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Electromagnetic Emissions Test Report and Application for Grant of Equipment Authorization pursuant to Industry Canada RSS-Gen Issue 1 / RSS 210 Issue 6 FCC Part 15 Subpart C on the Cisco-Linksys Transmitter Model: WRT600N

UPN: FCC ID:	3839A-WRT6NV11 Q87-WRT600NV11
GRANTEE:	Cisco-Linksys 121 Theory Drive Irvine, CA 92617
TEST SITE:	Elliott Laboratories, Inc. 684 W. Maude Ave Sunnyvale, CA 94086
REPORT DATE:	April 6, 2007

FINAL TEST DATE: March 20, March 22, March 26, March 27 and March 28, 2007

AUTHORIZED SIGNATORY:

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Juan Martinez Senior EMC Engineer



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File: R67519 Rev 1 Page 1 of 23

REVISION HISTORY

Revision #	Date	Comments	Modified By
1	April 10, 2007	Initial Release	David Guidotti

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SCOPE

An electromagnetic emissions test has been performed on the Cisco-Linksys LLC model WRT600N pursuant to the following rules:

Industry Canada RSS-Gen Issue 1 RSS 210 Issue 6 "Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment" FCC Part 15 Subpart C

Conducted and radiated emissions data has been collected, reduced, and analyzed within this report in accordance with measurement guidelines set forth in the following reference standards and as outlined in Elliott Laboratories test procedures:

ANSI C63.4:2003 RSS-212 Issue 1 Test Facilities and Test Methods for Radio Equipment

The intentional radiator above has been tested in a simulated typical installation to demonstrate compliance with the relevant Industry Canada performance and procedural standards.

Final system data was gathered in a mode that tended to maximize emissions by varying orientation of EUT, orientation of power and I/O cabling, antenna search height, and antenna polarization.

Every practical effort was made to perform an impartial test using appropriate test equipment of known calibration. All pertinent factors have been applied to reach the determination of compliance.

The test results recorded herein are based on a single type test of the Cisco-Linksys LLC model WRT600N and therefore apply only to the tested sample. The sample was selected and prepared by Jennifer Yu of Cisco-Linksys

OBJECTIVE

The primary objective of the manufacturer is compliance with the regulations outlined in the previous section.

Prior to marketing in the USA, all unlicensed transmitters and transceivers require certification. Receive-only devices operating between 30 MHz and 960 MHz are subject to either certification or a manufacturer's declaration of conformity, with all other receive-only devices exempt from the technical requirements.

Prior to marketing in Canada, Class I transmitters, receivers and transceivers require certification. Class II devices are required to meet the appropriate technical requirements but are exempt from certification requirements.

Certification is a procedure where the manufacturer submits test data and technical information to a certification body and receives a certificate or grant of equipment authorization upon successful completion of the certification body's review of the submitted documents. Once the equipment authorization has been obtained, the label indicating compliance must be attached to all identical units, which are subsequently manufactured.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product which may result in increased emissions should be checked to ensure compliance has been maintained (i.e., printed circuit board layout changes, different line filter, different power supply, harnessing or I/O cable changes, etc.).

STATEMENT OF COMPLIANCE

The tested sample of Cisco-Linksys LLC model WRT600N complied with the requirements of the following regulations:

Industry Canada RSS-Gen Issue 1 RSS 210 Issue 6 "Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment" FCC Part 15 Subpart C

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product which may result in increased emissions should be checked to ensure compliance has been maintained (i.e., printed circuit board layout changes, different line filter, different power supply, harnessing or I/O cable changes, etc.).

TEST RESULTS SUMMARY

DIGITAL TRANSIVIISSICIN STSTLIVIS (2400 - 2403.31/11/2	DIGITAL	TRANSMISSION	SYSTEMS	(2400 - 248	3.5MHz)
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FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.247(a)	RSS 210 A8.2	Digital Modulation	Systems uses OFDM / DSSS techniques	-	Complies
15.247 (a) (2)	RSS 210 A8.2 (1)	6dB Bandwidth	802.11b = 10.2 MHz 802.11g = 16.6 MHz 802.11Siso = 36.8 MHz 802.11n 20MHz = 17.8 MHz 802.11n 40MHz = 36.7 MHz	>500kHz	Complies
	RSP100	99% Bandwidth	802.11b = 13.7 MHz 802.11g = 17.8 MHz 802.11Siso = 36.9 MHz 802.11n 20MHz = 18.4 MHz 802.11n 40MHz = 37.1 MHz	Information only	Complies
15.247 (b) (3)	RSS 210 A8.2 (4)	Output Power (multipoint systems)	21.5 dBm (.141 Watts) EIRP = 0.649 W ^{Note 1}	1Watt, EIRP limited to 4 Watts.	Complies
15.247(d)	RSS 210 A8.2 (2)	Power Spectral Density	6.5 dBm/3kHz	8dBm/3kHz	Complies
15.247(c)	RSS 210 A8.5	Antenna Port Spurious Emissions 30MHz – 25 GHz	Refer to plots	<-30dBc ^{Note 2}	Complies
15.247(c) / 15.209	RSS 210 A8.5	Radiated Spurious Emissions 30MHz – 25 GHz	50.7dBµV/m (342.8µV/m) @ 3453.3MHz (-3.3dB)	15.207 in restricted bands, all others <-30dBc ^{Note 2}	Complies

Note 1: EIRP calculated using antenna gain of 3.6 dBi for the highest EIRP multi-point system.

Note 2: Limit of -30dBc used because the power was measured using the UNII test procedure (maximum power averaged over a transmission burst) / RMS averaging over a time interval, as permitted under RSS 210 section A8.4(4).

GENERAL REQUIREMENTS APPLICABLE TO ALL BANDS

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FCC Rule Part	RSS	Description	Measured Value /	Limit /	Result
r ee raie r ar	Rule part	Description	Comments	Requirement	(margin)
15.203	-	RF Connector	Integral to the device. User will not have access or be able to open the device.		Complies
	RSS GEN	Receiver spurious	49.4dBuV/m (295.1uV/m)		Complies
15.109	7.2.3	emissions	@ 4924 0MHz		$(-46 \mathrm{dB})$
	Table 1	emissions	e 4724.000112		(4.0 dB)
15 207	RSS GEN	AC Conducted	Defer to data	Refer to	Comulias
15.207	Table 2	Emissions	Refer to data	standard	Complies
15.247 (b) (5) 15.407 (f)	RSS 102	RF Exposure Requirements	Refer to MPE calculations in Exhibit 11, RSS 102 declaration and User Manual statements.	Refer to OET 65, FCC Part 1 and RSS 102	Complies
	RSP 100 RSS GEN 7.1.5	User Manual		Statement required regarding non- interference	
	RSP 100 RSS GEN 7.1.5	User Manual		Statement required regarding detachable antenna	

MEASUREMENT UNCERTAINTIES

ISO Guide 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level and were calculated in accordance with UKAS document LAB 34.

Measurement Type	Frequency Range (MHz)	Calculated Uncertainty (dB)
Conducted Emissions	0.15 to 30	± 2.4
Radiated Emissions Radiated Emissions Radiated Emissions	0.015 to 30 30 to 1000 1000 to 40000	$\pm 3.0 \\ \pm 3.6 \\ \pm 6.0$

EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL

The EUT is a Dual-band Wireless-N Router that is designed to provide wireless internet and networking services. Since the EUT would be placed on a tabletop during operation, the EUT was treated as tabletop equipment during testing to simulate the end-user environment. The electrical rating of the EUT is 120 Volts, 60 Hz, .5 Amps.

The sample was received on March 20, 2007 and tested on March 20, March 22, March 26, March 27 and March 28, 2007. The EUT consisted of the following component(s):

Manufacturer	Model	Description	Serial Number	FCC ID
Cisco-Linksys	WRT600N	Dual-band	-	Q87-
LLC		Wireless-N Router		WRT600NV1

OTHER EUT DETAILS

List any items from the test log.

ANTENNA SYSTEM

The integral antenna system used with the Cisco-Linksys LLC model WRT600N consists of a diple antenna with a maximum gain of 3.6dBi, PiFA antenna maximum gain 2.5, and a PCB antenna maximum gain 1.9dBi.

ENCLOSURE

The EUT enclosure is primarily constructed of plastic. It measures approximately 30 cm wide by 5 cm deep by 25 cm high.

MODIFICATIONS

The EUT did not require modifications during testing in order to comply with emissions specifications.

SUPPORT EQUIPMENT

The following equipment was used as local support equipment for emissions testing:

Manufacturer	Model	Description	Serial Number	FCC ID
-	-	-	-	-

The following equipment was used as remote support equipment for emissions testing:

Manufacturer	Model	Description	Serial Number	FCC ID
Hewlett Packard	Zv6000	Laptop	CBD52904S1	DoC

EUT INTERFACE PORTS

The I/O cabling configuration during emissions testing was as follows:

Dort	Connected To	Cable(s)			
TOIL		Description	Shielded or Unshielded	Length(m)	
Ethernet	Laptop	Cat5	Unshielded	1.0	
AC power	AC mains	-	-	-	

EUT OPERATION

During emissions testing the EUT was set to either to transmit at maximum power or receive on appropriate channels.

TEST SITE

GENERAL INFORMATION

Final test measurements were taken on March 20, March 22, March 26, March 27 and March 28, 2007at the Elliott Laboratories Open Area Test Site # located at 684 West Maude Avenue, Sunnyvale, California or 41039 Boyce Road, Fremont, California Pursuant to section 2.948 of the FCC's Rules and section 3.3 of RSP-100, construction, calibration, and equipment data has been filed with the Commission.

ANSI C63.4:2003 recommends that ambient noise at the test site be at least 6 dB below the allowable limits. Ambient levels are below this requirement with the exception of predictable local TV, radio, and mobile communications traffic. The test site contains separate areas for radiated and conducted emissions testing. Considerable engineering effort has been expended to ensure that the facilities conform to all pertinent requirements of ANSI C63.4:2003 and RSS 212.

CONDUCTED EMISSIONS CONSIDERATIONS

Conducted emissions testing is performed in conformance with ANSI C63.4:2003 and RSS 212. Measurements are made with the EUT connected to the public power network through a nominal, standardized RF impedance, which is provided by a line impedance stabilization network, known as a LISN. A LISN is inserted in series with each current-carrying conductor in the EUT power cord.

RADIATED EMISSIONS CONSIDERATIONS

The FCC has determined that radiation measurements made in a shielded enclosure are not suitable for determining levels of radiated emissions. Radiated measurements are performed in an open field environment or in a semi-anechoic chamber. The test sites are maintained free of conductive objects within the CISPR defined elliptical area incorporated in ANSI C63.4:2003 guidelines and meet the Normalized Site Attenuation (NSA) requirements of ANSI C63.4:2003 / RSS 212.

