

EXHIBIT 3

Test Report

*Test
Report*

Test Report

TTEMC-F98036

APPLICATION FOR CERTIFICATION
Class II Permissive Change
On Behalf of
Avision Inc.
Scanner

Model : AV260C

FCC ID : JSF-FB262

Prepared for : Avison Inc.
No. 20, Creation Rd., 1,
Science-Based Industrial Park,
Hsinchu, Taiwan, R.O.C.

Prepared By : Taiwan Tokin EMC Eng. Corp.
No. 53-11, Tin-Fu Tsun, Lin-Kou,
Taipei Hsien, Taiwan, R.O.C.

Tel : (02) 2609-9301~2, 2609-2133~5

File Number : ATM-G98169
Report Number : TTEMC-F98036
Date of Test : Mar. 09 , 1998
Date of Report : Mar. 20, 1998

TABLE OF CONTENTS

Description	Page
Test Report Certification	
1. GENERAL INFORMATION	1.-1
1.1. Description of Device (EUT)	1.-1
1.2. Details of Support Equipments	1.-1
1.3. Description of Test Facility	1.-3
2. POWERLINE CONDUCTED TEST	2.-1
2.1. Test Equipment	2.-1
2.2. Block Diagram of Test Setup	2.-1
2.3. Conducted Powerline Emission Limit (CLASS B)	2.-1
2.4. EUT Configuration on Measurement	2.-1
2.5. Operating Condition of EUT	2.-2
2.6. Test Procedure	2.-3
2.7. Line Conducted RF Voltage Measurement Results	2.-3
3. RADIATED EMISSION TEST	3.-1
3.1. Test Equipment	3.-1
3.2. Block Diagram of Test Setup	3.-1
3.3. Radiation Limit (CLASS B)	3.-2
3.4. EUT Configuration on Measurement	3.-2
3.5. Operating Condition of EUT	3.-2
3.6. Test Procedure	3.-3
3.7. Radiated Emission Noise Measurement Results	3.-4
4. DEVIATION TO TEST SPECIFICATIONS	4.-1
5. PHOTOGRAPHS	5.-1
5.1. Photos of Powerline Conducted Measurement	5.-1
5.2. Photos of Radiated Measurement on Open Field Test Site	5.-2

TEST REPORT CERTIFICATION

(Class II Permissive Change)

Applicant : Avision Inc.
Manufacturer : Avision Inc.
FCC ID : JSF-FB262
EUT Description : Scanner
(A) MODEL NO. : AV260C
(B) SERIAL NO. : N/A
(C) POWER SUPPLY : AC 120V/60Hz

Measurement Procedure Used :

FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 1996
AND FCC / ANSI C63.4-1992

The device described above was tested by TAIWAN TOKIN EMC ENG. CORP. to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15B Class B limits both radiated and conducted emissions.

The measurement results were contained in this test report and TAIWAN TOKIN EMC ENG. CORP. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits. TAIWAN TOKIN EMC ENG. CORP. recommends that this data can be submitted for FCC certification purposes if a 6dB margin below FCC limits was obtained. This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Taiwan Tokin EMC Eng. corp.

Date of Test : Mar. 09, 1997

Prepared by : Julie Hsu
(JULIE HSU)

Test Engineer : Allen Wang
(ALLEN WANG)

Approve & Authorized Signer : Jackie Deng
(JACKIE DENG)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Scanner
Model Number	:	AV260C
FCC ID	:	JSF-FB262
Applicant	:	Avision Inc. No. 20 Creation Rd., 1 Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.
Manufacturer	:	Avision Inc. No. 20 Creation Rd., 1 Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.
Power Adapter	:	DVE, M/N DSA-0151A-12 S Input : AC 100-120V, 50/60Hz, 40VA Output : DC +12V/1.25A Cable : Nonshielded, Detachable, 1.9m
Data Cable	:	Shielded, Detachable, 1.2m Bonded a ferrite core.
Date of Test	:	Mar. 09, 1997
Remark	:	This EUT is a modified version of original FCC ID JSF-FB262. (M/N AV626C). The difference is to re-layout PCB of power adapter.

