



**TEST REPORT OF A 2.4/5 GHZ IEEE 802.11b/g WLAN
ACCESS POINT, BRAND INTERSIL,
MODEL ISL39300A, IN CONFORMITY WITH
47 CFR PART 15 (2003-03-13).**

FCC listed : 90828
Industry Canada : IC3501
VCCI registered : R-1518, C-1598

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Test specification(s): 47 CFR Part 15 (2003-03-13)
Description of EUT: 2.4/5 GHz IEEE 802.11b/g WLAN Access Point
Manufacturer: Intersil Corporation
Brand mark: Intersil
Model: ISL39300A
FCC ID: OSZ39300A

MEASUREMENT/TECHNICAL REPORT

Intersil Corporation

Model : ISL39300A

FCC ID: OSZ39300A

August 29, 2003

This report concerns:	Original grant/certification	Class 2 change	Verification
Equipment type:	Unlicensed U-NII Device		
Deferred grant requested per 47 CFR 0.457(d)(1)(ii) ?	Yes	No	
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The data taken for this test and report herein was done in accordance with 47 CFR Part 15 and the measurement procedures of ANSI C63.4-1992. TNO Electronic Products & Services (EPS) B.V. at Niekerk, The Netherlands, certifies that the data is accurate and contains a true representation of the emission profile of the Equipment Under Test (EUT) on the date of the test as noted in the test report. I have reviewed the test report and find it to be an accurate description of the test(s) performed and the EUT so tested.

Date: September 5, 2003

Signature:

P. de Beer
TNO Electronic Products & Services (EPS) B.V.



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Manufacturer: Intersil Corporation
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FCC ID: OSZ39300A

Description of test item

Test item : 2.4/5 GHz IEEE 802.11b/g WLAN Access Point
Manufacturer : Intersil Corporation
Brand : Intersil
Model : ISL39300A
Serial numbers : n.a.
Revision : n.a.
Receipt number : n.a.
Receipt date : August 29, 2003


Applicant information


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Test(s) performed

Location : Niekerk
Test(s) started : August 18, 2003
Test(s) completed : August 29, 2003
Purpose of test(s) : Type approval / certification
Test specification(s) : 47 CFR Part 15 (2002-03-13)

Test engineer : O.H. Hoekstra 

Report written by : J. Schuurmans, B.Sc.E.E. 

Project leader : P.A.J.M. Robben, B.Sc.E.E. 

This report is in conformity with NEN-EN-ISO/IEC 17025.

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The test results relate only to the item(s) tested.



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1 General information.

1.1 Product description.

The 2.4/5 GHz IEEE 802.11b/g WLAN Access Point, brand Intersil, model ISL39300A, is designed to operate in the 5 GHz unlicensed U-NII devices frequency band (5.15 GHz – 5.35 GHz), as specified by the Federal Communications Commission in the USA.

The 2.4/5 GHz IEEE 802.11b/g WLAN Access Point, brand Intersil, model ISL39300A, utilizes Direct Sequence Spread Spectrum (DSSS) and OFDM modulation techniques.

The 2.4/5 GHz IEEE 802.11b/g WLAN Access Point, brand Intersil, model ISL39300A, incorporates an integral antenna.

1.2 Related submittal(s) and/or Grant(s).

Not applicable.

1.3 Tested system details.

Details and an overview of the system and all its components, as it has been tested, can be found in table 1 below. FCC ID's are stated in this overview where applicable. The EUT is listed in the first row of this table 1.

