



**TOSHIBA CORPORATION, PRODUCT SAFETY GROUP
ADDENDUM REPORT TO FC02-021**

FOR THE

LIBRETTO L, PL11LXYYYYYY

**FCC PART 15 SUBPART B SECTIONS 15.107 & 15.109 CLASS B
FCC PART 15 SUBPART C SECTIONS 15.207 & 15.247**

COMPLIANCE

DATE OF ISSUE: MARCH 12, 2002

PREPARED FOR:

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P.O. No.: OFA-S3015
W.O. No.: 78390

Date of test: February 7-14, 2002

Report No.: FC02-021A

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A2LA (USA); BSMI (Taiwan); Nemko (Norway); and GOST (Russia).
CKC Laboratories, Inc. has received test site Registration Acceptance from the following agencies:
FCC (USA); VCCI (Japan); and Industry Canada.
CKC Laboratories, Inc. has received Letters of Acceptance through an MRA for the following agencies:
ACA/NATA (Australia); SABS (South Africa); SWEDAC (Sweden); Radio Communications Agency (RA); HOKLAS (Hong Kong); Bakom (Swiss); BIPT (Belgium); Denmark Telestyrelsen; RvA (Netherlands); SEE (Luxembourg) SITTEL (Bolivia); and UKAS (UK).

ADMINISTRATIVE INFORMATION

DATE OF TEST: February 7-14, 2002

DATE OF RECEIPT: February 7, 2002

PURPOSE OF TEST: To demonstrate the compliance of the Libretto L, PL11LXYYYYYY, with the requirements for FCC Part 15 Subpart B Sections 15.107 & 15.109 Class B and FCC Part 15 Subpart C Sections 15.207 & 15.247. Addendum A revises the calculations and data for tables 1 and 2.

TEST METHOD: ANSI C63.4 (1992)

MANUFACTURER: Toshiba Corporation, Product Safety Group
9740 Irvine Blvd.
Irvine, Ca 92618-1697

REPRESENTATIVE: Peter Leone

TEST LOCATION: CKC Laboratories, Inc.
5473A Clouds Rest
Mariposa, CA 95338

SUMMARY OF RESULTS

As received, the Toshiba Corporation, Product Safety Group Libretto L, PL11LXYYYYYY was found to be fully compliant with the following standards and specifications:

United States

- FCC Part 15 Subpart B Sections 15.107 and 15.109 Class B
- FCC Part 15 Subpart C Section 15.207 and 15.247
- ANSI C63.4 (1992) method

Canada

RSS-210 using:

- FCC Part 15 Subpart B Sections 15.107 and 15.109 Class B
 - FCC Part 15 Subpart C Section 15.207 and 15.247
 - ANSI C63.4 (1992) method
- Industry of Canada File No. IC 3082-D

CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply.

APPROVALS

QUALITY ASSURANCE:



Dennis Ward, Quality Manager



Chuck Kendall, EMC/Lab Manager

TEST PERSONNEL:



Randy Clark, EMC Engineer



Monika Mayr, EMC Engineer/
Evaluation Engineer

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The EUT is a laptop with wireless LAN installed operating in the 2.4 GHz range. Both transmitter and receiver modes were tested.

The EUT tested by CKC Laboratories was a production unit with a project name of Wireless LAN, model Maldives 1.5ML. All test data refers to the project name during testing. However, since testing, Toshiba has changed the name to Libretto L and model name of PL11LXYYYYYY, where “X” represents the country code and “y” represents minor variations for the family member. Units with the new name and model are identical electrically to the one which was tested, or any differences between them do not affect their EMC characteristics, and therefore they comply to the level of testing equivalent to the tested model.

15.203 Antenna Requirements

Antenna is removable with a unique antenna connector that satisfies the requirements for Section 15.203 of the FCC rules.

15.205 Restricted Bands

The Fundamental operating frequency lies outside the restricted bands and therefore complies with the requirements of Section 15.205 of the FCC rules. Any spurious emission coming from the EUT was investigated to determine if any portion lies inside the restricted band. If any portion of a spurious emissions signal was found to be within a restricted band, investigation was performed to ensure compliance with Section 15.209.

15.215 Additional Provisions to the General Radiated Emission Limitations

The fundamental frequency was kept within the central 80% of the permitted band in order to minimize the possibility of out-of-band operation. Refer to Appendix B for the test equipment used and Appendix C for the occupied bandwidth plot(s).

15.31(m) Number Of Channels

This device operates in the range of 2412 – 2462 MHz. In accordance with 15.31(m) the frequencies tested were channels: 2412, 2442 and 2462 MHz.

15.33(a) Frequency Ranges Tested

15.107 Conducted Emissions:	450 kHz – 30 MHz
15.109 Radiated Emissions:	9 kHz – 26 GHz
15.207 Conducted:	450 kHz – 30 MHz
15.209 Radiated:	9 kHz – 26 GHz

EUT Operating Frequency

The EUT was operating at 2412 – 2462 MHz.

EQUIPMENT UNDER TEST

Libretto L

Manuf: Toshiba Corporation, Product Safety Group
Model: PL11LXYYYYYY
Serial: 12012368
FCC ID: CJ6PL5080WL (pending)

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

AC Adapter

Manuf: Toshiba Corporation, Product Safety Group
Model: PA3160U-1ACA
Serial: 0203A0000009
FCC ID: DoC

REPORT OF MEASUREMENTS

The following tables report the six highest worst case levels recorded during the tests performed on the Libretto L, PL11LXYYYYYY. All readings taken are peak readings unless otherwise noted. The data sheets from which these tables were compiled are contained in Appendix C.

Table 1: 15.247(b)(1) Highest Peak Output: EIRP			
Frequency	Channel	Antenna Gain (dBi)	EIRP (Watts)
2411.70	1	-1.4	0.0437
2442.00	7	-1.4	0.0427
2462.80	11	-1.4	0.0427

Test Method: ANSI C63.4 (1992)
Spec Limit : FCC Part 15 Subpart C Section 15.247(b)(1)
Test Distance: No Distance

COMMENTS: EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: Fundamental. RBW=2MHz VBW=3MHz. Readings corrected to 10MHz RBW using BW correction factor. RBW: $10 \text{ LOG}(BW1/BW2)$, so that $10 \text{ LOG}(10\text{MHz} / 2\text{MHz}) = 6.99\text{dB}$ correction factor.

EIRP calculated using the antenna conducted power and correcting for the antenna gain. EIRP reported as measured in a 10MHz band.

Table 2: 15.247(b)(1) Highest Peak Output: Antenna Terminal

Frequency	Channel	Power (dBm)
2412.167	1	17.8
2442.667	7	17.7
2461.875	11	17.7

Test Method: ANSI C63.4 (1992)
Spec Limit : FCC Part 15 Subpart C Section 15.247(b)(1)
Test Distance: No Distance

COMMENTS: EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: Fundamental. RBW=2MHz VBW=3MHz. Readings corrected to 10MHz RBW using BW correction factor. RBW: $10 \text{ LOG}(BW1/BW2)$, so that $10 \text{ LOG}(10\text{MHz} / 2\text{MHz}) = 6.99\text{dB}$ correction factor.

Power output reported as measured in a 10MHz band.

Table 3: 15.247(b)(1)/15.31(e) Voltage Variation on Peak Power

FREQUENCY MHz	CORRECTED READING dBm	85%	115%	SPEC LIMIT DBm
2412	17.6	17.3	18.0	30
2442	17.6	17.5	18.0	30
2462	17.6	17.1	17.7	30

Test Method: ANSI C63.4 (1992)
Spec Limit : FCC Part 15 Subpart C Section 15.247(b)(1)/15.31(e)
Test Distance: No Distance

COMMENTS: EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: Fundamental RBW=3MHz VBW=3MHz. Readings corrected to 10MHz RBW using BW correction factor. $RBW: 10 \text{ LOG}(BW1/BW2)$, so that $10 \text{ LOG}(10\text{MHz} / 3\text{MHz}) = 5.23\text{dB}$ correction factor. Ambient Temperature 70°F. Power output reported as measured in a 10MHz band.

Table 4: 15.247(c)/15.209 OATS Highest Emission Levels: 9kHz-26 GHz

FREQUENCY MHz	METER READING dB μ V	CORRECTION FACTORS				CORRECTED READING dB μ V/m	SPEC LIMIT dB μ V/m	MARGIN dB	NOTES
		Ant dB	Amp dB	Cable dB	Filter dB				
444.178	47.9	16.7	-27.5	4.6	0.0	41.7	46.0	-4.3	V-2
444.210	46.7	16.7	-27.5	4.6	0.0	40.5	46.0	-5.5	V-2
1060.800	55.8	24.4	-36.1	5.2	0.0	49.3	54.0	-4.7	H-3
1066.560	55.7	24.4	-36.1	5.2	0.0	49.2	54.0	-4.8	H-3
1331.990	53.0	25.1	-35.6	5.8	0.2	48.5	54.0	-5.5	V-3
2390.000	44.0	28.4	-32.7	8.5	0.0	48.2	54.0	-5.8	V-3

Test Method: ANSI C63.4 (1992)
Spec Limit : FCC Part 15 Subpart C Section
15.247(c)/15.209
Test Distance: 3 Meters

NOTES: H = Horizontal Polarization
V = Vertical Polarization

2 = Configuration 2
3 = Configuration 3

COMMENTS: EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELEC Test Program V02.01 (CERT201T.EXE). Table represents testing in the following configurations:

1) EUT is transmitting on Channels 1, 7 and 11 (2412, 2442 and 2462 MHz). Frequency Range Investigated: 9kHz-30MHz Readings taken at 10m test distance. Test distance correction factor used IAW FCC 15.31. Receive antenna set to Vertical and Horizontal polarities.

2) EUT is transmitting on Channels 1, 7 and 11 (2412, 2442 and 2462 MHz). Frequency Range Investigated: 30-1000MHz.

3) EUT transmitting on channels 1, 7 and 11 (2412, 2442 and 2462MHz). Frequency Range Investigated: 1-18GHz. RBW=1MHz VBW=1MHz. Frequencies outside of FCC 15.205 restricted bands are subject to the 20dBc attenuation requirements. The 15.247(c) 20dBc limit is calculated as such: 101.9dBuV/m - 20dB = 81.9dBuV/m. Readings were taken in a 1MHz RBW and compared Peak-to-Peak with the limit.

4) Frequency Range Investigated: 18-26GHz. EUT modes tested: Transmit and Receive Channels 1, 7 and 11. No emissions were found in this frequency range.

Table 5: 15.247(c) Highest Antenna Terminal Emission Levels: 9kHz - 26GHz

FREQUENCY MHz	METER READING dB μ V	CORRECTION FACTORS				CORRECTED READING dB μ V/m	SPEC LIMIT dB μ V/m	MARGIN dB	NOTES
		Filter dB	Amp dB	Cable dB	Dist dB				
528.333	76.0	0.1				76.1	93.8	-17.7	A
572.333	74.7	0.1				74.8	93.8	-19.0	A
594.333	73.5	0.1				73.6	93.8	-20.2	A
661.500	74.0	0.1				74.1	93.8	-19.7	A
682.167	72.5	0.1				72.6	93.8	-21.2	A
726.333	74.5	0.2				74.7	93.8	-19.1	A

Test Method:
Spec Limit :
Test Distance:

ANSI C63.4 (1992)
FCC Part 15 Subpart C Section 15.247(c)
No Distance

NOTES: A = Average Reading

COMMENTS: EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Testing Antenna Terminals. Frequency Range Investigated: 9kHz-26GHz. Limit derived from the lowest peak power output as measured in a 100kHz band: 113.8dBuV (2462MHz). -20dBc limit therefore is 93.8dBuV.

Table 6: 15.207 Highest Conducted Emission Levels									
FREQUENCY MHz	METER READING dB μ V	CORRECTION FACTORS				CORRECTED READING dB μ V	SPEC LIMIT dB μ V	MARGIN dB	NOTES
		Lisn dB		Cable dB					
6.840336	32.6	3.5		0.3		36.4	48.0	-11.6	W
6.922224	32.0	3.7		0.3		36.0	48.0	-12.0	W
7.017760	31.7	3.9		0.3		35.9	48.0	-12.1	W
8.573632	32.5	3.9		0.2		36.6	48.0	-11.4	B
8.942128	31.9	4.9		0.2		37.0	48.0	-11.0	B
9.119553	32.1	4.6		0.2		36.9	48.0	-11.1	B

Test Method:
Spec Limit :

ANSI C63.4 (1992)
FCC Part 15 Subpart C Section 15.207

NOTES:

B = Black Lead
W = White Lead

COMMENTS: EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 450kHz - 30 MHz. EUT is powered by 120VAC 60Hz. EUT is transmitting on Channel 1 (worst case output power).

Table 7: 15.107 Highest Conducted Emission Levels: Receiver Mode

FREQUENCY MHz	METER READING dB μ V	CORRECTION FACTORS				CORRECTED READING dB μ V	SPEC LIMIT dB μ V	MARGIN dB	NOTES
		Lisn dB							
6.963168	32.6	3.8		0.3		36.7	48.0	-11.3	W
7.140592	32.5	3.6		0.2		36.3	48.0	-11.7	W
7.277072	32.7	3.4		0.2		36.3	48.0	-11.7	W
8.669168	31.7	4.1		0.2		36.0	48.0	-12.0	B
8.942128	32.2	4.9		0.2		37.3	48.0	-10.7	B
9.146849	32.2	4.5		0.2		36.9	48.0	-11.1	B

Test Method:
Spec Limit :

ANSI C63.4 (1992)
FCC Part 15 Subpart B Section 15.107 Class B

NOTES:

B = Black Lead
W = White Lead

COMMENTS: EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 450kHz - 30 MHz. EUT is powered by 120VAC 60Hz. EUT is set to continuous receive mode.

