

TEST RESULT SUMMARY

FCC Part 15 Subpart C Section 15.249

FCC Part 15 Subpart C Section 15.207

Industry Canada RSS-210 Issue 7

Industry Canada RSS-Gen Issue 2

MANUFACTURER'S NAME	GE Security Incorporated
MANUFACTURER'S ADDRESS	1275 Red Fox Road Arden Hills MN 55112
NAME OF EQUIPMENT	Simon iXT – Residential Security System
MODEL NUMBER(S) TESTED	600-1054-95R-iXT
TEST REPORT NUMBER	WC907293.2 Rev A
TEST DATE(S)	18 September – 01 October 2009

TÜV SÜD America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the electromagnetic compatibility requirements of FCC Part 15 Subpart C Sections 15.249 "Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz and 24.0-24.25 GHz" and 15.207 "Conducted limits" and Industry Canada's RSS-210 Issue 7 "Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment" and RSS-Gen Issue 2 "General Requirements and Information for the Certification of Radiocommunication Equipment"

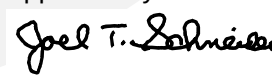
It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

Date: 20 October 2009

Tested by:



Approved by:



Location: Taylors Falls MN
USA

Greg Jakubowski
Senior EMC Technician

Joel T Schneider
Senior EMC Engineer

Not Transferable

EMC TEST REPORT

Test Report No. WC907293.2 Rev A Date of issue: 20 October 2009

Model / Serial No(s) Tested 600-1054-95R-iXT / Rev. A

Product Type Simon iXT – Residential Security System

Manufacturer GE Security Incorporated

Address 1275 Red Fox Road
Arden Hills MN 55112

Test Result ☒ Positive ☐ Negative

TÜV SÜD America Inc reports apply only to the specific samples tested under stated test conditions. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. TÜV SÜD America Inc shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD America Inc issued reports.

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TÜV SÜD America Inc and its professional staff hold government and Professional organization certifications and are members of AAMI, ACIL, AEA, ANSI, IEEE, NARTE, and VCCI.

REVISION RECORD

REVISION	TOTAL NUMBER OF PAGES	DATE	DESCRIPTION
	40	19 October 2009	Initial Release
A	42	20 October	Revisions Include: ▪ Adding 99% bandwidth plots.



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STATEMENT OF MEASUREMENT UNCERTAINTY

The data and results referenced in this document are accurate. The reader is cautioned that there is some measurement variability due to the tolerances of the test equipment that can contribute to a nominal product measurement uncertainty. Furthermore, component differences and manufacturing process variability of production units similar to that tested may result in additional product uncertainty. If necessary, refer to the test lab for the actual measurement uncertainty for specific tests.

TEST EQUIPMENT

All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated according to internal procedure.

EMC TEST REGULATIONS:

The tests were performed according to the following regulations:

- FCC Part 15 Subpart C Section 15.249
- FCC Part 15 Subpart C Section 15.207
- Industry Canada RSS-210 Issue 7
- Industry Canada RSS-Gen Issue 2

ENVIRONMENTAL CONDITIONS IN THE LAB

	<u>Actual</u>
Temperature:	: 22-25 °C
Relative Humidity	: 32-41 %
Atmospheric pressure	: 98-99 kPa

POWER SUPPLY UTILIZED

Power supply system : 110-120 V / 60 Hz / 1 ϕ

SIGN EXPLANATIONS

- ☐ - not applicable
- ☒ - applicable

Field strength of fundamental FCC 15.249(a), IC RSS-210 A2.9

Test summary

The requirements are: ☒ - MET ☐ - NOT MET

Test was performed in accordance with the test procedure of ANSI C63.4: 2003

Maximum field strength of fundamental is 80.06 dBuV/m or 10 mV/m at 3 meters at 908.4 MHz

Antenna Height: ☒ - 1 to 4 meters

Antenna Polarization: ☒ - Horizontal ☒ - Vertical

: ☒ - EUT rotated 360 degrees

Test location

☒ - Wild River Lab Large Test Site (Open Area Test Site)

☐ - Wild River Lab Small Test Site (Open Area Test Site)

☐ - Wild River Lab Tech Area, conducted measurement

Test equipment

TUV ID	Model	Manufacturer	Description	Serial	Cal Due
WRLE03204	EM-6917B	Electro-Metrics	Biconicalog Periodic	102	17-Dec-09
WRLE03847	ZHL-1042J	Mini-Circuits	Preamplifier 10 - 3000 MHz	0607	Code B 14-May-10
NBLE02683	85650A	Hewlett-Packard	Quasi-peak Adapter	2430A00495	23-Feb-10
WRLE02673	85662A	Hewlett-Packard	Analyzer Display	2152A03687	19-Mar-10
WRLE03294	8566B	Hewlett-Packard	Spectrum Analyzer	2349A03098	19-Mar-10

Test limit

Fundamental Frequency (MHz)	Field strength (mV/meter)	Field strength (dB μ V/meter)
902 - 928	50, QP	94.0
2400 – 2483.5	50, AV	94.0
	500, PK	114.0
5725 – 5875	50, AV	94.0
	500, PK	114.0
24000 - 24250	250, AV	108.0
	2500, PK	128.0

Test data

See following pages

RADIATED EMISSIONS



Test Report #: WC907293 Run 4 Test Area: LTS

EUT Model #: NA-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave

Data File Name: 7293re1below1g.dat

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List of measurements for run #: 4

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	15.249 LIMIT	DELTA2
eut in upright position						
908.4 MHz	42.57 Qp	2.58 / 22.65 / 0.0 / 0.0	67.8	V / 1.00 / 0	n/a	n/a
908.4 MHz	47.55 Qp	2.58 / 22.65 / 0.0 / 0.0	72.78	V / 1.00 / 180	n/a	n/a
908.4 MHz	47.96 Qp	2.58 / 22.65 / 0.0 / 0.0	73.19	V / 1.00 / 270	n/a	n/a
908.4 MHz	51.67 Qp	2.58 / 22.65 / 0.0 / 0.0	76.9	V / 1.10 / 255	n/a	n/a
unit on its side						
908.4 MHz	51.87 Qp	2.58 / 22.65 / 0.0 / 0.0	77.1	H / 1.00 / 90	n/a	n/a
908.4 MHz	54.12 Qp	2.58 / 22.65 / 0.0 / 0.0	79.35	H / 1.00 / 110	n/a	n/a
908.4 MHz	54.54 Qp	2.58 / 22.65 / 0.0 / 0.0	79.77	H / 1.00 / 115	n/a	n/a
with preamp						
908.4 MHz	84.45 Qp	2.58 / 22.65 / 29.62 / 0.0	80.06	H / 1.00 / 115	94	n/a

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Joel T. Schneider

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Reviewed by: Greg S Jakubowski
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Greg S Jakubowski

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RADIATED EMISSIONS



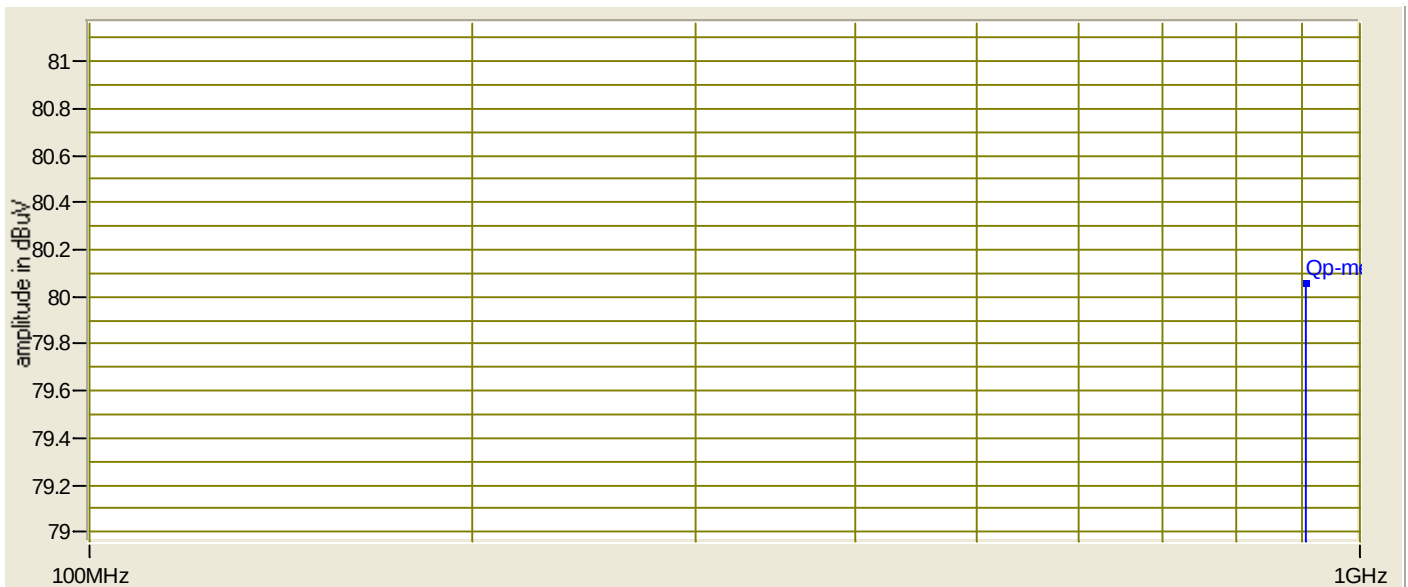
Test Report #: WC907293 Run 4 Test Area: LTS
EUT Model #: NA-801-IXT Date: 9/24/2009
EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C
Test Method: FCC B Air Pressure: 99.0 kPa
Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave

Data File Name: 7293re1below1g.dat Page: 2 of 2

Graph:



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Field strength of harmonics

FCC 15.249(a), IC RSS-210 A2.9

Test summary

The requirements are: ☒ - MET ☐ - NOT MET

Test was performed in accordance with the test procedure of ANSI C63.4: 2003

Maximum field strength of harmonics is 42.47 dBuV/m or 133 uV/m at 3 meters at 2725 MHz (peak)

Maximum field strength of harmonics is 35.25 dBuV/m or 57.9 uV/m at 3 meters at 2725 MHz (average)

Above 1 GHz, rbw and vbw = 1 MHz for peak readings.

Above 1 GHz, rbw = 1 MHz, vbw = 10 Hz for average readings.

Antenna Height: ☒ - 1 to 4 meters

Antenna Polarization: ☒ - Horizontal ☒ - Vertical

: ☒ - EUT rotated 360 degrees

Test location

☒ - Wild River Lab Large Test Site (Open Area Test Site)

☐ - Wild River Lab Small Test Site (Open Area Test Site)

☐ - Wild River Lab Tech Area, conducted measurement

Test equipment

TUV ID	Model	Manufacturer	Description	Serial	Cal Due
WRLE02673	85662A	Hewlett-Packard	Analyzer Display	2152A03687	19-Mar-10
WRLE03294	8566B	Hewlett-Packard	Spectrum Analyzer	2349A03098	19-Mar-10
WRLE02075	3115	EMCO	Ridge Guide Ant. 1-18 GHz	9001-3275	13-Jan-10
WRLE10527	SL18B4020	Phase One Microwave	Preamplifier 1 – 18 GHz	0001	Code B 28-Sep-10

Cal Code B = Calibration verification performed internally.

