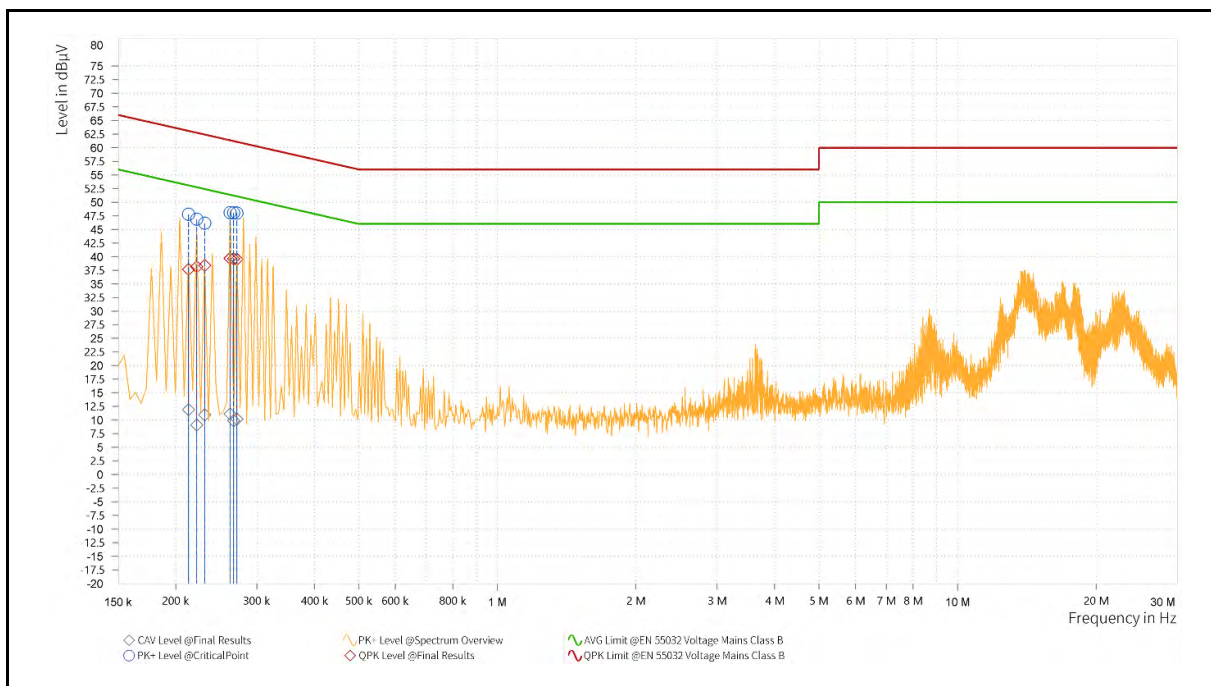


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	48.16	65.75	17.60	22.48	55.75	33.27	9.65	N
1	0.155	48.20	65.75	17.55	22.51	55.75	33.25	9.65	N
1	0.204	47.98	63.45	15.46	17.33	53.45	36.12	9.65	N
1	0.204	47.98	63.45	15.47	17.33	53.45	36.12	9.65	N
1	0.204	48.01	63.45	15.44	17.34	53.45	36.11	9.65	N
1	0.209	48.12	63.26	15.15	17.49	53.26	35.78	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Murata PSU)		

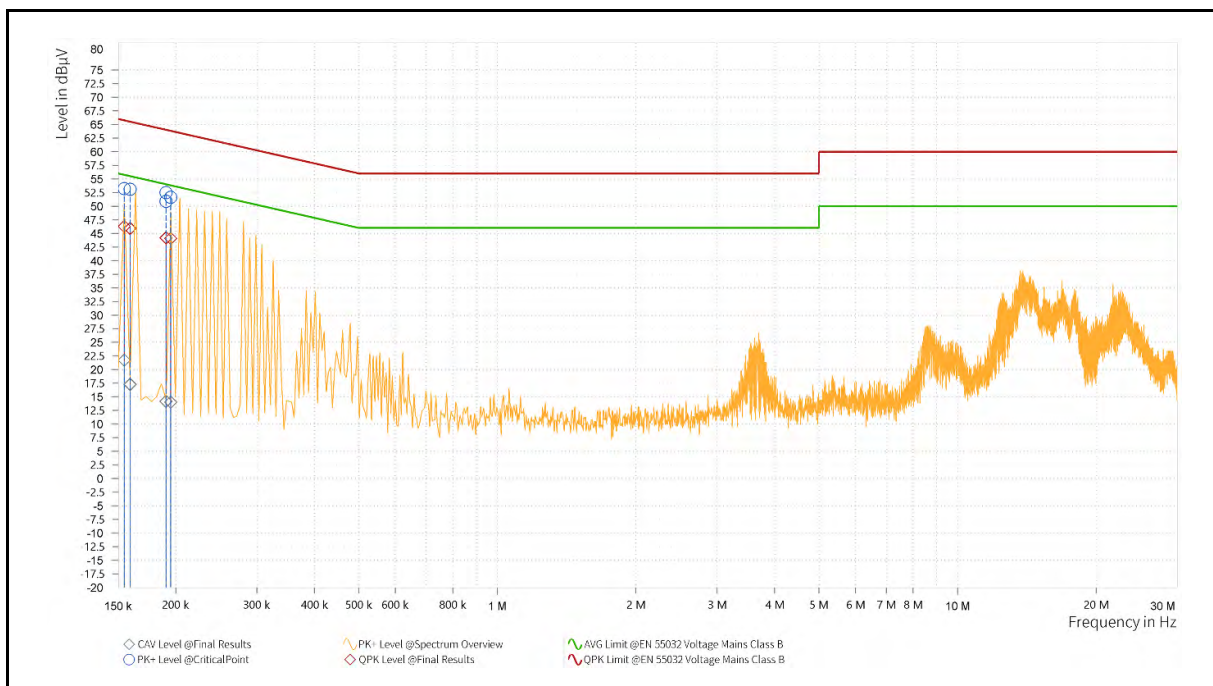


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.213	37.65	63.09	25.43	11.90	53.09	41.19	9.65	L1
1	0.222	38.12	62.74	24.62	9.12	52.74	43.62	9.65	L1
1	0.231	38.38	62.41	24.03	10.98	52.41	41.43	9.65	L1
1	0.263	39.70	61.35	21.66	11.14	51.35	40.21	9.65	L1
1	0.267	39.61	61.21	21.60	9.88	51.21	41.33	9.65	L1
1	0.272	39.53	61.07	21.54	10.21	51.07	40.87	9.65	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Murata PSU)		



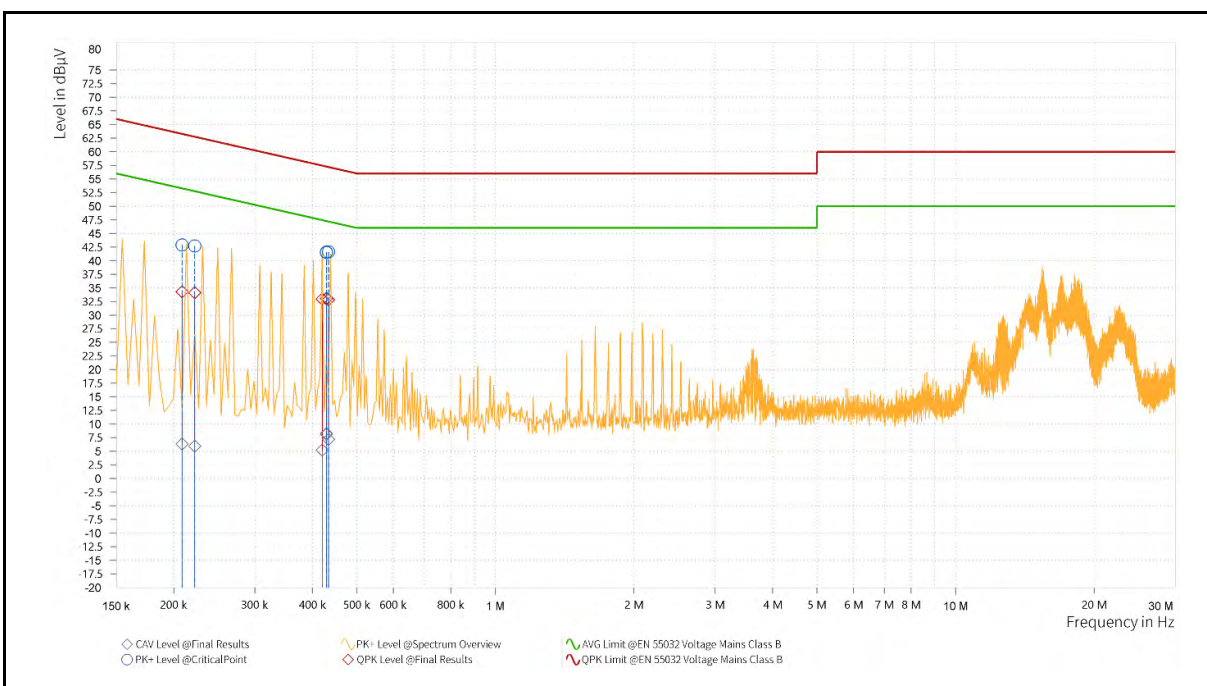
Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	46.28	65.75	19.48	21.75	55.75	34.01	9.65	N
1	0.159	45.87	65.52	19.65	17.27	55.52	38.25	9.65	N
1	0.159	45.92	65.52	19.59	17.32	55.52	38.19	9.65	N
1	0.191	44.21	64.01	19.80	14.20	54.01	39.82	9.65	N
1	0.191	44.18	64.01	19.83	14.15	54.01	39.86	9.65	N
1	0.195	44.09	63.82	19.73	14.01	53.82	39.81	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

FG-1500G-DC

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Delta PSU)		

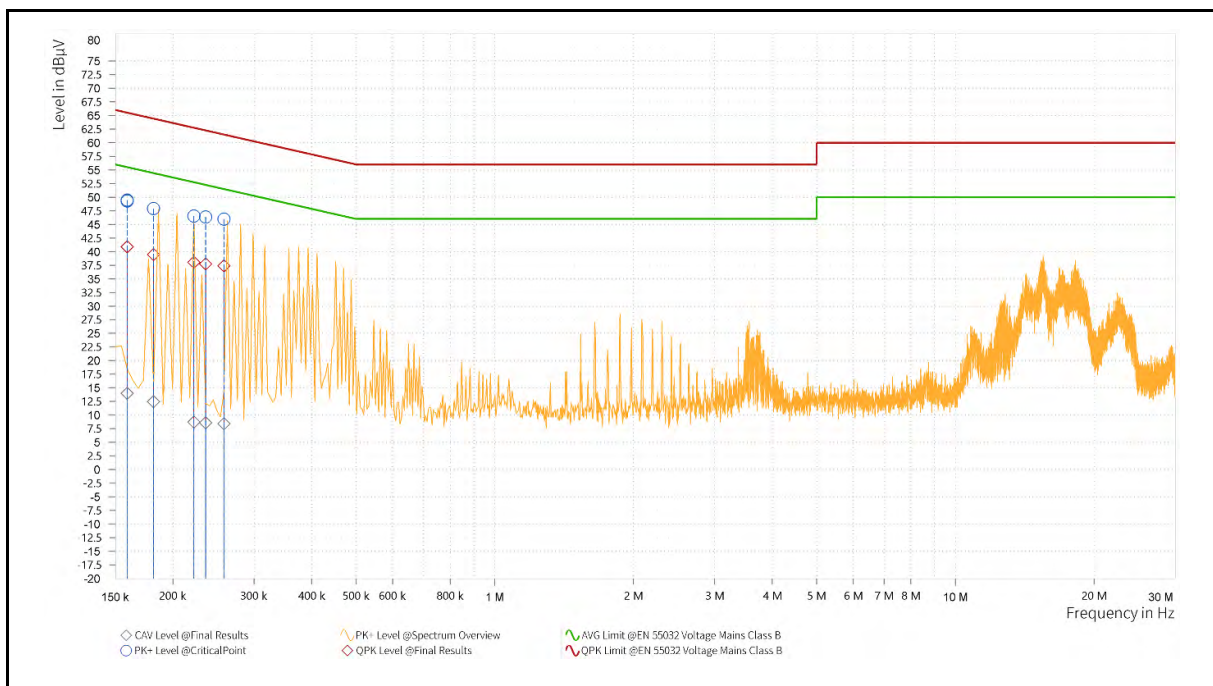


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.209	34.28	63.26	28.99	6.36	53.26	46.91	9.65	L1
1	0.222	34.13	62.74	28.61	5.96	52.74	46.78	9.65	L1
1	0.420	32.95	57.45	24.49	5.22	47.45	42.23	9.66	L1
1	0.429	33.07	57.27	24.20	8.13	47.27	39.15	9.66	L1
1	0.429	32.99	57.27	24.28	8.30	47.27	38.97	9.66	L1
1	0.434	32.82	57.19	24.36	7.22	47.19	39.97	9.66	L1

Note: 1. Result (dBuV) = Correction factor (dB) + Reading (dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Delta PSU)		

