

TEST REPORT

Report Number: 3126331ATL-003

June 29, 2007

Product Designation: RF9542Z

Standard: FCC Part 15, Subpart C, 15.249 / RSS-210 Issue 7 / RSS-GEN
Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz.

Tested by:

Intertek Testing Services NA Inc.
1950 Evergreen Blvd., Suite 100
Duluth, GA 30096

Client:

Cooper Wiring Devices
203 Cooper Circle
Peachtree City, GA 30269
Contact: Oscar Neundorfer
Phone: 770.632.2254
Fax: 770.632.2268

Tests performed by:



Richard C. Bianco
EMC Project Engineer

Report reviewed by:



David J. Schramm
EMC Department Manager

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1.0 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 3.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested complies with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

2.0 Test Summary

Section	Test Full Name	Test Date	Result
4.0	System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)		
5.0	Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)		
6.0	Conducted emissions on AC power lines (15.107 / 15.207 / RSS-GEN)	06/22/2007	PASS
7.0	Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))	06/22/2007	PASS

3.0 Description of Equipment Under Test

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
Dimmer Switch	Cooper Wiring	RF9542Z	NA

EUT receive date:	06/20/2007
EUT receive condition:	Good

Description of EUT provided by Client:

Provides homeowners with local and remote control for programmable fade on/off and delayed off (1 sec to 4 minutes), dim/bright, child lock, and scene control for up to 5 associated devices. Control up to 3 Accessory Dimmers with one single Master Dimmer with LED load indicator and light level status communication.

Description of EUT exercising:

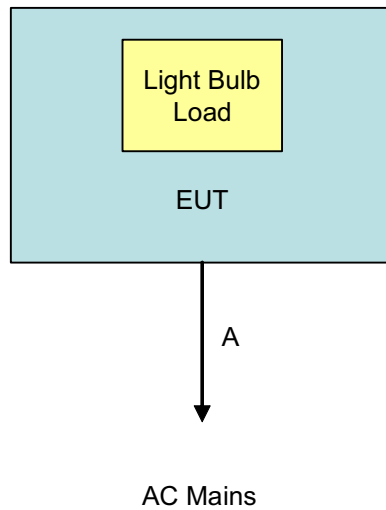
The EUT outlet was loaded with a 60W incandescent bulb while the transmitter was placed in a steady on state for testing.

4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)

Method:

Record the details of EUT cabling, document the support equipment, and show the interconnections in a block diagram.

Drawing:



Block Diagram

4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)

Data:

EUT Cabling						
ID	Description	Length	Shielding	Ferrites	Connection	
					From	To
A	Power Cable	1.2m	No	No	EUT	AC Mains

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
Light Bulb	GE	60W	NA

5.0 Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)

Method:

Complete the overview spreadsheet.

Related Submittal(s) Grants: This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.

Data:

Applicant	Cooper Wiring
	203 Cooper Circle
	Peachtree City, GA 30269
Trade Name & Model No.	Dimmer Switch, RF9542Z
FCC Identifier	
Use of product	To remotely control a light switch
Frequency Range (MHz)	908
Antenna Type (15.203)	Permanently Attached
Manufacturer name & address	Cooper Wiring
	203 Cooper Circle
	Peachtree City, GA 30269

Related Submittals and Grants:	This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.
Additions, deviations and exclusions from standards	None

6.0 Conducted emissions on AC power lines (15.107 / 15.207 / RSS-GEN)

Method:

Equipment setup for conducted disturbance tests shall follow the guidelines of ANSI C63.4:2003.

Measurements in the frequency range of 150kHz to 30 MHz shall be performed with a quasi-peak or average detector instrument that meets the requirements of Section One of CISPR 16. An AMN shall be used to provide a defined impedance at high frequencies across the power feed at the point of measurement of terminal voltage and also to provide isolation of the circuit under test from the ambient noise on the power lines. An AMN defined in CISPR 16 shall be used.

In the frequency range of 150 kHz to 30 MHz, a resolution/video bandwidth of 9kHz/30kHz or greater shall be used.

The EUT shall be located so that the distance between the boundary of the EUT and the closest surface of the AMN is 0.8m.

If a flexible mains cord is provided by the manufacturer that is in excess of 1m, the excess cable shall be folded back and forth as far as possible to form a bundle not exceeding 0.4m in length.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Conducted disturbance shall be measured between each current carrying conductor and the reference ground. Each measured values shall be reported.

If EUT is intended for tabletop use, the EUT shall be placed on a table whose top is 0.8m above the ground plane. A vertical, metal reference plane is placed 0.4m from the EUT. The vertical metal reference-plane is at least 2m by 2m. The EUT shall be kept at least 0.8m from any other metal surface or other ground plane not being part of the EUT. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the floor standing EUT shall be placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material. The metal ground plane shall extend at least 0.5m beyond the boundaries of the EUT and had minimum dimensions of 2m by 2m.

TEST SITE

The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

MEASUREMENT UNCERTAINTY

Compliance of the product is based on the measured value. However, the measurement uncertainty is included for informational purposes. The values given are the measurement uncertainty values with an expanded uncertainty of k=2.

150 kHz to 30 MHz: +/- 2.8 dB

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable TT4	Andrews	Cable TT4	211404	05/10/2007	05/10/2008
Coaxial Cable, 6ft, N(Male) to N(Male)	Mini-Circuits	CBL-6FT-NMNM	TT1	05/10/2007	05/10/2008
EMI Receiver	Hewlett Packard	8546A	211388	08/04/2006	08/04/2007
EMI Receiver, Preselector section	Hewlett Packard	85460A	211389	08/04/2006	08/04/2007
Excel spreadsheet for conducted emissions tests	Software	Excel - CE Worksh	SW002	08/01/2006	08/01/2007
LISN (TT4)	Fischer Custom Comm	FCC-LISN-50-50-M	211406	09/26/2006	09/26/2007
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008
Transient Limiter	Hewlett Packard	11947A	213152	07/27/2006	07/27/2007

Results: The sample tested was found to Comply.

6.0 Conducted emissions on AC power lines (15.107 / 15.207 / RSS-GEN)

Photo:



Front View

6.0 Conducted emissions on AC power lines (15.107 / 15.207 / RSS-GEN)

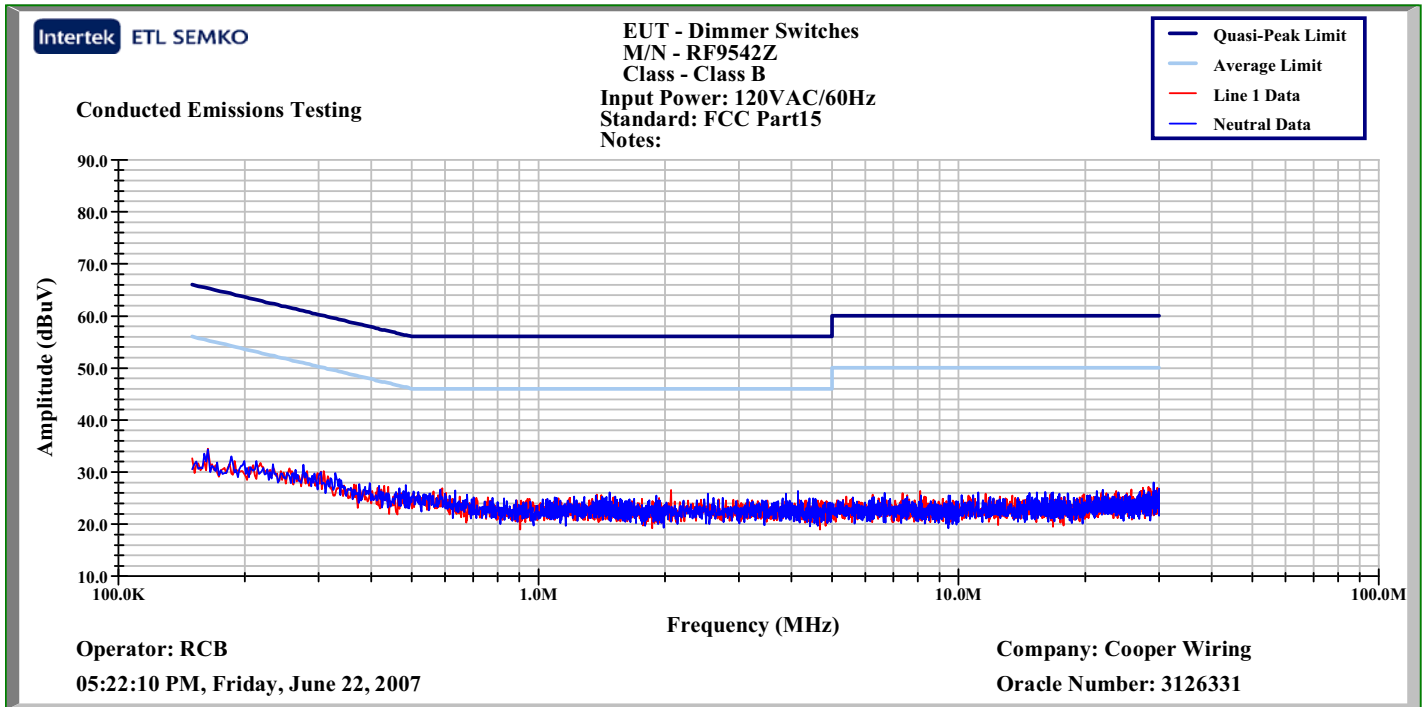
Photo:



Rear View

6.0 Conducted emissions on AC power lines (15.107 / 15.207 / RSS-GEN)

Plot:



120VAC/60Hz

6.0 Conducted emissions on AC power lines (15.107 / 15.207 / RSS-GEN)

Data:

Date: 06/22/2007

Frequency Range (MHz): 30-1000

Input power: 120VAC/60Hz

Limit: CISPR Class B

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I
LISN Number 1,2	Detector (P,QP, A)	Frequency MHz	Reading dBuV	Cable Loss dB	LISN Ins. Loss dB	Net dBuV	Limit dBuV	Margin dB
1	P	0.161	34.6	0.1	6.2	40.9	55.5	-14.6
1	P	0.463	27.4	0.1	6.1	33.6	46.7	-13.1
1	P	0.591	27.1	0.1	6.1	33.3	46.0	-12.7
1	P	2.052	27.3	0.1	6.1	33.5	46.0	-12.5
1	P	3.028	26.4	0.1	6.1	32.6	46.0	-13.4
1	P	4.330	26.0	0.1	6.1	32.2	46.0	-13.8
2	P	0.161	34.4	0.1	6.2	40.7	55.5	-14.8
2	P	0.463	26.8	0.1	6.1	33.0	46.7	-13.7
2	P	0.591	27.8	0.1	6.1	34.0	46.0	-12.0
2	P	2.052	25.9	0.1	6.1	32.1	46.0	-13.9
2	P	3.028	26.3	0.1	6.1	32.5	46.0	-13.5
2	P	4.330	26.5	0.1	6.1	32.7	46.0	-13.3
Calculations		G=D+E+F		I=G-H				

Note: Peak measurements are compared to the average limit.

7.0 Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))

Method:

Measurements shall be performed with a quasi-peak detector instrument that meets the requirements of Section One of CISPR 16.

Bandwidths:

30 MHz to 1000 MHz: 120 kHz RBW and 1 MHz VBW

Above 1000 MHz: 1 MHz RBW and 3 MHz VBW

Frequency range of radiated measurements

For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.
- (4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1) through (a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

Measurement antenna requirements:

Below 30 MHz - Loop antenna

30 to 1000 MHz - Biconical, Log Periodic, or equivalent

Above 1000 MHz - Horn or equivalent

Measurements of the radiated field are made with the antenna located at a distance of 3 or 10 meters from the EUT. The limit applied to the measurement shall be appropriate for the test distance. The test distance shall be indicated in the results section.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Exploratory tests should be carried out while varying the cable positions to determine the maximum or near-maximum emission level. During manipulation, cables shall not be placed under or on top of the system test components unless such placement is required by the inherent equipment design.

The antenna shall be adjusted between 1m and 4m in height above the ground plane for maximum meter reading at each test frequency.

The antenna-to-EUT azimuth shall be varied during the measurement to find the maximum field-strength readings.

The antenna-to-EUT polarization (horizontal and vertical) shall be varied during the measurements to find the maximum field-strength readings.

If the EUT is handheld, it shall be oriented in each of its orthogonal axes.

If the EUT is intended for tabletop use, it shall be placed on a table whose top is 0.8m above the ground plane. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the EUT was placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material.

Equipment setup for radiated disturbance tests shall follow the guidelines of ANSI C63.4:2003.

TEST SITE

The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Antenna, BiLog (20MHz to 2GHz)	Chase	CBL6112A	211518	12/15/2006	12/15/2007
Antenna, Horn, 1-18 GHz	EMCO	3115	213061	04/02/2007	04/02/2008
Cable E01, <18GHz	Pasternack	RG214/U	E01	05/10/2007	05/10/2008
Cable E04, <18GHz	Huber-Suhner	Sucoflex 104PE	E04	05/14/2007	05/14/2008
Cable E05, <18GHz	Huber-Suhner	Sucoflex 104PEA	E05	05/10/2007	05/10/2008
Cable, 18 GHz, N, 10m	Megaphase	G919-NKNK-394	MP3	05/10/2007	05/10/2008
Cable, 18 GHz, N, 3m	Megaphase	TM18 NKNK 118	E201	01/15/2007	01/15/2008
Coaxial Cable, 7m, N-N, 18 GHz	Storm Products Co.	PR90-206-7MTR	ST1	01/11/2007	01/11/2008

7.0 Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
EMI Receiver	Hewlett Packard	8546A	211388	08/04/2006	08/04/2007
EMI Receiver, Preselector section	Hewlett Packard	85460A	211389	08/04/2006	08/04/2007
Excel spreadsheet for radiated emissions	Software	Excel - RE Worksh	SW004	08/01/2006	08/01/2007
High Pass Filter, 1 GHz	Filtek	HP12/1000-5AB	213156a	03/14/2007	03/14/2008
Preamplifier, 10 MHz to 2000 MHz, 27 dB gain	Mini-Circuits	ZKL-2	200074	02/08/2007	02/08/2008
Preamplifier, 20 MHz to 18 GHz, 40 dB	A.H. Systems	PAM-0118	200108	03/21/2007	03/21/2008
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008

Results: The sample tested was found to Comply.

Photo:



Front View

7.0 Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))

