

**TEST REPORT
FROM
RFI GLOBAL SERVICES LTD**

Test of: Ingenico France, IWL255XXX

To: 47CFR15.107, 47CFR15.109 and RSS-GEN Issue 3 December 2010

Test Report Serial No: RFI-EMC-RP83069JD01A

This test report is issued under the authority of Chris Guy, Head of Global Approvals:



Checked By:	Andy Graham
Signature:	
Date of Issue:	30 August 2011

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1. CUSTOMER DETAILS



Company Name:	Ingenico France
Address:	1, rue Claude Chappe - BP 346 Guilherand-Granges 7503 France



2. SUMMARY OF TESTING

2.1. Test Specification

Reference:	47CFR15.107 and 47CFR15.109
Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2010: Part 15 Subpart B (Radio Frequency Devices) – Sections 15.107 and 15.109.
Reference:	RSS-GEN Issue 3 December 2010
Title:	General Requirements and Information for the Certification of Radio Apparatus
Site Registration:	FCC: 209735 Industry Canada: 3245B-2

2.2. Summary of Test Results

FCC Reference	IC Reference	Measurement Type	Applicability	Result
EMISSIONS				
15.109	RSS-Gen 4.10 RSS-Gen 6.1	Radiated Emissions (Enclosure)	Y	
15.107	RSS-GEN 7.2.4	Conducted Emissions (AC Mains Input / Output Ports)	Y	

KEY:  = Complied  = Did not comply

2.3. Location of Testing

All the measurements described in this report were performed at the premises of RFI Global Services Ltd, Unit 3 Horizon, Wade Road, Kingsland Business Park, Basingstoke, Hampshire RG24 8AH.

2.4. Deviations from the Test Specification

For the measurements contained within this test report, there were no deviations from, additions to, or exclusions from the test specification identified above, nor from the requirements defined in the basic standards called up within it.

3. EQUIPMENT UNDER TEST (EUT)

3.1. Description of EUT

The EUT was a GSM / GPRS enabled Point of Sales (POS) terminal with RFID-based contactless payment technology.

3.2. Identification of Equipment under Test (EUT)

ID#	Description	Brand Name	Model No	Serial No	IMEI
E1	Point Of Sales Terminal	Ingenico France	IWL255-01T1443A	11192WL60057381	357524040000604

3.3. Port Identification

Port	Description	Type
P1	Enclosure	-
P2	Charger	USB

3.4. Operating Modes

Mode Reference	Definition
Idle	The EUT was left on and charging via its USB port.
Printing	The EUT was left on and charging via USB. Additionally, the yellow button on the keypad was depressed throughout the test to force the EUT to continuously print.

Radio characteristics

GSM Bands Supported:	Rated Output Power (dBm)	Transmit Frequency range (MHz)	ARFCN	Transmit Frequency (MHz)	Receive Frequency range (MHz)	ARFCN	Receive Frequency (MHz)
GSM 850	33	824 – 849	190	836.6	869 – 894	190	881.6
GSM 900	33	880 -915	63	902.6	925 - 960	63	947.6
DCS 1800	30	1710 – 1785	700	1747.8	1805 – 1880	700	1842.8
PCS 1900	30	1850 – 1910	660	1879.8	1930 – 1990	660	1959.8

Supported Technologies e.g. Circuit Switched Voice/Data, Packet Switched Data GPRS/ EDGE

Packet Switched Data GPRS/ EDGE

3.5. Configuration and Peripherals

Description: Please refer to the Test Configuration and Photograph section for schematic drawing(s) and/or photograph(s) of the test configuration(s) employed in the course of testing

3.6. Modifications

NOTE: No modifications were made to the EUT during the course of testing

3.7. Additional Information Related to Testing

Equipment Category:	Point of Sales Terminal / GSM, GPRS
Intended Operating Environment:	Commercial / Residential
Cycle Time:	5 s to 20 s
Power Supply Requirement(s):	3.6 VDC (internal battery); 5 VDC (AC / DC charger)
Weight:	0.3 kg
Dimensions:	165 x 76 x 54 mm
Antenna Type	Integral
Hardware Version Number:	IWL255
Software Version Number:	Y001
FCC ID:	XKB-IWL2XX3GCL
Industry Canada Certification Number:	2586D-IWL3GCL

4. SUPPORT EQUIPMENT

4.1. Identification of Support Equipment

Description	Manufacturer	Model No	Serial No
Switching Power Supply	Phihong, Inc.	PSAC05R-050	Z111650038A1

4.2. Interconnecting Cables

NOTE: No interconnecting cables were used during the course of testing.

5. MONITORING PERFORMANCE

5.1. Overview

No immunity testing was performed; therefore performance criteria were not applicable.

5.2. Monitoring EUT Performance during Testing

For the purposes of testing, the term “<i>operate as intended</i>” was defined as:	The EUT was powered and being charged via USB, the EUT was setup to print continuously
For the purposes of testing, an “<i>unintentional response</i>” was defined as:	Not Applicable
Method used to determine whether user control functions and stored data were lost after the EMC exposure:	Not Applicable
Method used to verify that a communications link was established and maintained (if appropriate):	Not Applicable
Method of assessment of level of performance or degradation of performance during and/or after EMC exposure:	Not Applicable

6. MEASUREMENT UNCERTAINTY

6.1. Overview

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently, the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement regarding the uncertainty of approximation.

The measurement uncertainty may need to be taken into account when interpreting the test results included within this test report.

6.2. Method of calculation

The methods used to calculate the uncertainties included within this test report are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty, the published guidance of the United Kingdom Accreditation Service (UKAS) is followed.

7. MEASUREMENTS, EXAMINATIONS AND DERIVED RESULTS

7.1. General Comments

7.1.1. This section contains the test result sheets for the measurements listed in Section 2.2. *Summary of Test Results* (above).

7.1.2. The measurement uncertainties stated in the test result sheets were calculated in accordance with documented best practice and represent a confidence level of 95%. Where only confidence level is given, it has been demonstrated that the relevant items of test equipment used meet the specified requirements in the standard with at least this level of confidence.

7.1.3. Please refer to Section 6. *Measurement Uncertainty* on page 11 for details of our treatment of measurement uncertainty.

RADIATED EMISSIONS - TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	83069JD01	TEST SITE ID:	Site 1
EUT:	IWL255XXX	TEMPERATURE:	28 °C to 28 °C
TEST ENGINEER:	Eric Phiri	RELATIVE HUMIDITY:	33 % to 33 %
DATE OF TEST:	23 Aug 2011	ATMOSPHERIC PRESSURE:	1004mb to 1004 mb
FIELD TYPE:	Electric Field	MEASUREMENT DISTANCE:	3 Metres
UNCERTAINTY (±):	±3.99 dB	EQUIPMENT CLASS:	Class B
MEASUREMENT UNITS:	dBµV/m	TEST ENVIRONMENT:	Test Site

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

REFERENCE:	ANSI C63.4-2009
TITLE:	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

COMMENTS

None

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Idle
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Frequency (MHz)	Polarity	Detector	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Graph No.	Result
1	31.802	Vertical	Quasi-Peak	23.7	40.0	16.3	GPH\83069JD01\001	Complied
2	45.478	Vertical	Quasi-Peak	25.3	40.0	14.7	GPH\83069JD01\001	Complied
3	53.216	Vertical	Quasi-Peak	24.5	40.0	15.5	GPH\83069JD01\001	Complied
4	65.446	Vertical	Quasi-Peak	26.7	40.0	13.3	GPH\83069JD01\001	Complied
5	78.919	Vertical	Quasi-Peak	6.3	40.0	33.7	GPH\83069JD01\001	Complied
6	109.811	Vertical	Quasi-Peak	16.6	43.5	26.9	GPH\83069JD01\001	Complied
7	128.584	Horizontal	Quasi-Peak	36.1	43.5	7.4	GPH\83069JD01\001	Complied
8	290.284	Horizontal	Quasi-Peak	34.5	46.0	11.5	GPH\83069JD01\001	Complied
9	677.329	Horizontal	Quasi-Peak	32.0	46.0	14.0	GPH\83069JD01\001	Complied
10	724.233	Horizontal	Quasi-Peak	30.1	46.0	15.9	GPH\83069JD01\001	Complied
11	1000 to 4000			Refer to Note 1			GPH\83069JD01\002	Complied
12	4000 to 7000			Refer to Note 1			GPH\83069JD01\003	Complied
13	7000 to 10000			Refer to Note 1			GPH\83069JD01\004	Complied