Test limit

Fundamental Frequency (MHz)	Field strength (uV/meter)	Field strength (dBμV/meter)
902 - 928	500, AV 5000, PK	54.0 74.0

Test data

See following pages

Spurious emissions

FCC 15.249(d), IC RSS-210 A2.9

Test summary

The requirements are: ☒ - MET ☐ - NOT MET

Test was performed in accordance with ANSI C63.4 2003

Maximum radiated spurious emission below 1 GHz is 40.09 dB μ V/m or 101 μ V/m at 3 meters at 480 MHz

Maximum radiated spurious emission above 1 GHz is 46.49 dB μ V/m or 211 μ V/m at 3 meters at 1.2 GHz (peak)

Maximum radiated spurious emission above 1 GHz is 44.27 dB μ V/m or 163 μ V/m at 3 meters at 1.2 GHz (average)

Minimum margin of compliance = 5 dB

Above 1 GHz, rbw and vbw = 1 MHz for peak readings.

Above 1 GHz, rbw = 1 MHz, vbw = 10 Hz for average readings.

Antenna Height: ☒ - 1 to 4 meters

Antenna Polarization: ☒ - Horizontal ☒ - Vertical

: ☒ - EUT rotated 360 degrees

Test location

☒ - Wild River Lab Large Test Site (Open Area Test Site)

☐ - Wild River Lab Small Test Site (Open Area Test Site)

☐ - Wild River Lab Tech Area, conducted measurement

Test equipment

TUV ID	Model	Manufacturer	Description	Serial	Cal Due
WRLE03204	EM-6917B	Electro-Metrics	Biconicalog Periodic	102	17-Dec-09
WRLE03847	ZHL-1042J	Mini-Circuits	Preamplifier 10 - 3000 MHz	0607	Code B 14-May-10
WRLE02673	85662A	Hewlett-Packard	Analyzer Display	2152A03687	19-Mar-10
WRLE03294	8566B	Hewlett-Packard	Spectrum Analyzer	2349A03098	19-Mar-10
WRLE02680	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00343	02-Jun-10
WRLE02075	3115	EMCO	Ridge Guide Ant. 1-18 GHz	9001-3275	13-Jan-10
WRLE10527	SL18B4020	Phase One Microwave	Preamplifier 1 – 18 GHz	0001	Code B 28-Sep-10

Cal Code B = Calibration verification performed internally.

Test limit

-50 dBc, or the 15.209 limits below, whichever is the lesser attenuation

Frequency (MHz)	Field strength (μ V/meter)	Field strength (dB μ V/meter)
30 - 88	100, QP	40.0
88 - 216	150, QP	43.5
216 - 960	200, QP	46.0
Above 960	500, QP	54.0
> 1000	500, AV	54.0
	5000, PK	74.0

Test data

See following pages

RADIATED EMISSIONS



Test Report #: WC907293 Run 5 Test Area: LTS

EUT Model #: NX-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave

Data File Name: 7293re5.dat

Page: 1 of 4

List of measurements for run #: 5

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC B >1G 3 M peak	DELTA2 FCC B >1GHz 3m ave
1.2 GHz	43.8 Pk	3.32 / 25.16 / 29.09 / 0.0	43.19	V / 1.00 / 0	-30.81	-10.81*
1.2 GHz	36.73 Av	3.32 / 25.16 / 29.09 / 0.0	36.12	V / 1.00 / 0	n/a	-17.88
1.2 GHz	42.15 Av	3.32 / 25.16 / 29.09 / 0.0	41.54	V / 1.00 / 180	n/a	-12.46
1.2 GHz	46.7 Pk	3.32 / 25.16 / 29.09 / 0.0	46.09	V / 1.00 / 180	-27.91	-7.91*
1.2 GHz	44.88 Av	3.32 / 25.16 / 29.09 / 0.0	44.27	H / 2.00 / 190	n/a	-9.73
1.2 GHz	47.1 Pk	3.32 / 25.16 / 29.09 / 0.0	46.49	H / 2.00 / 190	-27.51	-7.51*
2.725 GHz	42.07 Av	4.46 / 29.43 / 43.63 / 0.0	32.34	V / 1.00 / 0	n/a	-21.66
2.725 GHz	50.4 Pk	4.46 / 29.43 / 43.63 / 0.0	40.67	V / 1.00 / 0	-33.33	-13.33*
2.725 GHz	43.3 Av	4.46 / 29.43 / 43.63 / 0.0	33.57	V / 1.00 / 270	n/a	-20.43
2.725 GHz	51.8 Pk	4.46 / 29.43 / 43.63 / 0.0	42.07	V / 1.00 / 270	-31.93	-11.93*
2.725 GHz	44.64 Av	4.46 / 29.43 / 43.63 / 0.0	34.91	V / 1.20 / 280	n/a	-19.09
2.725 GHz	49.9 Pk	4.46 / 29.43 / 43.63 / 0.0	40.17	V / 1.20 / 280	-33.83	-13.83*
2.725 GHz	44.98 Av	4.46 / 29.43 / 43.63 / 0.0	35.25	H / 1.20 / 270	n/a	-18.75
2.725 GHz	52.2 Pk	4.46 / 29.43 / 43.63 / 0.0	42.47	H / 1.20 / 270	-31.53	-11.53*

no higher signals up to 10 GHz

*denotes peak reading vs. average limit

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Joel T. Schneider

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Reviewed by: Greg S Jakubowski
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G. Jakubowski

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RADIATED EMISSIONS



Test Report #: WC907293 Run 5 Test Area: LTS
EUT Model #: NX-801-IXT Date: 9/24/2009
EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C
Test Method: FCC B Air Pressure: 99.0 kPa
Customer: GE Security Rel. Humidity: 41.0 %
EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave

Data File Name: 7293re5.dat

Page: 2 of 4

Measurement summary for limit1: FCC B >1G 3 M peak (Pk)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC B >1G 3 M peak
1.2 GHz	47.1 Pk	3.32 / 25.16 / 29.09 / 0.0	46.49	H / 2.00 / 190	-27.51
2.725 GHz	52.2 Pk	4.46 / 29.43 / 43.63 / 0.0	42.47	H / 1.20 / 270	-31.53

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RADIATED EMISSIONS



Test Report #: WC907293 Run 5 Test Area: LTS

EUT Model #: NX-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave

Data File Name: 7293re5.dat Page: 3 of 4

Measurement summary for limit2: FCC B >1GHz 3m ave (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 FCC B >1GHz 3m ave
1.2 GHz	44.88 Av	3.32 / 25.16 / 29.09 / 0.0	44.27	H / 2.00 / 190	-9.73
2.725 GHz	44.98 Av	4.46 / 29.43 / 43.63 / 0.0	35.25	H / 1.20 / 270	-18.75

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RADIATED EMISSIONS



Test Report #: WC907293 Run 5 Test Area: LTS

EUT Model #: NX-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

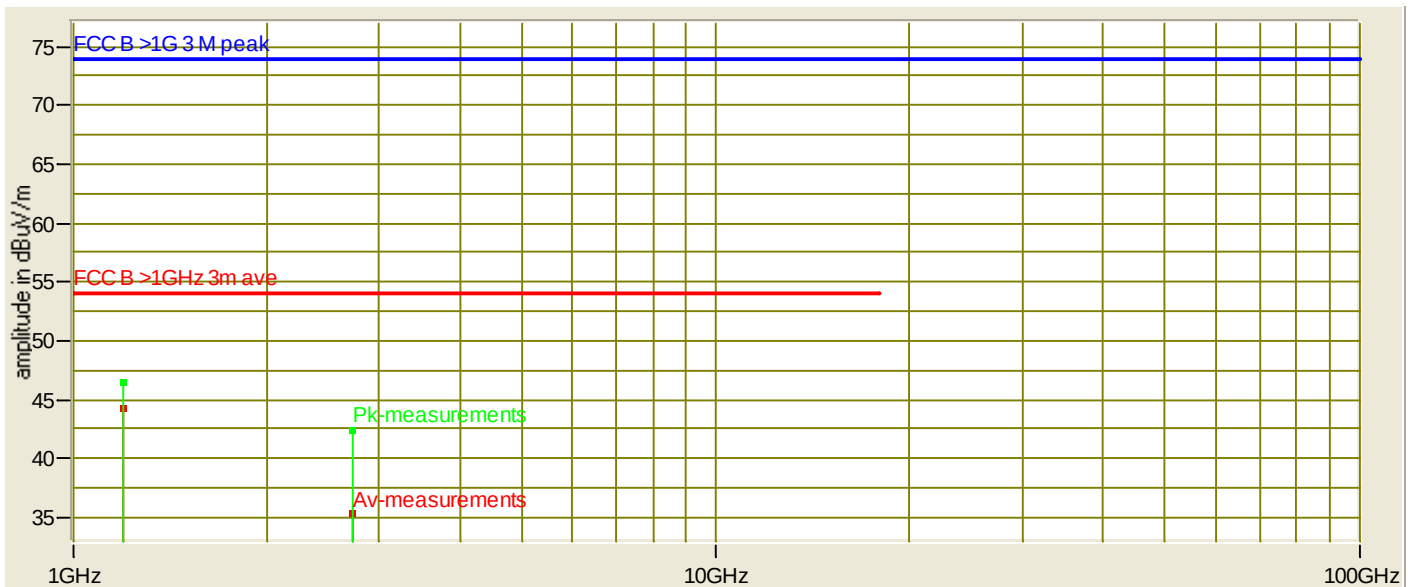
Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave

Data File Name: 7293re5.dat Page: 4 of 4

Graph:



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RADIATED EMISSIONS



Test Report #: WC907293 Run 1 Test Area: LTS

EUT Model #: NX-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave and wi-fi

