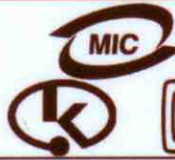




**ESTECH Co., Ltd.**Rm 1015, World Venture Center II,
426-5 Gasan-dong, Guncheon-gu,
Seoul, 158-803, Korea**Electromagnetic
Interference
Test Report**

Test Report for FCC

Report Number		ESTF150802-011			
Applicant	Company name	DA TECH CO.,Ltd			
	Address	#710-C, Woolim Lionsvalley, 425, Cheongcheon-dong, Bupyeong-gu, Incheon, Korea			
	Telephone	82-32-868-0844			
Product	Product name	Fiber Optic Transmitter			
	Model No.	DFT2800	Manufacturer	DA TECH CO.,Ltd	
	Serial No.	NONE	Country of origin	Korea	
Test date	19-Feb-08		Date of issue	19-Feb-08	
Testing location	ESTECH. Co., Ltd. 97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea				
Standard	FCC PART 15 2007 , ANSI C 63.4 2003				
Test item	<input checked="" type="checkbox"/> Conducted Emission	<input checked="" type="checkbox"/> Class A	<input type="checkbox"/> Class B	Test result	OK
	<input checked="" type="checkbox"/> Radiated Emission	<input checked="" type="checkbox"/> Class A	<input type="checkbox"/> Class B	Test result	OK
Measurement facility registration number	94696				
Tested by	Engineer M.J.Song		 (Signature)		
Reviewed by	Engineering Manager J.M.Yang		 (Signature)		
Abbreviation	OK, Pass = Passed, Fail = Failed, N/A = not applicable				
<p>* Note</p> <ul style="list-style-type: none"> - This test report is not permitted to copy partly without our permission - This test result is dependent on only equipment to be used - This test result based on a single evaluation of one sample of the above mentioned 					

Contents

1. Laboratory Information	3
2. Description of EUT	4
3. Test Standards	5
4. Measurement condition	6
5. Measurement of radiated emission	8
5.1 Measurement equipment	8
5.2 Environmental conditions	8
5.3 Test data	9
6. Measurement of conducted emission	10
6.1 Measurement equipment	10
6.2 Environmental conditions	10
6.3 Test data	11
7. Photographs of test setup	12
8. Photographs of EUT	14

Appendix 1. Spectral diagram

Appendix 2. Photographs of EUT in side PCB



1. Laboratory Information

1.1 General

This EUT (Equipment Under Test) has been shown to be capable of compliance with the applicable technical standards and is tested in accordance with the measurement procedures as indicated in this report. ESTECH Lab attests to accuracy of test data. All measurement reported herein were performed by ESTECH Co., Ltd.

ESTECH Lab assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

1.2 Test Lab.

Corporation Name : ESTECH Co. Ltd

Head Office : Rm 1015, World Venture Center II, 426-5, Gasan-dong, Geumcheon-gu, Seoul, Korea
(Safety & Telecom. Test Lab)

EMC Test Lab : 58-1 Osan-Ri, GaNam-Myon, YeoJoo-Gun, KyungKi-Do, Korea
97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea

1.3 Official Qualification(s)

MIC : Granted Accreditation from Ministry of Information & Communication for EMC, Safety and Telecommunication

KOLAS : Accredited Lab By Korea Laboratory Accreditation Schema base on CENELEC requirements

FCC : Filed Laboratory at Federal Communications Commission

VCCI : Granted Accreditation from Voluntary Control Council for Interference from ITE

2. Description of EUT

2.1 Summary of Equipment Under Test

NONE : Fiber Optic Transmitter
 Model Number : DFT2800
 Serial Number : NONE
 Manufacturer : DA TECH CO.,Ltd
 Country of origin : Korea
 Rating : Input AC120V 60Hz Output:DC12V, 0.5A
 Receipt Date : 19-Feb-08

2.2 General descriptions of EUT

Video Input : DVI (Digital Video Interactive)
 Video Resolution : 1366(H)x768(V)
 Sound : SPDIF Fiber input(Stereo)
 Signal Output Type : Single Fiber Optical Type
 Fiber Optical Output Connector : FC Type
 Optical Wave Length : 1,310nm
 Fiber Output Power : -7dB(Max)
 Connector : FC Type

3. Test Standards

Test Standard : FCC PART 15 (2007)

This Standard sets out the regulations under which an intentional, unintentional, or incidental radiator may be operated without an individual license. It also contains the technical specifications, administrative requirements and other conditions relating to the marketing of Part 15 devices.