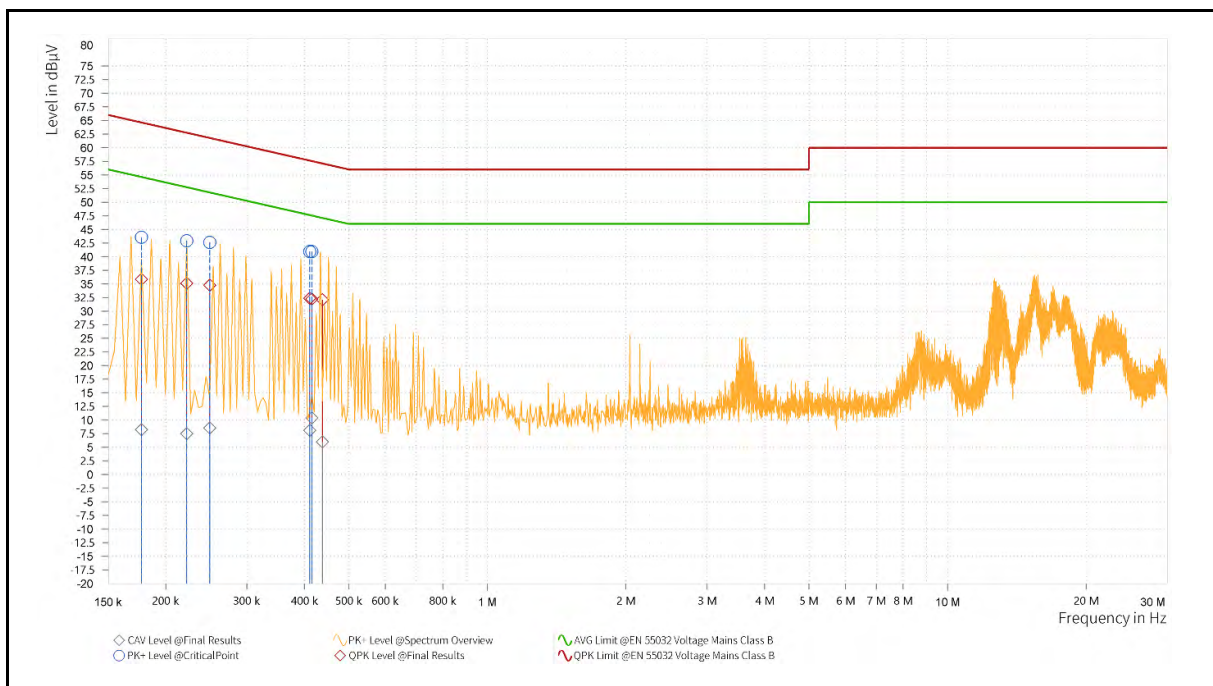


Rg	Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line
1	0.159	40.87	65.52	24.65	13.96	55.52	41.56	9.65	N
1	0.159	40.90	65.52	24.62	14.01	55.52	41.50	9.65	N
1	0.182	39.46	64.42	24.96	12.48	54.42	41.93	9.65	N
1	0.222	38.05	62.74	24.69	8.70	52.74	44.04	9.65	N
1	0.236	37.75	62.25	24.50	8.58	52.25	43.68	9.65	N
1	0.258	37.40	61.50	24.10	8.40	51.50	43.09	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Delta PSU)		

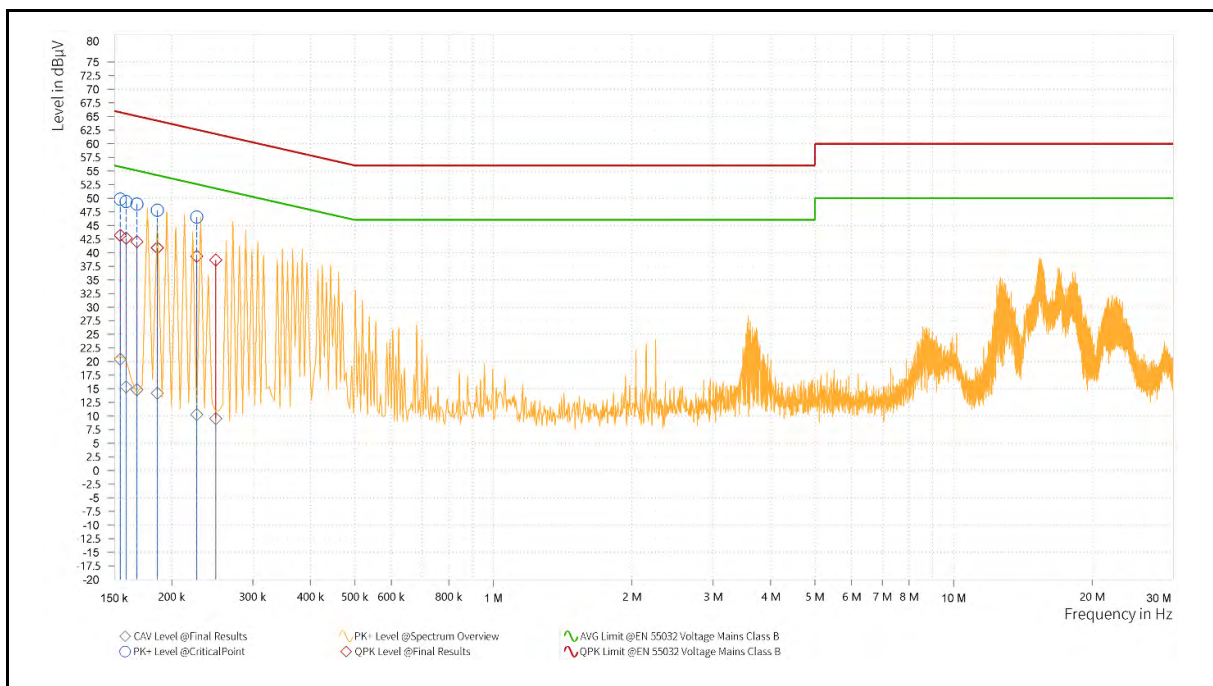


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.177	35.82	64.63	28.80	8.26	54.63	46.36	9.65	L1
1	0.222	35.13	62.74	27.61	7.50	52.74	45.24	9.65	L1
1	0.249	34.76	61.79	27.03	8.53	51.79	43.26	9.65	L1
1	0.411	32.34	57.63	25.29	8.10	47.63	39.53	9.66	L1
1	0.416	32.24	57.54	25.30	10.40	47.54	37.13	9.66	L1
1	0.438	32.11	57.10	24.99	6.01	47.10	41.09	9.66	L1

Note: 1.Result (dBμV) = Correction factor (dB) + Reading(dBμV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Delta PSU)		

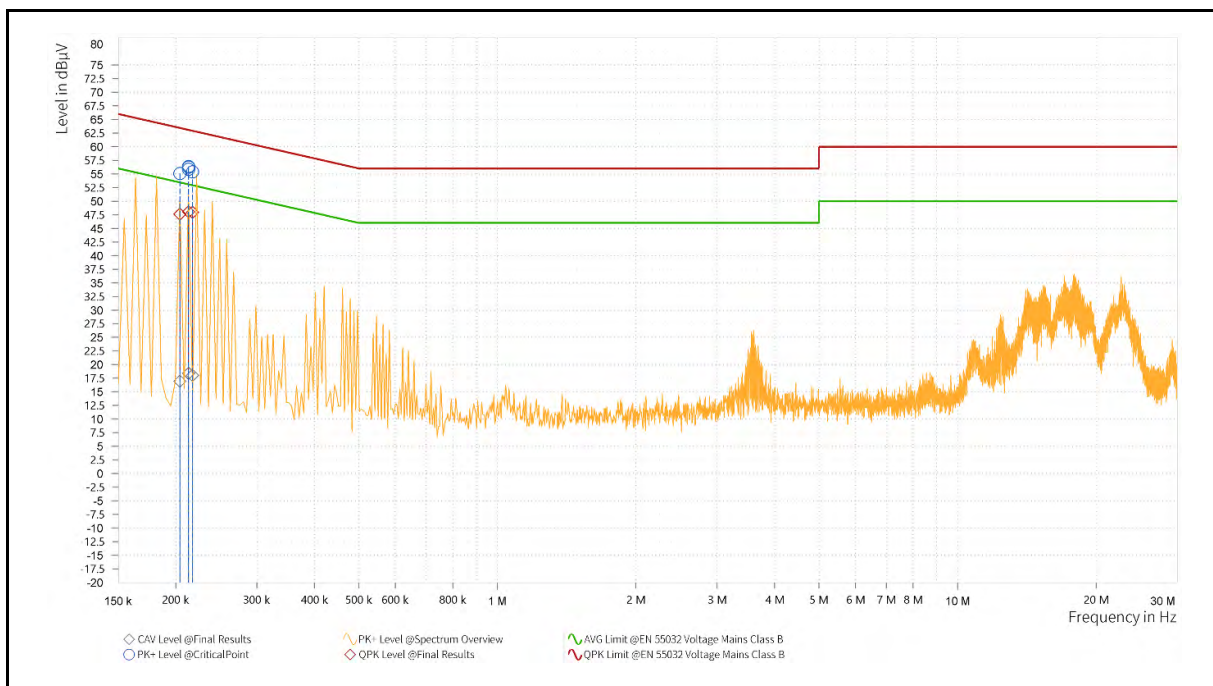


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	43.16	65.75	22.60	20.44	55.75	35.31	9.65	N
1	0.159	42.67	65.52	22.85	15.36	55.52	40.16	9.65	N
1	0.168	42.03	65.06	23.03	14.84	55.06	40.22	9.65	N
1	0.186	40.91	64.21	23.31	14.18	54.21	40.04	9.65	N
1	0.227	39.33	62.58	23.25	10.29	52.58	42.28	9.65	N
1	0.249	38.67	61.79	23.12	9.55	51.79	42.24	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Murata PSU)		

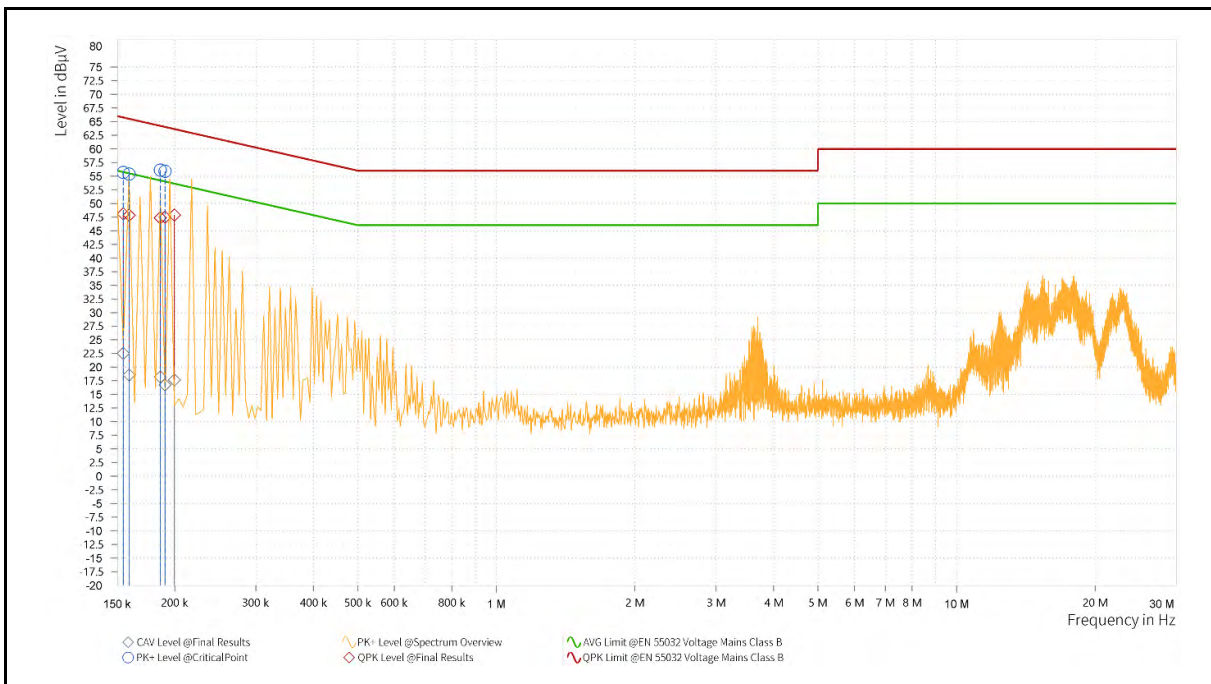


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.204	47.62	63.45	15.82	16.97	53.45	36.48	9.65	L1
1	0.213	48.06	63.09	15.03	18.40	53.09	34.69	9.65	L1
1	0.213	48.03	63.09	15.06	18.41	53.09	34.67	9.65	L1
1	0.213	48.03	63.09	15.06	18.42	53.09	34.66	9.65	L1
1	0.213	48.04	63.09	15.04	18.40	53.09	34.69	9.65	L1
1	0.218	47.95	62.91	14.97	18.05	52.91	34.87	9.65	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Murata PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	48.11	65.75	17.65	22.51	55.75	33.24	9.65	N
1	0.159	47.84	65.52	17.68	18.57	55.52	36.95	9.65	N
1	0.186	47.38	64.21	16.84	18.22	54.21	35.99	9.65	N
1	0.191	47.47	64.01	16.55	16.74	54.01	37.28	9.65	N
1	0.200	47.89	63.63	15.74	17.66	53.63	35.97	9.65	N
1	0.200	47.88	63.63	15.76	17.64	53.63	35.99	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Murata PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.150	44.41	66.00	21.59	16.72	56.00	39.28	9.65	L1
1	0.155	44.36	65.75	21.40	17.95	55.75	37.81	9.65	L1
1	0.191	42.63	64.01	21.38	12.89	54.01	41.13	9.65	L1
1	0.218	42.18	62.91	20.73	14.15	52.91	38.76	9.65	L1
1	0.249	42.08	61.79	19.71	12.92	51.79	38.87	9.65	L1
1	0.258	42.06	61.50	19.43	12.59	51.50	38.91	9.65	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Murata PSU)		



