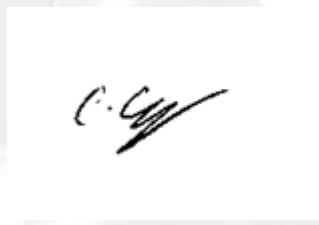
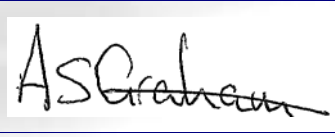


**TEST REPORT
FROM
RFI GLOBAL SERVICES LTD**

Test of: Datalogic Scanning group S.r.l, Gryphon GM4401 910 MHz family

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

Test Report Serial No: RFI-EMC-RP83494JD01A

<p>This test report is issued under the authority of Chris Guy, Head of Global Approvals:</p> 	
Checked By:	Andy Graham
Signature:	
Date of Issue:	31 August 2011

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1. CUSTOMER DETAILS**Company Name:** Datalogic Scanning Group S.r.l.**Address:**
13 Via San Vitalino
Calderara di Reno
Bologna
40012
Italy**2. MANUFACTURER DETAILS****Company Name:** Datalogic Scanning Slovakia, s.r.o.**Address:**
Prilohy 588/47
919 26 Zavar
Slovakia**3. MANUFACTURER DETAILS****Company Name:** Datalogic Scanning Viet Nam LLC**Address:**
Lot I-4b
Saigon Hi-Tech park
Dist 9
HCMC



4. SUMMARY OF TESTING

4.1. 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

4.2. 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

4.3. 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.

4.4. 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.

5. EQUIPMENT UNDER TEST (EUT)

5.1. Description of EUT

The EUT was a laser barcode reader and charging cradle.

5.2. Identification of Equipment under Test (EUT)

ID#	Description	Brand Name	Model No	Serial No
E1	Barcode Reader	Datalogic Scanning	Gryphon GM4401-BK-910	None Stated
E2	Charging Cradle	Datalogic Scanning	Gryphon BC4030	0007BE10181A

5.3. Port Identification

Port	Description	Type
P1	Enclosure	-
P2	DC Input	3 mm socket
P3	Ethernet Port	RJ45

5.4. Operating Modes

Mode Reference	Definition
Idle	The barcode reader was activated and left in the charging cradle. The radio was inactive.

5.5. 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.
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5.6. Modifications

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

5.7. Additional Information Related to Testing

Equipment Category:	Information Technology Equipment
Intended Operating Environment:	Residential / Commercial / Light industrial
Cycle Time:	< 1 s
Power Supply Requirement(s):	3.7 VDC (internal battery); 110 VAC
Weight:	245 g
Dimensions:	181 x 71 x 100 mm
FCC ID Number	U4F0021
Industry Canada Certification Number	3862D-005

6. SUPPORT EQUIPMENT

6.1. Identification of Support Equipment

Description	Manufacturer	Model No	Serial No
12 VAC Adapter	Phihong, Inc.	PSAA18U-120	093400038A1

6.2. Interconnecting Cables

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

7. MONITORING PERFORMANCE

7.1. Overview

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

7.2. Monitoring EUT Performance during Testing

For the purposes of testing, the term “ <i>operate as intended</i> ” was defined as:	The barcode reader was activated and left in the charging cradle. The radio was inactive.
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

8. MEASUREMENT UNCERTAINTY

8.1. 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.

8.2. 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.

9. MEASUREMENTS, EXAMINATIONS AND DERIVED RESULTS

9.1. General Comments

9.1.1. This section contains the test result sheets for the measurements listed in Section 4.2. *Summary of Test Results* (above).

9.1.2. 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.

9.1.3. Please refer to Section 8. *Measurement Uncertainty* on page 10 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:	83494JD01	TEST SITE ID:	Site 1
EUT:	Gryphon GM4401 910 MHz	TEMPERATURE:	28 °C to 28 °C
TEST ENGINEER:	Eric Phiri	RELATIVE HUMIDITY:	33 % to 33 %
DATE OF TEST:	22 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	36.249	Vertical	Quasi-Peak	17.9	40.0	22.1	GPH\83494JD01\001	Complied
2	46.163	Vertical	Quasi-Peak	13.5	40.0	26.5	GPH\83494JD01\001	Complied
3	51.725	Vertical	Quasi-Peak	20.2	40.0	19.8	GPH\83494JD01\001	Complied
4	68.566	Vertical	Quasi-Peak	17.5	40.0	22.5	GPH\83494JD01\001	Complied
5	76.311	Vertical	Quasi-Peak	4.3	40.0	35.7	GPH\83494JD01\001	Complied
6	157.907	Vertical	Quasi-Peak	26.3	43.5	17.2	GPH\83494JD01\001	Complied
7	216.300	Horizontal	Quasi-Peak	19.8	46.0	26.2	GPH\83494JD01\001	Complied
8	500.907	Horizontal	Quasi-Peak	24.5	46.0	21.5	GPH\83494JD01\001	Complied
9	1000 to 4000			Refer to Note 1			GPH\83494JD01\002	Complied
10	4000 to 7000			Refer to Note 1			GPH\83494JD01\003	Complied
11	7000 to 10000			Refer to Note 1			GPH\83494JD01\004	Complied
12	10000 to 12750			Refer to Note 1			GPH\83494JD01\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