Test Method : ANSI C 63.4 (2003)

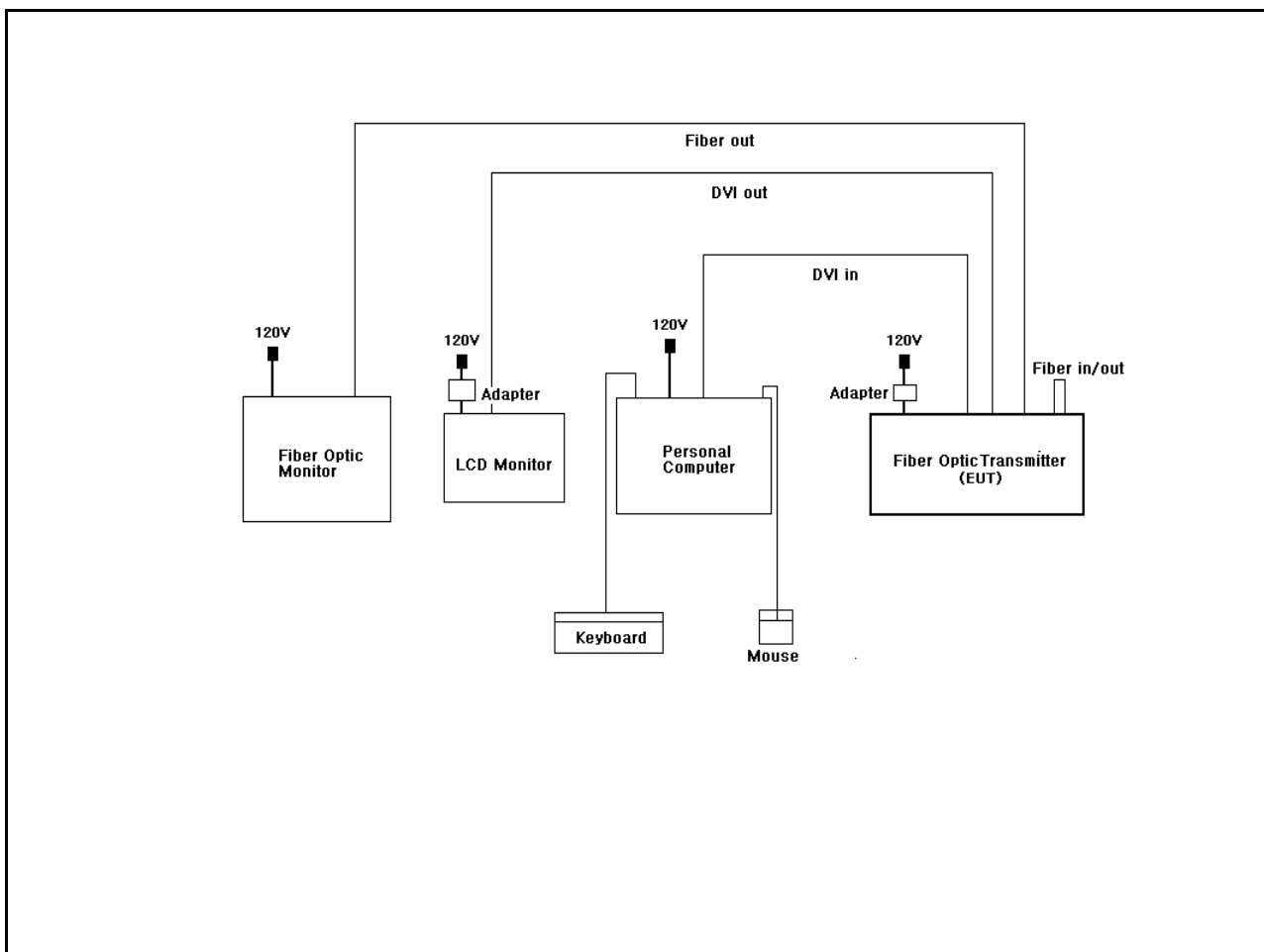
This standard sets forth uniform methods of measurement of radio-frequency (RF) signals and noise emitted from both unintentional and intentional emitters of RF energy in the frequency range 9 kHz to 40 GHz. Methods for the measurement of radiated and AC power-line conducted radio noise are covered and may be applied to any such equipment unless otherwise specified by individual equipment requirements. These methods cover measurement of certain devices that deliberately radiate energy, such as intentional emitters, but does not cover licensed transmitters. This standard is not intended for certification/approval of avionic equipment or for industrial, scientific, and medical (ISM) equipment. These methods apply to the measurement of individual units or systems comprised of multiple units.