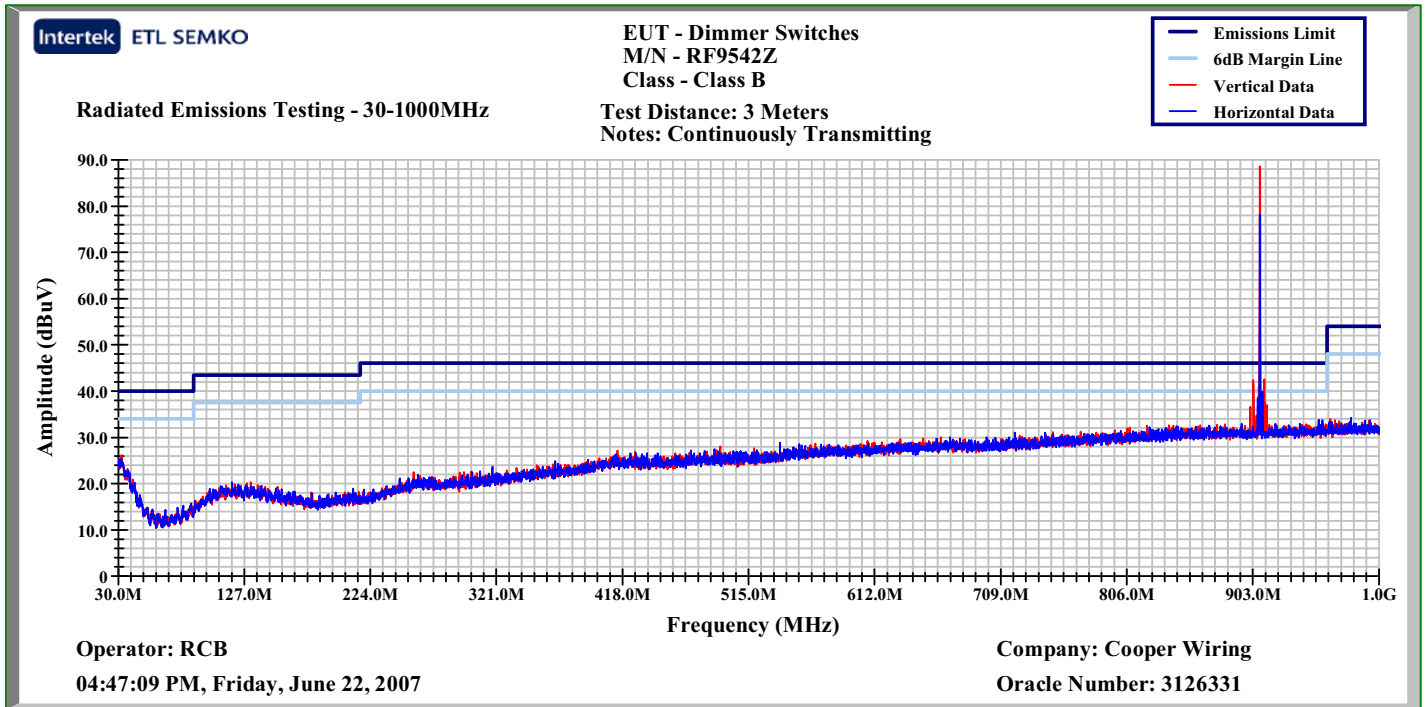
Photo:



Rear View

7.0 Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))

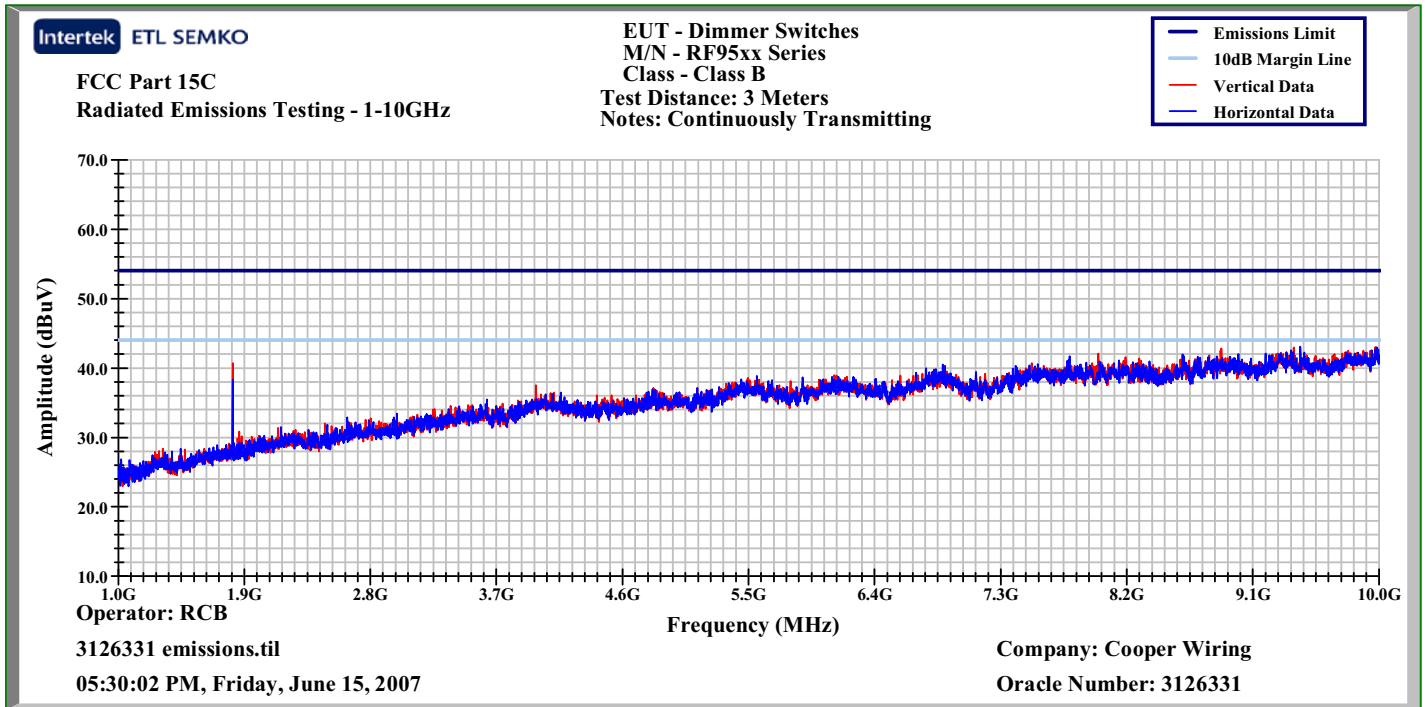
Plot:



30MHz-1000MHz

7.0 Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))

Plot:



1GHz-10GHz

7.0 Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))

Data:

Date: 06/22/2007

Frequency Range (MHz): 30-1000

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15 Class B-3m

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
V	906.940	29.7	20.6	6.1	27.0	29.4	46.0	-16.6	QP/120k/300k
V	907.614	35.3	20.6	6.4	27.0	35.3	46.0	-10.7	QP/120k/300k
V	909.223	34.3	20.6	6.4	27.0	34.3	46.0	-11.7	QP/120k/300k
Calculations		G=C+D+E-F			I=G-H				

30MHz-1000MHz

7.0 Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))

Data:

Date: 06/22/2007

Frequency Range (MHz): 1000-10000

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15 Class B-3m

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
V	1816.815	38.4	25.7	7.8	26.1	45.8	54.0	-8.2	Pk/1M/1M
Calculations		G=C+D+E-F		I=G-H					

1GHz-10GHz

7.0 Radiated emissions (E-field) for low power intentional radiators. (15.249 / RSS-210 (A2.9))

Data:

Date: 06/15/2007

Frequency Range (MHz): 30-1000

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15.249

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
V	908.000	61.5	20.6	6.4	0.0	88.4	93.9	-5.5	Pk/120k/300k
H	908.000	58.4	21.6	6.4	0.0	86.4	93.9	-7.5	Pk/120k/300k
Calculations		G=C+D+E-F			I=G-H				

Fundamental Frequency

TEST REPORT

Report Number: 3126331ATL-004

August 24, 2007

Product Designation: RF 9535-N Dimmer Switch

Standard: FCC Part 15, Subpart C, 15.249 / RSS-210 Issue 7 / RSS-GEN
Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz.

Tested by:

Intertek Testing Services NA Inc.
1950 Evergreen Blvd., Suite 100
Duluth, GA 30096

Client:

Cooper Wiring Devices
203 Cooper Circle
Peachtree City, GA 30269
Contact: Oscar Neundorfer
Phone: 770.632.2254
Fax: 770.632.2268

Tests performed by:



Shawn K. McGuinness
Senior Associate Engineer

Report reviewed by:



David J. Schramm
EMC Department Manager

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1.0 Introduction and Conclusion

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Based on the results of our investigation, we have concluded the product tested complies with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

2.0 Test Summary

Section	Test Full Name	Test Date	Result
4.0	Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)	08/03/2007	
5.0	Conducted emissions on AC power lines (Conducted Emissions)	08/02/2007	PASS
6.0	Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)	08/02/2007	PASS

3.0 Description of Equipment Under Test

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
Dimmer Switch	Cooper Wiring	RF9535-N	NA

EUT receive date:	8-1-2007
EUT receive condition:	Good

Description of EUT provided by Client:

Provides homeowners with local and remote control for programmable fade on/off and delayed off (1 sec to 4 minutes), dim/bright, child lock, and scene control for up to 5 associated devices. Control up to 3 Accessory Dimmers with one single Master Dimmer with LED load indicator and light level status communication.

Description of EUT exercising:

The EUT outlet was operating with the transmitter placed in a steady on state for testing.