MEASUREMENT INSTRUMENTATION

RECEIVER SYSTEM

An EMI receiver as specified in CISPR 16-1 is used for emissions measurements. The receivers used can measure over the frequency range of 9 kHz up to 2000 MHz. These receivers allow both ease of measurement and high accuracy to be achieved. The receivers have Peak, Average, and CISPR (Quasi-peak) detectors built into their design so no external adapters are necessary. The receiver automatically sets the required bandwidth for the CISPR detector used during measurements. If the repetition frequency of the signal being measured is below 20Hz, peak measurements are made in lieu of Quasi-Peak measurements.

For measurements above the frequency range of the receivers, a spectrum analyzer is utilized because it provides visibility of the entire spectrum along with the precision and versatility required to support engineering analysis. Average measurements above 1000MHz are performed on the spectrum analyzer using the linear-average method with a resolution bandwidth of 1 MHz and a video bandwidth of 10 Hz, unless the signal is pulsed in which case the average (or video) bandwidth of the measuring instrument is reduced to onset of pulse desensitization and then increased.

INSTRUMENT CONTROL COMPUTER

The receivers utilize either a Rohde & Schwarz EZM Spectrum Monitor/Controller or contain an internal Spectrum Monitor/Controller to view and convert the receiver measurements to the field strength at an antenna or voltage developed at the LISN measurement port, which is then compared directly with the appropriate specification limit. This provides faster, more accurate readings by performing the conversions described under Sample Calculations within the Test Procedures section of this report. Results are printed in a graphic and/or tabular format, as appropriate. A personal computer is used to record all measurements made with the receivers.

The Spectrum Monitor provides a visual display of the signal being measured. In addition, the controller or a personal computer run automated data collection programs which control the receivers. This provides added accuracy since all site correction factors, such as cable loss and antenna factors are added automatically.

LINE IMPEDANCE STABILIZATION NETWORK (LISN)

Line conducted measurements utilize a fifty microhenry Line Impedance Stabilization Network as the monitoring point. The LISN used also contains a 250 uH CISPR adapter. This network provides for calibrated radio frequency noise measurements by the design of the internal low pass and high pass filters on the EUT and measurement ports, respectively.

FILTERS/ATTENUATORS

External filters and precision attenuators are often connected between the receiving antenna or LISN and the receiver. This eliminates saturation effects and non-linear operation due to high amplitude transient events.

ANTENNAS

A loop antenna is used below 30 MHz. For the measurement range 30 MHz to 1000 MHz either a combination of a biconical antenna and a log periodic or a bi-log antenna is used. Above 1000 MHz, horn antennas are used. The antenna calibration factors to convert the received voltage to an electric field strength are included with appropriate cable loss and amplifier gain factors to determine an overall site factor, which is then programmed into the test receivers or incorporated into the test software.

ANTENNA MAST AND EQUIPMENT TURNTABLE

The antennas used to measure the radiated electric field strength are mounted on a nonconductive antenna mast equipped with a motor-drive to vary the antenna height. Measurements below 30 MHz are made with the loop antenna at a fixed height of 1m above the ground plane.

ANSI C63.4:2003 and RSS 212 specify that the test height above ground for table mounted devices shall be 80 centimeters. Floor mounted equipment shall be placed on the ground plane if the device is normally used on a conductive floor or separated from the ground plane by insulating material from 3 to 12 mm if the device is normally used on a non-conductive floor. During radiated measurements, the EUT is positioned on a motorized turntable in conformance with this requirement.

INSTRUMENT CALIBRATION

All test equipment is regularly checked to ensure that performance is maintained in accordance with the manufacturer's specifications. All antennas are calibrated at regular intervals with respect to tuned half-wave dipoles. An exhibit of this report contains the list of test equipment used and calibration information.

TEST PROCEDURES

EUT AND CABLE PLACEMENT

The regulations require that interconnecting cables be connected to the available ports of the unit and that the placement of the unit and the attached cables simulate the worst case orientation that can be expected from a typical installation, so far as practicable. To this end, the position of the unit and associated cabling is varied within the guidelines of ANSI C63.4:2003, and the worst-case orientation is used for final measurements.

CONDUCTED EMISSIONS

Conducted emissions are measured at the plug end of the power cord supplied with the EUT. Excess power cord length is wrapped in a bundle between 30 and 40 centimeters in length near the center of the cord. Preliminary measurements are made to determine the highest amplitude emission relative to the specification limit for all the modes of operation. Placement of system components and varying of cable positions are performed in each mode. A final peak mode scan is then performed in the position and mode for which the highest emission was noted on all current carrying conductors of the power cord.



RADIATED EMISSIONS

A preliminary scan of the radiated emissions is performed in which all significant EUT frequencies are identified with the system in a nominal configuration. At least two scans are performed, one scan for each antenna polarization (horizontal and vertical; loop parallel and perpendicular to the EUT). During the preliminary scans, the EUT is rotated through 360°, the antenna height is varied (for measurements above 30 MHz) and cable positions are varied to determine the highest emission relative to the limit. Preliminary scans may be performed in a fully anechoic chamber for the purposes of identifying the frequencies of the highest emissions from the EUT.

A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

Final maximization is a phase in which the highest amplitude emissions identified in the spectral search are viewed while the EUT azimuth angle is varied from 0 to 360 degrees relative to the receiving antenna. The azimuth, which results in the highest emission is then maintained while varying the antenna height from one to four meters (for measurements above 30 MHz, measurements below 30 MHz are made with the loop antenna at a fixed height of 1m). The result is the identification of the highest amplitude for each of the highest peaks. Each recorded level is corrected in the receiver using appropriate factors for cables, connectors, antennas, and preamplifier gain.

When testing above 18 GHz, the receive antenna is located at 1 meter from the EUT and the antenna height is restricted to a maximum of 2.5 meters.



Typical Test Configuration for Radiated Field Strength Measurements



The anechoic materials on the walls and ceiling ensure compliance with the normalized site attenuation requirements of CISPR 16 / CISPR 22 / ANSI C63.4 for an alternate test site at the measurement distances used.

Floor-standing equipment is placed on the floor with insulating supports between the unit and the ground plane.



<u>Test Configuration for Radiated Field Strength Measurements</u> Semi-Anechoic Chamber, Plan and Side Views

BANDWIDTH MEASUREMENTS

The 6dB, 20dB and/or 26dB signal bandwidth is measured in using the bandwidths recommended by ANSI C63.4. When required, the 99% bandwidth is measured using the methods detailed in RSS GEN.

SPECIFICATION LIMITS AND SAMPLE CALCULATIONS

The limits for conducted emissions are given in units of microvolts, and the limits for radiated emissions are given in units of microvolts per meter at a specified test distance. Data is measured in the logarithmic form of decibels relative to one microvolt, or dB microvolts (dBuV). For radiated emissions, the measured data is converted to the field strength at the antenna in dB microvolts per meter (dBuV/m). The results are then converted to the linear forms of uV and uV/m for comparison to published specifications.

For reference, converting the specification limits from linear to decibel form is accomplished by taking the base ten logarithm, then multiplying by 20. These limits in both linear and logarithmic form are as follows:

GENERAL TRANSMITTER RADIATED EMISSIONS SPECIFICATION LIMITS

The table below shows the limits for the spurious emissions from transmitters that fall in restricted bands¹ (with the exception of transmitters operating under FCC Part 15 Subpart D and RSS 210 Annex 9), the limits for all emissions from a low power device operating under the general rules of RSS 310 (tables 3 and 4), RSS 210 (table 2) and FCC Part 15 Subpart C section 15.209.

Frequency Range (MHz)	Limit (uV/m)	Limit (dBuV/m @ 3m)
0.009-0.490	2400/F _{KHz} @ 300m	67.6-20*log ₁₀ (F _{KHz}) @ 300m
0.490-1.705	24000/F _{KHz} @ 30m	87.6-20*log ₁₀ (F _{KHz}) @ 30m
1.705 to 30	30 @ 30m	29.5 @ 30m
30 to 88	100 @ 3m	40 @ 3m
88 to 216	150 @ 3m	43.5 @ 3m
216 to 960	200 @ 3m	46.0 @ 3m
Above 960	500 @ 3m	54.0 @ 3m

RECEIVER RADIATED SPURIOUS EMISSIONS SPECIFICATION LIMITS

The table below shows the limits for the spurious emissions from receivers as detailed in FCC Part 15.109, RSS 210 Table 2, RSS GEN Table 1 and RSS 310 Table 3. Note that receivers operating outside of the frequency range 30 MHz – 960 MHz are exempt from the requirements of 15.109.

Frequency Range (MHz)	Limit (uV/m @ 3m)	Limit (dBuV/m @ 3m)
30 to 88	100	40
88 to 216	150	43.5
216 to 960	200	46.0
Above 960	500	54.0

¹ The restricted bands are detailed in FCC 15.203, RSS 210 Table 1 and RSS 310 Table 2

OUTPUT POWER LIMITS – DIGITAL TRANSMISSION SYSTEMS

The table below shows the limits for output power and output power density. Where the signal bandwidth is less than 20 MHz the maximum output power is reduced to the power spectral density limit plus 10 times the log of the bandwidth (in MHz).

Operating Frequency (MHz)	Output Power	Power Spectral Density
902 - 928	1 Watt (30 dBm)	8 dBm/3kHz
2400 - 2483.5	1 Watt (30 dBm)	8 dBm/3kHz
5725 - 5850	1 Watt (30 dBm)	8 dBm/3kHz

The maximum permitted output power is reduced by 1dB for every dB the antenna gain exceeds 6dBi. Fixed point-to-point applications using the 5725 - 5850 MHz band are not subject to this restriction.

TRANSMIT MODE SPURIOUS RADIATED EMISSIONS LIMITS – FHSS and DTS SYSTEMS

The limits for unwanted (spurious) emissions from the transmitter falling in the restricted bands are those specified in the general limits sections of FCC Part 15 and RSS 210. All other unwanted (spurious) emissions shall be at least 20dB below the level of the highest in-band signal level (30dB if the power is measured using the sample detector/power averaging method).

SAMPLE CALCULATIONS - CONDUCTED EMISSIONS

Receiver readings are compared directly to the conducted emissions specification limit (decibel form) as follows:

$$R_r - S = M$$

where:

 $R_r =$ Receiver Reading in dBuV

S = Specification Limit in dBuV

M = Margin to Specification in +/- dB

SAMPLE CALCULATIONS - RADIATED EMISSIONS

Receiver readings are compared directly to the specification limit (decibel form). The receiver internally corrects for cable loss, preamplifier gain, and antenna factor. The calculations are in the reverse direction of the actual signal flow, thus cable loss is added and the amplifier gain is subtracted. The Antenna Factor converts the voltage at the antenna coaxial connector to the field strength at the antenna elements.

A distance factor, when used for electric field measurements above 30MHz, is calculated by using the following formula:

$$F_d = 20*LOG_{10} (D_m/D_s)$$

where:

 F_d = Distance Factor in dB D_m = Measurement Distance in meters D_s = Specification Distance in meters

For electric field measurements below 30MHz the extrapolation factor is either determined by making measurements at multiple distances or a theoretical value is calculated using the formula:

$$F_d = 40*LOG_{10} (D_m/D_s)$$

Measurement Distance is the distance at which the measurements were taken and Specification Distance is the distance at which the specification limits are based. The antenna factor converts the voltage at the antenna coaxial connector to the field strength at the antenna elements.

