TEST REPORT
IC/FCC
IC RSS-Gen Issue 3 and RSS-210 Issue8
FCC 47CFR Part 15/C Section 15.249

Transmitter Intentional Radiator

Report Reference No. ..... :	E10385-1102
Date of issue ..... :	Original
Total number of pages..... :	29
Testing Laboratory..... :	Tranzeo EMC Labs Inc.
Address.....:	19473 Fraser Way, Pitt Meadows, BC, V3Y 2V4, Canada
FCC registration number.....:	960532
Industry Canada Number:..... :	5181A
Applicant's name ..... :	Nyce Control Inc.
Address.....:	103-8525 Baxter Place, Burnaby, BC, V5A 4V7, Canada
Contact.....:	Michael Vogel
	mvogel@nycecontrol.com
Industry Canada Registration :	**9488A-Z30111**
FCC Registration:	**Y8R-Z30111**
Test specification:	
Standard..... :	RSS-Gen; RSS-210; FCC Part 15.249
Test procedure..... :	RSS-Gen; FCC Part15/C; ANSI C63.4-2009
Non-standard test method.....:	N/A
Test item description..... :	Wireless Door Contact Sensor
Trade Mark..... :	N/A
Manufacturer..... :	Nyce Control Inc.
Model/Type reference ..... :	NCZ3011
Ratings..... :	1 X CR2032 Coin cell Lithium battery

Testing procedure and testing location:	
Testing Laboratory:	Tranzeo EMC Labs Inc.
Testing location/ address.....:	19473 Fraser Way, Pitt Meadows, BC, V3Y 2V4, Canada
Associated Laboratory:	QAI Laboratories
Compiling location/ address.....:	#16 – 211 Schoolhouse Street, BC, V3K 4X9, Canada
Tested & Reported by.....:	David Johanson
Checked by.....:	Parminder Singh
Approved by.....:	Edwin Hodson
Testing procedure:	
Tested by (name + signature).....:	David Johanson
Approved by (+ signature) .....:	Edwin Hodson
Testing location/ address.....:	19473 Fraser Way, Pitt Meadows, BC, V3Y 2V4, Canada

EMISSIONS

North America Regions:

- CFR 47, Part 15 Subpart C, Section 15.249
- Industry Canada RSS-Gen and RSS-210

Tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Industry Canada and and FCC Regulations for and Intentional Radiator. Nyce Controls Inc. is responsible for the tested product configuration, continued product compliance with these standards listed, and for the appropriate auditing of subsequent products, as required.

This is to certify that the following report is true and correct to the best of our knowledge.

X

Tested By
David Johanson RF/EMC Test Engineer

X

Reviewed By
Parminder Singh Senior RF/ EMC Engineer

X

Approved By
Edwin Hodson, Division Manager

Measurement Uncertainty

Radio Frequency .....: ±1,5 x 10-5

Total RF power, conducted.....: ±1 dB

RF power density, conducted.....: ±2.75 dB

Spurious emissions, conducted.....: ±3 dB

All emissions, radiated.....: ±3.5 dB

Temperature.....: ±1ºC

Humidity.....: ±5 %

DC and low frequency voltages.....: ±3 %

Test Equipment List
Emissions

Manufacturer	Model	Description	Serial No.	Cal Due Date
ETS Lindgren	S201	3M Chamber 40GHz	1030	N/R
ETS Lindgren	Custom	Mast with Motor	N/R	N/R
ETS Lindgren	Custom	Turntable	N/R	N/R
Sunol Sciences	JB3	Antenna 20MHz-3GHz	A120106	28-Oct-2011
Sunol Sciences	DRH-118	Antenna 1-18GHz	A050905	04-Dec-2011
AH Systems	PAM0118	Pre-Amp 0.1-18GHz	189	04-Dec-2011
Com-Power	LI-115	LISN	241036	11-Feb-2012
Rohde & Schwarz	ESU	EMI Receiver	100011	29-Mar-2011

Product Description

Operational Description

The NCZ3011 is a wireless door contact sensor that is used as part of a security system that is manufactured by Nyce Controls Inc. It is designed to produce a momentary transmission indicating the change in the Door position using a Zigbee transmitter. The Transmitter is installed with a +3Vdc Coin Cell Battery.

EUT Testing Configuration

For the purpose of compliance testing, the EUT was powered using the +3Vdc power supply since the battery would not have enough power to complete the testing. The transmitter was set for continuous operation on various frequencies in both C.W. mode and modulated modes of operation.

Manufacturer	Nyce Controls Inc.
Product Name	Door Contact Sensor
Model No.	NCZ3011
Serial No.	6
Product Software/Firmware Revision	N/A

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Section I: Requirements for the Canadian Market- (IC)

Summary for RSS-Gen issue 3 and RSS-210 Issue 8

Testing was performed pursuant to Industry Canada standards

Test	Standard	Description	Result
Radiated Emissions	RSS-210 (2.6) and (A8.5)	The radiated emissions are measured in the 30-18000MHz range	Complies
Antenna Requirement	RSS-GEN(7.1.2)	Replaceable Antenna must use a unique connector	Complies Soldered non-replaceable antenna
Radiated Peak Power and Harmonics	RSS-210 (A2.9)(a)	Peak Power and Harmonics shall be measured at 3meters	Complies
Spurious Emissions outside of the band	RSS-210 (A2.9)(b)	Radiated Spurious emissions shall be 50dBc or 54dBuV in accordance with table 2, whichever is less stringent	Complies
Occupied Bandwidth	RSS-GEN (4.6.1)	When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, is measured.	Complies