Data File Name: 7293.dat

Page: 1 of 4

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
802.11g mid channel						
45.55 MHz	40.37 Qp	0.32 / 15.35 / 29.8 / 0.0	26.24	V / 1.00 / 0	-13.76	n/a
47.8 MHz	41.35 Qp	0.34 / 14.72 / 29.73 / 0.0	26.68	V / 1.00 / 0	-13.32	n/a
73.159 MHz	52.41 Qp	0.54 / 9.2 / 29.69 / 0.0	32.47	V / 1.00 / 0	-7.53	n/a
56.75 MHz	48.0 Qp	0.41 / 12.28 / 29.7 / 0.0	30.99	V / 1.00 / 0	-9.01	n/a
87.45 MHz	52.23 Qp	0.66 / 7.79 / 29.7 / 0.0	30.97	V / 1.00 / 0	-9.03	n/a
75.15 MHz	45.42 Qp	0.56 / 8.93 / 29.7 / 0.0	25.21	V / 1.00 / 0	-14.79	n/a
110.805 MHz	48.51 Qp	0.81 / 9.58 / 29.7 / 0.0	29.2	V / 1.00 / 0	-14.3	n/a
111.55 MHz	46.9 Qp	0.82 / 9.64 / 29.7 / 0.0	27.65	V / 1.00 / 0	-15.85	n/a
143.25 MHz	41.65 Qp	0.9 / 9.74 / 29.75 / 0.0	22.53	V / 1.00 / 0	-20.97	n/a
155.65 MHz	34.83 Qp	0.93 / 9.15 / 29.8 / 0.0	15.11	V / 1.00 / 0	-28.39	n/a
196.0 MHz	31.95 Qp	1.03 / 11.0 / 29.8 / 0.0	14.18	V / 1.00 / 0	-29.32	n/a
204.0 MHz	32.99 Qp	1.06 / 10.96 / 29.8 / 0.0	15.2	V / 1.00 / 0	-28.3	n/a
240.0 MHz	49.0 Qp	1.15 / 11.85 / 29.7 / 0.0	32.3	V / 1.00 / 0	-13.7	n/a
250.0 MHz	47.87 Qp	1.17 / 12.23 / 29.76 / 0.0	31.52	V / 1.00 / 0	-14.48	n/a
300.0 MHz	39.33 Qp	1.25 / 13.25 / 29.9 / 0.0	23.93	V / 1.00 / 0	-22.07	n/a
375.0 MHz	41.81 Qp	1.33 / 15.5 / 30.0 / 0.0	28.64	V / 1.00 / 0	-17.36	n/a
400.45 MHz	32.62 Qp	1.36 / 16.02 / 30.0 / 0.0	20.0	V / 1.00 / 0	-26.0	n/a
480.0 MHz	50.98 Qp	1.45 / 17.05 / 30.2 / 0.0	39.28	V / 1.00 / 0	-6.72	n/a
500.0 MHz	32.5 Qp	1.48 / 17.17 / 30.2 / 0.0	20.94	V / 1.00 / 0	-25.06	n/a
600.0 MHz	43.45 Qp	1.65 / 18.8 / 30.12 / 0.0	33.78	V / 1.00 / 0	-12.22	n/a
625.0 MHz	39.79 Qp	1.7 / 19.7 / 30.18 / 0.0	31.01	V / 1.00 / 0	-14.99	n/a
720.0 MHz	31.65 Qp	1.87 / 20.63 / 30.12 / 0.0	24.03	V / 1.00 / 0	-21.97	n/a
900.0 MHz	39.73 Qp	2.54 / 22.4 / 29.61 / 0.0	35.06	V / 1.00 / 0	-10.94	n/a
1.0 GHz	33.05 Qp	3.01 / 23.25 / 29.76 / 0.0	29.56	V / 1.00 / 0	-24.44	n/a
45.55 MHz	40.91 Qp	0.32 / 15.35 / 29.8 / 0.0	26.78	V / 1.00 / 90	-13.22	n/a
56.75 MHz	48.3 Qp	0.41 / 12.28 / 29.7 / 0.0	31.29	V / 1.00 / 90	-8.71	n/a
56.75 MHz	48.86 Qp	0.41 / 12.28 / 29.7 / 0.0	31.85	V / 1.00 / 180	-8.15	n/a

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RADIATED EMISSIONS



Test Report #: WC907293 Run 1 Test Area: LTS

EUT Model #: NX-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave and wi-fi

Data File Name: 7293.dat

Page: 2 of 4

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
111.55 MHz	48.98 Qp	0.82 / 9.64 / 29.7 / 0.0	29.73	V / 1.00 / 180	-13.77	n/a
155.65 MHz	38.0 Qp	0.93 / 9.15 / 29.8 / 0.0	18.28	V / 1.00 / 180	-25.22	n/a
196.0 MHz	33.46 Qp	1.03 / 11.0 / 29.8 / 0.0	15.69	V / 1.00 / 180	-27.81	n/a
204.0 MHz	35.08 Qp	1.06 / 10.96 / 29.8 / 0.0	17.29	V / 1.00 / 180	-26.21	n/a
240.0 MHz	50.86 Qp	1.15 / 11.85 / 29.7 / 0.0	34.16	V / 1.00 / 180	-11.84	n/a
500.0 MHz	35.24 Qp	1.48 / 17.17 / 30.2 / 0.0	23.68	V / 1.00 / 180	-22.32	n/a
720.0 MHz	38.14 Qp	1.87 / 20.63 / 30.12 / 0.0	30.52	V / 1.00 / 180	-15.48	n/a
1.0 GHz	35.5 Qp	3.01 / 23.25 / 29.76 / 0.0	32.01	V / 1.00 / 180	-21.99	n/a
720.0 MHz	40.72 Qp	1.87 / 20.63 / 30.12 / 0.0	33.1	V / 1.00 / 270	-12.9	n/a
480.0 MHz	51.79 Qp	1.45 / 17.05 / 30.2 / 0.0	40.09	V / 1.10 / 10	-5.91	n/a
250.0 MHz	49.58 Qp	1.17 / 12.23 / 29.76 / 0.0	33.23	H / 1.00 / 180	-12.77	n/a
250.0 MHz	50.51 Qp	1.17 / 12.23 / 29.76 / 0.0	34.16	H / 1.20 / 200	-11.84	n/a
802.11a mid channel						
802.11a low channel						
802.11a high channel						
802.11g high channel						
802.11g low channel						
no higher levels						
spurious emissions with z-wave						
43.8 MHz	47.52 Qp	0.31 / 15.93 / 29.8 / 0.0	33.96	V / 1.00 / 0	-6.04	n/a

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RADIATED EMISSIONS



Test Report #: WC907293 Run 1 Test Area: LTS

EUT Model #: NX-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave and wi-fi

Data File Name: 7293.dat

Page: 3 of 4

Measurement summary for limit1: FCC-B <1GHz 3m (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m
480.0 MHz	51.79 Qp	1.45 / 17.05 / 30.2 / 0.0	40.09	V / 1.10 / 10	-5.91
43.8 MHz	47.52 Qp	0.31 / 15.93 / 29.8 / 0.0	33.96	V / 1.00 / 0	-6.04
73.159 MHz	52.41 Qp	0.54 / 9.2 / 29.69 / 0.0	32.47	V / 1.00 / 0	-7.53
56.75 MHz	48.86 Qp	0.41 / 12.28 / 29.7 / 0.0	31.85	V / 1.00 / 180	-8.15
87.45 MHz	52.23 Qp	0.66 / 7.79 / 29.7 / 0.0	30.97	V / 1.00 / 0	-9.03
900.0 MHz	39.73 Qp	2.54 / 22.4 / 29.61 / 0.0	35.06	V / 1.00 / 0	-10.94
240.0 MHz	50.86 Qp	1.15 / 11.85 / 29.7 / 0.0	34.16	V / 1.00 / 180	-11.84
250.0 MHz	50.51 Qp	1.17 / 12.23 / 29.76 / 0.0	34.16	H / 1.20 / 200	-11.84
600.0 MHz	43.45 Qp	1.65 / 18.8 / 30.12 / 0.0	33.78	V / 1.00 / 0	-12.22
720.0 MHz	40.72 Qp	1.87 / 20.63 / 30.12 / 0.0	33.1	V / 1.00 / 270	-12.9
45.55 MHz	40.91 Qp	0.32 / 15.35 / 29.8 / 0.0	26.78	V / 1.00 / 90	-13.22
47.8 MHz	41.35 Qp	0.34 / 14.72 / 29.73 / 0.0	26.68	V / 1.00 / 0	-13.32
111.55 MHz	48.98 Qp	0.82 / 9.64 / 29.7 / 0.0	29.73	V / 1.00 / 180	-13.77
110.805 MHz	48.51 Qp	0.81 / 9.58 / 29.7 / 0.0	29.2	V / 1.00 / 0	-14.3
75.15 MHz	45.42 Qp	0.56 / 8.93 / 29.7 / 0.0	25.21	V / 1.00 / 0	-14.79
625.0 MHz	39.79 Qp	1.7 / 19.7 / 30.18 / 0.0	31.01	V / 1.00 / 0	-14.99
375.0 MHz	41.81 Qp	1.33 / 15.5 / 30.0 / 0.0	28.64	V / 1.00 / 0	-17.36
143.25 MHz	41.65 Qp	0.9 / 9.74 / 29.75 / 0.0	22.53	V / 1.00 / 0	-20.97
1.0 GHz	35.5 Qp	3.01 / 23.25 / 29.76 / 0.0	32.01	V / 1.00 / 180	-21.99
300.0 MHz	39.33 Qp	1.25 / 13.25 / 29.9 / 0.0	23.93	V / 1.00 / 0	-22.07
500.0 MHz	35.24 Qp	1.48 / 17.17 / 30.2 / 0.0	23.68	V / 1.00 / 180	-22.32
155.65 MHz	38.0 Qp	0.93 / 9.15 / 29.8 / 0.0	18.28	V / 1.00 / 180	-25.22
400.45 MHz	32.62 Qp	1.36 / 16.02 / 30.0 / 0.0	20.0	V / 1.00 / 0	-26.0
204.0 MHz	35.08 Qp	1.06 / 10.96 / 29.8 / 0.0	17.29	V / 1.00 / 180	-26.21
196.0 MHz	33.46 Qp	1.03 / 11.0 / 29.8 / 0.0	15.69	V / 1.00 / 180	-27.81

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G. Jakubowski

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RADIATED EMISSIONS



Test Report #: WC907293 Run 1 Test Area: LTS

EUT Model #: NX-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

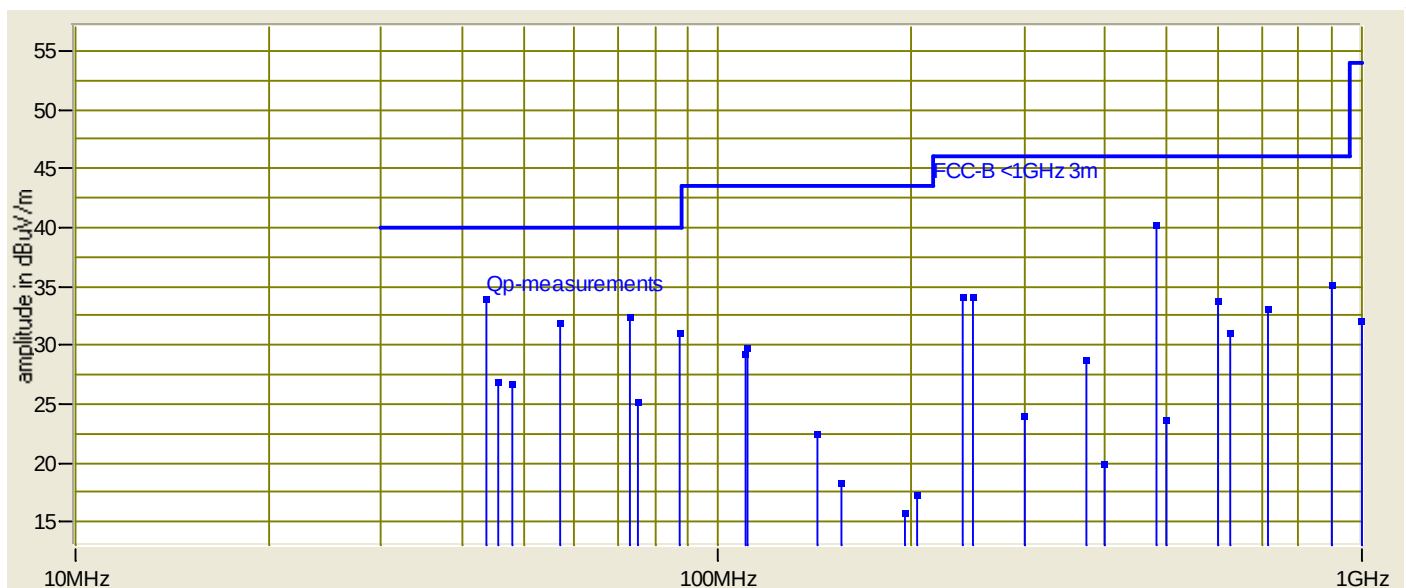
Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave and wi-fi