Table 8: 15.109 Highest Radiated Emission Levels 1-18GHz: Receiver Mode

FREQUENCY MHz	METER READING dB μ V	CORRECTION FACTORS				CORRECTED READING dB μ V/m	SPEC LIMIT dB μ V/m	MARGIN dB	NOTES
		Ant dB	Amp dB	Cable dB	Dist dB				
199.311	46.6	17.9	-26.7	2.9		40.7	43.5	-2.8	V-2
1060.480	56.3	24.4	-36.1	5.2		49.8	54.0	-4.2	H-4
1066.700	56.2	24.4	-36.1	5.2		49.7	54.0	-4.3	H-4
1961.500	49.4	27.6	-34.6	7.2		49.6	54.0	-4.4	V-4
2333.430	46.3	28.1	-32.9	8.3		49.8	54.0	-4.2	H-4
2343.830	46.2	28.2	-32.9	8.3		49.8	54.0	-4.2	H-4

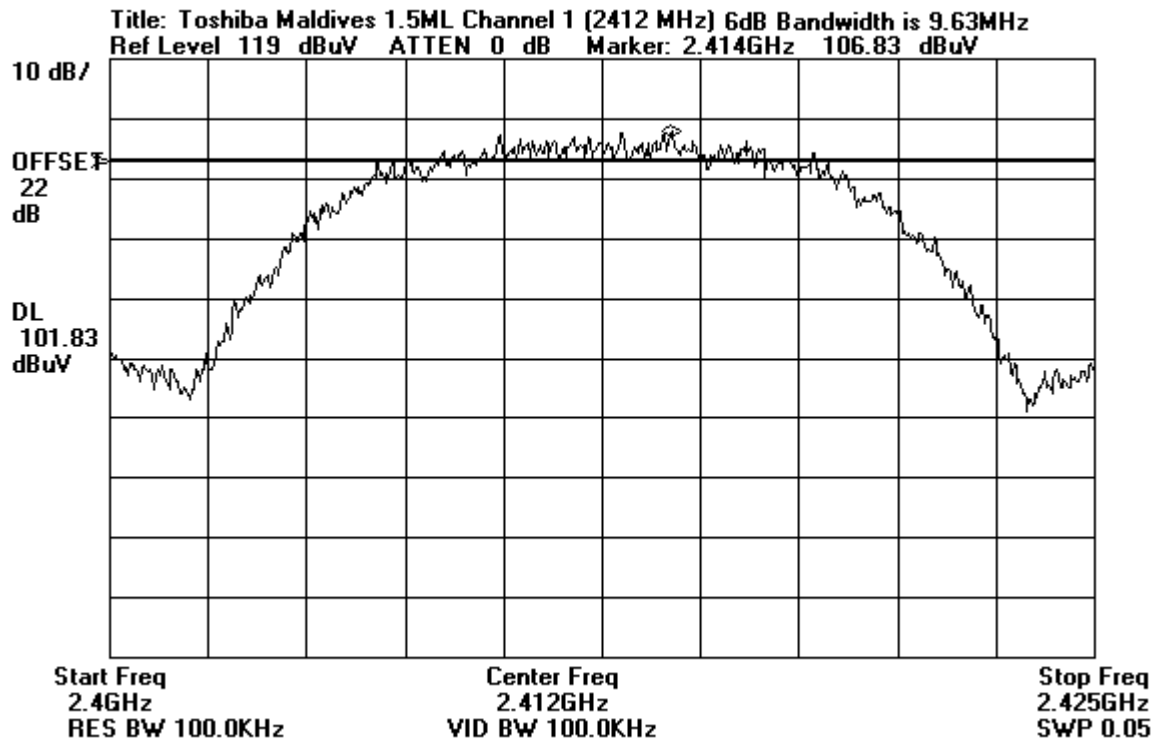
Test Method: ANSI C63.4 (1992)
Spec Limit : FCC Part 15 Subpart B Section 15.109 Class B
Test Distance: 3 Meters

NOTES: H = Horizontal Polarization
V = Vertical Polarization
2 = Configuration 2
4 = Configuration 4

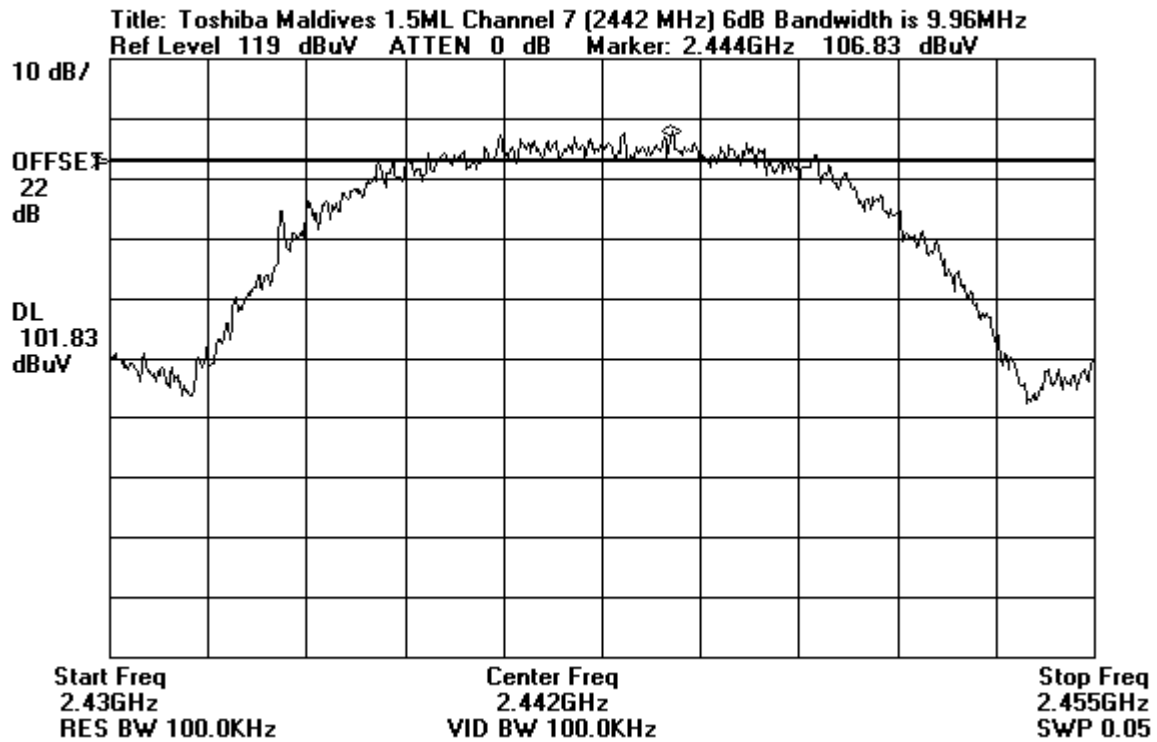
COMMENTS: EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 30-1000MHz. RBW=120kHz VBW=120kHz. The following configurations were tested:

- 1) EUT is operating in the receive mode on Channel 1 2412MHz.
- 2) EUT is operating in the receive mode on Channel 7 2442 MHz.
- 3) EUT is operating in the receive mode on Channel 11 2462 MHz.
- 4) EUT set to receive on channels 1, 7 and 11 (2412, 2442 and 2462MHz). Frequency Range Investigated: 1-18GHz. RBW=1MHz VBW=1MHz.

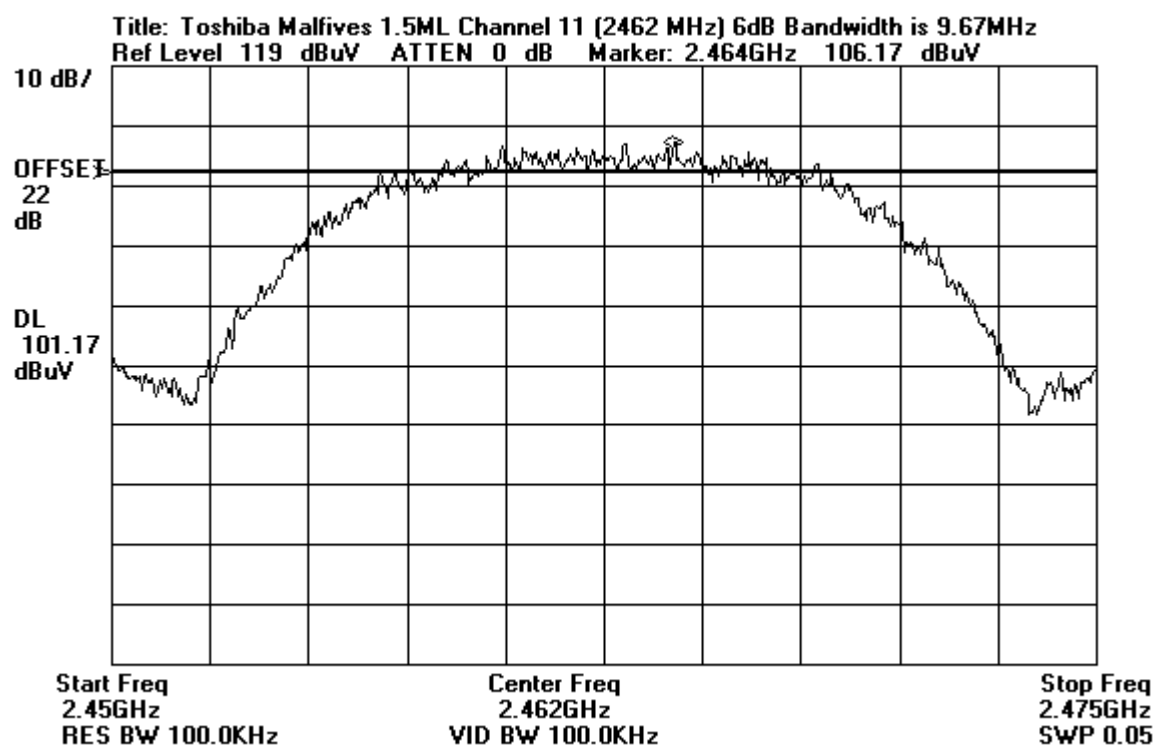
15.247(a)(2) Bandwidth Plot – 2412 MHz



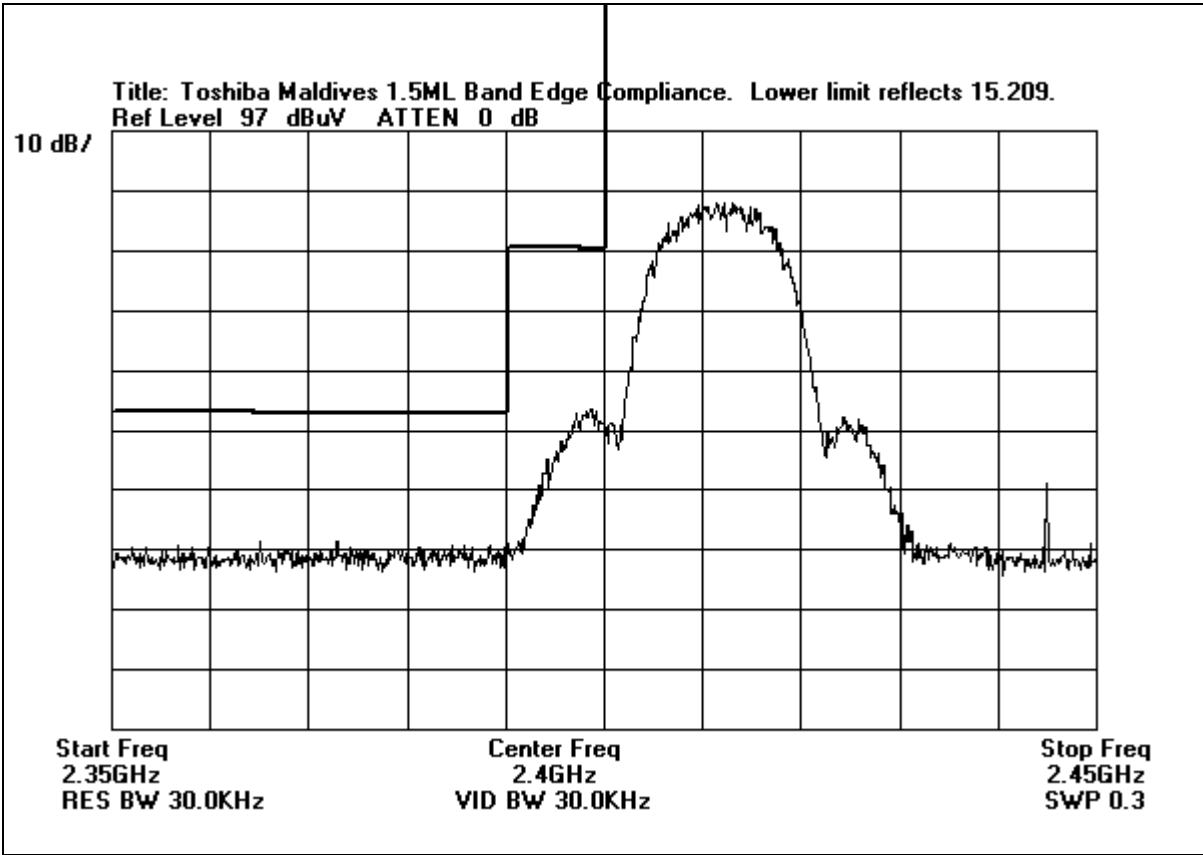
15.247(a)(2) Bandwidth Plot – 2442 MHz



15.247(a)(2) Bandwidth Plot – 2462 MHz

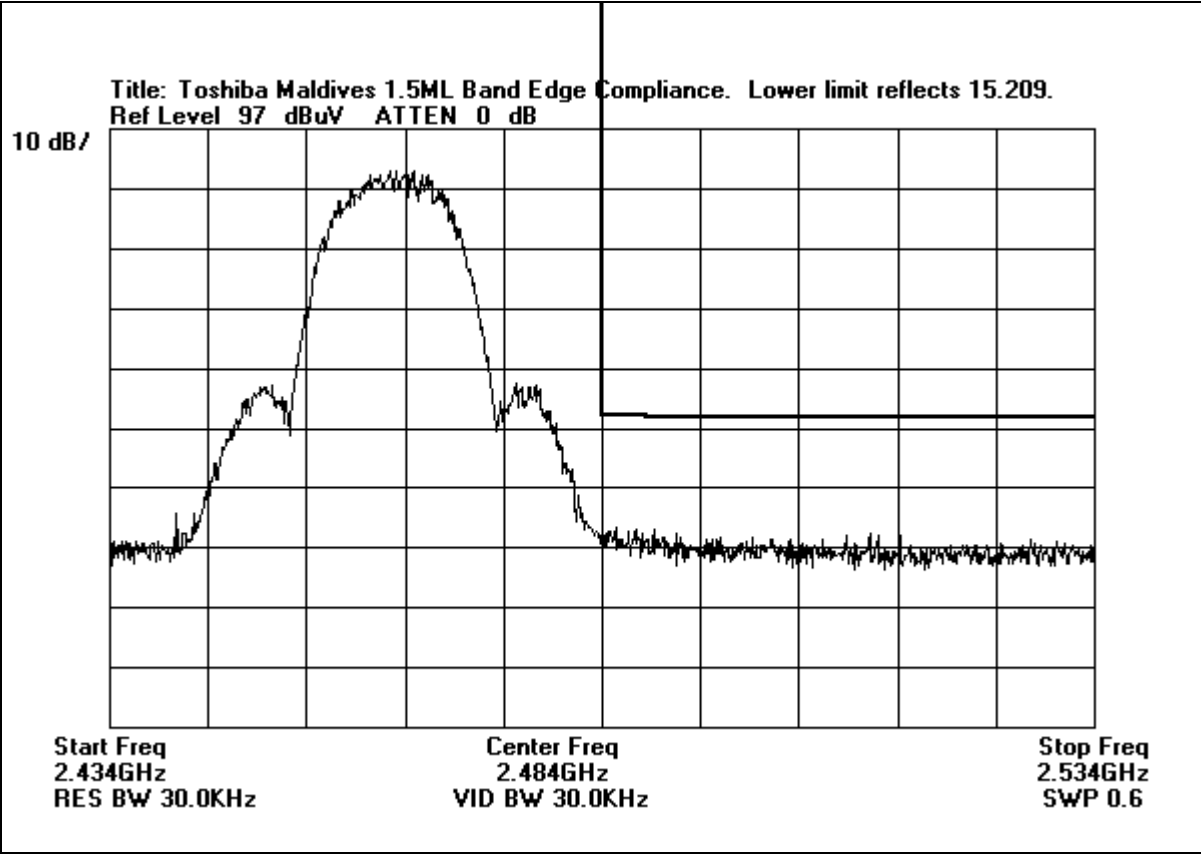


Bandedge Compliance – 2400 MHz



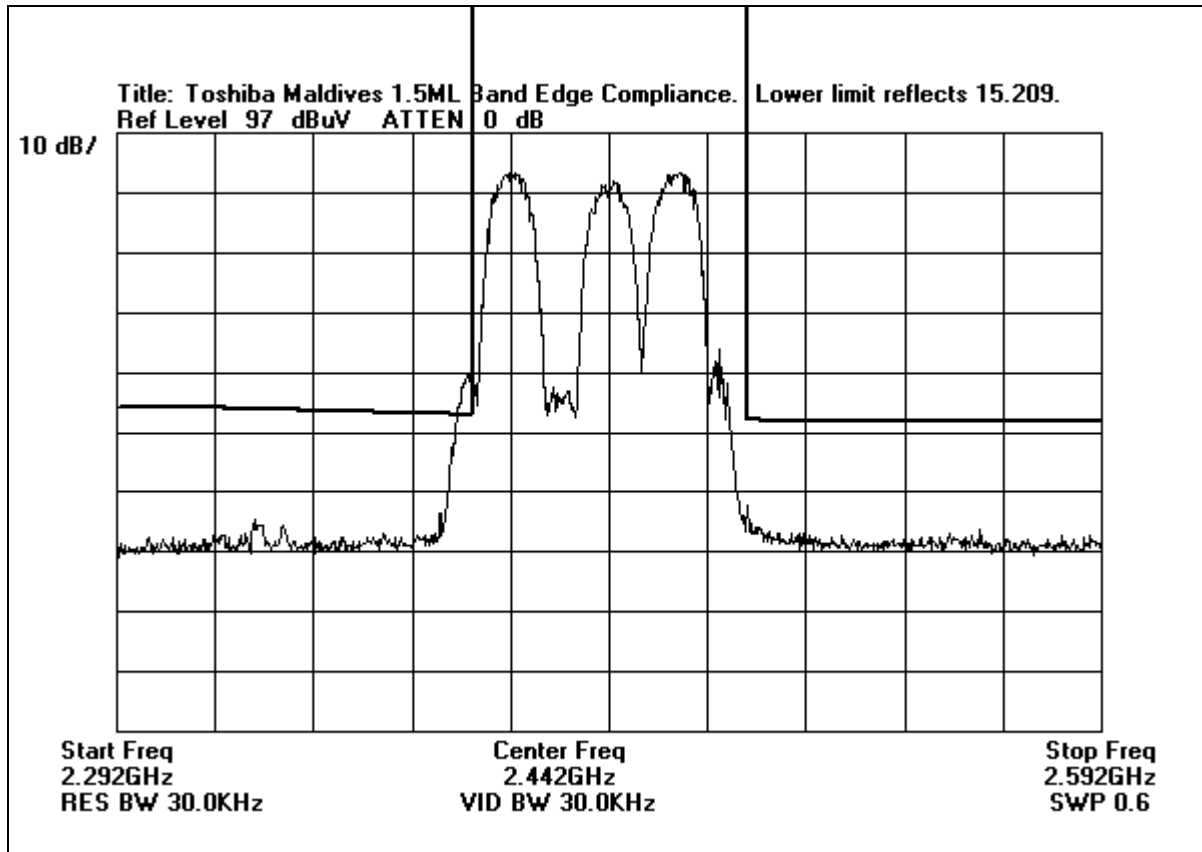
Notes: Measurements taken at 3 meters test distance with turntable position and antenna height so that emissions were maximized. See data sheets for corrected test data and proper bandwidths.