1.2. Details of Support Equipments

1.2.1. PERSONAL COMPUTER

Model Number	:	VECTRA VL 5/100
Serial Number	:	SG61802337
FCC ID	:	HCJVECTRAVL5
Manufacturer	:	Hewlett Packard
VGA Card	:	Within Mother Board
Power Cord	:	Shielded, Detachable, 1.5m

1.2.2.MONITOR

Model Number	:	D2803A
Serial Number	:	KR54488765
FCC ID	:	C5F7NFCMC1424S
Manufacturer	:	Hewlett Packard
Data Cable	:	Shielded, Detachable, 1.2m Bonded a ferrite core
Power Cord	:	Shielded, Detachable, 1.5m

1.2.3. KEYBOARD

Model Number	:	C3757B#ABO
Serial Number	:	C3757-60423
FCC ID	:	CIGEO3614
Manufacturer	:	Hewlett Packard
Data Cable	:	Shielded, Undetachable, 1.8m Bonded a ferrite core

1.2.4. PRINTER

Model Number	:	2225C+
Serial Number	:	2806S05196
FCC ID	:	DSI6XU2225
Manufacturer	:	Hewlett Packard
Power Adapter	:	KANI, Model AD-09
Power Cord	:	Nonshielded, Undetachable, 2.0m
Data Cable	:	Shielded, Detachable, 1.2m

1.2.5. MODEM #1

Model Number	:	1414
Serial Number	:	950098202
FCC ID	:	IFAXDM1414
Manufacturer	:	Aceex
Data Cable	:	Shielded, Detachable, 1.2m
Power Adapter	:	Amigo, Model AM-91000A Nonshielded, Undetachable, 1.8m

1.2.6. MODEM #2

Model Number	:	1414
Serial Number	:	950098204
FCC ID	:	IFAXDM1414
Manufacturer	:	Aceex
Data Cable	:	Shielded, Detachable, 1.2m
Power Adapter	:	Amigo, Model AM-91000A Nonshielded, Undetachable, 1.8m

1.2.7. MOUSE

Model Number	:	M-SF14-2
Serial Number	:	LZB61608842
FCC ID	:	DZLMSF142
Manufacturer	:	Hewlett Packard
Data Cable	:	Nonshielded, Undetachable, 1.8m

1.3. Description of Test Facility

Site Description (No. 2 Open Site)	:	Jul. 15, 1996 Re-file on Federal Communication Commission FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046, U.S.A.
Name of Firm	:	Taiwan Tokin EMC Eng. Corp.
Site Location	:	No. 53-11, Tin-Fu Tsun, Lin-Kou, Taipei Hsien, Taiwan, R.O.C.
NVLAP Lab Code	:	200077-0