Part 1 - Radiated Emission Testing

DATE: February 22, 2011

TEST STANDARD: ICES-003 Issue 4

TEST METHOD: CAN/CSA – CEI/IEC CISPR 22: 02

TEST VOLTAGE: 3Vdc to simulate Coin Cell Battery

MINIMUM STANDARD: Class B Limit:

Frequency (MHz)	**Maximum Field Strength** (calculated) **dBµV/m at 3 m**	**Maximum Field Strength** **dBµV/m at 10 m**
30 - 230	40.45	30.0
230 - 1000	47.45	37.0
Note 1. The lower limit shall apply at the transition frequency Note 2. Additional provisions may be required for cases where interference occurs Note 3. The 3meter calculation is done for measurements performed at 3meters.		

METHOD OF MEASUREMENT: The equipment was set up in 3m Semi Anechoic Chamber for preliminary measurements and final measurements; Radiated Emissions were performed at 3 meters for this unit. A typical application was tested.

Emissions in both horizontal and vertical polarizations were measured while rotating the EUT on a turntable to maximize the emissions signal strength.

The transmitters was OFF and set for Receive mode for this test.

In cases where the presence of high ambient noise makes it impossible to measure an emission at the required distance, the measurement is performed at a closer distance and the limit is adjusted per CISPR 22

20 Log (D1/D2)
Where D1 = New Distance D2 = Required Distance The result is added or subtracted to the required emission level to ensure compliance at the new distance.

MODIFICATIONS: The EUT did not require any modifications.

MEASUREMENT DATA: There were no detectable emissions while this product was in Receive Mode. No data was collected for this mode of operation.

PERFORMANCE: Complies with Standard

Part 2 - Antenna Requirements

DATE: February 22, 2011

TEST STANDARD: IC RSS-Gen Section 7.1.2

APPLICABLE REGULATIONS : - “An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited.”… “the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.”

RESULT : This unit meets this requirement. The antenna is a 2.4GHz Soldered Chip Antenna that can not be removed or replaced by the End User.

Part 3 - Radiated Peak Power of the Fundamental and Harmonics

DATE: February 24, 2011

TEST STANDARD: IC RSS-210 Annex 2 Section (A2.9)(a)

TEST VOLTAGE: 3Vdc

TEST CONDITIONS: Indoor, Temperature and Humidity: 25°C, 62%

MINIMUM STANDARD:

(a) The field strengths measured at 3 meters shall not exceed the following:

Fundamental Frequencies (MHz)	Field Strength (millivolts/m)	
	Fundamental	Harmonics
902-928	50 (94dBuV)	0.5 (54dBuV)
2400-2483.5	50 (94dBuV)	0.5 (54dBuV)
5725-5875	50 (94dBuV)	0.5 (54dBuV)

TEST SETUP: The EUT was tested in our 3meter SAC and was positioned on the center of the Turntable and connected to a 3Vdc power supply. The Transmitter was set for Continuous transmission. The lowest, middle and highest channels in the 2400-2483.5MHz band were measured for all radiated emissions 30MHz to 18GHz.

MEASUREMENT METHOD: Measurements were made using an EMI Receiver with 1MHz RBW, Average detector using the appropriate Antennas, amplifiers and filters.

DEVICE DESCRIPTIONS: As described in the above EUT description and setup Section.

EMISSIONS DATA: See data in Appendix B

OBSERVATIONS: The EUT performed as expected.

PERFORMANCE: Complies.

Part 4 - Spurious Radiated Emissions Testing

DATE: February 24, 2011

TEST STANDARD: IC RSS-210 Annex 2 Section (A2.9)(b)

RSS-Gen Section (7.2.5)

TEST VOLTAGE: 3Vdc

TEST CONDITIONS: Indoor, Temperature and Humidity: 25°C, 62%

MINIMUM STANDARD: (b) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general field strength limits listed in RSS-Gen, whichever is less stringent.

Table 5: General Field Strength Limits for Transmitters at Frequencies Above 30 MHz

Frequency (MHz)	Field Strength	
	uV/m @ 3-m	Calculated dBµV/m at 3m
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
960 - 1000	500	54.0

TEST SETUP: The EUT was tested in our 3meter SAC and was positioned on the center of the Turntable and connected to a 3Vdc power supply. The Transmitter was set for Continuous transmission. The lowest, middle and highest channels in the 2400-2483.5MHz band were measured for all radiated emissions 30MHz to 18GHz.

MEASUREMENT METHOD: Measurements were made using an EMI Receiver with 120kHz RBW Quasi-Peak or 1MHz RBW, Average detector using the appropriate Antennas, amplifiers and filters.

DEVICE DESCRIPTIONS: As described in the above EUT description and setup Section.

EMISSIONS DATA: See data in Appendix B

OBSERVATIONS: The EUT performed as expected.

PERFORMANCE: Complies.