Data File Name: 7293.dat Page: 4 of 4

Graph:



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Reviewed by: Greg S Jakubowski Greg S Jakubowski
Printed Signature

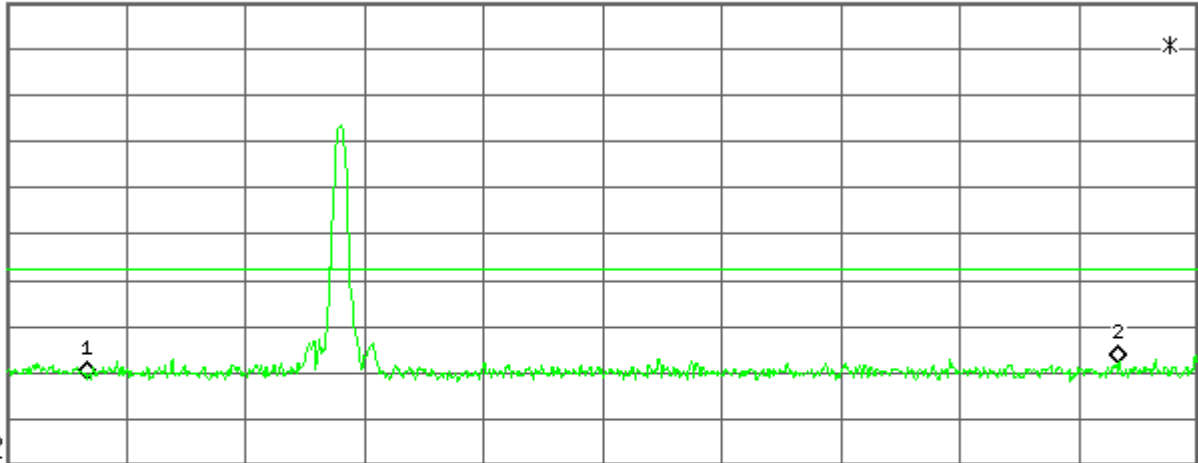
Agilent 08:27:18 Sep 24, 2009

Mkr2 928.00 MHz
25.49 dBμV

Ref 103.5 dBμV

Atten 10 dB

Norm
Log
10
dB/
Offst
-3.5
dB
DI
46.0
dBμV
LgAv



V1 S2

Start 900.00 MHz

Stop 930.00 MHz

#Res BW 100 kHz

#VBW 100 kHz

Sweep 3.667 ms (1001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	902.00 MHz	22.26 dBμV
2	(1)	Freq	928.00 MHz	25.49 dBμV

Radiated band edge

Conducted emissions – AC power lines

FCC 15.207, IC RSS-Gen 7.2.2

Test summary

The requirements are: ☒ - MET ☐ - NOT MET

Test was performed in accordance with the test procedures of ANSI C63.4 2003, clause 7.2

Minimum margin of compliance = 22 dB at 14.21 MHz (quasi-peak)

Minimum margin of compliance = 12 dB at 14.21 MHz (average)

Test location

☒ - Wild River Lab Large Test Site (Open Area Test Site)

☐ - Wild River Lab Small Test Site (Open Area Test Site)

☐ - Wild River Lab Tech Area, conducted measurement

Test equipment

TUV ID	Model	Manufacturer	Description	Serial	Cal Due
WRLE02416	3825/2	Electro-Mechanics (EMCO)	50 Ω LISN	8812-1437	Code B 14-Jan-10
WRLE02534	ESHS-20	Rohde & Schwarz	EMI Receiver	837055/003	09-Apr-10

Cal Code B = Calibration verification performed internally.

Test limit

Frequency (MHz)	Quasi-peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Test data

See following pages

CONDUCTED EMISSIONS



Test Report #: WC907293 Run 3 Test Area: LTS

EUT Model #: NA-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave or wi-fi

Data File Name: 7293re1below1g.dat

Page: 1 of 5

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
150.0 kHz	27.49 Qp	0.11 / 0.3 / 0.0 / 0.0	27.9	L1	-38.1	n/a
202.47 kHz	30.46 Qp	0.12 / 0.16 / 0.0 / 0.0	30.74	L1	-32.77	n/a
270.59 kHz	25.69 Qp	0.13 / 0.1 / 0.0 / 0.0	25.92	L1	-35.18	n/a
338.27 kHz	21.94 Qp	0.14 / 0.1 / 0.0 / 0.0	22.18	L1	-37.07	n/a
542.35 kHz	30.95 Qp	0.16 / 0.1 / 0.0 / 0.0	31.21	L1	-24.79	n/a
881.02 kHz	22.6 Qp	0.21 / 0.1 / 0.0 / 0.0	22.91	L1	-33.09	n/a
1.49 MHz	21.02 Qp	0.29 / 0.0 / 0.0 / 0.0	21.31	L1	-34.69	n/a
1.97 MHz	23.31 Qp	0.33 / 0.0 / 0.0 / 0.0	23.64	L1	-32.36	n/a
2.17 MHz	24.92 Qp	0.35 / 0.0 / 0.0 / 0.0	25.27	L1	-30.73	n/a
3.19 MHz	23.04 Qp	0.43 / 0.0 / 0.0 / 0.0	23.47	L1	-32.53	n/a
5.91 MHz	25.66 Qp	0.58 / 0.0 / 0.0 / 0.0	26.24	L1	-33.76	n/a
8.0 MHz	27.5 Qp	0.68 / 0.04 / 0.0 / 0.0	28.22	L1	-31.78	n/a
9.6 MHz	31.17 Qp	0.77 / 0.17 / 0.0 / 0.0	32.11	L1	-27.89	n/a
14.03 MHz	34.62 Qp	0.92 / 0.24 / 0.0 / 0.0	35.78	L1	-24.22	n/a
16.17 MHz	31.07 Qp	0.99 / 0.26 / 0.0 / 0.0	32.32	L1	-27.68	n/a
26.61 MHz	31.18 Qp	1.26 / 0.83 / 0.0 / 0.0	33.27	L1	-26.73	n/a
14.21 MHz	36.61 Qp	0.92 / 0.24 / 0.0 / 0.0	37.78	L1	-22.22	n/a
150.0 kHz	8.36 Av	0.11 / 0.3 / 0.0 / 0.0	8.77	L1	n/a	-47.23
202.47 kHz	25.34 Av	0.12 / 0.16 / 0.0 / 0.0	25.62	L1	n/a	-27.89
270.59 kHz	21.84 Av	0.13 / 0.1 / 0.0 / 0.0	22.07	L1	n/a	-29.03
338.27 kHz	18.52 Av	0.14 / 0.1 / 0.0 / 0.0	18.76	L1	n/a	-30.49
542.35 kHz	27.63 Av	0.16 / 0.1 / 0.0 / 0.0	27.89	L1	n/a	-18.11
881.02 kHz	18.35 Av	0.21 / 0.1 / 0.0 / 0.0	18.66	L1	n/a	-27.34
1.49 MHz	15.82 Av	0.29 / 0.0 / 0.0 / 0.0	16.11	L1	n/a	-29.89
1.97 MHz	17.1 Av	0.33 / 0.0 / 0.0 / 0.0	17.43	L1	n/a	-28.57
2.17 MHz	19.84 Av	0.35 / 0.0 / 0.0 / 0.0	20.19	L1	n/a	-25.81
3.19 MHz	13.82 Av	0.43 / 0.0 / 0.0 / 0.0	14.25	L1	n/a	-31.75
5.91 MHz	19.55 Av	0.58 / 0.0 / 0.0 / 0.0	20.13	L1	n/a	-29.87

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CONDUCTED EMISSIONS



Test Report #: WC907293 Run 3 Test Area: LTS
EUT Model #: NA-801-IXT Date: 9/24/2009
EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C
Test Method: FCC B Air Pressure: 99.0 kPa
Customer: GE Security Rel. Humidity: 41.0 %
EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave or wi-fi

Data File Name: 7293re1below1g.dat

Page: 2 of 5

List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
8.0 MHz	18.6 Av	0.68 / 0.04 / 0.0 / 0.0	19.32	L1	n/a	-30.68
9.6 MHz	29.84 Av	0.77 / 0.17 / 0.0 / 0.0	30.78	L1	n/a	-19.22
14.03 MHz	34.62 Av	0.92 / 0.24 / 0.0 / 0.0	35.78	L1	n/a	-14.22
14.21 MHz	35.94 Av	0.92 / 0.24 / 0.0 / 0.0	37.11	L1	n/a	-12.89
16.17 MHz	28.85 Av	0.99 / 0.26 / 0.0 / 0.0	30.1	L1	n/a	-19.9
26.61 MHz	27.1 Av	1.26 / 0.83 / 0.0 / 0.0	29.19	L1	n/a	-20.81
14.21 MHz	34.4 Qp	0.92 / 0.24 / 0.0 / 0.0	35.57	N	-24.43	n/a
14.21 MHz	33.6 Av	0.92 / 0.24 / 0.0 / 0.0	34.77	N	n/a	-15.23

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CONDUCTED EMISSIONS



Test Report #: WC907293 Run 3 Test Area: LTS

EUT Model #: NA-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave or wi-fi

Data File Name: 7293re1below1g.dat Page: 3 of 5

Measurement summary for limit1: EN55022 B Qp (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp
14.21 MHz	36.61 Qp	0.92 / 0.24 / 0.0 / 0.0	37.78	L1	-22.22
14.03 MHz	34.62 Qp	0.92 / 0.24 / 0.0 / 0.0	35.78	L1	-24.22
542.35 kHz	30.95 Qp	0.16 / 0.1 / 0.0 / 0.0	31.21	L1	-24.79
26.61 MHz	31.18 Qp	1.26 / 0.83 / 0.0 / 0.0	33.27	L1	-26.73
16.17 MHz	31.07 Qp	0.99 / 0.26 / 0.0 / 0.0	32.32	L1	-27.68
9.6 MHz	31.17 Qp	0.77 / 0.17 / 0.0 / 0.0	32.11	L1	-27.89
2.17 MHz	24.92 Qp	0.35 / 0.0 / 0.0 / 0.0	25.27	L1	-30.73
8.0 MHz	27.5 Qp	0.68 / 0.04 / 0.0 / 0.0	28.22	L1	-31.78
1.97 MHz	23.31 Qp	0.33 / 0.0 / 0.0 / 0.0	23.64	L1	-32.36
3.19 MHz	23.04 Qp	0.43 / 0.0 / 0.0 / 0.0	23.47	L1	-32.53
202.47 kHz	30.46 Qp	0.12 / 0.16 / 0.0 / 0.0	30.74	L1	-32.77
881.02 kHz	22.6 Qp	0.21 / 0.1 / 0.0 / 0.0	22.91	L1	-33.09
5.91 MHz	25.66 Qp	0.58 / 0.0 / 0.0 / 0.0	26.24	L1	-33.76
1.49 MHz	21.02 Qp	0.29 / 0.0 / 0.0 / 0.0	21.31	L1	-34.69
270.59 kHz	25.69 Qp	0.13 / 0.1 / 0.0 / 0.0	25.92	L1	-35.18
338.27 kHz	21.94 Qp	0.14 / 0.1 / 0.0 / 0.0	22.18	L1	-37.07
150.0 kHz	27.49 Qp	0.11 / 0.3 / 0.0 / 0.0	27.9	L1	-38.1