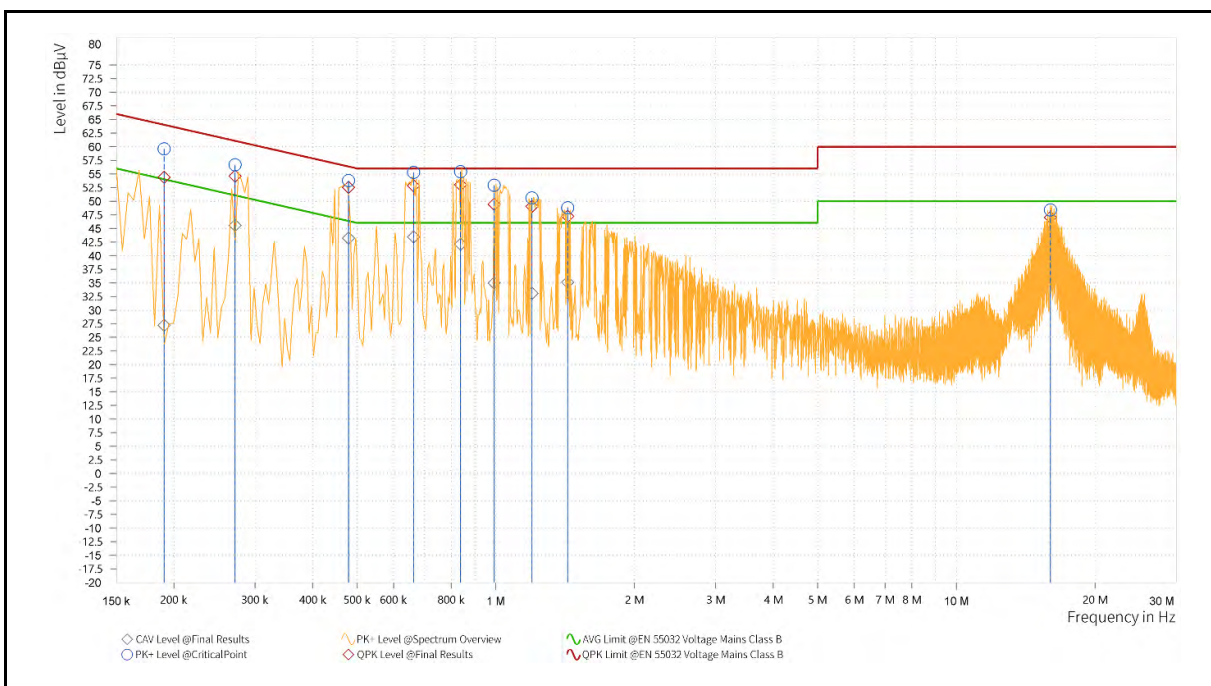
Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	46.79	65.75	18.96	21.89	55.75	33.86	9.65	N
1	0.168	45.70	65.06	19.36	17.06	55.06	38.00	9.65	N
1	0.191	44.47	64.01	19.55	14.32	54.01	39.69	9.65	N
1	0.213	43.72	63.09	19.37	14.12	53.09	38.96	9.65	N
1	0.222	43.51	62.74	19.23	13.18	52.74	39.56	9.65	N
1	0.245	43.19	61.94	18.75	13.08	51.94	38.87	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

FG-801F

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One AC Power(Delta PSU)		

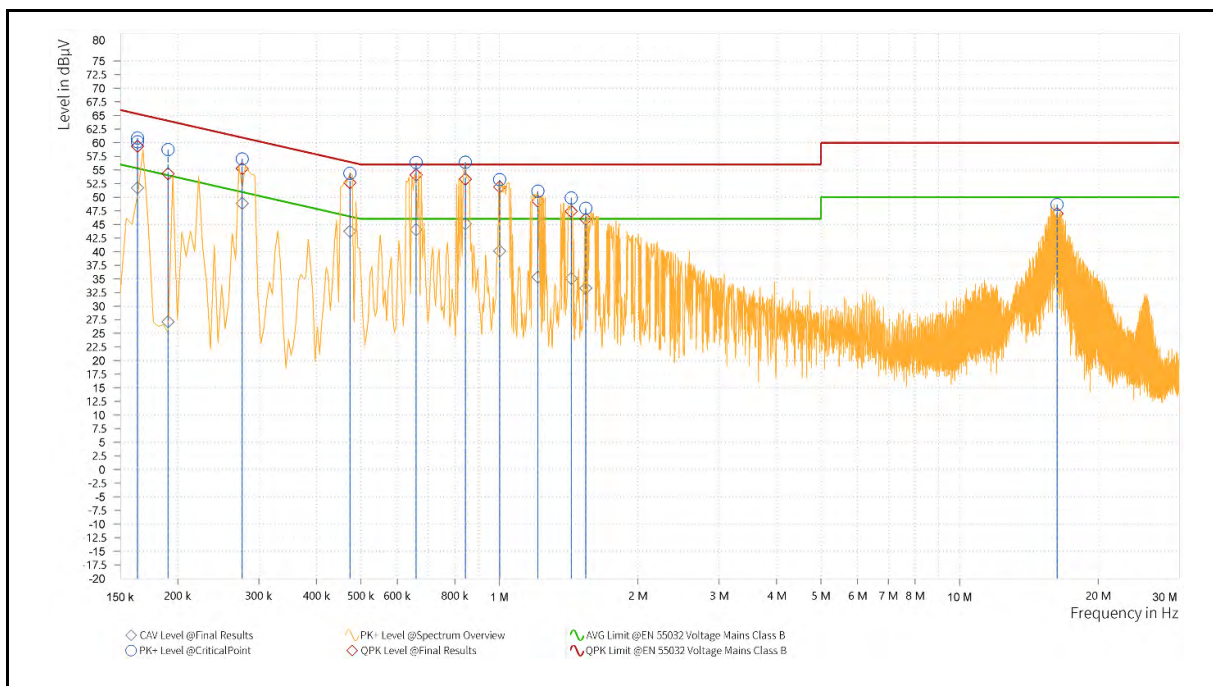


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.191	54.38	64.01	9.64	27.22	54.01	26.79	9.65	L1
1	0.272	54.60	61.07	6.47	45.54	51.07	5.53	9.65	L1
1	0.479	52.53	56.37	3.83	43.22	46.37	3.15	9.66	L1
1	0.663	52.82	56.00	3.18	43.42	46.00	2.58	9.67	L1
1	0.839	53.01	56.00	2.99	42.09	46.00	3.91	9.67	L1
1	0.992	49.41	56.00	6.59	34.97	46.00	11.03	9.68	L1
1	1.199	49.06	56.00	6.94	33.08	46.00	12.92	9.69	L1
1	1.433	47.23	56.00	8.77	35.09	46.00	10.91	9.70	L1
1	16.013	47.01	60.00	12.99	38.39	50.00	11.61	9.94	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

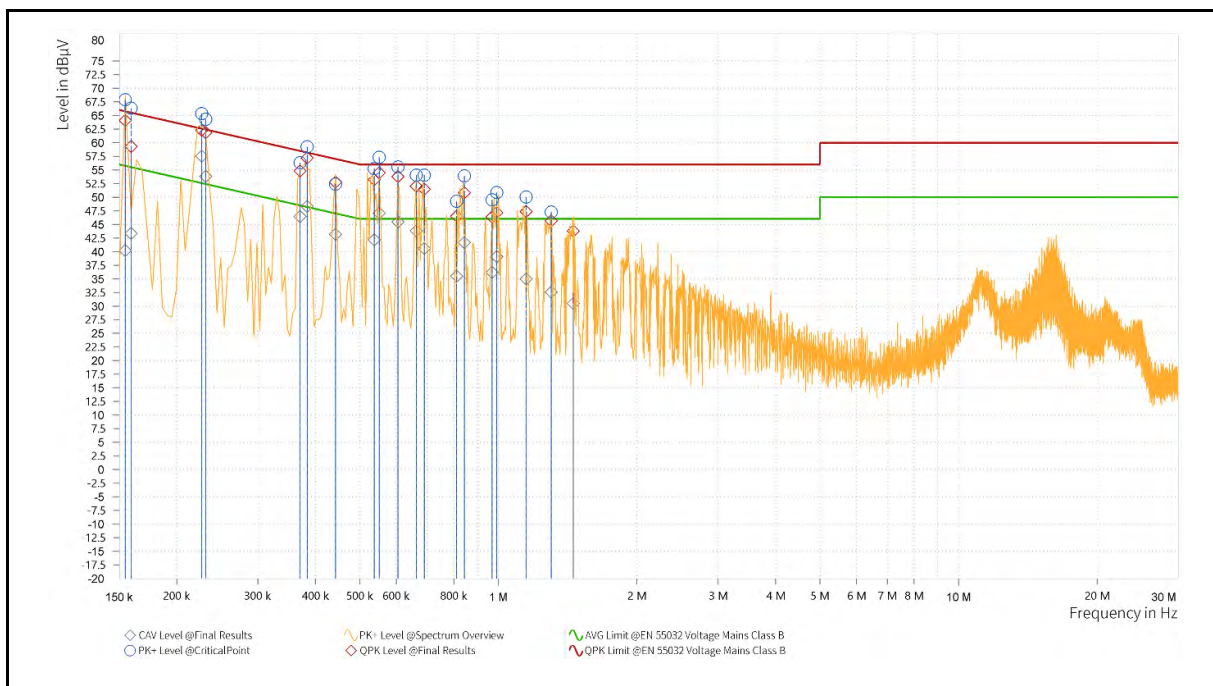
Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One AC Power(Delta PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.164	59.34	65.28	5.95	51.70	55.28	3.58	9.65	N
1	0.164	59.33	65.28	5.95	51.70	55.28	3.58	9.65	N
1	0.191	54.30	64.01	9.71	27.12	54.01	26.89	9.65	N
1	0.276	55.25	60.94	5.69	48.85	50.94	2.09	9.65	N
1	0.473	52.68	56.46	3.78	43.72	46.46	2.74	9.66	N
1	0.659	54.10	56.00	1.90	44.05	46.00	1.95	9.66	N
1	0.843	53.30	56.00	2.70	45.10	46.00	0.90	9.67	N
1	1.001	51.88	56.00	4.12	40.12	46.00	5.88	9.67	N
1	1.212	49.24	56.00	6.76	35.33	46.00	10.67	9.68	N
1	1.433	47.41	56.00	8.59	35.07	46.00	10.93	9.69	N
1	1.541	46.00	56.00	10.00	33.29	46.00	12.71	9.69	N
1	16.287	46.96	60.00	13.04	38.35	50.00	11.65	9.96	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).
 2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two AC Power(Delta PSU)		



Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two AC Power(Delta PSU)		

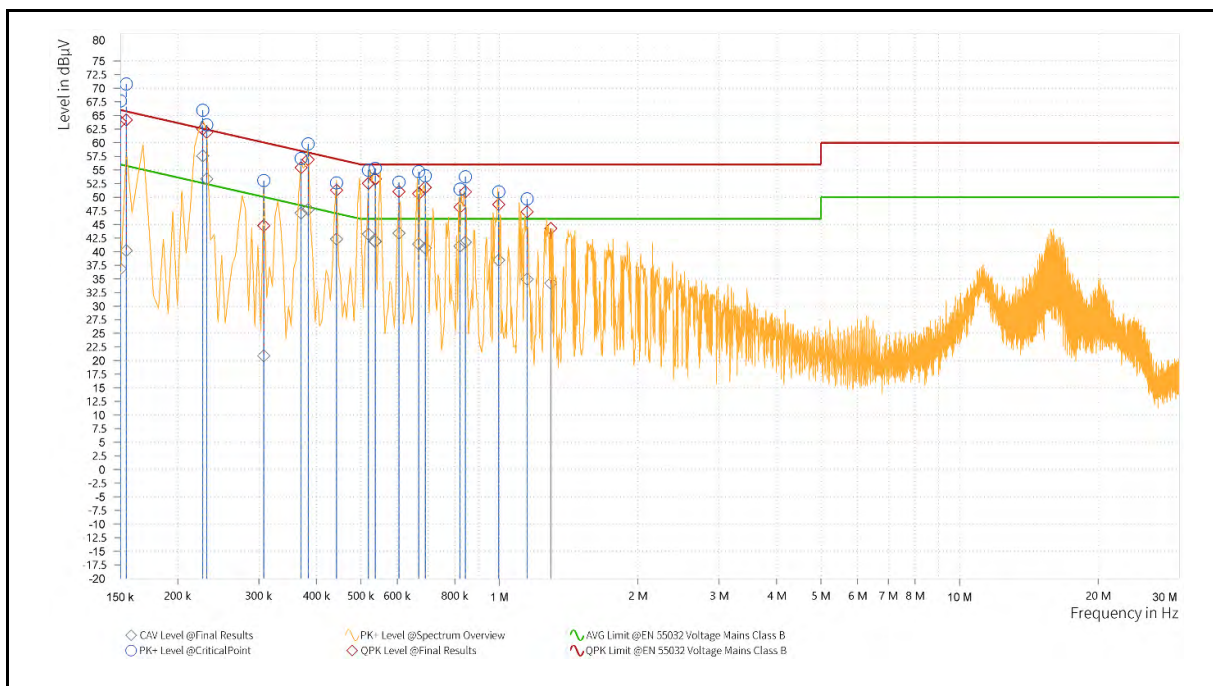
Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	64.09	65.75	1.67	40.18	55.75	15.58	9.65	L1
1	0.159	59.30	65.52	6.22	43.34	55.52	12.18	9.65	L1
1	0.227	62.26	62.58	0.32	57.52	52.58	-4.95	9.65	L1
1	0.231	61.86	62.41	0.55	53.81	52.41	-1.40	9.65	L1
1	0.371	54.81	58.49	3.68	46.46	48.49	2.03	9.66	L1
1	0.384	57.21	58.19	0.99	48.31	48.19	-0.12	9.66	L1
1	0.443	52.73	57.01	4.28	43.16	47.01	3.86	9.66	L1
1	0.537	53.21	56.00	2.79	42.18	46.00	3.82	9.66	L1
1	0.551	54.47	56.00	1.53	47.03	46.00	-1.03	9.66	L1
1	0.605	53.78	56.00	2.22	45.47	46.00	0.53	9.67	L1
1	0.663	52.02	56.00	3.98	43.82	46.00	2.18	9.67	L1
1	0.690	51.46	56.00	4.54	40.60	46.00	5.40	9.67	L1
1	0.812	46.50	56.00	9.50	35.48	46.00	10.52	9.67	L1
1	0.843	50.79	56.00	5.21	41.65	46.00	4.35	9.68	L1
1	0.969	46.38	56.00	9.62	36.20	46.00	9.80	9.68	L1
1	0.992	47.12	56.00	8.88	39.10	46.00	6.90	9.68	L1
1	1.149	47.35	56.00	8.65	34.99	46.00	11.01	9.69	L1
1	1.302	45.67	56.00	10.33	32.56	46.00	13.44	9.70	L1
1	1.455	43.79	56.00	12.21	30.50	46.00	15.50	9.70	L1

Note: 1. Result (dBuV) = Correction factor (dB) + Reading (dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

3. Via turn off the radio function, this digital device emission is from the non transmitter portion of the EUT and it is an harmonic of the digital circuitry. This emission complies with part 15 Subpart B class A limit.