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:	83494JD01	TEST SITE ID:	Site 8
EUT:	Gryphon GM4401 910 MHz	TEMPERATURE:	27 °C to 27 °C
TEST ENGINEER:	Eric Phiri	RELATIVE HUMIDITY:	30 % to 30 %
DATE OF TEST:	22 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	0.150	Live 1	Quasi-Peak	45.6	66.0	20.4	GPH\83494JD01\006	Complied
2	0.200	Live 1	Quasi-Peak	39.8	63.6	23.8	GPH\83494JD01\006	Complied
3	0.267	Live 1	Quasi-Peak	33.7	61.2	27.5	GPH\83494JD01\006	Complied
4	0.438	Live 1	Quasi-Peak	37.6	57.1	19.5	GPH\83494JD01\006	Complied
5	0.834	Live 1	Quasi-Peak	25.3	56.0	30.7	GPH\83494JD01\006	Complied
6	4.223	Live 1	Quasi-Peak	18.4	56.0	37.6	GPH\83494JD01\006	Complied
7	0.182	Live 1	Average (CISPR)	36.0	54.4	18.4	GPH\83494JD01\006	Complied
8	0.191	Live 1	Average (CISPR)	33.2	54.0	20.8	GPH\83494JD01\006	Complied
9	0.258	Live 1	Average (CISPR)	23.7	51.5	27.8	GPH\83494JD01\006	Complied
10	0.425	Live 1	Average (CISPR)	24.8	47.4	22.6	GPH\83494JD01\006	Complied
11	4.506	Live 1	Average (CISPR)	13.5	46.0	32.5	GPH\83494JD01\006	Complied
12	0.177	Neutral	Quasi-Peak	42.0	64.6	22.6	GPH\83494JD01\007	Complied
13	0.245	Neutral	Quasi-Peak	39.1	61.9	22.8	GPH\83494JD01\007	Complied

MEASUREMENT RESULTS

No.	Frequency (MHz)	Line	Detector	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Graph No.	Result
14	0.294	Neutral	Quasi-Peak	37.1	60.4	23.3	GPH\83494JD01\007	Complied
15	0.312	Neutral	Quasi-Peak	36.7	59.9	23.2	GPH\83494JD01\007	Complied
16	0.474	Neutral	Quasi-Peak	37.9	56.4	18.5	GPH\83494JD01\007	Complied
17	1.136	Neutral	Quasi-Peak	21.4	56.0	34.6	GPH\83494JD01\007	Complied
18	0.182	Neutral	Average (CISPR)	33.6	54.4	20.8	GPH\83494JD01\007	Complied
19	0.240	Neutral	Average (CISPR)	30.9	52.1	21.2	GPH\83494JD01\007	Complied
20	0.299	Neutral	Average (CISPR)	27.2	50.3	23.1	GPH\83494JD01\007	Complied
21	0.312	Neutral	Average (CISPR)	25.9	49.9	24.0	GPH\83494JD01\007	Complied
22	0.483	Neutral	Average (CISPR)	25.3	46.3	21.0	GPH\83494JD01\007	Complied
23	1.217	Neutral	Average (CISPR)	12.0	46.0	34.0	GPH\83494JD01\007	Complied

NOTES

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

TEST EQUIPMENT USED

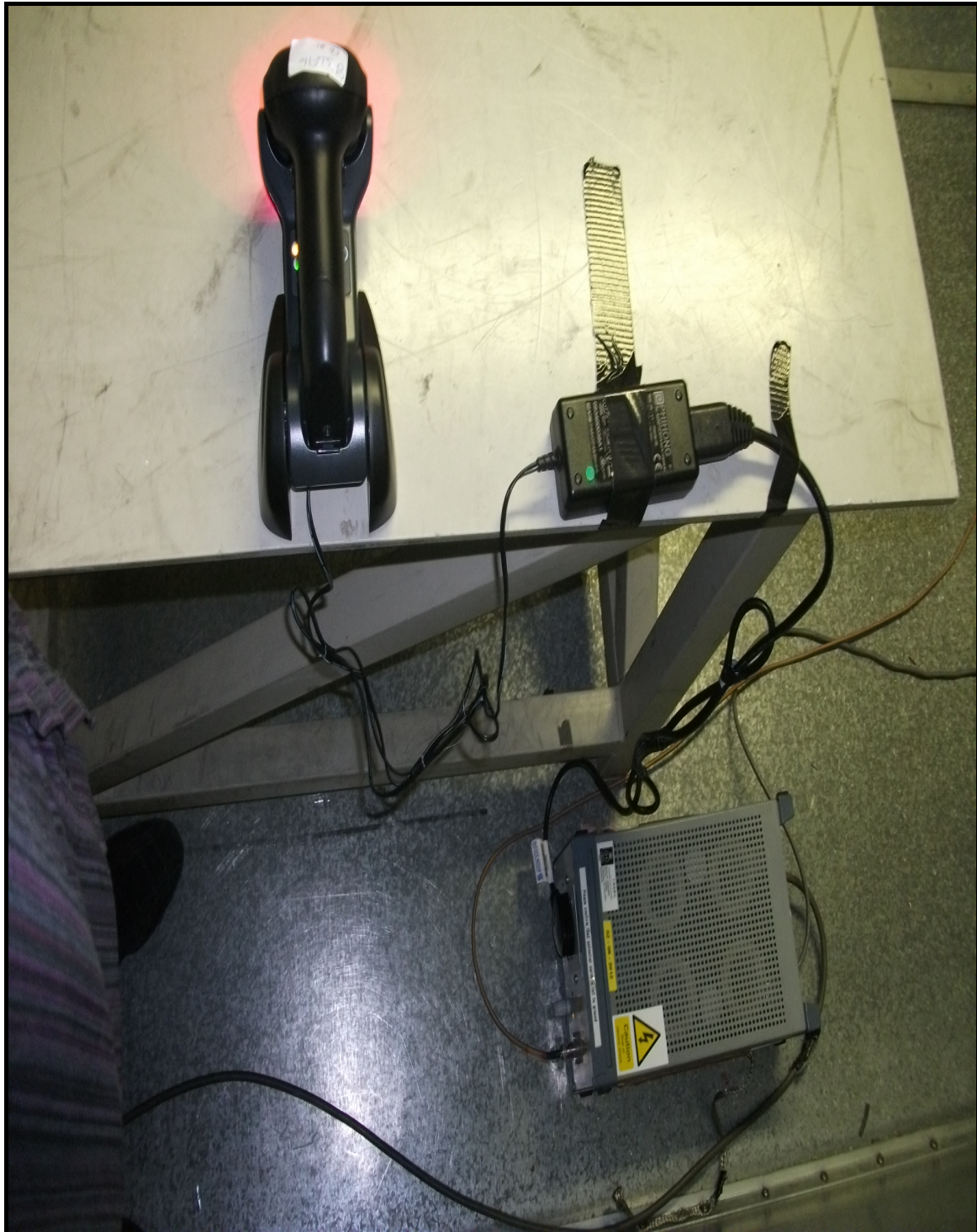
RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0008	Conducted AC Emissions / RF immunity Laboratory	None Stated	Calibration not required	
M1263	EMI Test Receiver	ESIB7	13 Jul 2012	12
C363	3 m cable	RG142	05 Mar 2012	12
A067	Line Impedance Stabilization Network	ESH3-Z5	02 Jun 2012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