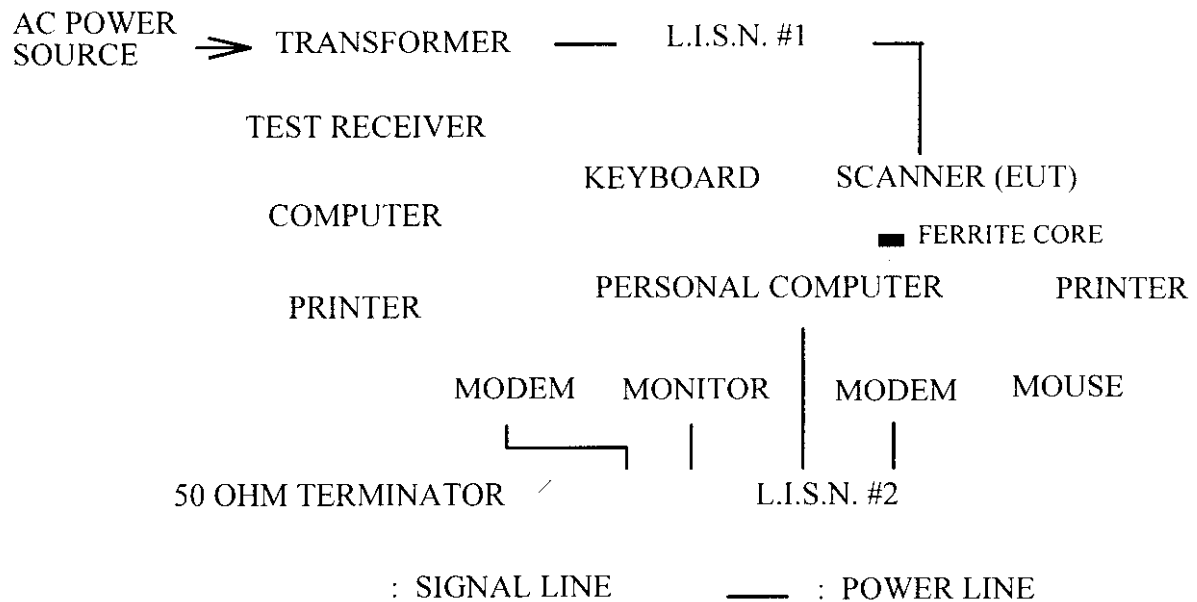
2. POWERLINE CONDUCTED TEST

2.1. Test Equipment

The following test equipments are used during the power line conducted tests :

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS 10	844591/015	Nov.06, 96'	1 Year
2.	L.I.S.N. # 1	Kyoritsu	KMW-407	8-1370-9	Jun.20, 97'	1 Year
3.	L.I.S.N. # 2	Kyoritsu	KMW-407	8-1370-10	Jun.20, 97'	1 Year

2.2. Block Diagram of Test Setup



2.3. Conducted Powerline Emission Limit (CLASS B)

Frequency	Maximum RF Line Voltage	
	uV	dBuV
0.45MHz ~ 30MHz	250	48

REMARKS : RF LINE VOLTAGE (dBuV) = 20 log RF LINE VOLTAGE (uV)

2.4. EUT Configuration on Measurement

The following equipments were installed on RF LINE VOLTAGE measurement to meet the Commission requirement and operating in a manner which tended to maximize its emission characteristics in a normal application.

2.4.1. Scanner (EUT)

Model Number	:	AV260C
Serial Number	:	N/A
FCC ID	:	JSF-FB262
Manufacturer	:	Avision Inc.
Power Adapter	:	DVE. M/N DSA-0151A-12 S Input : AC 100-120V, 50/60Hz, 40VA Output : DC +12V/1.25A Cable : Nonshielded, Detachable, 1.9m
Data Cable	:	Shielded, Detachable, 1.2m Bonded a ferrite core.

2.4.2. Support Simulators : As in section 1.2

2.5. Operating Condition of EUT

- 2.5.1. Setup the EUT and simulators as shown on 2.2.
- 2.5.2. Turned on the power of all equipments.
- 2.5.3. Setup the personal computer to drive the EUT through the scanner software driver.
- 2.5.4. Data was communicated between personal computer and Scanner (EUT) through printer port.
- 2.5.5. Personal Computer displayed the test software image to monitor.
- 2.5.6. The other peripheral devices were driven and operated in turn during all testing.

2.6. Test Procedure

The EUT was connected to the power mains through a line impedance stabilization network (L.I.S.N. #1) and the other peripheral devices power cord were connected to the power mains through a line impedance stabilization network (L.I.S.N. #2) This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions simulators of the interface cables should be manipulated according to FCC ANSI C63.4-1992 during conducted measurement.

The bandwidth of the field strength meter (R & S Test Receiver ESHS 10) was set at 10KHz.

