

Technical Information

APPLICANT	MANUFACTURER
Name: <u>Flair Agency</u>	Name: <u>Electronic Display Applications, Inc.</u>
Address: <u>2900 E. Broadway, Suite 128</u>	Address: <u>324 South 2nd Street Pike, Unit 2</u>
City, State, Zip: <u>Tuscon, AZ 85716</u>	City, State, Zip: <u>Southampton, PA 18966</u>

TEST SPECIFICATION: FCC Rules and Regulations Part 15, Subpart C, Section 15.249

TEST PROCEDURE: ANSI C63.4:2003

TEST SAMPLE DESCRIPTION

BRANDNAME(s): Next Link

MODEL(s): SL-1550-T15

FCC ID: WPSSL-1550-T15

TYPE: Audio / Video Transmitter

POWER REQUIREMENTS: 10 V to 40 VDC, Derived from 120 VAC, 60 Hz Adaptor

FREQUENCY OF OPERATION: 2.410 to 2.472 GHz

APPLICABLE RULE SECTION: Part 15, Subpart C, Section 15.249

TESTS PERFORMED

- 15.249(a) Radiated Emissions, Fundamental, Harmonics and Spurious, 1 to 25 GHz
- 15.207(a) Conducted Emissions, Power Leads, 150 kHz to 30 MHz
- 15.209(a) Radiated Emissions, Spurious Case, 30 to 1000 MHz

TEST RESULTS

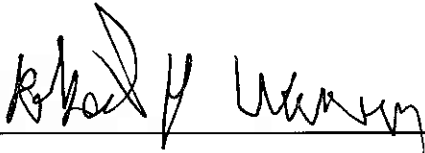
- 15.203: The intentional radiator is designed to ensure that no antenna other than that furnished by the applicant can be used with the device.
- 15.207 (a): The radio frequency voltage that was conducted back on to the AC power line on any frequency/frequencies within the bandwidth of 450 kHz to 30 MHz did not exceed 250 microvolts.
- 15.249 (a): The unit operates in 2.410 GHz to 2.472 GHz band.
The field strength of the fundamental did not exceed 38,459 mV/M peak.
The field strength of the harmonics did not exceed 610 μ V/M peak.
- 15.249 (c): Field strength readings were taken at 3 meters unless otherwise noted.
- 15.249 (d): Emissions radiated outside the specified frequency band were attenuated in accordance with the general radiated emissions limits of 15.209.
- 15.249 (e): The peak field strength of any emission did not exceed the maximum permitted average field strength by more than 20 dB.

GENERAL NOTES

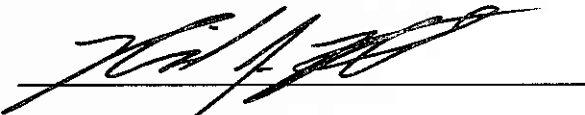
1. The AC input was varied from 85% to 115% of the rated input. Field strength measurements were taken with the AC input adjusted to produce maximum emissions.
2. All user accessible controls were adjusted to produce maximum emissions.
3. The device was tested with the following external accessories:
External Audio and Video Source (Camera)
4. Measurements of Conducted Emissions were performed utilizing a 50 ohm / 50 µhenry Line Impedance Stabilization Network (LISN).
5. The unit operates at the following frequencies: 32 selectable frequencies between 2410 MHz and 2472 MHz
The unit was tested at the following frequencies: 2410 MHz, 2440 MHz and 2472 MHz
6. The frequency range was scanned from 30 MHz to 25 GHz. All emissions not reported were more than 20 dB below the specified limit.

Certification and Signatures

We certify that this report is a true representation of the results obtained from the tests of the equipment stated. We further certify that the measurements shown in this report were made in accordance with the procedures indicated and vouch for the qualifications of all Retlif Testing Laboratories personnel taking them.



Robert P. Warren
EMC Test Engineer
NARTE Certified Technician EMC-000498-NT



Richard J. Reitz
Laboratory Manager
NARTE Certified Engineer ATL-0036-E

Non-Warranty Provision

The testing services have been performed, findings obtained and reports prepared in accordance with generally accepted laboratory principles and practices. This warranty is in lieu of all others, either expressed or implied.