MEASUREMENT RESULTS

No.	Frequency (MHz)	Polarity	Detector	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Graph No.	Result
14	10000 to 12750				Refer to Note 1		GPH\83069JD01\005	Complied

NOTES

- 1 No emissions were noted above the noise floor of the measurement system. Therefore no further measurements were made.
- 2 Measurements below 1 GHz were performed in a semi-anechoic chamber at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

Pre-scans and final measurements above 1 GHz were performed in a semi-anechoic chamber at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0001	5 m Semi-Anechoic Chamber	None Stated	29 May 2012	12
M1273	EMI Test Receiver	ESIB 26	04 Feb 2012	12
C1305	3 m Rosenberger Cable	FA210A1030005050	Calibration not required	
A1817	1 to 18 GHz Horn Antenna	3115	03 Feb 2012	12
C1302	3 m Rosenberger Cable	FA210A1030005050	31 Mar 2012	12
C1407	15 m RF cable	262-0941-15M0	15 Apr 2012	12
A553	Bi-log Antenna	CBL6111A	26 Mar 2012	12
A1834	3 dB N-Type Attenuator	8491B	26 Jul 2012	12

RADIATED EMISSIONS - TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	83069JD01	TEST SITE ID:	Site 1
EUT:	IWL255XXX	TEMPERATURE:	28 °C to 28 °C
TEST ENGINEER:	Eric Phiri	RELATIVE HUMIDITY:	33 % to 33 %
DATE OF TEST:	23 Aug 2011	ATMOSPHERIC PRESSURE:	1004mb to 1003 mb
FIELD TYPE:	Electric Field	MEASUREMENT DISTANCE:	3 Metres
UNCERTAINTY (±):	±3.99 dB	EQUIPMENT CLASS:	Class B
MEASUREMENT UNITS:	dBµV/m	TEST ENVIRONMENT:	Test Site

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

REFERENCE:	ANSI C63.4-2009
TITLE:	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

COMMENTS

None

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Printing
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Frequency (MHz)	Polarity	Detector	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Graph No.	Result
1	30.496	Vertical	Quasi-Peak	24.4	40.0	15.6	GPH\83069JD01\006	Complied
2	58.056	Vertical	Quasi-Peak	30.8	40.0	9.2	GPH\83069JD01\006	Complied
3	67.708	Vertical	Quasi-Peak	30.9	40.0	9.1	GPH\83069JD01\006	Complied
4	128.517	Vertical	Quasi-Peak	36.4	43.5	7.1	GPH\83069JD01\006	Complied
5	299.936	Horizontal	Quasi-Peak	33.2	46.0	12.8	GPH\83069JD01\006	Complied
6	338.660	Vertical	Quasi-Peak	40.1	46.0	5.9	GPH\83069JD01\006	Complied
7	358.002	Horizontal	Quasi-Peak	40.1	46.0	5.9	GPH\83069JD01\006	Complied
8	396.707	Vertical	Quasi-Peak	35.7	46.0	10.3	GPH\83069JD01\006	Complied
9	551.535	Horizontal	Quasi-Peak	34.2	46.0	11.8	GPH\83069JD01\006	Complied

NOTES

- 1 Measurements were performed in a semi-anechoic chamber at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0001	5 m Semi-Anechoic Chamber	None Stated	29 May 2012	12
M1273	EMI Test Receiver	ESIB 26	04 Feb 2012	12
C1305	3 m Rosenberger Cable	FA210A1030005050	Calibration not required	
A1817	1 to 18 GHz Horn Antenna	3115	03 Feb 2012	12
C1302	3 m Rosenberger Cable	FA210A1030005050	31 Mar 2012	12
C1407	15 m RF cable	262-0941-15M0	15 Apr 2012	12
A553	Bi-log Antenna	CBL6111A	26 Mar 2012	12
A1834	3 dB N-Type Attenuator	8491B	26 Jul 2012	12

CONDUCTED EMISSIONS - TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	83069JD01	TEST SITE ID:	Site 8
EUT:	IWL255XXX	TEMPERATURE:	28 °C to 28 °C
TEST ENGINEER:	Eric Phiri	RELATIVE HUMIDITY:	33 % to 33 %
DATE OF TEST:	23 Aug 2011	ATMOSPHERIC PRESSURE:	1003 mb to 1003 mb
UNCERTAINTY (±):	±3.99 dB	EQUIPMENT CLASS:	Class B
CATEGORY:	Not applicable	MEASUREMENT METHOD:	LISN (AC)

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

REFERENCE:	ANSI C63.4-2009
TITLE:	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

COMMENTS

None

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Idle
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Frequency (MHz)	Line	Detector	Level (dBµV)	Limit (dBµV)	Margin (dB)	Graph No.	Result
1	0.168	Live	Quasi-Peak	32.2	65.1	32.9	GPH\83069JD01\007	Complied
2	0.186	Live	Quasi-Peak	46.0	64.2	18.2	GPH\83069JD01\007	Complied
3	0.186	Live	Quasi-Peak	45.8	64.2	18.4	GPH\83069JD01\007	Complied
4	0.258	Live	Quasi-Peak	41.2	61.5	20.3	GPH\83069JD01\007	Complied
5	0.339	Live	Quasi-Peak	36.1	59.2	23.1	GPH\83069JD01\007	Complied
6	0.537	Live	Quasi-Peak	36.5	56.0	19.5	GPH\83069JD01\007	Complied
7	0.191	Live	Average (CISPR)	31.9	54.0	22.1	GPH\83069JD01\007	Complied
8	0.254	Live	Average (CISPR)	27.9	51.6	23.7	GPH\83069JD01\007	Complied
9	0.317	Live	Average (CISPR)	26.0	49.8	23.8	GPH\83069JD01\007	Complied
10	0.380	Live	Average (CISPR)	25.5	48.3	22.8	GPH\83069JD01\007	Complied
11	0.506	Live	Average (CISPR)	25.1	46.0	20.9	GPH\83069JD01\007	Complied
12	0.515	Live	Average (CISPR)	27.3	46.0	18.7	GPH\83069JD01\007	Complied
13	0.168	Neutral	Quasi-Peak	27.0	65.1	38.1	GPH\83069JD01\008	Complied

MEASUREMENT RESULTS

No.	Frequency (MHz)	Line	Detector	Level (dBµV)	Limit (dBµV)	Margin (dB)	Graph No.	Result
14	0.263	Neutral	Quasi-Peak	27.3	61.4	34.1	GPH\83069JD01\008	Complied
15	0.312	Neutral	Quasi-Peak	39.6	59.9	20.3	GPH\83069JD01\008	Complied
16	0.389	Neutral	Quasi-Peak	35.8	58.1	22.3	GPH\83069JD01\008	Complied
17	0.492	Neutral	Quasi-Peak	36.8	56.1	19.3	GPH\83069JD01\008	Complied
18	0.546	Neutral	Quasi-Peak	38.9	56.0	17.1	GPH\83069JD01\008	Complied
19	0.546	Neutral	Quasi-Peak	38.6	56.0	17.4	GPH\83069JD01\008	Complied
20	4.893	Neutral	Quasi-Peak	22.8	56.0	33.2	GPH\83069JD01\008	Complied
21	0.191	Neutral	Average (CISPR)	30.6	54.0	23.4	GPH\83069JD01\008	Complied
22	0.254	Neutral	Average (CISPR)	27.6	51.6	24.0	GPH\83069JD01\008	Complied
23	0.380	Neutral	Average (CISPR)	26.5	48.3	21.8	GPH\83069JD01\008	Complied
24	0.492	Neutral	Average (CISPR)	24.5	46.1	21.6	GPH\83069JD01\008	Complied
25	0.506	Neutral	Average (CISPR)	29.1	46.0	16.9	GPH\83069JD01\008	Complied
26	0.569	Neutral	Average (CISPR)	19.2	46.0	26.8	GPH\83069JD01\008	Complied

NOTES

N/A During measurement the engineer did not record any specific notes relevant to report.