The frequency range from 450KHz to 30MHz was checked.

All the test results are listed in section 2.7.

2.7. Line Conducted RF Voltage Measurement Results

All the test results are listed in the following pages :

Test Date : Mar. 09, 1998 Temperature : 20.5 °C Humidity : 75 %

Reference Data # : # 14, 15, 13, 16

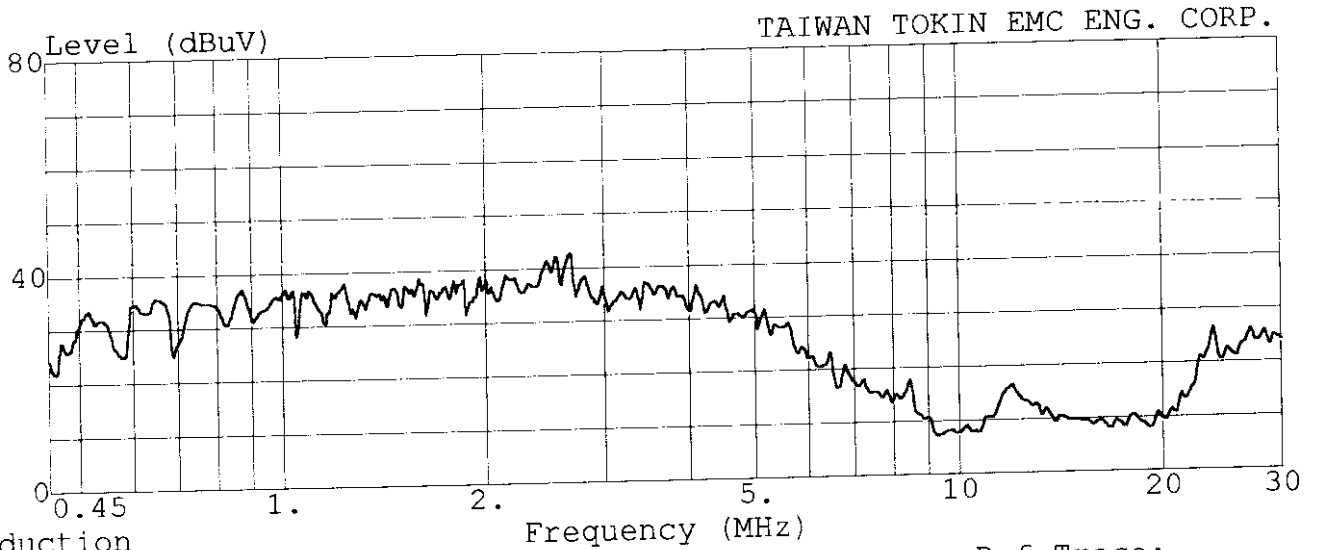
TOKIN

TAIWAN TOKIN EMC ENG. CORP.

Test Site:
#53-11 Tingfu Tsun, Linkou
Taipei, Taiwan R.O.C.
Tel: 02-6092133 Fax: 02-6099303

Data#: 14 File#: AVISION.EMI

Date: 3-9, 1998 Time: 13:36:41



conduction

Ref Trace:

Trace :
Limit : FCC CLASS-B
Probe : LISN(FCC) 8-1370-10 NEUTRAL
Margin: -6.0dB
EUT : SCANNER M/N:AV260C
Power : 120Vac/60Hz
Memo :
:
:
:

TOKIN

TAIWAN TOKIN EMC ENG. CORP.

Test Site:

#53-11 Tingfu Tsun, Linkou

Taipei, Taiwan R.O.C.