The margin of a given emission peak relative to the limit is calculated as follows:

$$R_c = R_r + F_d$$

and

 $M = R_c - L_s$

where:

 R_r = Receiver Reading in dBuV/m

- F_d = Distance Factor in dB
- R_{c} = Corrected Reading in dBuV/m
- L_S = Specification Limit in dBuV/m
- M = Margin in dB Relative to Spec

SAMPLE CALCULATIONS - FIELD STRENGTH TO EIRP CONVERSION

Where the radiated electric field strength is expressed in terms of the equivalent isotropic radiated power (eirp), or where a field strength measurement of output power is made in lieu of a direct measurement, the following formula is used to convert between eirp and field strength at a distance of 3m from the equipment under test:

 $E = \frac{1000000 \text{ v } 30 \text{ P}}{3}$ microvolts per meter

where P is the eirp (Watts)

EXHIBIT 1: Test Equipment Calibration Data

1 Page

Manufacturer	Description	Model #	Asset #	Cal Due
EMCO	Antenna, Horn, 1-18 GHz	3115	786	28-Nov-07
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FMT (SA40) Blue	8564E (84125C)	1393	09-Jan-08
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1538	08-Aug-07

Engineer eaan maran				
Manufacturer	Description	Model #	Asset #	Cal Due
Hewlett Packard	Microwave Preamplifier, 1-26.5GHz	8449B	263	16-Mar-08
EMCO	Antenna, Horn, 1-18 GHz	3115	786	28-Nov-07
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FMT (SA40) Blue	8564E (84125C)	1393	09-Jan-08

EXHIBIT 2: Test Measurement Data

162 Pages

Elliott

EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	Test-Log Number:	T67324
		Project Manager:	-
Contact:	Kevin Lee		
Emissions Spec:	FCC 15.247	Class:	Radio
Immunity Spec:	-	Environment:	-

EMC Test Data

For The

Cisco-Linksys

Model

WRT600N

Date of Last Test: 4/3/2007

Elliott EMC Test Data					
Client:	Cisco-Linksys		Job Number:	J67313	
Model:	WRT600N		Test-Log Number:	T67324	
			Project Manager:	-	
Contact:	Kevin Lee		, ,		
Emissions Spec:	FCC 15.247		Class:	Radio	
Immunity Spec:	-		Environment:	-	
EUT INFORMATION The following information was collected during the test sessions(s).					
General Description The EUT is a Dual-band Wireless-N Router that is designed to provide wireless internet and networking services. Since the EUT would be placed on a table top during operation, the EUT was treated as table-top equipment during testing to simulate the end-user environment. The electrical rating of the EUT is 120 Volts , 60 Hz, .5 Amps.					
Manufacturer	Model	Description	Serial Number	FCC ID	
Cisco-Linksys LLC	WRT600N	Dual-band Wireless-N	-	Q87-WRT600NV1	
None The antenna is integral PCB antenna maximun	EUT Anter to the device. A diple anton gain 1.9dBi.	Other EUT Details	ators Only) of 3.6dBi, PiFA antenna n	naximum gain 2.5, and a	
The EUT enclosure is p	primarily constructed of pla	EUT Enclosure stic. It measures approxim	ately 30 cm wide by 5 cm	deep by 25 cm high.	

E	liot	t			FM	C. Test Data
4	Client:	Cisco-Linksvs			Job Number:	J67313
	Model:	WRT600N			Test-Log Number:	T67324
					Project Manager:	-
(Contact:	Kevin Lee				
Emissior	ns Spec:	FCC 15.247			Class:	Radio
Immuni	ty Spec:	-			Environment:	-
			Modific	cation History		
Mod. #		Test	Date		Modification	

3

Modifications applied are assumed to be used on subsequent tests unless otherwise stated as a further modification.

1

Ellio t	tt		EM	C Test Data
Client:	Cisco-Linksys		Job Number:	J67313
Model:	WRT600N		T-Log Number:	T67324
			Project Manager:	-
Contact:	Kevin Lee			
Emissions Spec:	FCC 15.247		Class:	Radio
Immunity Spec:	-		Environment:	-
The	Test following informatic	t Configuratio on was collected du cal Support Equipm	n #1 ring the test session: nent	s(s).
Manufacturer	Model	Description	Serial Number	FCC ID
-	-	-		-
Monufacturer	Ren Model	note Support Equip	ment	
Wallulaciuici		Lanton		
Port	Connected To	Cabling and Ports	Cable(s)	
		Description	Shielded or Unshield	Jed Length(m)
Ethernet	Laptop	Cat5	Unshielded	1.0
AC Power	AC Mains	-	-	-
During emissions testin	EUT Opera g the EUT was set to either	ation During Emissi r to transmit at maximum	ions Tests power or receive on approp	priate channels.

Elliot	t			EMC T	est Da
Client: Cisco-Linksys			Jol	o Number: J67313	
Model: WRT600N			T-Log	g Number: T67324	ļ
Contact: Kovin Loo			Account	Manager: -	
Standard: FCC 15.247				Class: N/A	
Fest Specific Details	RSS 210 and	FCC 15.247 I	Banded	ges	
Objective: The	objective of this test sessio cification listed above.	n is to perform final quali	fication testing	of the EUT with re	espect to the
Date of Test: 3/20 Test Engineer: Jma Test Location: Fre)/2007 artinez nont Chamber #3	Config. Used Config Change EUT Voltage	: 1 : <mark>None</mark> : 120V/60Hz		
General Test Config The EUT and all local sup	uration port equipment were located	l on the turntable for radi	ated spurious	emissions testing.	
or radiated emissions tes	ting the measurement anter	nna was located 3 meters	s from the EU1	Γ.	
Ambient Conditions	Temperature: Rel. Humidity:	18 °C 37 %			
Summary of Results					
Run #	Test Performed	Limit	Pass / Fail	Result / Margir	1 I
1 (802.11b Mode)	Bandedges	FCC Part 15.209 / 15.247(c)	Pass	Refer to runs	
2 (802.11g Mode)	Bandedges	FCC Part 15.209 / 15.247(c)	Pass	Refer to runs	
8 (802.11Siso Mode)	Bandedges	FCC Part 15.209 / 15.247(c)	Pass	Refer to runs	
4 (802.11n 40 MHz Mode)	Bandedges	FCC Part 15.209 / 15.247(c)	Pass	Refer to runs	
5 (802.11n 20 MHz Mode)	Bandedges	FCC Part 15.209 / 15.247(c)	Pass	Refer to runs	
Modifications Made	During Testing: de to the EUT during testing	I			


























U	E	lliott	-							E	МС Т	est D	ata
	Client: Cis	co-Linksys							Job I	Num	ber: J67313	3	
Ν	Model: WRT600N							T-Log Number: T67324					
Co	ontact: Ke	vin Lee									30		
Sta	ndard: FC	C 15.247								Cl	ass: N/A		
					Horizon	tal							
R	•		Marker	1 [T1]		RBW		1 M	IHz	RI	F Att	10 dB	
×Y	Ref L	vl G d DN V		94.8	37 dB y v	VBW		1 M	IHz				7
11	4 			2.414745	950 GHZ	5W1		5 10		01	110		√ ⊓ ★
11	32.	6 dB Off	set					▼ 1	[T1]		94.	87 db1	A
								∇ 2	[T1]		2.41474	950 GHz	7
10	0								[1 1]		2.38899	800 GHz	5
								▼ 3,	[]]		81.	27 dB y V	7
9	0								, v	he	2.41695	391 GHz	5
								v ₄	[T2]	З	43.	13 dB y v	. IN1
8									-	<u> </u>	2.39000	000 GHZ	1MA
	2VIEW	4 dBNV						ſ			V		2 MA
7	0	1 0030									Ŷ		
													P20
6	0				2		0						
Ĩ	_				M. WANA	hunder							
5	human	2 54 dBJ	nonman	mululululu	MACHINE		V						
5	0						V						
4													
4													
2													
3	0												
	-											F2_	
2	0				F	1							
14.	6 Cente	r 2.39 G	Hz		10	MHz/					Span	100 MHz	
D.t.		20 MAD	0007 1	2 . 2 0 . 2 1	10						opun	100 11112	
Date	• :	20.MAR.	2007 1.	2:38:21									
1													
1													

























<i>C</i>		Ell	iott								EM	C T	est D	ata
	Client:	Cisco	-Linksys							Job N	umber:	J6731	3	
Ν	/odel: WRT600N								T-Log Number: T67324					
	Account M								count Ma	anager:	-			
Co	ontact:	Kevin	Lee								<u></u>			
Star	ndard:	FCC	15.247								Class:	N/A		
						Horizoni	al							
R				Marker	4 [T2]		RBW		1 M	Hz	RF A	tt	10 dB	
S	Ref	Lvl			43.7	73 db y v	VBW		10	Ηz				
11	11 4	4.6	db y v	-	2.389599	20 GHz	SWT		25	s	Unit		db y	V
11	0 3	2.6	dB Offse	et					\mathbf{v}_4	[T2]		43	.73 dB	A
									▼ 2	[= 2]	2.	38959	920 GHz	2
10	0								• 3	[IZ]	2.	04 42070	53 GHZ	5
9	0													-
											3 7			IN1
8	0									$\cdot \wedge \cdot$	Ar	<u>M</u>		-
	D1	L 74	db y v—							V · ·				ZMA
7	0													-
														P20
6	0													-
		D2	54 db y v											-
5	0								\mathbf{V}					-
							\sim	V					Juenatio	
4	0		<u> </u>			••••						V/M		
3	0													-
													F2	-
2	0					F	L						12-	-
14.	6	tor	2 39 64	7		10 1	MH 7 /					Span	100 MH-	
	cer	iter	2.39 GH	4	01 5=	TO 1	nu z /					span	TOO MH2	5
Date	:	:	∠U.MAR.2	2007 11	:U1:37									
1														
1														
1														

