Part 5 - Occupied Bandwidth Testing

DATE:	March 22, 2011
TEST STANDARD:	RSS-Gen Section (4.6.1)
TEST VOLTAGE:	3Vdc
TEST CONDITIONS:	Indoor, Temperature and Humidity: 25°C, 62%
MINIMUM STANDARD:	When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, as calculated or measured.
TEST SETUP:	The EUT was tested in our 3meter SAC and was positioned on the center of the Turntable and connected to a 3Vdc power supply. The Transmitter was set for Continuous transmission. The highest power channel was measured.
MEASUREMENT METHOD:	Measurements were made using an EMI Receiver with 120kHz RBW Sample Detector set on maximum hold using the appropriate Antennas, amplifiers and filters.
DEVICE DESCRIPTIONS:	As described in the above EUT description and setup Section.
EMISSIONS DATA:	99% Bandwidth – 2.41987 MHz 6dB Bandwidth – 1.795 MHz See Data and Plots in Appendix B
OBSERVATIONS:	Since this product was tested per the requirements of RSS-210 A2.9, there was no reference to a required Bandwidth. It was decided that the 99% bandwidth was the appropriate measurement. The client also requested the 6dB measurement as per RSS-210 (A8.2) The EUT performed as expected.
PERFORMANCE:	Complies.

Section II: Requirements for the US Market (FCC)

General

Tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC CFR47 Part 15 subsection B- Unintentional Radiators, Class B.

Both Radiated and Power Line Conducted Emission were performed using measurement procedure outlined in the above standard.

Summary for FCC CFR47, Subpart C Section 15.249

Test	Standard	Description	Result
Radiated Emissions	15.109	The radiated emissions are measured in the 30-18000MHz range	Complies
Antenna Requirement	15.203	Replaceable Antenna must use a unique connector	Complies
Radiated Fundamental and Harmonics Emissions	15.249(a)	Peak Fundamental and Harmonics shall be measured at 3meters	Complies
Spurious Emissions outside of the band and Bandedge	15.249(d) and (e)	Radiated Spurious emissions shall be 50dBc or the levels in 15.209	Complies

Part 1 - Radiated Emission Testing

DATE: February 22, 2011

TEST STANDARD: FCC Part 15/B

TEST VOLTAGE: 3Vdc to simulate Coin Cell Battery

MINIMUM STANDARD: Class B Limit:

+Frequency (MHz)	Field Strength	
	uV/m @ 3-m	dBµV/m at 3m
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
960 - 1000	500	54.0

METHOD OF MEASUREMENT: The equipment was set up in 3m Semi Anechoic Chamber for preliminary measurements and final measurements; Radiated Emissions were performed at 3 meters for this unit. A typical application was tested.

Emissions in both horizontal and vertical polarizations were measured while rotating the EUT on a turntable to maximize the emissions signal strength.

The transmitters was OFF and set for Receive mode for this test.

In cases where the presence of high ambient noise makes it impossible to measure an emission at the required distance, the measurement is performed at a closer distance and the limit is adjusted per CISPR 22

20 Log (D1/D2)
Where D1 = New Distance D2 = Required Distance The result is added or subtracted to the required emission level to ensure compliance at the new distance.

MODIFICATIONS: The EUT did not require any modifications.

MEASUREMENT DATA: There were no detectable emissions while this product was in Receive Mode. No data was collected for this mode of operation.

PERFORMANCE: Complies with Standard

Part 2 - Antenna Requirements

DATE: February 22, 2011

TEST STANDARD: FCC Part 15.203

APPLICABLE REGULATIONS : - “An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited.”… “the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.”

RESULT : This unit meets this requirement. The antenna is a 2.4GHz Soldered Chip Antenna that can not be removed or replaced by the End User.

Part 3 - Radiated Peak Power of the Fundamental and Harmonics

DATE: February 24, 2011

TEST STANDARD: FCC Part 15.249(a)

TEST VOLTAGE: 3Vdc

TEST CONDITIONS: Indoor, Temperature and Humidity: 25°C, 62%

MINIMUM STANDARD:

(a) The field strengths measured at 3 meters shall not exceed the following:

Fundamental Frequencies (MHz)	Field Strength (millivolts/m)	
	Fundamental	Harmonics
902-928	50 (94dBuV)	0.5 (54dBuV)
2400-2483.5	50 (94dBuV)	0.5 (54dBuV)
5725-5875	50 (94dBuV)	0.5 (54dBuV)

TEST SETUP: The EUT was tested in our 3meter SAC and was positioned on the center of the Turntable and connected to a 3Vdc power supply. The Transmitter was set for Continuous transmission. The lowest, middle and highest channels in the 2400-2483.5MHz band were measured for all radiated emissions 30MHz to 18GHz.

MEASUREMENT METHOD: Measurements were made using an EMI Receiver with 1MHz RBW, Average detector using the appropriate Antennas, amplifiers and filters.

DEVICE DESCRIPTIONS: As described in the above EUT description and setup Section.

EMISSIONS DATA: See data in Appendix B

OBSERVATIONS: The EUT performed as expected.

PERFORMANCE: Complies.

Part 4 - Spurious Radiated Emissions and Bandedge Testing

DATE: February 24, 2011

TEST STANDARD: FCC Part 15.249(d) and (e)

TEST VOLTAGE: 3Vdc

TEST CONDITIONS: Indoor, Temperature and Humidity: 25°C, 62%

MINIMUM STANDARD: (d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.
(e) As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20dB under any condition of modulation.

15.209 General Field Strength Limits

Frequency (MHz)	Field Strength	
	uV/m @ 3-m	Calculated dBµV/m at 3m
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
960 - 1000	500	54.0

TEST SETUP: The EUT was tested in our 3meter SAC and was positioned on the center of the Turntable and connected to a 3Vdc power supply. The Transmitter was set for Continuous transmission. The lowest, middle and highest channels in the 2400-2483.5MHz band were measured for all radiated emissions 30MHz to 18GHz.

