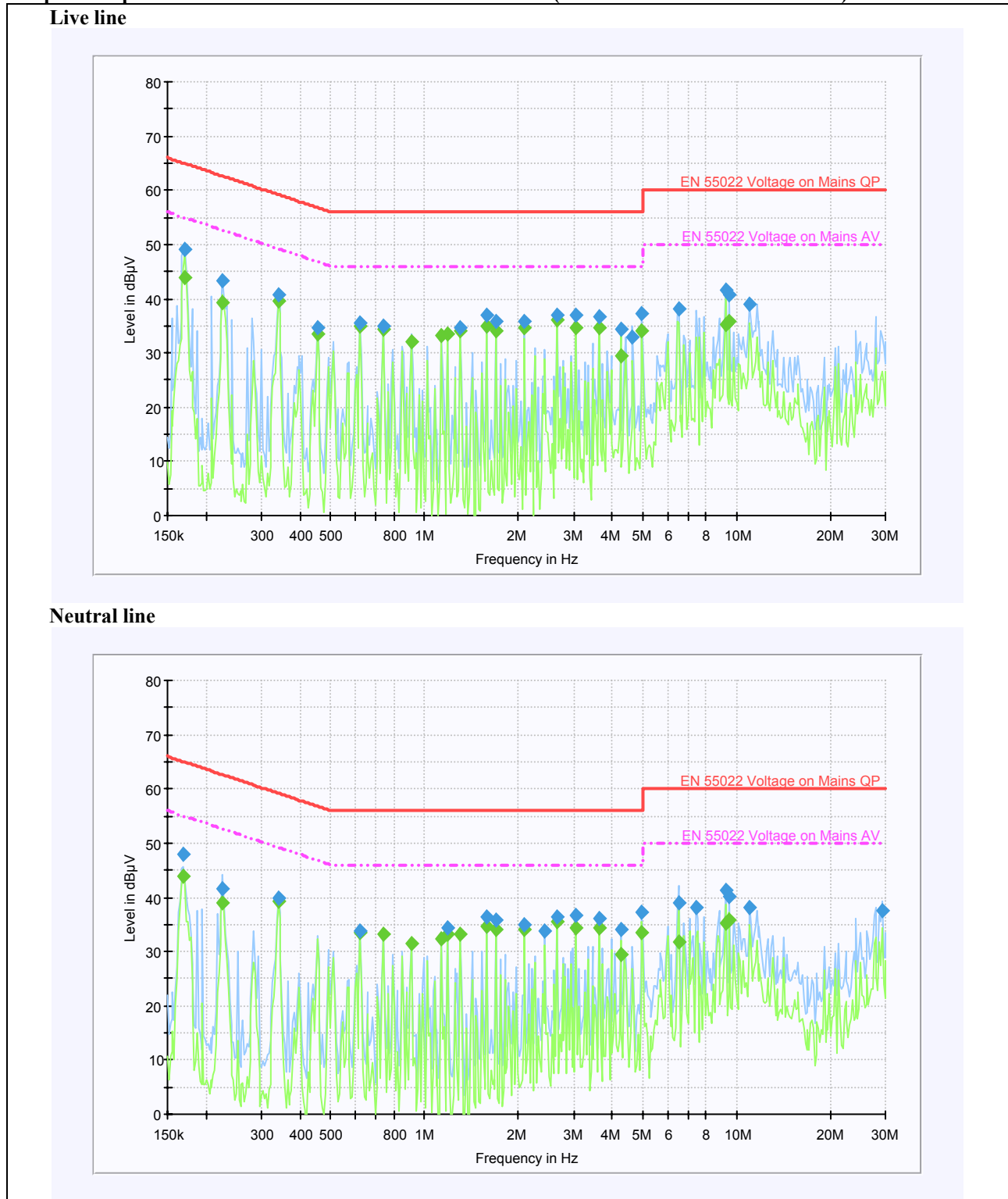
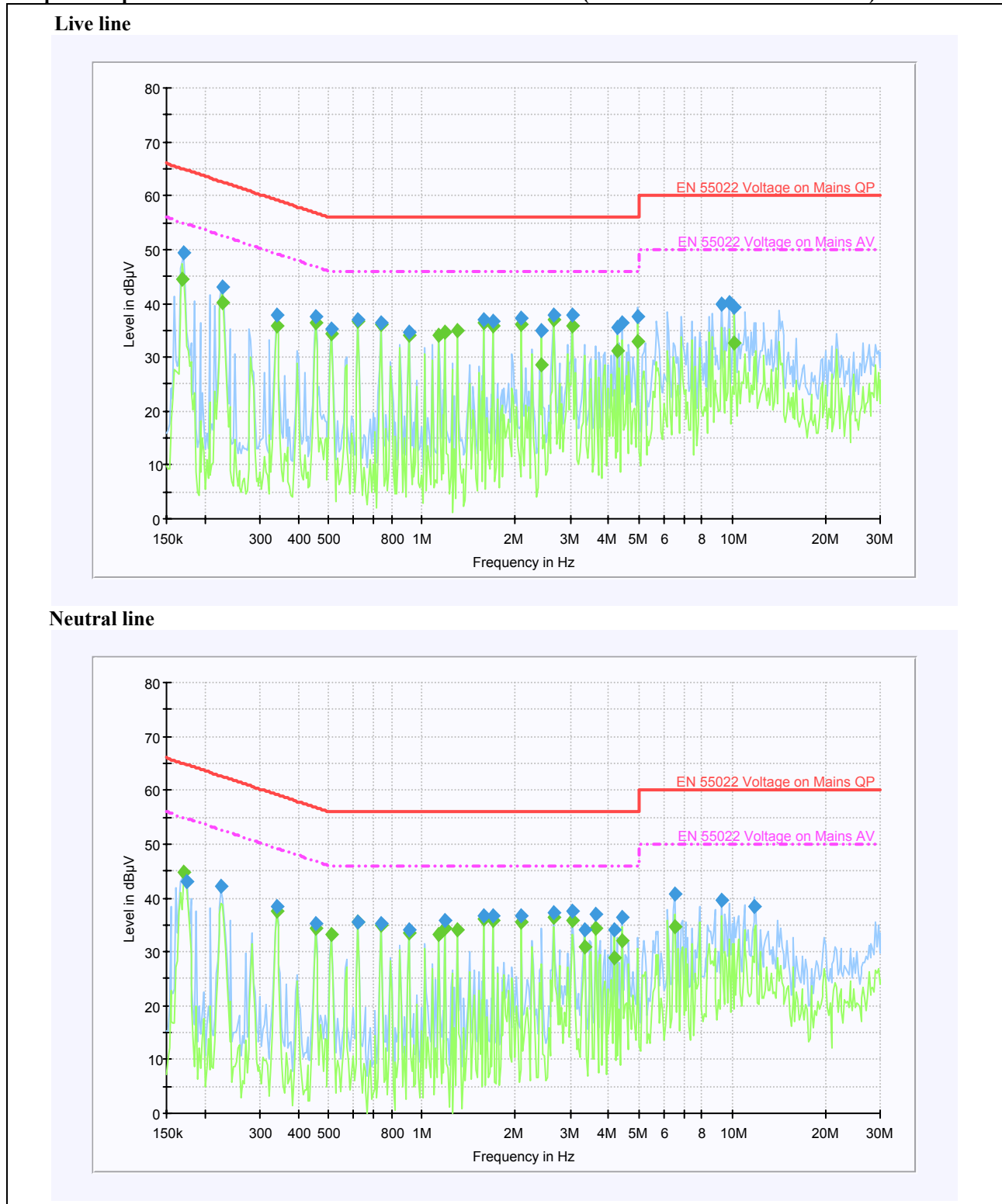