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0008	Conducted AC Emissions / RF immunity Laboratory	None Stated	Calibration not required	
M1263	EMI Test Receiver	ESIB7	13 Jul 2012	12
C363	3 m cable	RG142	05 Mar 2012	12
A067	Line Impedance Stabilization Network	ESH3-Z5	02 Jun 2012	12

CONDUCTED EMISSIONS - TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	83069JD01	TEST SITE ID:	Site 8
EUT:	IWL255XXX	TEMPERATURE:	28 °C to 28 °C
TEST ENGINEER:	Eric Phiri	RELATIVE HUMIDITY:	33 % to 33 %
DATE OF TEST:	23 Aug 2011	ATMOSPHERIC PRESSURE:	1003 mb to 1003 mb
UNCERTAINTY (±):	±3.99 dB	EQUIPMENT CLASS:	Class B
CATEGORY:	Not applicable	MEASUREMENT METHOD:	LISN (AC)

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

REFERENCE:	ANSI C63.4-2009
TITLE:	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

COMMENTS

None

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Printing
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Frequency (MHz)	Line	Detector	Level (dBµV)	Limit (dBµV)	Margin (dB)	Graph No.	Result
1	0.150	Live	Quasi-Peak	46.5	66.0	19.5	GPH\83069JD01\009	Complied
2	0.191	Live	Quasi-Peak	47.5	64.0	16.5	GPH\83069JD01\009	Complied
3	0.254	Live	Quasi-Peak	43.2	61.6	18.4	GPH\83069JD01\009	Complied
4	0.290	Live	Quasi-Peak	38.5	60.5	22.0	GPH\83069JD01\009	Complied
5	0.434	Live	Quasi-Peak	30.7	57.2	26.5	GPH\83069JD01\009	Complied
6	0.519	Live	Quasi-Peak	30.2	56.0	25.8	GPH\83069JD01\009	Complied
7	0.191	Live	Average (CISPR)	34.3	54.0	19.7	GPH\83069JD01\009	Complied
8	0.254	Live	Average (CISPR)	28.6	51.6	23.0	GPH\83069JD01\009	Complied
9	0.317	Live	Average (CISPR)	26.0	49.8	23.8	GPH\83069JD01\009	Complied
10	0.380	Live	Average (CISPR)	19.8	48.3	28.5	GPH\83069JD01\009	Complied
11	0.443	Live	Average (CISPR)	22.0	47.0	25.0	GPH\83069JD01\009	Complied
12	0.506	Live	Average (CISPR)	23.6	46.0	22.4	GPH\83069JD01\009	Complied
13	0.191	Neutral	Quasi-Peak	49.2	64.0	14.8	GPH\83069JD01\010	Complied

MEASUREMENT RESULTS

No.	Frequency (MHz)	Line	Detector	Level (dBµV)	Limit (dBµV)	Margin (dB)	Graph No.	Result
14	0.254	Neutral	Quasi-Peak	42.9	61.6	18.7	GPH\83069JD01\010	Complied
15	0.321	Neutral	Quasi-Peak	36.9	59.7	22.8	GPH\83069JD01\010	Complied
16	0.515	Neutral	Quasi-Peak	35.1	56.0	20.9	GPH\83069JD01\010	Complied
17	0.569	Neutral	Quasi-Peak	37.1	56.0	18.9	GPH\83069JD01\010	Complied
18	3.093	Neutral	Quasi-Peak	30.9	56.0	25.1	GPH\83069JD01\010	Complied
19	4.772	Neutral	Quasi-Peak	32.1	56.0	23.9	GPH\83069JD01\010	Complied
20	15.864	Neutral	Quasi-Peak	36.8	60.0	23.2	GPH\83069JD01\010	Complied
21	0.191	Neutral	Average (CISPR)	35.3	54.0	18.7	GPH\83069JD01\010	Complied
22	0.254	Neutral	Average (CISPR)	31.3	51.6	20.3	GPH\83069JD01\010	Complied
23	0.317	Neutral	Average (CISPR)	27.0	49.8	22.8	GPH\83069JD01\010	Complied
24	0.443	Neutral	Average (CISPR)	23.2	47.0	23.8	GPH\83069JD01\010	Complied
25	0.564	Neutral	Average (CISPR)	24.5	46.0	21.5	GPH\83069JD01\010	Complied
26	15.734	Neutral	Average (CISPR)	24.0	50.0	26.0	GPH\83069JD01\010	Complied

NOTES

N/A During measurement the engineer did not record any specific notes relevant to report.

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0008	Conducted AC Emissions / RF immunity Laboratory	None Stated	Calibration not required	
M1263	EMI Test Receiver	ESIB7	13 Jul 2012	12
C363	3 m cable	RG142	05 Mar 2012	12
A067	Line Impedance Stabilization Network	ESH3-Z5	02 Jun 2012	12

8. PHOTOGRAPHS OF EUT

This section contains the following photographs:

Photo Reference Number	Title
PHT\83069JD01\001	Test Configuration Photograph - Conducted Emissions (Idle)
PHT\83069JD01\002	Test Configuration Photograph - Conducted Emissions (Printing)
PHT\83069JD01\003	Test Configuration Photograph - Radiated Emissions (Idle)
PHT\83069JD01\004	Test Configuration Photograph - Radiated Emissions (Printing)

PHT83069JD01001 - Test Configuration Photograph - Conducted Emissions (Idle)



PHT183069JD01002 - Test Configuration Photograph - Conducted Emissions (Printing)



PHT83069JD01\003 - Test Configuration Photograph - Radiated Emissions (Idle)



PHT83069JD01\004 - Test Configuration Photograph - Radiated Emissions (Printing)