MEASUREMENT METHOD: Measurements were made using an EMI Receiver with 120kHz RBW Quasi-Peak or 1MHz RBW, Average detector using the appropriate Antennas, amplifiers and filters.

DEVICE DESCRIPTIONS: As described in the above EUT description and setup Section.

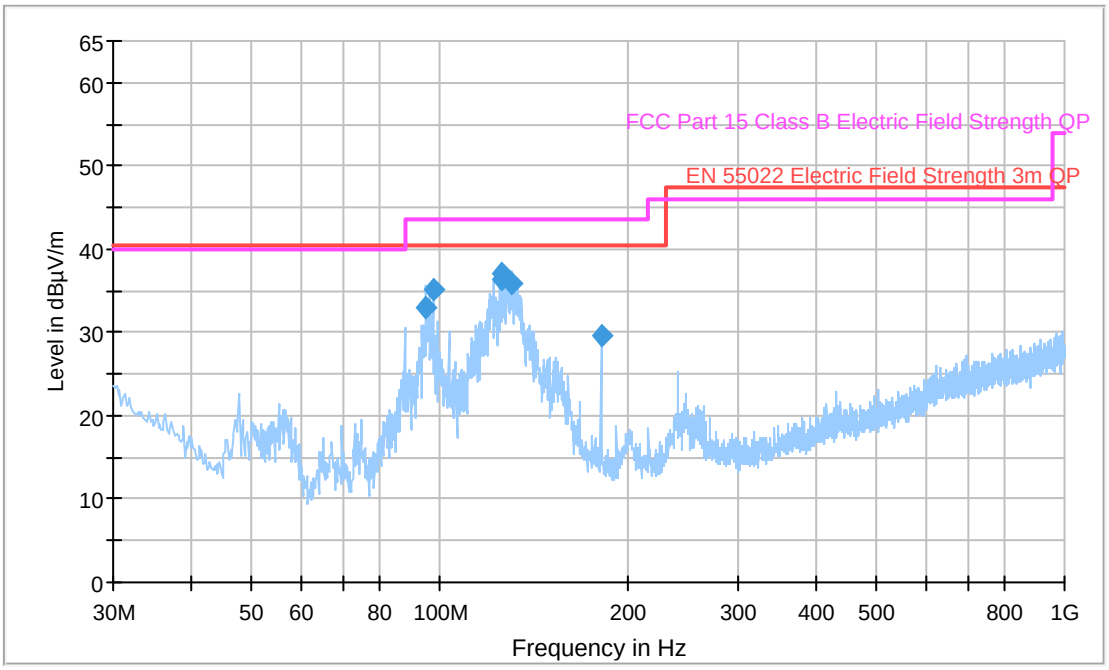
EMISSIONS DATA: See data in Appendix A. See bandedge Plots in Appendix B.

OBSERVATIONS: The EUT performed as expected.

PERFORMANCE: Complies.

Appendix A: Report of Measurements Data and Plots

Channel 11 Modulated



Spurious Emissions 30-1000MHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time	Bandwidth (kHz)	Antenna height	Polarity	Turntable position	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
95.239204	32.9	1000.00	120.000	120.0	V	320.0	10.2	7.6	40.5
97.696229	35.2	1000.00	120.000	130.0	V	225.0	10.8	5.3	40.5
125.704589	36.5	1000.00	120.000	120.0	V	225.0	14.7	4.0	40.5
125.773842	37.0	1000.00	120.000	120.0	V	225.0	14.7	3.5	40.5
130.234100	35.9	1000.00	120.000	100.0	V	186.0	14.8	4.6	40.5
181.261978	29.6	1000.00	120.000	181.0	H	143.0	12.1	10.9	40.5

No Spurious Emissions detected 1000 to 2.4GHz

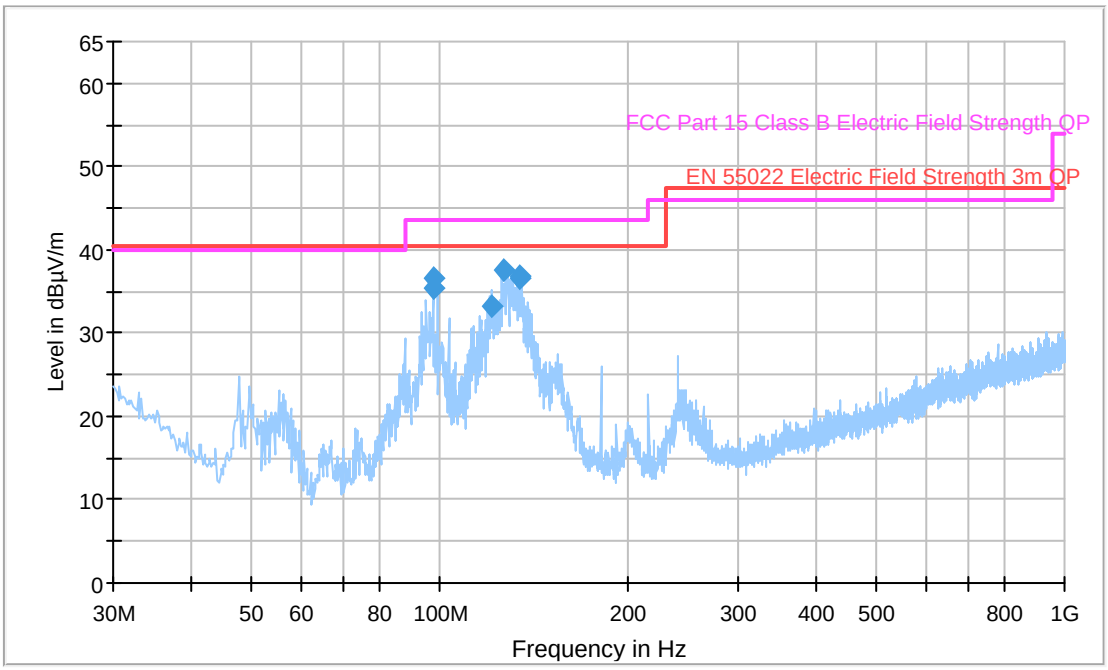
Channel 11 Modulated Fundamental and Harmonics 2.4-18GHz Average