Bandedge Compliance – 2483.5 MHz



Notes: Measurements taken at 3 meters test distance with turntable position and antenna height so that emissions were maximized. See data sheets for corrected test data and proper bandwidths.

Bandedge Compliance – 250%



Notes: Measurements taken at 3 meters test distance with turntable position and antenna height so that emissions were maximized. See data sheets for corrected test data and proper bandwidths. Also note that due to the wide frequency span the above plot does not accurately display some of the frequencies, in particular those that appear to be outside the limit. All frequencies are within the limit as the previous pages of the bandedge plots indicate.

15.247(d) Power Spectral Density – Data

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **15.247(d) Peak Power Spectral Density**
 Work Order #: **78390**
 Test Type: **Peak Power Spectral Density**
 Equipment: **Wireless LAN**
 Manufacturer: **Toshiba**
 Model: **Maldives 1.5ML**
 S/N: **12012368**

Date: 2/8/02
 Time: 09:35:19
 Sequence#: 4
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELEC Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: Fundamental. Peak Power Spectral Density. RBW=3kHz VBW=3kHz.

Transducer Legend:

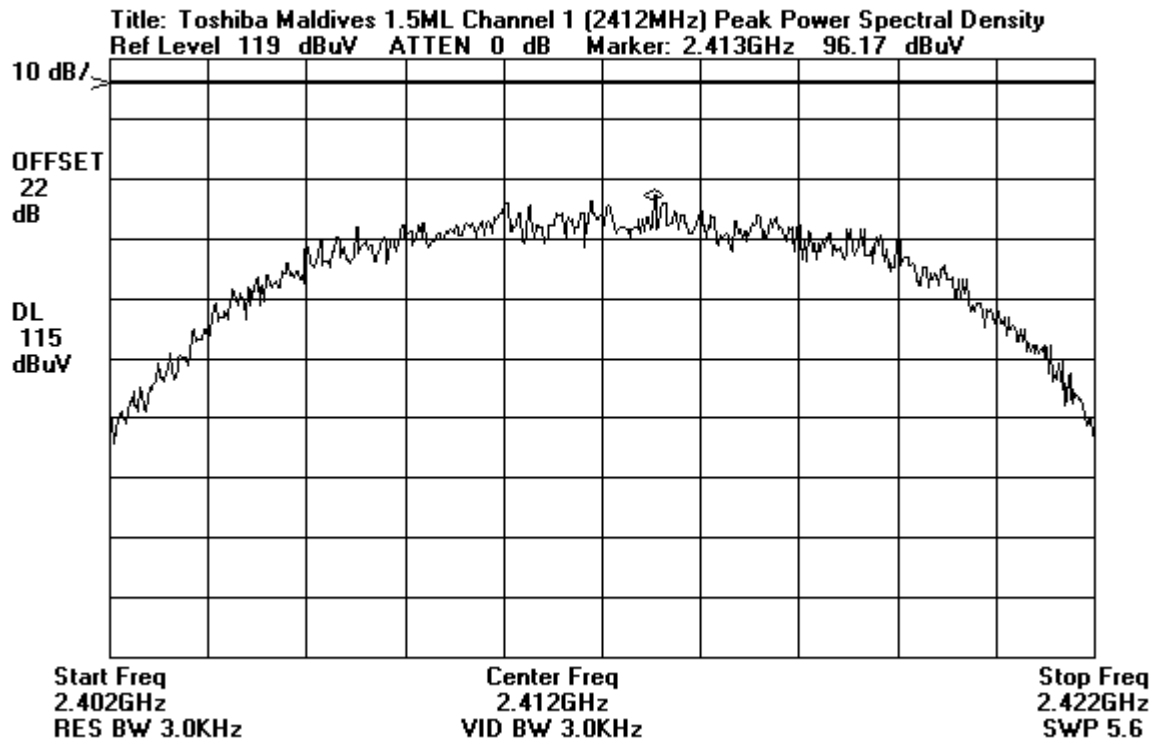
T1=dBm to dBuV

Measurement Data: Reading listed by margin.

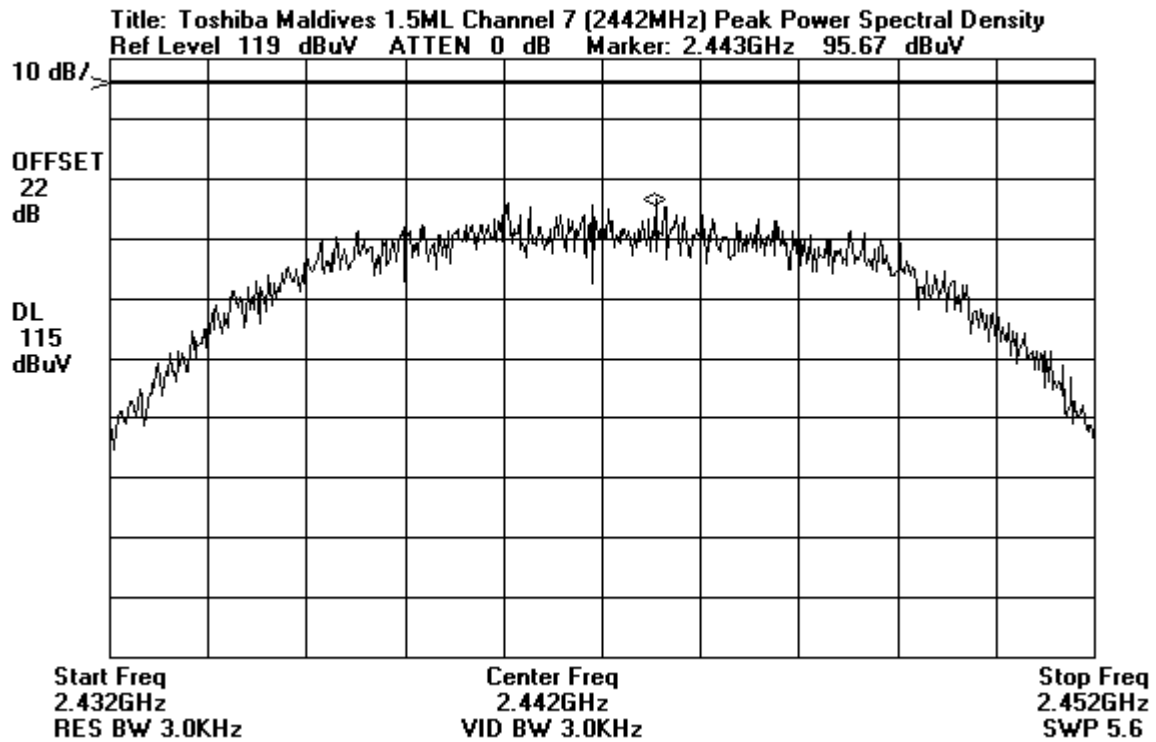
Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBm	Spec dBm	Margin dB	Polar Ant
1	2413.033M	95.8	+107.0				+0.0	-11.2	8.0	-19.2	Anten
2	2443.067M	95.7	+107.0				+0.0	-11.3	8.0	-19.3	Anten
3	2463.067M	95.5	+107.0				+0.0	-11.5	8.0	-19.5	Anten

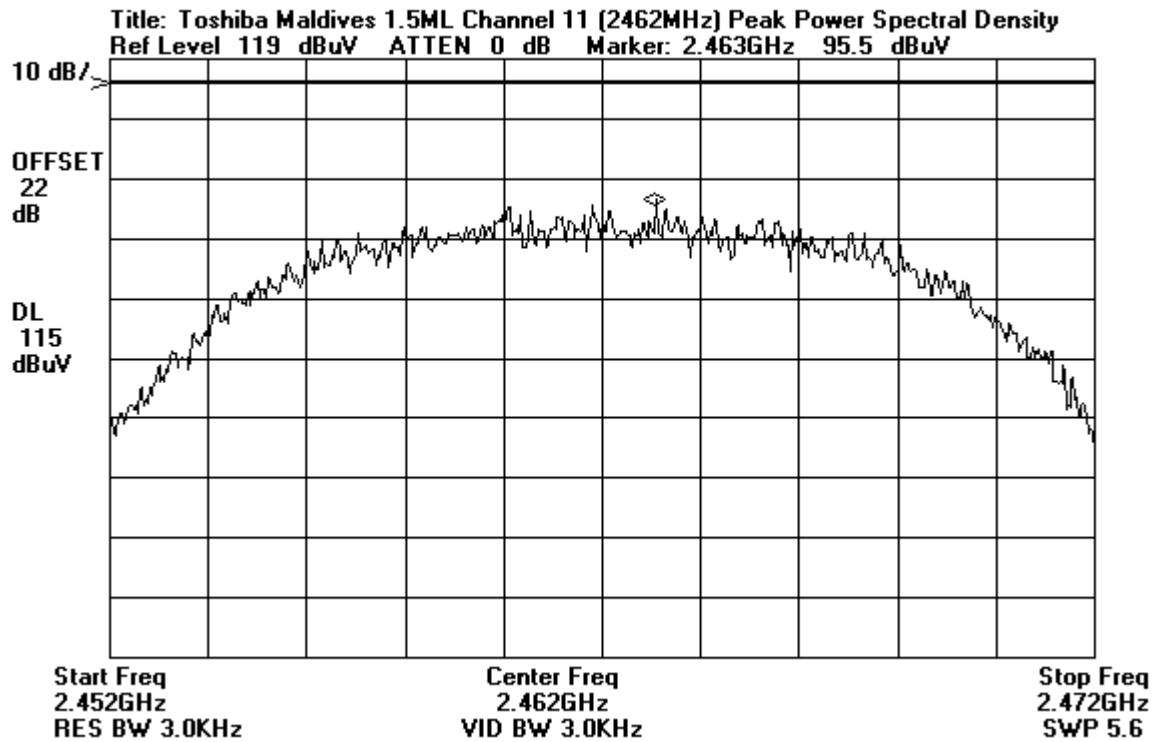
15.247(d) Power Spectral Density – 2412 MHz



15.247(d) Power Spectral Density – 2442 MHz



15.247(d) Power Spectral Density – 2462 MHz



TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

MEASUREMENT UNCERTAINTY

Associated with data in this report is a $\pm 1.56\text{dB}$ measurement uncertainty for conducted and $\pm 2.94\text{dB}$ measurement uncertainty for radiated emissions.

EUT SETUP

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the photographs in Appendix A. The laptop's display screen was set upright at a normal 90° from the keyboard. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables. The corrected data was then compared to the applicable emission limits to determine compliance.

The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available I/O ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. I/O cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The radiated and conducted emissions data of the Libretto L, PL11LXYYYYYY, was taken with the HP Spectrum Analyzer. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in Table A.

Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dB μ V/m, the spectrum analyzer reading in dB μ V was corrected by using the following formula in Table A. This reading was then compared to the applicable specification limit to determine compliance.

TABLE A: SAMPLE CALCULATIONS		
	Meter reading	(dB μ V)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dB μ V/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed in Table A were used to collect both the radiated and conducted emissions data for the Libretto L, PL11LXYYYYYY. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. For radiated measurements below 300 MHz, the biconical antenna was used. For frequencies from 300 to 1000 MHz, the log periodic antenna was used. The horn antenna was used for frequencies above 1000 MHz. Conducted emissions tests required the use of the FCC type LISNs.

The HP spectrum analyzer was used for all measurements. Table B shows the analyzer bandwidth settings that were used in designated frequency bands. For conducted emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used. A 10 dB external attenuator was also used during conducted tests, with internal offset correction in the analyzer. During radiated testing, the measurements were made with 0 dB of attenuation, a reference level of 97 dB μ V, and a vertical scale of 10 dB per division.

FCC SECTION 15.35: TABLE B: ANALYZER BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	450 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	26 GHz	1 MHz

Note: These settings were used unless stated otherwise on the individual data sheets.

SPECTRUM ANALYZER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the Tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "Peak" mode. Whenever a "Quasi-Peak" or "Average" reading is listed as one of the six highest readings, this is indicated as a "Q" or an "A" in the appropriate table. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data for the Libretto L, PL11LXYYYYYY.

Peak

In this mode, the Spectrum Analyzer or test engineer recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the analyzer called "peak hold," the analyzer had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the analyzer made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

When the true peak values exceeded or were within 2 dB of the specification limit, quasi-peak measurements were taken using the HP Quasi-Peak Adapter for the HP Spectrum Analyzer. The detailed procedure for making quasi peak measurements contained in the HP Quasi-Peak Adapter manual were followed.

Average

For certain frequencies, average measurements may be made using the spectrum analyzer. To make these measurements, the test engineer reduces the video bandwidth on the analyzer until the modulation of the signal is filtered out. At this point the analyzer is set into the linear mode and the scan time is reduced.

EUT TESTING

Mains Conducted Emissions

During conducted emissions testing, the EUT was located on a wooden table measuring approximately 80 cm high, 1 meter deep, and 1.5 meters in length. One wall of the room where the EUT was located has a minimum 2 meter by 2 meter conductive plane. The EUT was mounted on the wooden table 40 cm away from the conductive plane, and 80 cm from any other conductive surface.

The vertical metal plane used for conducted emissions was grounded to the earth. Power to the EUT was provided through a LISN. The LISN was grounded to the ground plane. All other objects were kept a minimum of 80 cm away from the EUT during the conducted test.

For conducted emissions testing, a 30 to 50 second sweep time was used for automated measurements in the frequency bands of 450 kHz to 1.705 MHz, 1.705 MHz to 3 MHz, and 3 MHz to 30 MHz. All readings within 20 dB of the limit were recorded. At frequencies where the recorded emissions were close to the limit, further investigation was performed manually at a slower sweep rate.

Antenna Conducted Emissions

For measuring the signal strength on the RF output port of the EUT, the spectrum analyzer was connected directly to the EUT. The sweep time of the analyzer was adjusted so that the spectrum analyzer readings were always in a calibrated range. All readings within 20 dB of the limit were recorded.