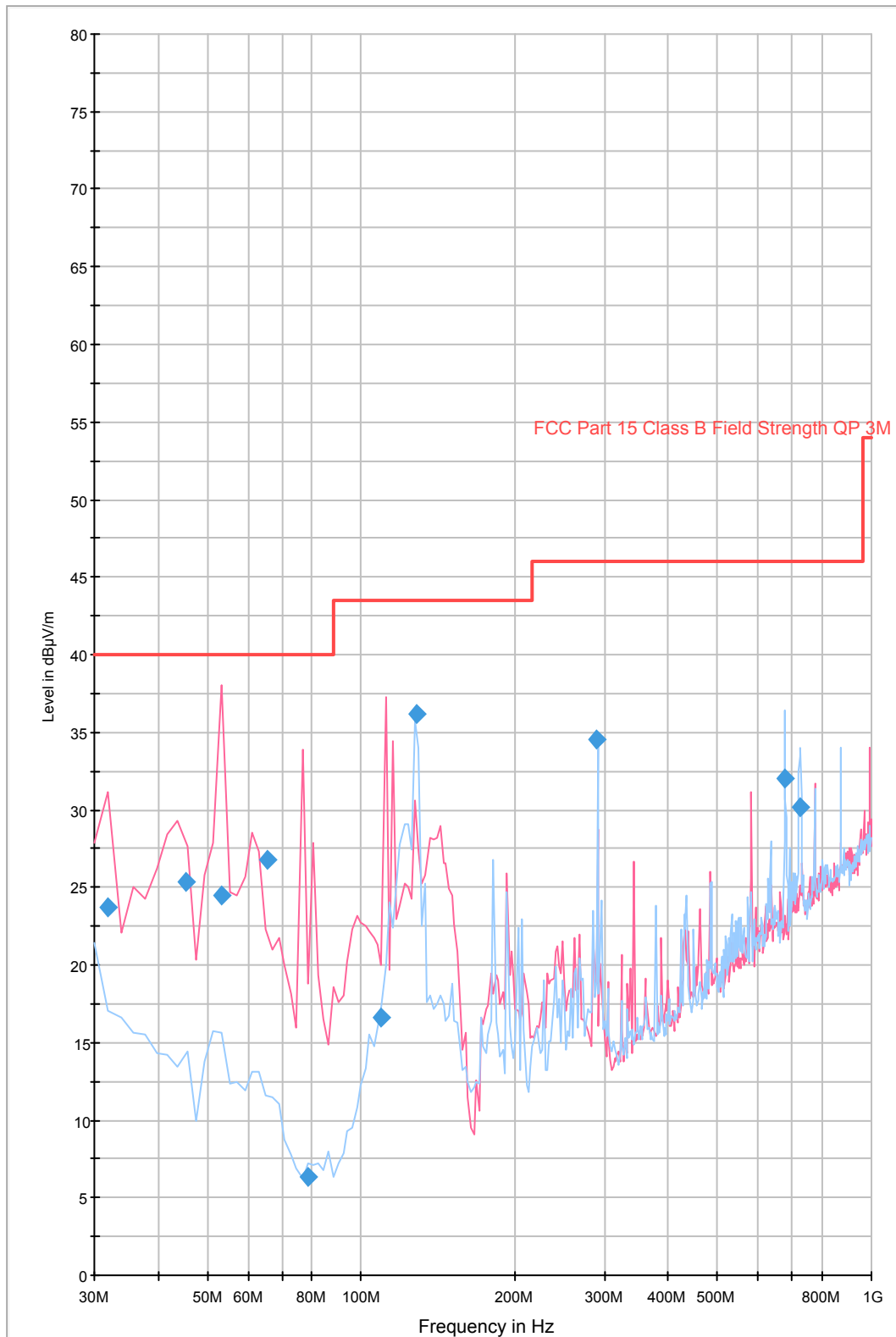
9. GRAPHICAL TEST RESULTS

9.1. This section contains the graphical results for the measurements listed in Section 2.2. *Summary of Test Results* (above).

Graph Number	Title
GPH\83069JD01\001 to 005	Radiated Emissions (Idle) Pre-Scans (30 MHz to 12750 MHz)
GPH\83069JD01\006	Radiated Emissions (Printing) Pre-Scan (30 MHz to 1000 MHz)
GPH\83069JD01\007	Conducted Emissions (Idle - Live) Pre-Scan (150 kHz to 30 MHz)
GPH\83069JD01\0078	Conducted Emissions (Idle - Neutral) Pre-Scan (150 kHz to 30 MHz)
GPH\83069JD01\009	Conducted Emissions (Printing - Live) Pre-Scan (150 kHz to 30 MHz)
GPH\83069JD01\010	Conducted Emissions (Printing - Neutral) Pre-Scan (150 kHz to 30 MHz)