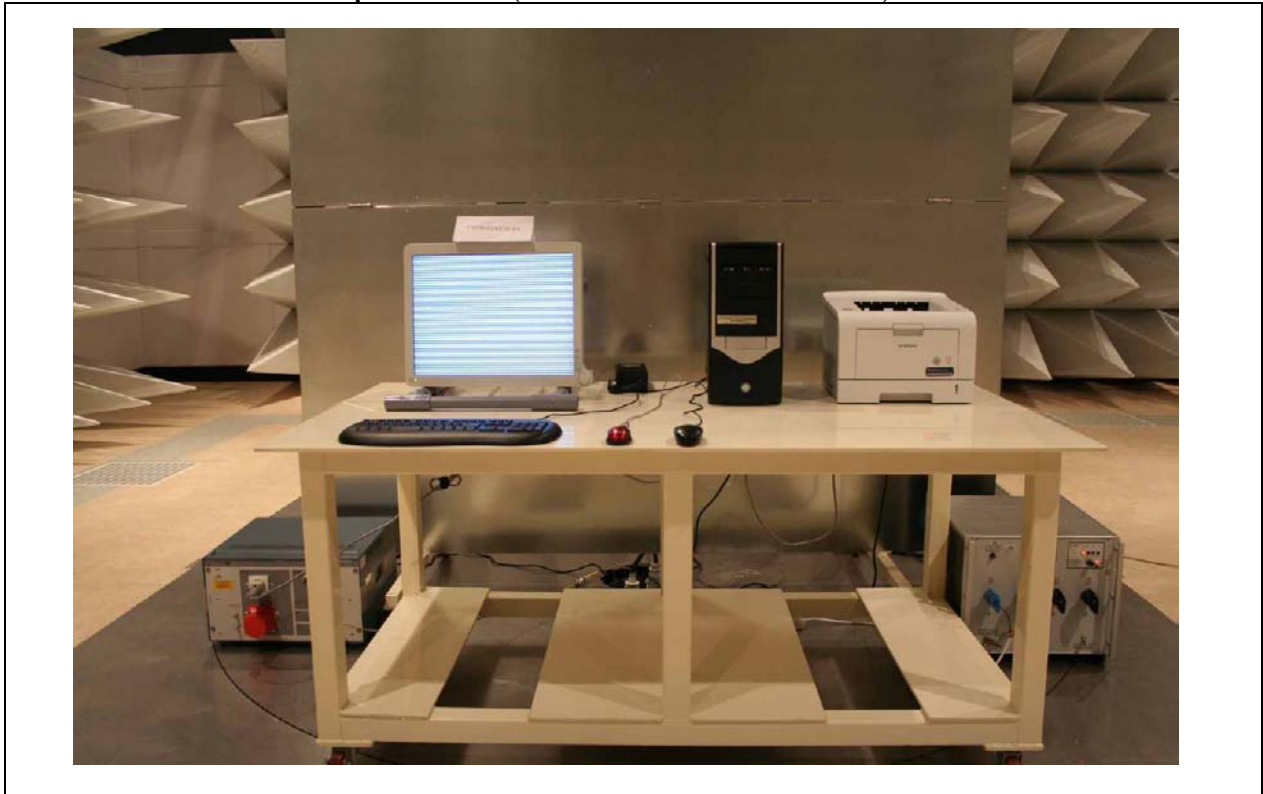
**Figure 3**  
**Graphical representation of conducted emissions: DVI Mode (LCD Panel: TX54D31VC0CAB)**