4. Measurement Condition

4.1 EUT Operation.

1. Check to normal mode operation
2. The operational conditions of the EUT was determined by the manufacturer according to the typical use of the EUT with respect to the expected highest level of emission.
3. Connect all devices as below configuration and peripherals.
4. Display "H" character continuous on the monitor screen.

4.2 Configuration and Peripherals



4.3 EUT and Support equipment

Equipment Name	Model Name	S/N	Manufacturer	Remark (FCC ID)
Fiber Optic Transmitter	DFT2800	NONE	DA TECH CO.,Ltd	EUT
Fiber Optic Monitor	DFL3200	NONE	DA TECH CO.,Ltd	
Personal Computer	DCSM	6RDJJ1JS	Dell Asia Pacific Sdn.	
LCD Monitor	S1760TR	703KGBLOJ477	TV/	
Keyboard	SK-8115	NONE	YET FOUNDATE LTD	
Mouse	M056U0A	GOU00X18	Dell Asia Pacific Sdn.	
Adapter	LSE0107A1240	A30512195297	Suzhou Li Shin Electronics Co.,Ltd.	
Adapter	DSA-0421S-12-1	NONE	Dee van Electronics (shenzhen)co.,Ltd.	

4.4 Cable Connecting

Start Equipment		End Equipment		Cable Standard		Remark
Name	I/O port	Name	I/O port	Length	Shielded	
Fiber Optic Transmitter	DVI in	Personal Computer	DVI out	2	Yes	
Fiber Optic Transmitter	DVI out	LCD Monitor	DVI in	2	Yes	
Fiber Optic Transmitter	Fiber in	Fiber Optic Transmitter	Fiber out	2	Yes	
Fiber Optic Transmitter	Power	Adapter	-	2	No	
Fiber Optic Transmitter	Fiber out	Fiber Optic Monitor	Fiber in	2	Yes	
Personal Computer	USB	Keyboard	USB	2	Yes	
Personal Computer	USB	Mouse	USB	2	Yes	
LCD Monitor	Power	Adapter	-	2	No	

5. Measurement of radiated disturbance

Above 30 MHz Electric Field strength was measured in accordance with FCC Part 15 (2007). The test setup was made according to ANSI C 63.4 (2003) on an open test site, which allows a 3m distance measurement. The EUT was placed in the center of wooden turntable. The height of this table was 0.8m. The measurement was conducted with both horizontal and vertical antenna polarization. The turntable has fully rotated. For further description of the configuration refer to the picture of the test setup.

5.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
TEST Receiver	ESVS10	Rohde & Schwarz	838562/002	2009. 1. 24
Spectrum Analyzer	R3261C	ADVANTEST	61720116	2008. 4. 20
LogBicon Antenna	VULB 9160	S/B	3142	2008. 5. 07
Amplifier	8447F	Sonoma Instrument	2805A02972	2008. 6. 26
Turn Table	2087	EMCO	2129	-
Antenna Mast	2070-01	EMCO	9702-203	-
ANT Mast Controller	2090	EMCO	1535	-
Turn Table Controller	2090	EMCO	1535	-