10. PHOTOGRAPHS OF EUT

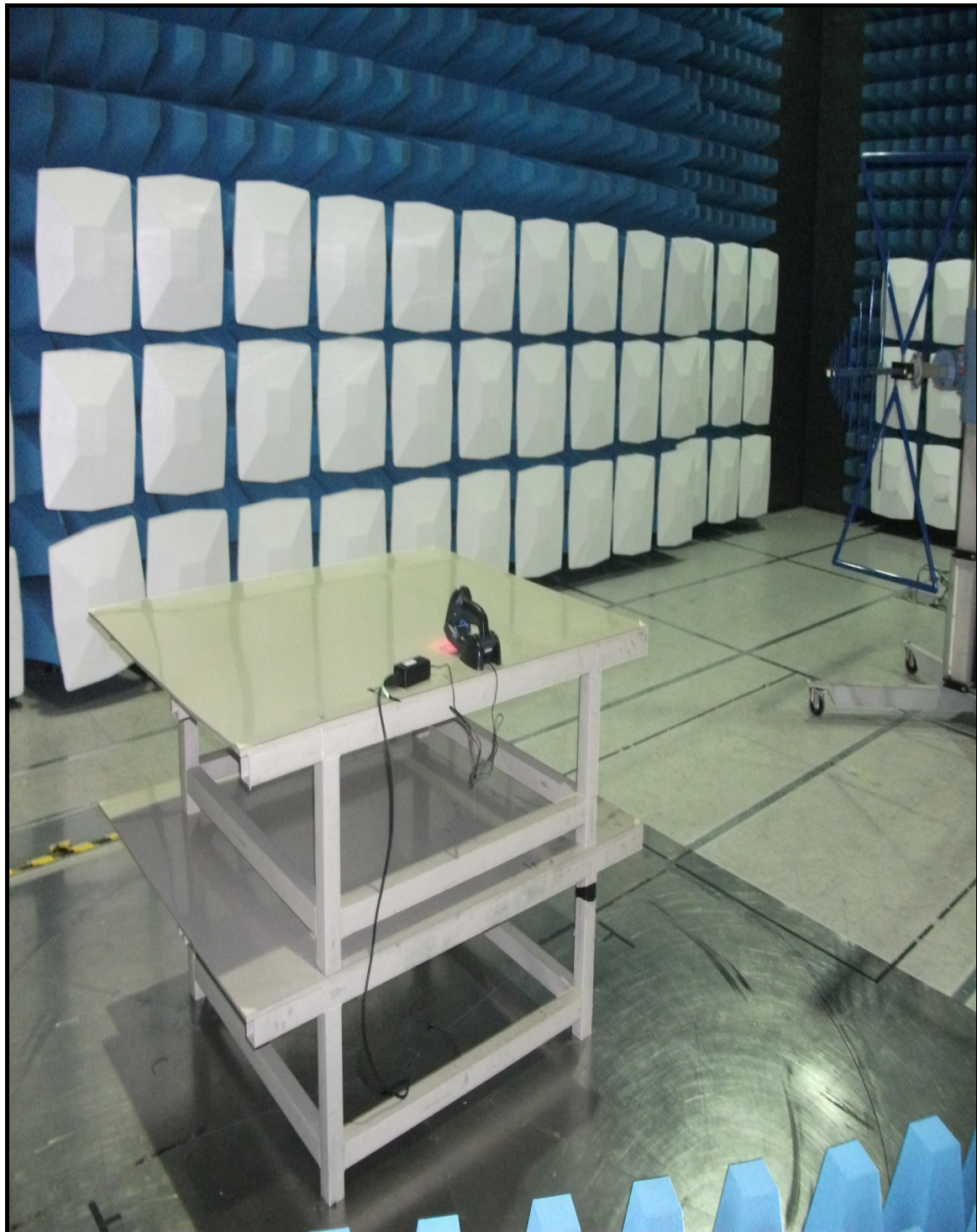
This section contains the following photographs:

Photograph Number	Title
PHT\83494JD01\001	Test Configuration Photograph - Conducted Emissions
PHT\83494JD01\002	Test Configuration Photograph - Radiated Emissions

