



Product Service

EMC TEST REPORT

Report Number : **68/760.9.140.01** Date of Issue: 24 August 2009

Model : **PDI-P19LCDC**

Product Type : Hospital Grade LCD TV

Applicant : PDI Communications Systems, INC.

Address : 40 Greatwood Lane Springboro, Ohio 45066

Production Facility : Wanlida Group Co., Ltd.

Address : Wanlida Industry Zone, Nanjing, Fujian, China 363601

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including
Appendices : 64

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2 Details about the Test Laboratory

Details about the Test Laboratory

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Shenzhen,

Telephone: 86 755 2694 1599
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3 Description of the Equipment Under Test

Description of the Equipment Under Test

Product: Hospital Grade LCD TV

Model no.: PDI-P19LCDC

Serial number: NIL

Options and accessories: NIL

Rating: AC 100-240V, 60W

Description of the EUT: NIL

Auxiliary Equipment and Cable Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
Computer	Lenovo	9439	L3BDF2K
Keyboard	Lenovo	SK-8825 (L)	02553778
Mouse	Lenovo	MO28UOL	4418011108
USB flash drive	Kingston	Data Traveller	----
SD card	Kingston	SD4/4GBFE	----
VGA cable	Lenovo	Shield	140cm
HDMI cable	Malata	Unshield	140cm
AC Power cable	Lenovo	Unshield	180cm
TV generator	FLUK	PM5418TX-1	LO 738007
MPEG2 Generator	R&S	DVG	100440
Computer	Lenovo	X61	L3-L3729 08/03



Product Service

4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart B	PART 15 - RADIO FREQUENCY DEVICES Subpart B - Unintentional Radiators

5 Summary of Test Results

Technical Requirements				
FCC Part 15 Subpart B				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
15.107 Conducted Emission AC Power Port	8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.109 Spurious radiated emissions	28	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.111 Antenna conducted power	60	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Product Service

6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: WQ5P19LCDC filing to comply with Section 15.107, 15.109 and 15.111 of the FCC Part 15, Subpart B Rules.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: July 17 2009

Testing Start Date: July 22 2009

Testing End Date: August 20 2009

- Jiangsu TÜV Product Service Ltd. – Shenzhen Branch -

Reviewed by:

Prepared by:

Paul Yu
EMC Project Manager

Ken Li
EMC Test Engineer

7 Technical Requirement

7.1 Conducted Emission

Test Method

- 1 The EUT was placed on a table, which is 0.8m above ground plane
- 2 The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
- 3 Maximum procedure was performed to ensure EUT compliance
- 4 A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions from both sides of AC line

Limit

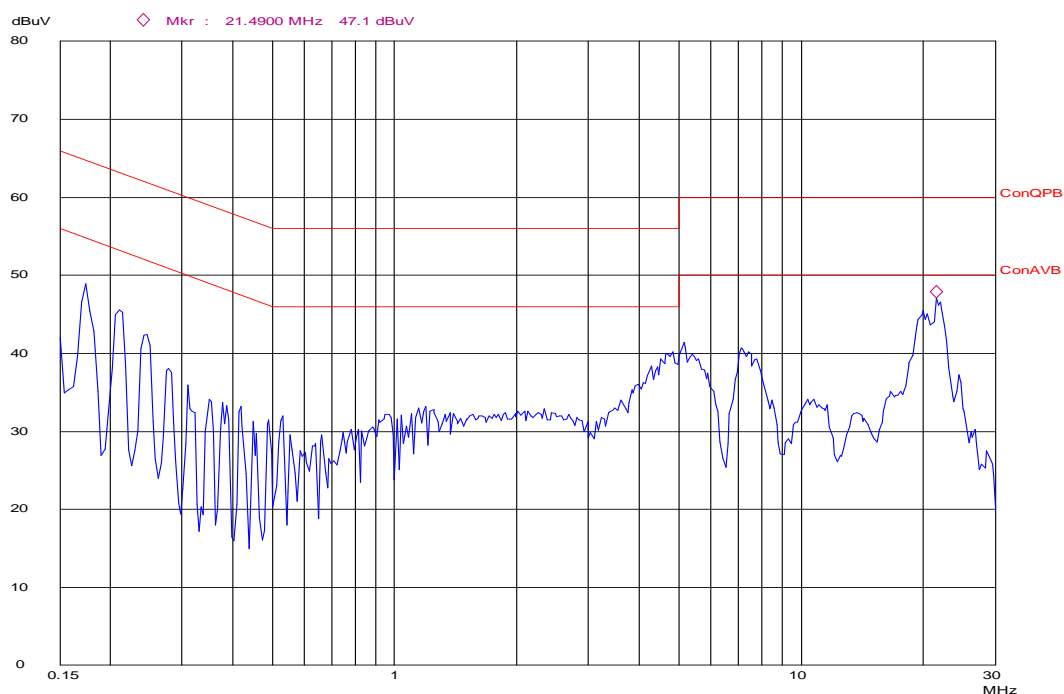
Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: DVD
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	37.3	47.1	64.8	17.7
21.490	10.3	30.8	41.1	60	18.9

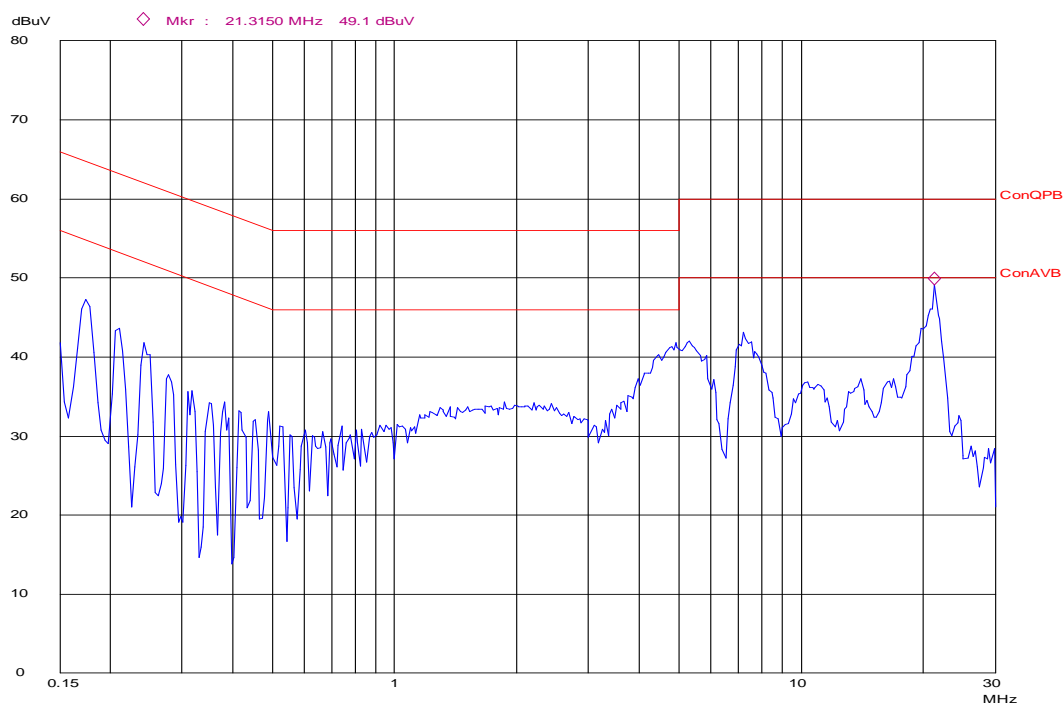
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	27.6	37.4	54.8	17.4
21.490	10.3	26.1	36.4	50	13.6

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: DVD
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	35.7	45.5	64.8	19.3
21.315	10.3	31.7	42.0	60	18.0

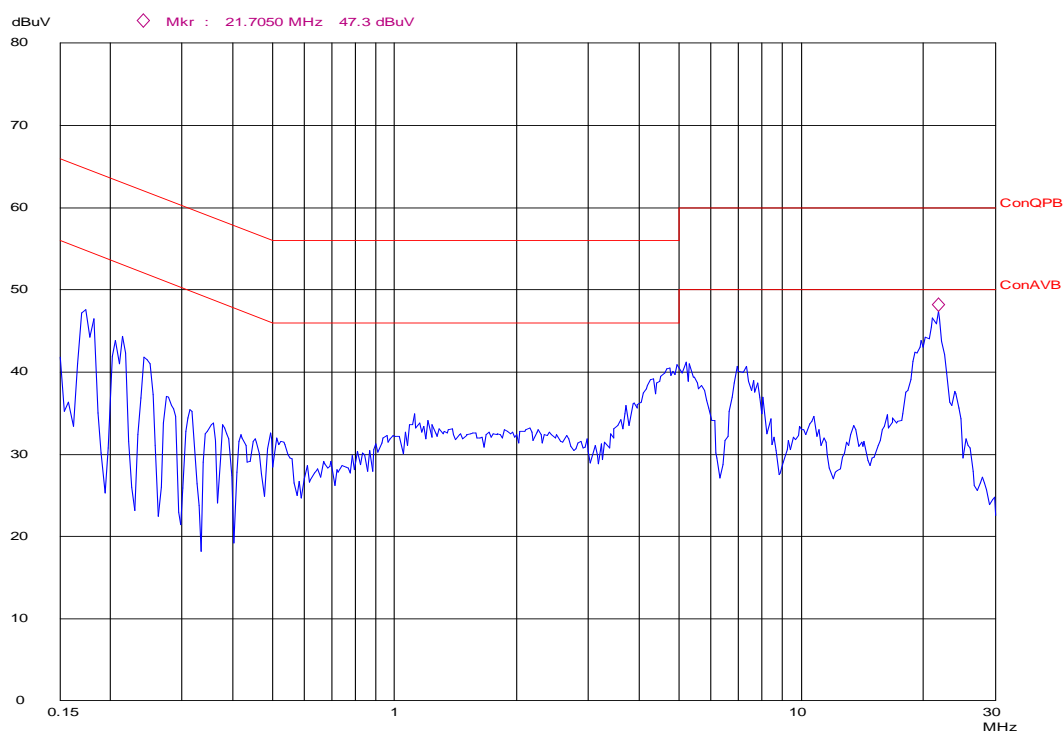
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	25.6	35.4	54.8	19.4
21.315	10.3	31.7	42.0	50	8

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: USB
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	35.4	45.2	64.8	19.6
21.705	10.3	32.0	42.3	60	17.7

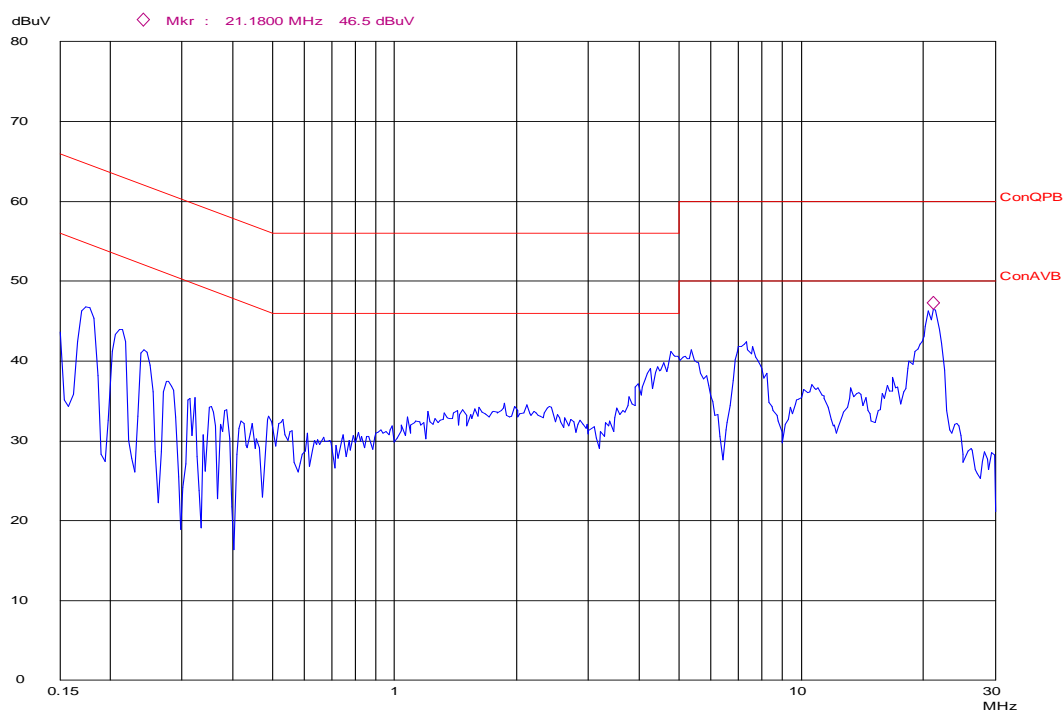
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	25.5	35.3	54.8	19.5
21.705	10.3	27.1	37.4	50	12.6

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: USB
Test Spec: N
Comment: AC 120V/60Hz



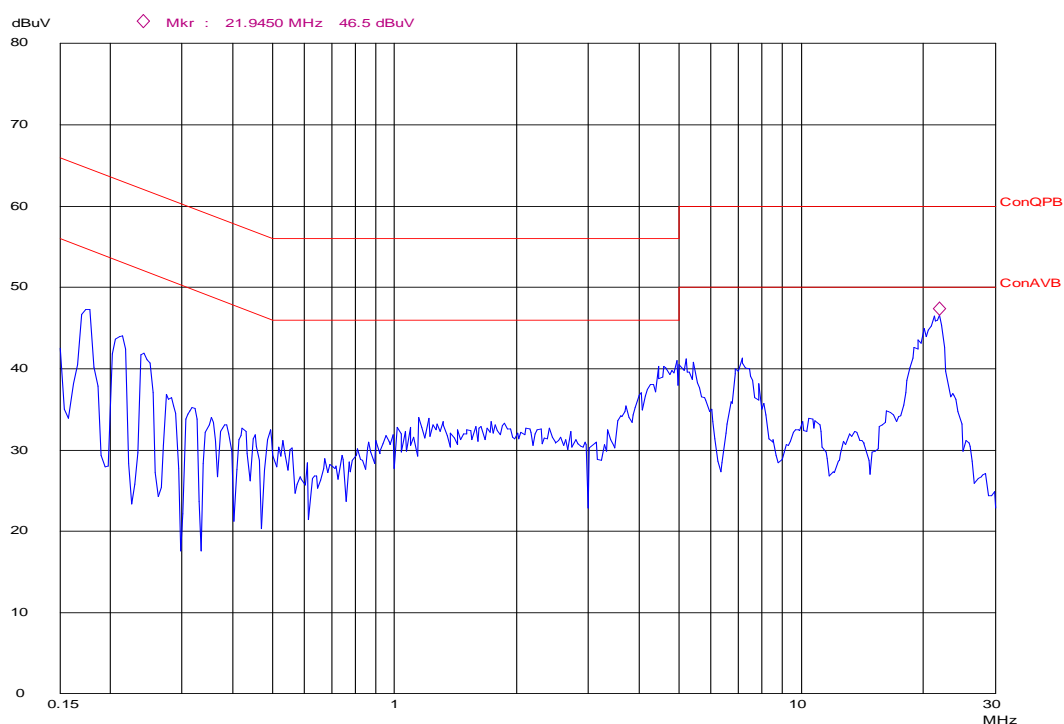
Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	34.9	44.7	64.8	20.1
21.180	10.3	31.3	41.6	60	18.4.0
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	24.5	34.3	54.8	20.5
21.180	10.3	26.5	36.8	50	13.2