5.2 Environmental Condition

Test Place : Open site(10m)
 Temperature (°C) : 11
 Humidity (%) : 35 %

5.3 Test data

Test Date : 19-Feb-08

Measurement Distance : 10 m

Frequency (MHz)	Reading (dB μ V)	Position (V/H)	Height (m)	Correction Factor		Result Value		
				Ant Factor (dB)	Cable (dB)	Limit (dB μ V/m)	Result (dB μ V/m)	Margin (dB)
44.50	8.20	H	4.0	11.66	1.0	39.5	20.88	-18.62
81.51	14.60	V	1.0	8.05	1.4	39.5	24.05	-15.45
109.62	22.20	V	1.0	9.72	1.6	43.5	33.53	-9.97
146.71	22.10	V	1.0	12.58	1.9	43.5	36.56	-6.94
179.29	15.80	H	4.0	11.33	2.1	43.5	29.19	-14.31
195.60	23.50	H	4.0	9.98	2.2	43.5	35.67	-7.83
211.90	16.80	H	4.0	10.06	2.3	43.5	29.18	-14.32
260.00	28.40	V	1.0	11.84	2.7	46.5	42.90	-3.60
277.09	16.70	H	3.4	12.38	2.8	46.5	31.85	-14.65
342.30	13.70	H	2.6	14.06	3.2	46.5	31.01	-15.50
407.49	15.00	H	2.4	15.52	3.6	46.5	34.16	-12.34
456.43	16.10	H	2.4	16.71	4.0	46.5	36.77	-9.73
537.88	10.80	H	2.3	18.01	4.4	46.5	33.25	-13.25
586.78	13.90	H	1.7	19.31	4.6	46.5	37.85	-8.65
649.94	11.90	H	1.3	20.15	5.1	46.5	37.14	-9.36
779.92	15.20	V	2.0	22.09	5.9	46.5	43.18	-3.32
Remark	H : Horizontal, V : Vertical *CL = Cable Loss-Amplifier Gain(In case of above1000Mhz) *CL = Cable Loss(In case of below1000Mhz) *The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120KHz for Quasi-peak detection at frequency below 1GHz. *The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection at frequency above 1GHz.							

6. Measurement of conducted disturbance

The continuous disturbance voltage of AC Mains in the frequency from 0.15 to 30 MHz was measured in accordance to FCC Part 15 (2007). The test setup was made according to ANSI C 63.4 (2003) in a shielded. The EUT was placed on a non-conductive table at least 80 above the ground plan. A grounded vertical reference plane was positioned in a distance of 40cm from the EUT. The distance from the EUT to other metal surfaces was at least 0.8m. The EUT was only earthen by its power cord through the line impedance stabilizing network. The power cord has been bundled to a length of 1.0m.. The test receiver with Quasi Peak detector complies with CISPR 16.

6.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
LISN	ESH3-Z5	Rohde & Schwarz	838979/010	2008. 2. 28
LISN	NNLA8120A	Schwarzbeck	8120161	2008. 2. 28
TEST Receiver	ESPI7	Rohde & Schwarz	100185	2008. 8. 27
Pulse Limiter	ESH3Z2	Rohde & Schwarz	NONE	-