PHT83494JD01\001 - Test Configuration Photograph - Conducted Emissions



PHT83494JD01\002 - Test Configuration Photograph - Radiated Emissions



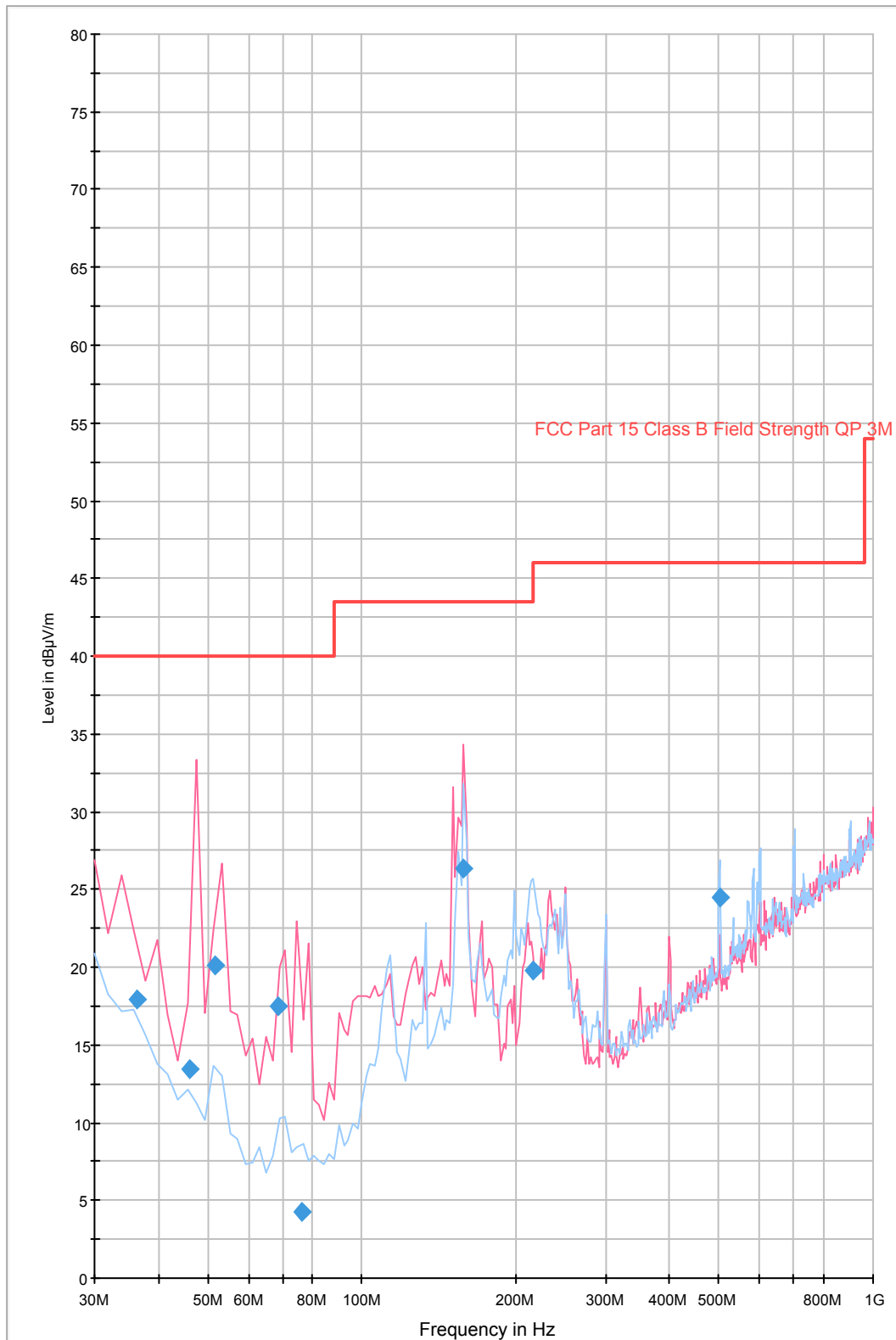
11. GRAPHICAL TEST RESULTS

11.1. This section contains the graphical results for the measurements listed in Section 4.2. *Summary of Test Results* (above).

Graph Number	Title
GPH\83494JD01\001	Radiated Emissions Pre-Scan (30 MHz to 1000 MHz)
GPH\83494JD01\002	Radiated Emissions Pre-Scan (1000 MHz to 4000 MHz)
GPH\83494JD01\003	Radiated Emissions Pre-Scan (4000 MHz to 7000 MHz)
GPH\83494JD01\004	Radiated Emissions Pre-Scan (7000 MHz to 10000 MHz)
GPH\83494JD01\005	Radiated Emissions Pre-Scan (10000 MHz to 12750 MHz)
GPH\83494JD01\006	Conducted Emissions (Live) Pre-Scan (150 kHz to 30 MHz)
GPH\83494JD01\007	Conducted Emissions (Neutral) Pre-Scan (150 kHz to 30 MHz)