Description	Model number	Serial number	FCC ID	Cable descriptions
2.4/5 GHz IEEE 802.11b/g WLAN Access Point	ISL39300A	n.a.	OSZ393000A	UTP to hub or Power Over Lan Hub
PowerDsine Power Over Lan Hub	PowerDsine 6024	S02036405502799	n.a.(DoC)	-UTP to Access Point -DC power cord to AC/DC adapter
Dell notebook computer	LSt	Ooo893KM-12800-05I-1143	n.a. (DoC)	-Unshielded DC power cord to AC/DC adapter -Shielded parallel cable to printer -Shielded mouse cable to mouse
Dell AC/DC power adapter 100-240 VAC/1.5 Amps to +19 VDC/2.64 Amps	ADP-50SB	000983T	n.a. (DoC)	-Unshielded DC power cord to notebook computer
Netgear DS108 8 Port 10/100 Mbps Dual Speed Hub	DS108	DS18L25553805	n.a. (DoC)	-Unshielded power cord to AC/DC adapter
Netgear AC/DC power adapter 230 VAC/0.16 A +12 VDC/1.2 Amps	PWR-002-006	n.a.	n.a. (DoC)	-Unshielded DC power cord to hub -Unshielded power cord to AC mains

Table 1 - Tested system details overview.



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1.4 Test methodology.

The test methodology used is based on the requirements of 47 CFR Part 15 (2002-03-13), sections 15.107, 15.207, 15.109, 15.209 and 15.205.

The test methods, which have been used, are based on ANSI C63.4: 1992.

Radiated emission tests above 30 MHz were performed at a measurement distance of 3 meters. Below 30 MHz the radiated emission tests were carried out at measurement distances of 3 and 10 meters. The test results regarding the radiated emission tests on frequencies below 30 MHz have been extrapolated in order to determine the field strength of the measured values at measurement distances of 30 and 300 meters (as required by 47 CFR Part 15).

The bandwidth of the receiver is switching automatically to the right bandwidth in accordance with CISPR 16. This is implemented in the receiver. The antenna factors are programmed in the test receiver. The receiver automatically calculates the appropriate correction factor for the utilized antenna and also the appropriate antenna factor for the cable loss. The total correction is automatically added to the measured value.

Radiated emission tests in the frequency range of 1 GHz – 40 GHz were performed with appropriate pre-amplifiers, antennas and a spectrum analyzer. At frequencies on which radiated emissions were found the level at the input of the pre-amplifier was reproduced by means of a RF signal generator. The output level of the signal generator was then increased with the antenna factor in order to obtain the actual field strength value for each individual frequency on which radiated emissions were found.

1.5 Test facility.

The Federal Communications Commission has reviewed the technical characteristics of the test facilities at TNO Electronic Products & Services (EPS) B.V., located in Niekerk, 9822 TL Smidshornerweg 18, The Netherlands, and has found these test facilities to be in compliance with the requirements of 47 CFR Part 15, section 2.948, per October 23, 2000.

The description of the test facilities has been filed at the Office of the Federal Communications Commission under registration number 90828. The facility has been added to the list of laboratories performing these test services for the public on a fee basis.

The list of all public test facilities is available on the Internet at <http://www.fcc.gov>.

1.6 Product labeling.

In accordance with 47 CFR Part 15.19 (a)(3) the following text shall be placed on a label, which is attached to the EUT:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

In accordance with 47 CFR Part 2.925 (a)(1), the FCC ID shall be placed on a label, which is attached to the EUT.

For further details about the labeling requirements (size, legibility, etc.) as set by the Federal Communications Commission see 47 CFR Part 15.19 (a)(3), 47 CFR Part 15.19 (b)(2), 47 CFR Part 15.19 (b)(4), 47 CFR Part 2.925 and 47 CFR Part 2.926.



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1.7 System test configuration.

1.7.1 Justification.

The system was configured for testing in a typical fashion (as an end-user would normally use it).

The justification and manipulation of cables and equipment in order to simulate a worst-case behavior of the test setup has been carried out as prescribed in ANSI C63.4: 1992.

Tests were performed at the operating frequencies channel 36 (5180 MHz), channel 48 (5240 MHz), channel 52 (5260 MHz) and channel 64 (5320 MHz). Further details may be found in table 2 below.

Channel	Operating frequencies (MHz)	Rated output power (mW)	Test performed
36	5180	48.4	yes
40	5200	48.4	no
44	5220	48.4	no
48	5240	48.4	yes
52	5260	80.0	yes
56	5280	80.0	no
60	5300	80.0	no
64	5320	80.0	yes

Table 2 - Specification of channels and rated maximum peak conducted transmit output power.