CEIII(ott			EMC	C Test	Da
Client: Cisco-Link	(SYS		Jol	b Number: J	67313	
			T-Log	a Number: T	67324	
Model: WRT600N	l		Account	Manager: -	••••	
Contact: Kevin Lee				5		
Standard: FCC 15.2	47			Class: N	: N/A	
Test Specific Det Objective:	ails The objective of this test session i specification listed above	is to perform final qua	alification testing	of the EUT	with respect	to the
Date of Test: Test Engineer: Test Location: General Test Con The EUT was connect	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or po	Config. Use Config Chang EUT Voltag wer meter via a suita	d: 1 e: None e: 120V/60Hz ble attenuator.	All measure	ments were r	made o
Date of Test: Test Engineer: Test Location: General Test Cor The EUT was connect single chain.	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or po	Config. Use Config Chang EUT Voltag wer meter via a suita	d: 1 e: None e: 120V/60Hz ble attenuator.	All measure	ments were r	made o
Date of Test: Test Engineer: Test Location: General Test Cor The EUT was connect single chain. All measurements hav	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or por e been corrected to allow for the e	Config. Use Config Chang EUT Voltag wer meter via a suita external attenuators u	d: 1 e: None e: 120V/60Hz ble attenuator.	All measure	ments were r	made o
Date of Test: Test Engineer: Test Location: General Test Con The EUT was connect single chain. All measurements hav	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or po e been corrected to allow for the e	Config. Use Config Chang EUT Voltag wer meter via a suita external attenuators u 18 °C	d: 1 e: None e: 120V/60Hz ble attenuator.	All measure	ments were r	made o
Date of Test: Test Engineer: Test Location: General Test Con The EUT was connect single chain. All measurements hav Ambient Conditio	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or por e been corrected to allow for the e ons: Temperature: Pol. Humidity:	Config. Use Config Chang EUT Voltag wer meter via a suita external attenuators u 18 °C	d: 1 e: None e: 120V/60Hz ble attenuator.	All measure	ments were r	made o
Date of Test: Test Engineer: Test Location: General Test Con Fhe EUT was connect single chain. All measurements hav Ambient Condition Summary of Resu	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or por e been corrected to allow for the e ons: Temperature: Rel. Humidity: JIts	Config. Use Config Chang EUT Voltag wer meter via a suita external attenuators u 18 °C 37 %	d: 1 e: None le: 120V/60Hz ble attenuator lsed.	All measure	ments were r	made o
Date of Test: Test Engineer: Test Location: General Test Con The EUT was connect ingle chain. Il measurements hav Ambient Condition Summary of Resu Run #	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or po e been corrected to allow for the e ons: Temperature: Rel. Humidity: JIts Test Performed Output Power	Config. Use Config Chang EUT Voltag wer meter via a suita external attenuators u 18 °C 37 % Limit 15.247(b)	d: 1 e: None le: 120V/60Hz ble attenuator. lsed.	All measure	ments were r Margin	made o
Date of Test: Test Engineer: Test Location: General Test Con The EUT was connect ingle chain. Il measurements hav Ambient Condition Gummary of Resu Run # 1 2	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or po e been corrected to allow for the e ons: Temperature: Rel. Humidity: JIts Test Performed Output Power Power spectral Density (PSD)	Config. Use Config Chang EUT Voltag wer meter via a suita external attenuators u 18 °C 37 % Limit 15.247(b) 15.247(d)	d: 1 e: None le: 120V/60Hz ble attenuator. lsed.	All measure Result / 20.3 d 6.5 dBm	ments were r Margin dBm n/3kHz	made o
Date of Test: Test Engineer: Test Location: General Test Con The EUT was connect ingle chain. Il measurements hav Ambient Condition Summary of Resu Run # 1 2 3	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or po e been corrected to allow for the e ons: Temperature: Rel. Humidity: JIts Test Performed Output Power Power spectral Density (PSD) 6dB Bandwidth	Config. Use Config Chang EUT Voltag wer meter via a suita external attenuators u 18 °C 37 % Limit 15.247(b) 15.247(d) 15.247(a)	d: 1 e: None le: 120V/60Hz ble attenuator. ised. Pass / Fail Pass Pass	All measure <u> </u>	Margin dBm n/3kHz MHz	made o
Date of Test: Test Engineer: Test Location: General Test Con The EUT was connect single chain. All measurements hav Ambient Condition Summary of Resu Run # 1 2 3 3 3	3/20/2007 Juan Martinez Fremont Chamber #3 figuration ed to the spectrum analyzer or por e been corrected to allow for the e ons: Temperature: Rel. Humidity: JIts Test Performed Output Power Power spectral Density (PSD) 6dB Bandwidth 99% Bandwidth	Config. Use Config Chang EUT Voltag wer meter via a suita external attenuators u 18 °C 37 % Limit 15.247(b) 15.247(d) 15.247(a) RSS GEN	d: 1 e: None le: 120V/60Hz ble attenuator. lsed. Pass / Fail Pass Pass Pass	All measure Result / 20.3 c 6.5 dBm 10.2 f 13.7 f	Margin dBm n/3kHz MHz	made o

Deviations From The Standard

No deviations were made from the requirements of the standard.

Elliott EMC Test Data											
Client:	Cisco-Linksys		Job Number: J67313								
Model:	WRT600N			T-Lo Accour							
Contact	Kovin Loo					Accourt	it manager.				
				Class	N1/A						
Standard:	FCC 15.247			Class.	: N/A						
Run #1: O	utput Power										
ESIB Powe	r measurement ta	ble		Note 2	<u> </u>						
Power	Frequency (MHz)	Output Power		Antenna	Result	EIRP		Output Power			
Setting ²		/ (dBm) ¹	mW	Gain (dBi)		dBm	W	(dBm) ိ	mW		
0x40xx	2412	20.3	107.2	3.6	Pass	23.9	0.245				
0x4545	2437	20.0	98.9	3.6	Pass	23.6	0.226				
0x47xx	2462	19.8	95.5	3.6	Pass	23.4	0.219				
Note 2:	transmitting) and p The output power I Power setting - the	ower integra imit is 30dBr software po	tion over 30	used during	ı testing, inclu	uded for refe	erence only.				






















% Ellia	ott			EM	C Test D)ata	
Client: Cisco-Lin	ksvs	Jo	J67313				
		T-L O	T67324				
Model: WRT6001	N		Account	Manager:	-		
Contact: Kevin Lee			710000111	manager.	•		
Standard: ECC 15 2	, 			Class.	·· Ν/Δ		
				01033.			
ROS 2 Pov Test Specific Def	wer, Bandwidth and S tails The objective of this test session	(DTS) Anten Spurious Emiss	ina Port	of the EU	egacy)	the	
Objective.	specification listed above.						
Date of Test: Test Engineer: Test Location:	3/20/2007 Juan Martinez Fremont Chamber #3	d: 1 e: None e: 120V/60Hz					
The EUT was connect single chain.	ted to the spectrum analyzer or p	ower meter via a suitab	le attenuator.	All measur	rements were mad	le on a	
All measurements hav	ve been corrected to allow for the	external attenuators us	sed.				
Ambient Condition	Temperature: Rel. Humidity:	18 °C 37 %					
Summary of Res	ults						
Run #	Run # Test Performed		Pass / Fail	Result	lt / Margin		
1	Output Power	15.247(b)	Pass	19.6	6 dBm		
2	Power spectral Density (PSD)	15.247(d)	Pass	-0.4dE	Bm/3kHz		
3	6dB Bandwidth	15.247(a)	Pass	16.6 MHz			
3	99% Bandwidth	RSS GEN	-	17.8	.8 MHz		
4	Spurious emissions	15.247(b)	Pass	Refer	to plots		
Modifications Ma	Ide During Testing: made to the EUT during testing						

No deviations were made from the requirements of the standard.























6	Ellic	ott			EM	C Test	Data
Client:	Cisco-Link	sys		Joł	b Number:	J67313	
				T-Log	a Number:	T67324	
Model:	WRT600N			Account	Manager:	-	
Contact:	Kevin Lee	<u> </u>					
Standard:	FCC 15.24	47			Class:	N/A	
R	SS 21 Power,	0 and FCC 15.247 Bandwidth and Spu	์ (DTS) Antenr rious Emissions	na Port s, (SISO 4	Meas 40 MHz	urement z, 2.4GHz	ts)
Test Spe	cific Deta	ails					
· · · · · ·	Objective:	The objective of this test session specification listed above.	ı is to perform final qualifi	ication testing) of the EU	JT with respect	to the
Dat Test Test	te of Test: Engineer: Location:	3/20/2007 Juan Martinez Fremont Chamber #3	1 <mark>None</mark> 120V/60Hz				
General T The EUT wa single chain	Test Con as connecte	figuration ed to the spectrum analyzer or p	ower meter via a suitable	eattenuator.	All measur	rements were r	made on a
All measure	ments have	e been corrected to allow for the	external attenuators use	:d.			
Amhient	Conditio	Temperature:	18 °C				
	Volume	Rel. Humidity:	37 %				
Summary	/ of Resu	ılts	-				
Run	ı #	Test Performed	Limit	Pass / Fail	Result	: / Margin	
1		Output Power	15.247(b)	Pass	18.9	9 dBm	
2		Power spectral Density (PSD)	15.247(d)	Pass	4.1 dE	3m/3kHz	
3		6dB Bandwidth	15.247(a)	Pass	36.8	8 MHz	
3		99% Bandwidth	RSS GEN	-	36.9	9 MHz	
4		Spurious emissions	15.247(b)	Pass	Refer	to plots	
Modificat No modifica Deviation	tions Ma tions were	de During Testing: made to the EUT during testing The Standard					
No deviation	ns were ma	ade from the requirements of the	standard.				

Ø	Elliott						EM	C Test	Data
Client:	Cisco-Linksys					Jo	b Number:	J67313	
Madalı						T-Lo	g Number:	T67324	
wodel:	WK I DUUN						t Manager:	-	
Contact:	Kevin Lee								
Standard:	Standard: FCC 15.247						Class:	N/A	
Run #1: 0	utput Power								
ESI Power	Measurements			. Noto 1			Noto 3		Noto 2
Power	Frequency (MHz)	Output	t Power (dBr	n) " ^{Nole} '	Antenr	na Gain (dBi)	Tatal	EIRP	
Setting [*]	0400	Chain 1	Chain 2	l otal	Chain 1	Chain 2	lotal	dBm	
0x43xx 0x3dxx	2422	17.2		17.2	3.0			20.8	0.120
0x47xx	2452	17.0		17.0	3.6			22.5	0.116
0/11/0/				11.0	0.0			20.0	0.110
NOTE 2:	Power setting - the	sonware p	ower setting	usea aurinț	y testing, incli	uueu IOF Fefer	ence only.		



Model: W Contact: Ke andard: FC	RT600N						Job Ni	umber: .	67313					
Contact: Ke andard: FC	vin Lee	Model: WRT600N							T-Log Number: T67324					
andard: F(nager						
	C 15.247							Class: N	N/A					
Ref I 16 c	vl .Bm	Marker	1 [T1] 0. 2.437000	.21 dBm	RBW VBW SWT	1 M 3 M 5 m	IH z IH z IS	RF At Unit	t	30	dB dBm	L		
16 7 c	.B Offset		<u> </u>			V 1	[T1]		d	.21	dBm			
10		montany	moun	muny	www.when	mm	RIVEMA	2.4	3700 18	.89	GHz dBm	A		
0						CH	BW	50.0		000	MHz	GA		
10												IN		
20	V									ᡔᡘ᠊᠋ᢩ	w.	13		
30														
40														
50														
60														
70														
80 <u>C0</u>											С0			
Cente	er 2.437 (GHz		5 M	IHz/			·	Span	50	MHz			


















Ellio	ott			EM	C Test	t Data
Client: Cisco-Lin	ksys		Jo	b Number:	J67313	
	1		T-Lo	g Number:	T67324	
	N		Accour	t Manager:	-	
Contact: Kevin Lee)					
Standard: FCC 15.2	47			Class:	N/A	
RSS 21	0 and FCC 15.24 MIMO (2.40 Power, Bandwi	7 (DTS) Antenr GHz = 802.11n idth and Spuriou	na Port , 20 MH is Emiss	Meas Iz) sions	uremen	ts
Test Specific Det Objective:	The objective of this test sessic specification listed above.	n is to perform final qualif	ication testin	g of the EU	IT with respec	t to the
Date of Test: Test Engineer: Test Location:	3/20/2007 Juan Martinez Fremont Chamber #3	Config. Used: Config Change: EUT Voltage:	1 <mark>None</mark> 120V/60Hz			
General Test Cor The EUT was connec single chain.	nfiguration ted to the spectrum analyzer or	power meter via a suitable	e attenuator.	All measu	rements were	made on a
All measurements hav	ve been corrected to allow for the	e external attenuators use	ed.			
Ambient Condition	ons: Temperature:	18 °C				
	Rel. Humidity:	45 %				
Summary of Res	ults					
Run #	Test Performed	Limit	Pass / Fail	Result	/ Margin	
1	Output Power	15.247(b)	Pass	21.5	5 dBm	
2	Power spectral Density (PSD)	15.247(d)	Pass	-0.9 dl	Bm/3kHz	
3	6dB Bandwidth	15.247(a)	Pass	17.8	3 MHz	l

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

3

4

No deviations were made from the requirements of the standard.