4.0 Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)

Method:

Complete the overview spreadsheet.

Related Submittal(s) Grants: This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.

Data:

Applicant	Cooper Wiring
	203 Cooper Circle
	Peachtree City, GA 30269
Trade Name & Model No.	Dimmer Switch, RF9536
FCC Identifier	
Use of product	To remotely control a light switch
Frequency Range (MHz)	908
Antenna Type (15.203)	Permanently Attached
Manufacturer name & address	Cooper Wiring
	203 Cooper Circle
	Peachtree City, GA 30269

Related Submittals and Grants:	This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.
Additions, deviations and exclusions from standards	None

5.0 Conducted emissions on AC power lines (Conducted Emissions)

Method:

Equipment setup for conducted disturbance tests shall follow the guidelines of ANSI C63.4:2003, EN 55022:1998 +A1:2000 +A2:2003, AS/NZS CISPR22: 2002 and VCCI V-3 / 2000.04.

Measurements in the frequency range of 150kHz to 30 MHz shall be performed with a quasi-peak or average detector instrument that meets the requirements of Section One of CISPR 16. An AMN shall be used to provide a defined impedance at high frequencies across the power feed at the point of measurement of terminal voltage and also to provide isolation of the circuit under test from the ambient noise on the power lines. An AMN defined in CISPR 16 shall be used.

In the frequency range of 150 kHz to 30 MHz, a resolution/video bandwidth of 9kHz/30kHz or greater shall be used.

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Conducted disturbance shall be measured between each current carrying conductor and the reference ground. Each measured values shall be reported.

If EUT is intended for tabletop use, the EUT shall be placed on a table whose top is 0.8m above the ground plane. A vertical, metal reference plane is be placed 0.4m from the EUT. The vertical metal reference-plane is at least 2m by 2m. The EUT shall be kept at least 0.8m from any other metal surface or other ground plane not being part of the EUT. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the floor standing EUT shall be placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material. The metal ground plane shall extend at least 0.5m beyond the boundaries of the EUT and had minimum dimensions of 2m by 2m.

TEST SITE

The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

MEASUREMENT UNCERTAINTY

Compliance of the product is based on the measured value. However, the measurement uncertainty is included for informational purposes. The values given are the measurement uncertainty values with an expanded uncertainty of k=2.

150 kHz to 30 MHz: +/- 2.8 dB

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable TT5	Andrews	Cable TT5	211405	05/10/2007	05/10/2008
Coaxial Cable, 6ft, N(Male) to N(Male)	Mini-Circuits	CBL-6FT-NMNM	TT1	05/10/2007	05/10/2008
EMI Receiver, Preselector section	Hewlett Packard	85460A	015762	10/20/2006	10/20/2007
Excel spreadsheet for conducted emissions tests	Software	Excel - CE Worksh	SW002	07/31/2007	07/31/2008
LISN (TT4)	Fischer Custom Comm	FCC-LISN-50-50-M	211406	09/26/2006	09/26/2007
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008
Tile software profile for radiated and conducted emissions testing.	Software	Tile - Emissions	SW006	07/31/2007	07/31/2008

Results: The sample tested was found to Comply.

5.0 Conducted emissions on AC power lines (Conducted Emissions)

Photo:



Test set up front

5.0 Conducted emissions on AC power lines (Conducted Emissions)

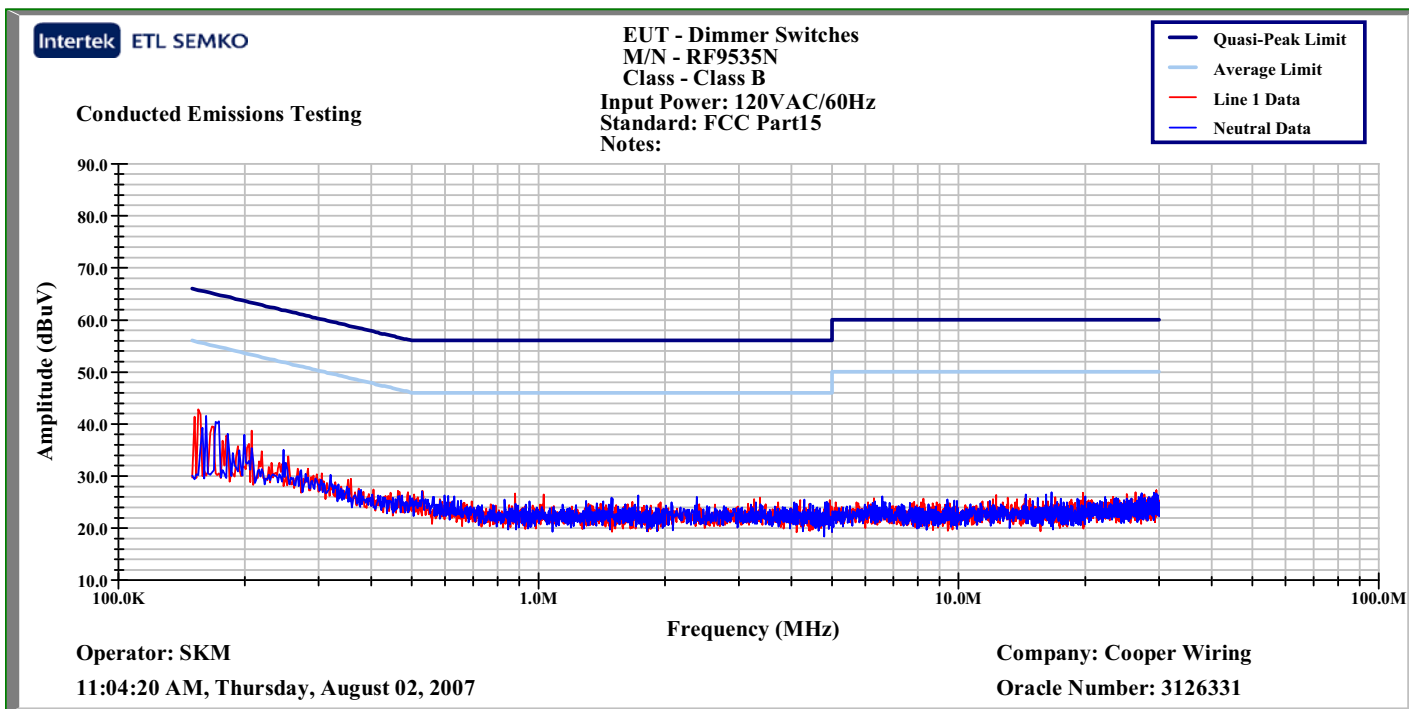
Photo:



Test set up rear

5.0 Conducted emissions on AC power lines (Conducted Emissions)

Plot:



Scan plot

5.0 Conducted emissions on AC power lines (Conducted Emissions)

Data:

Date: 8-2-2007

Frequency Range (MHz): .150to30MHz

Input power: 120VAC/60Hz

Limit: CISPR Class B

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I
LISN Number 1,2	Detector (P,QP, A)	Frequency MHz	Reading dBuV	Cable Loss dB	LISN Ins. Loss dB	Net dBuV	Limit dBuV	Margin dB
1	P	0.152	33.4	0.2	6.1	39.7	56.0	-16.4
1	P	0.165	32.2	0.2	6.1	38.5	55.2	-16.8
1	P	0.182	31.0	0.2	6.1	37.3	54.5	-17.3
2	P	0.151	31.7	0.2	6.1	38.0	56.0	-18.1
2	P	0.159	32.8	0.2	6.1	39.1	55.7	-16.7
2	P	0.176	30.9	0.2	6.1	37.2	54.7	-17.6
Calculations		$G=D+E+F$		$I=G-H$				

Note: Peak measurements are compared to the average limit.

6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Method:

Measurements shall be performed with a quasi-peak detector instrument that meets the requirements of Section One of CISPR 16.