Frequency (GHz)	Average (dBµV/m)	Corr. (dB)	Corrected Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Average Limit (dBµV/m)	Margin (dB)
2.404495	81.8	-3.2	78.6	105	H	100	94.0	15.4
4.808916	46.6	0.9	47.5	115	V	80	54.0	6.5
7.21350	28.9	8.0	36.9	152	V	67	54.0	17.1
9.6218	25.5	12.9	38.4	138	V	31	54.0	15.6
12.0250	19.4	20.3	39.7	100	V	29	54.0	14.3
14.4103	20.3	25.0	45.3	125	V	121	54.0	8.7
16.8327	21.6	22.2	43.8	115	V	18	54.0	10.2

Channel 11 Modulated Fundamental and Harmonics 2.4-18GHz Peak

Frequency (GHz)	Peak (dBµV/m)	Corr. (dB)	Corrected Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Peak Limit (dBµV/m)	Margin (dB)
2.404495	78.5	5.0	83.5	105	H	100	94.0	10.5
4.808916	51.6	0.9	52.5	115	V	80	74.0	21.5
7.21350	37.5	8.0	45.5	152	V	67	74.0	28.5
9.6218	34.4	12.9	47.3	138	V	31	74.0	26.7
12.0250	28.6	20.3	48.9	100	V	29	74.0	25.1
14.4103	30.4	25.0	55.4	125	V	121	74.0	18.6
16.8327	30.5	22.2	52.7	115	V	18	74.0	

Channel 18 Modulated



Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time	Bandwidth (kHz)	Antenna height	Polarity	Turntable position	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
97.713817	35.4	1000.00	120.000	130.0	V	180.0	10.8	5.1	40.5
97.735352	36.6	1000.00	120.000	130.0	V	219.0	10.8	3.9	40.5
120.766840	33.3	1000.00	120.000	100.0	V	145.0	14.7	7.2	40.5
126.250171	37.5	1000.00	120.000	115.0	V	191.0	14.7	3.0	40.5
134.226155	36.5	1000.00	120.000	100.0	V	203.0	14.5	4.0	40.5
134.251350	36.8	1000.00	120.000	100.0	V	199.0	14.5	3.7	40.5

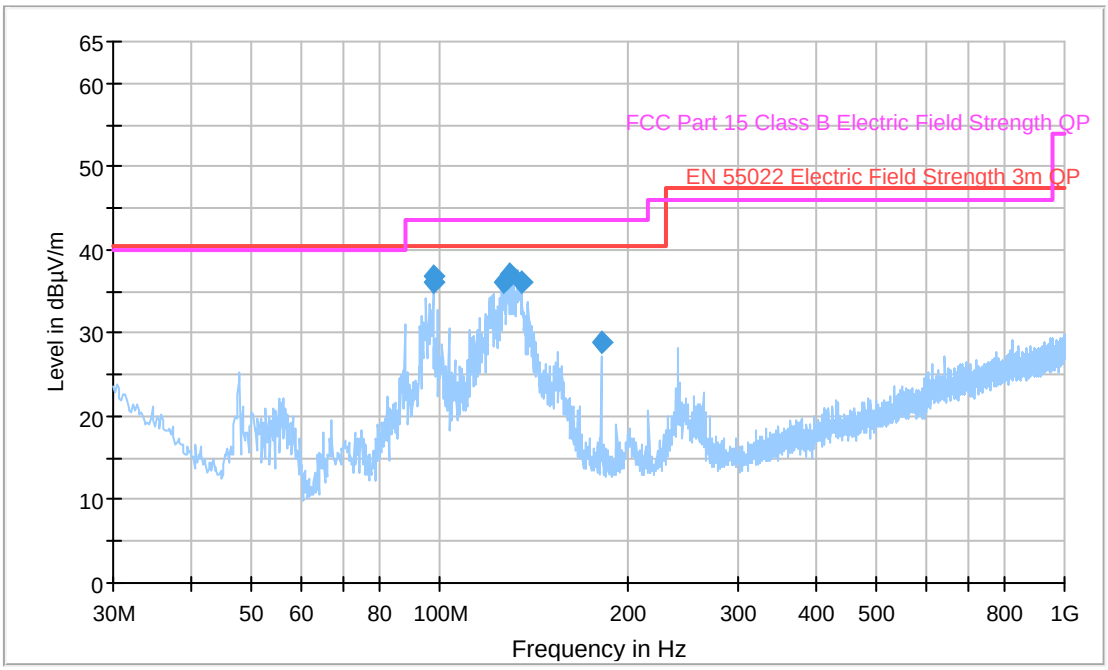
Channel 18 Modulated Fundamental and Harmonics 2.4-18GHz Average