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two AC Power(Delta PSU)		



Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two AC Power(Delta PSU)		

Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.150	63.84	66.00	2.16	36.83	56.00	19.17	9.65	N
1	0.155	64.16	65.75	1.59	40.18	55.75	15.58	9.65	N
1	0.227	62.51	62.58	0.07	57.59	52.58	-5.02	9.65	N
1	0.231	61.88	62.41	0.53	53.36	52.41	-0.95	9.65	N
1	0.308	44.77	60.04	15.27	20.86	50.04	29.18	9.65	N
1	0.371	55.40	58.49	3.09	47.11	48.49	1.38	9.66	N
1	0.384	56.90	58.19	1.29	47.73	48.19	0.46	9.66	N
1	0.443	51.28	57.01	5.73	42.30	47.01	4.71	9.66	N
1	0.519	52.52	56.00	3.48	43.21	46.00	2.79	9.66	N
1	0.537	53.40	56.00	2.60	41.92	46.00	4.08	9.66	N
1	0.537	53.31	56.00	2.69	41.85	46.00	4.15	9.66	N
1	0.605	51.03	56.00	4.97	43.40	46.00	2.60	9.66	N
1	0.668	50.63	56.00	5.37	41.40	46.00	4.60	9.66	N
1	0.690	51.81	56.00	4.19	40.69	46.00	5.31	9.66	N
1	0.821	48.18	56.00	7.82	41.03	46.00	4.97	9.67	N
1	0.843	50.97	56.00	5.03	41.74	46.00	4.26	9.67	N
1	0.996	48.66	56.00	7.34	38.44	46.00	7.56	9.67	N
1	1.149	47.33	56.00	8.67	34.95	46.00	11.05	9.68	N
1	1.293	44.25	56.00	11.75	34.20	46.00	11.80	9.68	N

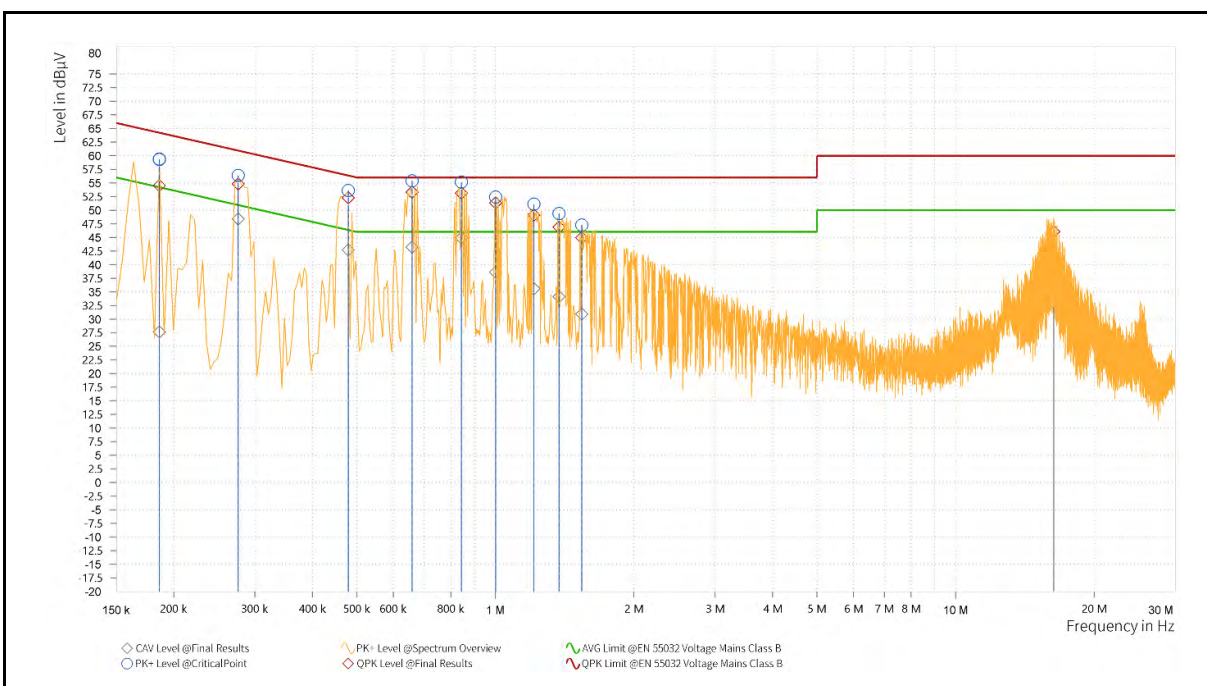
Note:1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

3.Via turn off the radio function, this digital device emission is from the non transmitter portion of the EUT and it is an harmonic of the digital circuitry. This emission complies with part 15 Subpart B class A limit.

FG-800F

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	One AC Power(Delta PSU)		

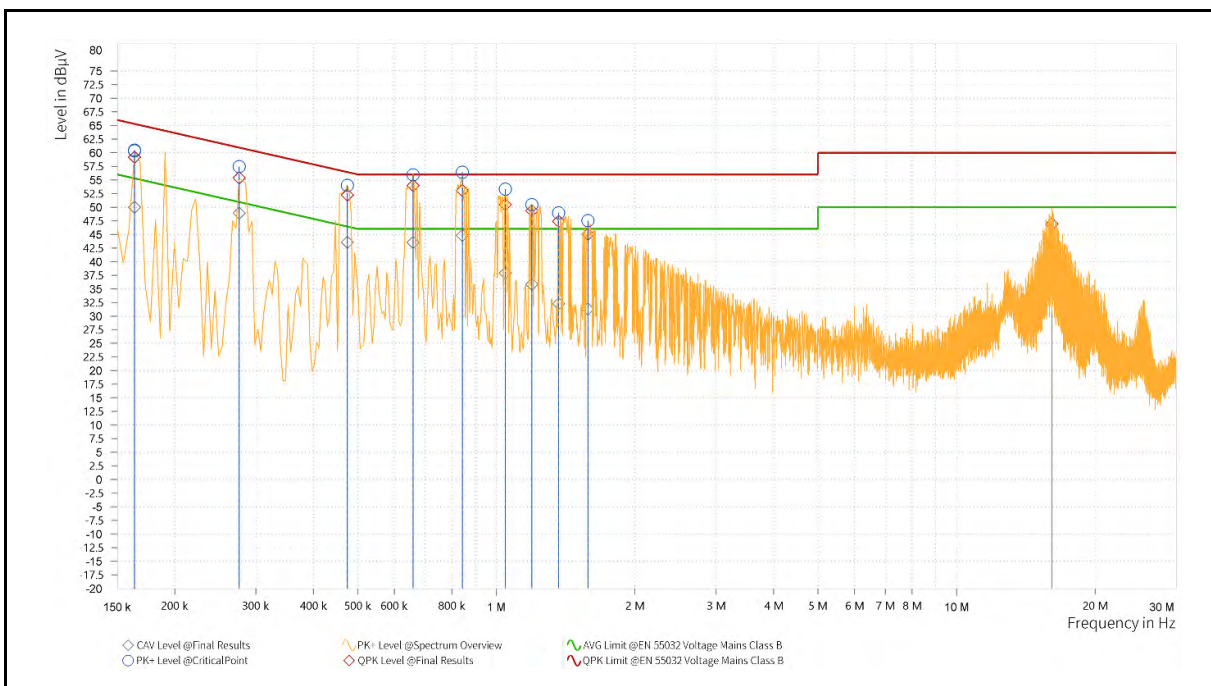


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.186	54.51	64.21	9.71	27.67	54.21	26.55	9.65	L1
1	0.186	54.50	64.21	9.72	27.65	54.21	26.57	9.65	L1
1	0.276	54.80	60.94	6.13	48.40	50.94	2.53	9.65	L1
1	0.479	52.27	56.37	4.09	42.68	46.37	3.68	9.66	L1
1	0.659	53.30	56.00	2.70	43.22	46.00	2.78	9.67	L1
1	0.843	53.15	56.00	2.85	44.92	46.00	1.08	9.68	L1
1	1.001	51.33	56.00	4.67	38.61	46.00	7.39	9.68	L1
1	1.212	49.07	56.00	6.93	35.57	46.00	10.43	9.69	L1
1	1.374	46.86	56.00	9.14	34.11	46.00	11.89	9.70	L1
1	1.541	44.93	56.00	11.07	30.94	46.00	15.06	9.70	L1
1	16.341	46.07	60.00	13.93	35.47	50.00	14.53	9.94	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	One AC Power(Delta PSU)		

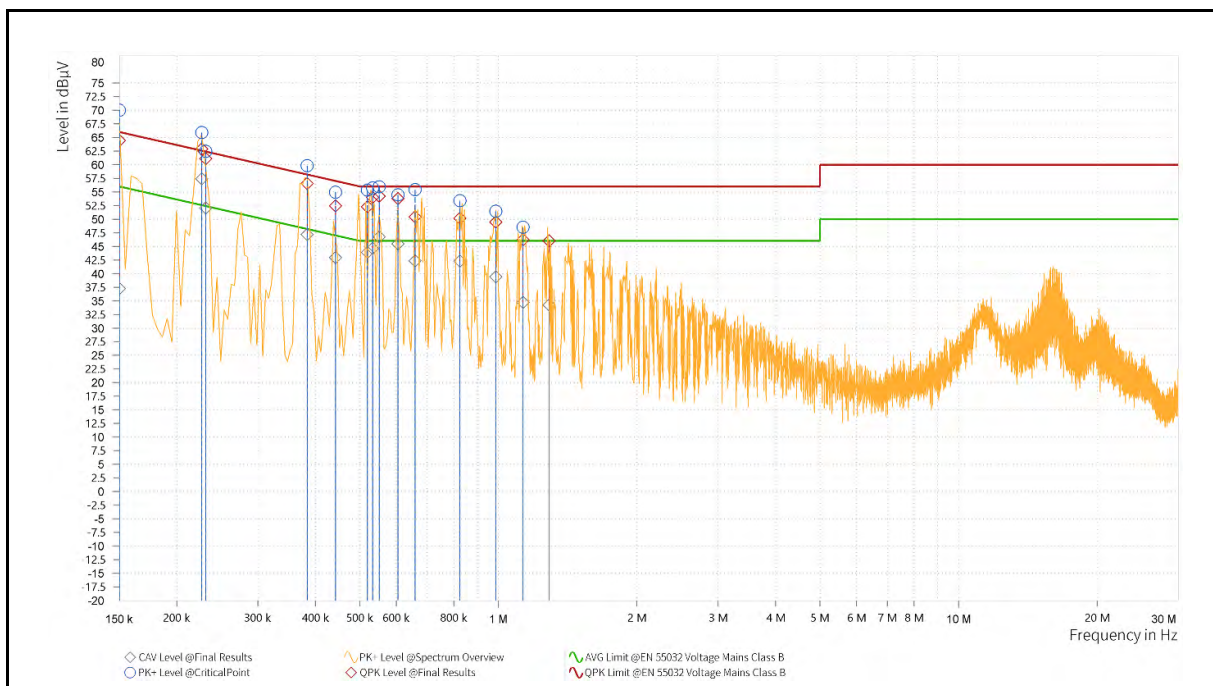


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.164	59.16	65.28	6.12	49.99	55.28	5.29	9.65	N
1	0.164	59.17	65.28	6.11	50.01	55.28	5.28	9.65	N
1	0.276	55.36	60.94	5.58	48.93	50.94	2.01	9.65	N
1	0.474	52.23	56.44	4.22	43.57	46.44	2.88	9.66	N
1	0.659	53.96	56.00	2.04	43.51	46.00	2.49	9.66	N
1	0.843	53.07	56.00	2.93	44.82	46.00	1.18	9.67	N
1	1.046	50.47	56.00	5.53	37.93	46.00	8.07	9.67	N
1	1.194	49.36	56.00	6.64	35.84	46.00	10.16	9.68	N
1	1.365	47.40	56.00	8.60	32.25	46.00	13.75	9.69	N
1	1.581	45.05	56.00	10.95	31.31	46.00	14.69	9.70	N
1	16.121	46.93	60.00	13.07	36.00	50.00	14.00	9.96	N

Note: 1. Result (dBuV) = Correction factor (dB) + Reading (dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	Two AC Power(Delta PSU)		



Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	Two AC Power(Delta PSU)		