The EUT was tested to an ethernet HUB, powered by an AC/DC power supply.

1.7.2 EUT exercise software.

The EUT could be enabled to transmit or receive continuously on channels 36 (5180 MHz), 48 (5240 MHz), 52 (5260 MHz) and 64 (5320 MHz) by means of test software, which was supplied by the manufacturer of the EUT. Furthermore, the utilized test software also enables various transmission bit-rate settings in the range of 6/9 Mbit/s, 12/18 Mbit/s, 24/36 Mbit/s and 48/54 Mbit/s.

1.8 Special accessories.

No special accessories are used and/or needed to achieve compliance with the appropriate sections of 47 CFR Part 15.

1.9 Equipment modifications.

No modifications have been made to the equipment in order to achieve compliance with the appropriate sections of 47 CFR Part 15.

1.10 Configuration of the tested system.

Not applicable. See table 1 in section 1.3 of this test report.

1.11 Block diagram(s) of the EUT.

The block diagram is available as part of the documentation which is to be submitted to the FCC/TCB.



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2 Radiated emission data.

2.1 Test results with EUT operating in receive mode on channel 36.

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15.109 and 47 CFR Part 15.209 with the EUT operating in receive mode on channel 36 (5180 MHz), are depicted in table 3.

Frequency (MHz)	Test results quasi peak (dB μ V/m)		Test results average (dB μ V/m)		Test results peak (dB μ V/m)		Resolution bandwidth (kHz)	Quasi peak limits (dB μ V/m)	Average limits (dB μ V/m)	Peak limits (dB μ V/m)
	V	H	V	H	V	H				
58.97	24.7	18.6	-	-	-	-	120	40.0	-	-
178.15	30.0	37.9	-	-	-	-	120	43.5	-	-
216.80	24.9	30.4	-	-	-	-	120	46.0	-	-
264.00	43.1	40.4	-	-	-	-	120	46.0	-	-
275.00	40.9	40.7	-	-	-	-	120	46.0	-	-
297.00	40.7	43.6	-	-	-	-	120	46.0	-	-
567.25	36.7	32.1	-	-	-	-	120	46.0	-	-
10360.00	-	-	n.t.	n.t.	45.0	40.9	1000	-	54.0	74.0
20720.00	-	-	n.t.	n.t.	51.8	53.2	1000	-	54.0	74.0

Table 3 - Test results with the EUT operating in receive mode on channel 36 (5180 MHz).

Note: Field strength values of radiated emissions at frequencies not listed in table 3 are more than 20 dB below the applicable limit.

Note: Above 1 GHz, all measured values of the spurious emissions with the detector in peak mode, are below the applicable limits, which are valid when using an average detector. Therefore, all spurious emissions above 1 GHz have been measured with the peak detector only (n.t. = not tested), unless otherwise noted.

Test engineer

Signature

Name : H. Pieters

Date : August 28, 2003



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2.2 Test results with EUT operating in receive mode on channel 48.

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15.109 and 47 CFR Part 15.209 with the EUT operating in receive mode on channel 48 (5240 MHz), are depicted in table 4.

Frequency (MHz)	Test results quasi peak (dBµV/m)		Test results average (dBµV/m)		Test results peak (dBµV/m)		Resolution bandwidth (kHz)	Quasi peak limits (dBµV/m)	Average limits (dBµV/m)	Peak limits (dBµV/m)
	V	H	V	H	V	H				
58.97	24.7	18.6	-	-	-	-	120	40.0	-	-
178.15	30.0	37.9	-	-	-	-	120	43.5	-	-
216.80	24.9	30.4	-	-	-	-	120	46.0	-	-
264.00	43.1	40.4	-	-	-	-	120	46.0	-	-
275.00	40.9	40.7	-	-	-	-	120	46.0	-	-
297.00	40.7	43.6	-	-	-	-	120	46.0	-	-
567.25	36.7	32.1	-	-	-	-	120	46.0	-	-
10480.00	-	-	n.t.	n.t.	45.4	41.7	1000	-	54.0	74.0
20960.00	-	-	n.t.	n.t.	50.2	50.6	1000	-	54.0	74.0

Table 4 - Test results with the EUT operating in receive mode on channel 48 (5240 MHz).