Radiated Emissions

The EUT was mounted on a nonconductive, rotating table 80 cm above the conductive grid. The nonconductive table dimensions were 1 meter by 1.5 meters.

During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. The frequency range of 30 MHz to 88 MHz was scanned with the biconical antenna located about 1.5 meter above the ground plane in the vertical configuration. During this scan, the turntable was rotated and all peaks at or near the limit were recorded. The frequency range of 100 to 300 MHz was then scanned in the same manner using the biconical antenna and the peaks recorded. Lastly, a scan of the FM band from 88 to 110 MHz was made, using a reduced resolution bandwidth and frequency span. The biconical antenna was changed to the horizontal polarity and the above steps were repeated. After changing to the log periodic antenna in the horizontal configuration, the frequency range of 300 to 1000 MHz was scanned. The log periodic antenna was changed to the vertical polarity and the frequency range of 300 to 1000 MHz was again scanned. For frequencies exceeding 1000 MHz, the horn antenna was used. Care was taken to ensure that no frequencies were missed within the FM and TV bands. An analysis was performed to determine if the signals that were at or near the limit were caused by an ambient transmission. If unable to determine by analysis, the equipment was powered down to make the final determination if the EUT was the source of the emission.

A thorough scan of all frequencies was made manually using a small frequency span, rotating the turntable as needed. The test engineer maximized the readings with respect to the table rotation and configuration of EUT. Maximizing of the EUT was achieved by monitoring the spectrum analyzer on a closed circuit television monitor. Photographs showing the final worst case configuration of the EUT are contained in Appendix A.

TRANSMITTER CHARACTERISTICS

15.247(a)(2) Bandwidth Measurements (Direct Sequence)

The fundamental frequency was kept within the permitted band 2400-2483.5 MHz. The minimum 6dB bandwidth shall be at least 500 kHz. Refer to the following occupied bandwidth plots.

15.247(b) Peak Output Power

The RF conducted test was measured using a direct connection between the antenna port of the transmitter and the spectrum analyzer, through suitable attenuation. The resolution bandwidth was adjusted to greater than the 6 dB bandwidth of the emissions.

- ◆ **15.247(b)(1)** The maximum peak output power of frequency hopping systems operating in the 2400-2483.5 band and for all direct sequences, shall not exceed 1 watt.

15.247(d) Peak Power Spectral Density

The peak power spectral density conducted from the EUT to the antenna was not greater than 8 dm in any 3 kHz band during any time interval of continuous transmission.

15.215 Additional Provisions To The General Radiated Emission Limitations

The fundamental frequency was kept within at least the central 80% of the permitted band.

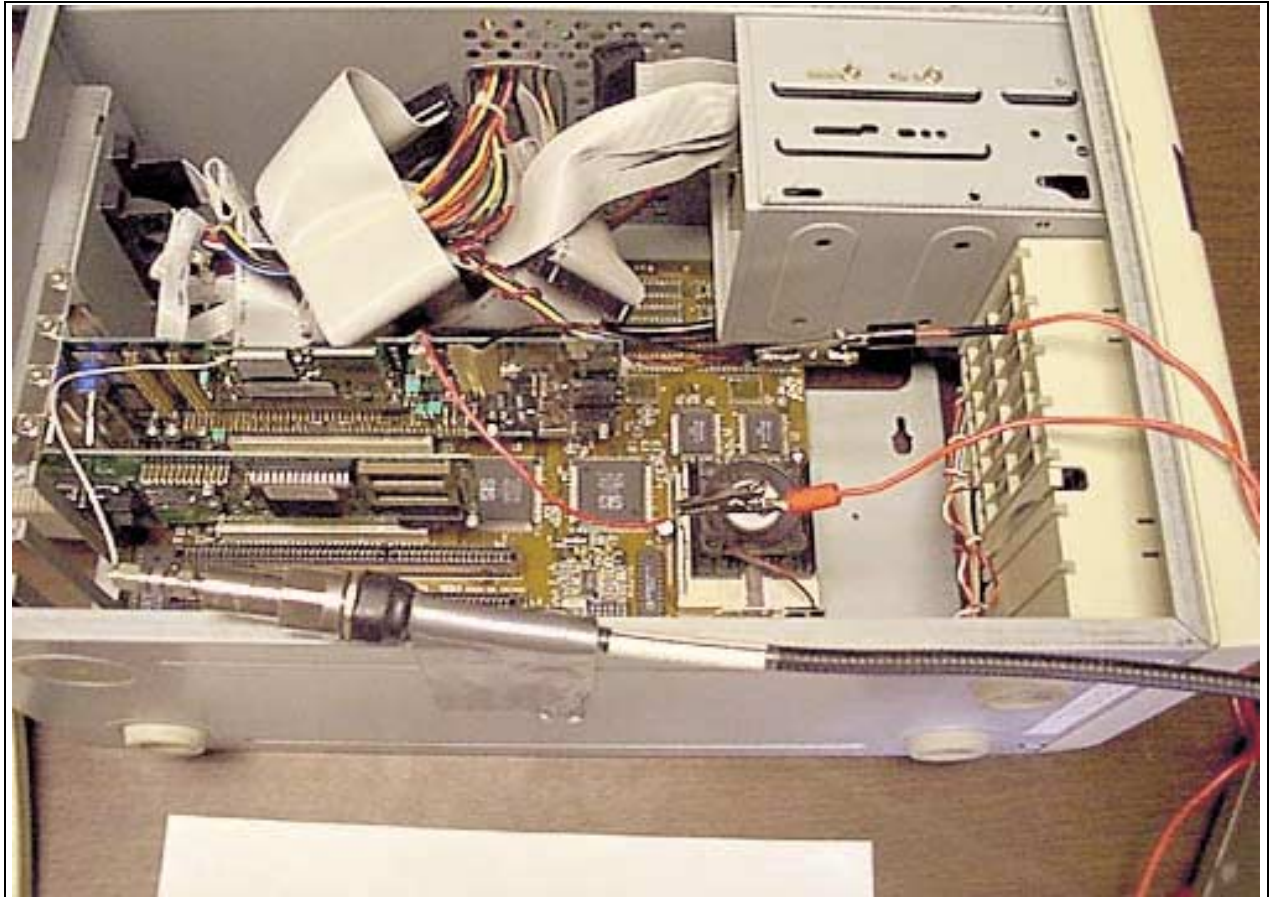
APPENDIX A
TEST SETUP PHOTOGRAPHS

PHOTOGRAPH SHOWING VOLTAGE VARIATION ON POWER



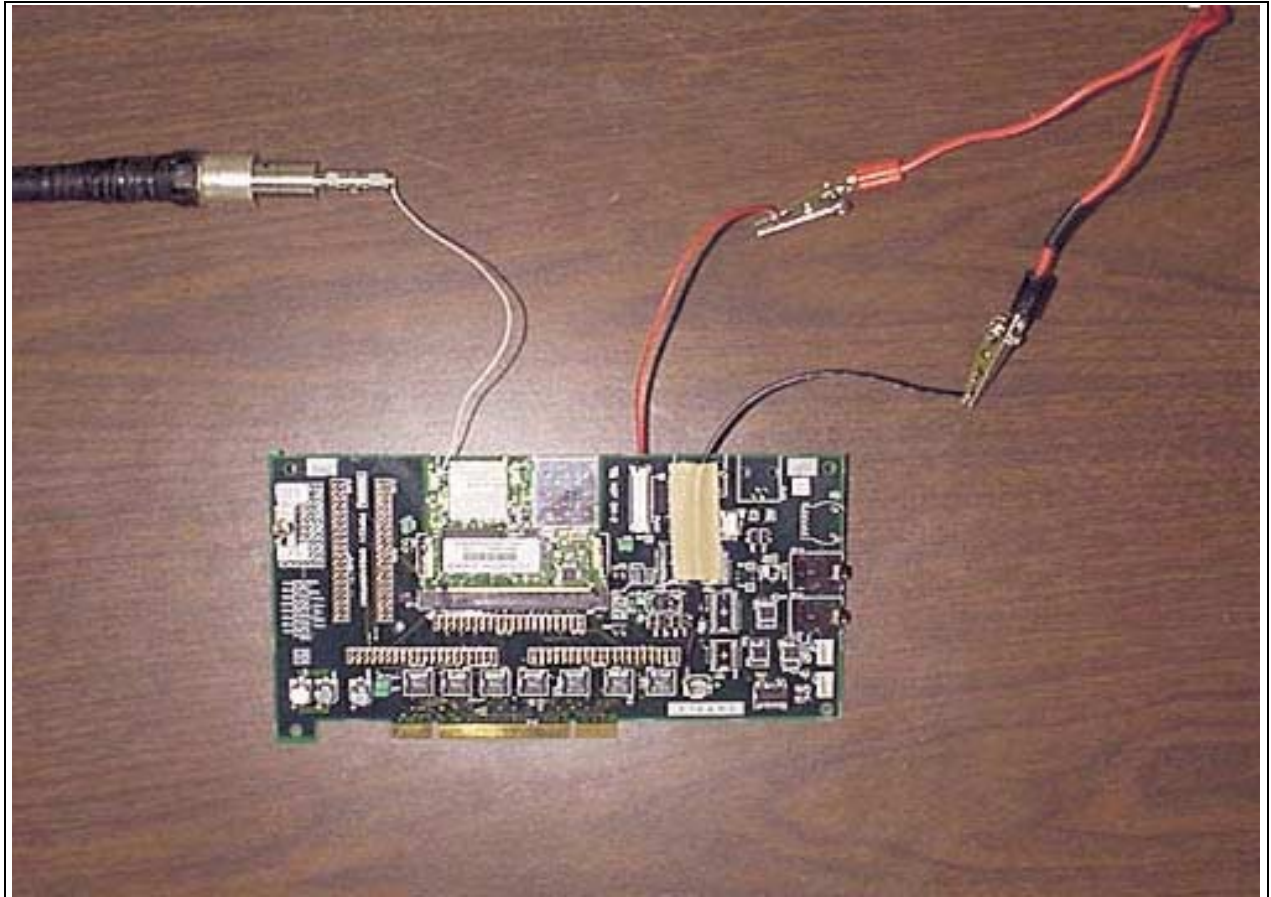
Overview of Test Setup

PHOTOGRAPH SHOWING VOLTAGE VARIATION ON POWER



Close-up of Inside of Case

PHOTOGRAPH SHOWING VOLTAGE VARIATION ON POWER



Close-up of Outside of Case

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS



Mains Conducted Emissions - Side View

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS



Mains Conducted Emissions - Front View

PHOTOGRAPH SHOWING ANTENNA CONDUCTED EMISSIONS



Antenna Conducted Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Back View

APPENDIX B

TEST EQUIPMENT LIST

Equipment used for all radiated emissions 9kHz – 26GHz 15.209 and 15.109 including fundamental 15.247-OATS

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
QP Adapter	HP	85650A	2811A01267	00478	1/30/02	1/30/03
S/A Display	HP	8566B	2403A08241	00489	1/30/02	1/30/03
Spectrum Analyzer	HP	8566B	2209A01404	00490	1/30/02	1/30/03
3/10m & LISN Cable	Andrews	Hardline	N/A	N/A	11/19/01	11/19/02
Antenna, Bicon	A&H	SAS-200/542	156	00225	12/06/01	12/6/02
Antenna, Log	A&H	SAS-200/510	154	01330	05/07/01	5/7/02
Antenna, Loop	EMCO	6502	1074	00226	5/31/2001	5/31/02
Preamp	HP	8447D	1937A02604	00099	03/29/01	3/29/02
Preamp	HP	8449B	3008A00301	02010	10/19/01	10/19/02
2.4GHz High Pass Filter	K&L Microwave, INC	91H31-3000	00001	01440	10/03/01	10/3/02
2.4GHz Low Pass Filter	K&L Microwave, INC.	10L121-2200/T2400-0/0	1	01439	10/19/01	10/19/02
3.5GHz High Pass Filter	HP	84300-80038	3643A00026	01416	2/19/01	2/19/02
Antenna, Horn 1-18GHz	EMCO	3115	9307-4085	00656	2/28/01	2/28/02
Antenna, Horn 18-26GHz	HP	84125-80008	942126-003	01413	7/9/01	7/9/02
Antenna, Horn 26-40GHz	HP	RA28-K-F-4B-C	951559-008	01414	5/22/01	5/22/02
Cable #2 (2')	Andrew	FSJ1-50A	N/A	N/A	4/16/01	4/16/02
Cable #4 (50')	Andrew	FSJ1-50A	N/A	N/A	4/16/01	4/16/02
Cable #7 (25')	Andrew	FSJ1-50A	N/A	N/A	4/16/01	4/16/02
Spectrum Analyzer	HP	8564E	3623A00539	01406	12/12/01	12/12/02

Equipment used for AC conducted emissions 15.207 and 15.107

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
LISN Set	Solar	8028-50-TS-24-BNC	814493, 474	02056	5/22/01	5/22/02
QP Adapter	HP	85650A	2811A01267	00478	1/30/02	1/30/03
S/A Display	HP	8566B	2403A08241	00489	1/30/02	1/30/03
Spectrum Analyzer	HP	8566B	2209A01404	00490	1/30/02	1/30/03
3/10m & LISN Cable	Andrews	Hardline	N/A	N/A	11/19/01	11/19/02

Equipment used for all antenna conducted measurements 15.247

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
QP Adapter	HP	85650A	2811A01267	00478	1/30/02	1/30/03
S/A Display	HP	8566B	2403A08241	00489	1/30/02	1/30/03
Spectrum Analyzer	HP	8566B	2209A01404	00490	1/30/02	1/30/03
2.4GHz High Pass Filter	K&L Microwave, INC	91H31-3000	00001	01440	10/03/01	10/3/02
2.4GHz Low Pass Filter	K&L Microwave, INC.	10L121-2200/T2400-0/0	1	01439	10/19/01	10/19/02
3.5GHz High Pass Filter	HP	84300-80038	3643A00026	01416	2/19/01	2/19/02
Spectrum Analyzer	HP	8564E	3623A00539	01406	12/12/01	12/12/02

Equipment used for 15.31(e) testing only

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
Power Supply, DC	Leader	LPS-2801	6030090		02/10/02	2/10/03
QP Adapter	HP	85650A	2811A01267	00478	1/30/02	1/30/03
S/A Display	HP	8566B	2403A08241	00489	1/30/02	1/30/03
Spectrum Analyzer	HP	8566B	2209A01404	00490	1/30/02	1/30/03

APPENDIX C
MEASUREMENT DATA SHEETS

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **15.247(b)(1)**
 Work Order #: **78390**
 Test Type: **Power Output**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/7/02
 Time: 16:36:36
 Sequence#: 3
 Tested By: Randal Clark

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
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Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: Fundamental. RBW=2MHz VBW=3MHz. Readings corrected to 10MHz RBW using BW correction factor. Correction factor extrapolated from measurements taken at 1MHz and 2MHz RBW: $10 \log(BW1/BW2)$, so that $10 \log(10\text{MHz} / 2\text{MHz}) = 6.99\text{dB}$ correction factor.