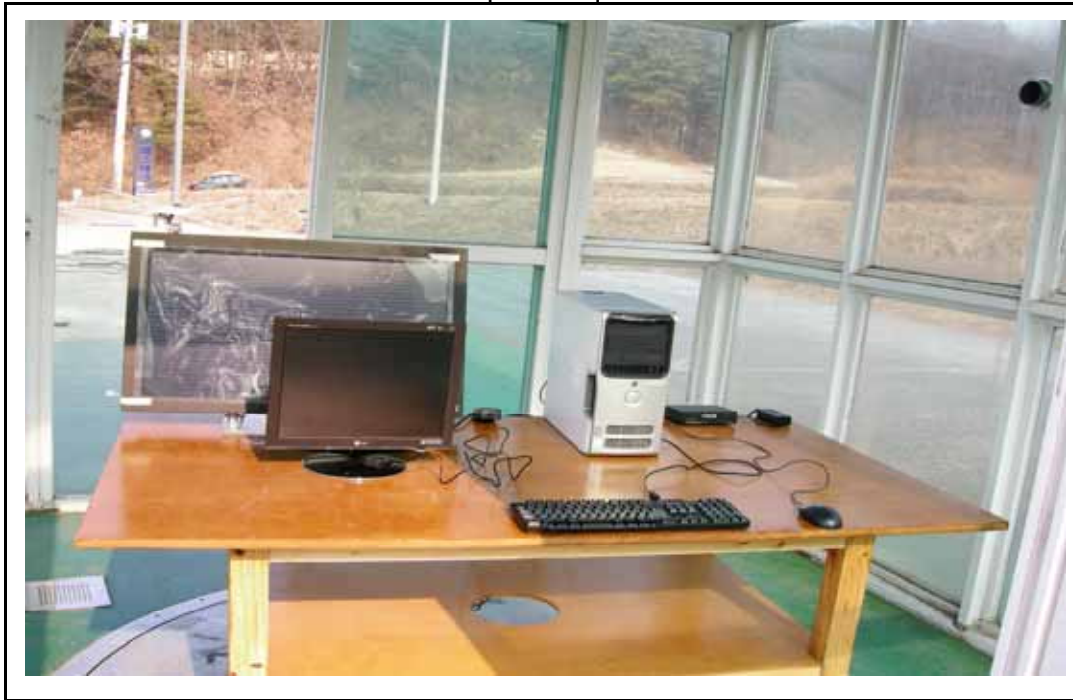
6.2 Environmental Condition

Test Place : Shield Room
 Temperature (°C) : 19
 Humidity (%) : 33 %

7. Photographs of test setup

7.1 Setup for Radiated Test : 30 ~ 1000 MHz

[Front]



[Rear]



7.2 Setup for Conducted Test : 0.15 ~ 30 MHz

[Front]



[Rear]





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426-5 Gasan-dong, Guncheon-gu,
Seoul, 158-803, Korea



**Electromagnetic
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8. Photographs of EUT

[Front]



[Rear]