99% Bandwidth

Spurious emissions

RSS GEN

15.247(b)

-

Pass

18.4 MHz

Refer to plots

E	Elliott						EM	C Test	t Data
Client:	Cisco-Linksys					J	ob Number:	J67313	
Model						T-L	og Number:	T67324	
wouer.	WITTOODIN					Accour	nt Manager:	-	
Contact:	Kevin Lee								
Standard:	FCC 15.247						Class:	N/A	
Run #1: 0	utput Power, MCS	0							
Transmitte	d signal on chain is	coherent?	Yes						
ESI Power	Maasuramants								
Power		Output	Power (dBr	n) ^{Note 1}	Antenr	na Gain (dBi) Note 3	EIRP	Note 2
Setting ⁴	Frequency (MHz)	Chain 1	Chain 2	Total	Chain 1	Chain 2	, Total	dBm	W
0x433E	2412	17.1	17.3	20.2	3.6	3.6	6.6	26.8	0.481
0x3F3A	2437	18.7	18.3	21.5	3.6	3.6	6.6	28.1	0.649
0x4C46	2462	16.2	16.3	19.3	3.6	3.6	6.6	25.9	0.386
Note 1:	RBW=1MHz, VB=3 analyzer was confi transmitting) and p	3 MHz, sam gured with a ower integra	ple detector a gated swee ation over 30	, power ave ep such tha 0 MHz.	raging on (tra t the analyzer	nsmitted sig was only sv	nal was not weeping whe	continuous b en the device	ut the ESI was
Note 2:	EIRP - if transmit c power (i.e. beam-fo then the EIRP is ca	hains are co orming is as alculated fro	oherent ther sumed beca m the sum o	n the EIRP is ause of cohe of the individ	s calculated fi erency on the dual EIRPs fo	rom the sum chains). If t r each chain	n of the anten the individua n.	nna gains plu al chains are i	s the total ncoherent
Note 3:	If the transmit chai antenna. If the tran can be treated inde	ns are cohe nsmit chains ependently.	rent then the s are incohe	e total syste rent then the	m antenna ga e system ante	ain is the sur enna gain is	m of the nun not applicat	neric gains for ble as each tra	^r each ansmit chain
Note 4:	Power setting - if a setting for each cha for chain 2.	single num ain is separa	ber the sam ated by a co	e power set omma (e.g. >	ting was used <,y would indi	d for each ch cate power s	nain. If mult setting x for	iple numbers chain 1, powe	the power er setting y





	∟inksys						Job N	lumt	per: J67313	3	
Model: WRT6	00N						T-Log N	lumb	per: T67324	4	
antaati Kavin I	00					Ad	count M	anag	ger: -		
ndard: FCC 1	_ee 5 247							Cla	ass: N/A		
	5.247			Chain	1			010	100. IN// (
		Marker	1 [T1]		RBW	1 1	1Hz	RF	Att	30 dE	3
Ref Lvl			6.	.24 dBm	VBW	31	1Hz		• .	1.5	
16.3 dB	3m	2	2.437000	JOO GHZ	SWT	5 r	ns	Un	it	di	3m
7.3 dE) Offse	-				•1	[T1]		6	.24 dE	sm 🗾 Z
			m	mound	······	White H	PWR		2.43700 18	.68 dB	m
o			/			дн	BW	5	0.00000	000 MH	z
			/			\					
D						\					_
1 8 1/2							In				IN
								\u.			- 1
	www.							- Y	man		
Company Company Company	Dente -									Mr.	
w Anna and										Mr.	ц.
C											
0											
с.											_
										С	0
0 CO								_			_
7	2 437 G	Hz		5.10					Snan	50 MH	7

						Job I	Numł	per: J6731	3		
						T-Log I	Numb	per: T6732	4		
WRIGUUN					Ad	ccount N	lana	ger: -			
Kevin Lee											
FCC 15.247			0	•			Cla	ass: N/A			
		1 [m1]	Chain	2					2.0	15	
Lvl	Marker	I [II] 5.	.70 dBm	VBW	1 F 3 1	4HZ 4HZ	RF	ATT	30	ав	
3 dBm	:	2.437000	000 GHz	SWT	5 r	ns	Un	it		dBn	ı
3 dB Offse	÷				V 1	[T1]		I.	.70	dBm	
		با قم ر		. A	L.		-	2.43700	000	GHz	A
		1 Martine		No work	MICH	PWR			.32	dBm	
		/			<u> </u>	BM	5	<u>u.0000</u>	000	MHz	GA
		/									
3	1 mil					LM4					15
						<u> </u>	m				
with w]	my un un			
MMAN									linger	٦	
										M	
							\square				
							-+				
										С0	
							-+				
er 2.437 (GHz	I	L 5 №	IHz/		I		Spar	1 50	MHz	
	FCC 15.247	FCC 15.247 Marker	FCC 15.247 Marker 1 [T1] Lv1 5 3 dBm 2.437000 3 dB Offset 	FCC 15.247 Chain Marker 1 [T1] Lv1 5.70 dBm 3 dBm 2.43700000 GHz 3 dB Offset	Chin Lee Chin 2 Marker 1 [T1] RBW Lv1 5.70 dBm VBW 3 dB 0.43700000 GHz SWT 3 dB 0ffset	Keynice FCC 15.247 Marker 1 [T1] RBW 1 Marker 1 [T1] Lv1 5.70 dBm VBW 3 Marker 5 mar	Revire Lee FCC 15.247 Chain 2 Marker 1 [T1] RBW 1 MHz Lv1 5.70 dBm VBW 3 MHz 3 dB 2.43700000 GHz SWT 5 ms 3 dB 0ffset Image: Transmission of transmission	Cite Cite FCC 15.247 Chain 2 Marker 1 [T1] RBW 1 MHz RF Lv1 5.70 dBm VBW 3 MHz 0 3 dB Offset Image: second secon	And Control Class: N/A FCC 15.247 Class: N/A Chain 2 Marker 1 [T1] RBW 1 MHz RF Att Lv1 5.70 dBm VBW 3 MHz 3 dBm 2.43700000 GHz SWT 5 ms Unit 3 dB offset V1 [T1] 2.4370000 4 4 4 4 4 4 4 4 4 4 5 7 1 1 1 3 dB offset V1 1 1 2.437000 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 <	Automatical Class NA C Is 247 Class NA C Is 247 Class NA C Is 2 Marker 1 [T1] RBW 1 MHz RF Att 30 Lv1 5.70 dBm VBW 3 MHz 3 ms Unit 3 dBm 2.43700000 GHz SWT 5 ms Unit 3 dB 0 offset V1 [T1] 2.43700000 4 BW 0.0000 G00 5 ms 0.0000 G00 4 BW 0.0000 G00 5 ms 0.0000 G00 6 BW 0.0000 G00 7 BW 1 BW 0.0000 G00 7 BW 1 BW 0.0000 G00 7 BW 0.0000 G00 0.0000 G00 7 BW 0.0000 G00 0.0000 G00 7 BW 0.0000 G00 0.0000 G00 8 BW 0.0000 G00 0.0000 G00 9 BW 0.0000 G00 0.0000 G00 9 BW 0.0000 G00 <td>Name Control Class N/A Control Class N/A Marker 1 [T1] RBW 1 MHz RF Att 30 dB 3 dB 2.4370000 GHz SWT 5 ms Unit dBm 3 dB 0ffset I (T1) </td>	Name Control Class N/A Control Class N/A Marker 1 [T1] RBW 1 MHz RF Att 30 dB 3 dB 2.4370000 GHz SWT 5 ms Unit dBm 3 dB 0ffset I (T1)





E	Elliott						EM	C Test Data
Client:	Cisco-Linksys					J	lob Number:	J67313
Model:						T-L	.og Number:	T67324
	Kauin Lee					Accou	nt Manager:	-
Contact:	Kevin Lee						01	N1/A
Standard:	FCC 15.247	•.					Class	IN/A
Run #2: Po	ower spectral Den	sity						
Power		PSD	(dBm/3kHz)	Note 1	Limit	Result	1	
Setting	Frequency (MHz)	Chain 1	Chain 2	, Total	dBm/3kHz	rtooun		
0x433E	2412	-4.4	-5.6	-1.9	8.0	Pass		
0x3F3A	2437	-2.3	-6.4	-0.9	8.0	Pass		
0x4C46	2462	-3.6	-7.7	-2.2	8.0	Pass		
			<u> </u>					
	Power spectral de	nsity measu	red using R	B=3 kHz, VI	B=10kHz, ana	alyzer with p	eak detecto	r and with a sweep time
Note 1:	set to ensure a dw	ell time of a	t least 1 sec	ond per 3kl	Iz. The meas	surement is r	made at the	frequency of PPSD
	determined from p	reliminary s	cans using F	KB=3KHZ US	sing multiple s	sweeps at a	taster rate c	over the 6dB bandwidth of
	the signal.							