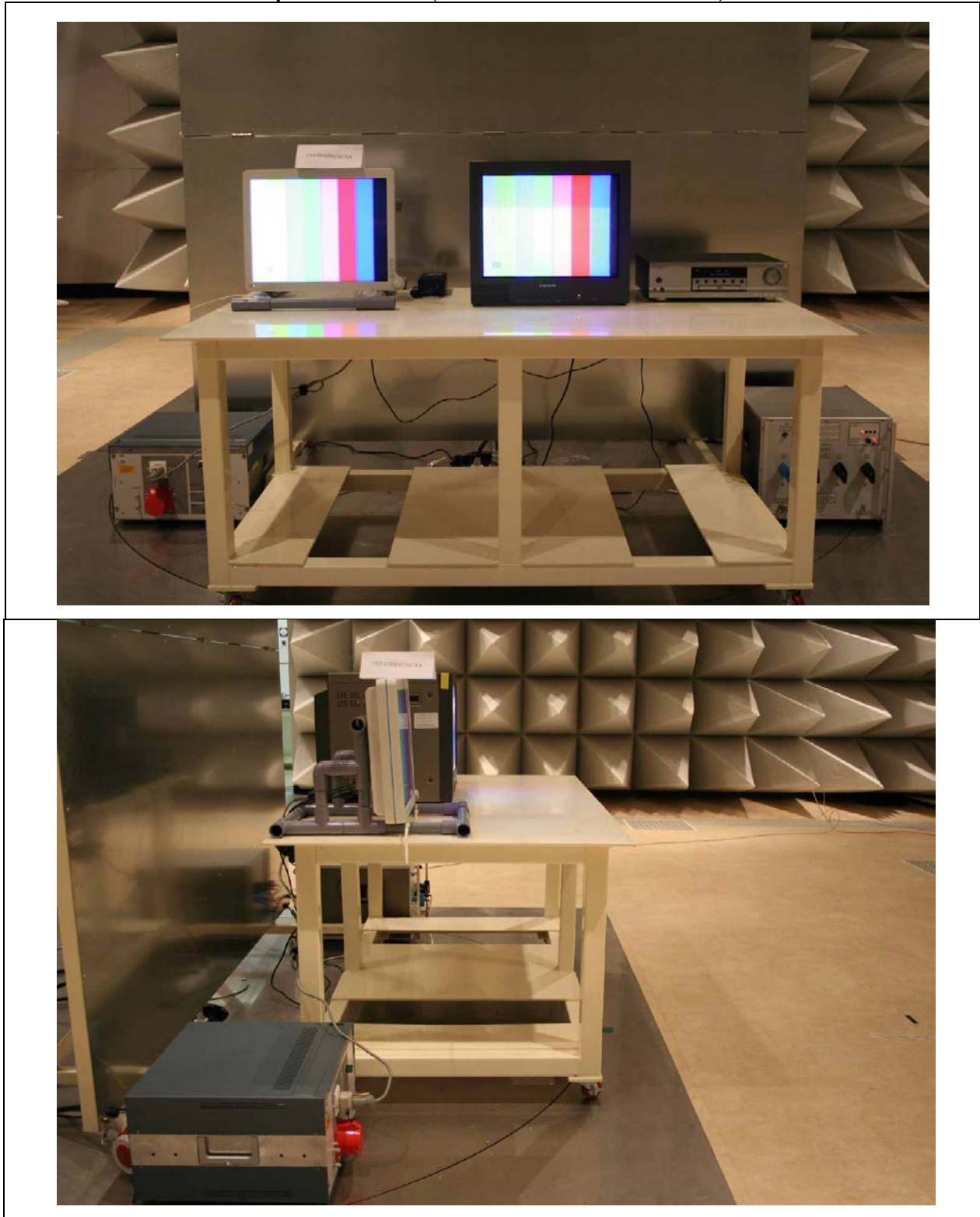
**Figure 4.**  
**Graphical representation of conducted emissions: S-Video Mode (LCD Panel: TX54D31VC0CAB)**



**Figure 5**  
**Conducted Emission Test Setup: DVI Mode (LCD Panel: TX54D32VC0CAA)**



**Figure 6**  
**Conducted Emission Test Setup: S-Video Mode (LCD Panel: TX54D32VC0CAA)**



**Table 3**  
**Test data for conducted emission: DVI Mode (LCD Panel: TX54D32VC0CAA)**

Test Frequency (MHz)	Correction Factor		Reading value (dBuV)		Line	Level (dBuV)		Limit (dBuV)		Margin (dB)	
	Cable	LISN	QP	AV		QP	AV	QP	AV	QP	AV
0.16	0.06	0.12	44.12	-	H	44.30	-	65.20	55.20	20.90	-
0.17	0.06	0.13	47.51	-	N	47.70	-	64.90	55.10	17.20	-
0.22	0.07	0.11	41.92	-	H	42.10	-	62.70	52.70	20.60	-
0.34	0.08	0.12	43.70	-	N	43.90	-	59.20	49.20	15.30	-
0.45	0.09	0.12	36.99	-	N	37.20	-	56.80	46.80	19.60	-
0.62	0.11	0.13	35.36	-	N	35.60	-	56.00	46.00	20.40	-
2.66	0.22	0.15	35.73	-	H	36.10	-			19.90	-
3.06	0.24	0.15	35.01	-	H	35.40	-			20.60	-
0.29	0.29	0.15	36.26	-	H	36.70	-			19.30	-
6.45	0.35	0.22	38.43	-	H	39.00	-	60.00	50.00	21.00	-
6.85	0.36	0.22	39.32	-	H	39.90	-			20.10	-
7.41	0.37	0.27	39.86	-	H	40.50	-			19.50	-
8.44	0.41	0.31	38.28	-	N	39.00	-			21.00	-
8.61	0.42	0.27	37.61	-	H	38.30	-			21.70	-
9.23	0.43	0.31	40.86	-	N	41.60	-			18.40	-
9.51	0.43	0.27	41.10	-	H	41.80	-			18.20	-
9.80	0.43	0.31	38.86	-	N	39.60	-			20.40	-
11.72	0.48	0.28	40.14	-	H	40.90	-			19.10	-
12.56	0.48	0.28	38.14	-	H	38.90	-			21.10	-
13.47	0.52	0.28	38.90	-	H	39.70	-			20.30	-
28.41	0.76	0.15	31.99	-	N	32.90	-			27.10	-