Note: Field strength values of radiated emissions at frequencies not listed in table 4 are more than 20 dB below the applicable limit.

Note: Above 1 GHz, all measured values of the spurious emissions with the detector in peak mode, are below the applicable limits, which are valid when using an average detector. Therefore, all spurious emissions above 1 GHz have been measured with the peak detector only (n.t. = not tested), unless otherwise noted.

Test engineer

Signature

Name : H. Pieters

Date : August 28, 2003



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2.3 Test results with EUT operating in receive mode on channel 52.

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15.109 and 47 CFR Part 15.209 with the EUT operating in receive mode on channel 52 (5260 MHz), are depicted in table 5.

Frequency (MHz)	Test results quasi peak (dBµV/m)		Test results average (dBµV/m)		Test results peak (dBµV/m)		Resolution bandwidth (kHz)	Quasi peak limits (dBµV/m)	Average limits (dBµV/m)	Peak limits (dBµV/m)
	V	H	V	H	V	H				
58.97	24.7	18.6	-	-	-	-	120	40.0	-	-
178.15	30.0	37.9	-	-	-	-	120	43.5	-	-
216.80	24.9	30.4	-	-	-	-	120	46.0	-	-
264.00	43.1	40.4	-	-	-	-	120	46.0	-	-
275.00	40.9	40.7	-	-	-	-	120	46.0	-	-
297.00	40.7	43.6	-	-	-	-	120	46.0	-	-
567.25	36.7	32.1	-	-	-	-	120	46.0	-	-
10520.00	-	-	n.t.	n.t.	44.8	41.3	1000	-	54.0	74.0
21040.00	-	-	n.t.	n.t.	49.1	52.9	1000	-	54.0	74.0

Table 5 - Test results with the EUT operating in receive mode on channel 52 (5260 MHz).

Note: Field strength values of radiated emissions at frequencies not listed in table 5 are more than 20 dB below the applicable limit.

Note: Above 1 GHz, all measured values of the spurious emissions with the detector in peak mode, are below the applicable limits, which are valid when using an average detector. Therefore, all spurious emissions above 1 GHz have been measured with the peak detector only (n.t. = not tested), unless otherwise noted.

Test engineer

Signature :

Name : H.J. Pieters

Date : August 28, 2003



Test specification(s): 47 CFR Part 15 (2003-03-13)
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2.4 Test results with EUT operating in receive mode on channel 64.

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15.109 and 47 CFR Part 15.209 with the EUT operating in receive mode on channel 64 (5320 MHz), are depicted in table 6.

Frequency (MHz)	Test results quasi peak (dBµV/m)		Test results average (dBµV/m)		Test results peak (dBµV/m)		Resolution bandwidth (kHz)	Quasi peak limits (dBµV/m)	Average limits (dBµV/m)	Peak limits (dBµV/m)
	V	H	V	H	V	H				
58.97	24.7	18.6	-	-	-	-	120	40.0	-	-
178.15	30.0	37.9	-	-	-	-	120	43.5	-	-
216.80	24.9	30.4	-	-	-	-	120	46.0	-	-
264.00	43.1	40.4	-	-	-	-	120	46.0	-	-
275.00	40.9	40.7	-	-	-	-	120	46.0	-	-
297.00	40.7	43.6	-	-	-	-	120	46.0	-	-
567.25	36.7	32.1	-	-	-	-	120	46.0	-	-
10640.00	-	-	n.t.	n.t.	44.7	41.5	1000	-	54.0	74.0
21280.00	-	-	n.t.	n.t.	50.0	52.6	1000	-	54.0	74.0

Table 6 - Test results with the EUT operating in receive mode on channel 64 (5320 MHz).

Note: Field strength values of radiated emissions at frequencies not listed in table 6 are more than 20 dB below the applicable limit.