Tel:02-6092133 Fax:02-6099303

Data#: 15 File#: AVISION.EMI
conduction

Limit : FCC CLASS-B

Probe : LISN(FCC)8-1370-10 NEUTRAL

Margin: -6.0dB

EUT : SCANNER M/N:AV260C

Power : 120Vac/60Hz

Memo :
:
:

Date: 3-9,1998 Time: 13:42:25

Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark
	MHz	dB	dB	dB	dB	dB	dB	dB	
1	0.530	24.58	-23.42	48.00	24.44	0.10	0.04	0.00	QP
2	0.885	35.18	-12.82	48.00	35.03	0.10	0.05	0.00	QP
3	1.246	35.35	-12.65	48.00	35.20	0.10	0.05	0.00	QP
4	1.617	34.67	-13.33	48.00	34.52	0.10	0.05	0.00	QP
5	2.717	34.79	-13.21	48.00	34.64	0.10	0.05	0.00	QP
6	4.144	27.71	-20.29	48.00	27.56	0.10	0.05	0.00	QP

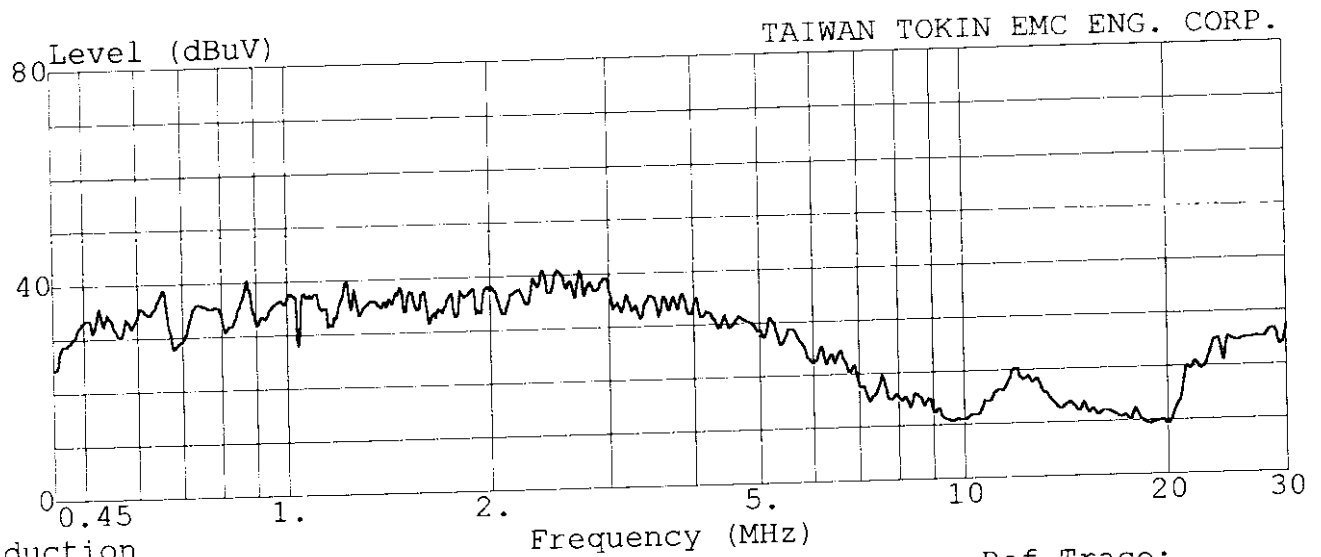
TOKIN

TAIWAN TOKIN EMC ENG. CORP.

Test Site:
#53-11 Tingfu Tsun, Linkou
Taipei, Taiwan R.O.C.
Tel: 02-6092133 Fax: 02-6099303

Data#: 13 File#: AVISION.EMI

Date: 3-9, 1998 Time: 13:34:23



conduction

Ref Trace:

Trace :
Limit : FCC CLASS-B
Probe : LISN(FCC)8-1370-10 LINE
Margin: -6.0dB
EUT : SCANNER M/N:AV260C
Power : 120Vac/60Hz
Memo :
:
:

TOKIN

Test Site:
#53-11 Tingfu Tsun, Linkou
Taipei, Taiwan R.O.C.
Tel: 02-6092133 Fax: 02-6099303

TAIWAN TOKIN EMC ENG. CORP.