**Note:**

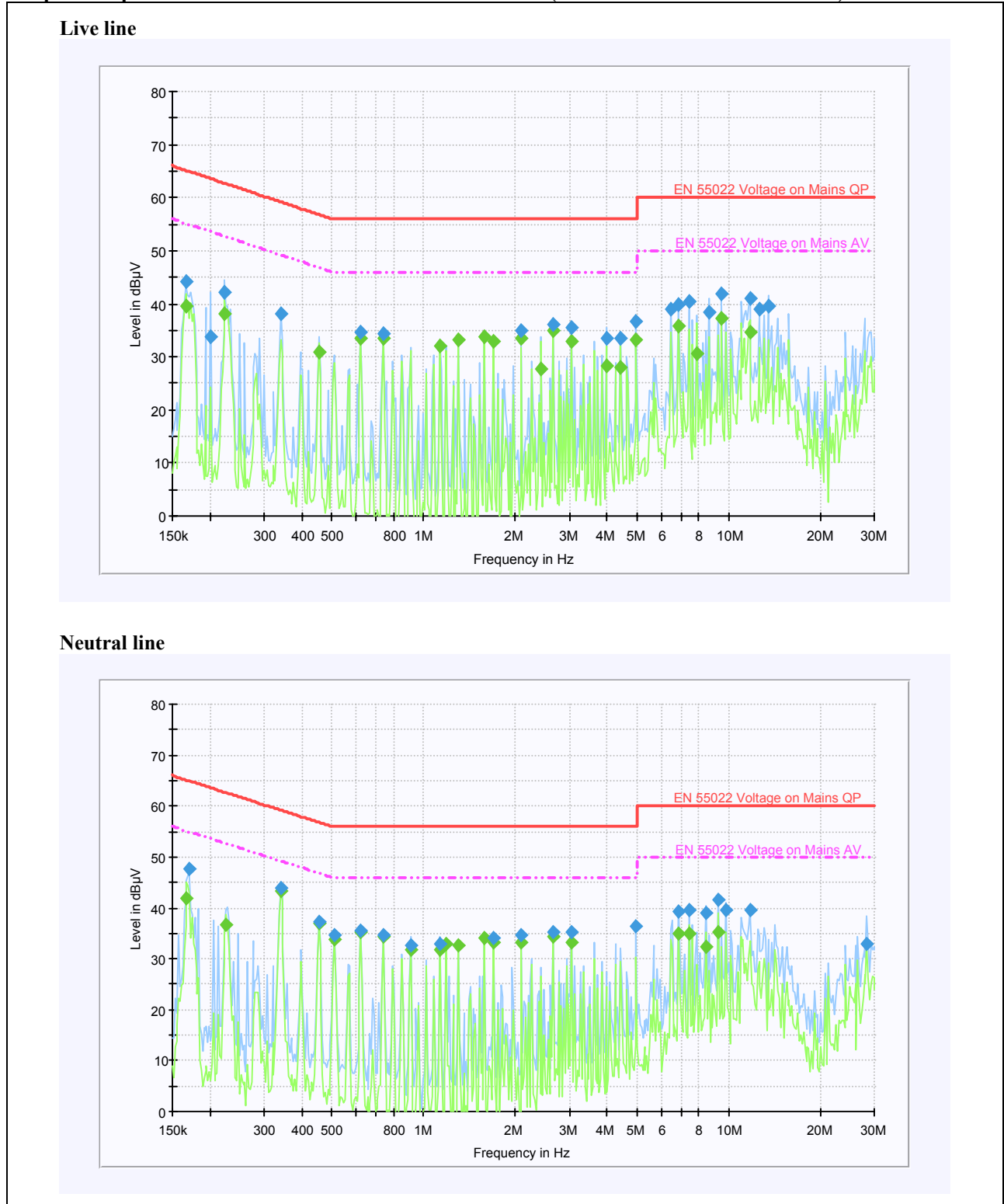
- Margin (dB)= Limit (dBuV) - Level (dBuV)
- If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