Bandwidths:

30 MHz to 1000 MHz: 120 kHz RBW and 1 MHz VBW

Above 1000 MHz: 1 MHz RBW and 3 MHz VBW

Frequency range of radiated measurements

For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.
- (4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1) through (a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

Measurement antenna requirements:

Below 30 MHz - Loop antenna

30 to 1000 MHz - Biconical, Log Periodic, or equivalent

Above 1000 MHz - Horn or equivalent

Measurements of the radiated field are made with the antenna located at a distance of 3 or 10 meters from the EUT. The limit applied to the measurement shall be appropriate for the test distance. The test distance shall be indicated in the results section.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Exploratory tests should be carried out while varying the cable positions to determine the maximum or near-maximum emission level. During manipulation, cables shall not be placed under or on top of the system test components unless such placement is required by the inherent equipment design.

The antenna shall be adjusted between 1m and 4m in height above the ground plane for maximum meter reading at each test frequency.

The antenna-to-EUT azimuth shall be varied during the measurement to find the maximum field-strength readings.

The antenna-to-EUT polarization (horizontal and vertical) shall be varied during the measurements to find the maximum field-strength readings.

If the EUT is handheld, it shall be oriented in each of its orthogonal axes.

If the EUT is intended for tabletop use, it shall be placed on a table whose top is 0.8m above the ground plane. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the EUT was placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material.

Equipment setup for radiated disturbance tests shall follow the guidelines of ANSI C63.4:2003.

TEST SITE

The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Antenna, Bilog (20MHz to 2GHz)	Chase	CBL6112B	211386	08/29/2006	08/29/2007
Antenna, Horn, 1-18 GHz	EMCO	3115	213061	04/02/2007	04/02/2008
Cable E01, <18GHz	Pasternack	RG214/U	E01	05/10/2007	05/10/2008
Cable E04, <18GHz	Huber-Suhner	Sucoflex 104PE	E04	05/14/2007	05/14/2008
Cable E05, <18GHz	Huber-Suhner	Sucoflex 104PEA	E05	05/10/2007	05/10/2008
Cable, 18 GHz, N, 10m	Megaphase	G919-NKNK-394	MP3	05/10/2007	05/10/2008
Cable, 18 GHz, N, 3m	Megaphase	TM18 NKNK 118	E201	01/15/2007	01/15/2008
Coaxial Cable, 7m, N-N, 18 GHz	Storm Products Co.	PR90-206-7MTR	ST1	01/11/2007	01/11/2008

6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
EMI Receiver	Hewlett Packard	8546A	211505	10/26/2006	10/26/2007
EMI Receiver, Preselector section	Hewlett Packard	85460A	015762	10/20/2006	10/20/2007
Excel spreadsheet for radiated emissions	Software	Excel - RE Worksh	SW004	07/31/2007	07/31/2008
Preamplifier, 20 MHz to 18 GHz, 40 dB	A.H. Systems	PAM-0118	200108	03/21/2007	03/21/2008
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008

Results: The sample tested was found to Comply.

Photo:



Test set up front

6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

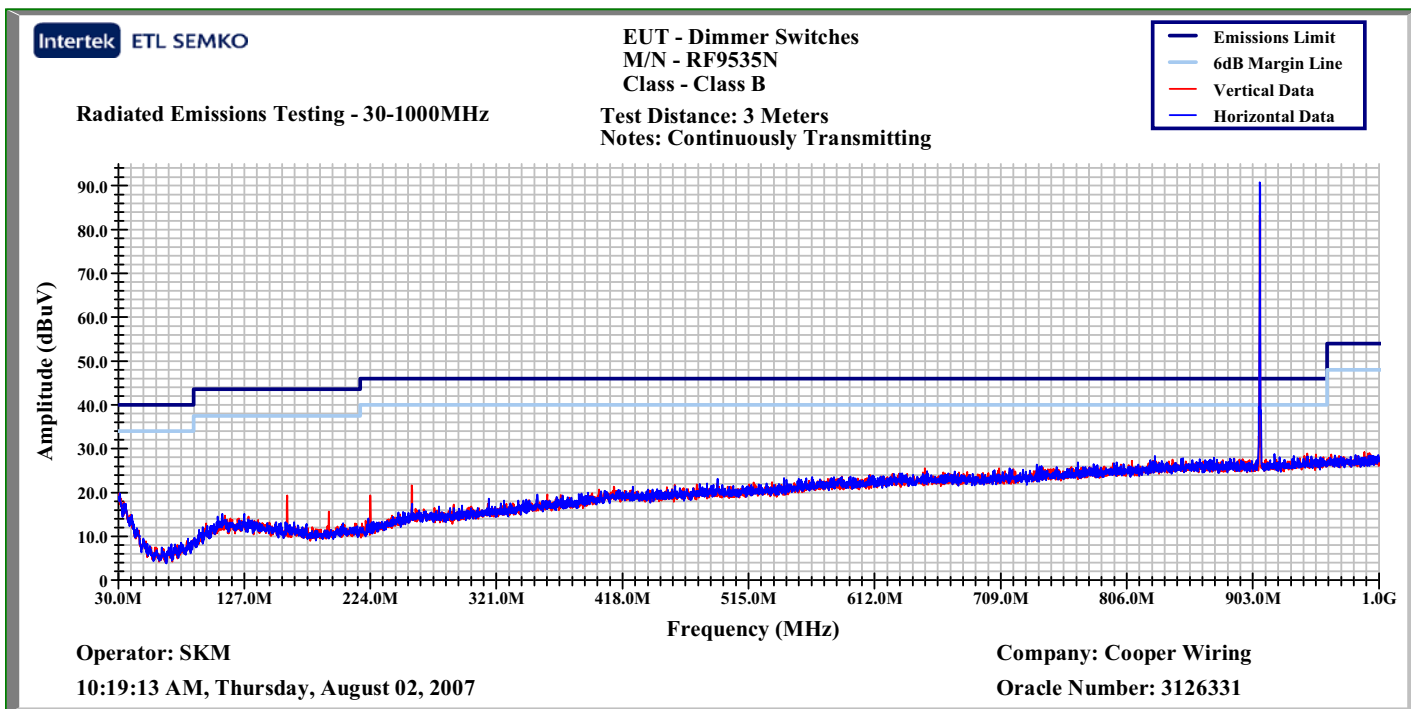
Photo:



Test set up rear

6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

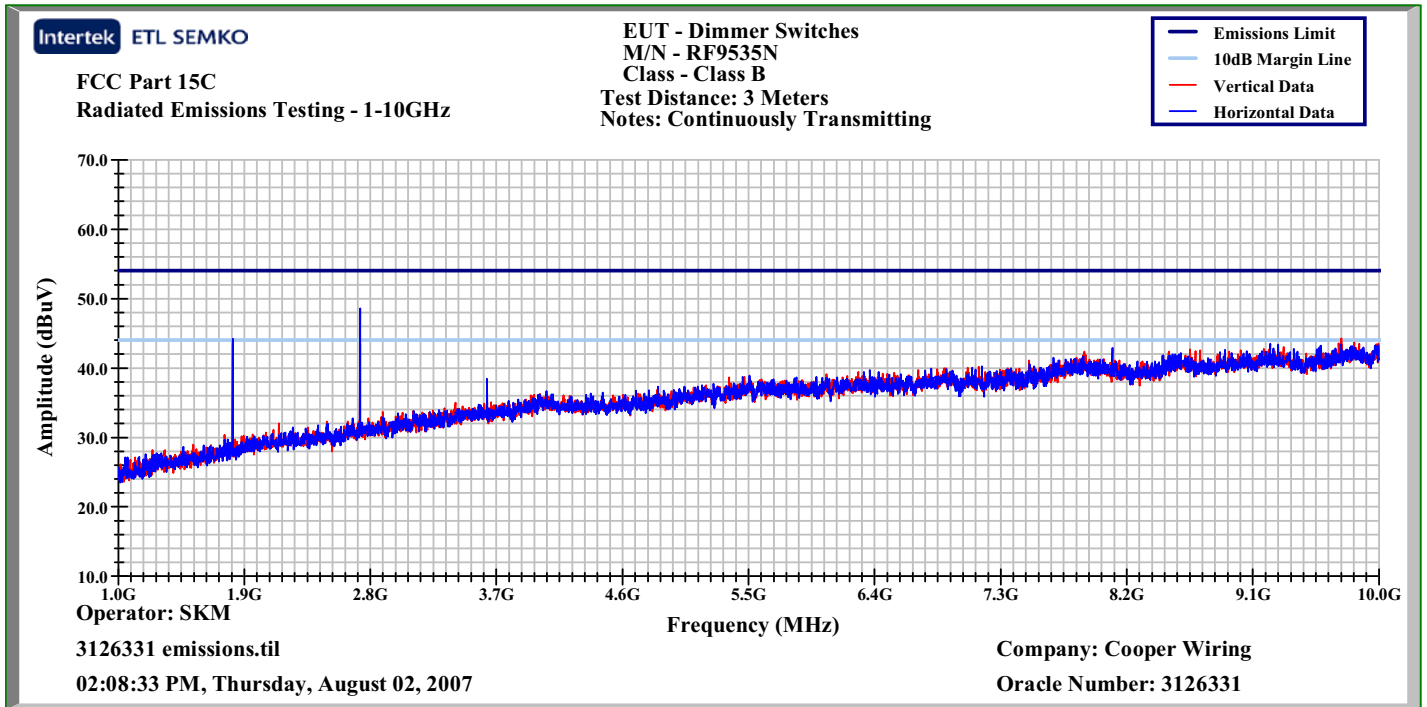
Plot:



Scan plot 30 to 1000MHz

6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Plot:



Scan plot 1 to 10GHz

6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Date: 8-2-2007

Frequency Range (MHz): 30 to 1000

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15 Class B-3m

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
v	160.000	39.2	11.1	2.1	30.9	21.4	43.5	-22.1	QP 120K/300K
v	224.000	37.4	10.7	2.9	30.9	20.1	46.0	-25.9	QP 120K/300K
v	256.000	36.7	12.6	2.9	30.9	21.3	46.0	-24.7	QP 120K/300K
Calculations		G=C+D+E-F		I=G-H					

Data 30 to 1000MHz

6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Date: 8-2-2007

Frequency Range (MHz): 30 to 1000

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15 249

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
v	908.405	88.0	20.6	6.4	30.6	84.4	93.9	-9.5	Pk 120K/300K
h	908.405	93.1	21.6	6.4	30.6	90.5	93.9	-3.4	Pk 120K/300K
Calculations		G=C+D+E-F		I=G-H					

Data Fundamental

6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Frequency Range (GHz): 1 to 10

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15 Class B-3m

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
h	1816.775	46.4	25.7	5.8	40.3	37.5	54.0	-16.5	Pk/1M/3M
h	2725.200	49.3	28.6	7.1	40.6	44.5	54.0	-9.5	Pk/1M/3M
Calculations		G=C+D+E-F		I=G-H					

* Peak readings meet the average limit.

Data 1 to 10GHz

TEST REPORT

Report Number: 3126331ATL-005

August 24, 2007

Product Designation: RF 9537-N Dimmer Switch

Standard: FCC Part 15, Subpart C, 15.249 / RSS-210 Issue 7 / RSS-GEN
Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz.

Tested by:

Intertek Testing Services NA Inc.
1950 Evergreen Blvd., Suite 100
Duluth, GA 30096

Client:

Cooper Wiring Devices
203 Cooper Circle
Peachtree City, GA 30269
Contact: Oscar Neundorfer
Phone: 770.632.2254
Fax: 770.632.2268

Tests performed by:



Shawn K. McGuinness
Senior Associate Engineer

Report reviewed by:



David J. Schramm
EMC Department Manager

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1.0 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 3.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested complies with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

2.0 Test Summary

Section	Test Full Name	Test Date	Result
4.0	System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)	08/02/2007	
5.0	Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)	08/03/2007	
6.0	Conducted emissions on AC power lines (Conducted Emissions)	08/02/2007	PASS
7.0	Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)	08/02/2007	PASS

3.0 Description of Equipment Under Test

Equipment Under Test			
Description	Manufacturer	Model Number	Serial Number
Dimmer Switch	Cooper Wiring	RF9537-N	NA

EUT receive date:	8-1-2007
EUT receive condition:	Good

Description of EUT provided by Client:

Provides homeowners with local and remote control for programmable fade on/off and delayed off (1 sec to 4 minutes), dim/bright, child lock, and scene control for up to 5 associated devices. Control up to 3 Accessory Dimmers with one single Master Dimmer with LED load indicator and light level status communication.

Description of EUT exercising:

The EUT outlet was operating with the transmitter placed in a steady on state for testing.

4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)

Method:

Record the details of EUTcabling, document the support equipment, and show the interconnections in a block diagram.

Drawing:

EUT



A

AC

Block diagram

4.0 System setup including cable interconnection details, support equipment and simplified block diagram. (System Setup)

Data:

EUT Cabling						
ID	Description	Length	Shielding	Ferrites	Connection	
					From	To
A	AC Power Line	1.3m	no	no	AC Source	EUT

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
None			

5.0 Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)

Method:

Complete the overview spreadsheet.

Related Submittal(s) Grants: This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.

Data:

Applicant	Cooper Wiring
	203 Cooper Circle
	Peachtree City, GA 30269
Trade Name & Model No.	Dimmer Switch, RF9536
FCC Identifier	
Use of product	To remotely control a light switch
Frequency Range (MHz)	908
Antenna Type (15.203)	Permanently Attached
Manufacturer name & address	Cooper Wiring
	203 Cooper Circle
	Peachtree City, GA 30269

Related Submittals and Grants:	This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.
Additions, deviations and exclusions from standards	None

6.0 Conducted emissions on AC power lines (Conducted Emissions)

Method:

Equipment setup for conducted disturbance tests shall follow the guidelines of ANSI C63.4:2003.

Measurements in the frequency range of 150kHz to 30 MHz shall be performed with a quasi-peak or average detector instrument that meets the requirements of Section One of CISPR 16. An AMN shall be used to provide a defined impedance at high frequencies across the power feed at the point of measurement of terminal voltage and also to provide isolation of the circuit under test from the ambient noise on the power lines. An AMN defined in CISPR 16 shall be used.

In the frequency range of 150 kHz to 30 MHz, a resolution/video bandwidth of 9kHz/30kHz or greater shall be used.

The EUT shall be located so that the distance between the boundary of the EUT and the closest surface of the AMN is 0.8m.

If a flexible mains cord is provided by the manufacturer that is in excess of 1m, the excess cable shall be folded back and forth as far as possible to form a bundle not exceeding 0.4m in length.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Conducted disturbance shall be measured between each current carrying conductor and the reference ground. Each measured values shall be reported.

If EUT is intended for tabletop use, the EUT shall be placed on a table whose top is 0.8m above the ground plane. A vertical, metal reference plane is placed 0.4m from the EUT. The vertical metal reference-plane is at least 2m by 2m. The EUT shall be kept at least 0.8m from any other metal surface or other ground plane not being part of the EUT. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the floor standing EUT shall be placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material. The metal ground plane shall extend at least 0.5m beyond the boundaries of the EUT and had minimum dimensions of 2m by 2m.

TEST SITE

The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

MEASUREMENT UNCERTAINTY

Compliance of the product is based on the measured value. However, the measurement uncertainty is included for informational purposes. The values given are the measurement uncertainty values with an expanded uncertainty of k=2.

150 kHz to 30 MHz: +/- 2.8 dB

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Cable TT5	Andrews	Cable TT5	211405	05/10/2007	05/10/2008
Coaxial Cable, 6ft, N(Male) to N(Male)	Mini-Circuits	CBL-6FT-NMNM	TT1	05/10/2007	05/10/2008
EMI Receiver	Hewlett Packard	8546A	211505	10/26/2006	10/26/2007
EMI Receiver, Preselector section	Hewlett Packard	85460A	015762	10/20/2006	10/20/2007
Excel spreadsheet for conducted emissions tests	Software	Excel - CE Worksh	SW002	07/31/2007	07/31/2008
LISN (TT4)	Fischer Custom Comm	FCC-LISN-50-50-M	211406	09/26/2006	09/26/2007
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008
Tile software profile for radiated and conducted emissions testing.	Software	Tile - Emissions	SW006	07/31/2007	07/31/2008

Results: The sample tested was found to Comply.