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: SD
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.178	9.8	34.7	44.5	64.6	20.1
21.945	10.3	30.1	40.4	60	19.6

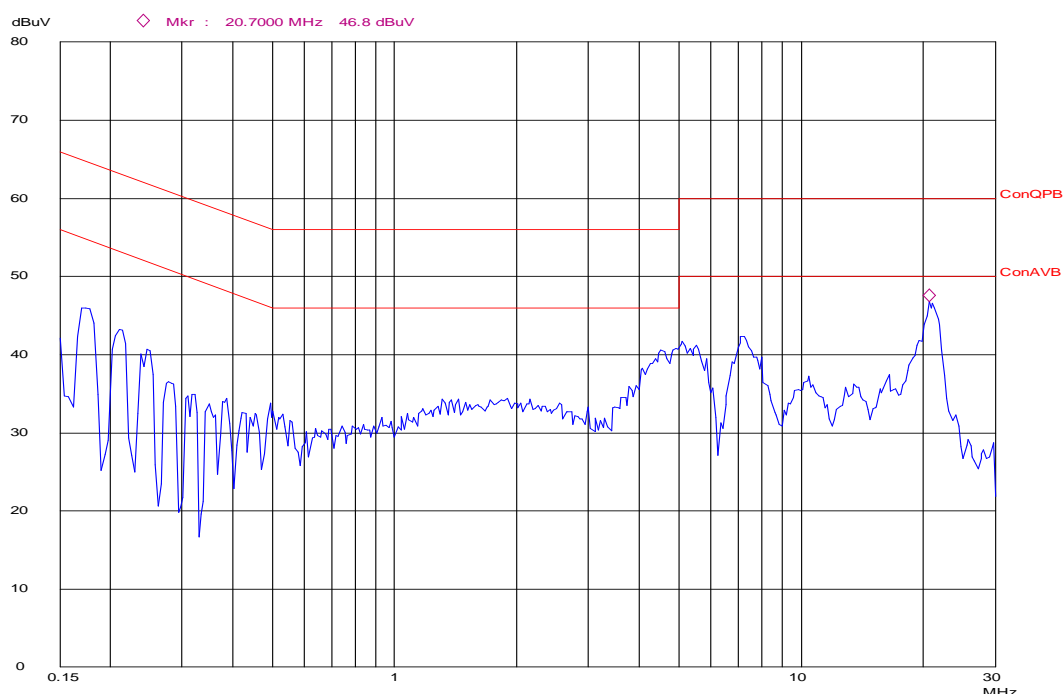
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.178	9.8	23.6	33.4	54.6	21.2
21.945	10.3	25.1	35.4	50	14.6

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: SD
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.170	9.8	32.9	42.7	65.0	22.3
20.700	10.3	30.7	41.0	60	19.0

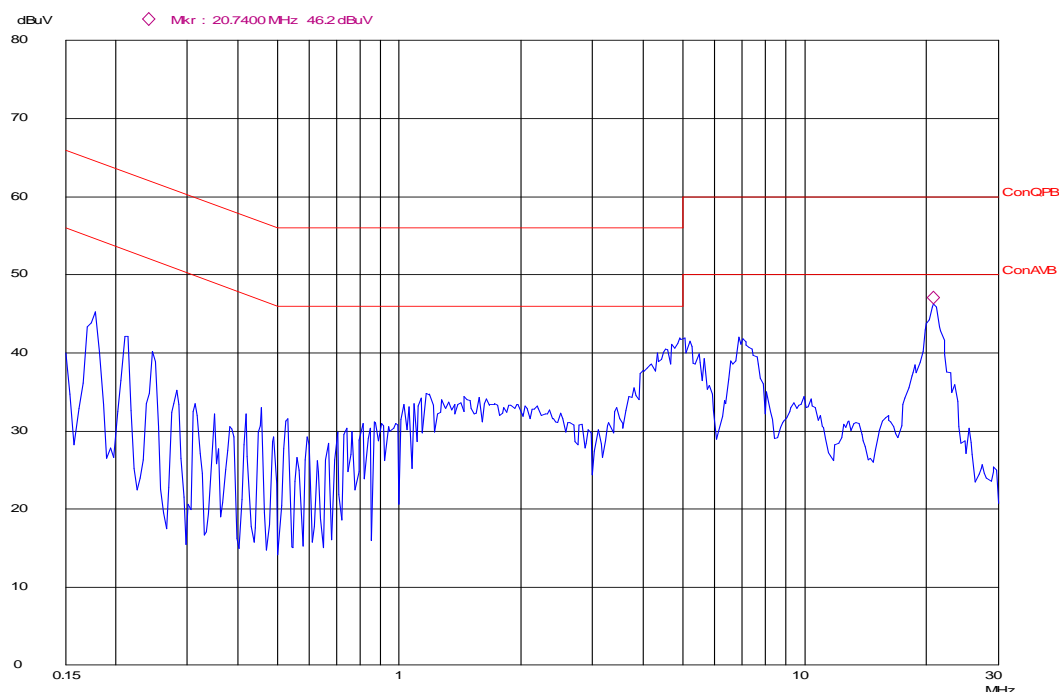
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.170	9.8	19.8	29.6	55.0	25.4
20.700	10.3	25.8	36.1	50	13.9

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: MN-FDI-P191LCDC
Op Cond: TV633.25MHz
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.178	9.8	32.5	42.3	64.6	22.3
20.740	10.3	29.8	40.1	60	19.9

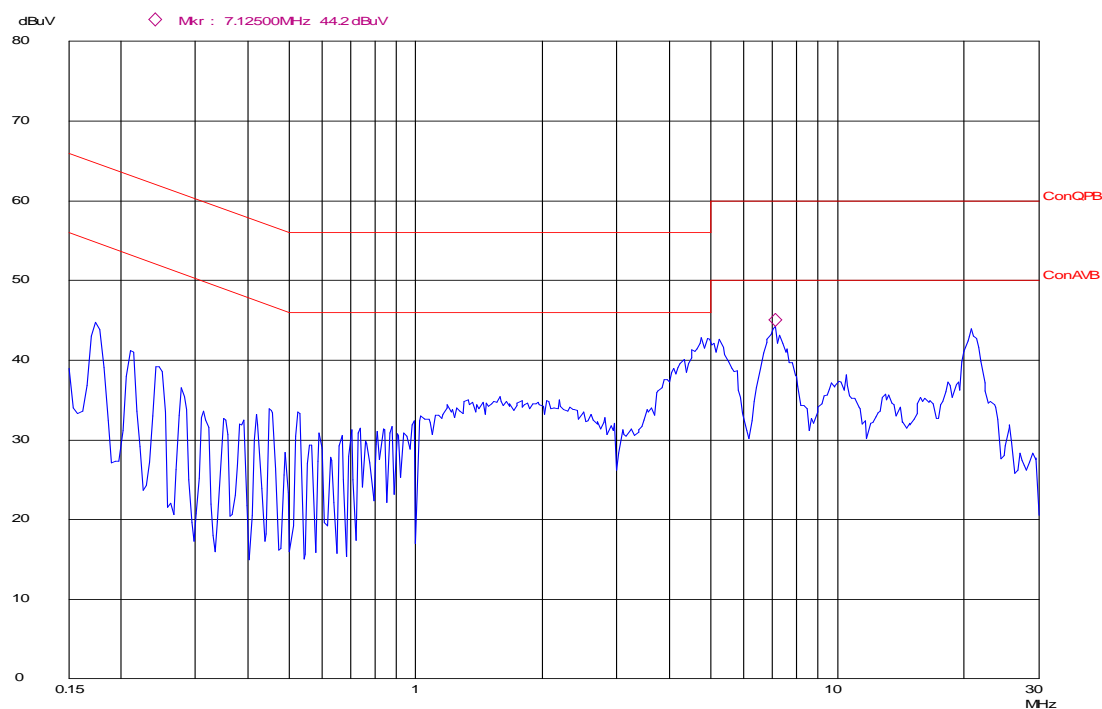
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.178	9.8	21.7	31.5	54.6	23.1
20.740	10.3	23.1	33.4	50	16.6

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: MN:PDI-P191LCDC
Op Cond: TV633.25MHz
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	33.6	43.4	64.8	21.4
7.125	9.9	29.3	39.2	60	20.8

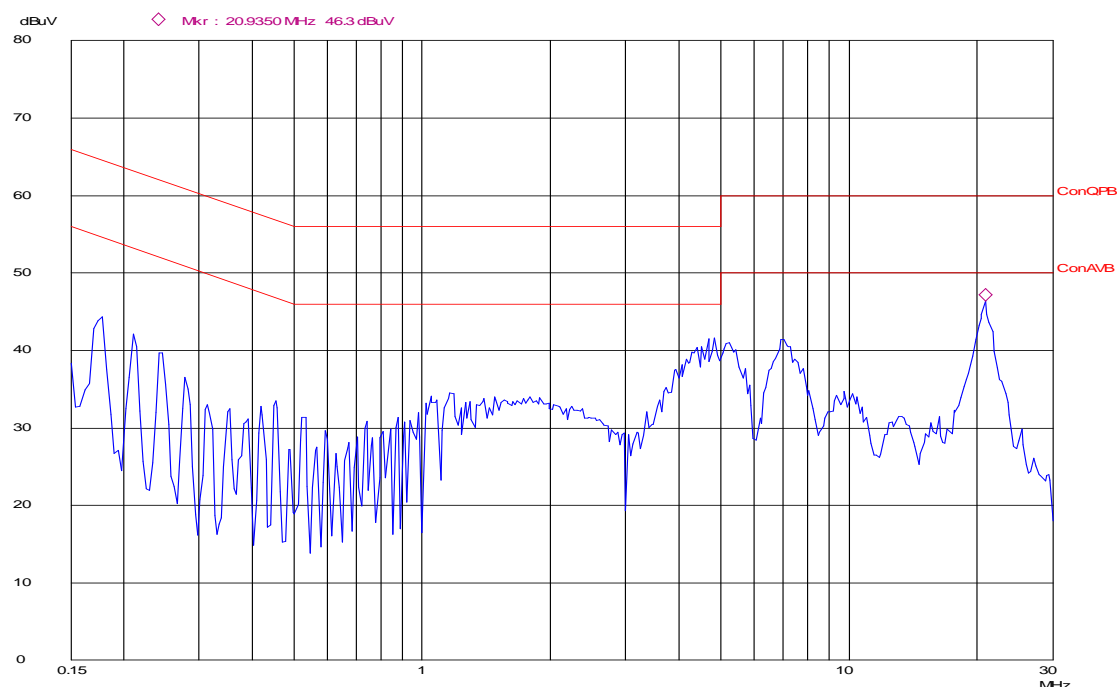
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	23.6	33.4	54.8	21.4
7.125	9.9	22.7	32.6	50	17.4

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: MN-FDI-P191LCDC
Op Cond: DTV198.31MHz
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.178	9.8	32.2	42.0	64.6	22.6
20.935	10.3	29.1	39.4	60	20.6

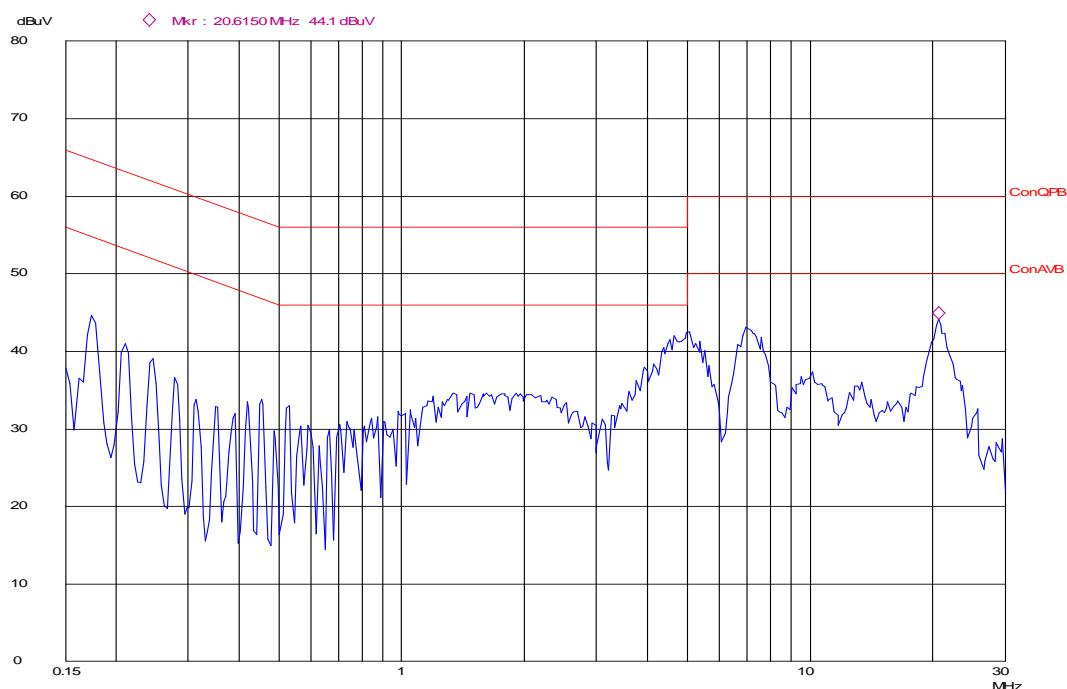
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.178	9.8	21.2	31.0	54.6	23.6
20.935	10.3	22.1	32.4	50	17.6

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: MN:PDI-P191LCDC
Op Cond: DTV198.31MHz
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	33.4	43.2	64.8	21.6
20.615	10.3	27.7	38.0	60	22.0

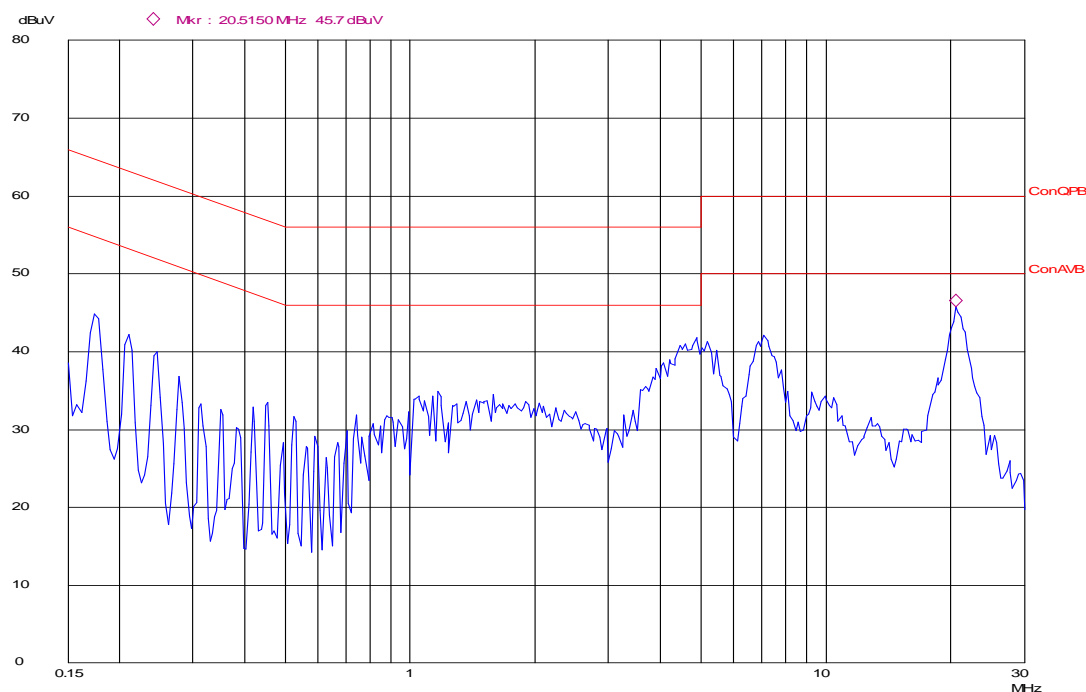
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	23.4	33.2	54.8	21.6
20.615	10.3	20.4	30.7	50	19.3