E	Elliott			EM	C Test Data
Client:	Cisco-Linksys			Job Number:	J67313
Model.	WRT600N		-	T-Log Number:	T67324
modol.				Account Manager:	-
Contact:	Kevin Lee				
Standard:	FCC 15.247			Class:	N/A
	Р	ower, Bandwidth	and Spurious	s Emissions	
Test Spe	cific Details Objective: The objec specificati	tive of this test session is to on listed above.	o perform final qualific	cation testing of the EU	IT with respect to the
Da Test Test	te of Test: 3/20/2007 Engineer: Juan M. a Location: Fremont (^r and 3/27/07 nd Mark H. Chamber #3	Config. Used: Config Change: EUT Voltage:	1 <mark>None</mark> 120V/60Hz	
General T The EUT wa single chain	Test Configuration as connected to the s	on spectrum analyzer or powe	r meter via a suitable	attenuator. All measu	rements were made on a
All measure	ments have been co	rrected to allow for the exte	ernal attenuators used	d.	
Ambient	Conditions:	Temperature: Rel. Humidity:	18 ℃ 45 %		
Summary	/ of Results				

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15.247(b)	Pass	20.6 dBm
2	Power spectral Density (PSD)	15.247(d)	Pass	1.0 dBm/3kHz
3	6dB Bandwidth	15.247(a)	Pass	36.7 MHz
3	99% Bandwidth	RSS GEN	-	37.1 MHz
4	Spurious emissions	15.247(b)	Pass	Refer to plots

Modifications Made During Testing: No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

E	Elliott						EM	C Test	t Data
Client:	Cisco-Linksys					J	ob Number:	J67313	
Model	WRT600N					T-L	og Number:	T67324	
						Accour	nt Manager:	-	
Contact:	Kevin Lee								
Standard:	FCC 15.247						Class:	N/A	
Run #1: 0	utput Power, MCS	0							
Iransmitte	d signal on chain is	coherent?	Yes						
ESI Power	Measurements								
Power		Output	Power (dBr	n) ^{Note 1}	Antenr	na Gain (dBi) Note 3	EIRF	Note 2
Setting ⁴	Frequency (MHZ)	Chain 1	Chain 2	Total	Chain 1	Chain 2	Total	dBm	W
0x423E	2422	16.6	16.6	19.6	3.6	3.6	6.6	26.2	0.419
0x403C	2437	17.7	17.5	20.6	3.6	3.6	6.6	27.2	0.527
0x4A46	2452	15.9	15.5	18.7	3.6	3.6	6.6	25.3	0.341
Note 1:	RBW=1MHz, VB=3 analyzer was confi transmitting) and p	3 MHz, samp gured with a ower integra	ole detector a gated swe ation over 5	, power ave ep such tha 0 MHz	raging on (tra t the analyzer	nsmitted sig was only sv	nal was not veeping whe	continuous b en the device	ut the ESI was
Note 2:	EIRP - if transmit c power (i.e. beam-fo then the EIRP is ca	hains are co orming is as alculated fro	oherent ther sumed beca m the sum o	n the EIRP is ause of cohe of the indivic	s calculated fi erency on the dual EIRPs fo	rom the sum chains). If t r each chain	of the anter the individua	nna gains plu al chains are i	s the total ncoherent
Note 3:	If the transmit chair antenna. If the tran can be treated inde	ns are cohei nsmit chains ependently.	rent then the are incohe	e total syste rent then the	em antenna ga e system ante	ain is the sur enna gain is	n of the nun not applicat	neric gains fo ble as each tra	r each ansmit chain
Note 4:	Power setting - if a setting for each cha for chain 2.	single numl ain is separa	ber the sam ated by a co	e power set omma (e.g. >	tting was used k,y would indi	d for each ch cate power s	nain. If mult setting x for	iple numbers chain 1, powe	the power er setting y



E	Elliott							E	EM (C Te	est	Da	ata
Client:	Cisco-Linksys							Job Num	nber:	J67313			
Model:	WRT600N						٨٥	T-Log Num	nber:	T67324			
Contact:	Kevin Lee						70		ager.	-			
Standard:	FCC 15.247							С	lass:	N/A			
				Chain 2	2								
R		Marker	1 [T1]		RBW		1 M	Hz R	F At	t	20	dB	
Ref	Lvl .2 dBm		-29. 2.447000	32 dBm	VBW SWT		1 M 5 m	Hz .s Ui	nit			dBm	
14.2	.2 dB Offse	_					v ₁	[T1]		-29	.32	dBm	
10									2.4	47000	000 (GHz	A
o		m	mm	unitructuly	-North	where	CH CH	BWRAMM	0.0	16.	.64 d	dBm MHz	
													GAT
-10													
-20 _1AV	rg												IN1 1SA
	M. 1									4		M.	
-30											•		
-40													
-50													
-60												_	
-70													
-80 <mark>-00</mark>												C0	
-85.8	tor 2 422 C	Ha		5 M	Hal					Span	50 1	MUG	
Date:	27.MAR.2	ни 2007 08	3:45:21	M C	пи/					span	50 1	MHZ	



Elliot	t				ЕМС Т	est Da	ata
Client: Cisco-Linksys				Job Nu	Imber: J6731	3	
Model: WRT600N				T-Log Nu Account Ma	ımber: T6732 nager: -	4	
Contact: Kevin Lee							
Standard: FCC 15.247		0			Class: N/A		
		Chain 2	2				
Ref Lyl	Marker I [TI]	.33 dBm	RBW VBW	1 MHz	RF Att	20 dB	
↓ 14.2 dBm	2.44700	000 GHz	SWT	5 ms	Unit	dBm	
14.2 7.2 dB Offs	et			▼1 [T1]		3.33 dBm	
	have welly amounted	horrowell,	mmunmuch	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2.44700 MMM 17	000 GHz .47 dBm	A
-10				CH BW	50.00000	000 MHz	GAT
_20 1AVG						- <u>A</u>	IN1 1SA
-30 -30						had here	
-40							
-50							
-60							
-70							
-80						C0	
-85.8							
Center 2.437 Date: 27.MAR	GHz .2007 09:49:10	5 M	Hz/		Spar	n 50 MHz	

Elliott	,			1	EMC	Test Da	ata
Client: Cisco-Linksys				Jo	b Number: J6731	13	
Model: WRT600N				I-Lo Accourt	g Number: 16732	24	
Contact: Kevin Lee				7,000011			
Standard: FCC 15.247					Class: N/A		
		Chain [·]	1				
	Marker 1 [T1]		RBW	1 MHz	RF Att	20 dB	
Ref Lvl 14.2 dBm	-31. 2.477000	.48 dBm)00 GHz	VBW SWT	1 MHz 5 ms	Unit	dBm	L
14.2	4		-	X a 5 ma			1
		markylik	Marina	CH PWF	2.4770 2.4770 1 20.0000	1.48 dBm 0000 GHz 5.86 dBm 0000 MHz	AGAT
-10 -20 1AVG							IN1 1SA
-30 10 Ka						1 mg	ż
-40							
-60							
-70						CO	
-85.8							
Center 2.452 G	GHz 2007 10:24:24	5 M	Hz/		Spa	n 50 MHz	


























_						
E	Ellic	ott			EM	C Test Data
Client:	Cisco-Link	sys	[Job	Number:	J67313
Medel				T-Log	J Number:	T67324
Model:	WR1600N	1	l	Account	Manager:	-
Contact:	Kevin Lee					
Standard:	FCC 15.24	47			Class:	N/A
Test Spec	RSS	210 and FCC 15.2	247 Radiated S	Spuriou	s Emi	ssions
C	Objective:	The objective of this test session specification listed above.	n is to perform final qualifi	ication testing	of the EU	T with respect to the
Date Test I Test	e of Test: Engineer: Location:	3/20/2007 Rafael Varelas Fremont Chamber #3	1 None 120V/60Hz			
General T The EUT an	est Con d all local	figuration support equipment were located	on the turntable for radia	ated spurious e	emissions	testing.
For radiated	emissions	s testing the measurement anten	ina was located 3 meters	from the EUI		
Ambient (Conditio	INS: Temperature: Rel. Humidity:	20.6 °C 45 %			
Summary	of Resu	ults				
Run	#	Test Performed	Limit	Pass / Fail	Result	/ Margin
1 (802.11r 20MHz CD	n Mode) D MCS0	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	49.90 (312.6) <u>3453.3M</u>	ΙΒμV/m μV/m) @ Hz (-4.1dB)
Modificat No modificat Deviation No deviation	ions Ma tions were s From is were ma	de During Testing: made to the EUT during testing The Standard ade from the requirements of the	e standard.			









F	Ellic	<u>)tt</u>						EM	IC Test Data		
Client:	Cisco-Link	ksys						Job Number:	J67313		
Madalı							T-L	og Number:	T67324		
Model:	WRIGUUN	l 					Accou	int Manager:	-		
Contact:	Kevin Lee	1									
Standard:	FCC 15.24	47						Class:	: N/A		
Run #1b: 0	Continued										
Preliminary Readings											
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	00			
3453.340	50.1	H	54.0	-3.9	Peak	142	1.4	Non-restric	ted		
1200.000	46.7	Н	54.0	-7.3	Peak	266	2.0				
1995.830	45.6	V	54.0	-8.4	Peak	285	1.3				
2433.330	44.4	V	54.0	-9.6	Peak	89	1.3	1			
4874.000	49.0	V	54.0	-5.0	Peak	48	1.6				
5750.000	53.0	Н	54.0	-1.0	Peak	117	1.7	Non-restric	ted		
5190.000	44.7	V	54.0	-9.3	Peak	257	1.6	Non-restric	ted		
7310.830	44.7	V	54.0	-9.3	Peak	72	1.0				
9749.170	47.1	V	54.0	-6.9	Peak	321	1.9	Non-restric	ted		
10373.33	40.3	V	54.0	-13.7	Peak	240	1.6	Non-restric	ted		
14626.67	39.0	V	54.0	-15.0	Peak	27	1.6	Non-restric	ted		
Maximized	Readings				. 						
Frequency	Level	Pol	15.209 /	15.247	Detector	Azimuth	Height	Comments			
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	<u> </u> ,			
3453.360	48.9	H H	54.0	-5.1	AVG	141	1.4	Non-restric	ted		
3453.360	51.4	H	/4.0	-22.6		141	1.4	Non-restric	ted		
48/3.900	40.7		54.0	-1.3	AVG	49	1.0	-			
48/3.900	51.0	V L	/4.U	-23.0		49	1.0	Nen rootrio	منانمه محلججيا		
5/50.000	32.Z		54.0 74.0	-21.0		291	1.0	Non-restric	ted, random spike		
5/50.000	43.0		14.0	-31.0	۳۸	291	1.0	NO[1-165010	ted, random spike		
Note 1:	For emissi the level c	ions in re of the fun	estricted ban	ids, the limi id measure	t of 15.209 w d in 100kHz.	as used. Fo	r all other e	missions, the	e limit was set 30dB below		
Note 2:	No spurio	us emiss	ion, being 2	0-dB of the	limit, were de	etected abov	e 18GHz.				
1											





F	Ellic)tt						EM	C Test Data
Client:	Cisco-Link	SVS						Job Number:	J67313
		-] -					T-I	og Number:	T67324
Model:	WRT600N						Accou	Int Manager:	-
Contact:	Kevin Lee								
Ctandard	ECC 15 2/	17						Class	NI/A
Standard:	FCC 15.24	+/						01855.	IN/A
Run #1c: C	ontinued								
Movimizod	Doodingo								
Frequency	Readings	Pol	15 209	/ 15 247	Detector	Azimuth	Height	Comments	
MH ₇	dBuV/m	v/h	Limit	Margin		dearees	meters	Comments	
3453 320	49 9	H	54 0	-4 1	AVG	126	14	Non-restric	ted
3453.320	52.8	H	74.0	-21.2	PK	126	1.4	Non-restric	ted
4923.800	44.7	V	54.0	-9.3	AVG	51	1.6		
4923.800	48.8	V	74.0	-25.2	PK	51	1.6		
9848.810	39.3	V	54.0	-14.7	AVG	297	1.0	Non-restric	ted
9848.810	54.2	V	74.0	-19.8	PK	297	1.0	Non-restric	ted
Note 1 [.]	For emissi	ons in re	estricted bar	nds, the limi	it of 15.209 w	as used. Fo	r all other e	emissions, the	e limit was set 30dB below
	the level of	f the fun	damental ar	nd measure	ed in 100kHz.				
Note 2:	No spuriou	us emiss	sion, being 2	0-dB of the	limit, were d	etected abov	e 18GHz.		