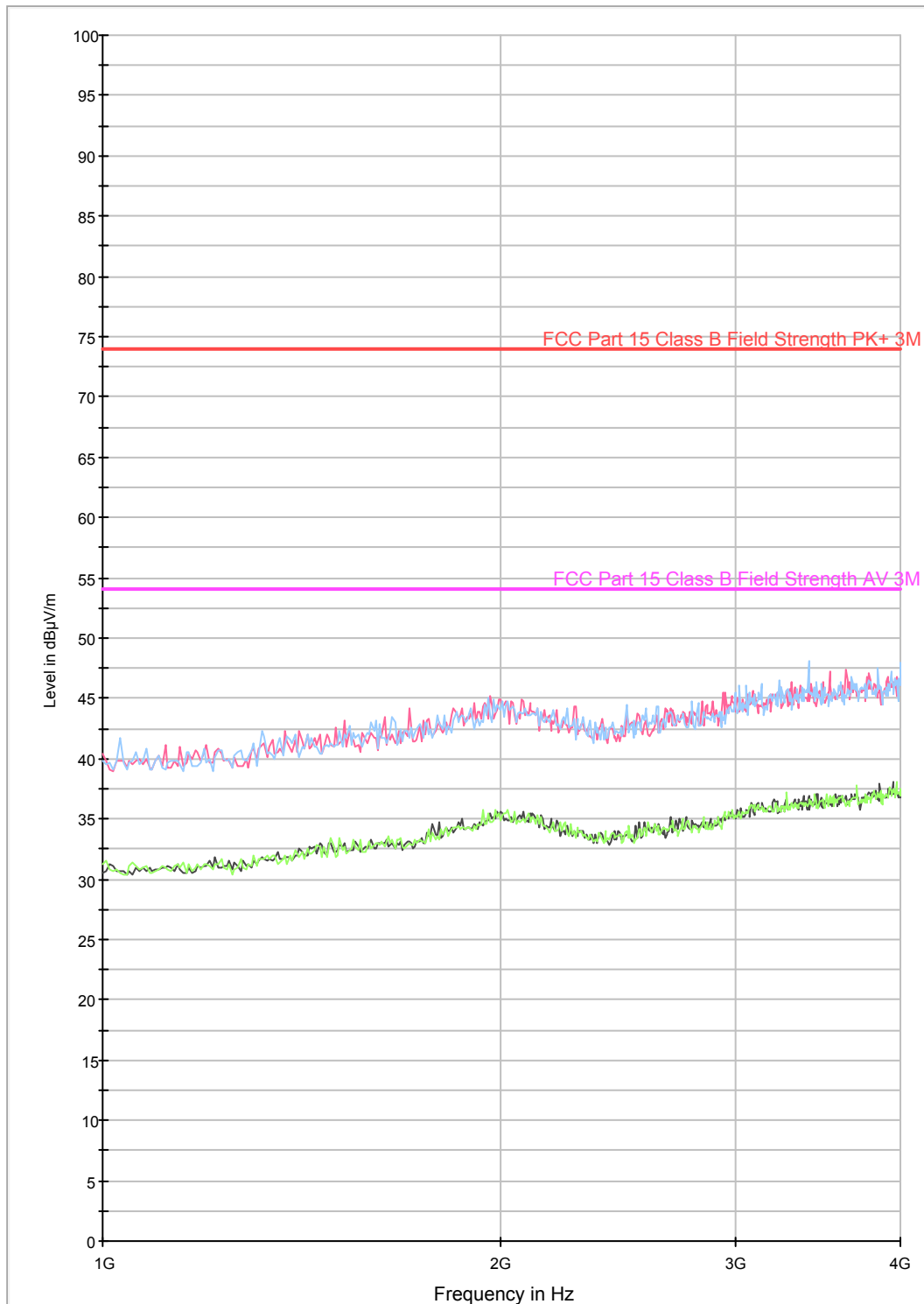
GPH183494JD01\001

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



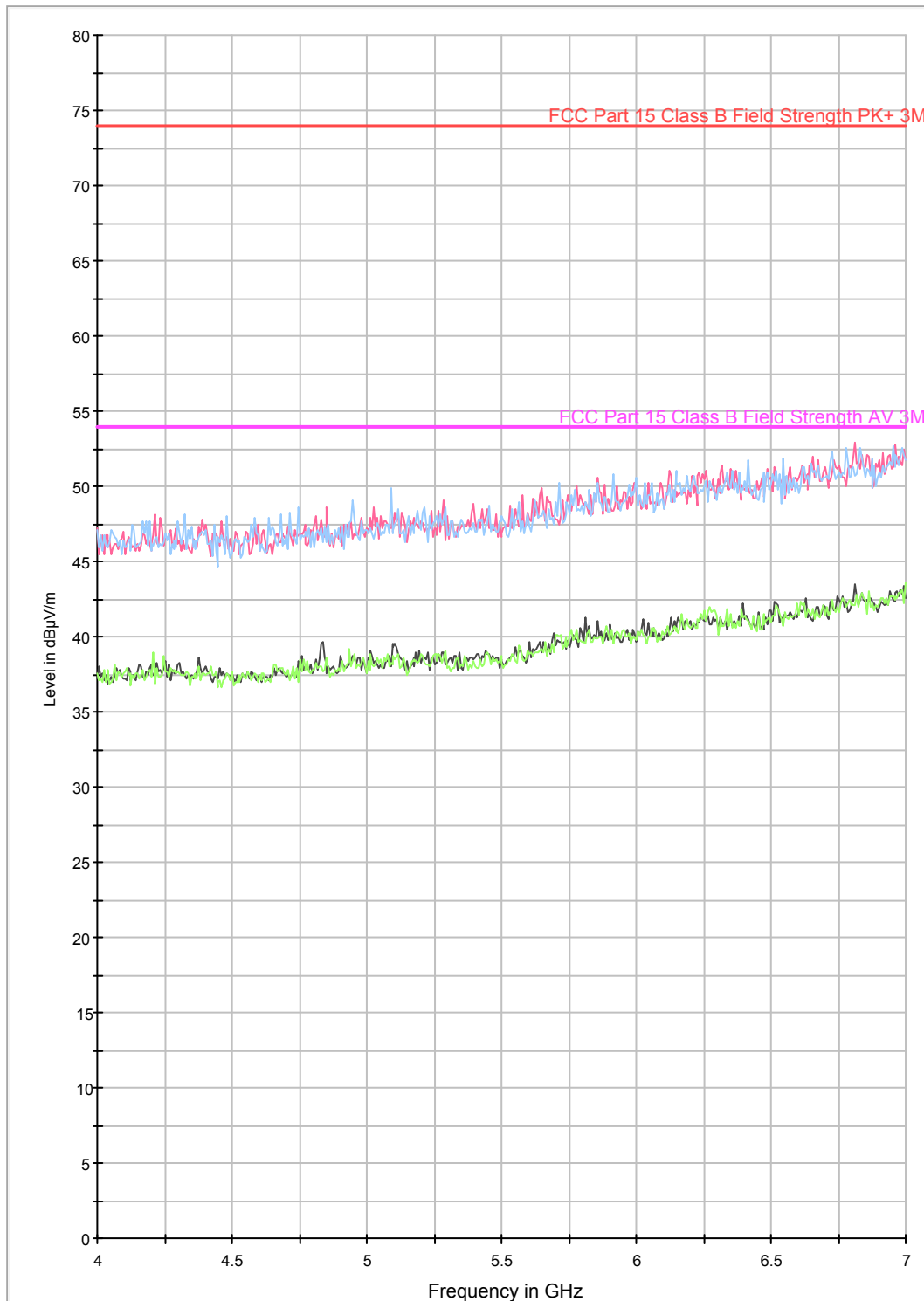
GPH183494JD01\002

FCC Part 15.109 Radiated Emissions Class B 1-4GHz



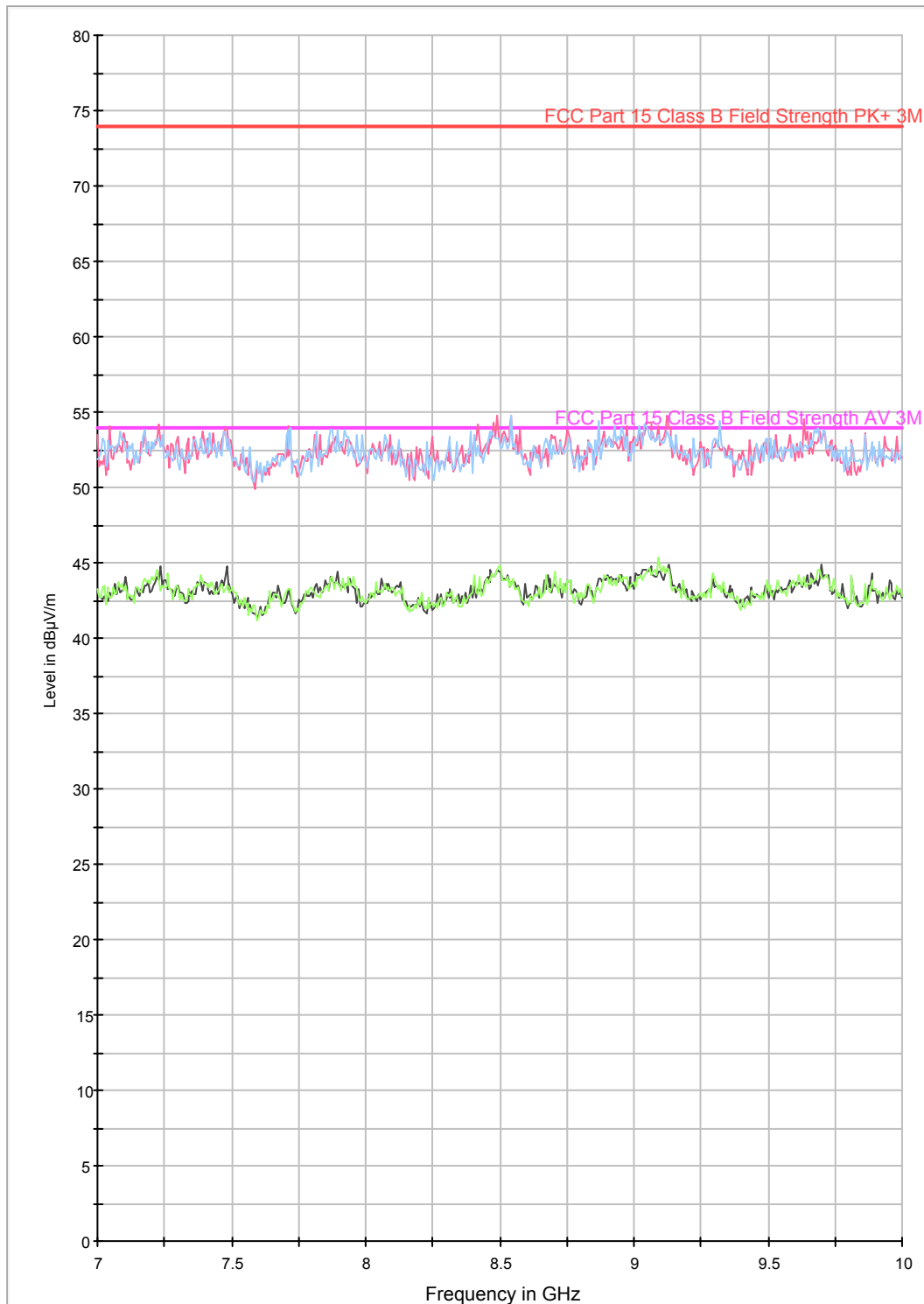