Non-Endorsement

This test report contains only findings and results arrived at after employing the specific test procedures and standards listed herein. It is not intended to constitute a recommendation, endorsement or certification of the product or material tested. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

Equipment List

Para. 15.249(a) - Subpart C

Radiated Emissions, Fundamental, Harmonic and Spurious, 1 to 24 GHz

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
713	EMI Test Receiver	Rohde & Schwarz	20 Hz - 26.5 GHz	ESIB26	8/23/2008	8/23/2009
8017	Double Ridge Guide	EMCO	1 - 18 GHz	3115	8/6/2007	10/6/2008
8060A	Cable	Retlif	10 kHz - 18 GHz	25' Type N	8/14/2008	8/14/2009
8300	OATS Site NSA	RSI	3/10 Meter Site		8/15/2008	8/15/2009
8317	Preamplifier	Agilent	1-26.5 GHz, 30 dB	8449B	4/6/2007	4/6/2009
8335	High Gain Horn Antenna	Microlab/FXR	8.2 - 12.4 GHz	X638AFG	6/4/2008	6/4/2009
8336	High Gain Horn Antenna	Microlab/FXR	12.4 - 18.0 GHz	Y638AF	6/4/2008	6/4/2009
8337	High Gain Horn Antenna	Microlab/FXR	18.0 - 26.5 GHz	K638AF	6/4/2008	6/4/2009
8365	Biconilog	EMCO	26 MHz - 3 GHz	3142C	9/12/2007	9/12/2008
032G	H.P. Filter	Microlab/FXR	3 GHz	HA-30N	4/4/2008	4/4/2009
032J	H.P. Filter	Microlab/FXR	6 GHz	HD-60N	1/28/2008	1/28/2009
8017	Double Ridge Guide	EMCO	1 - 18 GHz	3115	8/6/2007	10/6/2008

Para. 15.207(a) Conducted Emissions, Power Leads, 150 kHz to 30 MHz

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
713	EMI Test Receiver	Rohde & Schwarz	20 Hz - 26.5 GHz	ESIB26	8/23/2008	8/23/2009
8121	LISN	Solar Electronics	10 kHz - 50 MHz	8012-50-R-12-BN	11/17/2007	11/17/2008
8194	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS-24-B	11/17/2007	11/17/2009
8195	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS-24-B	11/17/2007	11/17/2009
8276	Transformer	Elgar		2.5-13	3/5/2008	3/5/2009
8357	10.0 dB Attenuator	Narda	DC - 11 GHz, 20 W	768-10	6/6/2008	6/6/2009
8366	Cable 20' BNC	Retlif	10 kHz - 100 MHz	n/a	10/16/2007	10/16/2008

Para. 15.209(a), Radiated Emissions, Spurious Case, 30 to 1000 MHz

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
8061A	Cable	Retlif	10 kHz - 18 GHz	25' Type N	7/31/2007	7/31/2008
8061B	Cable	Retlif	10 kHz - 18 GHz	10' Type N	7/31/2007	7/31/2008
8071	Spectrum Analyzer	Hewlett Packard	100Hz-2.5 GHz/2-22GHz	8566B	12/27/2007	12/27/2008
8072	Spectrum Analyzer Display	Hewlett Packard		85662A	12/27/2007	12/27/2008
8300	OATS Site NSA	RSI	3/10 Meter Site		8/15/2008	8/15/2009
8317	Preamplifier	Agilent	1-26.5 GHz, 30 dB	8449B	4/6/2007	4/6/2009

FCC Part 15, Subpart C, Section 15.249 (a)
Radiated Emissions, Fundamental, Harmonics and Spurious, 1 to 25 GHz
Test Data

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[illegible]

[illegible]