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: MN:PDI-P191LCDC
Op Cond: FM98.1MHz
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	33.9	43.7	64.8	21.1
20.515	10.3	29.1	39.4	60	20.6

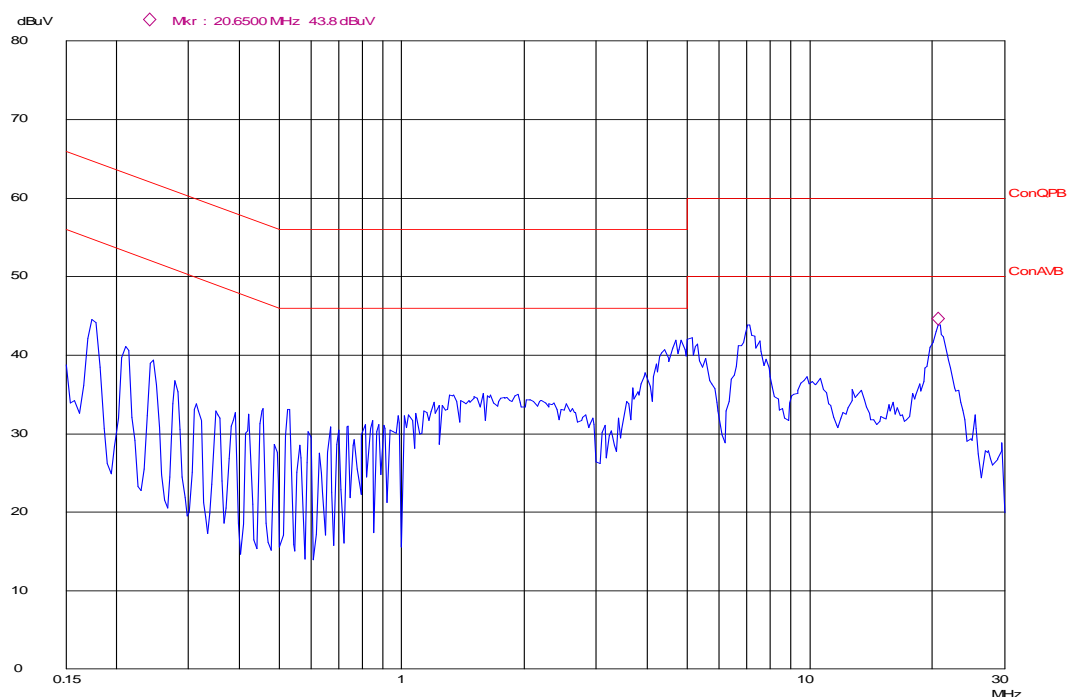
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	22.9	32.7	54.8	22.1
20.515	10.3	21.8	32.1	50	17.9

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: MN-FDI-P191LCDC
Op Cond: FM98.1MHz
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	33.4	43.2	64.8	21.6
20.650	10.3	27.8	38.1	60	21.9

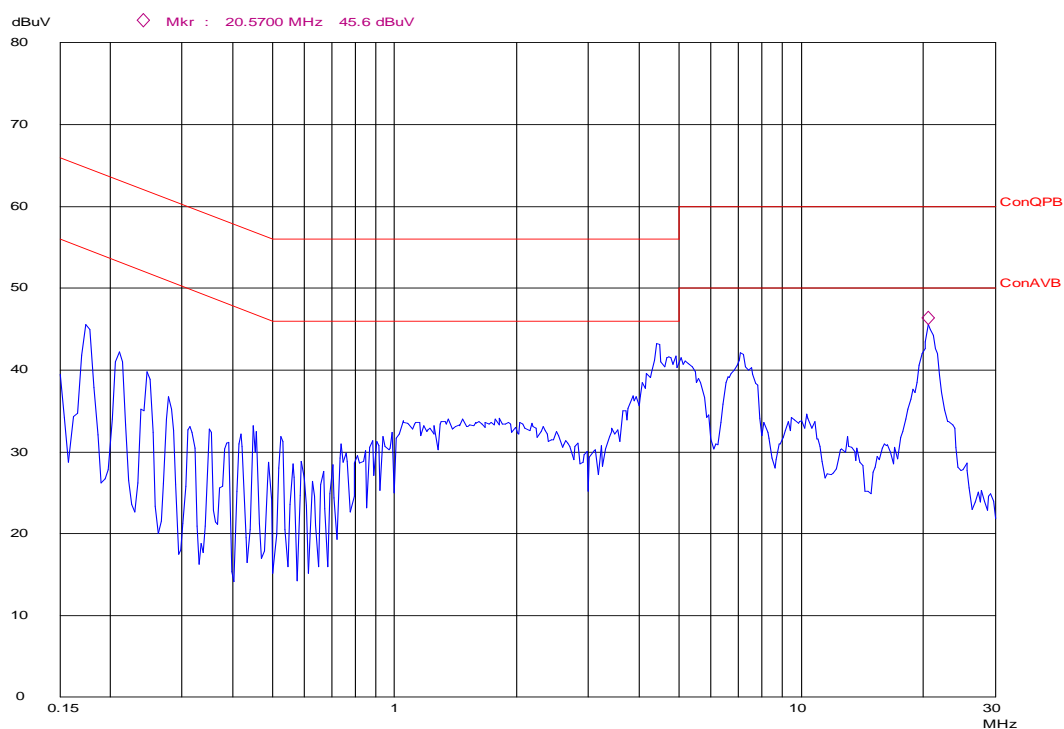
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	23.4	33.2	54.8	21.6
20.650	10.3	20.5	30.8	50	19.2

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: AV IN
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	34.0	43.8	64.8	21
20.570	10.3	29.5	39.8	60	20.2

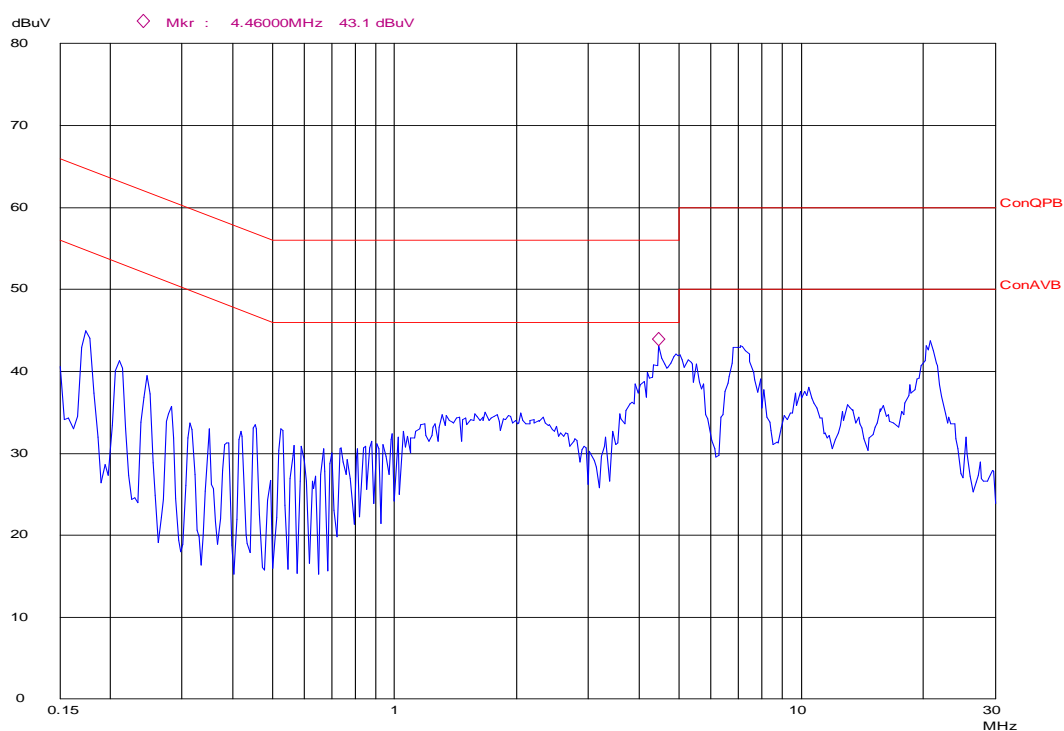
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	23.2	33.0	54.8	21.8
20.570	10.3	22.5	32.8	50	17.2

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: AV IN
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	33.7	43.5	64.8	21.3
4.460	10.0	29.0	39.0	60	21.0

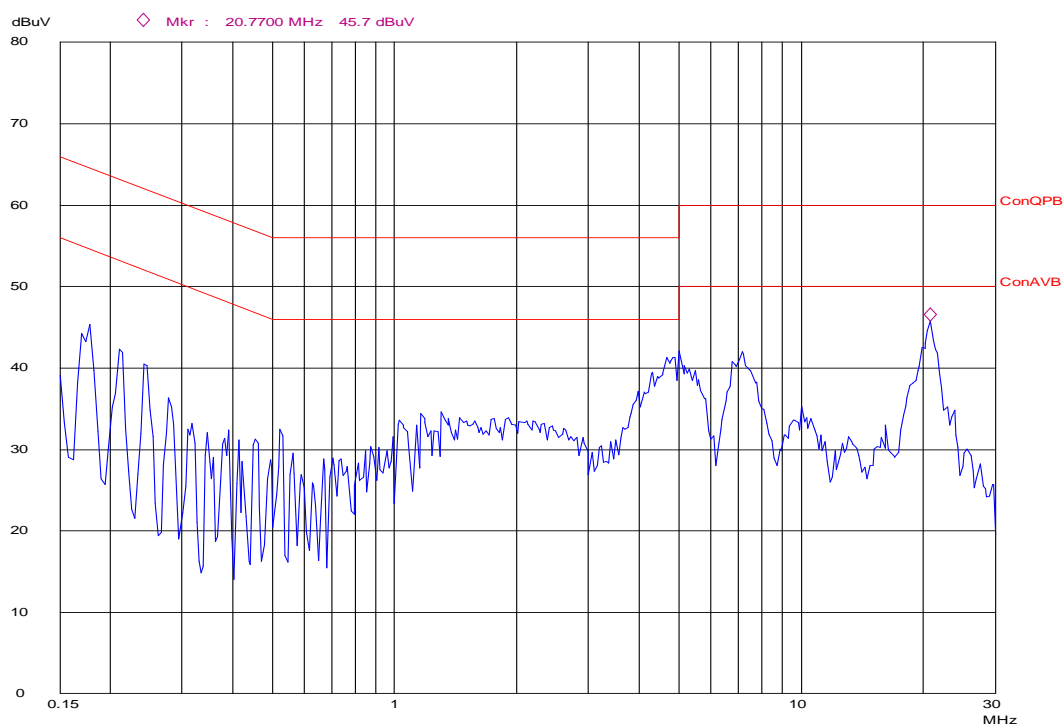
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	23.5	33.3	54.8	21.5
4.460	10.0	23.4	33.4	50	16.6

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: HDMI
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.178	9.8	33.7	43.5	64.6	21.1
20.770	10.3	29.1	39.4	60	20.6

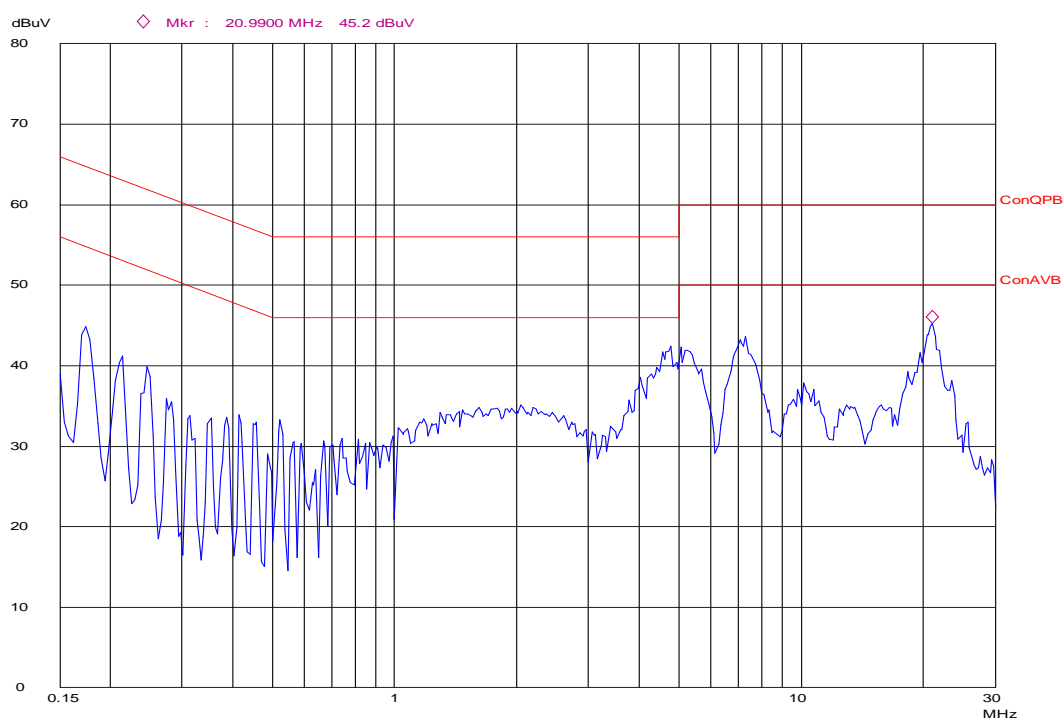
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.178	9.8	22.9	32.7	54.6	21.9
20.770	10.3	21.7	32.0	50	18

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: M/N:PDI-P191LCDC
Op Cond: HDMI
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	33.4	43.2	64.8	21.6
20.990	10.3	28.9	39.2	60	20.8.0