**Table 4**  
**Test data for conducted emission: S-Video Mode (LCD Panel: TX54D32VC0CAA)**

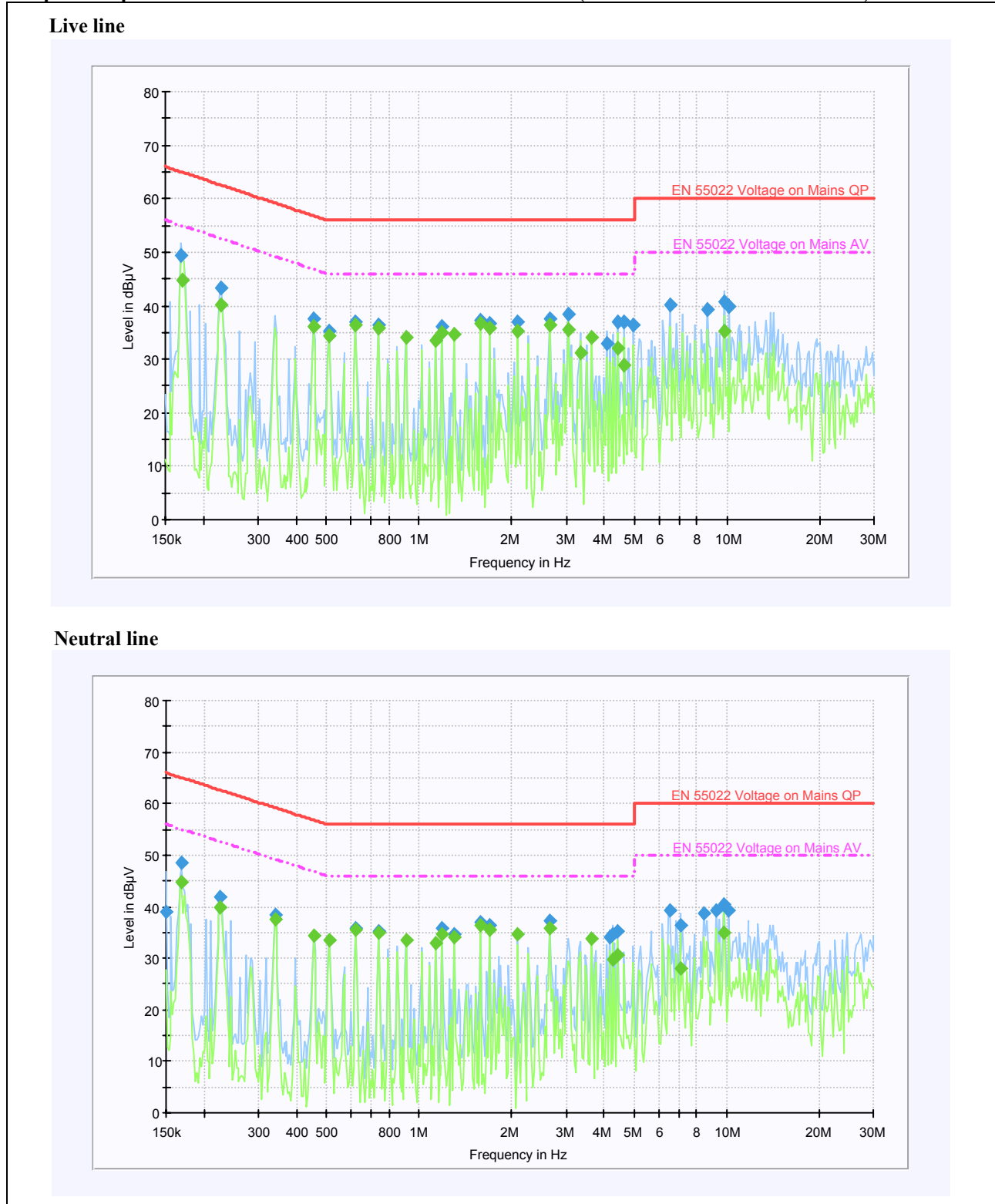
Test Frequency (MHz)	Correction Factor		Reading value (dBuV)		Line	Level (dBuV)		Limit (dBuV)		Margin (dB)			
	Cable	LISN	QP	AV		QP	AV	QP	AV	QP	AV		
0.15	0.05	0.13	38.82	-	N	39.00	-	66.00	55.00	27.00	-		
0.17	0.06	0.12	49.32	-	H	49.50	-	65.00	54.90	15.50	-		
0.23	0.07	0.11	43.22	-	H	43.40	-	62.50	52.50	19.10	-		
0.34	0.08	0.12	38.20	-	N	38.40	-	59.20	49.20	20.80	-		
0.45	0.09	0.11	37.50	-	H	37.70	-	56.80	46.80	19.10	-		
0.51	0.10	0.10	35.10	-	H	35.30	-	56.00	46.00	20.70	-		
0.62	0.11	0.10	36.69	-	H	36.90	-			19.10	-		
0.74	0.11	0.15	36.24	-	H	36.50	-			19.50	-		
1.19	0.13	0.13	35.74	-	H	36.00	-			20.00	-		
1.59	0.15	0.13	37.02	-	H	37.30	-			18.70	-		
1.70	0.15	0.15	36.50	-	H	36.80	-			19.20	-		
2.10	0.17	0.15	36.68	-	H	37.00	-			19.00	-		
2.66	0.22	0.15	37.33	-	H	37.70	-			18.30	-		
3.06	0.24	0.15	37.91	-	H	38.30	-			17.70	-		
4.42	0.28	0.15	36.57	-	H	37.00	-			19.00	-		
4.64	0.29	0.15	36.46	-	H	36.90	-			19.10	-		
4.98	0.29	0.15	35.96	-	H	36.40	-			19.60	-		
6.51	0.35	0.22	39.63	-	H	40.20	-			60.00	50.00	19.80	-
7.05	0.36	0.31	35.63	-	N	36.30	-					23.70	-
8.61	0.42	0.27	38.51	-	H	39.20	-	20.80	-				
9.23	0.43	0.31	38.36	-	N	39.10	-	20.90	-				
9.80	0.43	0.27	40.10	-	H	40.80	-	19.20	-				
10.19	0.44	0.28	39.18	-	H	39.90	-	20.10	-				