Note: Above 1 GHz, all measured values of the spurious emissions with the detector in peak mode, are below the applicable limits, which are valid when using an average detector. Therefore, all spurious emissions above 1 GHz have been measured with the peak detector only (n.t. = not tested), unless otherwise noted.

Test engineer

Signature

Name : H.J. Pieters

Date : August 28, 2003



Test specification(s): 47 CFR Part 15 (2003-03-13)
 Description of EUT: 2.4/5 GHz IEEE 802.11b/g WLAN Access Point
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2.5 Test results with EUT operating in transmit mode on channel 36.

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15.109, 47 CFR Part 15.209 and 47 CFR Part 15.205 (restricted bands of operation) with the EUT operating in transmit mode on channel 36 (5180 MHz), are depicted in table 7.

Frequency (MHz)	Test results quasi peak (dBµV/m)		Test results average (dBµV/m)		Test results peak (dBµV/m)		Resolution bandwidth (kHz)	Quasi peak limits (dBµV/m)	Average limits (dBµV/m)	Peak limits (dBµV/m)
	V	H	V	H	V	H				
58.97	24.7	18.6	-	-	-	-	120	40.0	-	-
178.15	30.0	37.9	-	-	-	-	120	43.5	-	-
216.80	24.9	30.4	-	-	-	-	120	46.0	-	-
264.00	43.1	40.4	-	-	-	-	120	46.0	-	-
275.00	40.9	40.7	-	-	-	-	120	46.0	-	-
297.00	40.7	43.6	-	-	-	-	120	46.0	-	-
567.25	36.7	32.1	-	-	-	-	120	46.0	-	-
10360.00	-	-	n.t.	n.t.	51.6	45.6	1000	-	54.0	74.0
15540.00	-	-	n.t.	n.t.	53.9	51.3	1000	-	54.0	74.0
20720.00	-	-	n.t.	n.t.	52.7	53.0	1000	-	54.0	74.0

Table 7 - Test results with the EUT operating in transmit mode on channel 36 (5180 MHz).

Note: Radiated emission tests have been performed with all possible transmission bit-rates (6/9 Mbit/s, 12/18 Mbit/s, 24/36 Mbit/s and 48/54 Mbit/s) in transmit mode. The highest values measured of the spurious emission components are reported by means of table 7.

Note: Field strength values of radiated emissions at frequencies not listed in table 7 are more than 20 dB below the applicable limit.

Note: Above 1 GHz, all measured values of the spurious emissions with the detector in peak mode, are below the applicable limits, which are valid when using an average detector. Therefore, all spurious emissions above 1 GHz have been measured with the peak detector only (n.t. = not tested), unless otherwise noted.

Test engineer

Signature :

Name : H.J. Pieters

Date : August 28, 2003



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2.6 Test results with EUT operating in transmit mode on channel 48.

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15.109, 47 CFR Part 15.209 and 47 CFR Part 15.205 (restricted bands of operation) with the EUT operating in transmit mode on channel 48 (5240 MHz), are depicted in table 8.

Frequency (MHz)	Test results quasi peak (dBµV/m)		Test results average (dBµV/m)		Test results peak (dBµV/m)		Resolution bandwidth (kHz)	Quasi peak limits (dBµV/m)	Average limits (dBµV/m)	Peak limits (dBµV/m)
	V	H	V	H	V	H				
58.97	24.7	18.6	-	-	-	-	120	40.0	-	-
178.15	30.0	37.9	-	-	-	-	120	43.5	-	-
216.80	24.9	30.4	-	-	-	-	120	46.0	-	-
264.00	43.1	40.4	-	-	-	-	120	46.0	-	-
275.00	40.9	40.7	-	-	-	-	120	46.0	-	-
297.00	40.7	43.6	-	-	-	-	120	46.0	-	-
567.25	36.7	32.1	-	-	-	-	120	46.0	-	-
10480.00	-	-	n.t.	n.t.	51.6	45.6	1000	-	54.0	74.0
15720.00	-	-	n.t.	n.t.	53.9	52.2	1000	-	54.0	74.0
20960.00	-	-	n.t.	n.t.	<51.0	<51.0	1000	-	54.0	74.0

Table 8 - Test results with the EUT operating in transmit mode on channel 48 (5240 MHz).