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CONDUCTED EMISSIONS



Test Report #: WC907293 Run 3 Test Area: LTS

EUT Model #: NA-801-IXT Date: 9/24/2009

EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C

Test Method: FCC B Air Pressure: 99.0 kPa

Customer: GE Security Rel. Humidity: 41.0 %

EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave or wi-fi

Data File Name: 7293re1below1g.dat

Page: 4 of 5

Measurement summary for limit2: EN55022 B Avg (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA2 EN55022 B Avg
14.21 MHz	35.94 Av	0.92 / 0.24 / 0.0 / 0.0	37.11	L1	-12.89
14.03 MHz	34.62 Av	0.92 / 0.24 / 0.0 / 0.0	35.78	L1	-14.22
542.35 kHz	27.63 Av	0.16 / 0.1 / 0.0 / 0.0	27.89	L1	-18.11
9.6 MHz	29.84 Av	0.77 / 0.17 / 0.0 / 0.0	30.78	L1	-19.22
16.17 MHz	28.85 Av	0.99 / 0.26 / 0.0 / 0.0	30.1	L1	-19.9
26.61 MHz	27.1 Av	1.26 / 0.83 / 0.0 / 0.0	29.19	L1	-20.81
2.17 MHz	19.84 Av	0.35 / 0.0 / 0.0 / 0.0	20.19	L1	-25.81
881.02 kHz	18.35 Av	0.21 / 0.1 / 0.0 / 0.0	18.66	L1	-27.34
202.47 kHz	25.34 Av	0.12 / 0.16 / 0.0 / 0.0	25.62	L1	-27.89
1.97 MHz	17.1 Av	0.33 / 0.0 / 0.0 / 0.0	17.43	L1	-28.57
270.59 kHz	21.84 Av	0.13 / 0.1 / 0.0 / 0.0	22.07	L1	-29.03
5.91 MHz	19.55 Av	0.58 / 0.0 / 0.0 / 0.0	20.13	L1	-29.87
1.49 MHz	15.82 Av	0.29 / 0.0 / 0.0 / 0.0	16.11	L1	-29.89
338.27 kHz	18.52 Av	0.14 / 0.1 / 0.0 / 0.0	18.76	L1	-30.49
8.0 MHz	18.6 Av	0.68 / 0.04 / 0.0 / 0.0	19.32	L1	-30.68
3.19 MHz	13.82 Av	0.43 / 0.0 / 0.0 / 0.0	14.25	L1	-31.75
150.0 kHz	8.36 Av	0.11 / 0.3 / 0.0 / 0.0	8.77	L1	-47.23

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CONDUCTED EMISSIONS



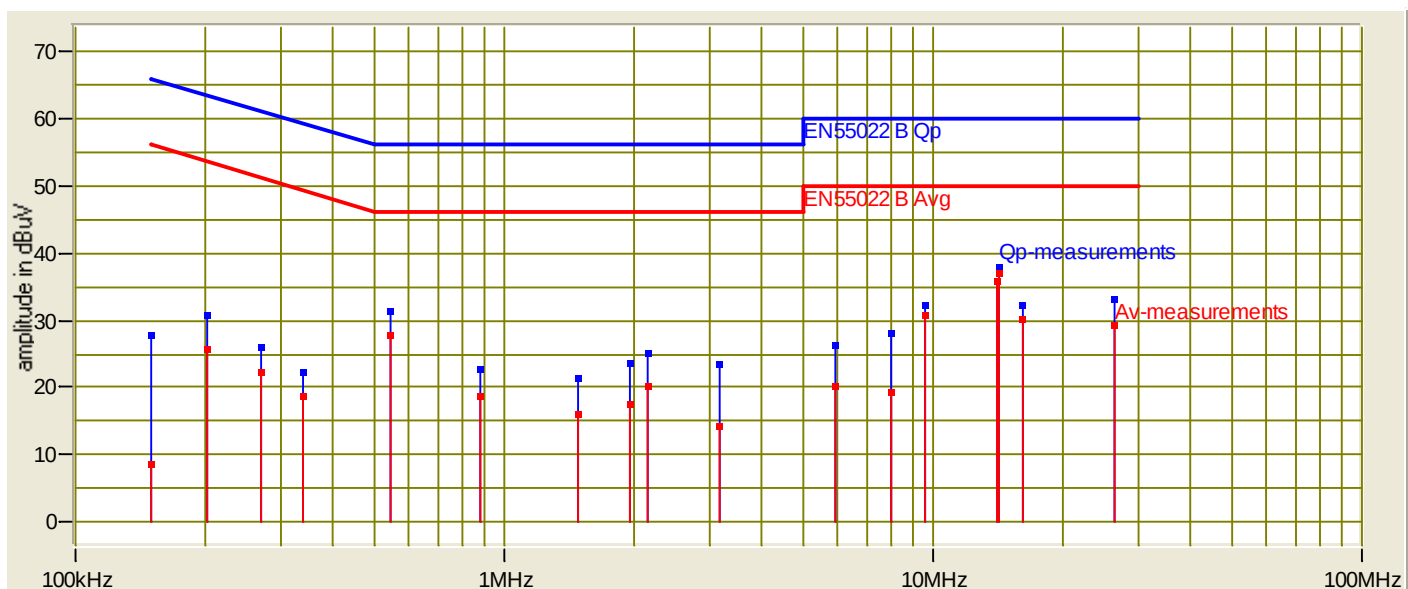
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EUT Model #: NA-801-IXT Date: 9/24/2009
EUT Serial #: 00603504021F EUT Power: 60 Hz 110 VAC Temperature: 25.0 °C
Test Method: FCC B Air Pressure: 99.0 kPa
Customer: GE Security Rel. Humidity: 41.0 %
EUT Description: Simon XT-IXT

Notes: shields used 444-1812-b, 444-1813-b, Simon base s/n 66225801355538, z-wave or wi-fi

Data File Name: 7293re1below1g.dat

Page: 5 of 5

Graph:



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Occupied Bandwidth

RSS-Gen 4.6.1

Test summary

The requirements are: ☒ - MET ☐ - NOT MET

Test was performed in accordance with the article "The Measurement of Occupied Bandwidth" by Industry Canada's certification bureau.

The 99% bandwidth was measured to be 120 kHz.

Test location

☒ - Wild River Lab Large Test Site (Open Area Test Site)

☐ - Wild River Lab Small Test Site (Open Area Test Site)

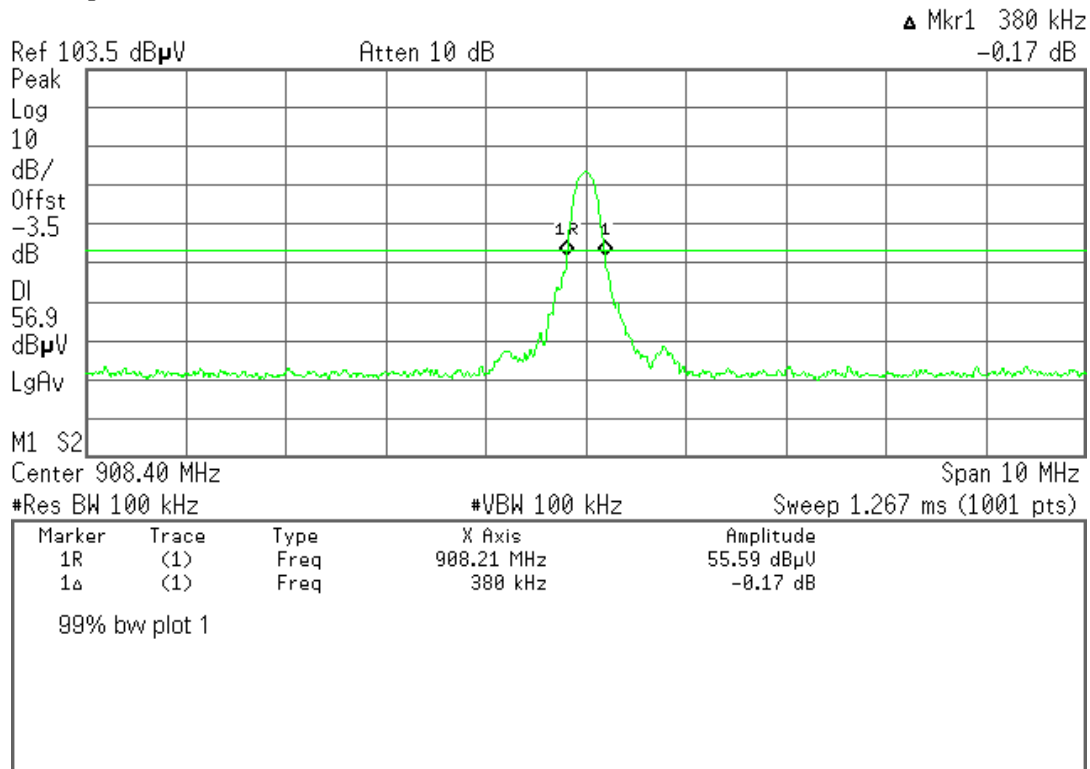
Test equipment

TUV ID	Model	Manufacturer	Description	Serial	Cal Due
WRLE03204	EM-6917B	Electro-Metrics	Biconicalog Periodic	102	17-Dec-09
WRLE03847	ZHL-1042J	Mini-Circuits	Preamplifier 10 - 3000 MHz	0607	Code B 14-May-10
WRLE02673	85662A	Hewlett-Packard	Analyzer Display	2152A03687	19-Mar-10
WRLE03294	8566B	Hewlett-Packard	Spectrum Analyzer	2349A03098	19-Mar-10
WRLE02680	85650A	Hewlett-Packard	Quasi-Peak Adapter	2043A00343	02-Jun-10