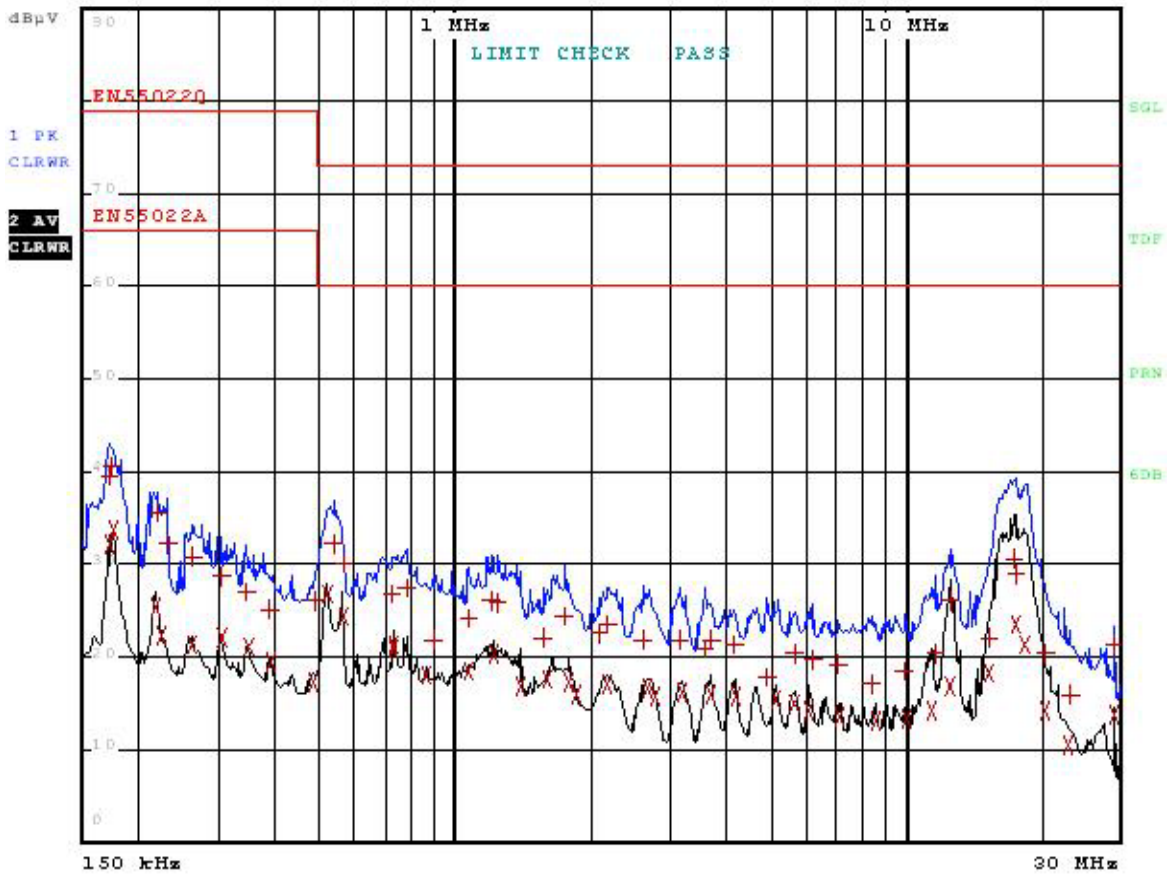
Appendix 1. Spectral diagram

*HOT



RBW 9 kHz
MT 1 s

Att 10 dB AUTO PREAMP OFF



Comment: DPT2600_HOT

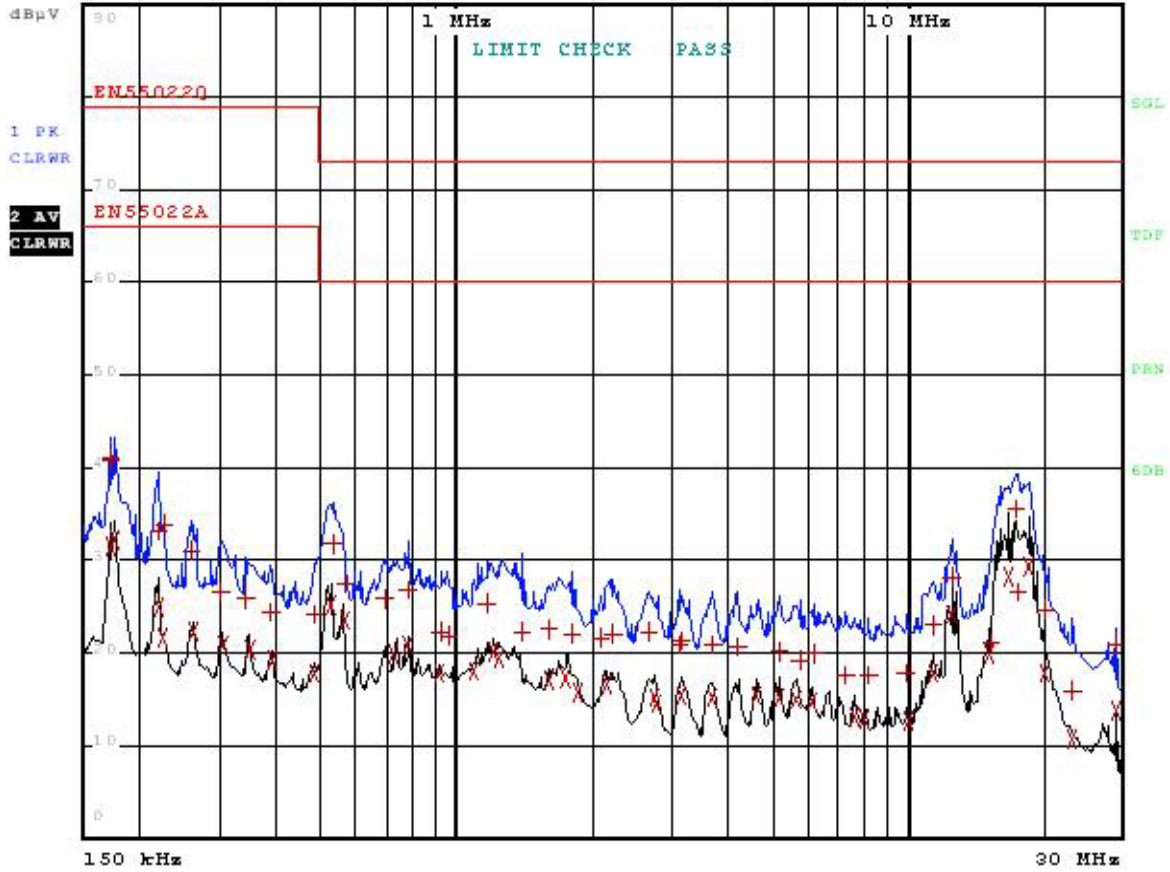
Date: 19.FEB.2008 01:09:13

*NEUTRAL



RBW 9 kHz
MT 1 s

Att 10 dB AUTO PREAMP OFF



Comment: DFT2600_NEUTRAL

Date: 19.FEB.2006 01:13:59

Appendix 2. Phorographs of EUT in side PCB