Transducer Legend:

T1=BW Correction Factor

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	2412.167M	117.9	+6.9				+0.0	124.8	137.0	-12.2	Anten
									2M		
2	2442.667M	117.8	+6.9				+0.0	124.7	137.0	-12.3	Anten
									2M		
3	2461.875M	117.8	+6.9				+0.0	124.7	137.0	-12.3	Anten
									2M		

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **15.247(b)(1)**
 Work Order #: **78390**
 Test Type: **Power Output**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/14/02
 Time: 10:13:52
 Sequence#: 18
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
Keyboard	NMB	RT2258TW	4068104
PC Host	CompuTrend	Pentium Minitower	P9603496
Monitor	Micron	RMD5L11CM	8025L1128431
PCI Extender Card	Toshiba	FMPCI1	N/S

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELEC Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: Fundamental RBW=3MHz VBW=3MHz. Readings corrected to 10MHz RBW using BW correction factor. Correction factor extrapolated from measurements taken at 1MHz and 3MHz RBW: $12.75 \text{ LOG}(BW1/BW2)$, so that $12.75 \text{ LOG}(10\text{MHz} / 3\text{MHz}) = 6.67\text{dB}$ correction factor. Ambient Temperature 70°F

Transducer Legend:

T1=BW Correction Factor	T2=Cable GHz #8
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Measurement Data: Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	2441.900M	120.0	+6.7	+0.7			+0.0	127.4	137.0	-9.6	Anten
									115%		
2	2411.900M	120.0	+6.7	+0.7			+0.0	127.4	137.0	-9.6	Anten
									115%		
3	2441.900M	119.8	+6.7	+0.7			+0.0	127.2	137.0	-9.8	Anten
									3.3V		
4	2462.300M	119.7	+6.7	+0.7			+0.0	127.1	137.0	-9.9	Anten
									115%		
5	2462.300M	119.6	+6.7	+0.7			+0.0	127.0	137.0	-10.0	Anten
									3.3V		
6	2411.900M	119.6	+6.7	+0.7			+0.0	127.0	137.0	-10.0	Anten
									3.3V		
7	2441.900M	119.5	+6.7	+0.7			+0.0	126.9	137.0	-10.1	Anten
									85%		
8	2411.900M	119.3	+6.7	+0.7			+0.0	126.7	137.0	-10.3	Anten
									85%		
9	2462.300M	119.1	+6.7	+0.7			+0.0	126.5	137.0	-10.5	Anten
									85%		

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **FCC 15.209**
 Work Order #: **78390**
 Test Type: **Maximized Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/12/02
 Time: 10:46:49
 Sequence#: 14
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). EUT is transmitting on Channels 1, 7 and 11 (2412, 2442 and 2462 MHz). Frequency Range Investigated: 9kHz-30MHz. Readings taken at 10m test distance. Test distance correction factor used IAW FCC 15.31. Receive antenna set to Vertical and Horizontal polarities.

Transducer Legend:

T1=Loop 1074	T2=Cable - 10 Meter
T3=15.31 40dB/Dec Correction	

Measurement Data: Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	5.964M	32.4	+10.5	+0.5	-20.0	+0.0		23.4	29.5	-6.1	Vert
2	6.256M	31.8	+10.5	+0.5	-20.0	+0.0		22.8	29.5	-6.7	Vert
3	1.911M	29.5	+10.3	+0.3	-20.0	+0.0		20.1	29.5	-9.4	Vert
4	2.241M	28.9	+10.3	+0.3	-20.0	+0.0		19.5	29.5	-10.0	Vert
5	2.076M	28.7	+10.3	+0.3	-20.0	+0.0		19.3	29.5	-10.2	Vert
6	8.384M	28.0	+10.6	+0.5	-20.0	+0.0		19.1	29.5	-10.4	Vert
7	2.345M	28.5	+10.3	+0.3	-20.0	+0.0		19.1	29.5	-10.4	Vert
8	7.929M	26.0	+10.6	+0.5	-20.0	+0.0		17.1	29.5	-12.4	Vert
9	1.970M	24.9	+10.3	+0.3	-20.0	+0.0		15.5	29.5	-14.0	Vert
10	55.680k	62.2	+10.8	+0.0	-60.0	+0.0		13.0	32.7	-19.7	Vert
11	344.000k	42.6	+10.0	+0.1	-60.0	+0.0		-7.3	16.9	-24.2	Vert

12	24.900k	50.2	+12.8	+0.0	-60.0	+0.0	3.0	39.7	-36.7	Vert
13	24.850k	49.1	+12.8	+0.0	-60.0	+0.0	1.9	39.7	-37.8	Vert
14	55.600k	40.0	+10.8	+0.0	-60.0	+0.0	-9.2	32.7	-41.9	Horiz
15	98.550k	32.2	+10.0	+0.0	-60.0	+0.0	-17.8	27.7	-45.5	Vert

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **FCC 15.247 / 15.209**
 Work Order #: **78390**
 Test Type: **Maximized Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/12/02
 Time: 16:52:08
 Sequence#: 15
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELEC Test Program V02.01 (CERT201T.EXE). EUT is transmitting on Channels 1, 7 and 11 (2412, 2442 and 2462 MHz). Frequency Range Investigated: 30-1000MHz

Transducer Legend:

T1=Amp - S/N 1937A02604	T2=Bicon 156
T3=Log 154	T4=Cable - 10 Meter

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	444.178M	47.9	-27.5	+0.0	+16.7	+4.6	+0.0	41.7	46.0	-4.3	Vert
2	444.210M	46.7	-27.5	+0.0	+16.7	+4.6	+0.0	40.5	46.0	-5.5	Vert
3	261.020M	44.4	-26.5	+17.4	+0.0	+3.3	+0.0	38.6	46.0	-7.4	Horiz
4	666.610M	40.0	-27.9	+0.0	+20.5	+6.0	+0.0	38.6	46.0	-7.4	Horiz
5	933.410M	34.8	-27.3	+0.0	+24.0	+7.0	+0.0	38.5	46.0	-7.5	Vert
6	926.110M	34.7	-27.3	+0.0	+23.9	+7.0	+0.0	38.3	46.0	-7.7	Horiz
7	666.640M	39.3	-27.9	+0.0	+20.5	+6.0	+0.0	37.9	46.0	-8.1	Horiz
8	661.530M	39.4	-27.9	+0.0	+20.4	+6.0	+0.0	37.9	46.0	-8.1	Horiz
9	926.200M	34.2	-27.3	+0.0	+23.9	+7.0	+0.0	37.8	46.0	-8.2	Horiz
10	661.520M	39.1	-27.9	+0.0	+20.4	+6.0	+0.0	37.6	46.0	-8.4	Horiz
11	926.040M	33.8	-27.3	+0.0	+23.9	+7.0	+0.0	37.4	46.0	-8.6	Vert

12	443.952M	42.9	-27.5	+0.0	+16.7	+4.6	+0.0	36.7	46.0	-9.3	Vert
13	933.400M	32.8	-27.3	+0.0	+24.0	+7.0	+0.0	36.5	46.0	-9.5	Horiz
14	933.350M	32.8	-27.3	+0.0	+24.0	+7.0	+0.0	36.5	46.0	-9.5	Horiz
15	261.000M	41.5	-26.5	+17.4	+0.0	+3.3	+0.0	35.7	46.0	-10.3	Vert
16	444.434M	41.9	-27.5	+0.0	+16.7	+4.6	+0.0	35.7	46.0	-10.3	Vert
17	397.000M	42.5	-27.1	+0.0	+15.8	+4.3	+0.0	35.5	46.0	-10.5	Horiz
18	399.960M	42.4	-27.1	+0.0	+15.7	+4.3	+0.0	35.3	46.0	-10.7	Horiz
19	60.574M	44.7	-27.1	+9.9	+0.0	+1.5	+0.0	29.0	40.0	-11.0	Vert
20	398.600M	42.0	-27.1	+0.0	+15.8	+4.3	+0.0	35.0	46.0	-11.0	Horiz
21	398.560M	41.5	-27.1	+0.0	+15.8	+4.3	+0.0	34.5	46.0	-11.5	Horiz
22	824.883M	33.1	-27.6	+0.0	+22.2	+6.6	+0.0	34.3	46.0	-11.7	Vert
23	397.030M	41.0	-27.1	+0.0	+15.8	+4.3	+0.0	34.0	46.0	-12.0	Horiz
24	664.240M	35.3	-27.9	+0.0	+20.5	+6.0	+0.0	33.9	46.0	-12.1	Horiz
25	399.990M	41.0	-27.1	+0.0	+15.7	+4.3	+0.0	33.9	46.0	-12.1	Horiz
26	265.240M	38.8	-26.5	+18.0	+0.0	+3.4	+0.0	33.7	46.0	-12.3	Vert
27	35.283M	41.7	-27.2	+11.0	+0.0	+1.2	+0.0	26.7	40.0	-13.3	Vert
28	60.149M	42.1	-27.1	+10.0	+0.0	+1.5	+0.0	26.5	40.0	-13.5	Vert
29	265.930M	37.5	-26.5	+18.1	+0.0	+3.4	+0.0	32.5	46.0	-13.5	Horiz
30	661.500M	34.0	-27.9	+0.0	+20.4	+6.0	+0.0	32.5	46.0	-13.5	Vert
31	529.290M	36.6	-27.8	+0.0	+18.3	+5.2	+0.0	32.3	46.0	-13.7	Vert
32	533.290M	36.5	-27.8	+0.0	+18.3	+5.2	+0.0	32.2	46.0	-13.8	Vert
33	666.660M	33.4	-27.9	+0.0	+20.5	+6.0	+0.0	32.0	46.0	-14.0	Vert
34	394.610M	38.8	-27.1	+0.0	+16.0	+4.3	+0.0	32.0	46.0	-14.0	Horiz
35	77.299M	44.0	-27.0	+7.1	+0.0	+1.7	+0.0	25.8	40.0	-14.2	Vert
36	390.680M	38.3	-27.0	+0.0	+16.2	+4.2	+0.0	31.7	46.0	-14.3	Horiz

37	533.265M	35.8	-27.8	+0.0	+18.3	+5.2	+0.0	31.5	46.0	-14.5	Horiz
38	394.600M	38.3	-27.1	+0.0	+16.0	+4.3	+0.0	31.5	46.0	-14.5	Horiz
39	402.580M	38.5	-27.1	+0.0	+15.8	+4.3	+0.0	31.5	46.0	-14.5	Horiz
40	386.680M	37.5	-27.0	+0.0	+16.4	+4.2	+0.0	31.1	46.0	-14.9	Horiz
41	85.924M	41.9	-27.1	+8.3	+0.0	+1.8	+0.0	24.9	40.0	-15.1	Vert
42	402.640M	37.9	-27.1	+0.0	+15.8	+4.3	+0.0	30.9	46.0	-15.1	Horiz
43	399.999M	37.9	-27.1	+0.0	+15.7	+4.3	+0.0	30.8	46.0	-15.2	Vert
44	533.260M	34.8	-27.8	+0.0	+18.3	+5.2	+0.0	30.5	46.0	-15.5	Horiz
45	406.480M	37.5	-27.2	+0.0	+15.9	+4.3	+0.0	30.5	46.0	-15.5	Horiz
46	397.060M	37.4	-27.1	+0.0	+15.8	+4.3	+0.0	30.4	46.0	-15.6	Vert
47	374.800M	36.1	-26.9	+0.0	+17.0	+4.2	+0.0	30.4	46.0	-15.6	Horiz
48	378.800M	36.3	-26.9	+0.0	+16.8	+4.2	+0.0	30.4	46.0	-15.6	Horiz
49	382.760M	36.6	-27.0	+0.0	+16.6	+4.2	+0.0	30.4	46.0	-15.6	Horiz
50	57.874M	39.6	-27.1	+10.3	+0.0	+1.5	+0.0	24.3	40.0	-15.7	Vert
51	529.281M	34.2	-27.8	+0.0	+18.3	+5.2	+0.0	29.9	46.0	-16.1	Horiz
52	507.631M	34.6	-27.8	+0.0	+17.9	+5.1	+0.0	29.8	46.0	-16.2	Vert
53	410.540M	36.7	-27.2	+0.0	+15.9	+4.4	+0.0	29.8	46.0	-16.2	Horiz
54	529.220M	34.0	-27.8	+0.0	+18.3	+5.2	+0.0	29.7	46.0	-16.3	Horiz
55	533.326M	33.9	-27.8	+0.0	+18.3	+5.2	+0.0	29.6	46.0	-16.4	Horiz
56	414.540M	36.3	-27.2	+0.0	+16.0	+4.4	+0.0	29.5	46.0	-16.5	Horiz
57	529.326M	33.5	-27.8	+0.0	+18.3	+5.2	+0.0	29.2	46.0	-16.8	Horiz
58	82.609M	40.8	-27.0	+7.5	+0.0	+1.8	+0.0	23.1	40.0	-16.9	Vert
59	370.860M	34.7	-26.9	+0.0	+17.2	+4.1	+0.0	29.1	46.0	-16.9	Horiz
60	571.090M	32.5	-27.8	+0.0	+18.9	+5.3	+0.0	28.9	46.0	-17.1	Vert
61	362.960M	33.9	-26.8	+0.0	+17.6	+4.1	+0.0	28.8	46.0	-17.2	Horiz

62	366.940M	34.0	-26.8	+0.0	+17.4	+4.1	+0.0	28.7	46.0	-17.3	Horiz
63	401.900M	35.7	-27.1	+0.0	+15.7	+4.3	+0.0	28.6	46.0	-17.4	Vert
64	398.595M	35.6	-27.1	+0.0	+15.8	+4.3	+0.0	28.6	46.0	-17.4	Vert
65	430.120M	35.0	-27.3	+0.0	+16.4	+4.5	+0.0	28.6	46.0	-17.4	Horiz
66	418.520M	35.2	-27.3	+0.0	+16.1	+4.4	+0.0	28.4	46.0	-17.6	Horiz
67	462.052M	34.0	-27.6	+0.0	+17.1	+4.7	+0.0	28.2	46.0	-17.8	Horiz
68	438.270M	34.2	-27.4	+0.0	+16.6	+4.5	+0.0	27.9	46.0	-18.1	Horiz
69	391.560M	34.4	-27.0	+0.0	+16.1	+4.3	+0.0	27.8	46.0	-18.2	Vert
70	422.440M	34.5	-27.3	+0.0	+16.2	+4.4	+0.0	27.8	46.0	-18.2	Horiz
71	426.340M	33.4	-27.3	+0.0	+16.3	+4.5	+0.0	26.9	46.0	-19.1	Horiz
72	358.960M	31.8	-26.8	+0.0	+17.8	+4.1	+0.0	26.9	46.0	-19.1	Horiz
73	394.630M	33.5	-27.1	+0.0	+16.0	+4.3	+0.0	26.7	46.0	-19.3	Vert
74	450.130M	32.1	-27.5	+0.0	+16.8	+4.6	+0.0	26.0	46.0	-20.0	Horiz
75	458.070M	31.3	-27.6	+0.0	+17.0	+4.7	+0.0	25.4	46.0	-20.6	Horiz
76	446.196M	31.6	-27.5	+0.0	+16.7	+4.6	+0.0	25.4	46.0	-20.6	Horiz
77	71.790M	36.8	-27.1	+7.8	+0.0	+1.6	+0.0	19.1	40.0	-20.9	Horiz
78	407.500M	31.8	-27.2	+0.0	+15.9	+4.3	+0.0	24.8	46.0	-21.2	Vert
79	402.560M	31.3	-27.1	+0.0	+15.8	+4.3	+0.0	24.3	46.0	-21.7	Vert
80	72.440M	34.6	-27.1	+7.7	+0.0	+1.7	+0.0	16.9	40.0	-23.1	Horiz

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **FCC 15.247 / 15.209**
 Work Order #: **78390**
 Test Type: **Radiated Scan**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/12/02
 Time: 15:07:00
 Sequence#: 10
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). EUT transmitting on channels 1, 7 and 11 (2412, 2442 and 2462MHz). Frequency Range Investigated: 1-18GHz. RBW=1MHz VBW=1MHz. Frequencies outside of FCC 15.205 restricted bands are subject to the 20dBc attenuation requirements. The 15.247(c) 20dBc limit is calculated as such: 101.9dBuV/m - 20dB = 81.9dBuV/m. Readings were taken in a 1MHz RBW and compared Peak-to-Peak with the limit.