6.0 Conducted emissions on AC power lines (Conducted Emissions)

Photo:



Test set up front

6.0 Conducted emissions on AC power lines (Conducted Emissions)

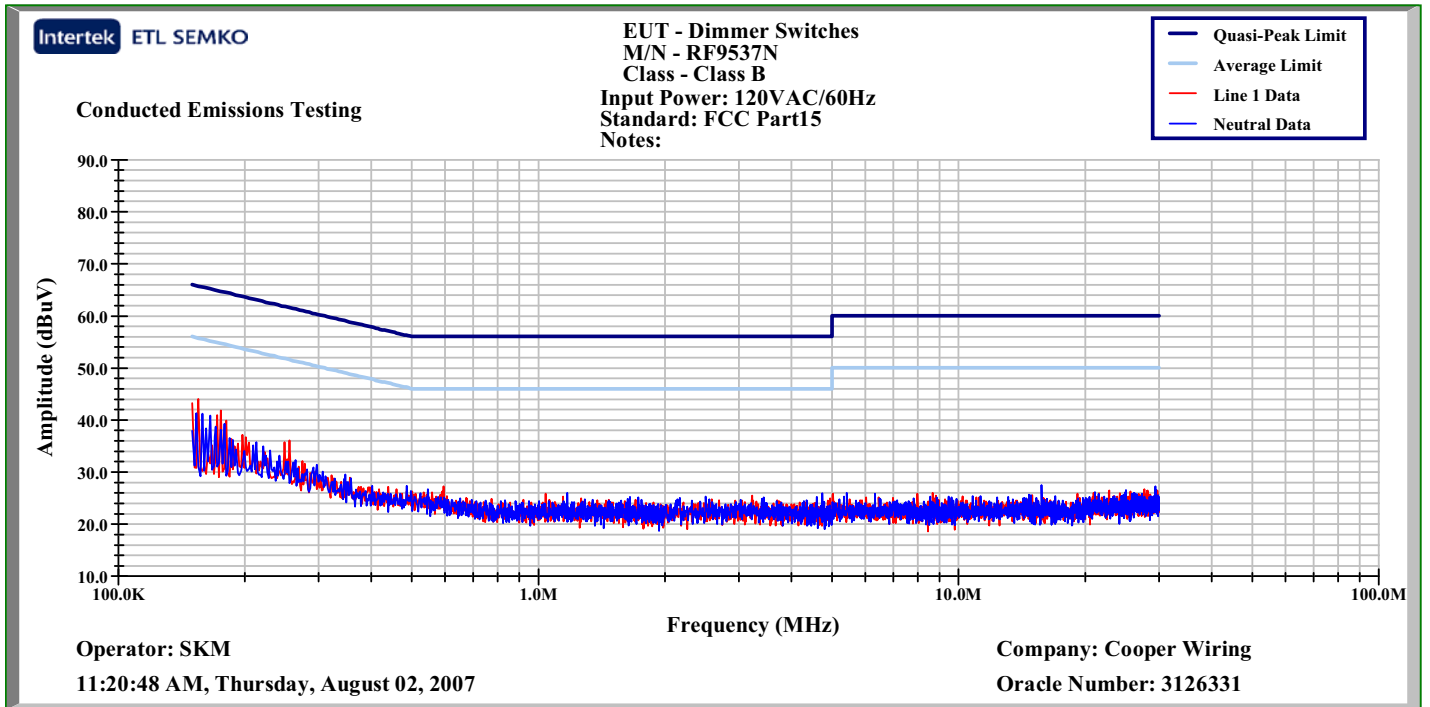
Photo:



Test set up rear

6.0 Conducted emissions on AC power lines (Conducted Emissions)

Plot:



Scan plot

6.0 Conducted emissions on AC power lines (Conducted Emissions)

Data:

Date: 8-2-2007

Frequency Range (MHz): .150to30MHz

Input power: 120VAC/60Hz

Limit: CISPR Class B

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I
LISN Number 1,2	Detector (P,QP, A)	Frequency MHz	Reading dBuV	Cable Loss dB	LISN Ins. Loss dB	Net dBuV	Limit dBuV	Margin dB
1	P	0.151	34.4	0.2	6.1	40.7	56.0	-15.4
1	P	0.160	32.4	0.2	6.1	38.7	55.5	-16.9
1	P	0.174	31.0	0.2	6.1	37.3	55.0	-17.8
2	P	0.152	34.3	0.2	6.1	40.6	56.0	-15.5
2	P	0.164	34.1	0.2	6.1	40.4	55.5	-15.2
2	P	0.176	31.4	0.2	6.1	37.7	54.7	-17.1
Calculations		$G=D+E+F$		$I=G-H$				

Note: Peak measurements are compared to the average limit.

7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Method:

Measurements shall be performed with a quasi-peak detector instrument that meets the requirements of Section One of CISPR 16.

Bandwidths:

30 MHz to 1000 MHz: 120 kHz RBW and 1 MHz VBW

Above 1000 MHz: 1 MHz RBW and 3 MHz VBW

Frequency range of radiated measurements

For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.
- (4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1) through (a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

Measurement antenna requirements:

Below 30 MHz - Loop antenna

30 to 1000 MHz - Biconical, Log Periodic, or equivalent

Above 1000 MHz - Horn or equivalent

Measurements of the radiated field are made with the antenna located at a distance of 3 or 10 meters from the EUT. The limit applied to the measurement shall be appropriate for the test distance. The test distance shall be indicated in the results section.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Exploratory tests should be carried out while varying the cable positions to determine the maximum or near-maximum emission level. During manipulation, cables shall not be placed under or on top of the system test components unless such placement is required by the inherent equipment design.

The antenna shall be adjusted between 1m and 4m in height above the ground plane for maximum meter reading at each test frequency.

The antenna-to-EUT azimuth shall be varied during the measurement to find the maximum field-strength readings.

The antenna-to-EUT polarization (horizontal and vertical) shall be varied during the measurements to find the maximum field-strength readings.

If the EUT is handheld, it shall be oriented in each of its orthogonal axes.

If the EUT is intended for tabletop use, it shall be placed on a table whose top is 0.8m above the ground plane. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the EUT was placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material.

Equipment setup for radiated disturbance tests shall follow the guidelines of ANSI C63.4:2003.

TEST SITE

The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Antenna, Bilog (20MHz to 2GHz)	Chase	CBL6112B	211386	08/29/2006	08/29/2007
Antenna, Horn, 1-18 GHz	EMCO	3115	213061	04/02/2007	04/02/2008
Cable E01, <18GHz	Pasternack	RG214/U	E01	05/10/2007	05/10/2008
Cable E04, <18GHz	Huber-Suhner	Sucoflex 104PE	E04	05/14/2007	05/14/2008
Cable E05, <18GHz	Huber-Suhner	Sucoflex 104PEA	E05	05/10/2007	05/10/2008
Cable, 18 GHz, N, 10m	Megaphase	G919-NKNK-394	MP3	05/10/2007	05/10/2008
Cable, 18 GHz, N, 3m	Megaphase	TM18 NKNK 118	E201	01/15/2007	01/15/2008
Excel spreadsheet for radiated emissions	Software	Excel - RE Worksh	SW004	07/31/2007	07/31/2008

7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Test Equipment Used:

Description:	Manufacturer:	Model:	Asset Number:	Cal Date:	Cal Due:
Preamplifier, 20 MHz to 18 GHz, 40 dB	A.H. Systems	PAM-0118	200108	03/21/2007	03/21/2008
Preamplifier, 20MHz to 2GHz, 30 dB	A.H. Systems	PAM-0202	200082	10/09/2006	10/09/2007
Spectrum Analyzer, 20 Hz to 40 GHz	Rohde & Schwarz	FSEK30	200062	03/12/2007	03/12/2008

Results: The sample tested was found to Comply.