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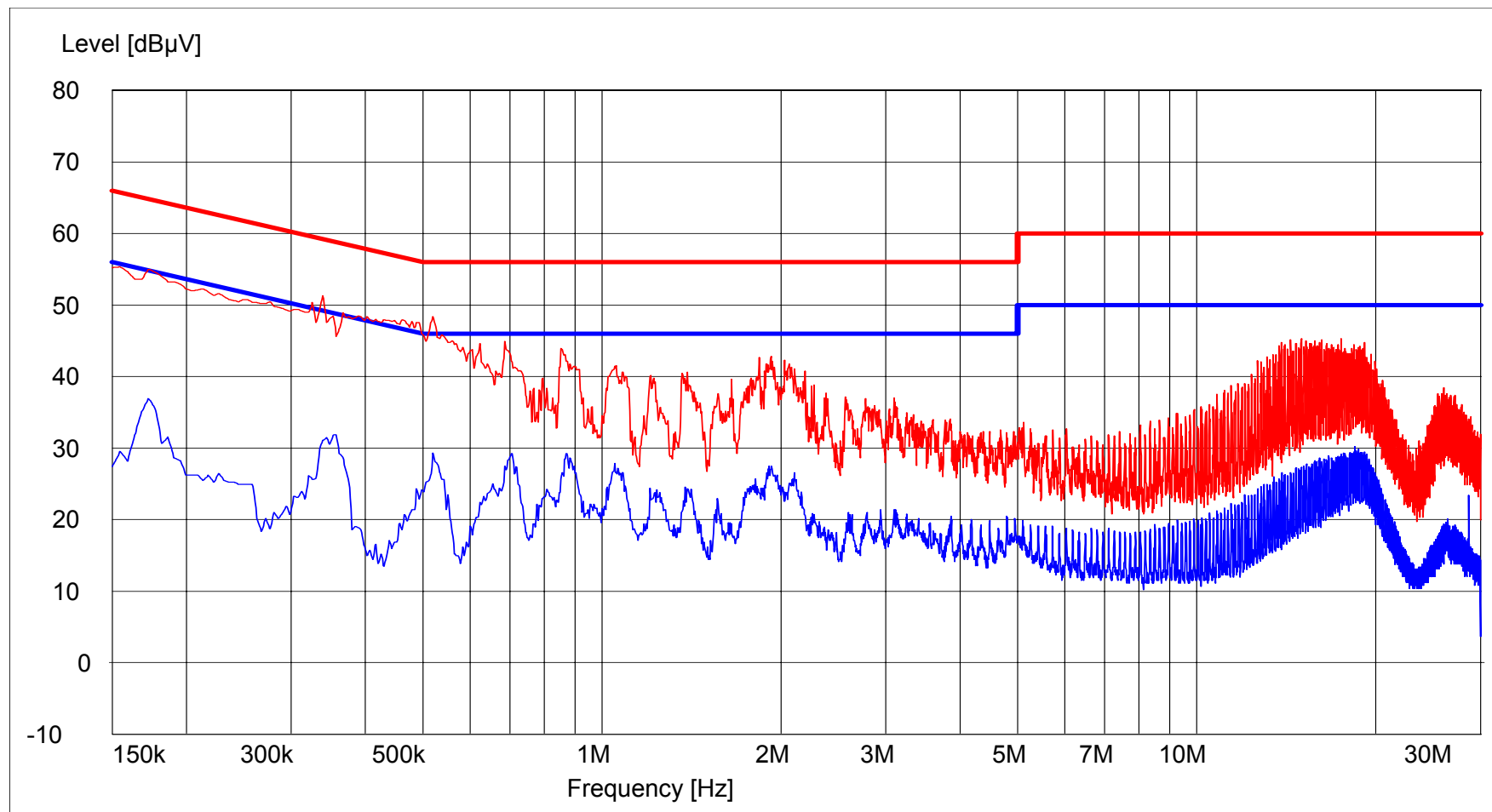
Test Method:	15.249 (a) Subpart C Radiated Emissions, Fundamental, Harmonic and Spurious Emissions							
Customer:	Electronic Display Applications				Job No.	R-1176P		
Test Sample:	Audio/Visual Transmitter							
Model No.:	SL-1550-P15				S/N :	002		
Operating Mode:	Continuously transmitting a 2.472 GHz FM signal, channel 3							
Technician:	RW				Date:	9-5-08		
Notes:	Test Distance: 3 Meters Detector: Peak							
Test Freq.	Ant. Pol./Hgt.	Peak/Average	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Limit
GHz	(V/H)/M	dBuV	Azimuth	dBuV	dB	dBuV/m	uV/m	uV/m
2.472	V/1.1	Peak	180.0	55.88	30.5	86.38	20,844	500000.0
2.472	V/1.1	Average	180.0	55.38	30.5	85.88	19,678	50000.0
2.472	H/1.4	Peak	160.0	54.53	30.5	85.03	17,844	500000.0
2.472	H/1.4	Average	160.0	53.97	30.5	84.47	16,730	50000.0
4.944	V/1.2	Peak	180.0	45.06	3.1	48.16	255.85	5000.0
4.944	V/1.2	Average	180.0	39.34	3.1	42.44	132.43	500.0
4.944	H/1.1	Peak	180.0	48.47	3.1	51.57	378.87	5000.0
4.944	H/1.1	Average	180.0	45.53	3.1	48.63	270.08	500.0
7.416	V/1.2	Peak	180.0	43.19	7.5	50.69	342.37	5000.0
7.416	V/1.2	Average	180.0	37.16	7.5	44.66	171.00	500.0
7.416	H/1.0	Peak	80.0	47.75	7.5	55.25	578.76	5000.0
7.416	H/1.0	Average	80.0	44.22	7.5	51.72	385.47	500.0
9.888	V/1.2	Peak	180.0	42.81	10.5	53.31	462.91	5000.0
9.888	V/1.2	Average	180.0	31.75	10.5	42.25	129.56	500.0
9.888	H/1.0	Peak	75.0	44.13	10.5	54.63	538.88	5000.0
9.888	H/1.0	Average	75.0	36.22	10.5	46.72	216.77	500.0
12.360	V/1.0	Peak	-23.0	43.21	0.3	43.51	149.80	5000.0
12.360	V/1.0	Average	-23.0	40.61	0.3	40.91	111.04	500.0
12.360	H/1.0	Peak	20.0	42.70	0.3	43.00	141.25	5000.0
12.360	H/1.0	Average	20.0	39.81	0.3	40.11	101.27	500.0
The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more than 20 dB below the specified limit. Emissions from the EUT do not exceed the specified limits. *=Noise Floor Measurements (Minimum system sensitivity), RBW=100 kHz								