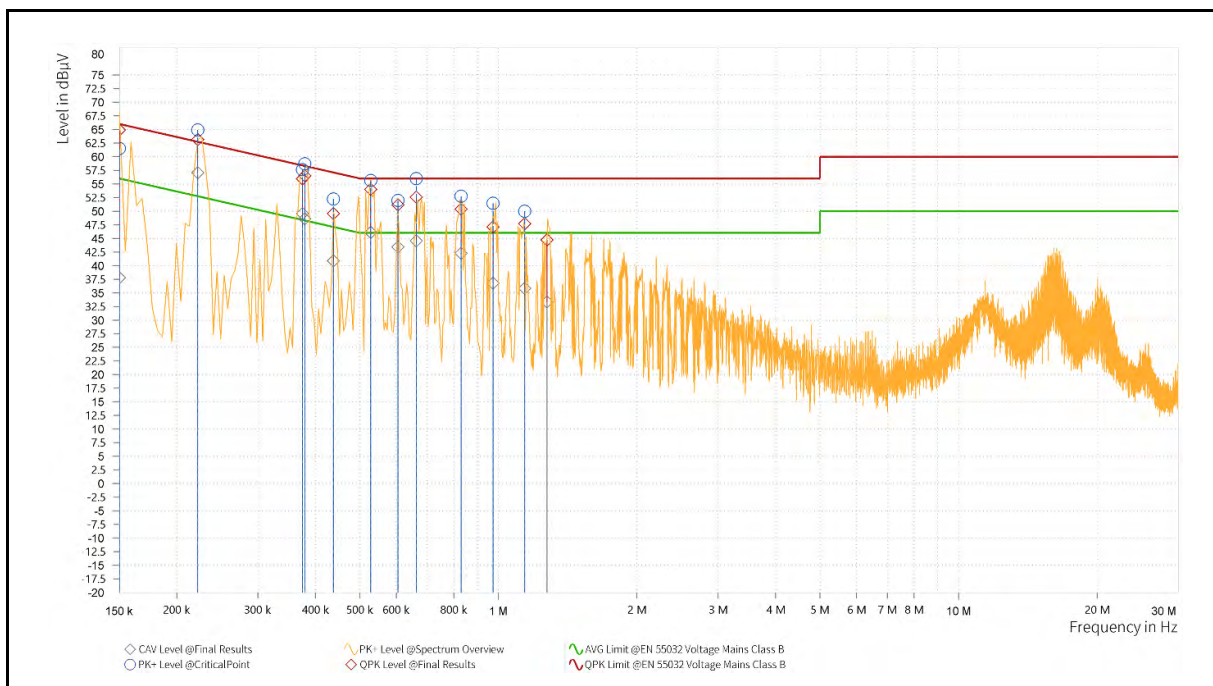
Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.150	64.45	66.00	1.55	37.28	56.00	18.72	9.65	L1
1	0.227	62.88	62.58	-0.30	57.42	52.58	-4.85	9.65	L1
1	0.231	61.11	62.41	1.30	52.08	52.41	0.34	9.65	L1
1	0.384	56.56	58.19	1.64	47.18	48.19	1.01	9.66	L1
1	0.443	52.45	57.01	4.57	42.94	47.01	4.07	9.66	L1
1	0.519	52.29	56.00	3.71	43.90	46.00	2.10	9.66	L1
1	0.533	54.01	56.00	1.99	44.64	46.00	1.36	9.66	L1
1	0.551	54.21	56.00	1.79	46.76	46.00	-0.76	9.66	L1
1	0.605	53.78	56.00	2.22	45.46	46.00	0.54	9.67	L1
1	0.659	50.40	56.00	5.60	42.36	46.00	3.64	9.67	L1
1	0.825	50.16	56.00	5.84	42.31	46.00	3.69	9.67	L1
1	0.987	49.48	56.00	6.52	39.41	46.00	6.59	9.68	L1
1	1.131	46.25	56.00	9.75	34.72	46.00	11.28	9.69	L1
1	1.289	46.00	56.00	10.00	34.25	46.00	11.75	9.69	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

3.Via turn off the radio function, this digital device emission is from the non transmitter portion of the EUT and it is an harmonic of the digital circuitry. This emission complies with part 15 Subpart B class A limit.

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Test Mode	Transmit Mode		
Description:	Two AC Power(Delta PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.150	64.90	66.00	1.10	37.78	56.00	18.22	9.65	N
1	0.222	63.14	62.74	-0.40	57.04	52.74	-4.29	9.65	N
1	0.375	55.95	58.39	2.44	49.55	48.39	-1.16	9.66	N
1	0.380	56.51	58.29	1.78	48.63	48.29	-0.34	9.66	N
1	0.438	49.57	57.10	7.53	40.91	47.10	6.19	9.66	N
1	0.528	54.00	56.00	2.00	46.10	46.00	-0.10	9.66	N
1	0.605	51.14	56.00	4.86	43.44	46.00	2.56	9.66	N
1	0.663	52.59	56.00	3.41	44.54	46.00	1.46	9.66	N
1	0.830	50.36	56.00	5.64	42.29	46.00	3.71	9.67	N
1	0.974	47.10	56.00	8.90	36.80	46.00	9.20	9.67	N
1	1.140	47.72	56.00	8.28	35.85	46.00	10.15	9.68	N
1	1.275	44.73	56.00	11.27	33.34	46.00	12.66	9.68	N

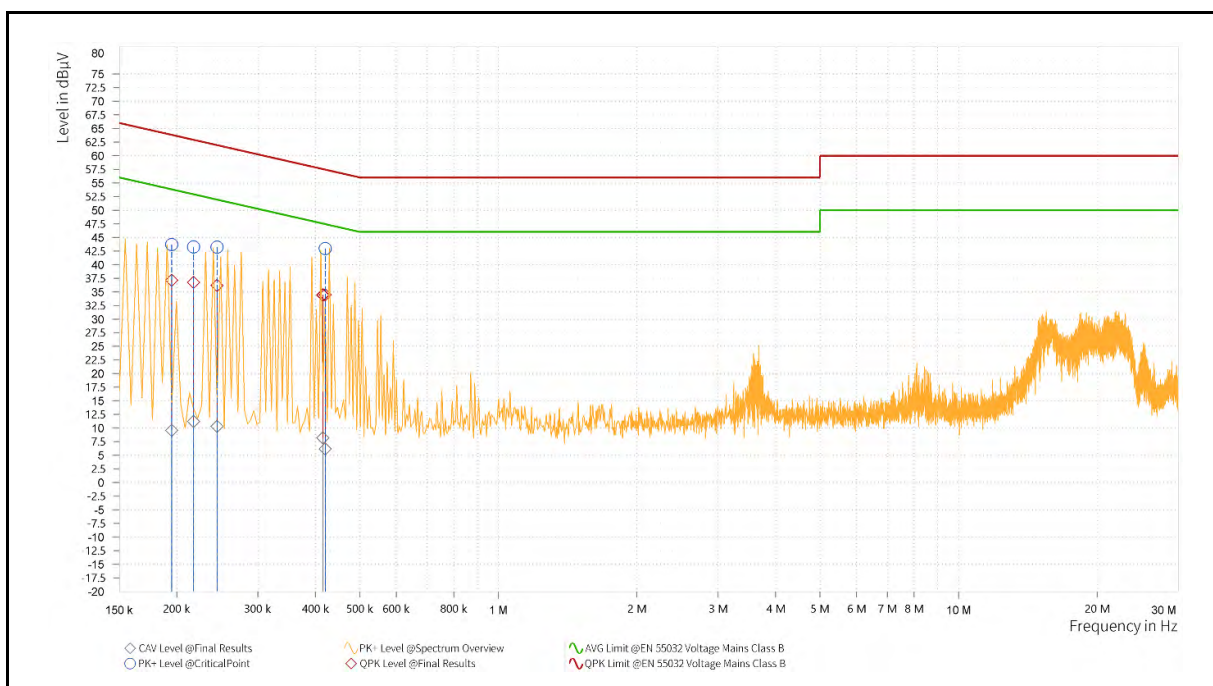
Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

3. Via turn off the radio function, this digital device emission is from the non transmitter portion of the EUT and it is an harmonic of the digital circuitry. This emission complies with part 15 Subpart B class A limit.

FG-801F-DC

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Delta PSU)		

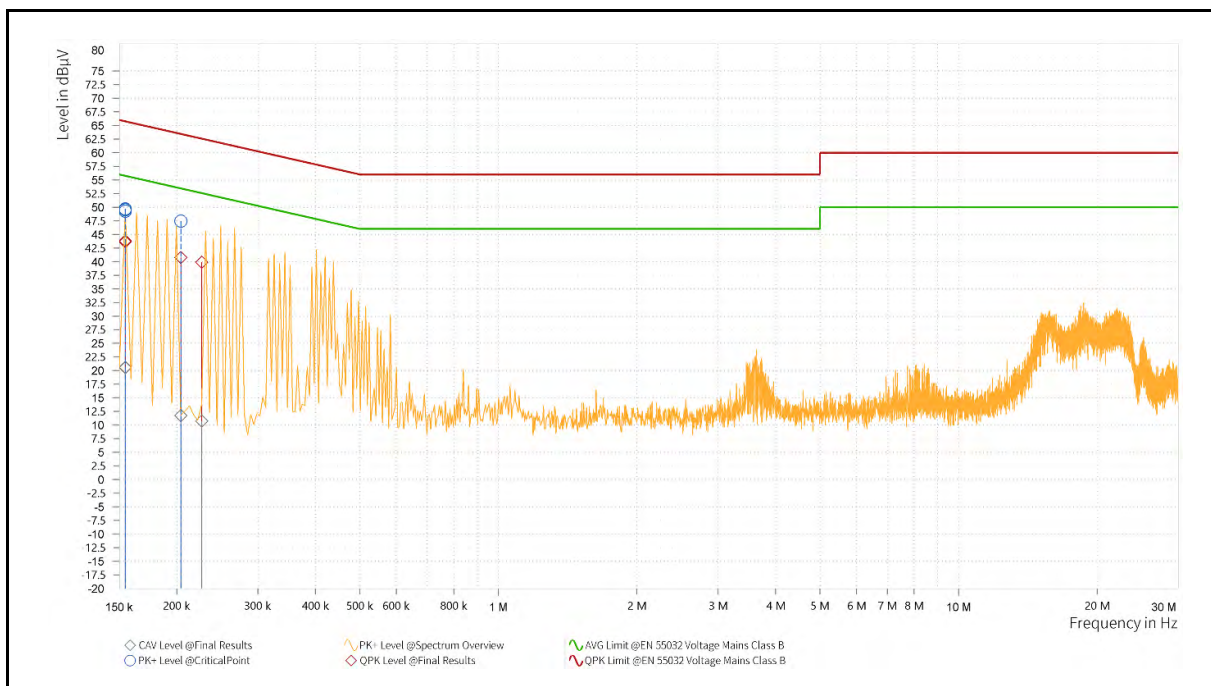


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.195	37.12	63.82	26.70	9.57	53.82	44.25	9.65	L1
1	0.218	36.76	62.91	26.15	11.22	52.91	41.69	9.65	L1
1	0.245	36.17	61.94	25.77	10.31	51.94	41.64	9.65	L1
1	0.416	34.40	57.54	23.14	8.21	47.54	39.33	9.66	L1
1	0.416	34.45	57.54	23.08	8.21	47.54	39.33	9.66	L1
1	0.420	34.44	57.45	23.00	6.19	47.45	41.26	9.66	L1

Note: 1. Result (dBuV) = Correction factor (dB) + Reading (dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Delta PSU)		

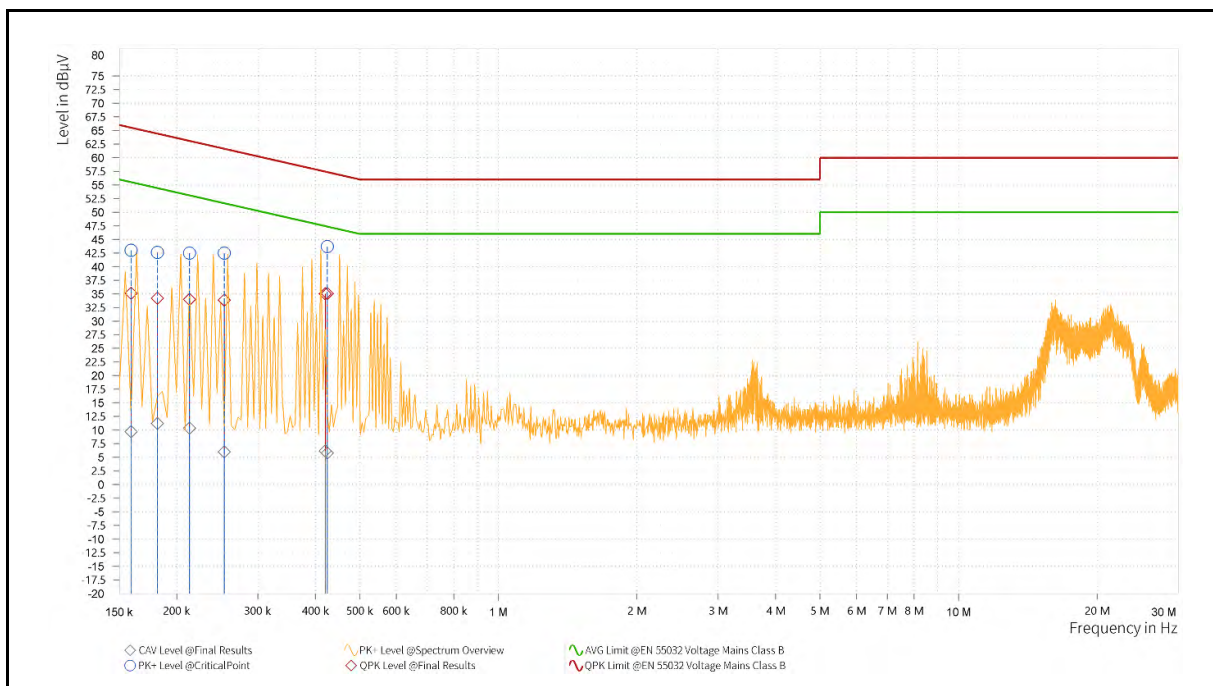


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	43.66	65.75	22.10	20.59	55.75	35.16	9.65	N
1	0.155	43.75	65.75	22.00	20.60	55.75	35.15	9.65	N
1	0.155	43.65	65.75	22.10	20.53	55.75	35.22	9.65	N
1	0.155	43.81	65.75	21.95	20.64	55.75	35.12	9.65	N
1	0.204	40.75	63.45	22.69	11.74	53.45	41.71	9.65	N
1	0.227	39.91	62.58	22.67	10.73	52.58	41.85	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Delta PSU)		