F	Ellic	ott			EM	C Test Data
Client:	Cisco-Linl	ksys		Jo	b Number:	J67313
Madal		.1		T-Lo	g Number:	T67324
	WKIOUUN	·		Accoun	it Manager:	
Contact:	Kevin Lee	· · · · · · · · · · · · · · · · · · ·				
Standard:	FCC 15.24	47			Class:	N/A
Test Spe	RSS	210 and FCC 15.2 ails	247 Radiated S	Spuriou	ıs Emi	ssions
	Objective:	The objective of this test sessio specification listed above.	n is to perform final qualifi	ication testin	g of the EU	T with respect to the
Da	te of Test:	3/26/2007	Config. Used:	1		
Test	Engineer:	Rafael Varelas	Config Change:	None		
lest	: Location:	Fremont Chamber #3	EUT Voltage:	120V/60Hz		
The EUT ar	nd all local	support equipment were located s testing the measurement anter	1 on the turntable for radia nna was located 3 meters	ited spurious	emissions	testing.
Ampient	Conditio	Rel. Humidity:	43 %			
Summary	y of Resi	ults				
Rur	ו #	Test Performed	Limit	Pass / Fail	Result	/ Margin
1 (802.11	n Mode)	RE, 30 - 18000 MHz -	FCC Part 15.209 /	Doco	50.7d (342.8	IBµV/m
40MHz CC	D MCS0	Spurious Emissions	15.247(c)	Pass	(342.0) 3453 3M	uv/m) @ Hz (-3.3dB)
Modificat No modifica Deviatior No deviatio	tions Ma ations were ns From ns were ma	de During Testing: made to the EUT during testing The Standard ade from the requirements of the) e standard.			



Client	Cisco-Link	sys					J	lob Number:	J67313
Madal		1					T-L	og Number:	T67324
Model	WR1600N						Accou	nt Manager:	: -
Contact	Kevin Lee								
Standard	FCC 15.24	47						Class:	N/A
Pup #1a	10.000 -	18 000 1	MHA V/H						
Kun #1a	: 10,000 -	10,0001	יורצ, אור						
75.0									
70.0	-								
65.0	-								
- É 60.0	_								
9									
9 50.0									بمر.
문 45.0	-								white and
⁻ 40.0	- -		•		. were	4			AN AND AND AND AND AND AND AND AND AND A
35.0	- monthly	ment	manual	www	hard a server	Annual Ad	man	whent	and a start of the
30.0									
1	0000	11000	1200)0 13	3000 1	4000 :	15000	16000	17000 1800
-	0000								
-					Freque	ncy (MHz)			
					Freque	ency (MHz)			
-					Freque	ency (MHz)			
Preliminar	v Readings	3			Freque	ency (MHz)			
Preliminar Frequency	y Readings	s Pol	15.209	/ 15.247	Freque Detector	ncy (MHz) Azimuth	Height	Comments	
Preliminar Frequency MHz	y Readings	s Pol v/h	15.209 / Limit	/ 15.247 Margin	Freque Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
Preliminar Frequency MHz 3453.380	y Readings Level dBμV/m 50.6	s Pol V/h H	15.209 J Limit 54.0	/ 15.247 Margin -3.4	Freque Detector Pk/QP/Avg Peak	Azimuth degrees 141	Height meters 1.4	Comments Non-restric	sted
Preliminar Frequency MHz 3453.380 1200.000	y Readings Level dBµV/m 50.6 46.5	Pol V/h H H	15.209 J Limit 54.0 54.0	/ 15.247 Margin -3.4 -7.5	Freque Detector Pk/QP/Avg Peak Peak	Azimuth degrees 141 269	Height meters 1.4 2.0	Comments Non-restric Non-restric	sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000	y Readings Level dBμV/m 50.6 46.5 44.6	S Pol V/h H H V	15.209 / Limit 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4	Freque Detector Pk/QP/Avg Peak Peak Peak	Azimuth degrees 141 269 204	Height meters 1.4 2.0 1.0	Comments Non-restric Non-restric Non-restric	sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 4843.870	y Readings Level dBμV/m 50.6 46.5 44.6 48.3	s Pol V/h H H V V	15.209 / Limit 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7	Freque Detector Pk/QP/Avg Peak Peak Peak Peak	Azimuth degrees 141 269 204 252	Height meters 1.4 2.0 1.0 2.0	Comments Non-restric Non-restric Non-restric	sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5	s Pol V/h H H V V V	15.209 J Limit 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102	Height meters 1.4 2.0 1.0 2.0 1.1	Comments Non-restric Non-restric Non-restric	sted sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500 10360.00	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0	s Pol V/h H H V V V H H	15.209 J Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120	Height meters 1.4 2.0 1.0 2.0 1.1 1.0	Comments Non-restric Non-restric Non-restric	sted sted sted sted
Preliminar Trequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500 10360.00 11986.67	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1	s Pol V/h H H V V V H H H H	15.209 / Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin 3.4 7.5 9.4 5.7 7.5 7.0 13.9	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0	Comments Non-restric Non-restric Non-restric	sted sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500 10360.00 11986.67 14600.00	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0	Pol V/h H H V V H H H V V	15.209 / Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0	Comments Non-restric Non-restric Non-restric	sted sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 2425.000 14843.870 5742.500 10360.00 11986.67 14600.00	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0	8 Pol V/h H H V V H H H V V	15.209 Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0	Comments Non-restric Non-restric Non-restric	sted sted sted sted
Preliminar Trequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500 10360.00 11986.67 14600.00 Maximized	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings	s Pol V/h H H V V V H H H V V	15.209 J Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0	Comments Non-restric Non-restric Non-restric	sted sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500 10360.00 11986.67 14600.00 Maximized Frequency Mile	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dPu///	Pol V/h H H V V H H H V V	15.209 / Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 Height	Comments Non-restric Non-restric Non-restric	sted sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500 10360.00 11986.67 14600.00 Maximized Frequency MHz 2452.270	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dBμV/m 40.4	Pol V/h H H V V H H H V V V V V V V V V V	15.209 Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247 Margin	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth degrees	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 Height meters	Comments Non-restric Non-restric Non-restric	sted sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 12425.000 12425.000 10360.00 11986.67 14600.00 11986.67 14600.00 MHz 3453.370 3453.370 3453.370	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dBμV/m 49.4 52.0	Pol V/h H H V V H H H V V Pol V/h H	15.209 Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247 Margin -4.6 22.0	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth degrees 141	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 1.0 Height meters 1.4	Comments Non-restric Non-restric Non-restric	sted sted sted sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 2425.000 1200.000 1200.000 1200.000 11986.67 14600.00 14600.00 MHz 3453.370 3453.370 3453.370	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dBμV/m 49.4 52.0 45.0	Pol V/h H H V V H H H V V Pol V/h H H H	15.209 Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247 Margin -4.6 -22.0 0.0	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth degrees 141 141 252	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 1.0 Height meters 1.4 1.4	Comments Non-restric Non-restric Non-restric	sted sted sted sted sted sted sted sted sted
Preliminar Trequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500 10360.00 10360.00 11986.67 14600.00 Iaximized Trequency MHz 3453.370 3453.370 4843.870 4843.870	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dBμV/m 49.4 52.0 45.0 50.2	Pol V/h H H V V V H H H V V V h H V V V V V V V V V V V V V	15.209 Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247 Margin -4.6 -22.0 -9.0 -22.9	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth degrees 141 141 252 252	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 1.0 Height meters 1.4 1.4 1.9 1.0	Comments Non-restric Non-restric Non-restric Non-restric	sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 4843.870 5742.500 10360.00 11986.67 14600.00 MHz 3453.370 3453.370 4843.870 4843.870	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dBμV/m 49.4 52.0 45.0 50.2	Pol V/h H H V H H V H H H H H H H H H H V Vh H V Vh H V Vh V V V V	15.209 / Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247 Margin -4.6 -22.0 -9.0 -23.8	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth degrees 141 141 252 252	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 1.1 1.0 1.0 1.0 1.1 1.0 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.1 1.2 1.4 1.9 1.9	Comments Non-restric Non-restric Non-restric Non-restric Non-restric Non-restric	sted sted sted sted sted sted sted sted
Preliminar Frequency MHz 3453.380 1200.000 2425.000 2425.000 1200.000 1200.000 11986.67 14600.00 11986.67 14600.00 11986.67 14600.00 MHz 3453.370 3453.370 3453.370 4843.870 4843.870	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dBμV/m 49.4 52.0 45.0 50.2	Pol V/h H H V V H H H V V V H H H V V V h H H V V V	15.209 Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247 Margin -4.6 -22.0 -9.0 -23.8	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth degrees 141 141 252 252	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.1 1.0 1.0 1.0 1.1 1.0 1.1 1.2 1.4 1.9 1.9	Comments Non-restric Non-restric Non-restric Non-restric Non-restric	e limit was set 20dP h
Preliminar Frequency MHz 3453.380 1200.000 2425.000 2425.000 12425.000 12425.000 12425.000 12425.000 12425.000 1443.870 14600.00 146	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dBμV/m 49.4 52.0 45.0 50.2 For emiss the loyed of the second of the loyed o	Pol V/h H H V V V H H H H V V V H H H H V V V	15.209 Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247 Margin -4.6 -22.0 -9.0 -23.8	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth degrees 141 141 252 252 252 as used. Fo	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 1.0 1.0 Height meters 1.4 1.4 1.9 1.9 1.9	Comments Non-restric Non-restric Non-restric Non-restric Non-restric Non-restric	e limit was set 30dB be
Preliminar Trequency MHz 3453.380 1200.000 2425.000 2425.000 120360.00 11986.67 14600.00 14600.00 14600.00 14843.870 3453.370 3453.370 3453.370 14843.870 1843.870 10te 1:	y Readings Level dBμV/m 50.6 46.5 44.6 48.3 46.5 47.0 40.1 42.0 Readings Level dBμV/m 49.4 52.0 45.0 50.2 For emissisthe level of No equiring	Pol V/h H H V V H H H V V Pol V/h H H V V v/h	15.209 Limit 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	/ 15.247 Margin -3.4 -7.5 -9.4 -5.7 -7.5 -7.0 -13.9 -12.0 / 15.247 Margin -4.6 -22.0 -9.0 -23.8 mds, the limit add measure 0 dP of the	Freque Detector Pk/QP/Avg Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 141 269 204 252 102 120 73 228 Azimuth degrees 141 141 252 252 252 as used. Fo	Height meters 1.4 2.0 1.0 2.0 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Comments Non-restric Non-restric Non-restric Non-restric Non-restric Non-restric	e limit was set 30dB be