Frequency (GHz)	Average (dBµV/m)	Corr. (dB)	Corrected Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Average Limit (dBµV/m)	Margin (dB)
2.439464	84.1	-3.2	80.9	100	H	271	94.0	13.1
4.87993	45.4	0.9	46.3	100	V	336	54.0	7.7
7.31860	26.7	8.0	34.7	124	V	277	54.0	19.3
9.757300	20.4	12.9	33.3	103	V	50	54.0	20.7
12.20050	20.6	20.3	40.9	102	V	70	54.0	13.1
14.6429	20.0	25.0	45.0	100	V	80	54.0	9.0
17.0797	21.5	22.2	43.7	100	V	58	54.0	10.3

Channel 18 Modulated Fundamental and Harmonics 2.4-18GHz Peak

Frequency (GHz)	Peak (dBµV/m)	Corr. (dB)	Corrected Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Peak Limit (dBµV/m)	Margin (dB)
2.439464	88.3	5.0	93.3	100	H	271	94.0	0.7
4.87993	50.4	0.9	51.3	100	V	336	74.0	22.7
7.31860	37.6	8.0	45.6	124	V	277	74.0	28.4
9.757300	29.7	12.9	42.6	103	V	50	74.0	31.4
12.20050	31.0	20.3	51.3	102	V	70	74.0	22.7
14.6429	30.4	25.0	55.4	100	V	80	74.0	18.6
17.0797	32.1	22.2	54.3	100	V	58	74.0	19.7

Channel 26 Modulated



Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time	Bandwidth (kHz)	Antenna height	Polarity	Turntable position	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
97.670824	36.0	1000.00	120.000	130.0	V	211.0	10.8	4.5	40.5
97.708174	36.8	1000.00	120.000	130.0	V	214.0	10.8	3.7	40.5
126.290361	36.2	1000.00	120.000	117.0	V	186.0	14.7	4.3	40.5
129.749868	37.0	1000.00	120.000	100.0	V	193.0	14.8	3.5	40.5
134.764182	36.1	1000.00	120.000	100.0	V	223.0	14.4	4.4	40.5
181.249168	28.8	1000.00	120.000	180.0	H	149.0	12.1	11.7	40.5

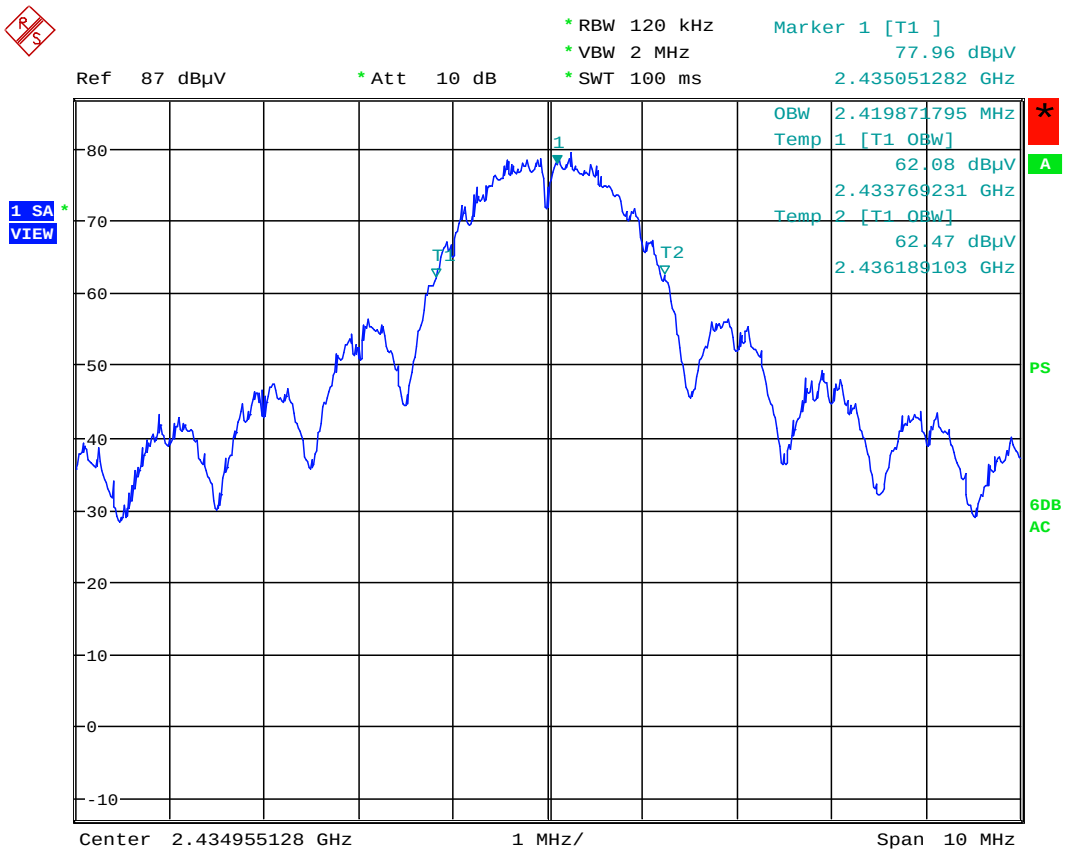
Channel 26 Modulated Fundamental and Harmonics 2.4-18GHz Average