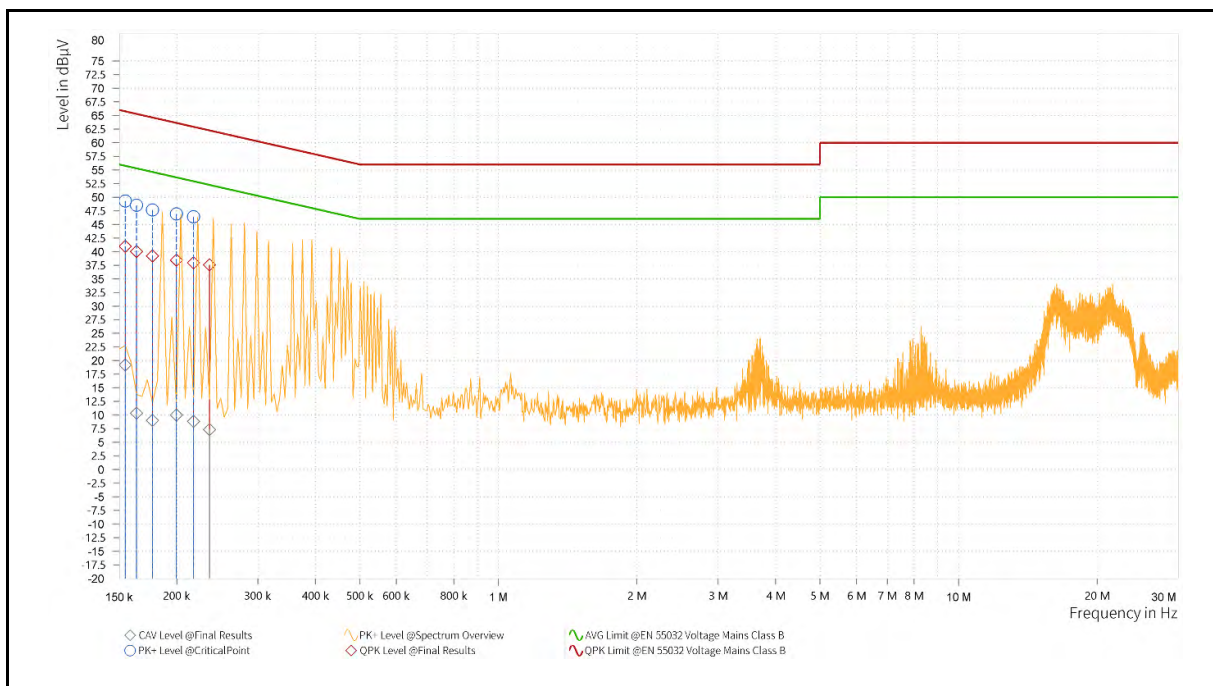


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.159	35.12	65.52	30.39	9.72	55.52	45.79	9.65	L1
1	0.182	34.19	64.42	30.23	11.24	54.42	43.18	9.65	L1
1	0.213	33.97	63.09	29.12	10.37	53.09	42.72	9.65	L1
1	0.254	33.85	61.64	27.79	5.99	51.64	45.65	9.65	L1
1	0.420	35.01	57.45	22.44	6.18	47.45	41.27	9.66	L1
1	0.425	35.05	57.36	22.31	5.80	47.36	41.56	9.66	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Delta PSU)		

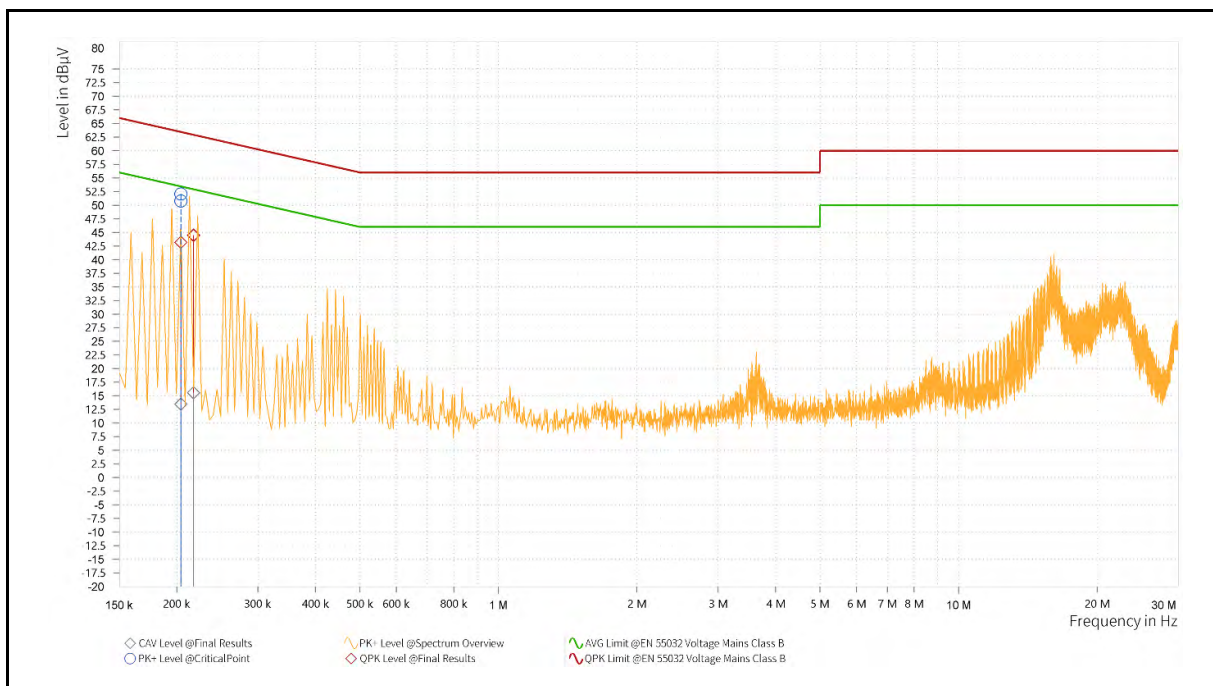


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	40.98	65.75	24.77	19.18	55.75	36.57	9.65	N
1	0.164	40.03	65.28	25.25	10.37	55.28	44.91	9.65	N
1	0.177	39.19	64.63	25.43	9.01	54.63	45.61	9.65	N
1	0.200	38.42	63.63	25.22	10.03	53.63	43.60	9.65	N
1	0.218	37.96	62.91	24.95	8.83	52.91	44.08	9.65	N
1	0.236	37.57	62.25	24.68	7.35	52.25	44.90	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Murata PSU)		

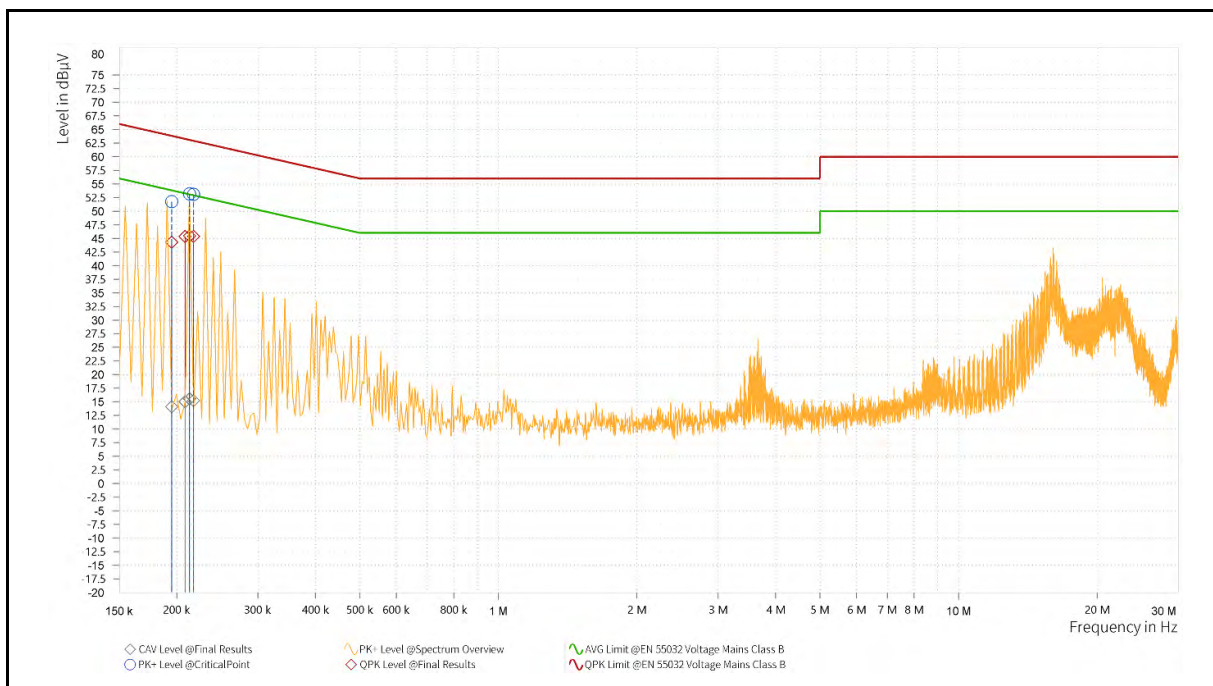


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.204	43.19	63.45	20.26	13.48	53.45	39.97	9.65	L1
1	0.204	43.16	63.45	20.28	13.49	53.45	39.96	9.65	L1
1	0.218	44.44	62.91	18.47	15.57	52.91	37.35	9.65	L1
1	0.218	44.45	62.91	18.46	15.57	52.91	37.35	9.65	L1
1	0.218	44.51	62.91	18.40	15.55	52.91	37.36	9.65	L1
1	0.218	44.48	62.91	18.43	15.54	52.91	37.37	9.65	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Murata PSU)		

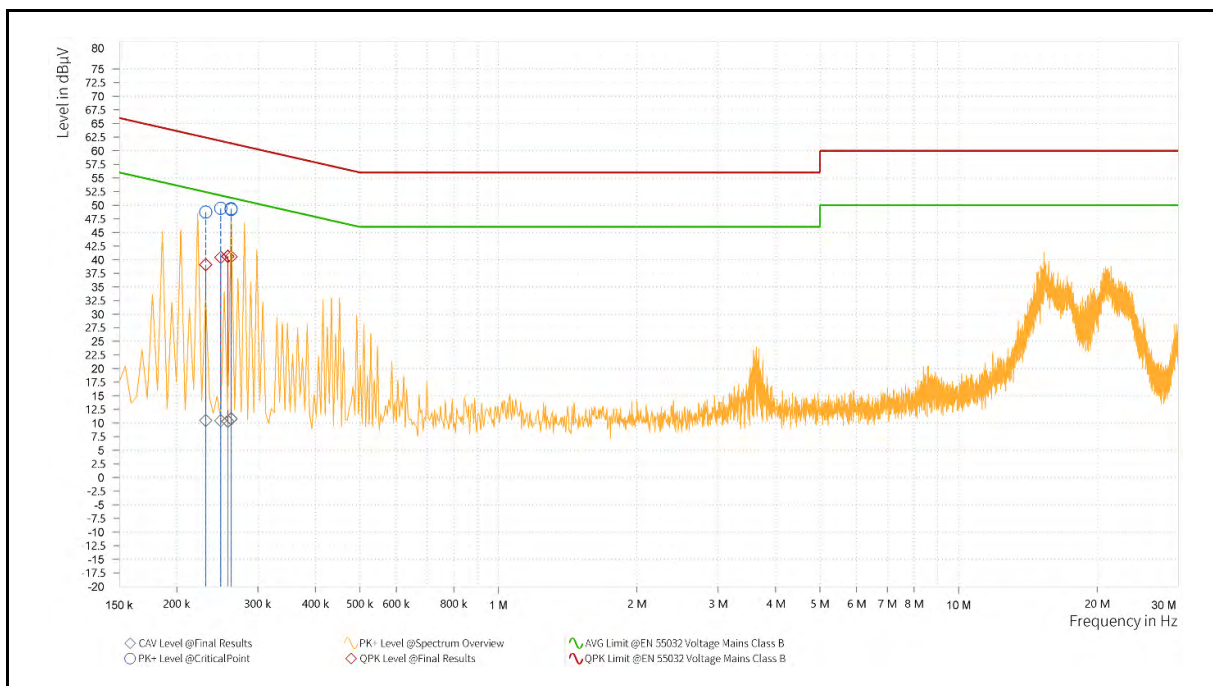


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.195	44.31	63.82	19.51	14.09	53.82	39.73	9.65	N
1	0.209	45.33	63.26	17.94	15.03	53.26	38.23	9.65	N
1	0.209	45.37	63.26	17.89	15.05	53.26	38.21	9.65	N
1	0.213	45.45	63.09	17.64	15.58	53.09	37.51	9.65	N
1	0.213	45.45	63.09	17.64	15.54	53.09	37.55	9.65	N
1	0.218	45.36	62.91	17.55	15.24	52.91	37.67	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Murata PSU)		