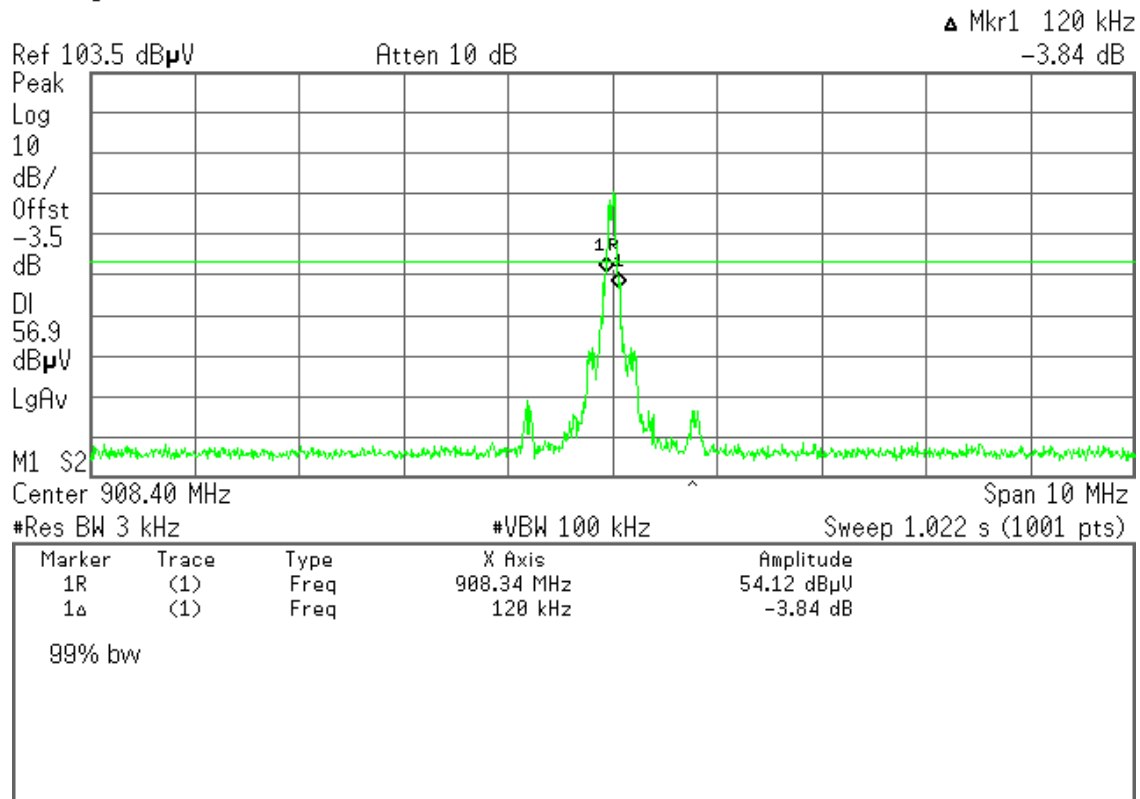
Test data

See following pages

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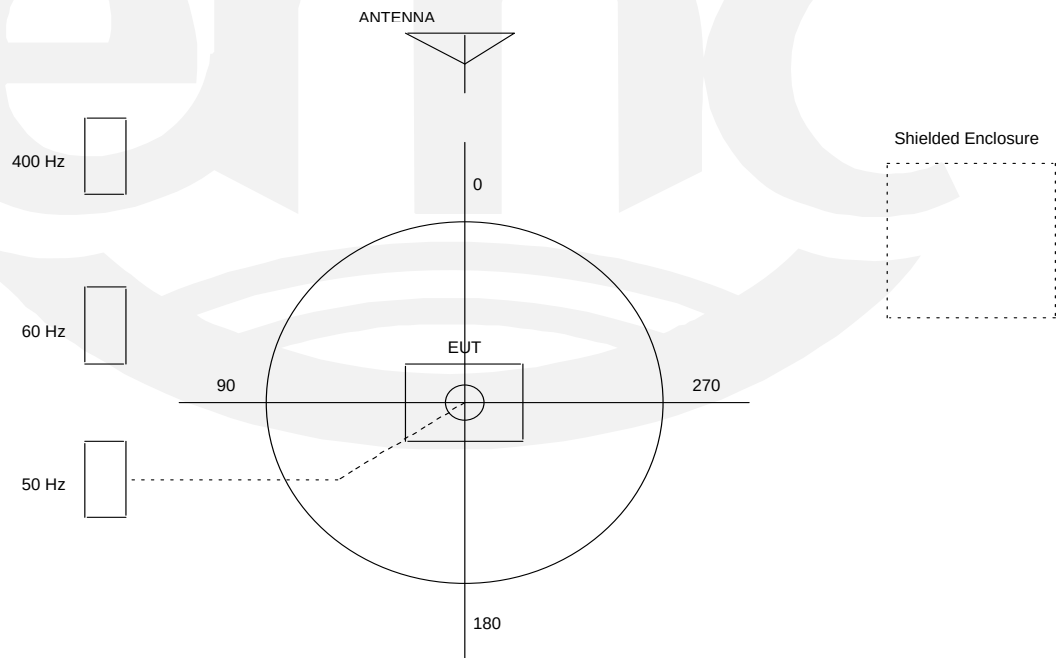


TEST SETUP FOR EMISSIONS TESTING

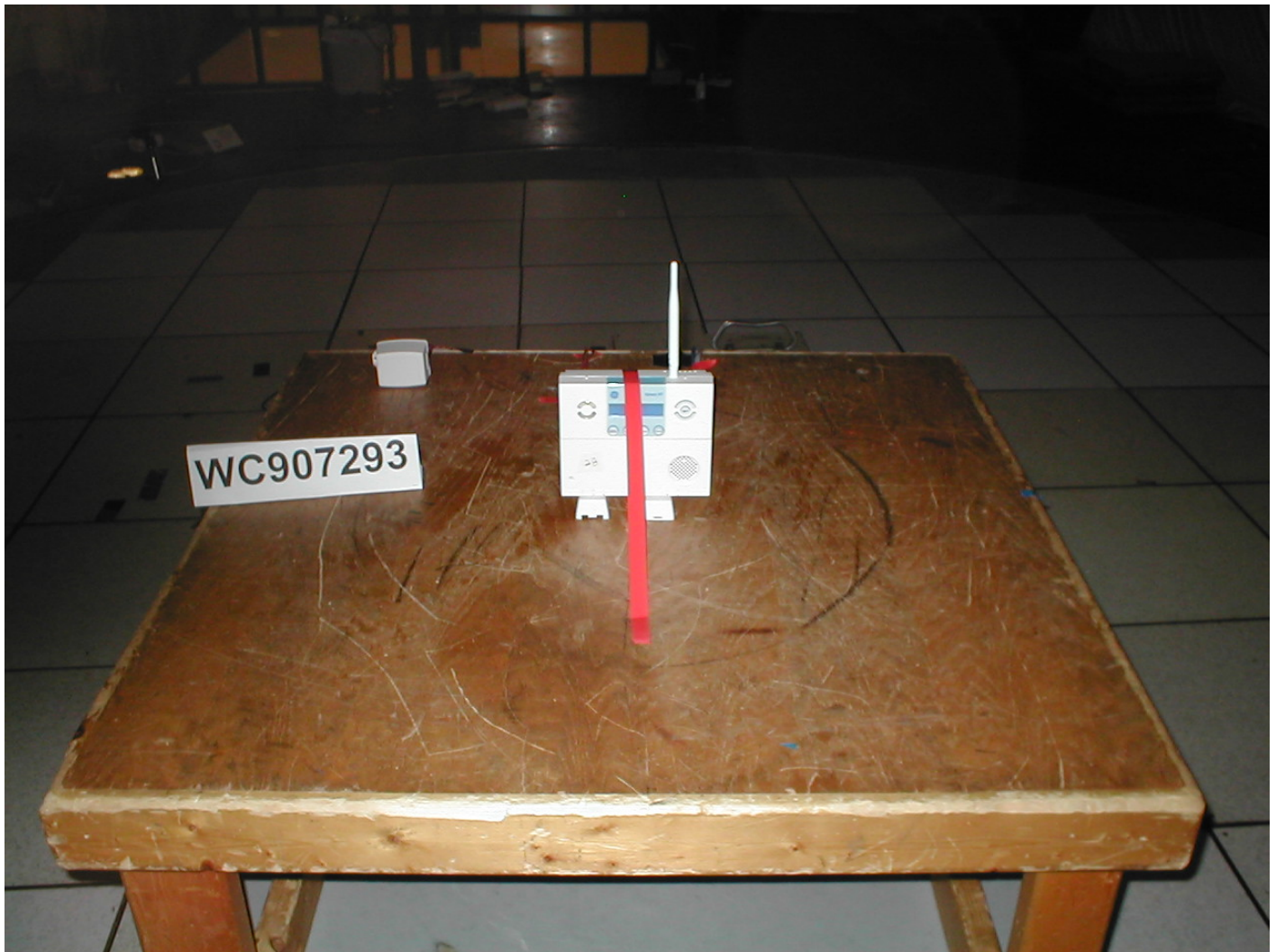
WILD RIVER LAB Large Test Site

Notes:

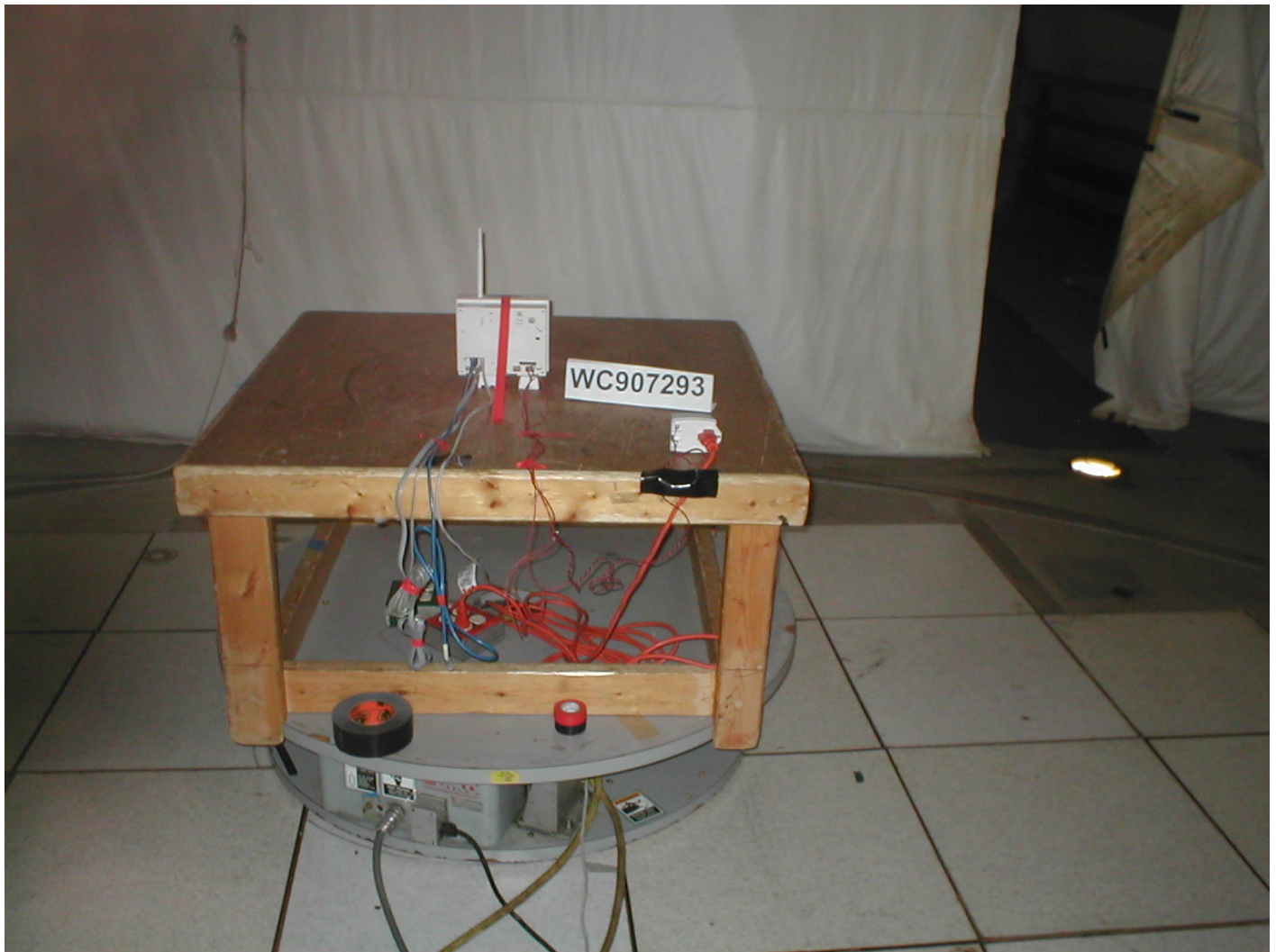
1. Items shown in dotted lines are located on the floor below the test area. It is 5 meters vertically from the ground floor to the test area.
2. 50 Hz, 60 Hz, and 400 Hz are power panels for alternating current.
3. The antenna may be positioned horizontally 3, 10 or 30 meters from the center of the turntable.
4. The circle is a 6.7 meter diameter turntable.
5. A ground plane is in the plane of this sheet.
6. The test sample is shown in the azimuthal position representing zero degrees.