Æ	Elliott		EM	C Test Data
Client:	Cisco-Linksys		Job Number:	J67313
Model:			T-Log Number:	T67324
Model.			Account Manager:	-
Contact:	Kevin Lee			
Standard:	FCC 15.247		Class:	N/A
Note 1: Note 2:	For emissions in restricted bands, the level of the fundamental and mea No spurious emission, being 20-dB c	e limit of 15.209 was used. For asured in 100kHz. f the limit, were detected above	all other emissions, the 18GHz.	e limit was set 30dB below

Ellic	ott			EM	C Test	Data
Client: Cisco-Lini	ksys		Jo	ob Number:	J67313	
Model: WRT6001	V		T-Lo	og Number:	T67324	
			Accour	it Manager:	-	
Standard: FCC 15.2	47			Class:	N/A	
RSS	210 and FCC 15.2	247 Radiated S	Spuriou	us Emi	issions	
Test Specific Det Objective:	ails The objective of this test session	n is to perform final qualifi	ication testin	ig of the EU	JT with respect	to the
Date of Test: Test Engineer: Test Location:	3/26/2007 Rafael Varelas Fremont Chamber #3	Config. Used: Config Change: EUT Voltage:	1 None 120V/60Hz			
General Test Con The EUT and all local	Ifiguration support equipment were located	on the turntable for radia	ated spurious	s emissions	testing.	
For radiated emission:	s testing the measurement anten	na was located 3 meters	from the EU	IT.		
Ambient Conditic	Temperature: Rel. Humidity:	20.1 °C 45 %				
Summary of Res	ults					
Run #	Test Performed	Limit	Pass / Fail	Result	/ Margin	
1 (802.11n Mode) 40MHz SISO	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	50.0d (316.2j 3453.3MI	lBμV/m μV/m) @ Hz (-4.0dB)	
Modifications Ma No modifications were Deviations From No deviations were ma	de During Testing: made to the EUT during testing The Standard ade from the requirements of the	standard.				

E	Ellic	ott						EMC Test Data		
Client:	Cisco-Link	sys						Job Number: J67313		
Model:		I					T-L	_og Number: T67324		
Model.		1					Accou	ınt Manager: -		
Contact:	Kevin Lee									
Standard:	FCC 15.24	47						Class: N/A		
Run #1a:(Maximized	Continued									
Frequency	l evel	Pol	15.209	15.247	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
3453.390	49.9	Н	54.0	-4.1	AVG	129	1.4	Non-restricted		
3453.390	52.6	Н	74.0	-21.4	PK	129	1.4	Non-restricted		
1199.990	48.1	Η	54.0	-5.9	AVG	252	2.0			
1199.990	50.2	Η	74.0	-23.8	PK	252	2.0			
4843.960	45.5	V	54.0	-8.5	AVG	43	1.6			
4843.960	48.0	V	74.0	-26.0	PK	43	1.6			
5270.420	32.6	<u>H</u>	54.0	-21.4	AVG	103	1.7	Non-restricted, random spike		
5270.420	44.3	Н	74.0	-29.7	PK	103	1.7	Non-restricted, random spike		
Note 2: Non-restric	No spuriou	us emiss emissio	ion, being 2	0-dB of the	limit, were d	etected abov	e 18GHz.			
Measureme	ents taken	using F	RBW=VBW=	100 kHz	vv m					
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
2448.500	96.2	V	-	-	-	258	1.0	Fundamental		
2455.580	97.6	Η	-	-	-	288	1.0	Fundamental		
5258.200	37.4	V	66.2	-28.8	pk	118	1.0			
5250.130	40.7	Н	67.6	-26.9	pk	324	1.0			

	יוור.								
1)	1111)[[EW	C Test Data
Client:	Cisco-Link	sys						Job Number:	J67313
Model:	WRT600N	J					T-L	_og Number:	T67324
					Accou	int Manager:	-		
Contact: Kevin Lee									
Standard:	FCC 15.24	47				Class:	N/A		
Run #1c: C	ontinued								
Maximized	Readings								
Frequency	Level	Pol	15.209 /	/ 15.247	Detector	Azimuth	Height	Comments	, ,
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
3453.390	49.2	Н	54.0	-4.8	AVG	129	1.7	Non-restric	ted
3453.390	52.1	H	74.0	-21.9	PK	129	1.7	Non-restric	ted
4904.010	46.7	V	54.0	-7.3	AVG	54	1.6		
4904.010	49.2	V	74.0	-24.8	PK	54	1.6	N	t to see to see the
9839.030	36.0	V	54.U	-18.0		151	1.0	Non-restric	ted, random spike
9039.030	47.1	V	74.0	-20.9	Pn	101	1.0	Non-restric	ted, random spike
	For emiss	ions in re	stricted bar	nds. the limi	t of 15,209 w	as used. Fo	r all other e	missions. th	e limit was set 30dB below
Note 1:	the level o	of the fun	damental ar	nd measure	d in 100kHz.				
Note 2:	No spurio	us emiss	ion, being 2	0-dB of the	limit, were de	etected abov	e 18GHz.		

Ellic	ott			EM	C Test	t Data
Client: Cisco-Link	ksys		J	ob Number:	J67313	
Model: WRT600N	J		T-Lo	og Number:	T67324	
	.		Accour	nt Manager:	-	
Contact: Kevin Lee	47		Class	N/A		
RSS	210 and FCC 15.2	247 Radiated S	Spuriou	us Emi	issions	
Test Specific Det Objective:	ails The objective of this test session specification listed above.	n is to perform final qualif	ication testir	ng of the EL	IT with respec	t to the
Date of Test: Test Engineer: Test Location:	3/20/2007 Rafael Varelas Fremont Chamber #3	Config. Used: Config Change: EUT Voltage:	1 None 120V/60Hz			
General Test Con The EUT and all local For radiated emissions	ifiguration support equipment were located s testing the measurement anter	l on the turntable for radia	ated spurious	s emissions JT.	testing.	
Ambient Conditic	DNS: Temperature: Rel. Humidity:	20.6 °C 45 %				
Summary of Resi	ults					
Run #	Test Performed	Limit	Pass / Fail	Result	/ Margin	
1 (802.11b Mode)	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	49.70 (305.5 3453.4M	1BµV/m µV/m) @ Hz (-4.3dB)	
2 (802.11g Mode)	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	49.90 (312.6 3453.2M	1ΒμV/m μV/m) @ Hz (-4.1dB)	
Modifications Ma No modifications were Deviations From	de During Testing: made to the EUT during testing The Standard					
	ade nom the requirements of the	s stallualu.				

S	Ellic	ott						EM	C Test Data
Client:	Cisco-Link	(SVS						loh Number	.167313
onorm.	0.000 2						T-I	og Number:	T67324
Model:	WRT600N						Accou	nt Manager:	-
Contact:	Kevin Lee								
Standard:	FCC 15.24	47						Class:	N/A
Run #1a	10.000 -	18,000	MHz, V/H						
		,							
80.0	-								
70.0	-								
- 8 60.0									
l P_									
분 50,0									
₹ 									and and we want
40.0			Å		an under and	mmul	A	. 64.	mander
20.0	many	manne	musion	www.www.	•		Mar and	harrow the get	r
30.0		11000	1200		3000 1	4000	15000	16000	17000 18000
-					Frequ	ency (MHz)			
Preliminary	Reading	5							
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1200.000	47.0	Н	54.0	-7.0	Peak	267	2.0		
2414.790	48.2	V	54.0	-5.8	Peak	222	1.0	Non-restric	ted
3453.340	50.4	H	54.0	-3.6	Peak	135	1.4	Non-restric	ted
4824.000	47.1	V	54.0	-6.9	Peak	111	1.3	Non no stalo	4l
5835.000	48.7	V	54.0	-5.3	Peak	15	2.2	Non-restric	ted
7225.000	42.7	V	54.0	-11.3	Peak	205	1.0	Non-restric	ted
9648.000	40.0 50.1	V	54.0	-3.9	Peak	96	1.5	Non-restric	ted
10373.33	40.4	Ĥ	54.0	-13.6	Peak	275	1.3	Non-restric	ted
14480.00	39.7	V	54.0	-14.3	Peak	67	1.0		
			. <u> </u>					-	
Maximized	Readings				-				
Frequency	Level	Pol	15.209/	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	N	()
3453.400	49.7	H	54.0	-4.3	AVG	135	1.4	Non-restric	ted
3453.400	52.U	H	74.U	-22.0	PK AV/C	135	1.4	Non-restric	ted
2414.000	59.5 15.8	V \/	04.0 7/ 0	-14.7		222	1.0	Non-restric	ted
4824 040	45.8	V	54.0	-20.2		108	1.0		เธน
4824 040	48.6	V	74.0	-25.4	PK	108	1.3	<u> </u>	
9647.670	45.4	V	54.0	-8.6	AVG	305	1.7	Non-restric	ted
9647.670	50.7	V	74.0	-23.3	PK	305	1.7	Non-restric	ted
	Eor omical	ione in re	etrioted her	de the limi	t of 15 200 ··	inclused En	r all other a	missiona th	a limit was sat 20dB below
Note 1:		iuns III le f the fun	lamental ar	ius, lite IIM nd measure	ເບເເວີ.209 W d in 10.0kHອ	as used. FO	i all other e	THISSIONS, TH	e minit was set sour below
Note 2 [.]			ion heina 2	0-dB of the	limit were d	etected abov	e 18GHz		
. 1010 2.			, song 2						



Elliott EMC Test Data									
Client:	nt: Cisco-Linksys						Job Number: J67313		
Madal						T-Log Number: T67324			
IVIODEI:	WRIGUUN	WRIOUUN					Account Manager: -		
Contact:	t: Kevin Lee								
Standard:	Standard: FCC 15.247							Class:	N/A
Non-restric	ted band	emissio	ns that exc	eeded 15.2	09 limits.				
Measurem	ents taken	using F	RBW=VBW=	=100 kHz					
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2459.150	103.0	V	-	-	-	307	1.0	Fundament	tal
2461.200	100.3	<u>H</u>	-	-	-	225	1.0	Fundament	tal
9847.920	53.5	<u>V</u>	83.0	-29.5	pk	342	1.0		
9847.870	54.3	Н	80.3	-26.0	рк	293	1.0		
Note 2:	No spurior	us emiss	ion, being 2	0-dB of the	limit, were d	etected abov	<u>e 18GHz.</u>		













EXHIBIT 3: Photographs of Test Configurations

1 Page

EXHIBIT 4: Proposed FCC ID Label & Label Location

EXHIBIT 5: Detailed Photographs of Cisco-Linksys Model WRT600NConstruction

EXHIBIT 6: Operator's Manual for Cisco-Linksys Model WRT600N

EXHIBIT 7: Block Diagram of Cisco-Linksys Model WRT600N

EXHIBIT 8: Schematic Diagrams for Cisco-Linksys Model WRT600N

EXHIBIT 9: Theory of Operation for Cisco-Linksys Model WRT600N

EXHIBIT 10: RF Exposure Information