Frequency (GHz)	Average (dBµV/m)	Corr. (dB)	Corrected Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Average Limit (dBµV/m)	Margin (dB)
2.479957	89.3	-3.2	86.1	105	H	208	94.0	7.9
4.9607	44.8	0.9	45.7	109	V	347	54.0	8.3
7.4398	24.6	8.0	32.6	111	V	189	54.0	21.4
9.91614	21.0	12.9	33.9	100	V	173	54.0	20.1
12.39978	21.0	20.3	41.3	104	V	338	54.0	12.7
14.8797	21.0	25.0	46.0	105	V	34	54.0	8.0
17.3597	21.6	22.2	43.2	101	V	28	54.0	10.8

Channel 26 Modulated Fundamental and Harmonics 2.4-18GHz Peak

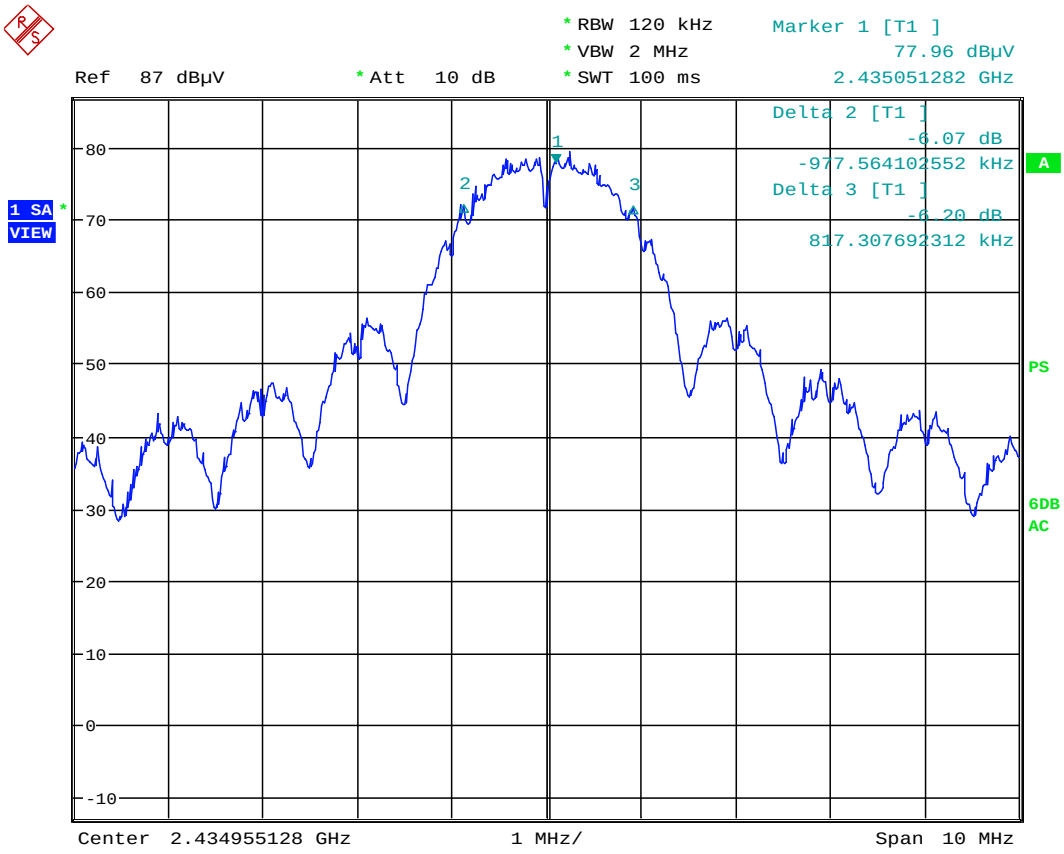
Frequency (GHz)	Peak (dBµV/m)	Corr. (dB)	Corrected Average (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Peak Limit (dBµV/m)	Margin (dB)
2.479957	87.8	5.0	92.8	105	H	208	94.0	1.2
4.9607	50.4	0.9	51.3	109	V	347	74.0	22.7
7.4398	37.6	8.0	45.6	111	V	189	74.0	28.4
9.91614	29.7	12.9	42.6	100	V	173	74.0	31.4
12.39978	31.0	20.3	51.3	104	V	338	74.0	22.7
14.8797	30.4	25.0	55.4	105	V	34	74.0	18.6
17.3597	32.1	22.2	54.3	101	V	28	74.0	19.7