Transducer Legend:

T1=Amp - S/N3008A00301	T2=Horn 1-18 Mariposa
T3=Cable GHz #4	T4=Cable GHz #7
T5=Cable GHz #8	T6=Filter 2.4 GHz Low Pass

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	1060.800M	55.8	-36.1 +0.3	+24.4 +0.0	+3.3	+1.6	+0.0	49.3	54.0	-4.7	Horiz
2	1066.560M	55.7	-36.1 +0.3	+24.4 +0.0	+3.3	+1.6	+0.0	49.2	54.0	-4.8	Horiz
3	1331.990M	53.0	-35.6 +0.4	+25.1 +0.2	+3.6	+1.8	+0.0	48.5	54.0	-5.5	Vert
4	2390.000M	44.0	-32.7 +0.7	+28.4 +0.0	+5.1	+2.7	+0.0	48.2	54.0	-5.8	Vert
5	1059.310M	54.3	-36.1 +0.3	+24.4 +0.2	+3.3	+1.6	+0.0	48.0	54.0	-6.0	Vert
6	1322.830M	52.4	-35.6 +0.4	+25.1 +0.2	+3.6	+1.8	+0.0	47.9	54.0	-6.1	Vert
7	1455.280M	51.7	-35.5 +0.4	+25.0 +0.2	+3.8	+1.9	+0.0	47.5	54.0	-6.5	Vert
8	1066.610M	53.8	-36.1 +0.3	+24.4 +0.2	+3.3	+1.6	+0.0	47.5	54.0	-6.5	Vert
9	1466.800M	51.0	-35.4 +0.4	+25.0 +0.2	+3.8	+1.9	+0.0	46.9	54.0	-7.1	Vert

10	1200.370M	51.4	-35.8 +0.3	+25.0 +0.2	+3.5	+1.7	+0.0	46.3	54.0	-7.7	Vert
11	2397.180M	69.4	-32.6 +0.7	+28.5 +0.0	+5.1	+2.7	+0.0	73.8	81.9	-8.1	Horiz
12	1190.630M	51.0	-35.9 +0.3	+25.0 +0.2	+3.5	+1.7	+0.0	45.8	54.0	-8.2	Vert
13	2398.940M	69.2	-32.6 +0.7	+28.5 +0.0	+5.2	+2.7	+0.0	73.7	81.9	-8.2	Horiz
14	1960.930M	45.5	-34.6 +0.5	+27.6 +0.0	+4.5	+2.2	+0.0	45.7	54.0	-8.3	Horiz
15	1198.440M	50.8	-35.8 +0.3	+25.0 +0.0	+3.5	+1.7	+0.0	45.5	54.0	-8.5	Horiz
16	1719.820M	47.2	-35.0 +0.4	+26.1 +0.0	+4.1	+2.0	+0.0	44.8	54.0	-9.2	Horiz
17	1731.760M	47.0	-35.0 +0.4	+26.3 +0.0	+4.1	+2.0	+0.0	44.8	54.0	-9.2	Horiz
18	1322.640M	49.0	-35.6 +0.4	+25.1 +0.0	+3.6	+1.8	+0.0	44.3	54.0	-9.7	Horiz
19	1190.620M	49.2	-35.9 +0.3	+25.0 +0.0	+3.5	+1.7	+0.0	43.8	54.0	-10.2	Horiz
20	1592.200M	47.2	-35.2 +0.4	+25.4 +0.0	+3.9	+2.0	+0.0	43.7	54.0	-10.3	Horiz
21	1333.320M	48.1	-35.6 +0.4	+25.1 +0.0	+3.6	+1.8	+0.0	43.4	54.0	-10.6	Horiz
22	1600.240M	46.2	-35.2 +0.4	+25.4 +0.0	+4.0	+2.0	+0.0	42.8	54.0	-11.2	Horiz
23	2397.380M	64.6	-32.6 +0.7	+28.5 +0.0	+5.1	+2.7	+0.0	69.0	81.9	-12.9	Vert
24	2398.880M	64.5	-32.6 +0.7	+28.5 +0.0	+5.2	+2.7	+0.0	69.0	81.9	-12.9	Vert
25	1960.720M Ave	36.8	-34.6 +0.5	+27.6 +0.4	+4.5	+2.2	+0.0	37.4	54.0	-16.6	Vert
^	1960.720M	49.6	-34.6 +0.5	+27.6 +0.4	+4.5	+2.2	+0.0	50.2	54.0	-3.8	Vert
27	2394.380M	57.5	-32.6 +0.7	+28.5 +0.0	+5.1	+2.7	+0.0	61.9	81.9	-20.0	Vert

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
Specification: **FCC 15.247 / 15.209**
Work Order #: **78390**
Test Type: **Maximized Emissions**
Equipment: **Wireless LAN**
Manufacturer: Toshiba
Model: Maldives 1.5ML
S/N: 12012368

Date: 2/7/02
Time: 12:16:13
Sequence#: 2
Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 18-26GHz. EUT modes tested: Transmit and Receive Channels 1, 7 and 11. No emissions were found in this frequency range.

Transducer Legend:

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Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	dB	dB	dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
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Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)
 Customer: **Toshiba**
 Specification: **15.247(c) Antenna Conducted**
 Work Order #: **78390**
 Test Type: **Antenna Conducted Spurious Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/7/02
 Time: 18:12:08
 Sequence#: 1
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELEC Test Program V02.01 (CERT201T.EXE). Testing Antenna Terminals. Frequency Range Investigated: 9kHz-26GHz. Limit derived from the lowest peak power output as measured in a 100kHz band: 113.8dBuV (2462MHz). -20dBc limit therefore is 93.8dBuV.

Transducer Legend:

T1=HOL HF_010_purple 65474	T2=Filter 2.4 GHz Low Pass
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Measurement Data:		Reading listed by margin.				Test Distance: None				
#	Freq MHz	Rdng dBμV	T1 dB	T2 dB		Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	528.333M	76.0	+0.0	+0.1		+0.0	76.1	93.8	-17.7	Anten
2	572.333M	74.7	+0.0	+0.1		+0.0	74.8	93.8	-19.0	Anten
3	726.333M	74.5	+0.0	+0.2		+0.0	74.7	93.8	-19.1	Anten
4	661.500M	74.0	+0.0	+0.1		+0.0	74.1	93.8	-19.7	Anten
5	594.333M	73.5	+0.0	+0.1		+0.0	73.6	93.8	-20.2	Anten
6	682.167M	72.5	+0.0	+0.1		+0.0	72.6	93.8	-21.2	Anten
7	624.333M	71.0	+0.0	+0.1		+0.0	71.1	93.8	-22.7	Anten
8	770.167M	70.2	+0.0	+0.2		+0.0	70.4	93.8	-23.4	Anten
9	352.167M	65.2	+0.0	+0.1		+0.0	65.3	93.8	-28.5	Anten
10	395.667M	64.5	+0.0	+0.1		+0.0	64.6	93.8	-29.2	Anten
11	933.667M	64.2	+0.0	+0.2		+0.0	64.4	93.8	-29.4	Anten
12	926.417M	62.3	+0.0	+0.2		+0.0	62.5	93.8	-31.3	Anten
13	290.167M	61.5	+0.0	+0.1		+0.0	61.6	93.8	-32.2	Anten

14	290.167M	61.5	+0.0	+0.1	+0.0	61.6	93.8	-32.2	Anten
15	880.083M	60.8	+0.0	+0.2	+0.0	61.0	93.8	-32.8	Anten
16	2255.333M	36.8	+3.0	+0.0	+0.0 44	53.9	93.8	-39.9	Anten 54
17	4824.083M	44.8	+2.0	+0.0	+0.0 41	50.8	93.8	-43.0	Anten 54
18	4884.000M	43.7	+2.0	+0.0	+0.0 40	49.9	93.8	-43.9	Anten 54
19	1200.167M	47.3	+3.0	+0.0	+0.0 40	49.5	93.8	-44.3	Anten 54
20	1190.500M	47.2	+3.0	+0.0	+0.0 39	49.4	93.8	-44.4	Anten 54
21	1200.333M	47.2	+3.0	+0.0	+0.0 39	49.4	93.8	-44.4	Anten 54
22	1200.333M	46.7	+3.0	+0.0	+0.0 39	48.9	93.8	-44.9	Anten 54
23	1190.500M	46.7	+3.0	+0.0	+0.0 39	48.9	93.8	-44.9	Anten 54
24	1191.000M	46.0	+3.0	+0.0	+0.0 38	48.2	93.8	-45.6	Anten 54
25	7325.333M	39.0	+2.0	+0.0	+0.0 35	44.7	93.8	-49.1	Anten 54
26	21.998M	44.5	+0.0	+0.0	+0.0	44.5	93.8	-49.3	Anten
27	7234.250M	38.0	+2.0	+0.0	+0.0 34	44.1	93.8	-49.7	Anten 54
28	1983.667M	40.2	+3.0	+0.0	+0.0 33	43.3	93.8	-50.5	Anten 54
29	9647.992M	36.0	+2.0	+0.0	+0.0 33	42.9	93.8	-50.9	Anten 54
30	1935.833M	39.7	+3.0	+0.0	+0.0 33	42.8	93.8	-51.0	Anten 54
31	4967.867M	36.2	+2.0	+0.0	+0.0 33	42.6	93.8	-51.2	Anten 54
32	9936.000M	34.8	+2.0	+0.0	+0.0 32	42.5	93.8	-51.3	Anten 54
33	9767.709M	35.3	+2.0	+0.0	+0.0 32	42.5	93.8	-51.3	Anten 54
34	1936.167M	39.3	+3.0	+0.0	+0.0 32	42.4	93.8	-51.4	Anten 54
35	1984.667M	39.3	+3.0	+0.0	+0.0 32	42.4	93.8	-51.4	Anten 54
36	1983.833M	38.7	+3.0	+0.0	+0.0 32	41.8	93.8	-52.0	Anten 54
37	9768.100M	34.2	+2.0	+0.0	+0.0 31	41.4	93.8	-52.4	Anten 54
38	2000.667M	38.0	+3.0	+0.0	+0.0 31	41.1	93.8	-52.7	Anten 54

39	1980.000M	38.0	+3.0	+0.0	+0.0 31	41.1	93.8	-52.7	Anten 54
40	1058.667M	38.8	+3.0	+0.0	+0.0 31	40.9	93.8	-52.9	Anten 54
41	1333.167M	38.7	+3.0	+0.0	+0.0 31	40.9	93.8	-52.9	Anten 54
42	1066.333M	38.7	+3.0	+0.0	+0.0 31	40.8	93.8	-53.0	Anten 54
43	9924.916M	33.0	+2.0	+0.0	+0.0 31	40.7	93.8	-53.1	Anten 54
44	1100.167M	38.3	+3.0	+0.0	+0.0 30	40.4	93.8	-53.4	Anten 54
45	1067.000M	38.3	+3.0	+0.0	+0.0 30	40.4	93.8	-53.4	Anten 54
46	1059.667M	38.2	+3.0	+0.0	+0.0 30	40.3	93.8	-53.5	Anten 54
47	1333.500M	38.0	+3.0	+0.0	+0.0 30	40.2	93.8	-53.6	Anten 54
48	1463.333M	37.8	+3.0	+0.0	+0.0 30	40.1	93.8	-53.7	Anten 54
49	1100.167M	38.0	+3.0	+0.0	+0.0 30	40.1	93.8	-53.7	Anten 54
50	1333.333M	37.5	+3.0	+0.0	+0.0 30	39.7	93.8	-54.1	Anten 54
51	1804.500M	36.8	+3.0	+0.0	+0.0 30	39.6	93.8	-54.2	Anten 54
52	1100.000M	37.3	+3.0	+0.0	+0.0 29	39.4	93.8	-54.4	Anten 54
53	1323.167M	37.0	+3.0	+0.0	+0.0 29	39.2	93.8	-54.6	Anten 54
54	1323.833M	36.8	+3.0	+0.0	+0.0 29	39.0	93.8	-54.8	Anten 54
55	1782.167M	36.2	+3.0	+0.0	+0.0 29	39.0	93.8	-54.8	Anten 54
56	1124.667M	36.7	+3.0	+0.0	+0.0 29	38.8	93.8	-55.0	Anten 54
57	1124.667M	36.5	+3.0	+0.0	+0.0 29	38.6	93.8	-55.2	Anten 54
58	1133.667M	36.5	+3.0	+0.0	+0.0 29	38.6	93.8	-55.2	Anten 54
59	1012.500M	36.5	+3.0	+0.0	+0.0 28	38.5	93.8	-55.3	Anten 54
60	1600.000M	35.8	+3.0	+0.0	+0.0 28	38.3	93.8	-55.5	Anten 54
61	1587.167M	35.8	+3.0	+0.0	+0.0 28	38.2	93.8	-55.6	Anten 54
62	1456.333M	35.8	+3.0	+0.0	+0.0 28	38.1	93.8	-55.7	Anten 54
63	1467.167M	35.5	+3.0	+0.0	+0.0 28	37.8	93.8	-56.0	Anten 54

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **FCC 15.207**
 Work Order #: **78390**
 Test Type: **Conducted Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/8/02
 Time: 10:10:59 AM
 Sequence#: 5
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 4540kHz - 30 MHz. EUT is powered by 120VAC 60Hz. EUT is transmitting on Channel 1 (worst case output power).

Transducer Legend:

T1=Cable & Cap (Bench)	T2=LISN 474 - Insertion Loss
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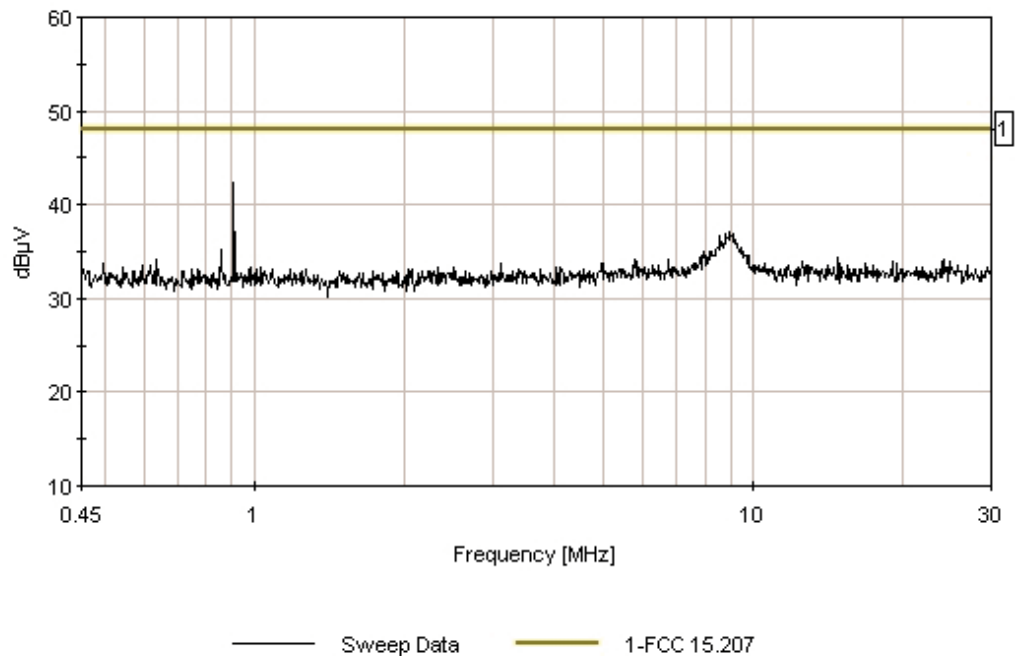
Measurement Data: Reading listed by margin.