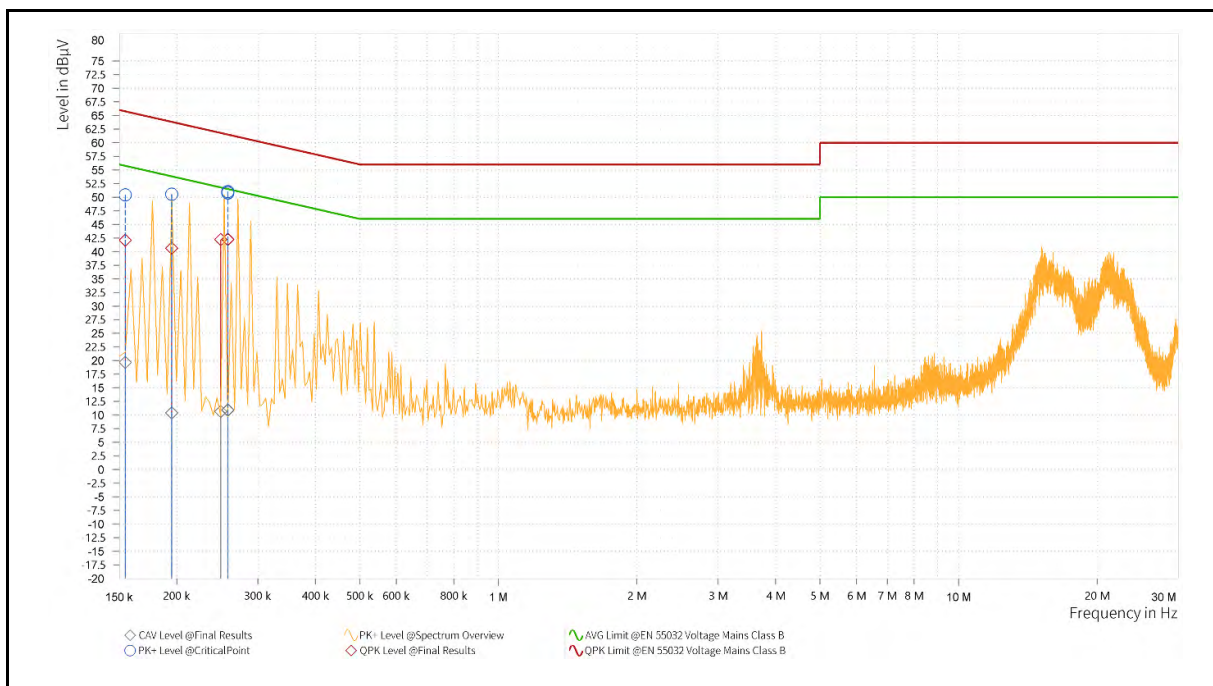


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.231	39.07	62.41	23.34	10.49	52.41	41.92	9.65	L1
1	0.249	40.40	61.79	21.39	10.44	51.79	41.35	9.65	L1
1	0.258	40.60	61.50	20.89	10.34	51.50	41.16	9.65	L1
1	0.258	40.62	61.50	20.88	10.30	51.50	41.20	9.65	L1
1	0.263	40.55	61.35	20.80	10.82	51.35	40.53	9.65	L1
1	0.263	40.53	61.35	20.82	10.77	51.35	40.58	9.65	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Murata PSU)		



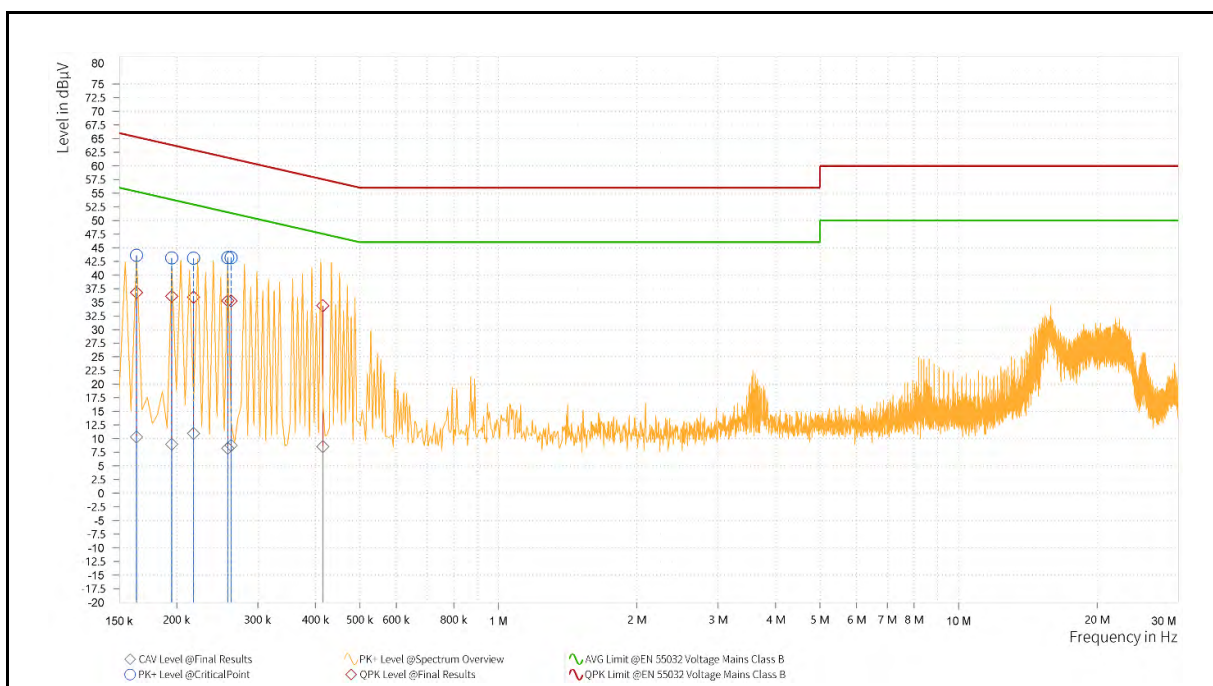
Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	42.09	65.75	23.66	19.68	55.75	36.08	9.65	N
1	0.195	40.62	63.82	23.20	10.42	53.82	43.40	9.65	N
1	0.249	42.22	61.79	19.57	10.64	51.79	41.15	9.65	N
1	0.258	42.25	61.50	19.25	10.87	51.50	40.63	9.65	N
1	0.258	42.23	61.50	19.27	10.86	51.50	40.64	9.65	N
1	0.258	42.27	61.50	19.23	10.94	51.50	40.56	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

FG-800F-DC

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Delta PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.164	36.78	65.28	28.50	10.32	55.28	44.97	9.65	L1
1	0.195	36.10	63.82	27.72	8.96	53.82	44.86	9.65	L1
1	0.218	35.93	62.91	26.98	10.95	52.91	41.96	9.65	L1
1	0.258	35.29	61.50	26.20	8.23	51.50	43.27	9.65	L1
1	0.263	35.26	61.35	26.09	8.77	51.35	42.58	9.65	L1
1	0.416	34.36	57.54	23.18	8.53	47.54	39.01	9.66	L1

Note: 1. Result (dBuV) = Correction factor (dB) + Reading (dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Delta PSU)		

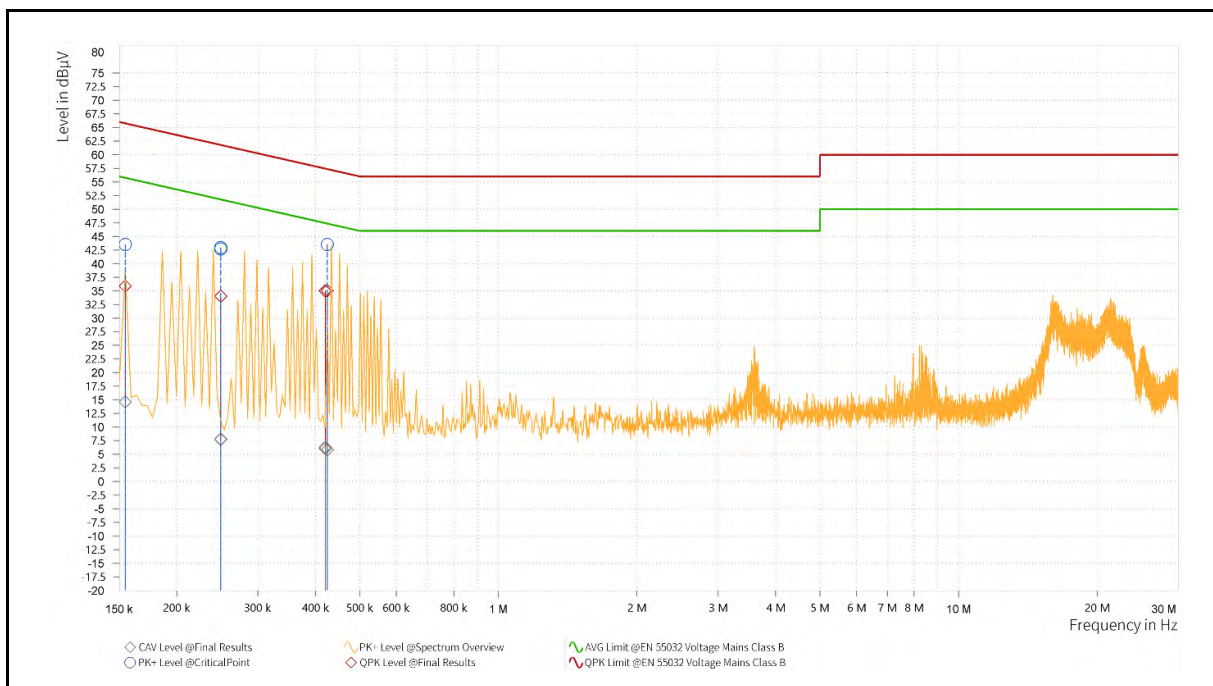


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	43.23	65.75	22.52	20.45	55.75	35.30	9.65	N
1	0.155	43.26	65.75	22.50	20.46	55.75	35.30	9.65	N
1	0.159	42.66	65.52	22.85	15.44	55.52	40.08	9.65	N
1	0.164	42.31	65.28	22.97	13.72	55.28	41.56	9.65	N
1	0.209	40.12	63.26	23.14	10.98	53.26	42.29	9.65	N
1	0.227	39.51	62.58	23.06	10.48	52.58	42.10	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Delta PSU)		

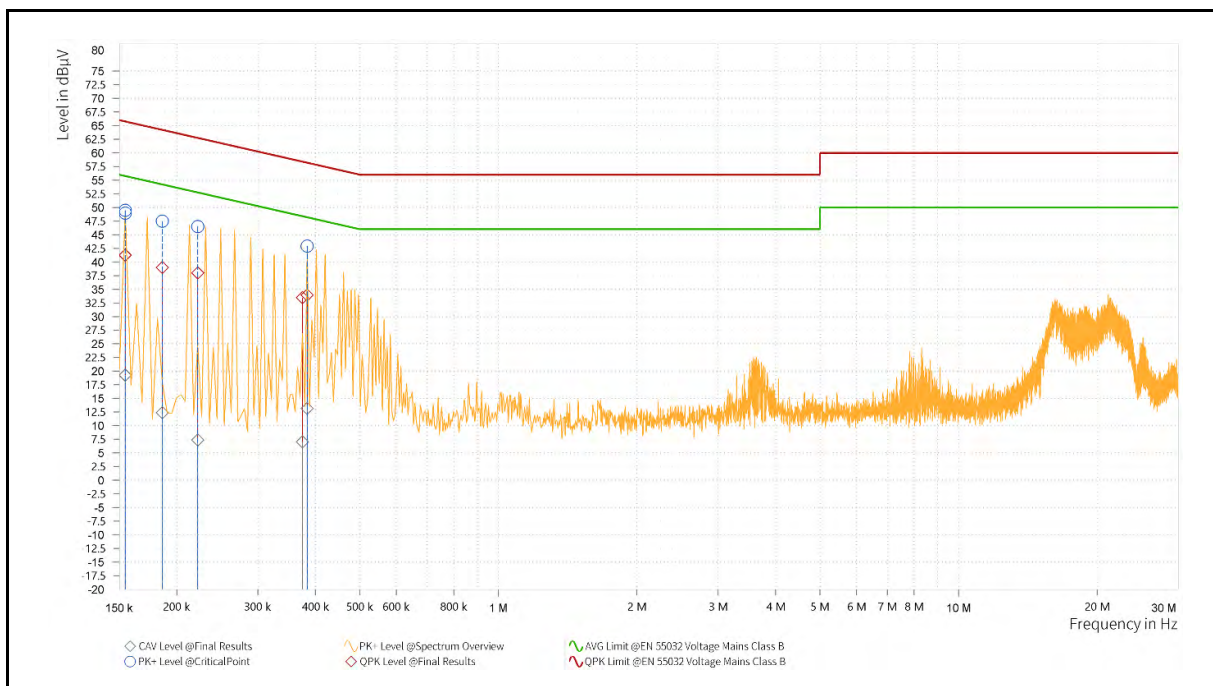


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	35.89	65.75	29.86	14.62	55.75	41.14	9.65	L1
1	0.249	34.02	61.79	27.77	7.81	51.79	43.98	9.65	L1
1	0.249	34.04	61.79	27.75	7.75	51.79	44.04	9.65	L1
1	0.420	35.01	57.45	22.44	6.06	47.45	41.39	9.66	L1
1	0.420	34.98	57.45	22.47	6.29	47.45	41.16	9.66	L1
1	0.425	35.01	57.36	22.35	5.81	47.36	41.54	9.66	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Delta PSU)		