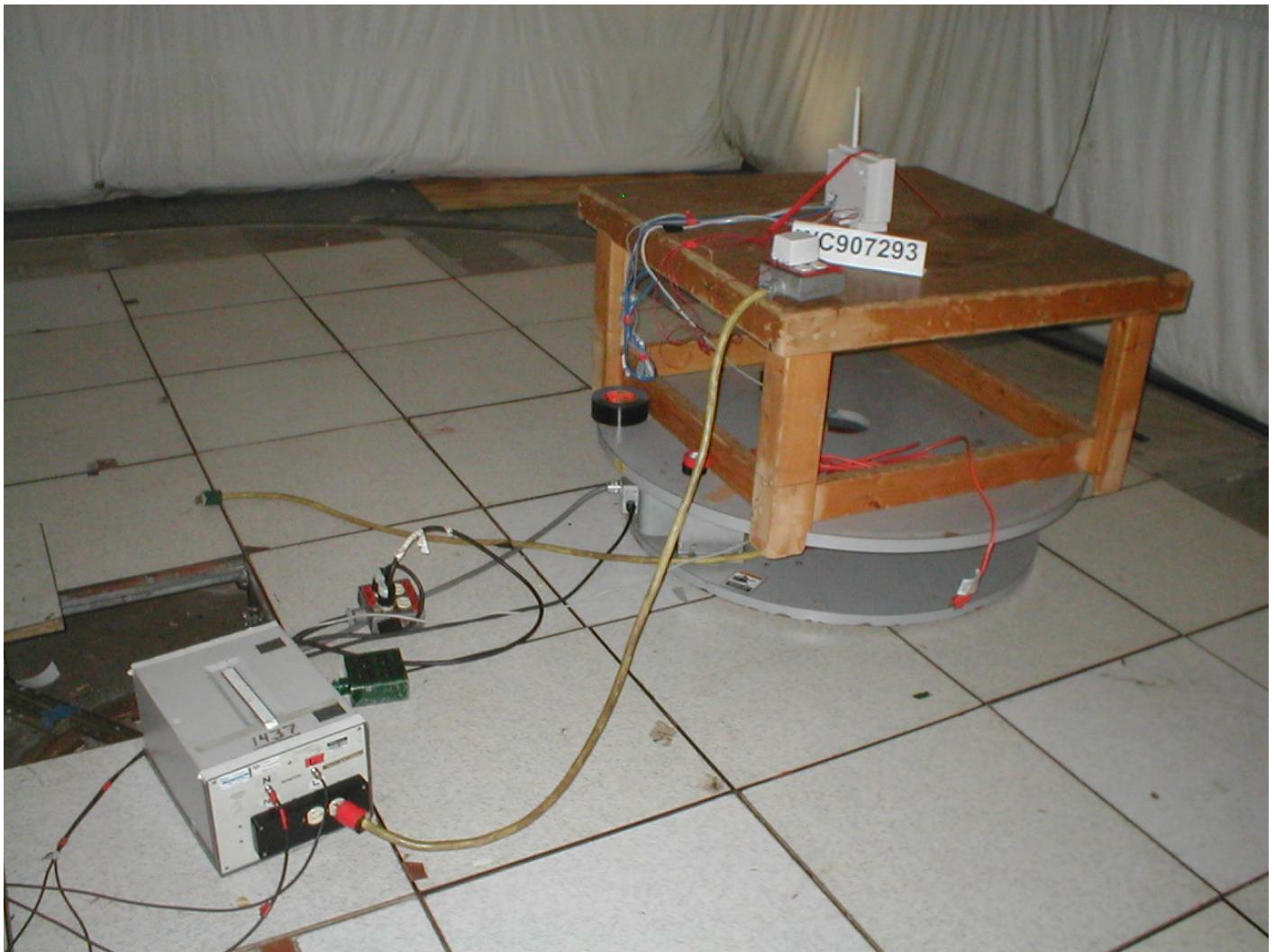
Test-setup photo(s):
Radiated measurements



Test-setup photo(s):
Radiated measurements



Test-setup photo(s):
Conducted measurements – AC power lines



Equipment Under Test (EUT) Test Operation Mode:

The device under test was operated under the following conditions during immunity testing :

- ☐ - Standby
- ☐ - Test program (H - Pattern)
- ☐ - Test program (color bar)
- ☐ - Test program (customer specific)
- ☐ - Practice operation
- ☒ - Normal operating mode
- ☒ - Fixed frequencies, channels (low, mid, high)

Configuration of the device under test:

- ☒ - See Constructional Data Form in Appendix B
- ☐ - See Product Information Form(s) in Appendix B

The following peripheral devices and interface cables were connected during the measurement:

- | | |
|---|----------------|
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - _____ | Type : _____ |
| ☐ - unshielded power cable | |
| ☐ - unshielded cables | |
| ☐ - shielded cables | MPS.No.: _____ |
| ☐ - customer specific cables | |
| ☐ - _____ | |
| ☐ - _____ | |

GENERAL REMARKS:

Modifications required to pass:

- ☒ None
- ☐ As indicated on the data sheet(s)

Test Specification Deviations: Additions to or Exclusions from:

- ☒ None
- ☐ As indicated in the Test Plan
- ☐

SUMMARY:

The requirements according to the technical regulations are

- ☒ - met and the equipment under test does fulfill the general approval requirements.
- ☐ - **not** met and the equipment under test does **not** fulfill the general approval requirements.

EUT Received Date: 18 September 2009

Condition of EUT: Normal

Testing Start Date: 18 September 2009

Testing End Date: 01 October 2009

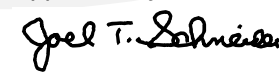
TÜV SÜD AMERICA INC

Tested by:



Greg Jakubowski
Senior EMC Technician

Approved by:



Joel T Schneider
Senior EMC Engineer

Appendix A

Constructional Data Form





EMC Test Plan and Constructional Data Form

PLEASE COMPLETE THIS DOCUMENT IN FULL, ENTERING N/A IF THE FIELD IS NOT APPLICABLE. IF TESTING RESULTS IN MODIFICATIONS TO THE EQUIPMENT, PLEASE SUBMIT A REVISED TP/CDF INDICATING THOSE MODIFICATIONS.
NOTE: This information will be input into your test report as shown below. Press the F1 key at any time to get HELP for the current field selected.

Company: GE Security Inc
 Address: 1275 Red Fox Road
Arden Hills
Minnesota, USA 55112
 Contact: Rick Conner Position: Regulatory Compliance Leader
 Phone: 651-779-4824 Fax: 651-779-4884
 E-mail Address: Rick.Conner@GE.com

General Equipment Description -- NOTE: This information will be input into your test report as shown below.

EUT Description Residential Security System
 EUT Name Simon iXT
 Model No.: 600-1054-95R-iXT Serial No.: Rev A
 Product Options: Transmitter - Receiver
 Configurations to be tested: Transmit - Recieve

Equipment Modification (If applicable, indicate modifications since EUT was last tested. If modifications are made during this testing, submit revised TP/CDF after testing is complete.)

Modifications since last test: None
 Modifications made during test: None

Test Objective(s): Please indicate the tests to be performed, entering the applicable standard(s) where noted.

- | | |
|---|--|
| ☐ EMC Directive 2004/108/EC (EMC)
Std: _____ | ☒ FCC: Class ☐ A ☒ B Part <u>15</u> |
| ☐ Machinery Directive 89/392/EEC (EMC)
Std: _____ | ☐ VCCI: Class ☐ A ☐ B |
| ☐ Medical Device Directive 93/42/EEC (EMC)
Std: _____ | ☐ BSMI: Class ☐ A ☐ B (Separate Report) |
| ☐ Vehicle Directive: ☐ 2001/3/EC (EMC) ☐ 2004/104/EC (EMC) | ☐ Canada: Class ☐ A ☒ B |
| ☐ Other Vehicle Std: _____ | ☐ Australia: Class ☐ A ☐ B |
| ☐ FDA Reviewers Guidance for Premarket Notification Submissions (EMC) | ☐ Other: _____ |

Third Party Certification, if applicable (*Signature on Page 6 Required)

- | | |
|---|---|
| ☐ Attestation of Conformity (AoC)* | ☐ EMC Certification (used with Octagon Mark)* |
| ☐ Statement of Compliance (previously CoC)* | ☐ Compliance Document* |
| Protection Class (N/A for vehicles) | ☐ Class I ☐ Class II ☐ Class III |
| (Press F1 when field is selected to show additional information on Protection Class.) | |
| ☒ FCC / TCB Certification | ☒ Industry Canada / FCB Certification |
| ☐ E-Mark Certification | ☐ Taiwan Certification |



EMC Test Plan and Constructional Data Form

Attendance

Test will be: ☒ Attended by the customer ☐ Unattended by the customer

Failure - Complete this section if testing will not be attended by the customer.

If a failure occurs, TÜV SÜD America should:

- ☐ Call contact listed above, if not available then stop testing. (After hrs phone): _____
- ☐ Continue testing to complete test series.
- ☐ Continue testing to define corrective action.
- ☐ Stop testing.

EUT Specifications and Requirements

Length: 7" Width: 2 3/4" Height: 5 3/4" Weight: 3 lbs.