Test Lead: Black

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	908.018k	41.9	+0.1	+0.4	+0.0	42.4	48.0	-5.6	Black
2	8.942M	31.9	+0.2	+4.9	+0.0	37.0	48.0	-11.0	Black
3	9.120M	32.1	+0.2	+4.6	+0.0	36.9	48.0	-11.1	Black
4	8.574M	32.5	+0.2	+3.9	+0.0	36.6	48.0	-11.4	Black
5	9.461M	31.9	+0.2	+3.3	+0.0	35.4	48.0	-12.6	Black
6	856.199k	34.8	+0.0	+0.4	+0.0	35.2	48.0	-12.8	Black
7	9.570M	32.0	+0.2	+2.9	+0.0	35.1	48.0	-12.9	Black
8	8.280M	31.9	+0.2	+3.0	+0.0	35.1	48.0	-12.9	Black
9	7.959M	32.7	+0.2	+2.1	+0.0	35.0	48.0	-13.0	Black
10	9.816M	32.2	+0.2	+2.1	+0.0	34.5	48.0	-13.5	Black
11	8.028M	32.1	+0.2	+2.2	+0.0	34.5	48.0	-13.5	Black

12	14.821M	33.1	+0.3	+0.9	+0.0	34.3	48.0	-13.7	Black
13	7.809M	32.2	+0.2	+1.9	+0.0	34.3	48.0	-13.7	Black
14	637.219k	33.7	+0.1	+0.4	+0.0	34.2	48.0	-13.8	Black
15	24.186M	33.1	+0.4	+0.6	+0.0	34.1	48.0	-13.9	Black
16	6.758M	32.9	+0.3	+0.9	+0.0	34.1	48.0	-13.9	Black
17	5.789M	32.9	+0.3	+0.9	+0.0	34.1	48.0	-13.9	Black
18	12.539M	32.6	+0.3	+1.1	+0.0	34.0	48.0	-14.0	Black
19	18.957M	32.8	+0.4	+0.7	+0.0	33.9	48.0	-14.1	Black
20	5.837M	32.6	+0.3	+1.0	+0.0	33.9	48.0	-14.1	Black

CKC Laboratories Date: 02/08/2002 Time: 10:10:59 WFO#: 78390
FCC 15.207 Test Lead: Black Sequence#: 5
Toshiba Maldives 1.5ML powered by 120VAC 60Hz.



Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **FCC 15.207**
 Work Order #: **78390**
 Test Type: **Conducted Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/8/02
 Time: 10:36:09 AM
 Sequence#: 6
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 4540kHz - 30 MHz. EUT is powered by 120VAC 60Hz. EUT is transmitting on Channel 1 (worst case output power).

Transducer Legend:

T1=Cable & Cap (Bench)	T2=LISN 493 - Insertion Loss
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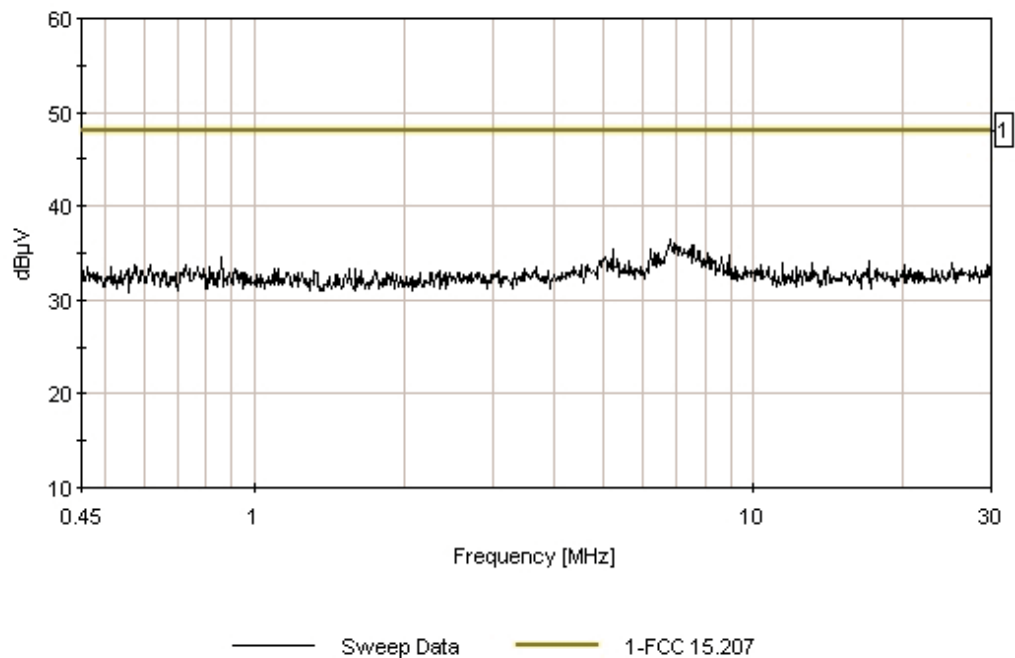
Measurement Data: Reading listed by margin.

Test Lead: White

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	6.840M	32.6	+0.3	+3.5		+0.0	36.4	48.0	-11.6	White
2	6.922M	32.0	+0.3	+3.7		+0.0	36.0	48.0	-12.0	White
3	7.018M	31.7	+0.3	+3.9		+0.0	35.9	48.0	-12.1	White
4	7.591M	32.8	+0.2	+2.8		+0.0	35.8	48.0	-12.2	White
5	7.536M	32.7	+0.2	+2.9		+0.0	35.8	48.0	-12.2	White
6	7.147M	31.8	+0.2	+3.6		+0.0	35.6	48.0	-12.4	White
7	7.454M	32.2	+0.2	+3.1		+0.0	35.5	48.0	-12.5	White
8	7.236M	31.8	+0.2	+3.5		+0.0	35.5	48.0	-12.5	White
9	5.216M	33.4	+0.3	+1.8		+0.0	35.5	48.0	-12.5	White
10	6.219M	33.4	+0.3	+1.7		+0.0	35.4	48.0	-12.6	White
11	7.775M	32.6	+0.2	+2.5		+0.0	35.3	48.0	-12.7	White
12	8.082M	32.9	+0.2	+2.0		+0.0	35.1	48.0	-12.9	White

13	6.445M	32.5	+0.3	+2.3	+0.0	35.1	48.0	-12.9	White
14	6.349M	32.6	+0.3	+2.1	+0.0	35.0	48.0	-13.0	White
15	6.404M	32.3	+0.3	+2.2	+0.0	34.8	48.0	-13.2	White
16	8.928M	33.6	+0.2	+0.9	+0.0	34.7	48.0	-13.3	White
17	8.656M	33.2	+0.2	+1.2	+0.0	34.6	48.0	-13.4	White
18	8.205M	32.6	+0.2	+1.8	+0.0	34.6	48.0	-13.4	White
19	5.066M	32.4	+0.3	+1.9	+0.0	34.6	48.0	-13.4	White
20	859.542k	34.1	+0.0	+0.5	+0.0	34.6	48.0	-13.4	White

CKC Laboratories Date: 02/08/2002 Time: 10:36:09 AM WVO#: 78390
FCC 15.207 Test Lead: White Sequence#: 6
Toshiba Maldives 1.5ML powered by 120VAC 60Hz.



Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **FCC 15.107 Class B**
 Work Order #: **78390**
 Test Type: **Conducted Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/8/02
 Time: 10:43:07 AM
 Sequence#: 7
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 4540kHz - 30 MHz. EUT is powered by 120VAC 60Hz. EUT is set to continuous receive mode.

Transducer Legend:

T1=Cable & Cap (Bench)	T2=LISN 474 - Insertion Loss
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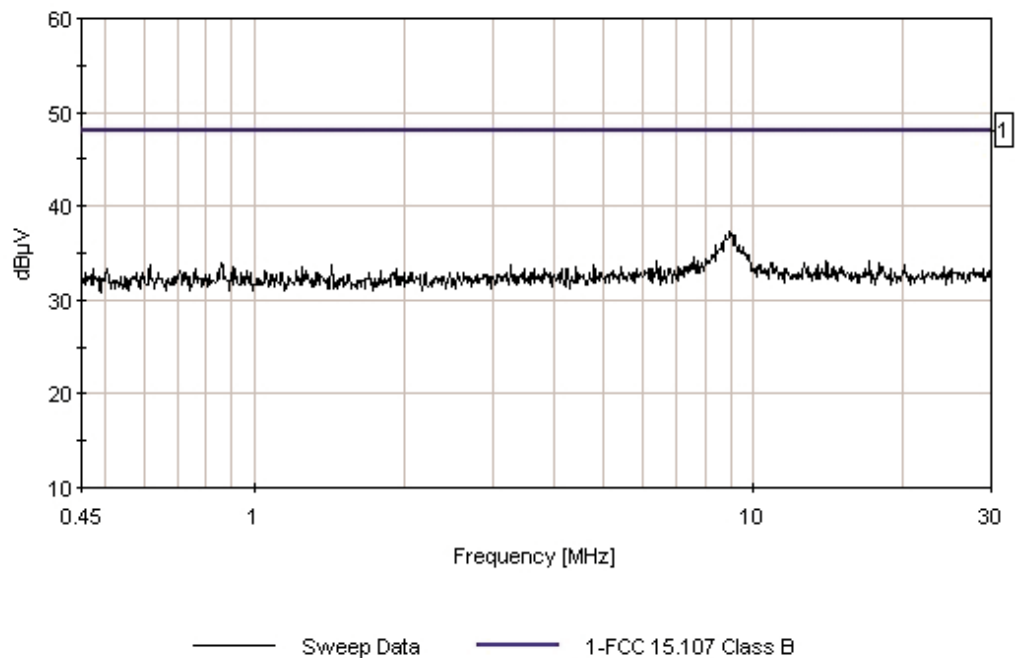
Measurement Data: Reading listed by margin.

Test Lead: Black

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	8.942M	32.2	+0.2	+4.9		+0.0	37.3	48.0	-10.7	Black
2	9.147M	32.2	+0.2	+4.5		+0.0	36.9	48.0	-11.1	Black
3	8.669M	31.7	+0.2	+4.1		+0.0	36.0	48.0	-12.0	Black
4	8.424M	32.3	+0.2	+3.4		+0.0	35.9	48.0	-12.1	Black
5	9.406M	32.1	+0.2	+3.5		+0.0	35.8	48.0	-12.2	Black
6	9.338M	31.8	+0.2	+3.8		+0.0	35.8	48.0	-12.2	Black
7	9.509M	32.3	+0.2	+3.2		+0.0	35.7	48.0	-12.3	Black
8	8.369M	31.8	+0.2	+3.2		+0.0	35.2	48.0	-12.8	Black
9	7.577M	32.7	+0.2	+1.6		+0.0	34.5	48.0	-13.5	Black
10	8.055M	31.9	+0.2	+2.3		+0.0	34.4	48.0	-13.6	Black
11	17.123M	33.1	+0.3	+0.8		+0.0	34.2	48.0	-13.8	Black
12	7.727M	32.2	+0.2	+1.8		+0.0	34.2	48.0	-13.8	Black

13	14.041M	32.8	+0.3	+1.0	+0.0	34.1	48.0	-13.9	Black
14	6.404M	32.8	+0.3	+1.0	+0.0	34.1	48.0	-13.9	Black
15	10.822M	32.5	+0.2	+1.3	+0.0	34.0	48.0	-14.0	Black
16	7.871M	31.8	+0.2	+2.0	+0.0	34.0	48.0	-14.0	Black
17	17.904M	32.8	+0.4	+0.7	+0.0	33.9	48.0	-14.1	Black
18	12.656M	32.5	+0.3	+1.1	+0.0	33.9	48.0	-14.1	Black
19	10.958M	32.4	+0.2	+1.3	+0.0	33.9	48.0	-14.1	Black
20	857.035k	33.5	+0.0	+0.4	+0.0	33.9	48.0	-14.1	Black

CKC Laboratories Date: 02/08/2002 Time: 10:43:07 AM VVO#: 78390
FCC 15.107 Class B Test Lead: Black Sequence#: 7
Toshiba Maldives 1.5ML powered by 120VAC 60Hz.



Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **FCC 15.107 Class B**
 Work Order #: **78390**
 Test Type: **Conducted Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/8/02
 Time: 10:46:35 AM
 Sequence#: 8
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 4540kHz - 30 MHz. EUT is powered by 120VAC 60Hz. EUT is set to continuous receive mode.

Transducer Legend:

T1=Cable & Cap (Bench)	T2=LISN 493 - Insertion Loss
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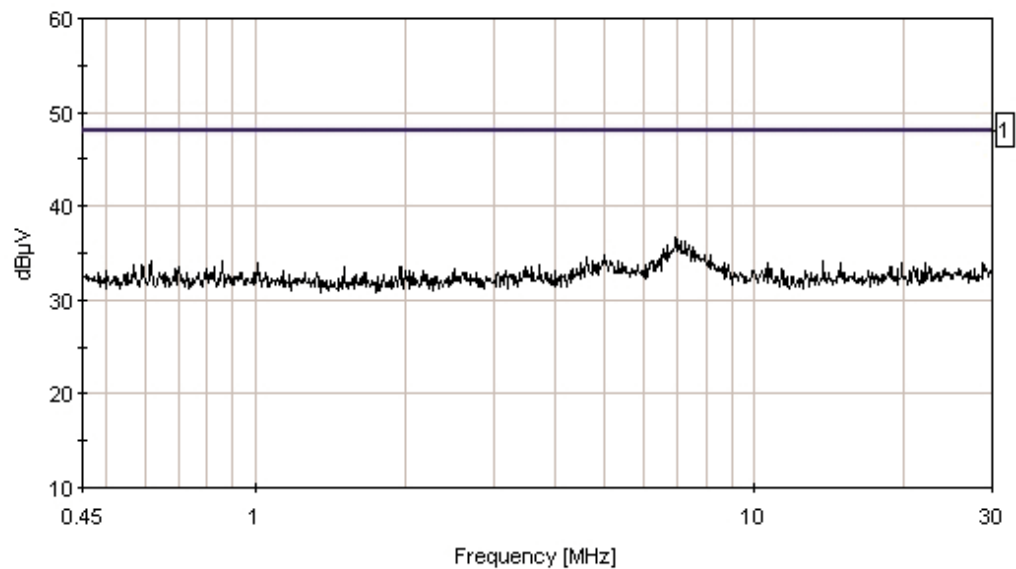
Measurement Data: Reading listed by margin.

Test Lead: White

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	6.963M	32.6	+0.3	+3.8		+0.0	36.7	48.0	-11.3	White
2	7.277M	32.7	+0.2	+3.4		+0.0	36.3	48.0	-11.7	White
3	7.141M	32.5	+0.2	+3.6		+0.0	36.3	48.0	-11.7	White
4	7.373M	32.5	+0.2	+3.2		+0.0	35.9	48.0	-12.1	White
5	7.072M	31.9	+0.2	+3.8		+0.0	35.9	48.0	-12.1	White
6	6.711M	32.4	+0.3	+3.1		+0.0	35.8	48.0	-12.2	White
7	7.550M	32.5	+0.2	+2.9		+0.0	35.6	48.0	-12.4	White
8	6.567M	32.5	+0.3	+2.7		+0.0	35.5	48.0	-12.5	White
9	7.605M	32.2	+0.2	+2.8		+0.0	35.2	48.0	-12.8	White
10	6.622M	31.8	+0.3	+2.9		+0.0	35.0	48.0	-13.0	White
11	7.727M	32.0	+0.2	+2.6		+0.0	34.8	48.0	-13.2	White
12	4.998M	32.5	+0.3	+2.0		+0.0	34.8	48.0	-13.2	White

13	8.151M	32.6	+0.2	+1.9	+0.0	34.7	48.0	-13.3	White
14	4.616M	32.7	+0.3	+1.5	+0.0	34.5	48.0	-13.5	White
15	6.458M	31.6	+0.3	+2.4	+0.0	34.3	48.0	-13.7	White
16	5.339M	32.3	+0.3	+1.6	+0.0	34.2	48.0	-13.8	White
17	5.128M	32.0	+0.3	+1.9	+0.0	34.2	48.0	-13.8	White
18	4.739M	32.3	+0.3	+1.6	+0.0	34.2	48.0	-13.8	White
19	860.378k	33.7	+0.0	+0.5	+0.0	34.2	48.0	-13.8	White
20	617.160k	33.6	+0.1	+0.5	+0.0	34.2	48.0	-13.8	White

CKC Laboratories Date: 02/08/2002 Time: 10:46:35 AM VWO#: 78390
FCC 15.107 Class B Test Lead: White Sequence#: 8
Toshiba Maldives 1.5ML powered by 120VAC 60Hz.