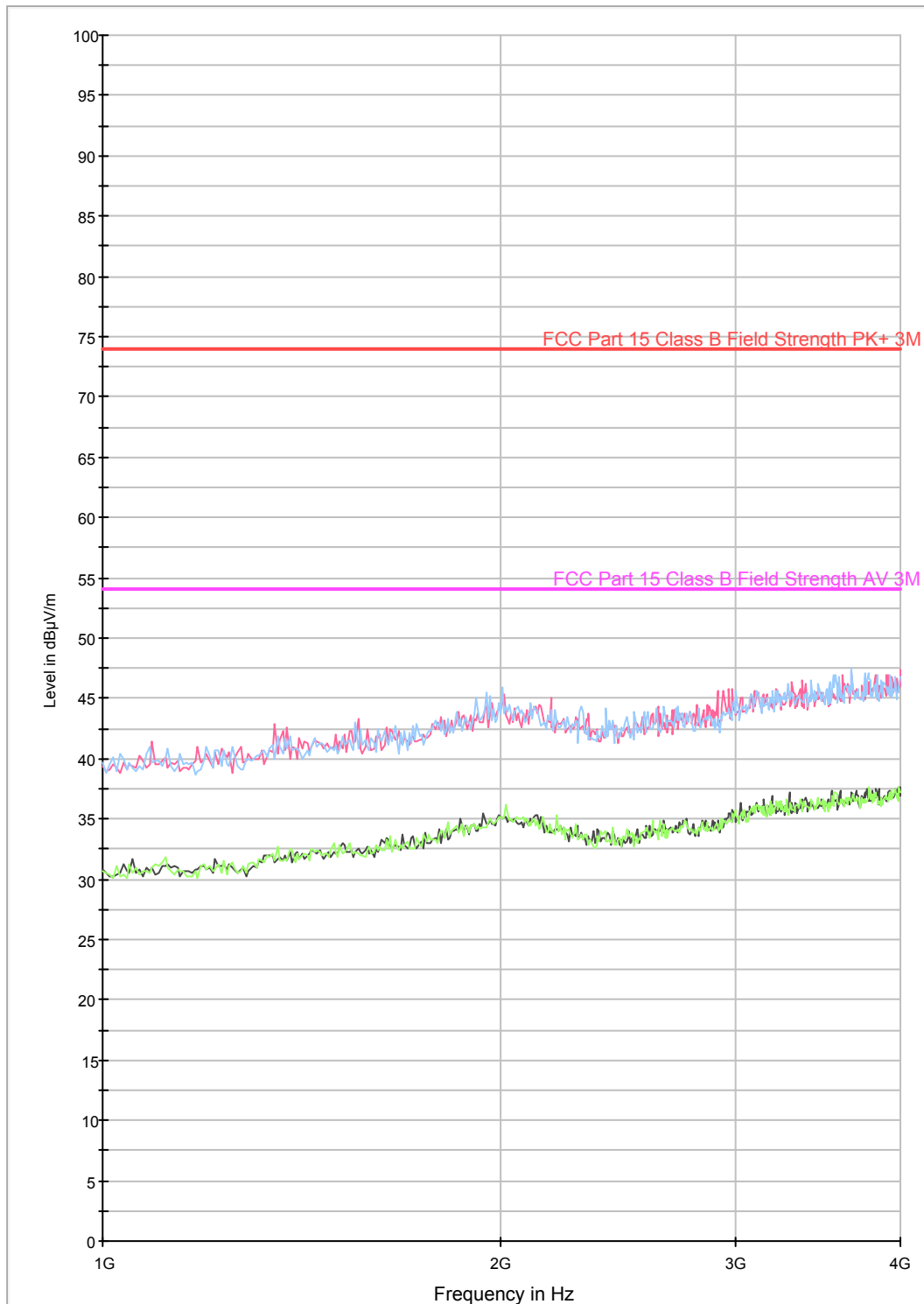
GPH183069JD01\001

FCC Part 15.109 Radiated Emissions Class B 30MHz-1GHz 3m



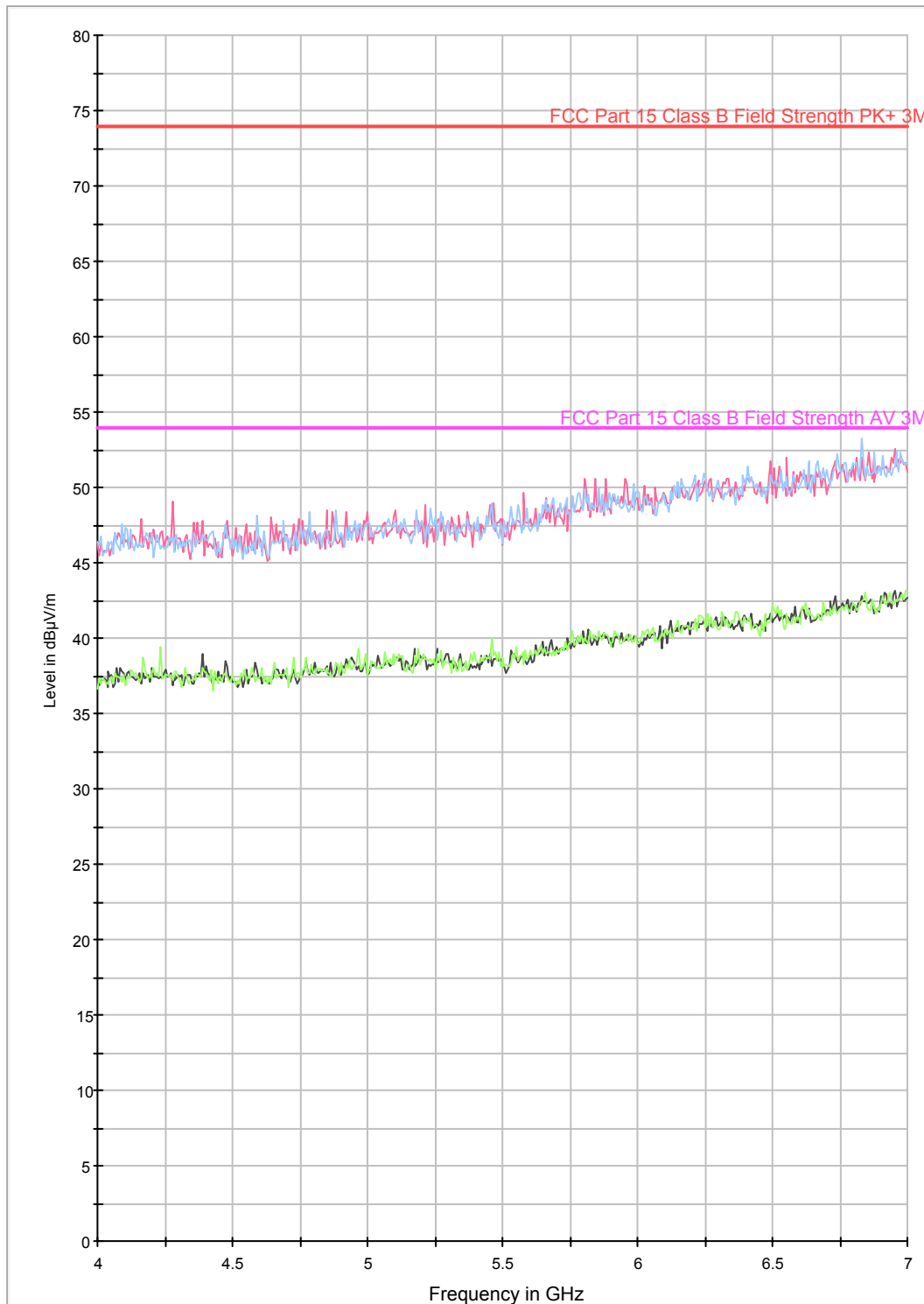
GPH183069JD01\002

FCC Part 15.109 Radiated Emissions Class B 1-4GHz



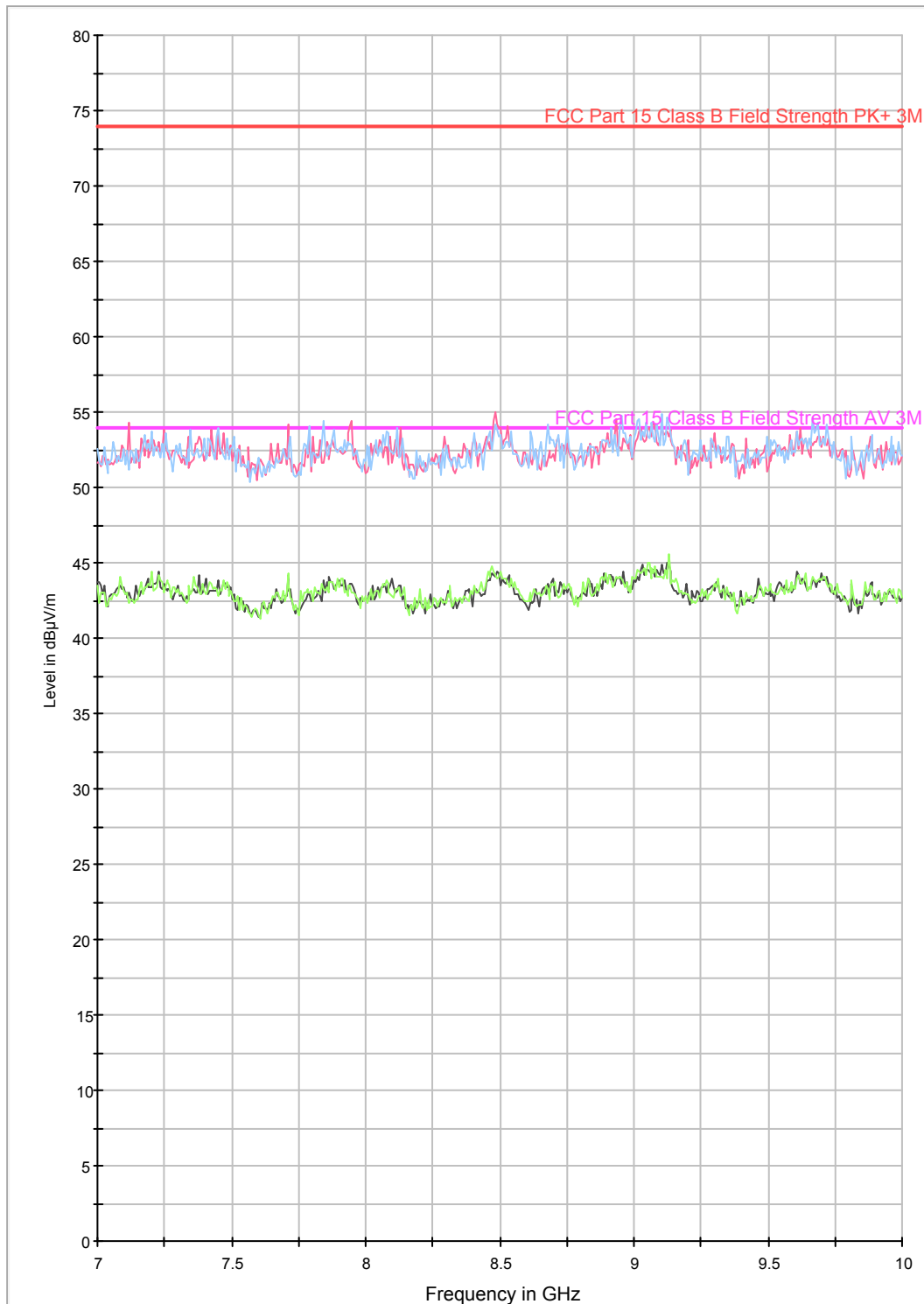
GPH183069JD01\003

FCC Part 15.109 Radiated Emissions Class B 4-7GHz



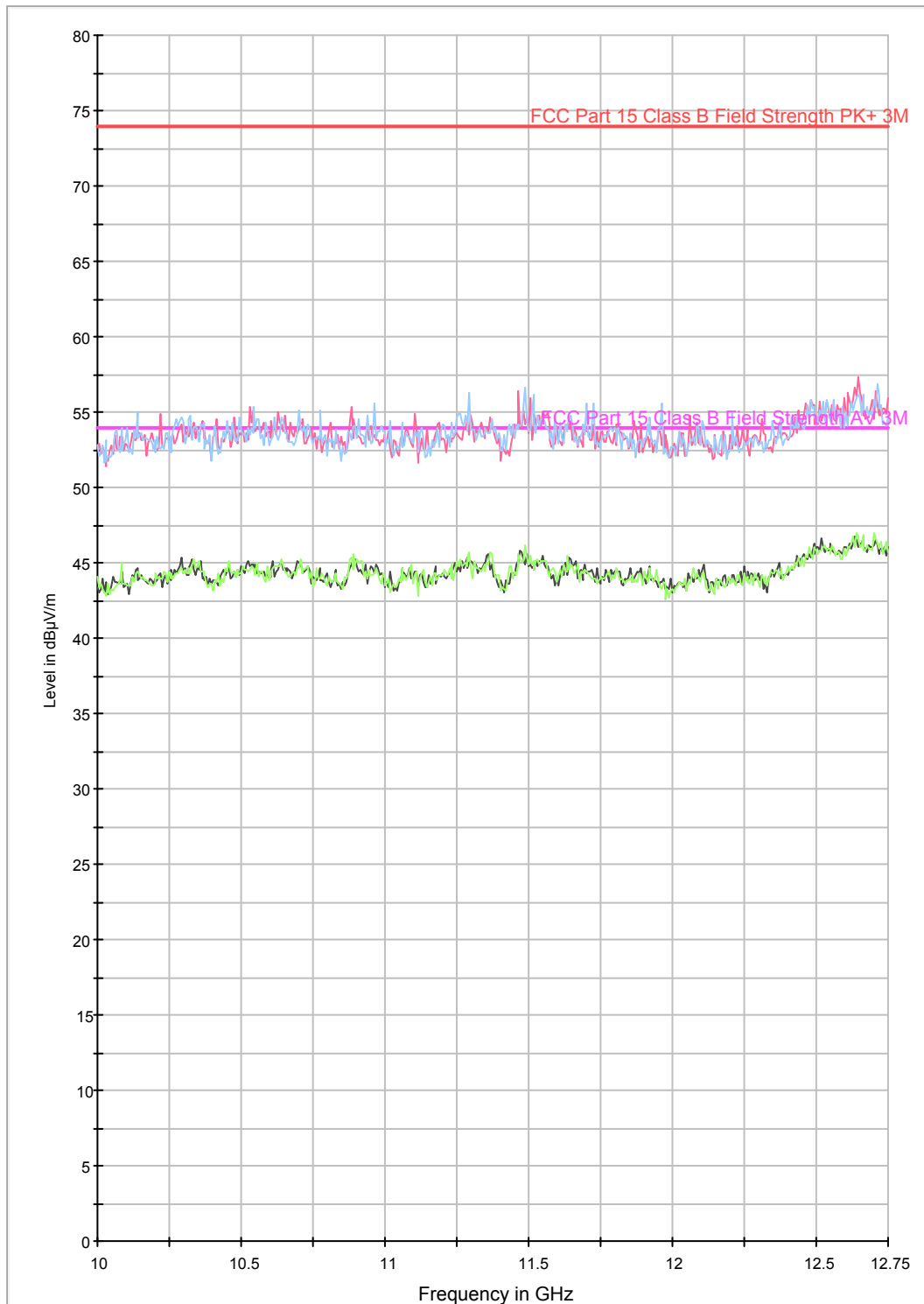