**Note:**  
 1. Margin (dB)= Limit (dBuV) - Level (dBuV)  
 2. If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

**Figure 7**  
**Graphical representation of conducted emissions: DVI Mode (LCD Panel: TX54D32VC0CAA)**



**Figure 8**  
**Graphical representation of conducted emissions: S-Video Mode (LCD Panel: TX54D32VC0CAA)**



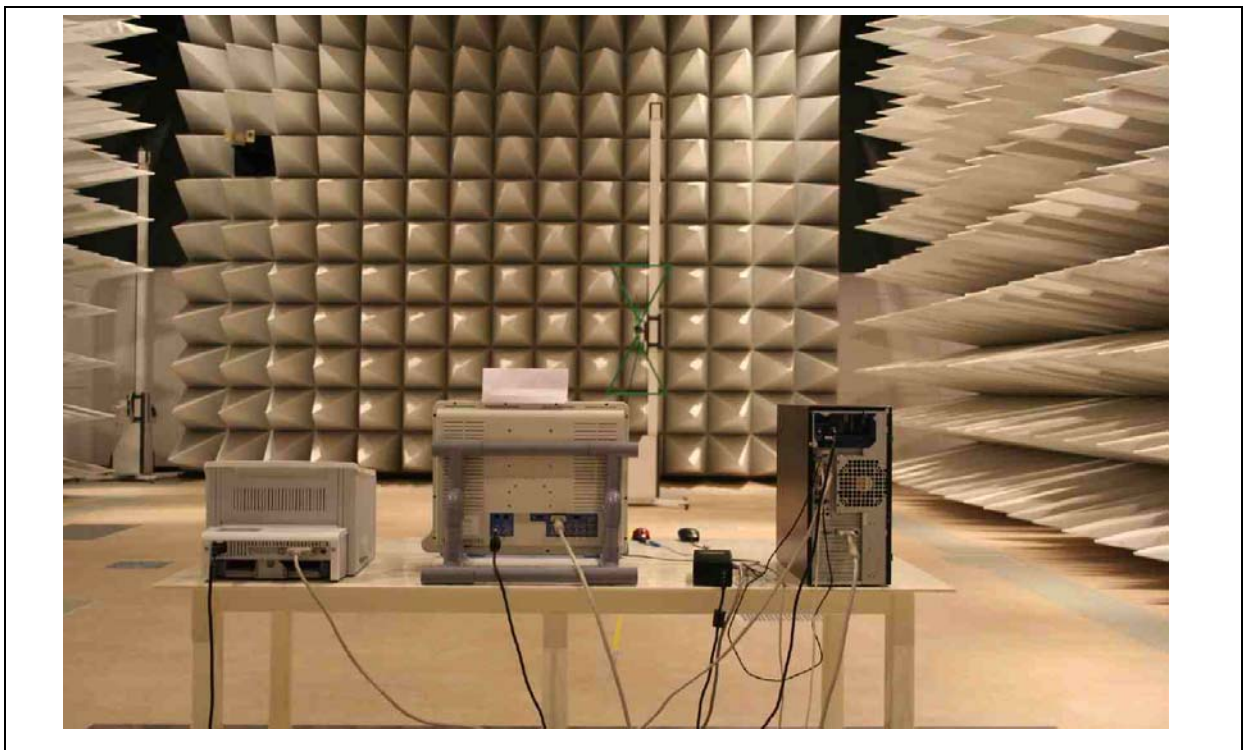
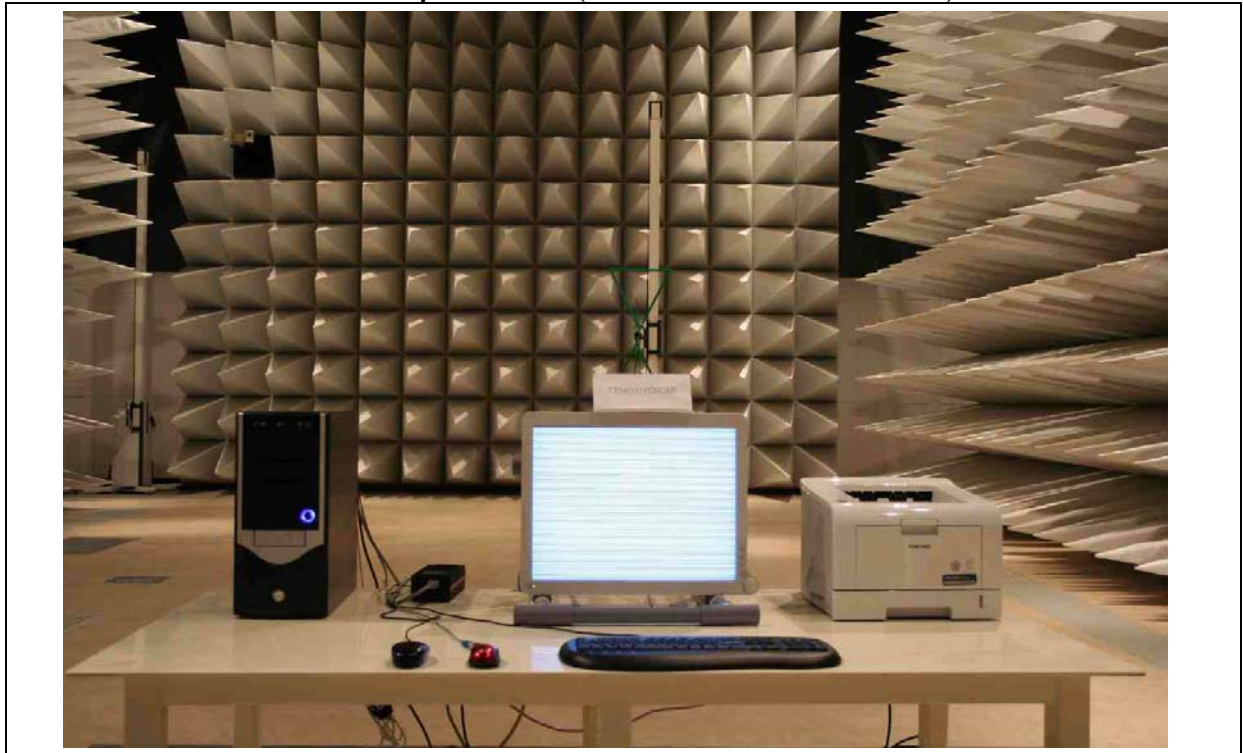


## 5. RADIATED EMISSION

	<b>TEST:</b> Limits for radiated disturbance		
Method	Measurements were made at Open area test site that complies to CISPR 16/ANSI C63.4. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10-meter. The EUT was rotated 360° about its azimuth with the receive antenna located at 1, 2, 3 and 4 meter heights in both horizontal and vertical polarities. Final measurements (quasi-peak or average as noted) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.		—
Parameters required prior to the test	Laboratory Ambient Temperature	10 to 40 °C	
	Relative Humidity	10 to 90 %	
Parameters recorded during the test	Laboratory Ambient Temperature	27.4 °C	
	Relative Humidity	54 %	
	Frequency range	Measurement Point	
Fully configured sample scanned over the following frequency range	30 MHz – 2.0 GHz	(10 meter measurement distance)	
<b>Limits - Class B</b>			
Frequency (MHz)	Limit (dBµV/m)		
	Quasi-Peak	Results	
30 to 230	30	Pass	
230 to 1000	37	Pass	
1000 to 2000	43.5 (Average)	Pass	
Supplementary information: None			

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Test Receiver	Rohde & Schwarz	ESIB26	100359	2007.04.04	2008.04.04
BiconiLog ANT	CBL6112D	Schaffner	21784	2006.06.26	2008.06.26
Position controller	Inn-co	CO 2000	11261105/L	N/A	N/A
Antenna Mast	Inn-co	MA 4000	-	N/A	N/A
Turntable	Inn-co	DT 3000	-	N/A	N/A