Note: Radiated emission tests have been performed with all possible transmission bit-rates (6/9 Mbit/s, 12/18 Mbit/s, 24/36 Mbit/s and 48/54 Mbit/s) in transmit mode. The highest values measured of the spurious emission components are reported by means of table 8.

Note: Field strength values of radiated emissions at frequencies not listed in table 8 are more than 20 dB below the applicable limit.

Note: Above 1 GHz, all measured values of the spurious emissions with the detector in peak mode, are below the applicable limits, which are valid when using an average detector. Therefore, all spurious emissions above 1 GHz have been measured with the peak detector only (n.t. = not tested), unless otherwise noted.

Test engineer

Signature :

Name : H.J. Pieters

Date : August 28, 2003



Test specification(s): 47 CFR Part 15 (2003-03-13)
Description of EUT: 2.4/5 GHz IEEE 802.11b/g WLAN Access Point
Manufacturer: Intersil Corporation
Brand mark: Intersil
Model: ISL39300A
FCC ID: OSZ39300A

2.7 Test results with EUT operating in transmit mode on channel 52.

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15.109, 47 CFR Part 15.209 and 47 CFR Part 15.205 (restricted bands of operation) with the EUT operating in transmit mode on channel 52 (5260 MHz), are depicted in table 9.

Frequency (MHz)	Test results quasi peak (dBµV/m)		Test results average (dBµV/m)		Test results peak (dBµV/m)		Resolution bandwidth (kHz)	Quasi peak limits (dBµV/m)	Average limits (dBµV/m)	Peak limits (dBµV/m)
	V	H	V	H	V	H				
58.97	24.7	18.6	-	-	-	-	120	40.0	-	-
178.15	30.0	37.9	-	-	-	-	120	43.5	-	-
216.80	24.9	30.4	-	-	-	-	120	46.0	-	-
264.00	43.1	40.4	-	-	-	-	120	46.0	-	-
275.00	40.9	40.7	-	-	-	-	120	46.0	-	-
297.00	40.7	43.6	-	-	-	-	120	46.0	-	-
567.25	36.7	32.1	-	-	-	-	120	46.0	-	-
10520.00	-	-	n.t.	n.t.	47.2	43.1	1000	-	54.0	74.0
15780.00	-	-	40.2	n.t.	55.8	53.7	1000	-	54.0	74.0
21040.00	-	-	n.t.	n.t.	<51.0	52.1	1000	-	54.0	74.0

Table 9 - Test results with the EUT operating in transmit mode on channel 52 (5260 MHz).

Note: Radiated emission tests have been performed with all possible transmission bit-rates (6/9 Mbit/s, 12/18 Mbit/s, 24/36 Mbit/s and 48/54 Mbit/s) in transmit mode. The highest values measured of the spurious emission components are reported by means of table 9.

Note: Field strength values of radiated emissions at frequencies not listed in table 9 are more than 20 dB below the applicable limit.

Note: Above 1 GHz, most measured values of the spurious emissions with the detector in peak mode, are below the applicable limits, which are valid when using an average detector. Therefore, most spurious emissions above 1 GHz have been measured with the peak detector only (n.t. = not tested), unless otherwise noted.

Test engineer

Signature :

Name : H.J. Pieters

Date : August 28, 2003



Test specification(s): 47 CFR Part 15 (2003-03-13)
Description of EUT: 2.4/5 GHz IEEE 802.11b/g WLAN Access Point
Manufacturer: Intersil Corporation
Brand mark: Intersil
Model: ISL39300A
FCC ID: OSZ39300A

2.8 Test results with EUT operating in transmit mode on channel 64.

The results of the radiated emission tests, carried out in accordance with 47 CFR Part 15.109, 47 CFR Part 15.209 and 47 CFR Part 15.205 (restricted bands of operation) with the EUT operating in transmit mode on channel 64 (5320 MHz), are depicted in table 10.