GPH83069JD01\004

FCC Part 15.109 Radiated Emissions Class B 7-10GHz



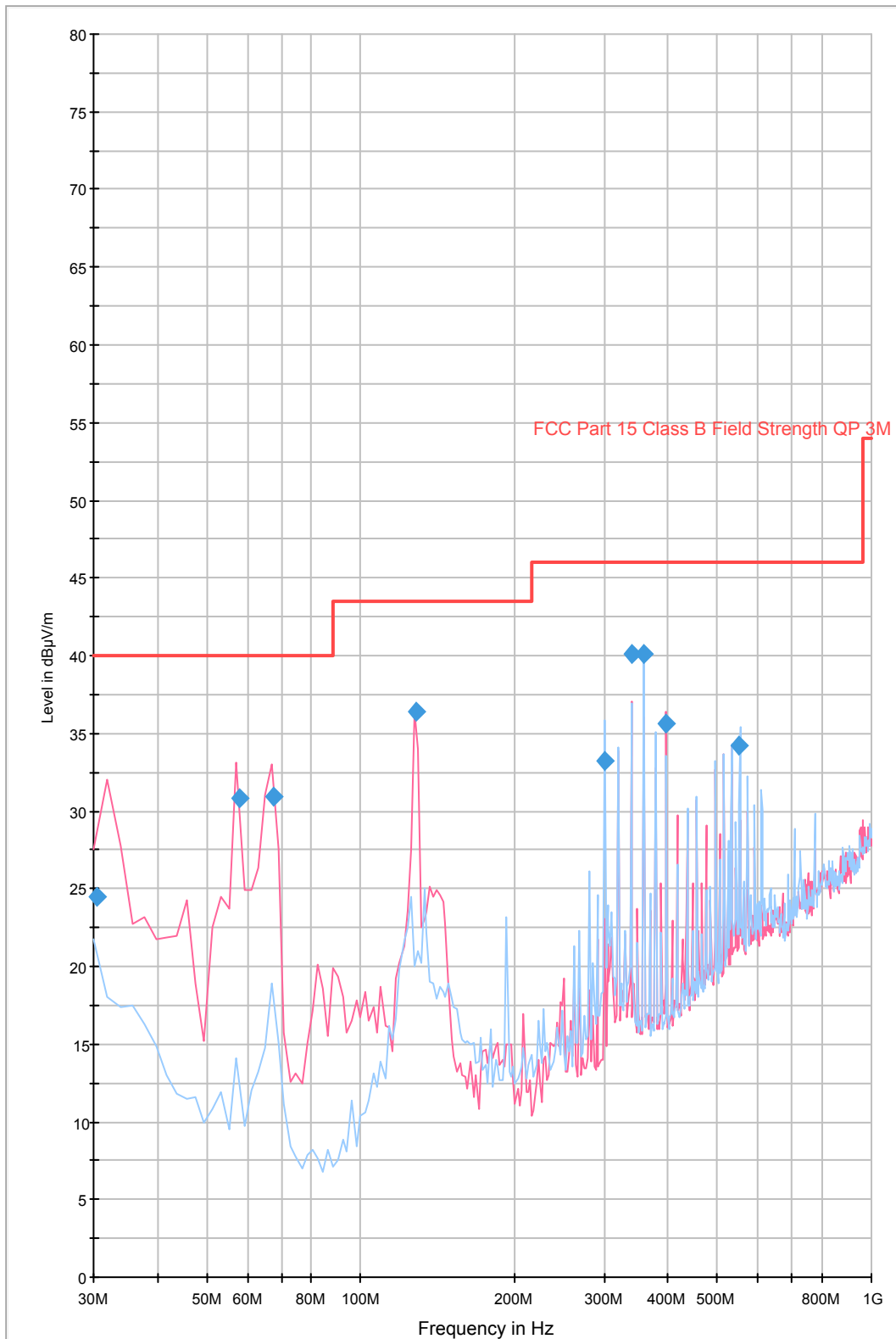
GPH183069JD01\005

FCC Part 15.109 Radiated Emissions Class B 10-12.75GHz



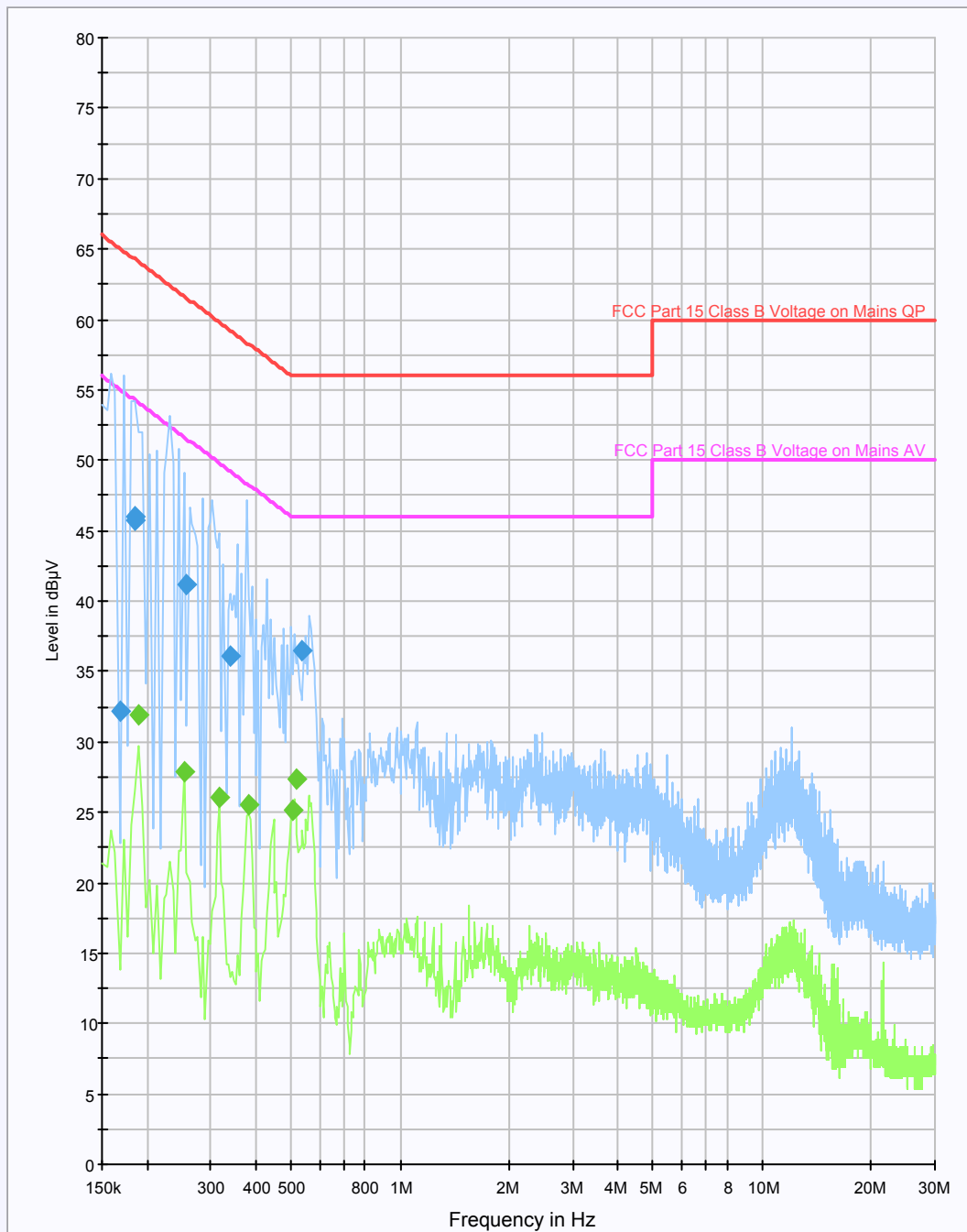
GPH183069JD01\006

FCC Part 15.109 Radiated Emissions Class B 30MHz-1GHz 3m



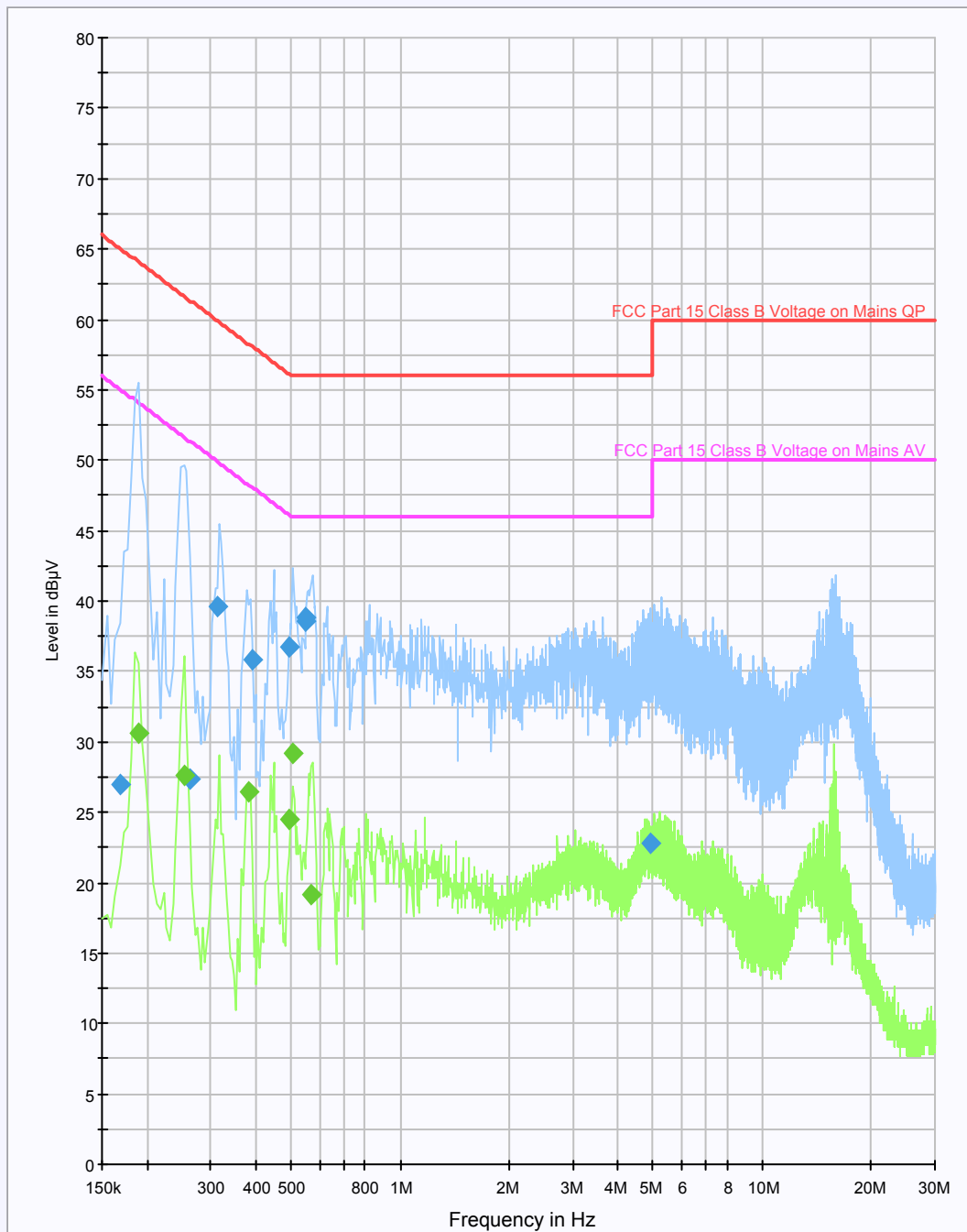
GPH183069JD01\007