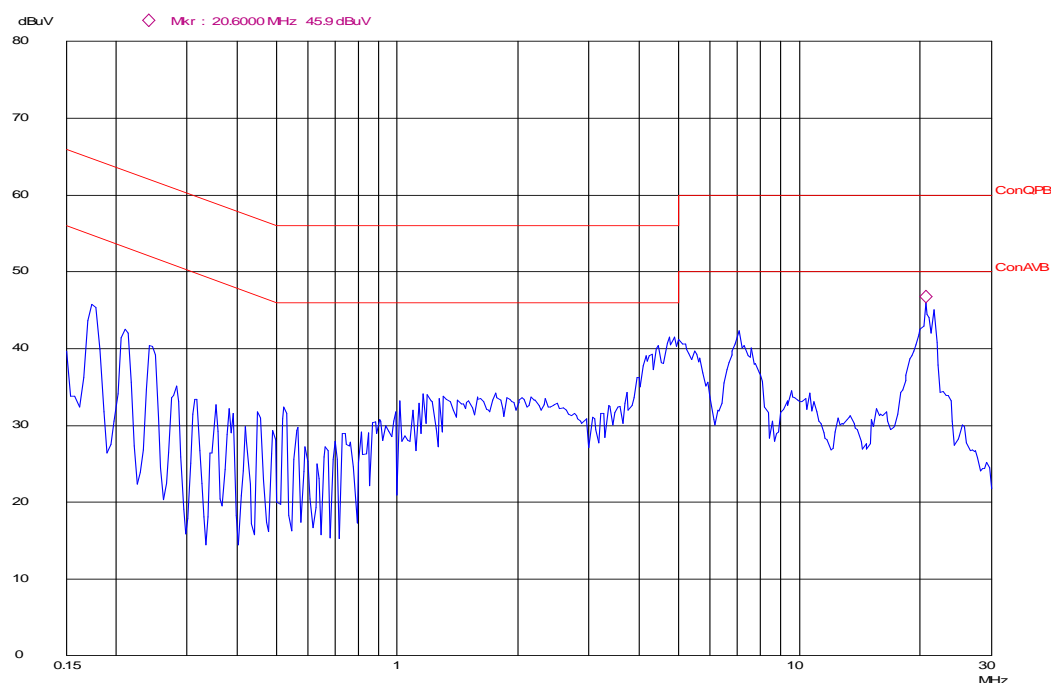
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	23.5	33.3	54.8	21.5
20.990	10.3	22.4	32.7	50	17.3

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: MN-FDI-P191LCDC
Op Cond: VGA
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	34.2	44.0	64.8	20.8
20.600	10.3	28.9	39.2	60	20.8

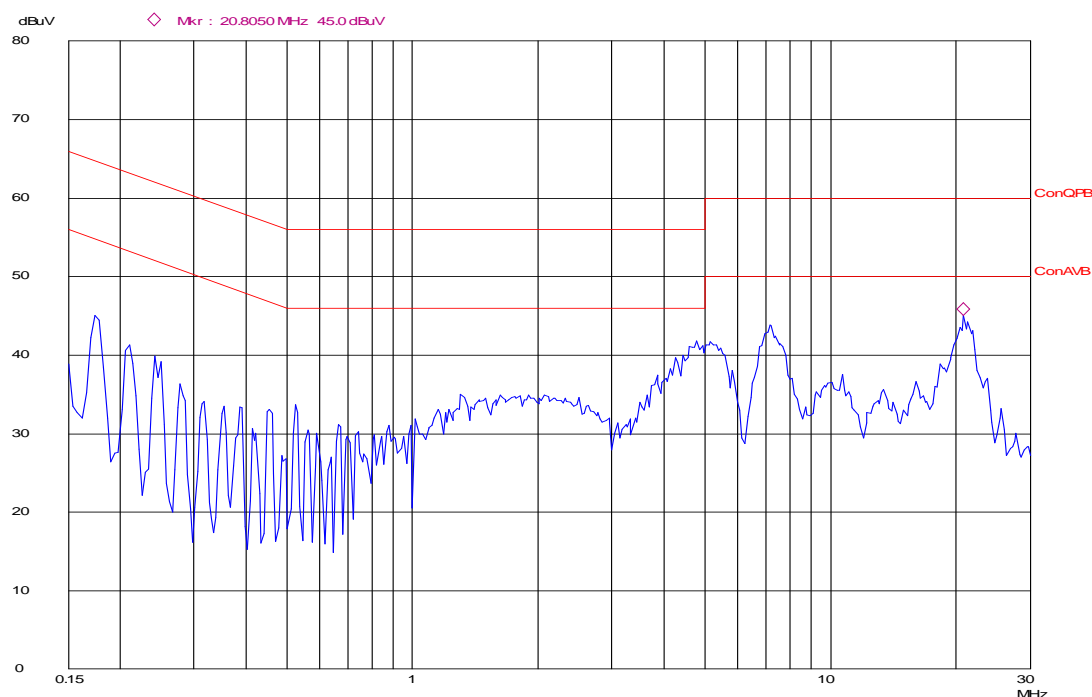
Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	24.0	33.8	54.8	21
20.600	10.3	21.3	31.6	50	18.4

Remark: Test Result= Reading + Cable Loss

Conducted Emission

Conducted Disturbance

EUT: MN:FDI-P191LCDC
Op Cond: VGA
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBμV	QP Test result dBμV	QP Limit dBμV	Margin dB
0.174	9.8	33.5	43.3	64.8	21.5
20.805	10.3	28.7	39.0	60	21.0

Frequency MHz	Cable Loss dB	Reading dBμV	AV Test result dBμV	AV Limit dBμV	Margin dB
0.174	9.8	23.6	33.4	54.8	21.4
20.805	10.3	22.4	32.7	50	17.3

Remark: Test Result= Reading + Cable Loss



Product Service

Test Equipment List

Conducted Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESCS30	100003	Dec 23 2009
AMN	Rohde & Schwarz	ESH3-Z5	100229	Dec 23 2009
AMN	Rohde & Schwarz	ENV216	100042	Dec 23 2009

7.2 Radiated emissions

Test Method

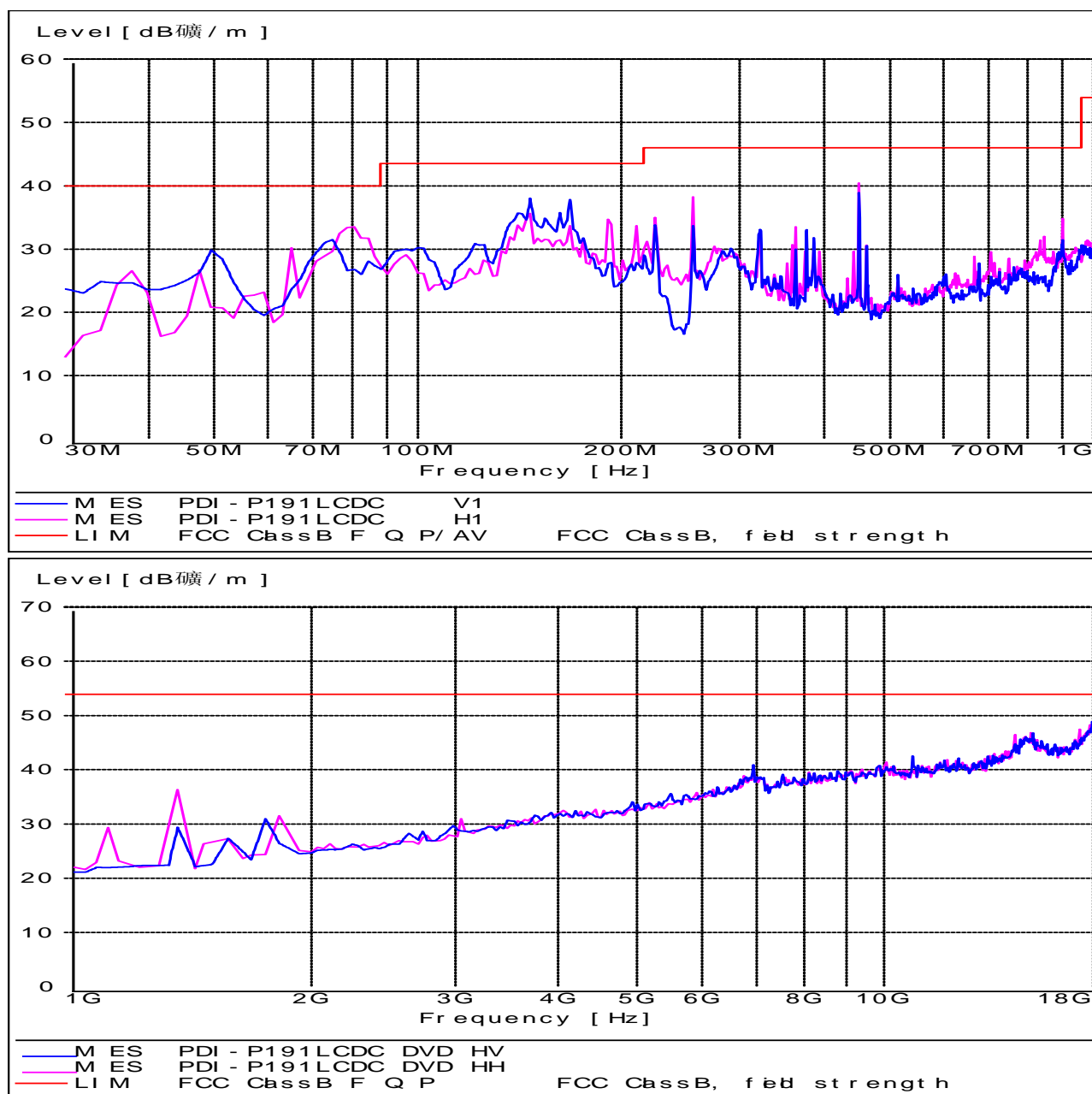
- 1 The EUT is placed on a turntable, which is 0.8m above ground plane.
- 2 The turntable shall be rotated for 360 degrees to determine the position of maximum emission level
- 3 EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4 Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5 Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

Limit

Frequency MHz	Field Strength uV/m	Field Strength dBμV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

Remark: During the radiated emission test, all the channels in TV mode, DTV mode and FM mode are applied, and the results are met the limit of requirement, the test data which listed in the report are the typical channels of Hight Middle and Low.

Radiated Emission

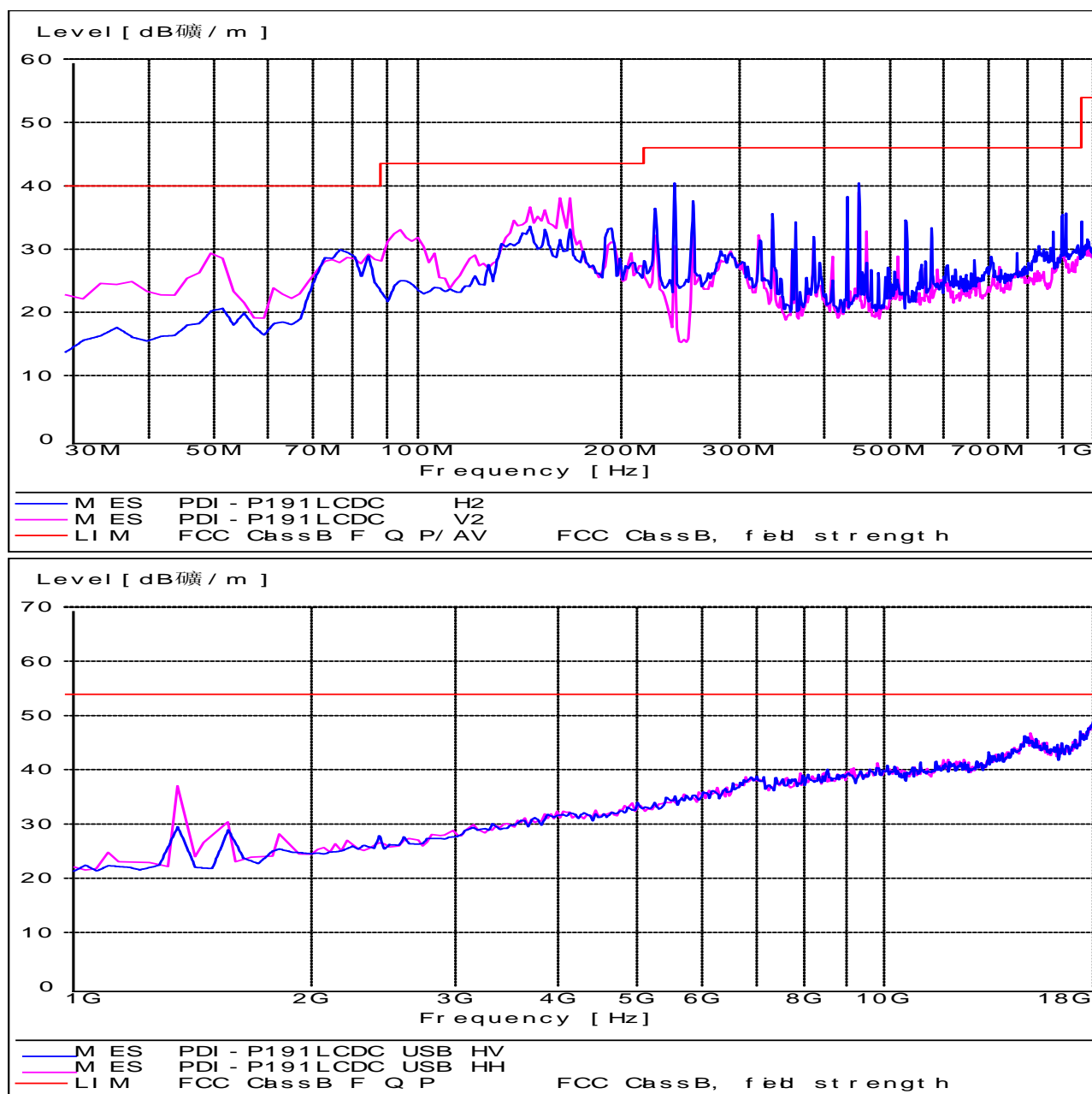


Radiated Emission

Play DVD Mode Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
80.541	1.4	9.3	22.2	32.9	Horizontal	40.0	QP	Pass
256.513	2.7	13.8	21.7	38.2	Horizontal	46.0	QP	Pass
450.012	3.4	17.1	21.5	42	Horizontal	46.0	QP	Pass
147.452	2.1	11.3	24.4	37.8	Vertical	43.5	QP	Pass
450.010	3.4	17.1	19.7	40.2	Vertical	46.0	QP	Pass