Date: 3-9, 1998 Time: 13:44:46

Data#: 16 File#: AVISION.EMI
conduction
Limit : FCC CLASS-B
Probe : LISN(FCC)8-1370-10 LINE
Margin: -6.0dB
EUT : SCANNER M/N:AV260C
Power : 120Vac/60Hz
Memo :
:
:

Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark
	MHz	dB	dB	dB	dB	dB	dB	dB	
1	0.659	32.01	-15.99	48.00	31.86	0.10	0.05	0.00	QP
2	0.884	35.58	-12.42	48.00	35.43	0.10	0.05	0.00	QP
3	1.222	33.11	-14.89	48.00	32.96	0.10	0.05	0.00	QP
4	1.480	34.51	-13.49	48.00	34.36	0.10	0.05	0.00	QP
5	2.414	35.03	-12.97	48.00	34.88	0.10	0.05	0.00	QP
6	3.002	29.74	-18.26	48.00	29.59	0.10	0.05	0.00	QP

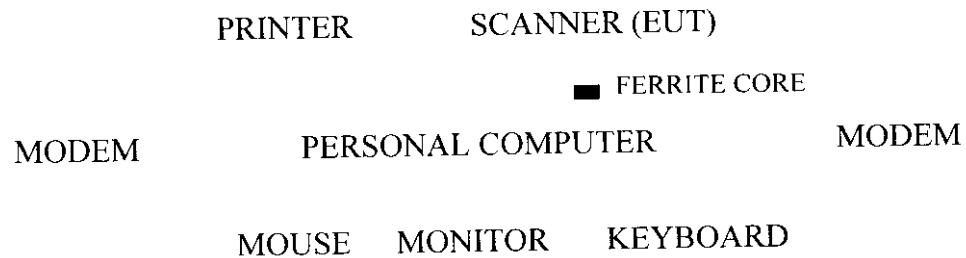
3. RADIATED EMISSION TEST

3.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Anritsu	R3361A	91730122	Jun. 07, 97'	1 Year
2.	Test Receiver	Rohde&Schwarz	ESVS10	845165/018	Feb. 17, 98'	1 Year
3.	Amplifier	HP	8447D	2727A05737	Dec. 20, 96'	1 Year
4.	Biconical Antenna	Chase	VBA6106A	1227	Apr.29, 97'	1 Year
5.	Log Periodic Antenna	Chase	UPA6109	1020	Nov. 96'	1 Year

3.2. Block Diagram of Test Setup

3.2.1. Block Diagram of connection between EUT and simulators



3.2.2. Open Field Test Site Setup Diagram

ANTENNA TOWER

ANTENNA ELEVATION VARIES FROM 1METER TO 4 METERS

3 METERS

EUT

0.8
METER

TURN TABLE

GROUND PLANE

3.3. Radiation Limit (CLASS B)

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMITS	
		uV/M	dBuV/M
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

Remark : (1) Emission level (dBuV/M) = 20 log Emission level (uV/M)

(2) The tighter limit applies at the edge between two frequency bands.

(3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.4. EUT Configuration on Measurement

The configuration of EUT and its simulators were same as those used in conducted measurement. Please refer to 2.4.

3.5. Operating Condition of EUT

Same as conducted measurement which was listed in 2.5.

3.6. Test Procedure

The EUT and its simulators were placed on a turn table which is 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set 3 meters away from the receiving antenna which was mounted on a antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) and dipole antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4-1992 on radiated measurement.

The bandwidth setting on the field strength meter (R&S TEST RECEIVER ESVS10) was 120KHz.

All the test results are listed in section 3.7.

3.7. Radiated Emission Noise Measurement Results

The frequency spectrum from 30 MHz to 1000 MHz was investigated. All the emissions not reported below are too low against the FCC CLASS B limit..