FCC Part 15 Class B Voltage with 2-Line-LISN Live



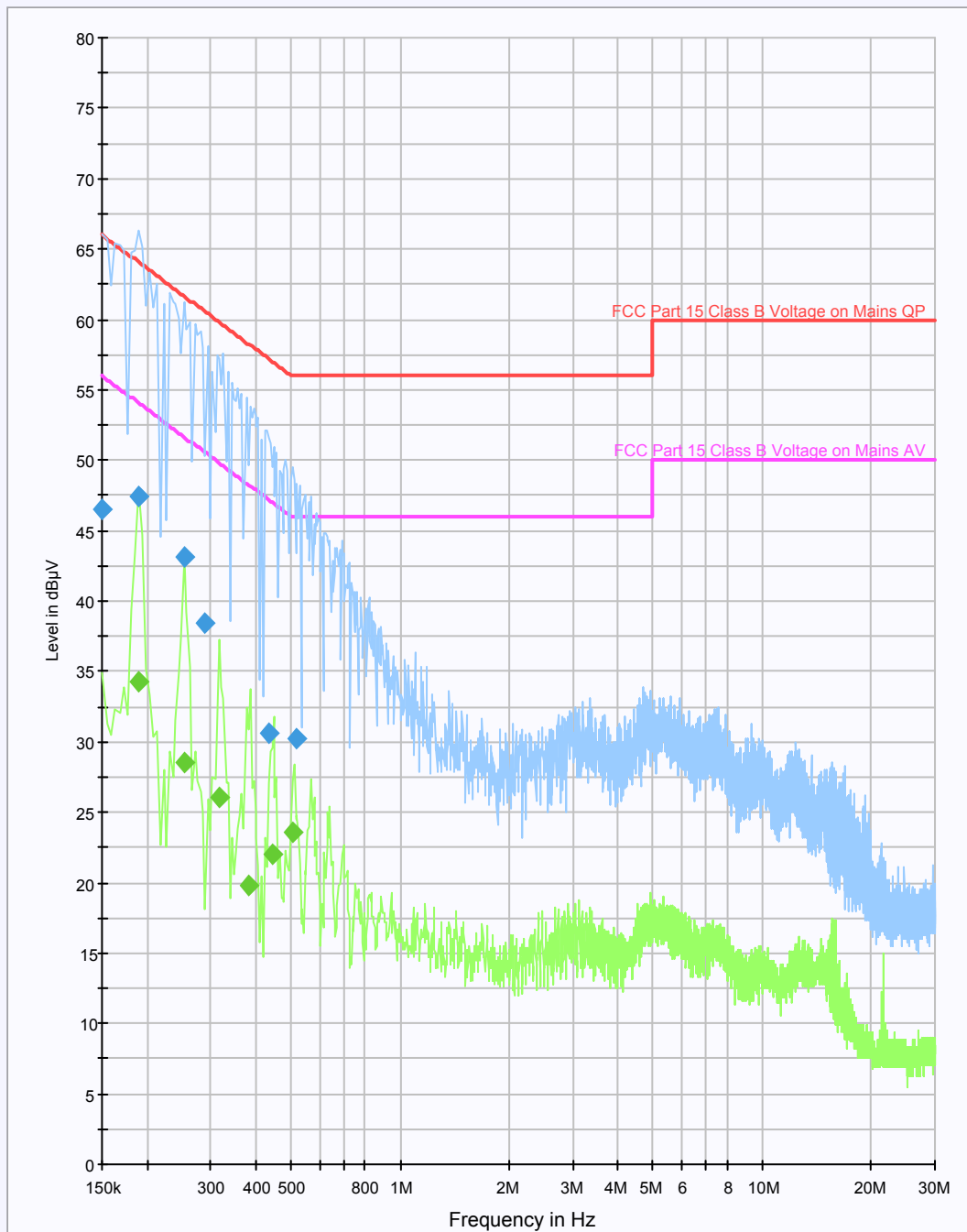
GPH183069JD01\008

FCC Part 15 Class B Voltage with 2-Line-LISN Neutral



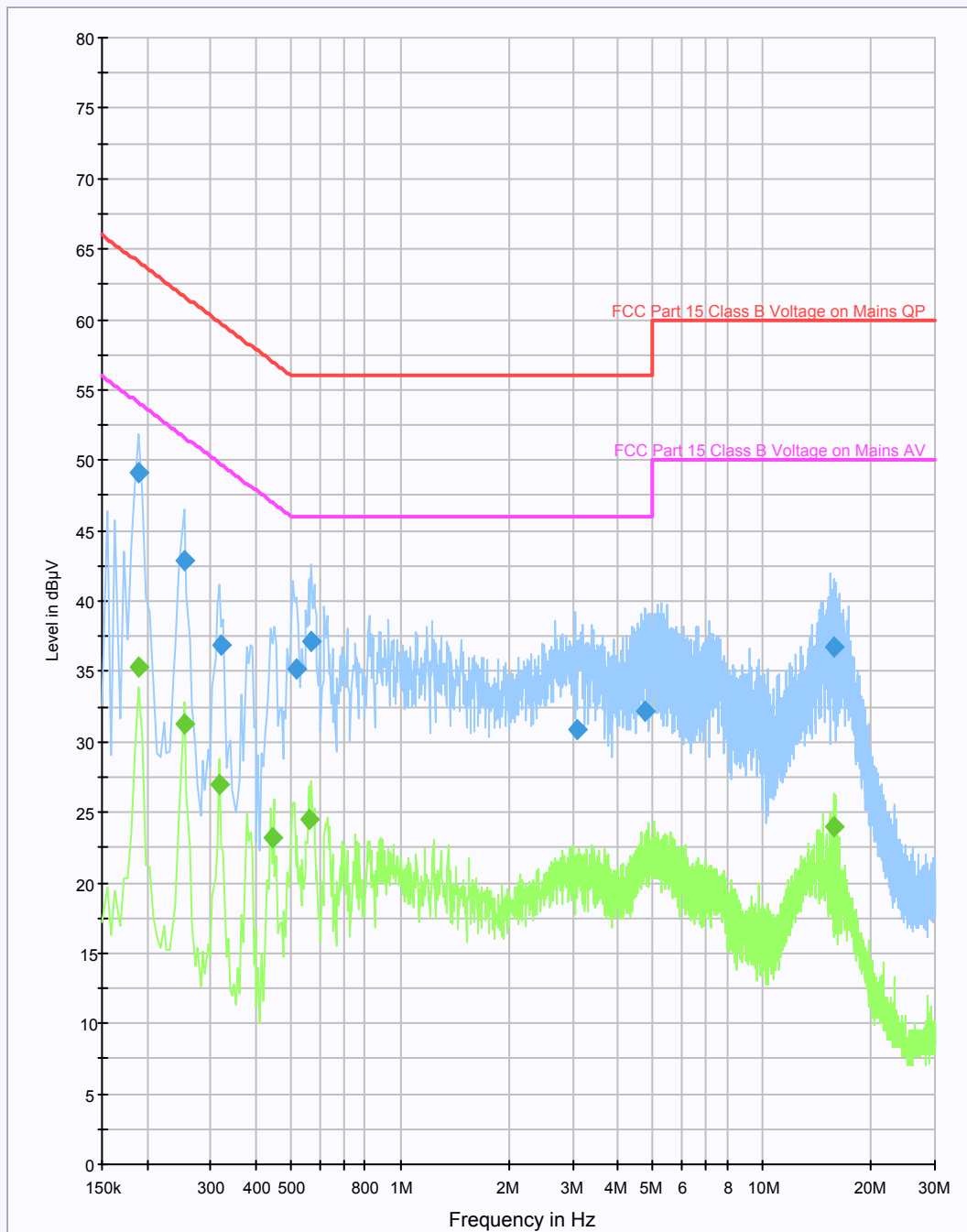
GPH183069JD01\009

FCC Part 15 Class B Voltage with 2-Line-LISN Live



GPH183069JD01\010

FCC Part 15 Class B Voltage with 2-Line-LISN Neutral



10. TEST CONFIGURATION DRAWING

10.1. This section contains the Test Configuration Drawings for the measurements listed in Section 7: Measurements, Examinations and Derived Results.

Test Configuration Reference Number	Title
DRG\83069JD01\001	Schematic diagram of the EUT, support equipment and interconnecting cables used for the test

DRG\83069JD01\001 - Schematic diagram of the EUT, support equipment and interconnecting cables used for the test