**Figure 9**  
**Photo of Radiated emission test setup: DVI Mode (LCD Panel: TX54D31VC0CAB)**



**Figure 10**  
**Photo of Radiated emission test setup: S-Video Mode (LCD Panel: TX54D31VC0CAB)**



**Table 5**  
**Radiated emission Test data: DVI Mode (LCD Panel: TX54D31VC0CAB)**

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (m)	Gain/Loss Factor (dB)	Transducer Factor (dB/m)	Level dBuV/m	Limit dBuV/m	Margin (dB)
113.39	9.32	QP	V	290	1.00	1.60	11.78	22.70	30.00	7.30
129.61	10.90	QP	V	296	1.00	1.80	11.80	24.50	30.00	5.50
219.31	11.50	QP	V	0	1.05	2.40	8.60	22.50	30.00	7.50
356.40	13.12	QP	V	238	1.00	3.20	14.78	31.10	37.00	5.90
485.99	6.20	QP	V	258	3.05	3.80	17.20	27.20	37.00	9.80
971.96	4.80	QP	V	0	1.05	5.60	21.10	31.50	37.00	5.50

**Note:**

1. Margin (dB)= Limit (dBuV) - Level (dBuV)
2. If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

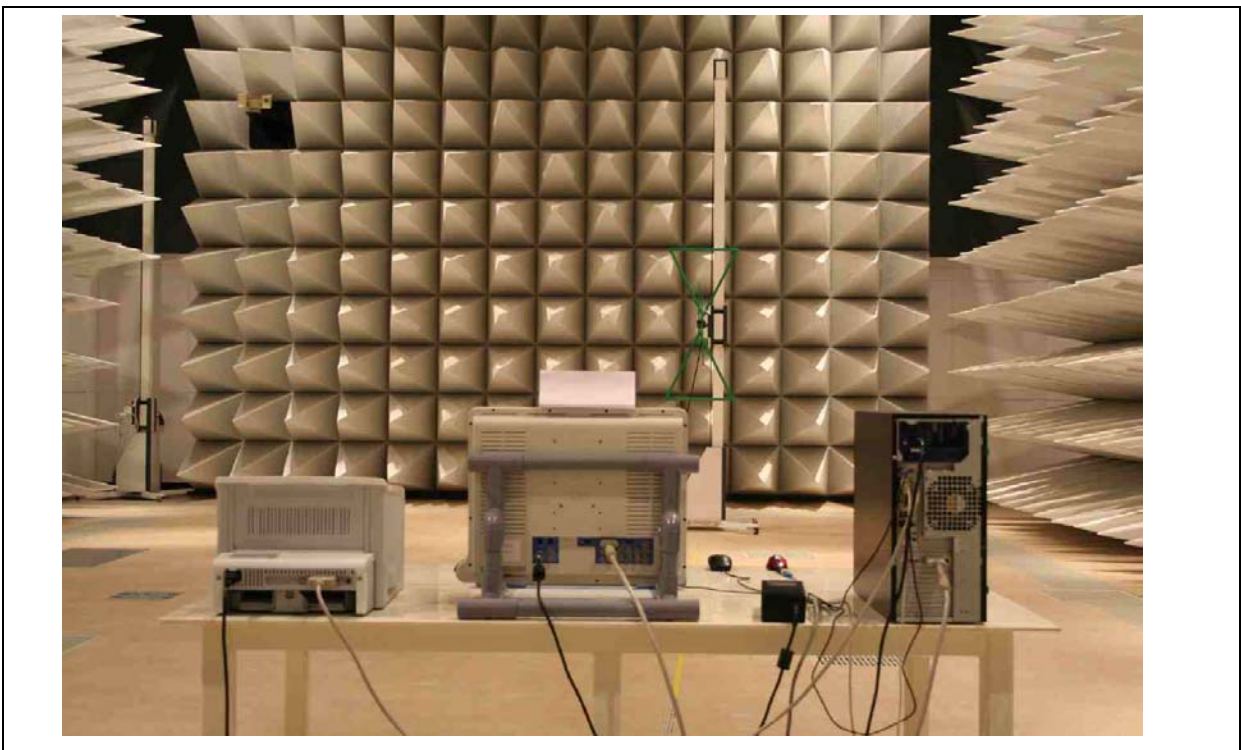
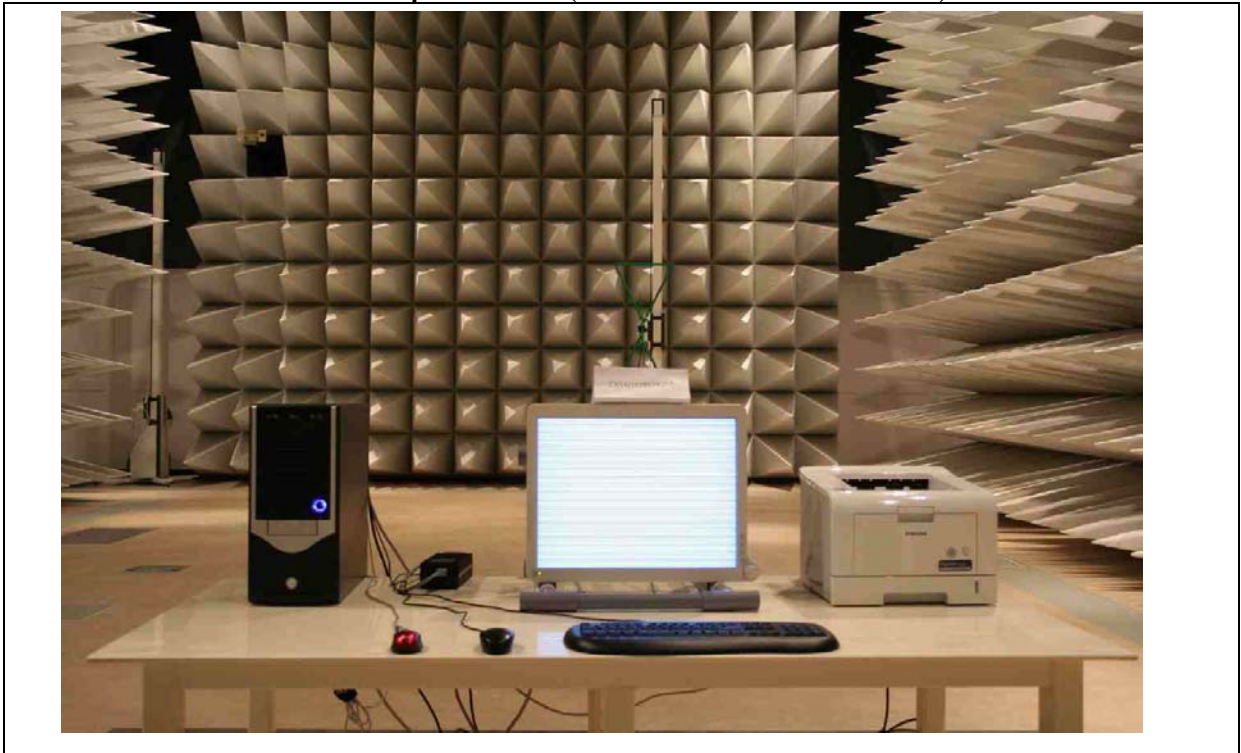
**Table 6**  
**Radiated emission Test data: S-Video Mode (LCD Panel: TX54D31VC0CAB)**