Radiated Emission

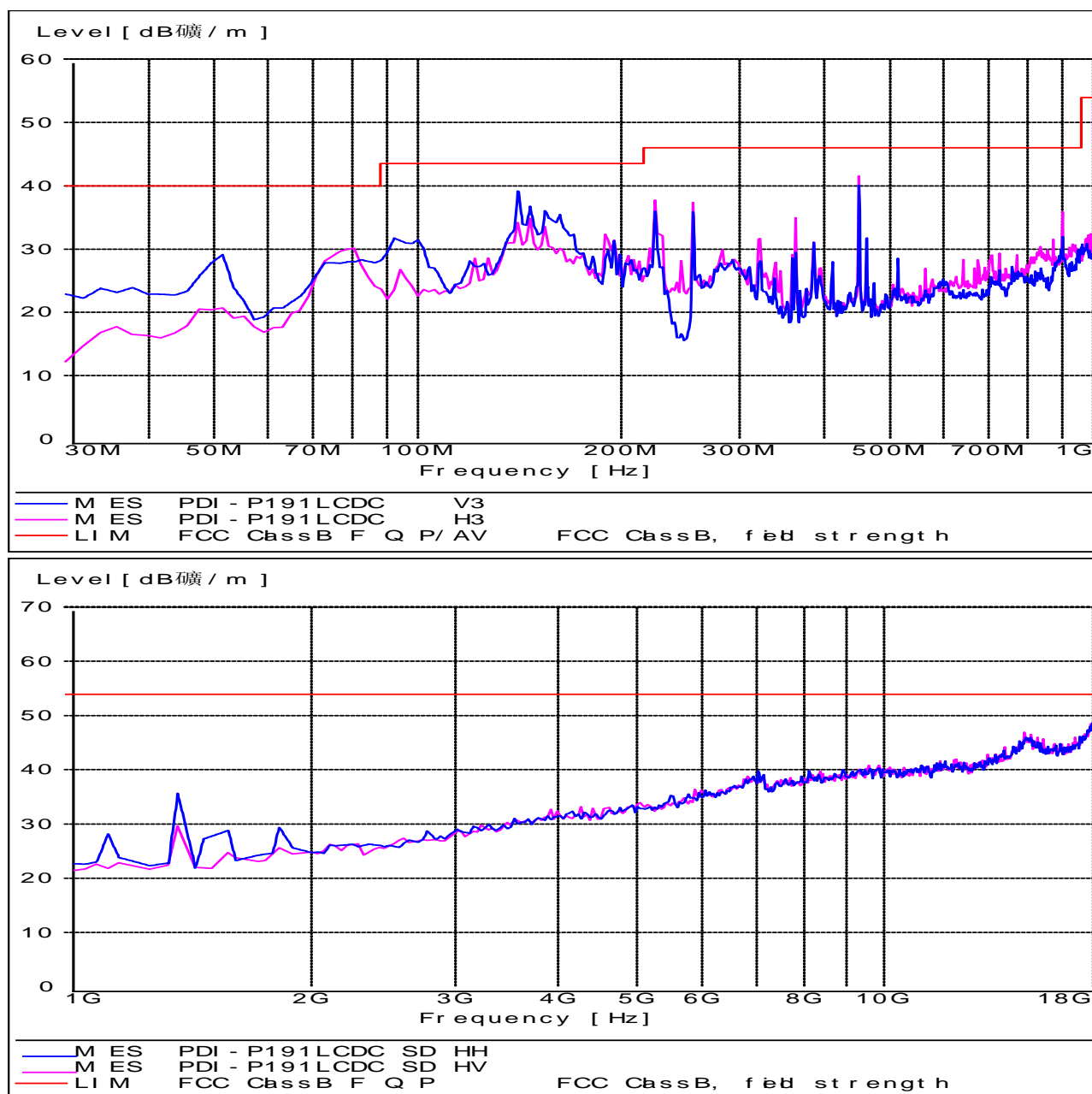


Radiated Emission

Read USB Mode Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
240.030	2.7	12.4	25.3	40.3	Horizontal	46.0	QP	Pass
450.030	3.4	17.1	20.3	40.8	Horizontal	46.0	QP	Pass
162.21	2.2	10.8	23.4	36.4	Vertical	43.5	QP	Pass
450.032	3.4	17.1	18.7	39.2	Vertical	46.0	QP	Pass

Radiated Emission

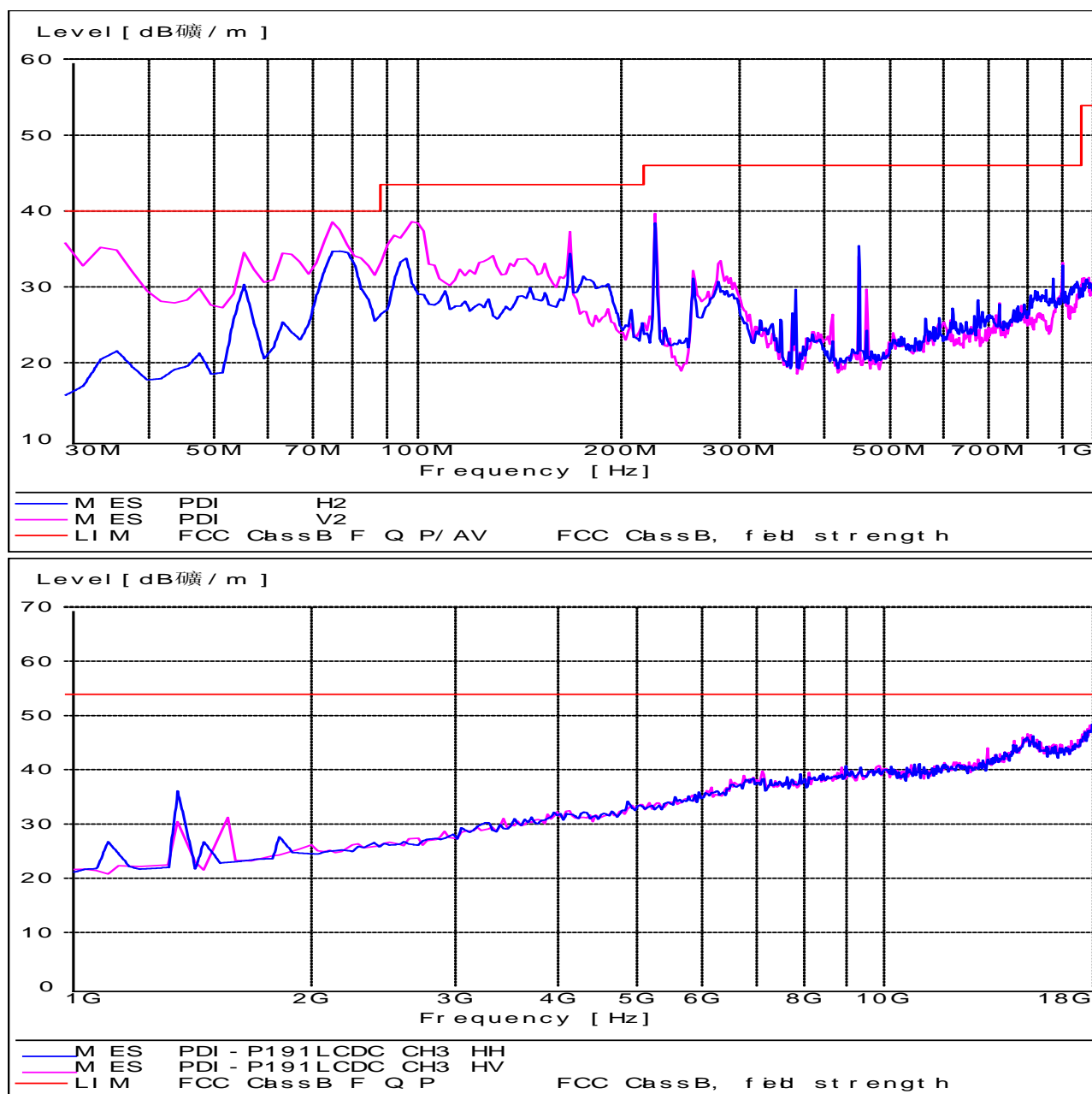


Radiated Emission

Read SD Mode Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
225.032	2.6	11.0	22.9	36.5	Horizontal	46.0	QP	Pass
256.533	2.7	13.8	18.5	35	Horizontal	46.0	QP	Pass
450.01	3.4	17.1	23.0	43.5	Horizontal	46.0	QP	Pass
140.771	2.1	11.7	24.5	38.3	Vertical	43.5	QP	Pass
450.030	3.4	17.1	18.5	39.0	Vertical	46.0	QP	Pass

Radiated Emission

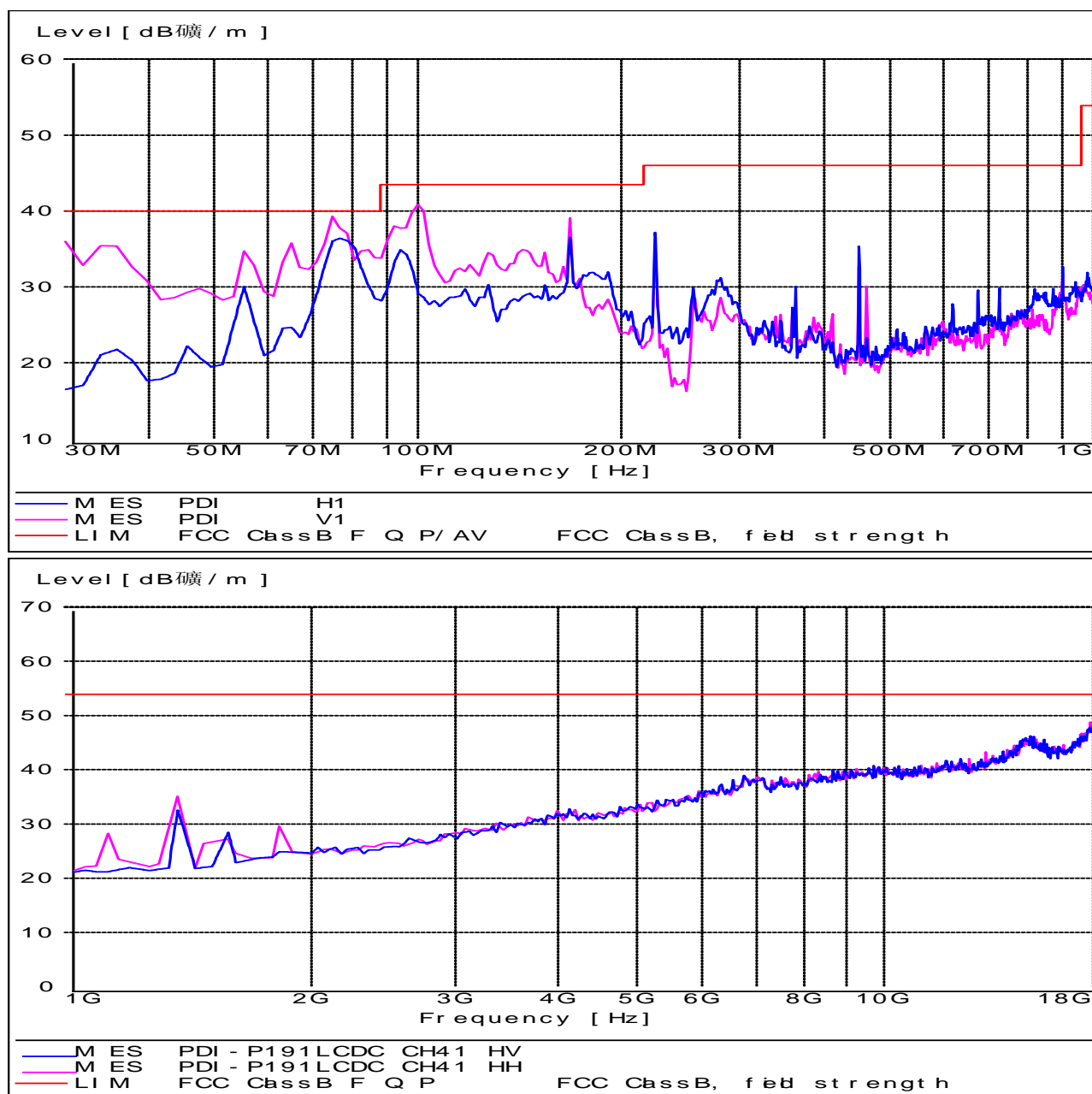


Radiated Emission

TV Mode 61.25MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
76.651	1.4	8.6	22.5	32.5	Horizontal	40.0	QP	Pass
223.957	2.6	10.6	23.8	36.9	Horizontal	46.0	QP	Pass
30.030	0.9	18.8	13.8	33.5	Vertical	40.0	QP	Pass
75.813	1.4	8.2	25.1	34.7	Vertical	40.0	QP	Pass

Radiated Emission





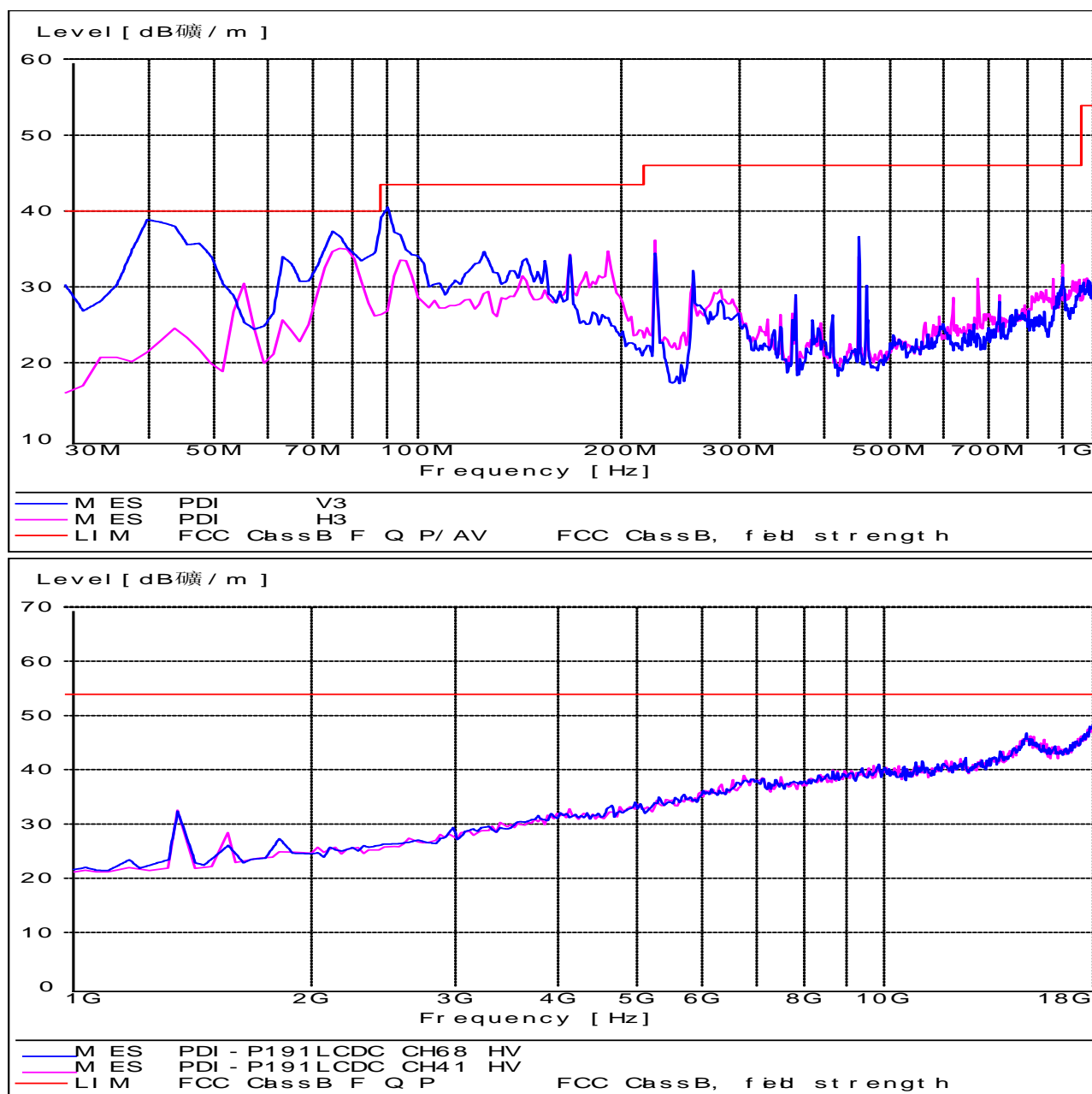
Product Service

Radiated Emission

TV Mode 633.25MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
76.571	1.4	8.6	22.9	32.9	Horizontal	40.0	QP	Pass
76.247	1.4	8.6	26.1	36.1	Vertical	40.0	QP	Pass
101.394	1.6	12.3	19.8	33.7	Vertical	43.5	QP	Pass