Frequency (MHz)	Test results quasi peak (dBµV/m)		Test results average (dBµV/m)		Test results peak (dBµV/m)		Resolution bandwidth (kHz)	Quasi peak limits (dBµV/m)	Average limits (dBµV/m)	Peak limits (dBµV/m)
	V	H	V	H	V	H				
58.97	24.7	18.6	-	-	-	-	120	40.0	-	-
178.15	30.0	37.9	-	-	-	-	120	43.5	-	-
216.80	24.9	30.4	-	-	-	-	120	46.0	-	-
264.00	43.1	40.4	-	-	-	-	120	46.0	-	-
275.00	40.9	40.7	-	-	-	-	120	46.0	-	-
297.00	40.7	43.6	-	-	-	-	120	46.0	-	-
567.25	36.7	32.1	-	-	-	-	120	46.0	-	-
10640.00	-	-	n.t.	n.t.	50.5	47.1	1000	-	54.0	74.0
15960.00	-	-	39.6	n.t.	57.5	53.1	1000	-	54.0	74.0
21280.00	-	-	n.t.	n.t.	51.9	53.1	1000	-	54.0	74.0

Table 10 - Test results with the EUT operating in transmit mode on channel 64 (5320 MHz).

Note: Radiated emission tests have been performed with all possible transmission bit-rates (6/9 Mbit/s, 12/18 Mbit/s, 24/36 Mbit/s and 48/54 Mbit/s) in transmit mode. The highest values measured of the spurious emission components are reported by means of table 10.

Note: Field strength values of radiated emissions at frequencies not listed in table 10 are more than 20 dB below the applicable limit.

Note: Above 1 GHz, most measured values of the spurious emissions with the detector in peak mode, are below the applicable limits, which are valid when using an average detector. Therefore, most spurious emissions above 1 GHz have been measured with the peak detector only (n.t. = not tested), unless otherwise noted.

Test engineer

Signature :

Name : H.J. Pieters

Date : August 28, 2003



Test specification(s): 47 CFR Part 15 (2003-03-13)
Description of EUT: 2.4/5 GHz IEEE 802.11b/g WLAN Access Point
Manufacturer: Intersil Corporation
Brand mark: Intersil
Model: ISL39300A
FCC ID: OSZ39300A

3 Conducted emission data.

3.1 AC mains with EUT operating in transmit/receive mode.

The (worst-case) results of the conducted emission tests at the 110 Volts AC mains connection terminals of the PowerDsine Power over Lan HUB, to which the EUT is connected, carried out in accordance with 47 CFR Part 15.107 and 47 CFR Part 15.207, with the EUT operating in transmit/receive mode on channels 36 (5180 MHz), 48 (5240 MHz), 52 (5260 MHz) and 64 (5320 MHz), while utilizing all possible transmission bit-rates (6/9 Mbit/s, 12/18 Mbit/s, 24/36 Mbit/s and 48/54 Mbit/s), are depicted in table 11.

Frequency (MHz)	Measurement results dB(μ V) Neutral		Measurement results dB(μ V) Line 1		Limits dB(μ V)		Margin (dB) Neutral		Margin (dB) Line 1		Result
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV	
0.18	46.4	43.4	48.8	43.1	64.5	54.5	-18.1	-11.1	-15.7	-11.4	PASS
0.37	40.5	39.6	38.0	34.7	58.5	48.5	-18.0	-8.9	-20.5	-13.8	PASS
0.82	42.3	41.8	44.8	44.2	56.0	46.0	-13.7	-4.2	-11.2	-1.8	PASS
1.74	28.8	27.7	24.7	22.4	56.0	46.0	-27.2	-18.3	-31.3	-23.6	PASS
2.38	29.4	26.6	29.4	26.5	56.0	46.0	-26.6	-19.4	-26.6	-19.5	PASS
2.92	21.4	17.5	21.0	17.2	56.0	46.0	-34.6	-28.5	-35.0	-28.8	PASS
3.02	22.4	18.4	22.0	17.9	56.0	46.0	-33.6	-27.6	-34.0	-28.1	PASS
5.02	18.8	12.2	18.0	11.9	60.0	50.0	-41.2	-37.8	-42.0	-38.1	PASS
12.50	27.4	25.2	27.7	25.3	60.0	50.0	-32.6	-24.8	-32.3	-24.7	PASS
18.98	31.2	27.7	32.6	28.3	60.0	50.0	-28.8	-22.3	-27.4	-21.7	PASS
18.94	18.6	7.5	40.0	38.1	60.0	50.0	-41.4	-42.5	-20.0	-11.9	PASS
20.99	39.7	38.3	39.1	37.6	60.0	50.0	-20.3	-11.7	-20.9	-12.4	PASS
28.44	42.4	39.2	42.5	39.5	60.0	50.0	-17.6	-10.8	-17.5	-10.5	PASS