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FCC Part 15, Subpart C, Section 15.207(a)
Conducted Emissions, Power Leads, 150 kHz to 30 MHz
Test Data

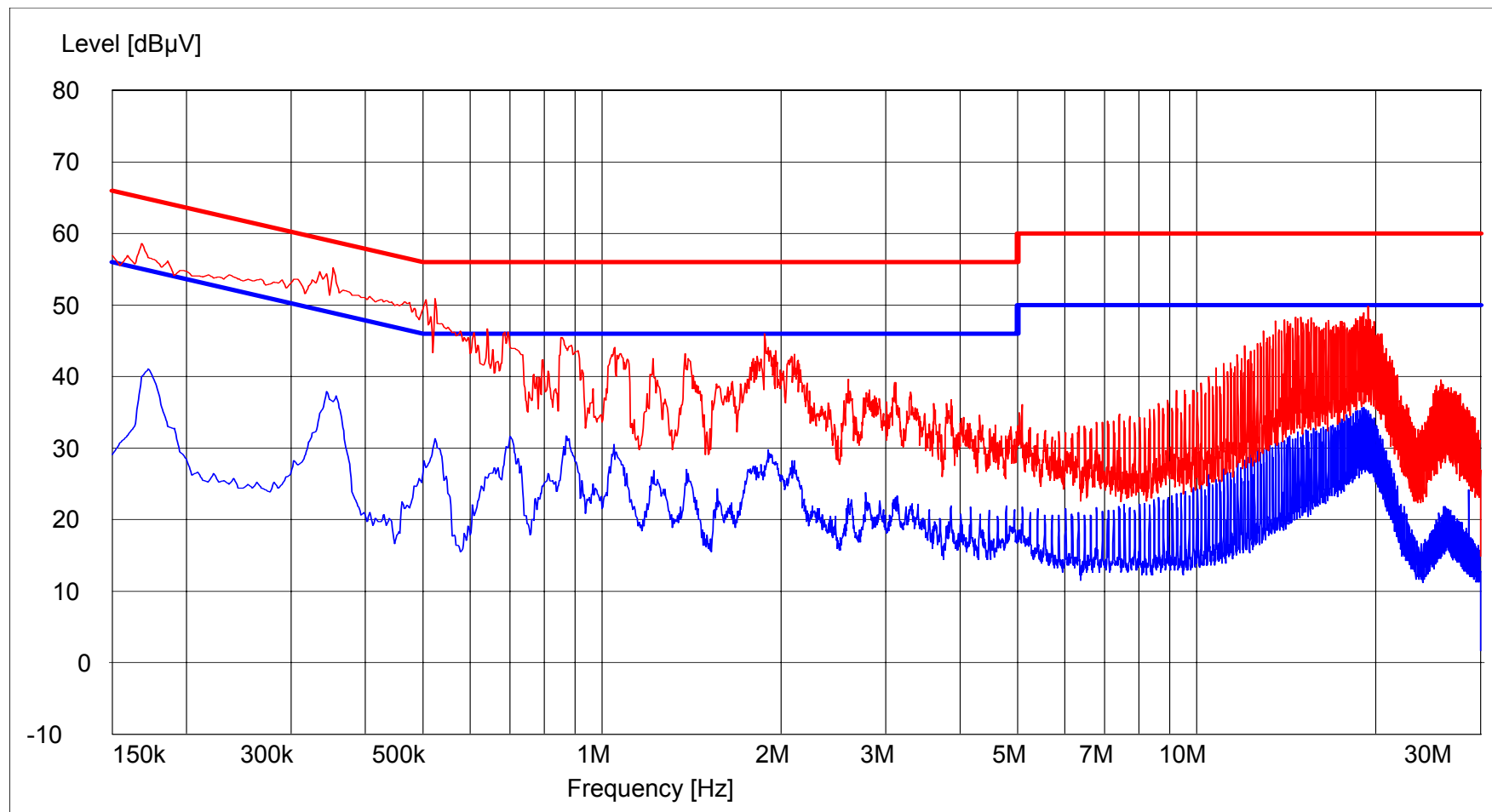
Conducted Emissions, Power Leads, 150kHz to 30MHz