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (m)	Gain/Loss Factor (dB)	Transducer Factor (dB/m)	Level dBuV/m	Limit dBuV/m	Margin (dB)
42.73	10.90	QP	V	36	2.05	1.00	10.90	22.80	30	7.20
45.75	13.40	QP	V	0	1.05	1.10	9.90	24.40	30	5.60
61.98	14.60	QP	V	6	3.95	1.20	5.30	21.10	30	8.90
156.64	11.70	QP	H	0	3.95	1.90	9.70	23.30	30	6.70
219.28	12.10	QP	V	356	1.05	2.40	8.60	23.10	30	6.90
877.14	9.00	QP	V	0	2.95	5.20	20.30	34.50	37	2.50

**Note:**

1. Margin (dB)= Limit (dBuV) - Level (dBuV)
2. If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

**Figure 11**  
**Photo of Radiated emission test setup: DVI Mode (LCD Panel: TX54D32VC0CAA)**



**Figure 12**  
**Photo of Radiated emission test setup: S-Video Mode (LCD Panel: TX54D32VC0CAA)**



**Table 7**  
**Radiated emission Test data: DVI Mode (TX54D32VC0CAA)**

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (m)	Gain/Loss Factor (dB)	Transducer Factor (dB/m)	Level dBuV/m	Limit dBuV/m	Margin (dB)
129.57	10.04	QP	V	262	1.05	1.80	11.26	23.10	30.00	6.90
150.35	7.32	QP	V	358	1.00	3.68	12.40	23.40	30.00	6.60
213.02	7.33	QP	H	204	3.05	3.97	13.80	25.10	30.00	4.90
288.20	14.24	QP	H	162	3.05	4.43	15.43	34.10	37.00	2.90
388.31	12.81	QP	V	312	1.00	4.51	15.68	33.00	37.00	4.00
971.95	13.22	QP	H	252	3.05	4.70	16.58	34.50	37.00	2.50

**Note:**

1. Margin (dB)= Limit (dBuV) - Level (dBuV)
2. If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

**Table 8**  
**Radiated emission Test data: S-Video Mode (TX54D32VC0CAA)**

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (m)	Gain/Loss Factor (dB)	Transducer Factor (dB/m)	Level dBuV/m	Limit dBuV/m	Margin (dB)
42.19	10.10	QP	V	352	1.05	1.00	10.90	22.00	30	8.00
42.51	11.30	QP	V	130	1.00	1.00	10.90	23.20	30	6.80
156.64	9.60	QP	H	0	3.95	1.90	9.70	21.20	30	8.80
219.28	11.30	QP	V	0	1.05	2.40	8.60	22.30	30	7.70
337.49	0.83	QP	V	312	2.05	3.10	15.07	19.00	37	18.0
958.49	5.20	QP	H	232	1.05	5.60	20.70	31.50	37	5.50

**Note:**

1. Margin (dB)= Limit (dBuV) - Level (dBuV)
2. If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

## 6. EUT Modification

### EUT Modification for Radiation Disturbance

#1	Attach the EMI form gasket (10x15x230mm) at this 2 points to make strong ground contact with main frame
#2	Adhere EMI tape at this points to make more strong ground contact
#3	Attach tape to fix light-sensor cable
#4	Insert the ring style ferrite core (SCC Co., Ltd. Type: TC18A) to light-sensor cable.
#5	Adhere EMI tape FFC cable to make shielding ground
#6	Insert the ring style ferrite core (SCC Co., Ltd. Type: TC18A) to sensor cable.
#7	Insert the ring style ferrite core (SCC Co., Ltd. Type: TC18A) to OSD cable.
#8	Adhere EMI tape OSD cable to make shielding ground.
#9	Adhere EMI tape to make more strong ground contact.
#10	Insert the ring style ferrite core (SCC Co., Ltd. Type: SC18A /SC14) to power cable.
#11	Attach the EMI form gasket (14x4x235mm, I/O gasket) to enhance mainframe and shield cover contact.
#12	Attach the EMI form gasket (14x4x220mm) to enhance shield case and rear cover contact

**Note:** See photos of Internal product for modification details required for compliance to the radiated emission.

## 7. Measurement Uncertainties

Test	Uncertainty
Radiated Emissions	±3.51 dB
Conducted Emissions	±5.51 dB