GPH183494JD01\003

FCC Part 15.109 Radiated Emissions Class B 4-7GHz



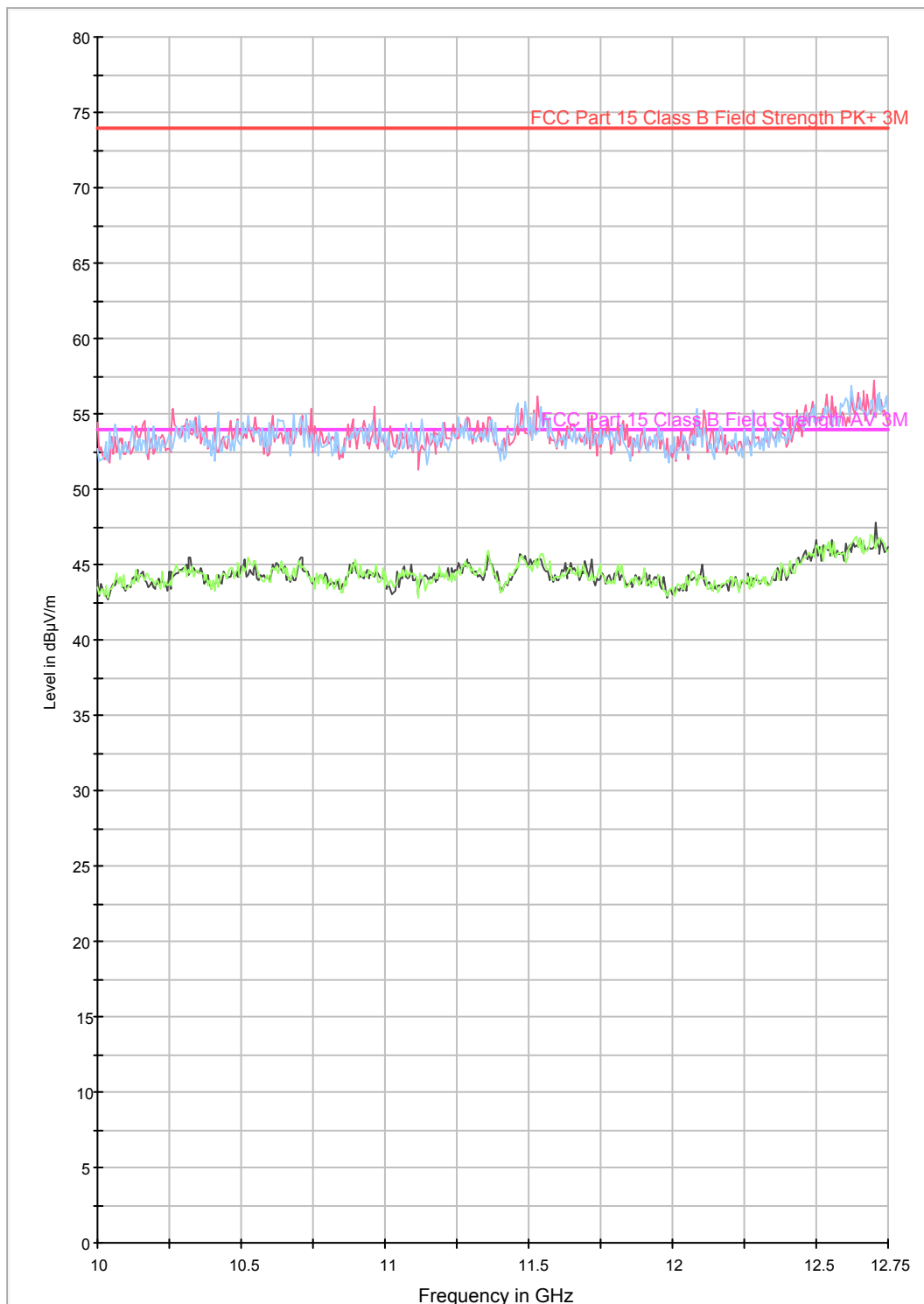
GPH183494JD01\004

FCC Part 15.109 Radiated Emissions Class B 7-10GHz



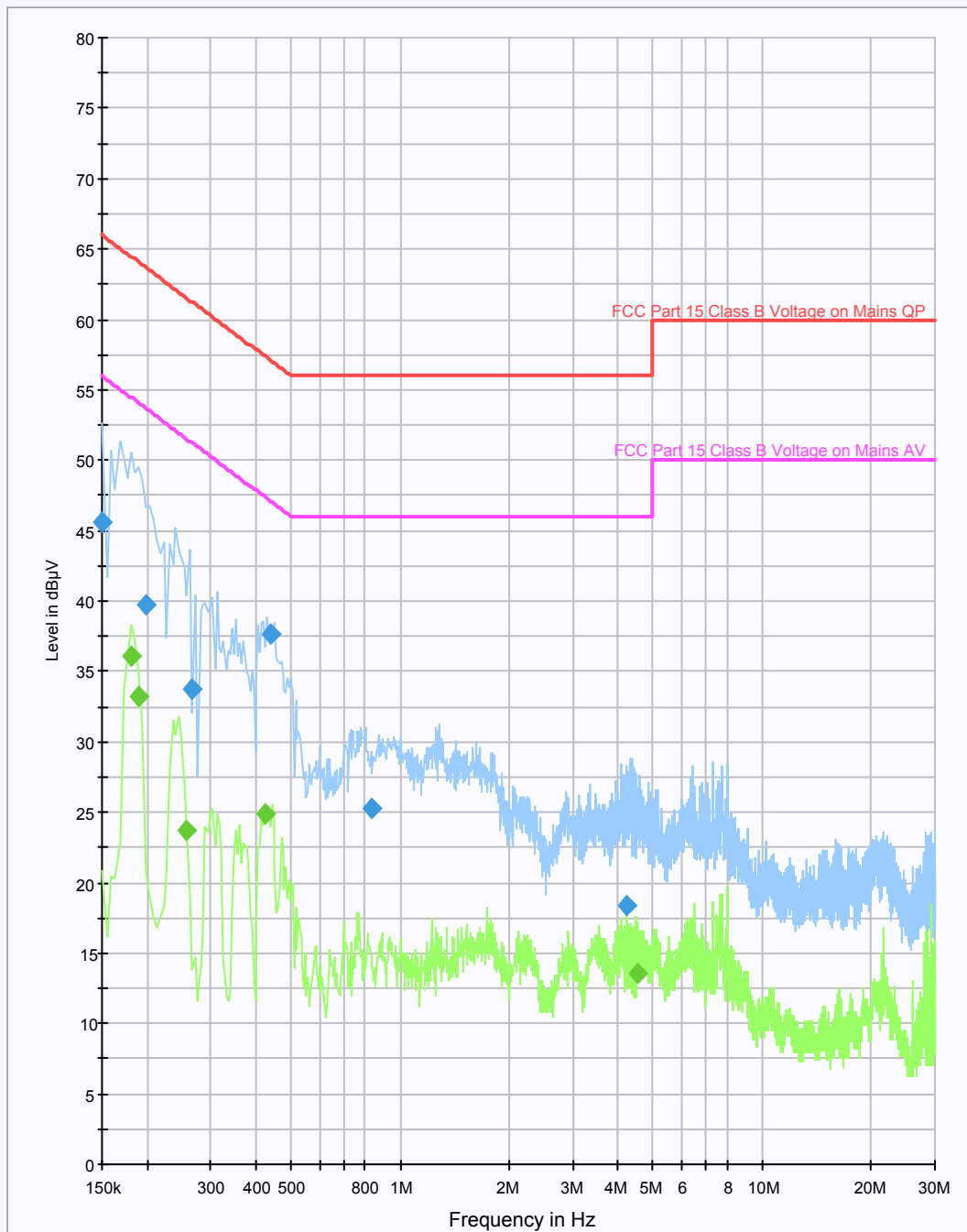
GPH183494JD01\005