Appendix B: Bandwidth and Bandedge Plots



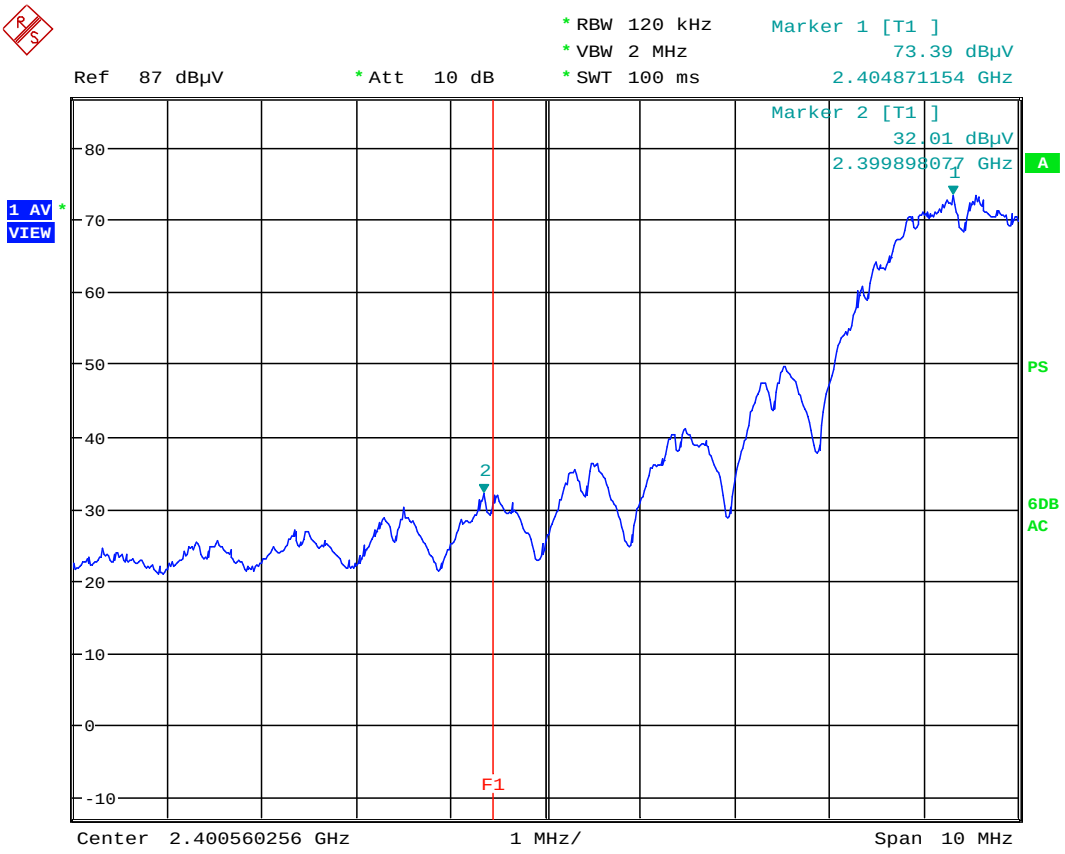
Date: 22.MAR.2011 17:17:40

99% Bandwidth Measurement



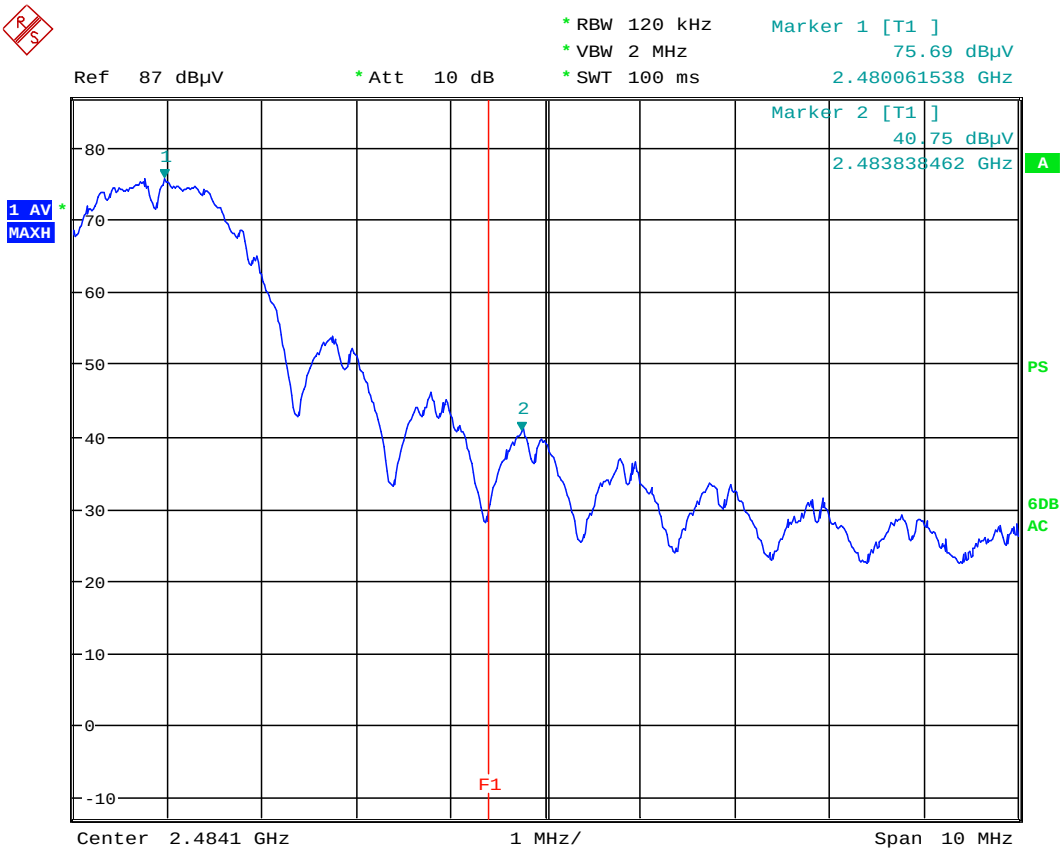
Date: 22.MAR.2011 17:16:37

6dB Bandwidth



Date: 22.MAR.2011 17:30:07

Marker 2 Corrected level is 35.3dBuV. Complies with General Field Strength limits as outlined in 15.209 and RSS-GEN



Date: 22.MAR.2011 17:35:11

Marker 2 Corrected level is 43.8dBuV. Complies with General Field Strength limits as outlined in 15.209 and RSS-GEN

Appendix C: EUT photos during the testing