Power Requirements

Regulations require testing to be performed at typical power ratings in the countries of intended use. (i.e., European power is typically 230 VAC 50 Hz or 400 VAC 50 Hz, single and three phase, respectively)

Voltage: 120 (If battery powered, make sure battery life is sufficient to complete testing.)

of Phases: 1

Current (Amps/phase(max)): 0.30A Current (Amps/phase(nominal)): 0.30A

Other _____

Other Special Requirements

Typical Installation and/or Operating Environment

(ie. Hospital, Small Business, Industrial/Factory, etc.)

Residential

EUT Power Cable

☐ Permanent OR ☒ Removable Length (in meters): 1.5

☐ Shielded OR ☒ Unshielded

☐ Not Applicable

EMC Test Plan and Constructional Data Form

EUT Interface Ports and Cables														
Type	Analog	Digital	During Test		Qty	Shielding		Termination	Connector Type	Port Termination	Length tested (in meters)	Removable	Permanent	
			Active	Passive		Yes	No							Type
EXAMPLE:														
RS232	☐	☒	☒	☐	2	☒	☐	Foil over braid	Coaxial	Metallized 9-pin D-Sub	Characteristic Impedance	6	☒	☐
Phone	☒	☐	☐	☒	1	☐	☒			4-pin phone		> 1m	☒	☐
Line	☐	☐	☐	☒	1	☐	☒			4-pin phone		> 1m	☒	☐
9V AC In	☒	☐	☒	☐	1	☐	☐		Twisted Pair	Screw-down		> 1m	☒	☐
9V AC In	☒	☐	☒	☐	1	☐	☒		Twisted Pair	Screw-down		> 1m	☒	☐
HW2 In	☐	☐	☐	☒	1	☐	☒		Single wire	Screw-down		> 1m	☒	☐
DC Out/HW 1 & 2	☒	☐	☐	☒	1	☐	☐		Single wire	Screw-down		> 1m	☒	☐
HW1 I/O	☐	☐	☐	☒	1	☐	☒		Single wire	Screw-down		> 1m	☒	☐
WAN	☐	☒	☐	☒	1	☐	☒		8-pin ethernet			> 1m	☒	☐
LAN	☐	☒	☒	☐	1	☐	☒		8-pin ethernet			10m	☒	☐
	☐	☐	☐	☐		☐	☐						☐	☐
	☐	☐	☐	☐		☐	☐						☐	☐
	☐	☐	☐	☐		☐	☐						☐	☐



EMC Test Plan and Constructional Data Form

EUT Software.

Revision Level: NA801 iXT 32M trunk r41 newbsp.bin

Description: Test firmware to allow WiFi to transmit at maximum power, select channel, and select data rate.

Equipment Under Test (EUT) Operating Modes to be Tested -- list the operating modes to be used during test.

It is recommended the equipment be tested while operating in a typical operation mode. FCC testing of personal computers and/or peripherals requires that a simple program generate a complete line of upper case H's. Provide a general description of all software, firmware, and PLD algorithms used in the equipment. List all code modules as described above, with the revision level used during testing. Consult with your TÜV Product Service Representative if additional assistance is required.

1. WiFi OFDM (802.11g) 54Mbps transmit mode
2. WiFi DSSS-CCK (802.11b) 11Mbps transmit mode
3. ZWave continuous transmit mode at maximum data rate (40kbps)

Equipment Under Test (EUT) System Components -- List and describe all components which are part of the EUT. For FCC & Taiwan testing a minimum configuration is required. (ie. Mouse, Printer, Monitor, External Disk Drive, Motherboard, etc)

Description	Model #	Serial #	FCC ID #
SimonXT-iXT	600-1054-95R-iXT		
White GSM wand antenna	50-075		



EMC Test Plan and Constructional Data Form

Support Equipment -- List and describe all support equipment which is not part of the EUT. (i.e. peripherals, simulators, etc)
This information is required for FCC & Taiwan testing.

<i>Description</i>	<i>Model #</i>	<i>Serial #</i>	<i>FCC ID #</i>
Lenovo IdeaPad Netbook	S9e	L3BZL4B	HFS-FL

Oscillator Frequencies

<i>Manufacturer</i>	<i>Frequency</i>	<i>Derived Frequency</i>	<i>Component # / Location</i>	<i>Description of Use</i>
	6MHz		Y5	
	8MHz		Y6	
	12MHz		Y2	
	25MHz		Y1	

Power Supply

<i>Manufacturer</i>	<i>Model #</i>	<i>Serial #</i>	<i>Type</i>
			☐ Switched-mode: (Frequency) _____ ☐ Linear ☐ Other: _____
			☐ Switched-mode: (Frequency) _____ ☐ Linear ☐ Other: _____

Power Line Filters

<i>Manufacturer</i>	<i>Model #</i>	<i>Location in EUT</i>

**EMC Test Plan and Constructional Data Form****Critical EMI Components (Capacitors, ferrites, etc.)**

<i>Description</i>	<i>Manufacturer</i>	<i>Part # or Value</i>	<i>Qty</i>	<i>Component # / Location</i>

EMC Critical Detail -- Describe other EMC Design details used to reduce high frequency noise.

PLEASE ENTER NAMES BELOW (INSERT ELECTRONIC SIGNATURE IF POSSIBLE)

Authorization (Signature Required if a Third Party Certification is checked on pg 1)

Customer authorization to perform tests
according to this test plan.

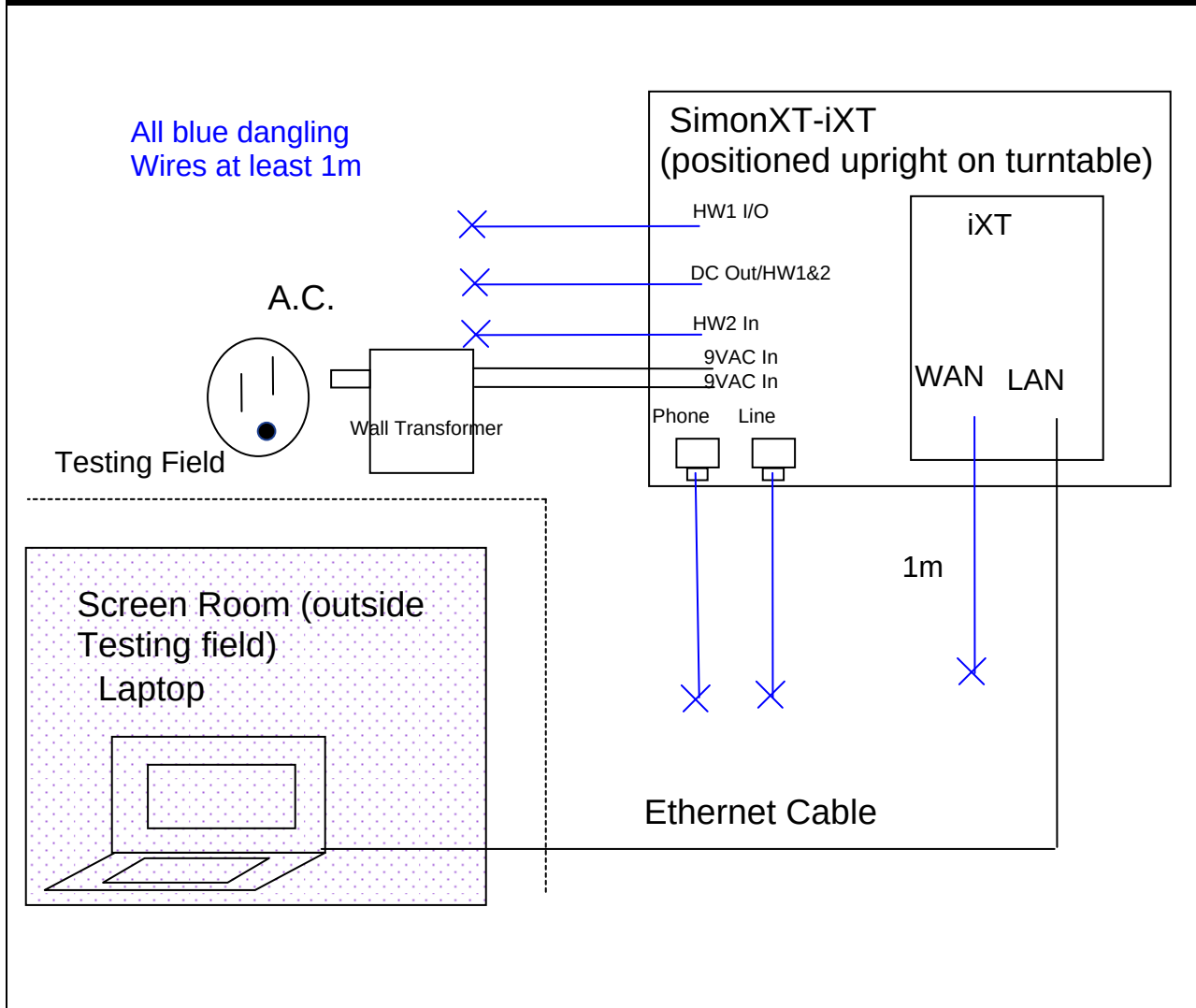
Date

Test Plan/CDF Prepared By (please print)

Date

EMC Block Diagram Form

System Configuration Block Diagram -- Provide a line drawing identifying the EUT, simulators, support equipment, I/O cables, power cables, and any other pertinent components to be used during testing. Use a dashed line to separate the equipment in the testing field versus equipment outside testing field.



Authorization Signatures

Customer authorization to perform tests according to this test plan.

Date

Test Plan/CDF Prepared By (please print)

Date

Appendix B

Measurement Protocol



MEASUREMENT PROTOCOL

GENERAL INFORMATION

Test Methodology

Emissions testing is performed according to the procedures in ANSI C63.4-2003.

Measurement Uncertainty

The test system for conducted emissions is defined as the LISN, tuned receiver or spectrum analyzer, and coaxial cable. The test system has a measurement uncertainty of ± 1.8 dB. The test system for radiated emissions is defined as the antenna, the pre-amplifier, the spectrum analyzer and the coaxial cable. The test system has a measurement uncertainty of ± 4.8 dB. The equipment comprising the test systems is calibrated on an annual basis.

Justification

The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral into its characteristic impedance or left unterminated. When appropriate, the cables are manually manipulated with respect to each other to obtain maximum emissions from the unit.

Conducted Emissions

The final level, in dB μ V, equals the EMI receiver level plus the cable loss and LISN factor.

Radiated Emissions

The final level, in dB μ V/m, equals the reading from the spectrum analyzer (Level dB μ V), adding the antenna correction factor and cable loss factor (Factor dB) to it, and subtracting the preamp gain (and duty cycle correction factor, if applicable). This result then has the limit subtracted from it to provide the Delta, which gives the tabular data as shown in the data sheets in Attachment A. Intentional radiators are rotated through 3 orthogonal axes to determine the test position yielding the maximum emission levels.

Example:

FREQ (MHz)	LEVEL (dB μ V)	CABLE/ANT/PREAMP (dB) (dB/m) (dB)	FINAL (dB μ V/m)	POL/HGT/AZ (m) (deg)	DELTA1
60.80	42.5Qp +	1.2 + 10.9 - 25.5 =	29.1	V 1.0 0.0	-10.9

Test Equipment

All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated according to internal procedure.