Radiated Emission

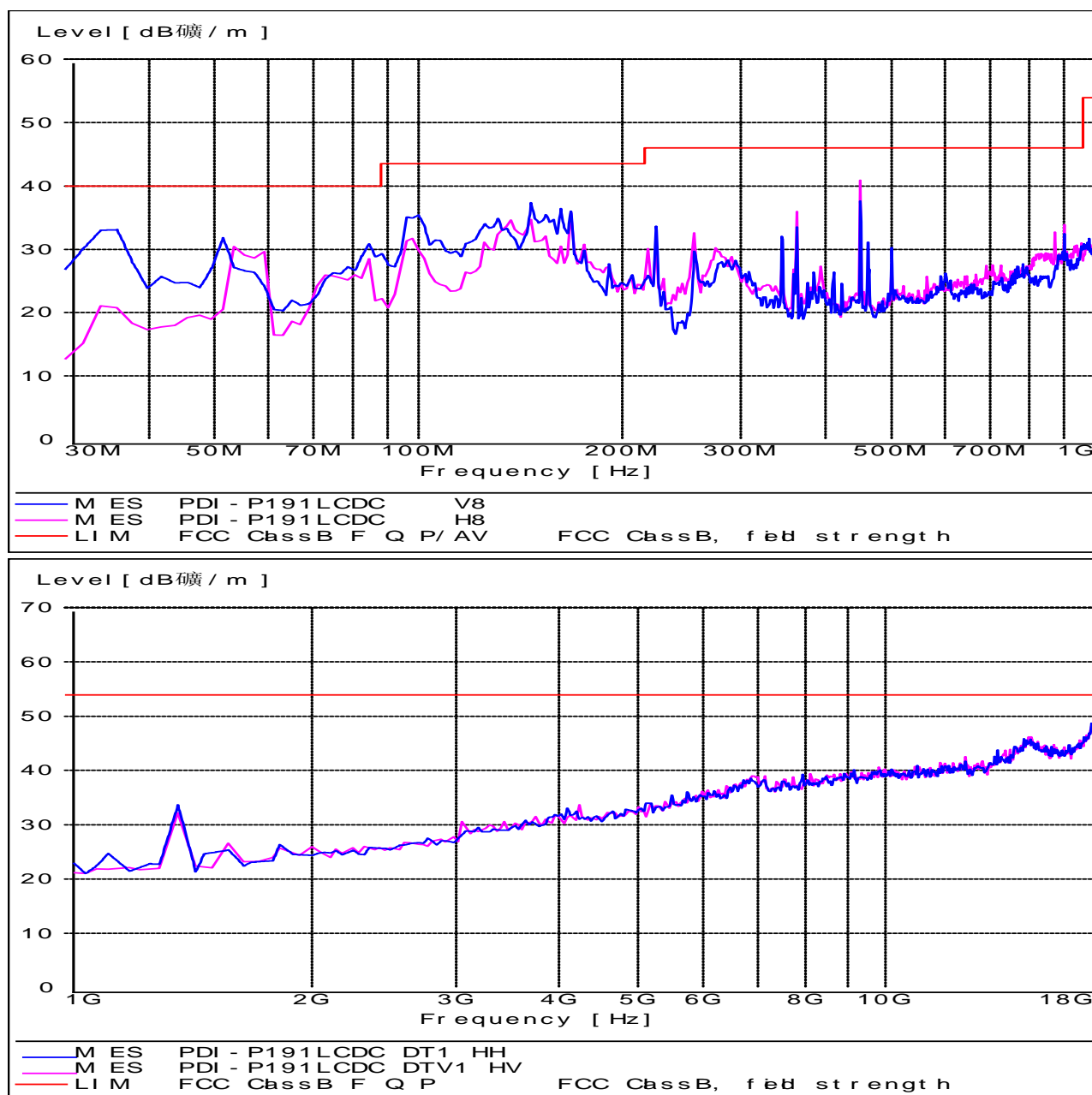


Radiated Emission

TV Mode 795.25MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
76.653	1.4	8.6	23.1	33.1	Horizontal	40.0	QP	Pass
40.012	1.2	12.8	21.9	35.9	Vertical	40.0	QP	Pass
75.192	1.4	8.2	24.9	34.5	Vertical	40.0	QP	Pass
92.956	1.6	11.2	21.5	34.3	Vertical	43.5	QP	Pass

Radiated Emission





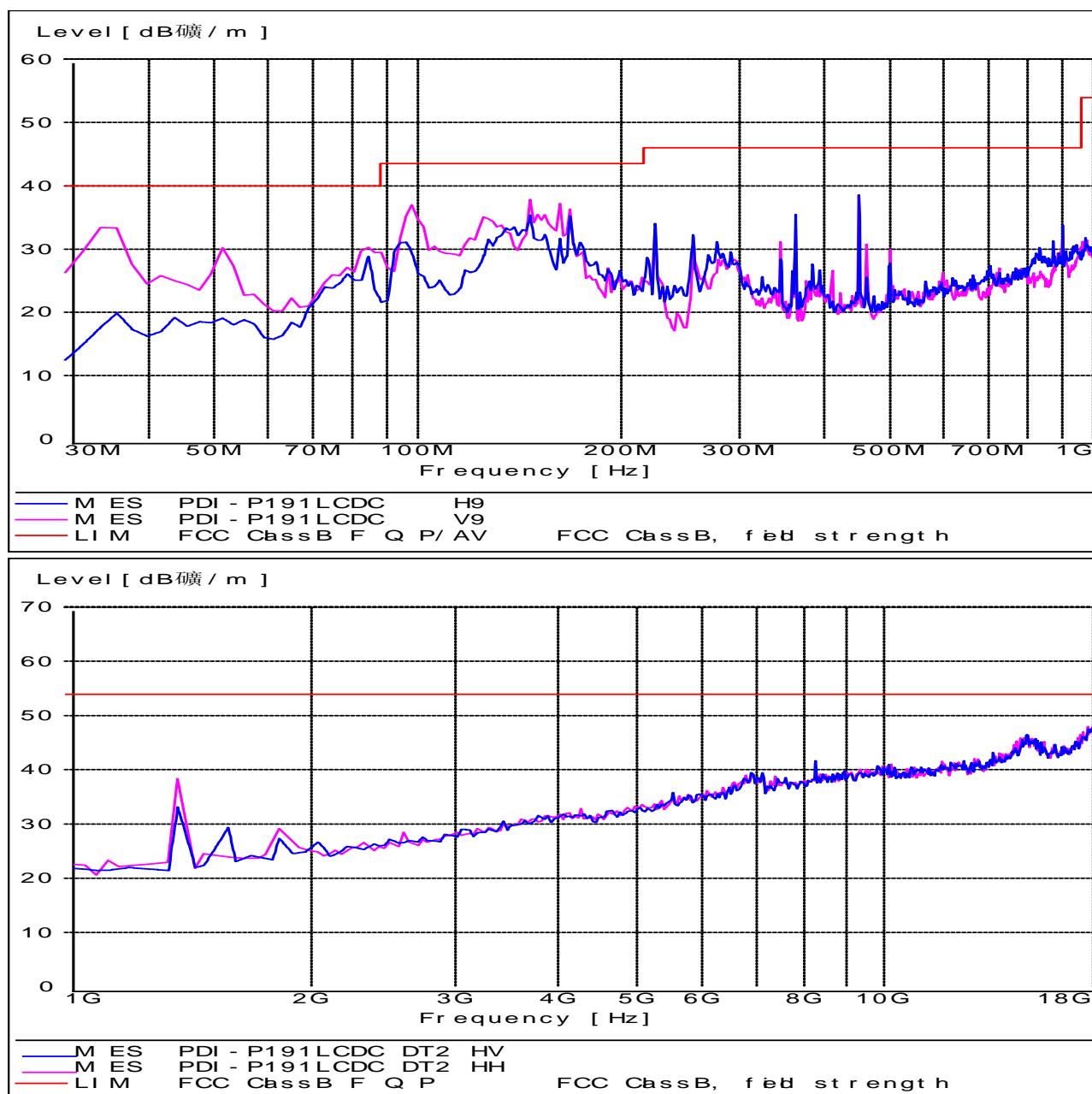
Product Service

Radiated Emission

DTV Mode 54.31MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
450.01	3.4	17.1	19.2	39.7	Horizontal	46.0	QP	Pass
147.472	2.1	11.3	23.4	36.8	Vertical	43.5	QP	Pass

Radiated Emission





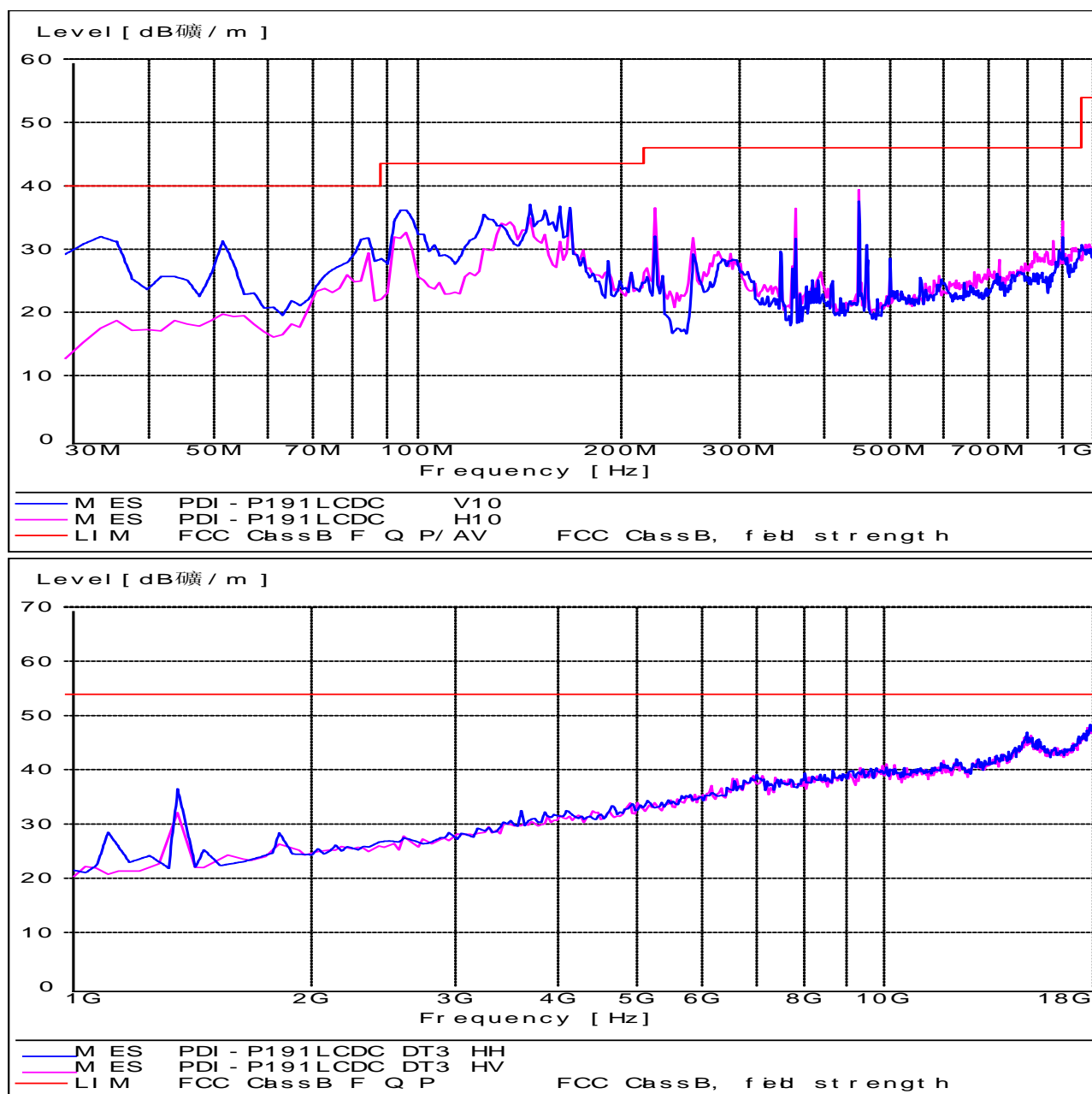
Product Service

Radiated Emission

DTV Mode 198.31MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
450.01	3.4	17.1	17.8	37.3	Horizontal	46.0	QP	Pass
147.472	2.1	11.3	23.4	36.8	Vertical	43.5	QP	Pass

Radiated Emission





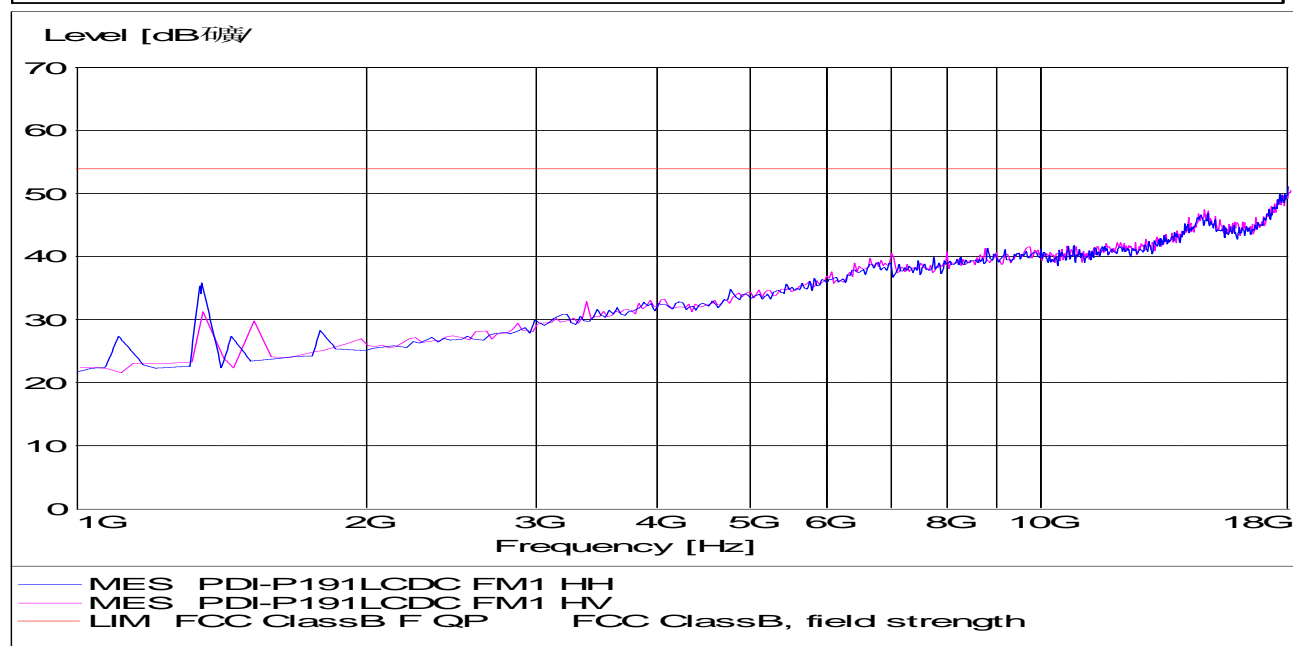
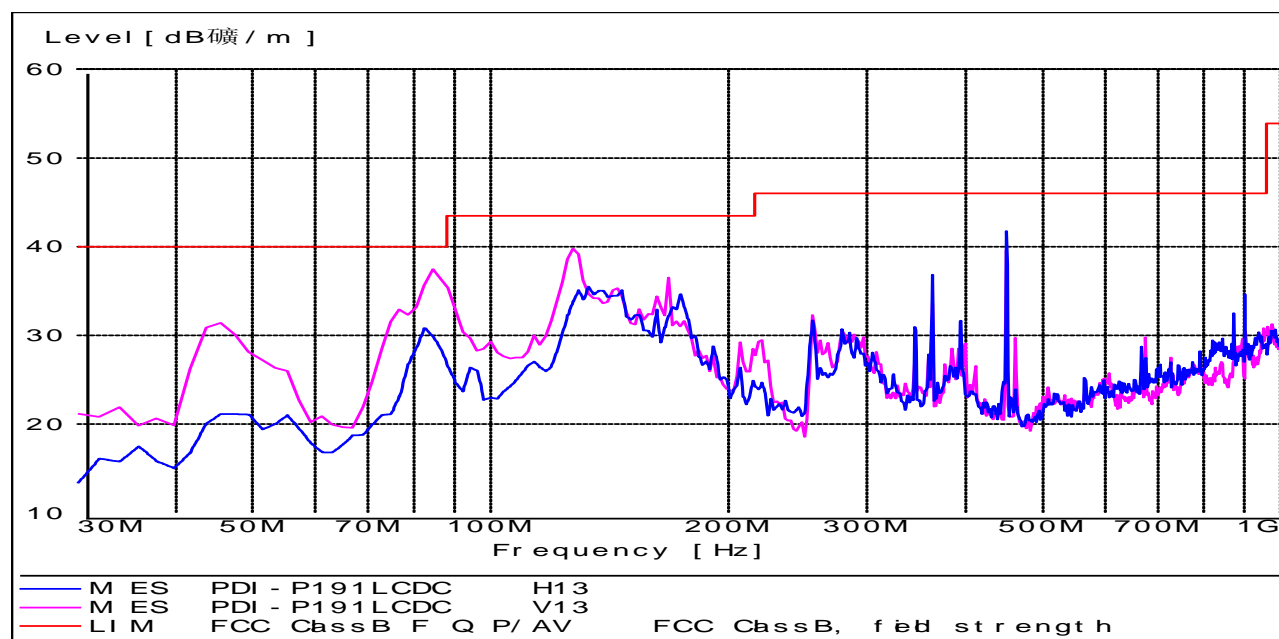
Product Service