Photo:



Test set up front

7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

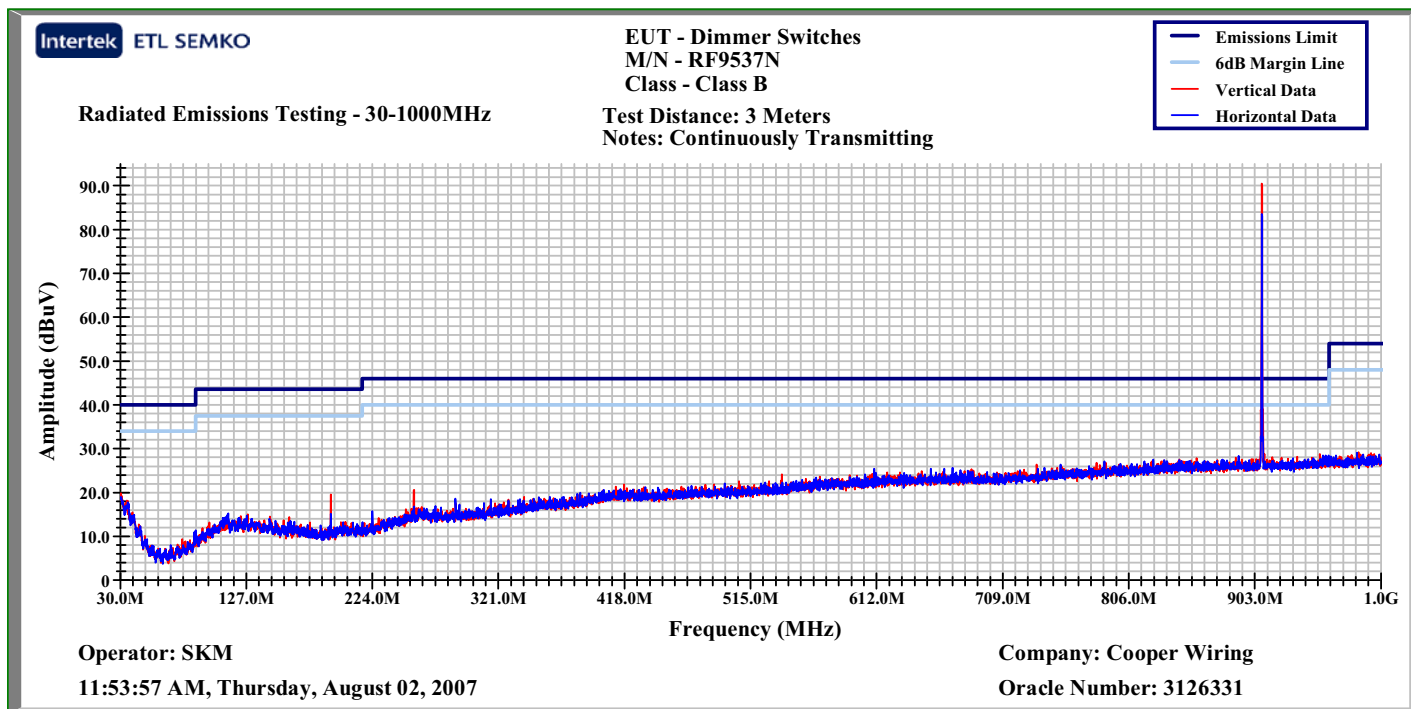
Photo:



Test set up rear

7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

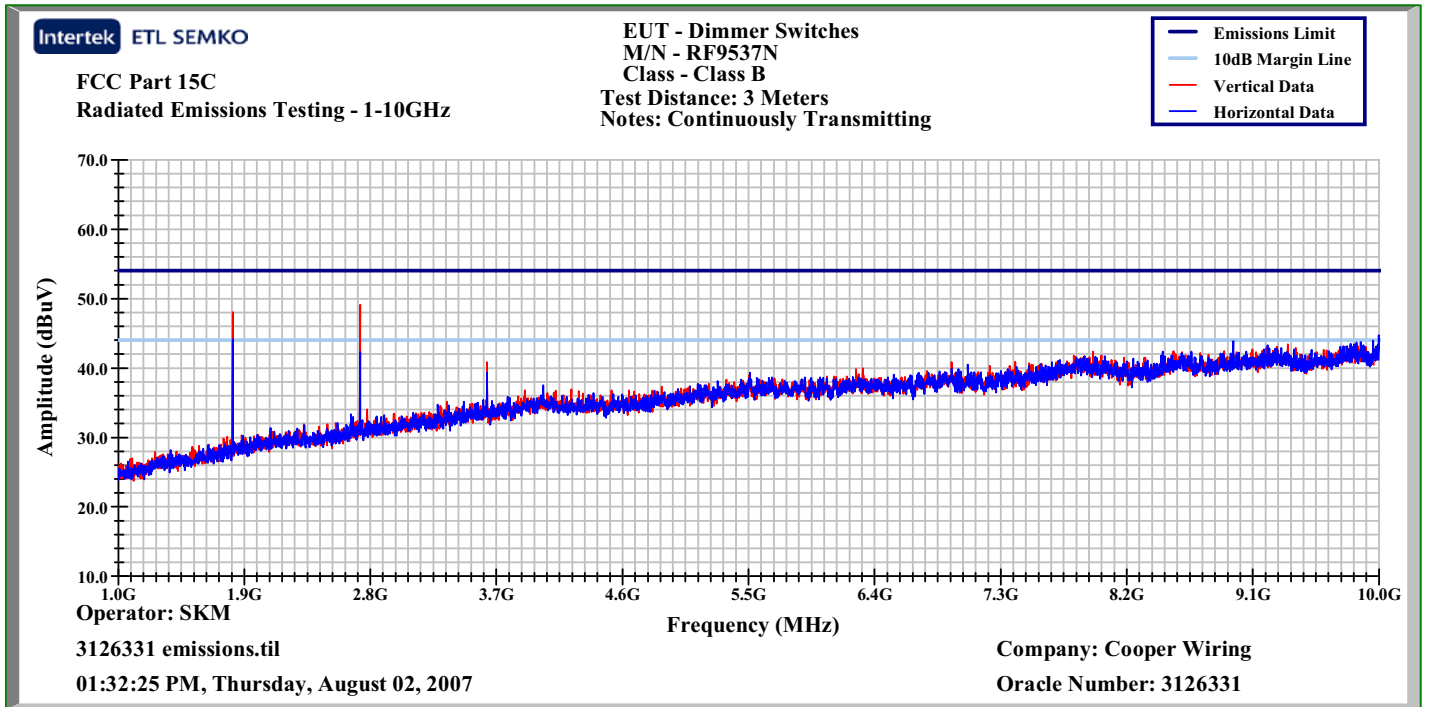
Plot:



Scan plot 30 to 1000MHz

7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Plot:



Scan plot 1 to 10GHz

7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Date: 8-2-2007

Frequency Range (MHz): 30 to 1000

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15 Class B-3m

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
v	192.000	38.2	10.1	2.1	30.9	19.4	43.5	-24.1	QP 120K/300K
v	256.000	36.0	12.6	2.9	30.9	20.6	46.0	-25.4	QP 120K/300K
Calculations		G=C+D+E-F			I=G-H				

Data 30 to 1000MHz

7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Date: 8-2-2007

Frequency Range (MHz): 30 to 1000

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15 249

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
v	908.405	94.8	20.6	6.4	30.6	91.2	93.9	-2.7	Pk 120K/300K
h	908.405	91.6	21.6	6.4	30.6	89.0	93.9	-4.9	Pk 120K/300K
Calculations		G=C+D+E-F		I=G-H					

Data Fundamental

7.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Data:

Frequency Range (GHz): 1 to 10

Test Distance (m): 3

Input power: 120VAC/60Hz

Limit: FCC15 Class B-3m

Modifications for compliance (y/n): n

A	B	C	D	E	F	G	H	I	J
Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Net dB(uV/m)	3m Limit dB(uV/m)	Margin dB	Detectors / Bandwidths Det/RBW/VBW
v	1816.700	55.6	25.6	5.8	40.3	46.6	54.0	-7.4	Pk/1M/3M
v	2725.200	49.8	28.5	7.1	40.6	44.9	54.0	-9.1	Pk/1M/3M
Calculations		G=C+D+E-F			I=G-H				

* Peak readings meet the average limit.

Data 1 to 10GHz