Date of Test : Mar. 09, 1998 Temperature : 30 °C
 EUT : Scanner Humidity : 45 %

Frequency MHz	Antenna	Cable	Meter Reading	Emission Level		
	Factor dB/m	Loss dB	Horizontal dBuV	Horizontal dBuV/m	Limits dBuV/m	Margin dBuV/m
52.505	14.57	1.86	11.41	27.84	40.00	12.16
53.755	13.97	1.88	12.59	28.44	40.00	11.56
63.764	11.49	2.00	17.65	31.14	40.00	8.86
* 65.013	11.49	1.99	17.72	31.20	40.00	8.80
66.263	11.64	2.00	17.36	31.00	40.00	9.00
70.013	12.29	2.01	10.53	24.83	40.00	15.17
90.014	16.04	2.20	10.25	28.49	43.50	15.01
112.515	17.78	2.44	12.24	32.46	43.50	11.04
181.272	21.85	2.95	-0.93	23.87	43.50	19.63
200.026	20.67	3.09	2.10	25.86	43.50	17.64
302.540	13.62	3.76	18.24	35.62	46.00	10.38
311.285	13.93	3.81	15.46	33.20	46.00	12.80
333.783	14.82	3.91	10.24	28.97	46.00	17.03
336.283	14.99	3.94	9.44	28.37	46.00	17.63
342.533	15.33	3.94	10.86	30.13	46.00	15.87
366.280	16.03	4.08	9.20	29.31	46.00	16.69
536.312	18.50	4.99	6.53	30.02	46.00	15.98
540.063	18.67	5.01	5.80	29.48	46.00	16.52

- Remark :
1. All readings are Quasi-Peak values.
 2. The worst emission was detected at 65.013MHz with corrected signal level of 31.20dBuV/m (limit is 40dBuV/m) when the antenna was at horizontal polarization and was at 1.4m high and the turn table was at 160 ° .
 3. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Date of Test : Mar. 09, 1998 Temperature : 30 °CEUT : Scanner Humidity : 45 %

Frequency MHz	Antenna	Cable	Meter Reading	Emission Level		Margin dBuV/m
	Factor dB/m	Loss dB	Vertical dBuV	Vertical dBuV/m	Limits dBuV/m	
61.261	13.63	1.98	16.98	32.59	40.00	7.41
62.509	13.56	1.99	15.17	30.72	40.00	9.28
* 63.761	13.24	2.00	21.73	36.97	40.00	3.03
65.011	12.98	1.99	19.29	34.26	40.00	5.74
82.510	14.83	2.14	5.32	22.29	40.00	17.71
112.516	18.70	2.44	10.29	31.43	43.50	12.07
120.015	18.43	2.51	14.91	35.85	43.50	7.65
140.015	20.13	2.68	5.78	28.59	43.50	14.91
160.024	19.78	2.80	4.61	27.19	43.50	16.31
205.020	22.38	3.13	1.65	27.16	43.50	16.34
310.037	14.36	3.81	9.04	27.21	46.00	18.79
320.036	14.42	3.84	9.28	27.54	46.00	18.46
330.039	15.04	3.87	9.05	27.96	46.00	18.04
336.288	15.21	3.94	7.87	27.02	46.00	18.98
341.288	15.31	3.94	7.17	26.42	46.00	19.58
373.797	15.25	4.13	2.62	22.00	46.00	24.00
546.316	19.20	5.06	4.04	28.30	46.00	17.70
590.070	19.35	5.25	-0.60	24.00	46.00	22.00

- Remark :
1. All readings are Quasi-Peak values.
 2. The worst emission was detected at 63.761MHz with corrected signal level of 36.97dBuV/m (limit is 40dBuV/m) when the antenna was at vertical polarization and was at 1m high and the turn table was at 280 ° .
 3. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

4. DEVIATION TO TEST SPECIFICATIONS

【 NONE 】