Radiated Emission

DTV Mode 554.31MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
450.01	3.4	17.1	21.7	41.2	Horizontal	46.0	QP	Pass
147.475	2.1	11.3	23.1	36.5	Vertical	43.5	QP	Pass

Radiated Emission

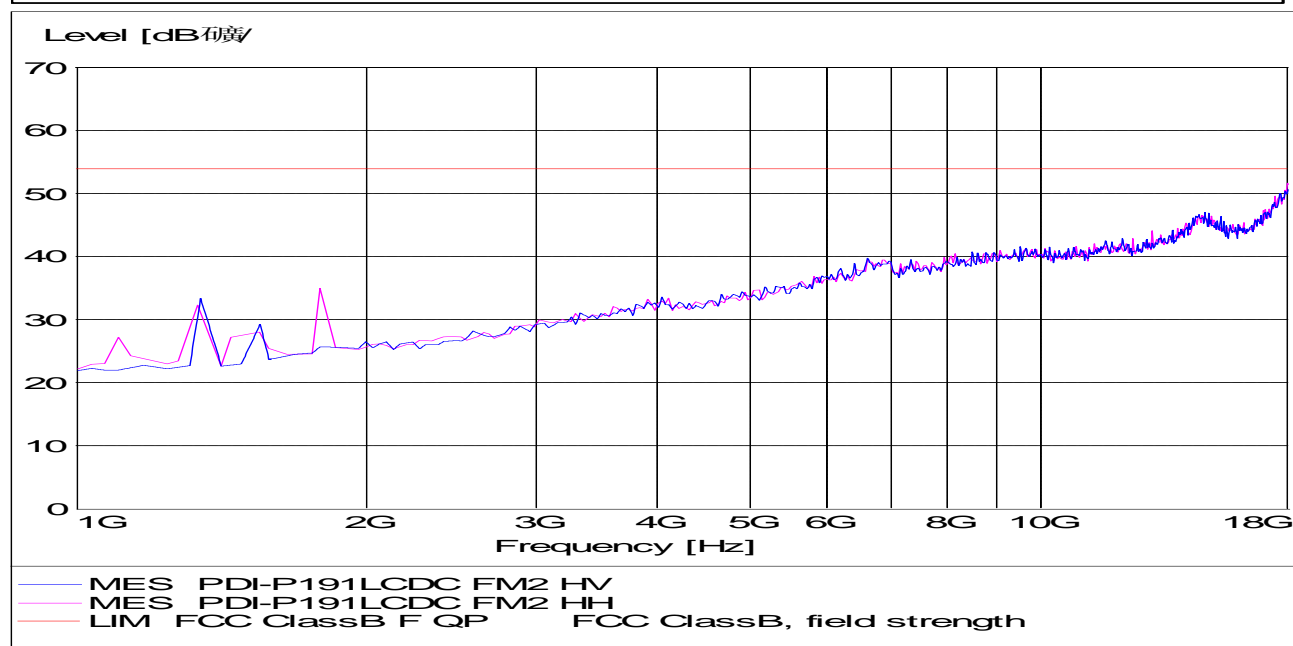
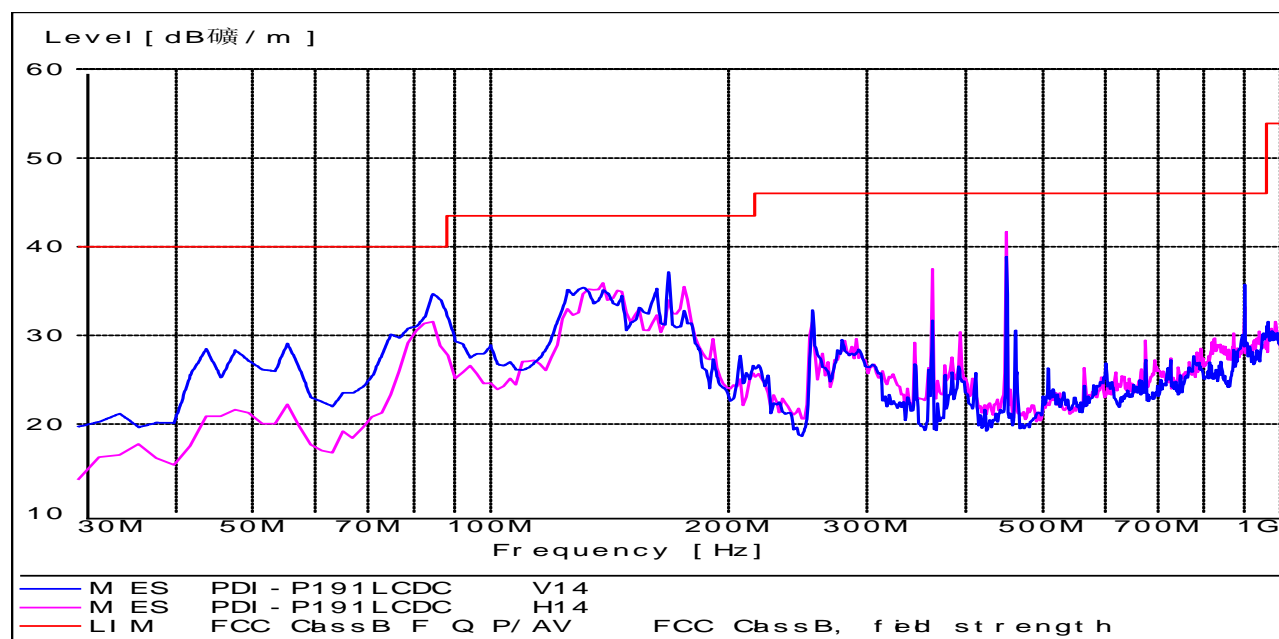


Radiated Emission

FM Mode 88.1MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
450.008	3.4	17.1	22.5	43.0	Horizontal	46.0	QP	Pass
84.551	1.4	10.1	21.4	32.8	Vertical	40.0	QP	Pass
128.232	1.9	12.6	18.2	32.6	Vertical	43.5	QP	Pass
450.008	3.4	17.1	21.2	41.7	Vertical	46.0	QP	Pass

Radiated Emission





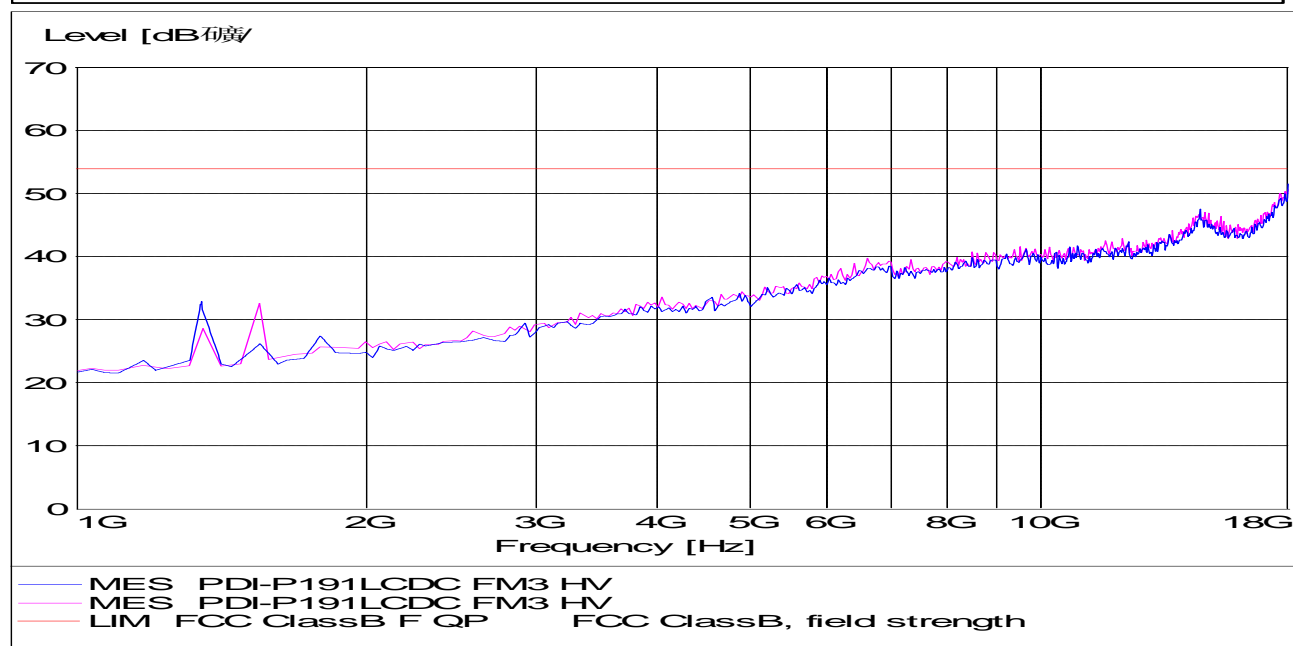
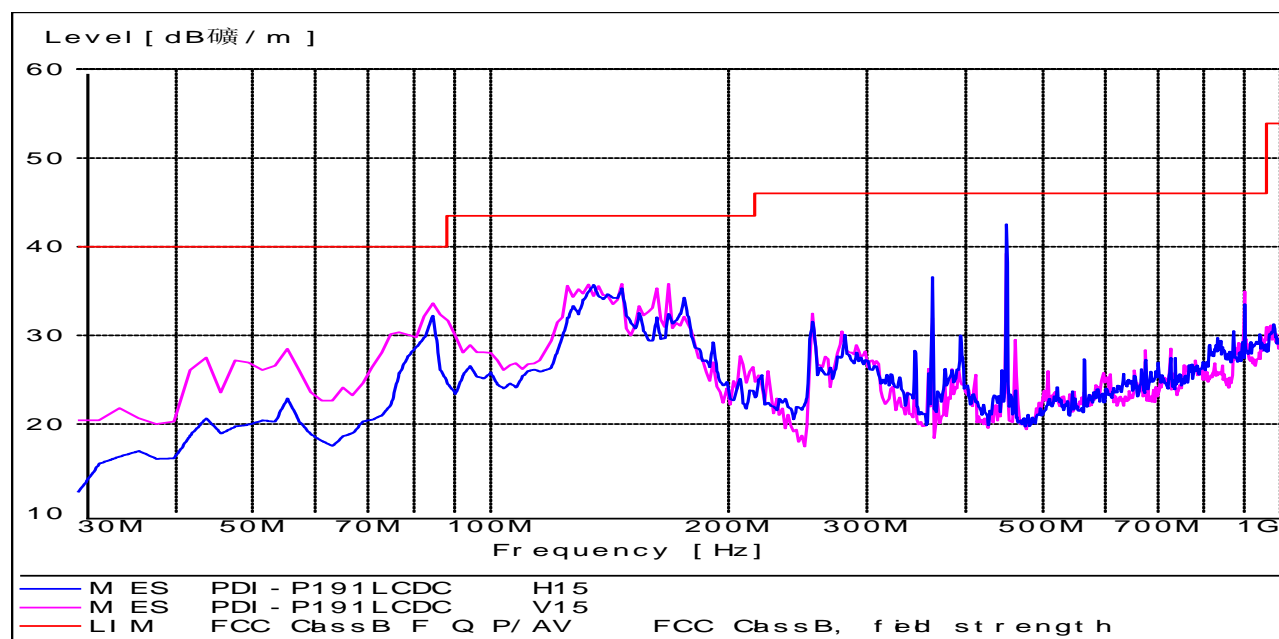
Product Service

Radiated Emission

FM Mode 98.1MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
450.008	3.4	17.1	22.3	42.8	Horizontal	46.0	QP	Pass
84.511	1.4	10.1	21.4	32.8	Vertical	40.0	QP	Pass