— Sweep Data — 1-FCC 15.107 Class B

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **15.109 CLASS B**
 Work Order #: **78390**
 Test Type: **Maximized Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/12/02
 Time: 07:25:11
 Sequence#: 11
 Tested By: Monika Mayr

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 30-1000MHz. RBW=120kHz VBW=120kHz. EUT is operating in the receive mode on Channel 1 2412MHz.

Transducer Legend:

T1=Amp - S/N 1937A02604	T2=Bicon 156
T3=Log 154	T4=Cable - 10 Meter

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	64.894M	48.8	-27.1	+9.0	+0.0	+1.6	+0.0	32.3	40.0	-7.7	Vert
2	261.044M	43.8	-26.5	+17.4	+0.0	+3.3	+0.0	38.0	46.0	-8.0	Vert
3	59.328M	45.7	-27.1	+10.1	+0.0	+1.5	+0.0	30.2	40.0	-9.8	Vert
4	317.310M	38.6	-26.6	+0.0	+20.2	+3.8	+0.0	36.0	46.0	-10.0	Vert
5	56.722M	42.8	-27.1	+10.5	+0.0	+1.4	+0.0	27.6	40.0	-12.4	Vert
6	326.320M	36.4	-26.6	+0.0	+19.7	+3.9	+0.0	33.4	46.0	-12.6	Vert
7	184.387M	36.6	-26.8	+16.8	+0.0	+2.7	+0.0	29.3	43.5	-14.2	Horiz
8	159.832M	40.3	-26.8	+13.2	+0.0	+2.5	+0.0	29.2	43.5	-14.3	Horiz
9	351.020M	36.0	-26.7	+0.0	+18.2	+4.0	+0.0	31.5	46.0	-14.5	Vert
10	366.880M	36.4	-26.8	+0.0	+17.4	+4.1	+0.0	31.1	46.0	-14.9	Horiz
11	386.680M	37.4	-27.0	+0.0	+16.4	+4.2	+0.0	31.0	46.0	-15.0	Horiz

12	402.560M	37.4	-27.1	+0.0	+15.8	+4.3	+0.0	30.4	46.0	-15.6	Horiz
13	55.710M	38.9	-27.1	+10.7	+0.0	+1.4	+0.0	23.9	40.0	-16.1	Vert
14	326.280M	32.5	-26.6	+0.0	+19.7	+3.9	+0.0	29.5	46.0	-16.5	Horiz
15	418.400M	36.2	-27.3	+0.0	+16.1	+4.4	+0.0	29.4	46.0	-16.6	Horiz
16	137.275M	38.0	-26.9	+13.4	+0.0	+2.3	+0.0	26.8	43.5	-16.7	Horiz
17	378.780M	34.8	-26.9	+0.0	+16.8	+4.2	+0.0	28.9	46.0	-17.1	Vert
18	172.129M	34.1	-26.8	+15.6	+0.0	+2.6	+0.0	25.5	43.5	-18.0	Horiz

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **15.109 CLASS B**
 Work Order #: **78390**
 Test Type: **Maximized Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/11/02
 Time: 17:09:47
 Sequence#: 12
 Tested By: Monika Mayr

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 30-1000MHz. RBW=120kHz VBW=120kHz. EUT is operating in the receive mode on Channel 7 2442 MHz.

Transducer Legend:

T1=Amp - S/N 1937A02604	T2=Bicon 156
T3=Log 154	T4=Cable - 10 Meter

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	199.311M	46.6	-26.7	+17.9	+0.0	+2.9	+0.0	40.7	43.5	-2.8	Vert
2	261.073M	44.3	-26.5	+17.4	+0.0	+3.3	+0.0	38.5	46.0	-7.5	Vert
3	60.690M	47.9	-27.1	+9.9	+0.0	+1.5	+0.0	32.2	40.0	-7.8	Vert
4	59.986M	46.9	-27.1	+10.0	+0.0	+1.5	+0.0	31.3	40.0	-8.7	Vert
5	317.340M	39.2	-26.6	+0.0	+20.2	+3.8	+0.0	36.6	46.0	-9.4	Vert
6	261.080M	42.0	-26.5	+17.4	+0.0	+3.3	+0.0	36.2	46.0	-9.8	Horiz
7	61.737M	45.9	-27.1	+9.6	+0.0	+1.5	+0.0	29.9	40.0	-10.1	Vert
8	398.530M	40.3	-27.1	+0.0	+15.8	+4.3	+0.0	33.3	46.0	-12.7	Horiz
9	159.838M	41.8	-26.8	+13.2	+0.0	+2.5	+0.0	30.7	43.5	-12.8	Horiz
10	420.913M	39.4	-27.3	+0.0	+16.2	+4.4	+0.0	32.7	46.0	-13.3	Horiz
11	57.366M	41.8	-27.1	+10.4	+0.0	+1.5	+0.0	26.6	40.0	-13.4	Vert

12	267.833M	36.1	-26.5	+18.4	+0.0	+3.4	+0.0	31.4	46.0	-14.6	Vert
13	184.406M	36.1	-26.8	+16.8	+0.0	+2.7	+0.0	28.8	43.5	-14.7	Horiz
14	374.780M	36.7	-26.9	+0.0	+17.0	+4.2	+0.0	31.0	46.0	-15.0	Horiz
15	432.120M	37.4	-27.4	+0.0	+16.4	+4.5	+0.0	30.9	46.0	-15.1	Horiz
16	386.680M	34.3	-27.0	+0.0	+16.4	+4.2	+0.0	27.9	46.0	-18.1	Vert
17	86.410M	38.2	-27.1	+8.4	+0.0	+1.8	+0.0	21.3	40.0	-18.7	Vert
18	233.540M	34.3	-26.5	+16.4	+0.0	+3.1	+0.0	27.3	46.0	-18.7	Horiz
19	172.064M	33.2	-26.8	+15.6	+0.0	+2.6	+0.0	24.6	43.5	-18.9	Horiz
20	71.823M	38.6	-27.1	+7.8	+0.0	+1.6	+0.0	20.9	40.0	-19.1	Horiz
21	138.507M	35.5	-26.9	+13.3	+0.0	+2.3	+0.0	24.2	43.5	-19.3	Horiz

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)
 Customer: **Toshiba**
 Specification: **15.109 CLASS B**
 Work Order #: **78390**
 Test Type: **Maximized Emissions**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/11/02
 Time: 16:58:43
 Sequence#: 13
 Tested By: Monika Mayr

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). Frequency Range Investigated: 30-1000MHz. RBW=120kHz VBW=120kHz. EUT is operating in the receive mode on Channel 11 2462 MHz.

Transducer Legend:

T1=Amp - S/N 1937A02604	T2=Bicon 156
T3=Log 154	T4=Cable - 10 Meter

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	261.082M	46.0	-26.5	+17.4	+0.0	+3.3	+0.0	40.2	46.0	-5.8	Horiz
2	59.790M	48.7	-27.1	+10.0	+0.0	+1.5	+0.0	33.1	40.0	-6.9	Vert
3	326.294M	40.9	-26.6	+0.0	+19.7	+3.9	+0.0	37.9	46.0	-8.1	Horiz
4	452.120M	43.8	-27.5	+0.0	+16.9	+4.6	+0.0	37.8	46.0	-8.2	Horiz
5	120.093M	44.6	-27.0	+14.2	+0.0	+2.2	+0.0	34.0	43.5	-9.5	Horiz
6	326.320M	37.2	-26.6	+0.0	+19.7	+3.9	+0.0	34.2	46.0	-11.8	Horiz
7	349.040M	38.3	-26.7	+0.0	+18.4	+4.0	+0.0	34.0	46.0	-12.0	Horiz
8	681.330M	34.9	-27.8	+0.0	+20.8	+6.0	+0.0	33.9	46.0	-12.1	Horiz
9	420.970M	39.9	-27.3	+0.0	+16.2	+4.4	+0.0	33.2	46.0	-12.8	Horiz
10	380.780M	39.1	-27.0	+0.0	+16.7	+4.2	+0.0	33.0	46.0	-13.0	Horiz
11	326.318M	35.8	-26.6	+0.0	+19.7	+3.9	+0.0	32.8	46.0	-13.2	Horiz
12	52.942M	40.9	-27.1	+11.1	+0.0	+1.4	+0.0	26.3	40.0	-13.7	Vert

13	358.950M	37.1	-26.8	+0.0	+17.8	+4.1	+0.0	32.2	46.0	-13.8	Horiz
14	398.620M	39.2	-27.1	+0.0	+15.8	+4.3	+0.0	32.2	46.0	-13.8	Horiz
15	525.320M	36.3	-27.8	+0.0	+18.2	+5.2	+0.0	31.9	46.0	-14.1	Horiz
16	432.120M	38.3	-27.4	+0.0	+16.4	+4.5	+0.0	31.8	46.0	-14.2	Horiz
17	317.319M	34.4	-26.6	+0.0	+20.2	+3.8	+0.0	31.8	46.0	-14.2	Horiz
18	64.067M	42.2	-27.1	+9.1	+0.0	+1.5	+0.0	25.7	40.0	-14.3	Vert
19	56.456M	40.7	-27.1	+10.5	+0.0	+1.4	+0.0	25.5	40.0	-14.5	Vert
20	195.840M	34.7	-26.7	+17.7	+0.0	+2.9	+0.0	28.6	43.5	-14.9	Vert
21	343.078M	35.0	-26.7	+0.0	+18.7	+4.0	+0.0	31.0	46.0	-15.0	Horiz
22	184.397M	35.7	-26.8	+16.8	+0.0	+2.7	+0.0	28.4	43.5	-15.1	Horiz
23	444.172M	37.0	-27.5	+0.0	+16.7	+4.6	+0.0	30.8	46.0	-15.2	Horiz
24	370.900M	36.1	-26.9	+0.0	+17.2	+4.1	+0.0	30.5	46.0	-15.5	Horiz
25	444.250M	36.6	-27.5	+0.0	+16.7	+4.6	+0.0	30.4	46.0	-15.6	Horiz
26	156.100M	38.9	-26.8	+13.1	+0.0	+2.5	+0.0	27.7	43.5	-15.8	Horiz
27	124.328M	38.1	-27.0	+14.4	+0.0	+2.2	+0.0	27.7	43.5	-15.8	Horiz
28	349.049M	34.4	-26.7	+0.0	+18.4	+4.0	+0.0	30.1	46.0	-15.9	Horiz
29	133.328M	38.2	-26.9	+13.7	+0.0	+2.3	+0.0	27.3	43.5	-16.2	Horiz
30	264.703M	34.7	-26.5	+18.0	+0.0	+3.4	+0.0	29.6	46.0	-16.4	Vert
31	347.026M	32.7	-26.7	+0.0	+18.5	+4.0	+0.0	28.5	46.0	-17.5	Horiz
32	137.787M	37.0	-26.9	+13.4	+0.0	+2.3	+0.0	25.8	43.5	-17.7	Vert
33	147.025M	36.9	-26.8	+13.1	+0.0	+2.4	+0.0	25.6	43.5	-17.9	Vert
34	72.466M	38.5	-27.1	+7.7	+0.0	+1.7	+0.0	20.8	40.0	-19.2	Horiz
35	248.953M	34.2	-26.6	+15.7	+0.0	+3.2	+0.0	26.5	46.0	-19.5	Vert
36	86.820M	36.7	-27.1	+8.5	+0.0	+1.8	+0.0	19.9	40.0	-20.1	Vert
37	159.813M	32.7	-26.8	+13.2	+0.0	+2.5	+0.0	21.6	43.5	-21.9	Vert

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa CA, 95338 • 800-500-4EMC (4362)

Customer: **Toshiba**
 Specification: **15.109 CLASS B**
 Work Order #: **78390**
 Test Type: **Radiated Scan**
 Equipment: **Wireless LAN**
 Manufacturer: Toshiba
 Model: Maldives 1.5ML
 S/N: 12012368

Date: 2/12/02
 Time: 15:43:32
 Sequence#: 18
 Tested By: Randal Clark

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Wireless LAN*	Toshiba	Maldives 1.5ML	12012368

Support Devices:

Function	Manufacturer	Model #	S/N
AC Adapter	Toshiba	PA3160U-1ACA	0203A0000009

Test Conditions / Notes:

EUT is a wireless LAN. EUT control is established through test software WaveLAN-II TELECOM Test Program V02.01 (CERT201T.EXE). EUT set to receive on channels 1, 7 and 11 (2412, 2442 and 2462MHz). Frequency Range Investigated: 1-18GHz. RBW=1MHz VBW=1MHz.

Transducer Legend:

T1=Amp - S/N3008A00301	T2=Horn 1-18 Mariposa
T3=Cable GHz #4	T4=Cable GHz #7
T5=Cable GHz #8	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	2343.830M	46.2	-32.9 +0.6	+28.2	+5.1	+2.6	+0.0	49.8	54.0	-4.2	Horiz
2	2333.430M	46.3	-32.9 +0.6	+28.1	+5.1	+2.6	+0.0	49.8	54.0	-4.2	Horiz
3	1060.480M	56.3	-36.1 +0.3	+24.4	+3.3	+1.6	+0.0	49.8	54.0	-4.2	Horiz
4	1066.700M	56.2	-36.1 +0.3	+24.4	+3.3	+1.6	+0.0	49.7	54.0	-4.3	Horiz
5	1961.500M	49.4	-34.6 +0.5	+27.6	+4.5	+2.2	+0.0	49.6	54.0	-4.4	Vert
6	1060.200M	54.1	-36.1 +0.3	+24.4	+3.3	+1.6	+0.0	47.6	54.0	-6.4	Vert
7	1066.700M	53.9	-36.1 +0.3	+24.4	+3.3	+1.6	+0.0	47.4	54.0	-6.6	Vert
8	1466.920M	50.8	-35.4 +0.4	+25.0	+3.8	+1.9	+0.0	46.5	54.0	-7.5	Horiz
9	1455.070M	50.6	-35.5 +0.4	+25.0	+3.8	+1.9	+0.0	46.2	54.0	-7.8	Horiz
10	1720.000M	48.1	-35.0 +0.4	+26.1	+4.1	+2.0	+0.0	45.7	54.0	-8.3	Vert

11	1333.500M	50.4	-35.6 +0.4	+25.1	+3.6	+1.8	+0.0	45.7	54.0	-8.3	Vert
12	1323.000M	50.0	-35.6 +0.4	+25.1	+3.6	+1.8	+0.0	45.3	54.0	-8.7	Vert
13	1590.920M	48.6	-35.2 +0.4	+25.4	+3.9	+2.0	+0.0	45.1	54.0	-8.9	Horiz
14	1587.450M	48.5	-35.2 +0.4	+25.3	+3.9	+2.0	+0.0	44.9	54.0	-9.1	Vert
15	1594.800M	48.4	-35.2 +0.4	+25.4	+3.9	+2.0	+0.0	44.9	54.0	-9.1	Vert
16	1600.120M	47.8	-35.2 +0.4	+25.4	+4.0	+2.0	+0.0	44.4	54.0	-9.6	Horiz
17	1333.460M	48.9	-35.6 +0.4	+25.1	+3.6	+1.8	+0.0	44.2	54.0	-9.8	Horiz
18	1190.120M	49.6	-35.9 +0.3	+25.0	+3.5	+1.7	+0.0	44.2	54.0	-9.8	Horiz
19	1600.200M	47.3	-35.2 +0.4	+25.4	+4.0	+2.0	+0.0	43.9	54.0	-10.1	Vert
20	1190.800M	49.3	-35.9 +0.3	+25.0	+3.5	+1.7	+0.0	43.9	54.0	-10.1	Vert
21	1322.680M	48.4	-35.6 +0.4	+25.1	+3.6	+1.8	+0.0	43.7	54.0	-10.3	Horiz
22	1199.900M	49.0	-35.8 +0.3	+25.0	+3.5	+1.7	+0.0	43.7	54.0	-10.3	Vert
23	1200.200M	48.7	-35.8 +0.3	+25.0	+3.5	+1.7	+0.0	43.4	54.0	-10.6	Horiz