Table 11 - Test results with the EUT operating in transmit/receive mode.

Note: Disturbance voltage values of conducted emissions at frequencies not listed in table 11 are more than 20 dB below the applicable limit.

Test engineer

Signature : 

Name H.J. Pieters

Date : August 19, 2003



Test specification(s): 47 CFR Part 15 (2003-03-13)
Description of EUT: 2.4/5 GHz IEEE 802.11b/g WLAN Access Point
Manufacturer: Intersil Corporation
Brand mark: Intersil
Model: ISL39300A
FCC ID: OSZ39300A

4 List of utilized test equipment.

Inventory number	Description	Brand	Model
12471	Biconical antenna 20MHz-200MHz	EATON	94455-1
12473	Log-per antenna 200-1000MHz	EATON	96005
12476	Antenna mast	EMCO	TR3
12477	Antenna mast 1-4 mtr	Poelstra	--
12482	Loop antenna	EMCO	6507
12483	Guidehorn	EMCO	3115
12484	Guidehorn	EMCO	3115
12486	Guidehorn 18 – 40 GHz	EMCO	3116
12488	Guidehorn 18 - 26.5 GHz	EMCO	RA42-K-F-4B-C
12533	Signalgenerator	MARCONI	2032
12559	Digital storage oscilloscope	Le Croy	9310M
12561	DC Power Supply 20A/70V	DELTA	SM7020D
12567	Plotter	HP	7440A
12605	Calibrated dipole 28MHz-1GHz	Emco	3121c
12608	HF milliwattmeter	Hewlett Packard	HP435a
12609	Power sensor 10MHz-18GHz	Hewlett Packard	HP8481A
12636	Polyester chamber	Polyforce	--
12640	Temperature chamber	Heraeus	VEM03/500
13664	Spectrum analyzer	HP	HP8593E
13078	Preamplifier 0.1 GHz - 12 GHz	Miteq	AMF-3D-001120-35-14p
13452	Digital multi meter	HP	34401A
13526	Signalgenerator 20 GHz	Hewlett & Packard	83620A
13594	Preamplifier 10 GHz - 25 GHz	Miteq	AMF-6D-100250-10p
13886	Open Area testsite	Comtest	--
14051	Anechoic room	Comtest	--
14450	2.4 GHz bandrejectfilter	BSC	XN-1783
15633	Biconilog Testantenna	Chase	CBL 6111B
15667	Measuring receiver	R&S	ESCS 30
99045	DC Power Supply 3A/30V	DELTA	E030/3
99055	Non-conducting support	NMi	--
99061	Non-conducting support 150cm	NMi	--
99068	Detector N-F/BNC-F	Radiall	R451576000
99069	Cable 5m RG214	NMi	--
99071	Cable 10m RG214	NMi	--
99076	Bandpassfilter 4 - 10 GHz	Reactel	7AS-7G-6G-511
99077	Regulating trafo	RFT	LTS006
99112	Tripod	Chase	--
99136	Bandpassfilter 10 - 26.5 GHz	Reactel	9HS-10G/26.5G-S11
99199	Spectrum Analyzer	R&S	FSP40