Radiated Emission





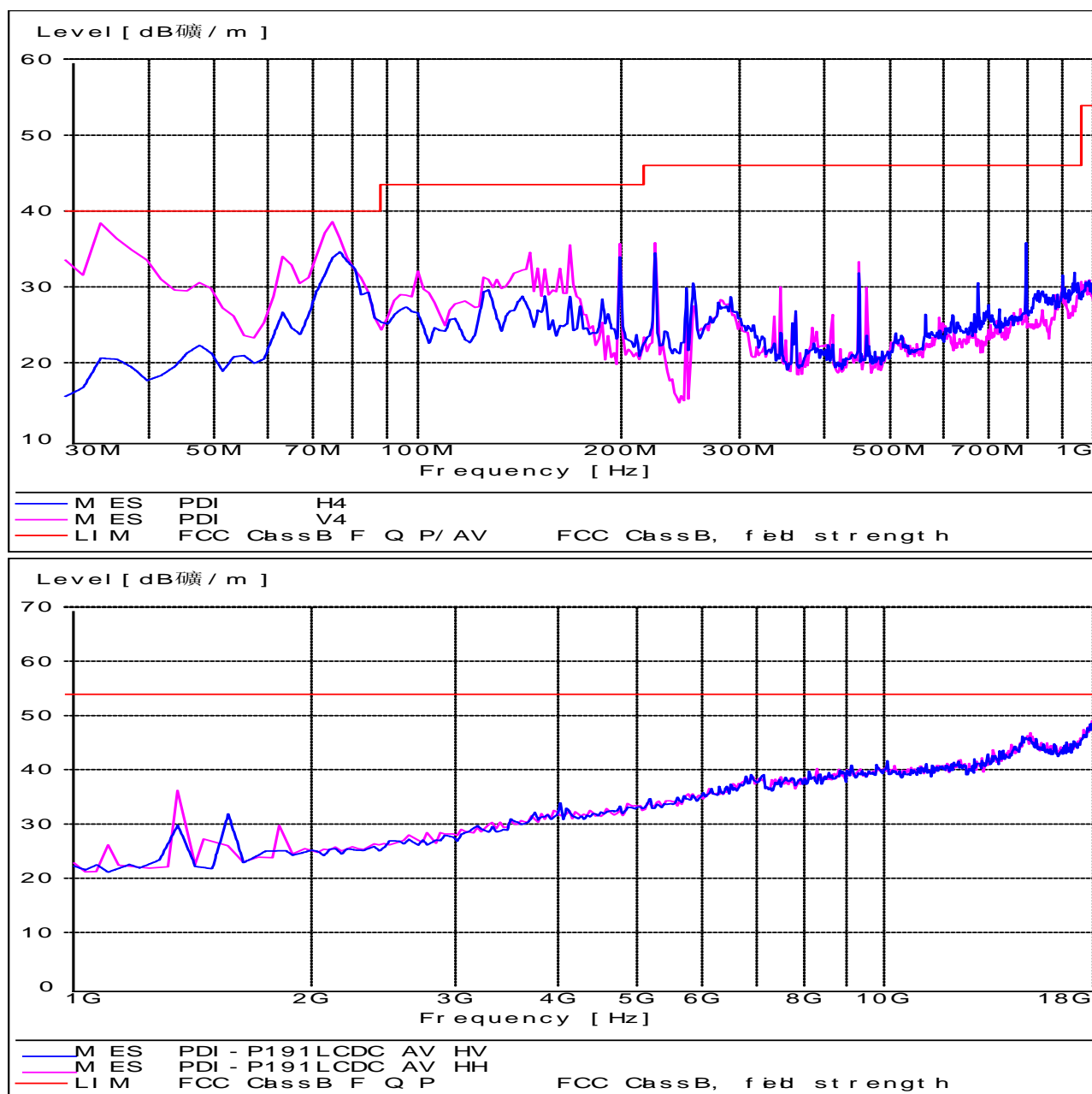
Product Service

Radiated Emission

FM Mode 107.9MHz Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
450.008	3.4	17.1	19.5	40	Horizontal	46.0	QP	Pass
450.008	3.4	17.1	21.8	42.3	Vertical	46.0	QP	Pass

Radiated Emission





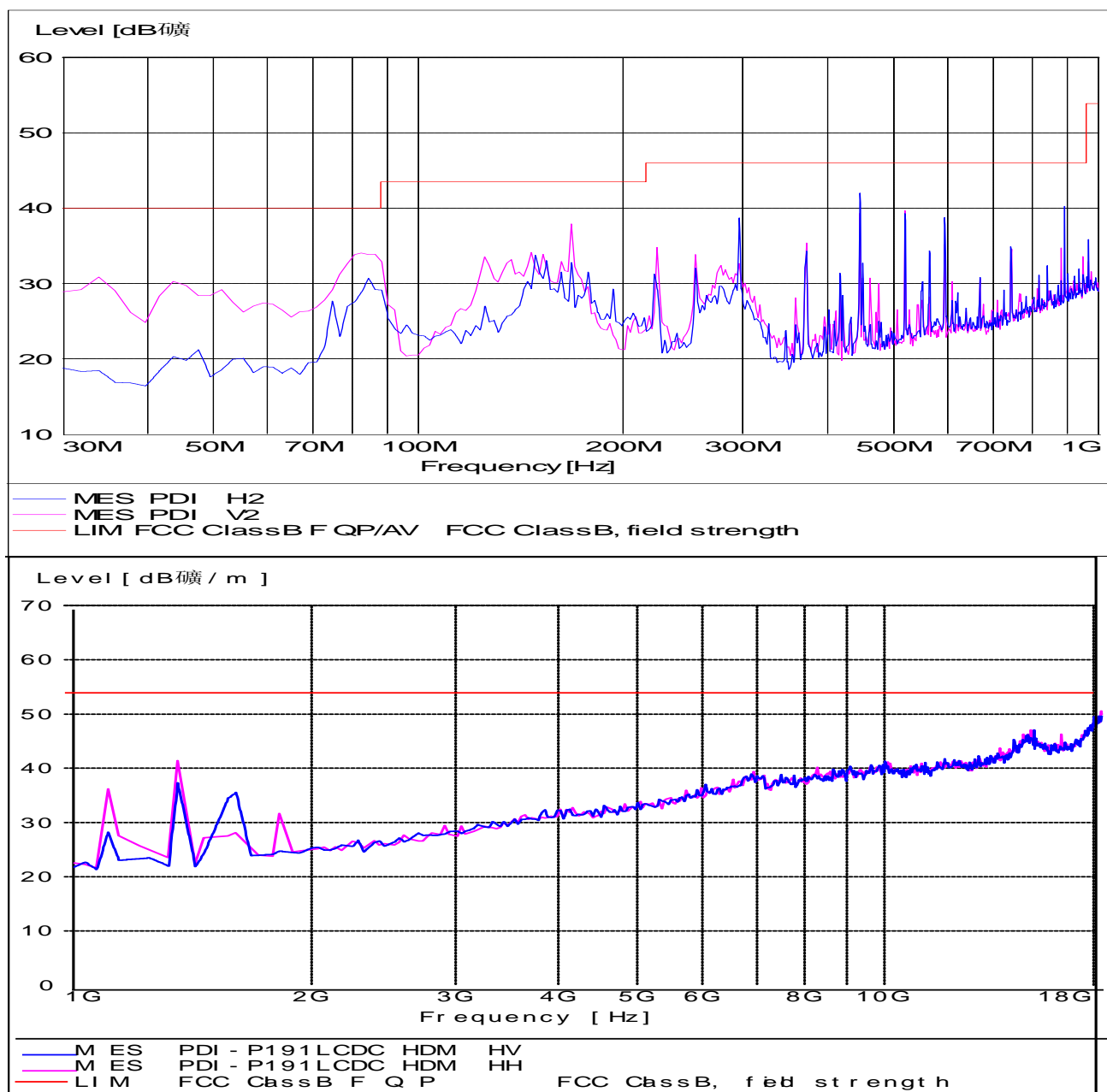
Product Service

Radiated Emission

AV in Mode Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
76.792	1.4	8.6	26.5	36.5	Horizontal	40.0	QP	Pass
35.274	1.2	16.5	18.6	36.3	Vertical	40.0	QP	Pass
75.773	1.4	8.2	23.9	33.5	Vertical	40.0	QP	Pass

Radiated Emission

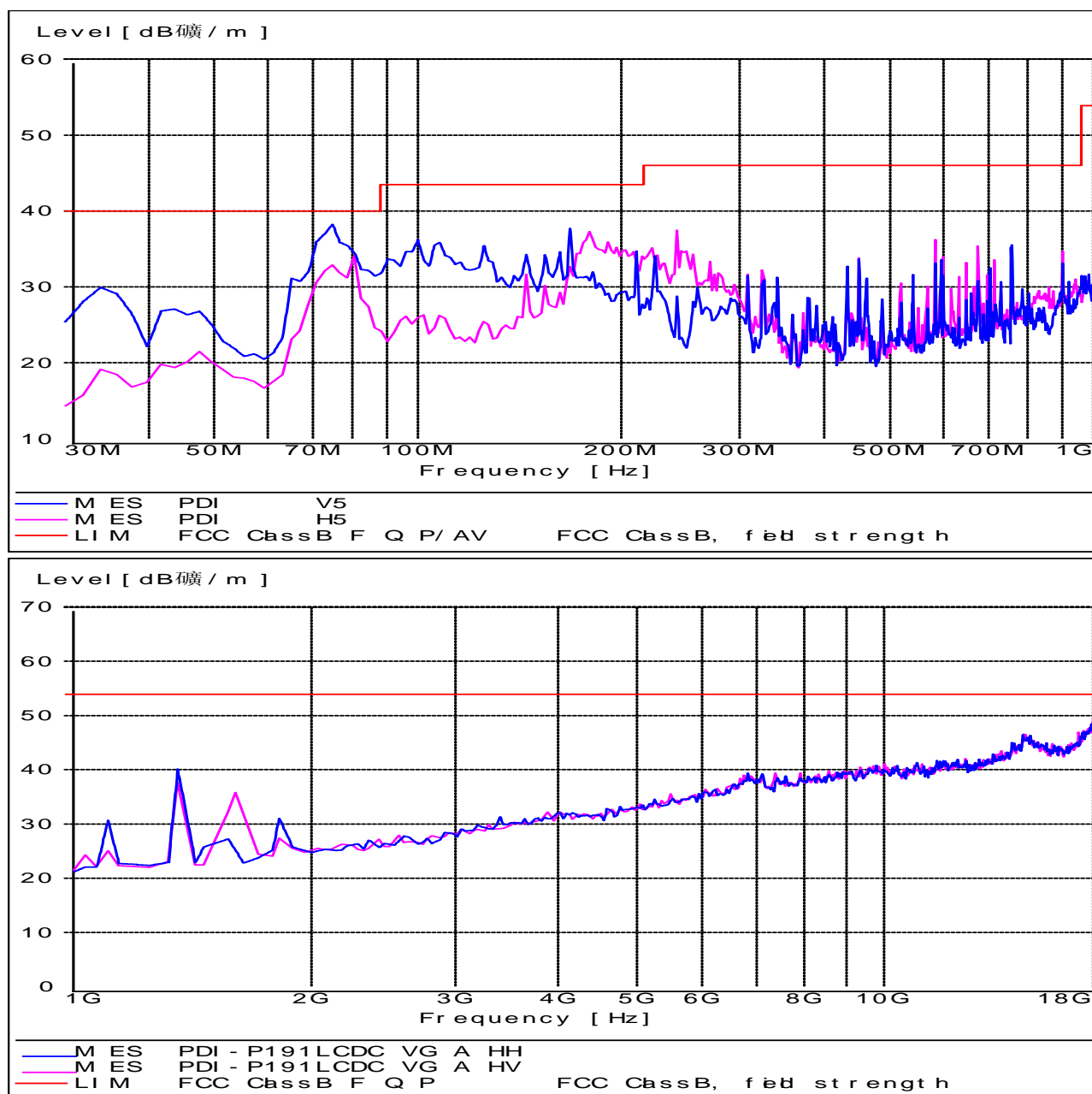


Radiated Emission

HDMI Mode Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
297.125	2.9	13.5	21.1	37.5	Horizontal	46.0	QP	Pass
445.03	3.4	16.9	21.2	41.5	Horizontal	46.0	QP	Pass
82.527	1.4	9.6	21.9	32.9	Vertical	40.0	QP	Pass
168.012	2.2	10.6	24.1	36.9	Vertical	43.5	QP	Pass
445.030	3.4	16.9	20.5	40.8	Vertical	46.0	QP	Pass

Radiated Emission





Product Service

Radiated Emission

VGA(PC) Mode Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
180.295	2.2	9.8	23.9	35.9	Horizontal	43.5	QP	Pass
74.651	1.4	8.2	25.6	35.2	Vertical	40.0	QP	Pass
168.931	2.2	10.6	23.4	36.2	Vertical	43.5	QP	Pass



Product Service

Test Equipment List

Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESI26	838786/013	Dec 23 2009
Bilog Antenna	Chase	CBL6112B	2591	Dec 23 2009
Signal Generator	Rohde & Schwarz	SMR20	100047	Dec 23 2009
Antenna	Schwarzbeck	VUBA9117	115	Dec 23 2009
Horn Antenna	Rohde & Schwarz	HF906	100013	Dec 23 2009

7.3 Antenna conducted power

Test Method

- 1 The EUT was placed on a table, which is 0.8m above ground plane
- 2 Maximum procedure was performed to ensure EUT compliance
- 3 A impedance matching pad(75ohm/50ohm) is used for the test from the tuner to the receiver input port.
- 4 A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions from the antenna port through the impedance matching pad.

Limit

Frequency MHz	Power nW	Voltage dB μ V	Detector
30-5000	2	51.8	PK

Remark: During the Antenna conducted power test, all the channels in TV mode, DTV mode and FM mode are applied, and the results are met the limit of requirement, the test data which listed in the report are the typical channels of Hight Middle and Low.

Antenna conducted power

Test Mode	TV 61.25MHz		Frequency range	30M-1000MHz	
Frequency (MHz)	Emission level (dBμv)	Reading level (dBμv)	Connection factor(dB)	Limit (dBμv)	Margin (dB)
689.000	34.4	23.9	10.5	51.8	17.4
784.687	33.3	22.6	10.7	51.8	18.5

Test Mode	TV 633.25MHz		Frequency range	30M-5000MHz	
Frequency (MHz)	Emission level (dBμv)	Reading level (dBμv)	Connection factor(dB)	Limit (dBμv)	Margin (dB)
682.937	33.9	23.4	10.5	51.8	17.9
750.875	32.6	22.0	10.6	51.8	19.2

Test Mode	TV 795.25MHz		Frequency range	30M-5000MHz	
Frequency (MHz)	Emission level (dBμv)	Reading level (dBμv)	Connection factor(dB)	Limit (dBμv)	Margin (dB)
179.625	33.8	25.6	8.2	51.8	18.0
617.312	32.9	22.7	10.2	51.8	18.9
702.000	33.1	22.6	10.5	51.8	18.7

Antenna conducted power

Test Mode	DTV 54.31MHz		Frequency range	30M-1000MHz	
Frequency (MHz)	Emission level (dB μ v)	Reading level (dB μ v)	Connection factor(dB)	Limit (dB μ v)	Margin (dB)
363.250	33.0	23.8	9.2	51.8	18.8
555.000	33.7	23.8	9.9	51.8	18.1

Test Mode	DTV 198.31MHz		Frequency range	30M-2000MHz	
Frequency (MHz)	Emission level (dB μ v)	Reading level (dB μ v)	Connection factor(dB)	Limit (dB μ v)	Margin (dB)
198.312	31.9	23.7	8.2	51.8	19.9
446.937	33.3	23.9	9.4	51.8	18.5

Test Mode	DTV 554.31MHz		Frequency range	30M-5000MHz	
Frequency (MHz)	Emission level (dB μ v)	Reading level (dB μ v)	Connection factor(dB)	Limit (dB μ v)	Margin (dB)
214.500	32.6	24.2	8.4	51.8	19.2
385.437	32.6	23.4	9.2	51.8	19.2

Antenna conducted power

Test Mode	FM 88.1MHz		Frequency range	30M-1000MHz	
Frequency (MHz)	Emission level (dBμv)	Reading level (dBμv)	Connection factor(dB)	Limit (dBμv)	Margin (dB)
703.937	36.3	25.8	10.5	51.8	15.5
952.687	37.1	25.9	11.2	51.8	14.7

Test Mode	FM 98.1MHz		Frequency range	30M-1000MHz	
Frequency (MHz)	Emission level (dBμv)	Reading level (dBμv)	Connection factor(dB)	Limit (dBμv)	Margin (dB)
783.062	36.4	25.7	10.7	51.8	15.4
953.437	37.9	26.7	11.2	51.8	13.9

Test Mode	FM 107.9MHz		Frequency range	30M-1000MHz	
Frequency (MHz)	Emission level (dBμv)	Reading level (dBμv)	Connection factor(dB)	Limit (dBμv)	Margin (dB)
935.812	38.3	27.2	11.1	51.8	13.5
953.437	36.1	24.9	11.2	51.8	15.7



Product Service

Test Equipment List

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESCS30	100003	Dec 23 2009
AMN	Rohde & Schwarz	ESH3-Z5	100229	Dec 23 2009
Impedance matching Pad	Rohde & Schwarz	SCA-Comp	---	Dec 23 2009