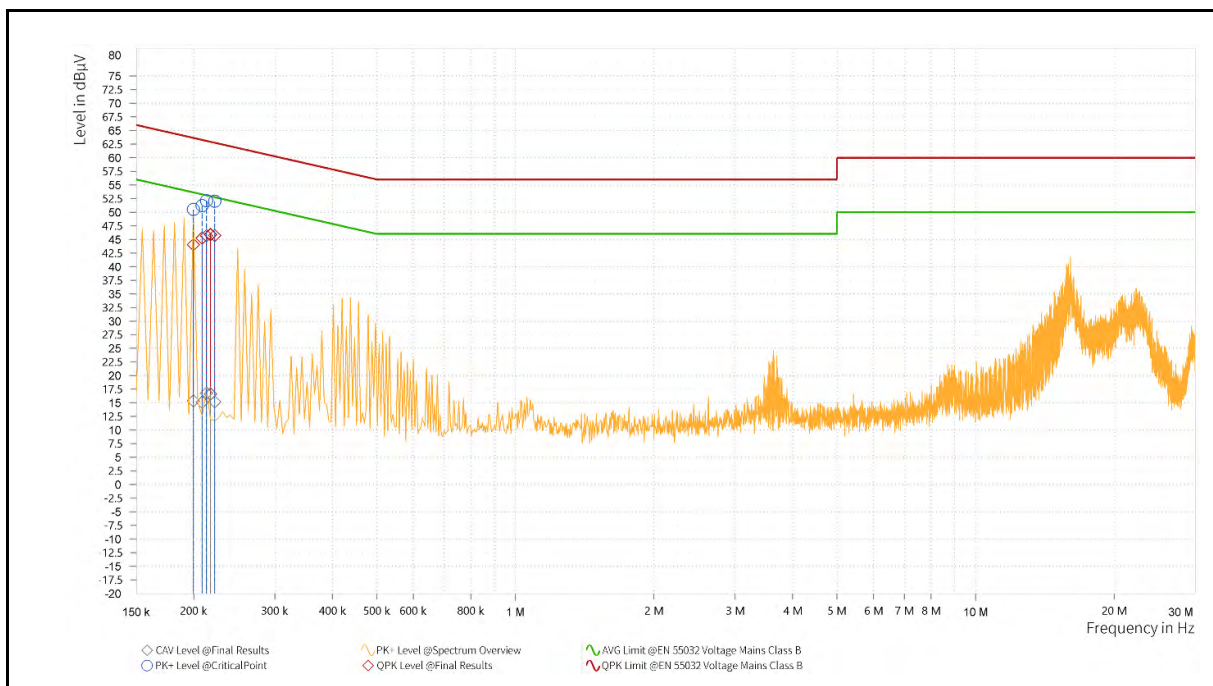


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.155	41.24	65.75	24.52	19.27	55.75	36.49	9.65	N
1	0.155	41.26	65.75	24.50	19.25	55.75	36.50	9.65	N
1	0.186	39.01	64.21	25.21	12.40	54.21	41.81	9.65	N
1	0.222	37.98	62.74	24.77	7.38	52.74	45.36	9.65	N
1	0.375	33.48	58.39	24.91	7.03	48.39	41.36	9.66	N
1	0.384	33.93	58.19	24.26	13.17	48.19	35.02	9.66	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Murata PSU)		

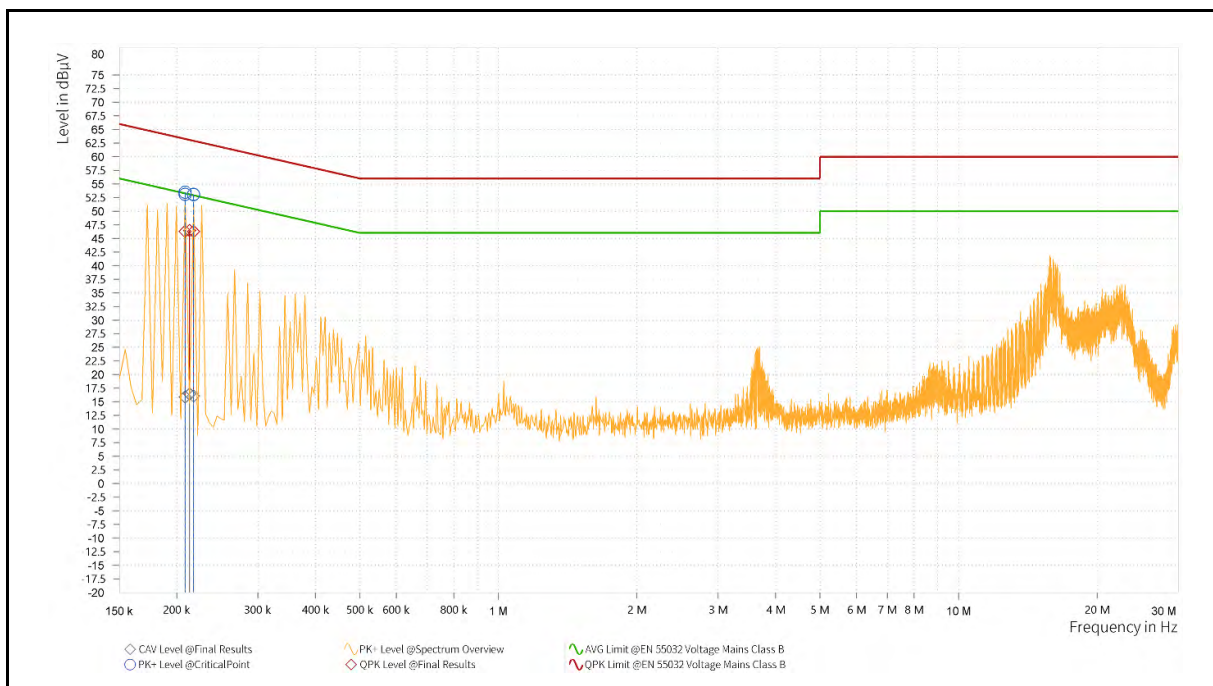


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.200	44.05	63.63	19.58	15.38	53.63	38.25	9.65	L1
1	0.209	45.27	63.26	18.00	15.11	53.26	38.16	9.65	L1
1	0.213	45.70	63.09	17.39	16.77	53.09	36.32	9.65	L1
1	0.218	45.87	62.91	17.05	16.59	52.91	36.33	9.65	L1
1	0.218	45.92	62.91	17.00	16.67	52.91	36.25	9.65	L1
1	0.222	45.73	62.74	17.01	15.19	52.74	37.55	9.65	L1

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	One DC Power(Murata PSU)		

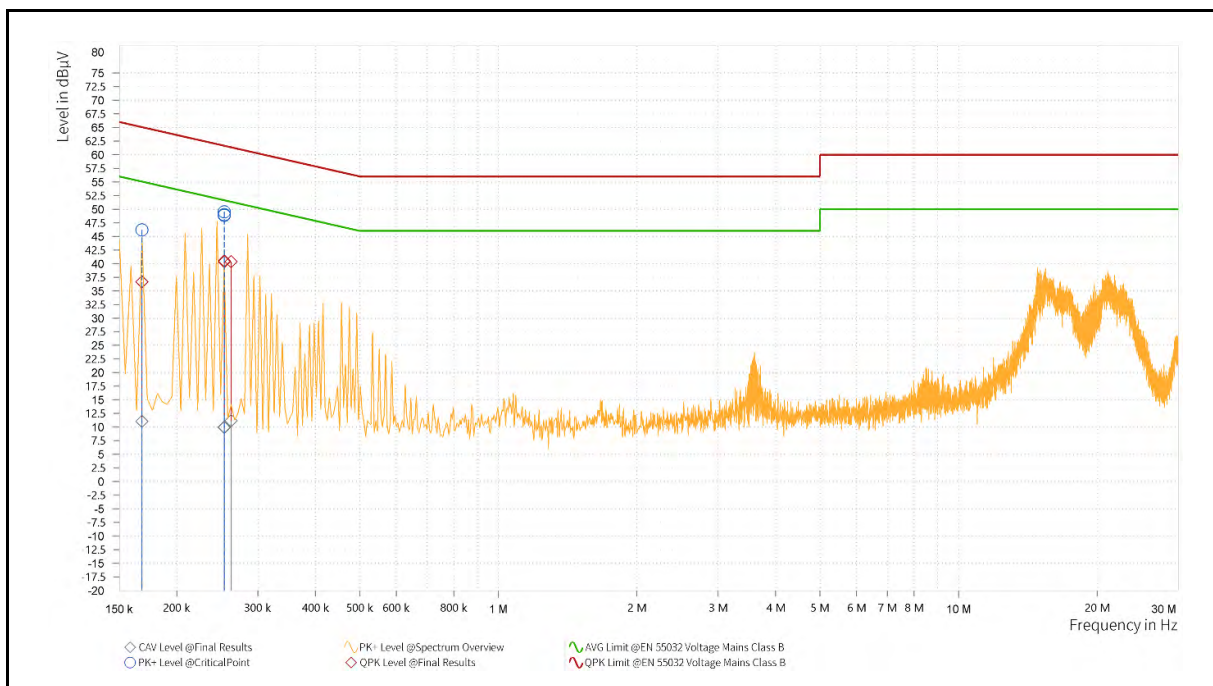


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.209	46.30	63.26	16.97	15.91	53.26	37.36	9.65	N
1	0.209	46.30	63.26	16.97	15.88	53.26	37.38	9.65	N
1	0.213	46.44	63.09	16.65	16.43	53.09	36.65	9.65	N
1	0.213	46.43	63.09	16.66	16.40	53.09	36.69	9.65	N
1	0.213	46.44	63.09	16.65	16.48	53.09	36.61	9.65	N
1	0.218	46.23	62.91	16.69	16.09	52.91	36.82	9.65	N
1	0.218	46.26	62.91	16.66	16.10	52.91	36.81	9.65	N

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	L1
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Murata PSU)		

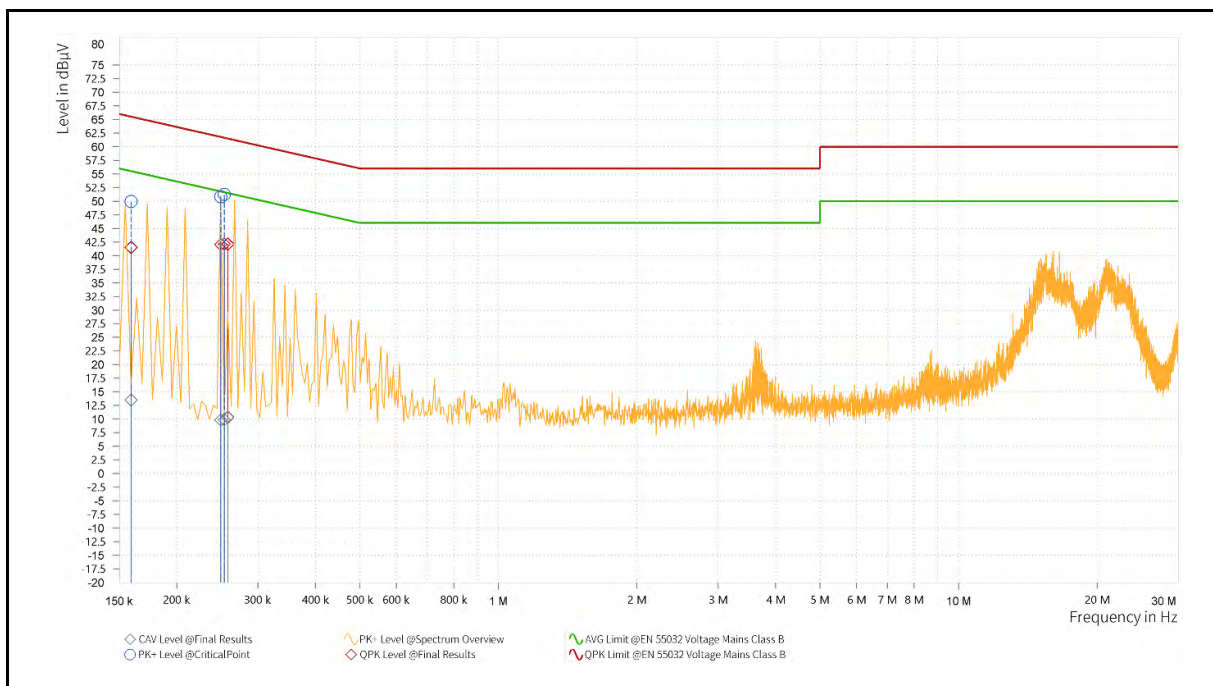


Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.168	36.66	65.06	28.40	11.06	55.06	44.00	9.65	L1
1	0.254	40.38	61.64	21.26	9.94	51.64	41.71	9.65	L1
1	0.254	40.51	61.64	21.13	10.00	51.64	41.64	9.65	L1
1	0.254	40.47	61.64	21.17	9.99	51.64	41.65	9.65	L1
1	0.263	40.38	61.35	20.97	11.16	51.35	40.19	9.65	L1
1	0.263	40.39	61.35	20.96	11.16	51.35	40.19	9.65	L1

Note: 1. Result (dBuV) = Correction factor (dB) + Reading (dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Standard:	Part 15.247	Line:	N
Test item:	Conducted Emission	Power:	AC 120 V/60 Hz
Mode:	Transmit Mode		
Description:	Two DC Power(Murata PSU)		



Rg	Frequency [MHz]	QPK Level [dBμV]	QPK Limit [dBμV]	QPK Margin [dB]	CAV Level [dBμV]	CAV: AVG Limit [dBμV]	CAV Margin [dB]	Correction [dB]	Line
1	0.159	41.49	65.52	24.03	13.50	55.52	42.02	9.65	N
1	0.159	41.52	65.52	24.00	13.52	55.52	41.99	9.65	N
1	0.249	42.03	61.79	19.76	9.83	51.79	41.96	9.65	N
1	0.254	42.13	61.64	19.52	9.89	51.64	41.75	9.65	N
1	0.258	42.11	61.50	19.38	10.29	51.50	41.20	9.65	N
1	0.258	42.16	61.50	19.34	10.38	51.50	41.12	9.65	N

Note: 1.Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2.Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).