Customer: Electronic Display Applications, Inc.
Test Sample: 2.4GHz Transmitter
Model/Serial Number: SL-1550-P15 S/N: 002
Test Specification: FCC Part 15 Subpart C, 15.207(a)
Mode Of Operation: Continuously transmitting a FM signal on channel 1
Lead Tested: 115VAC, 60Hz Hot
Technician/Date: RW/9-10-08
Notes:



Conducted Emissions, Power Leads, 150kHz to 30MHz

Customer: Electronic Display Applications, Inc.
Test Sample: 2.4GHz Transmitter
Model/Serial Number: SL-1550-P15 S/N: 002
Test Specification: FCC Part 15 Subpart C, 15.207(a)
Mode Of Operation: Continuously transmitting a FM signal on channel 1
Lead Tested: 115VAC, 60Hz Neutral
Technician/Date: RW/9-10-08
Notes:



FCC Part 15, Subpart C, Section 15.209(a)
Radiated Emissions, Spurious Case, 30 to 1000 MHz
Test Data

Test Method:	FCC Part 15, Subpart C, Radiated Emissions, 30 MHz to 1 GHz, Para:15.209(a)						
Customer:	Electronic Display Applications				Job No.:	R-1176P	
Test Sample:	Audio/Visual Transmitter						
Model No.:	SL-1550-P15				Serial No.:	002	
Operating Mode:	Continuously transmitting a 2.472 GHz FM signal, channel 3						
Technician:	RW				Date:	3-25-08	
Notes:	Test Distance: 3 Meters Detector: Quasi-Peak				Temp:13 °C		Humidity:24 %
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit
MHz	(V/H) / Meters	Degrees	dBuV	dB	dBuV/m	uV/m	uV/m
30.00							100
88.00							100
88.00							150
114.54	V/1.3	280.0	22.6	8.9	31.5	37.58	
114.54	H/2.0	329.0	25.8	8.9	34.7	54.32	
124.08	V/2.6	309.0	18.8	8.2	27.0	22.38	
124.08	H/1.8	346.0	22.0	8.2	30.2	32.35	
133.62	V/1.2	13.0	31.5	8.0	39.5	94.40	
133.62	H/1.5	304.0	25.5	8.0	33.5	47.31	
171.84	V/1.0	33.0	24.9	9.9	34.8	54.95	
171.84	H/2.4	242.0	25.5	9.9	35.4	58.88	
216							150
216							200
248.16	V/1.0	104.0	15.4	12.7	28.1	25.40	
248.16	H/1.1	85.0	15.2	12.7	27.9	24.83	
286.38	V/1.0	137.0	13.1	13.4	26.5	21.13	
286.38	H/1.4	205.0	13.5	13.4	26.9	22.13	
960.00							200
960.00							500
1000.0							500
The frequency range was scanned from 30 MHz to 1 GHz.							
The emissions observed from the EUT do not exceed the specified limits.							
Emissions not recorded were more than 20dB under the specified limit.							

E-filing Requirements

General Note: All file names shall have the model number in front of the file name.

Information needed for 731 Form		
Item 4: (FCC ID:)	Grantee Code:	
	Equipment Product Code:	
Item 10:	Equipment Class: (See Timco guide):	
	Description of Product as Marketed:	
Item 13:	FCC Rule Part:	
Item 14:	Start/Stop Freq (MHz):	
	Emission Designator: (XXKX) (P2D)	

On-line E-filing Application

Information needed for 731 Form (Pick One)		
Equipment Use:	Fixed	
	Mobile > 20cm	
	Portable < 2.5cm	
	Other	
SAR Report Included:	Yes	
	No	