FCC Part 15.109 Radiated Emissions Class B 10-12.75GHz



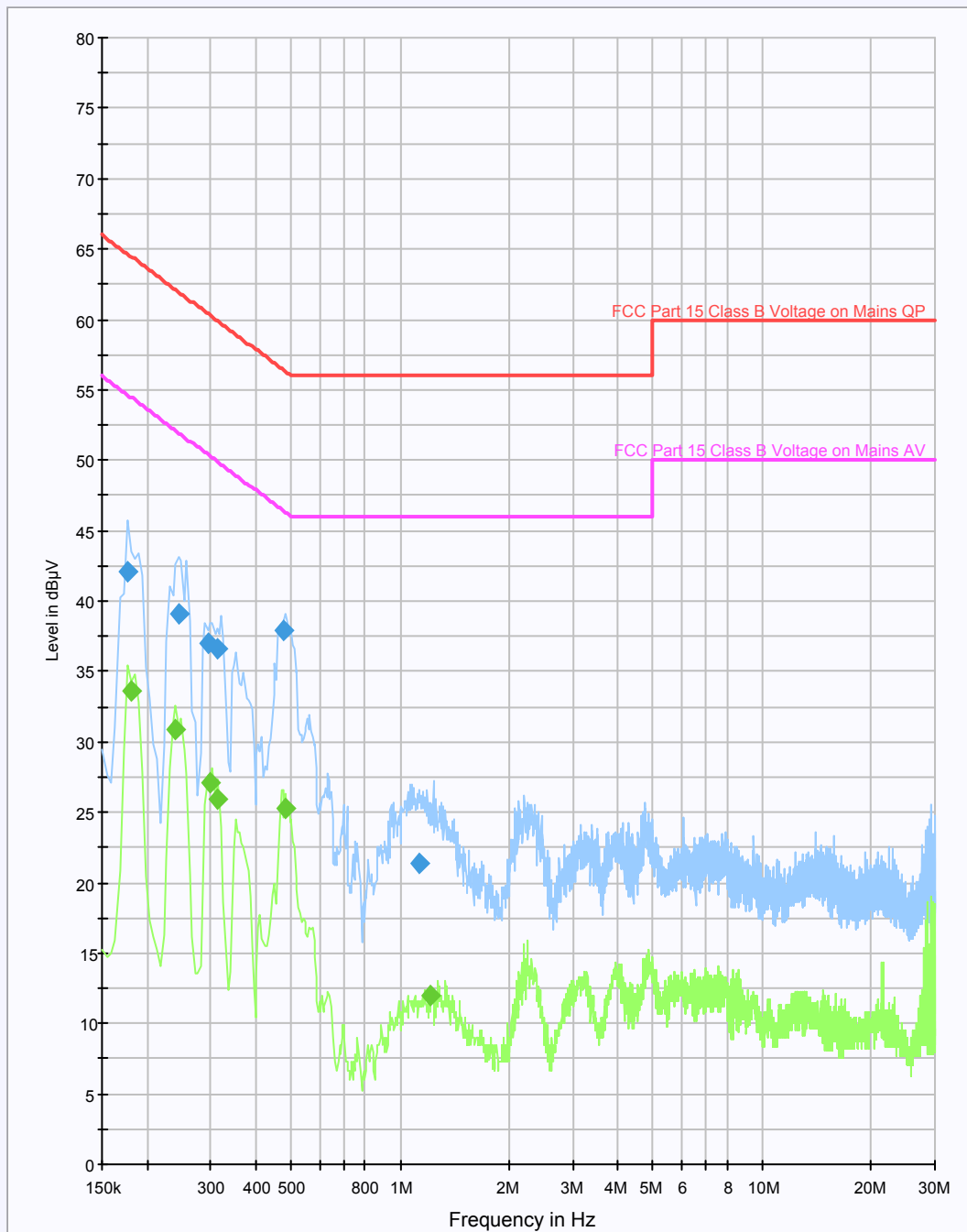
GPH183494JD01\006

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



GPH183494JD01\007

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



12. TEST CONFIGURATION DRAWING

12.1. 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\83494JD01\001	Schematic diagram of the EUT, support equipment and interconnecting cables used for the test

DRG\83494JD01\001 - Schematic diagram of the EUT, support equipment and interconnecting cables used for the test

