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ENGINEERING TEST REPORT # 315096-A
LSR Job #: C-2202

Compliance Testing of:

X3 SEMS + BT

Test Date(s)

April 7th – May 8th, 9/14/15, 2015

Prepared For:
Tyco/Scott Health and Safety
Attn: Ann Carver
4320 Goldmine Road
Monroe, NC 28110

This Test Report is issued under the Authority of: Shane D. Rismeyer, EMC Engineer

Signature: Date:

Test Report Reviewed by:	**Report by:**
Peter Feilen, EMC Engineer	Shane D. Rismeyer, EMC Engineer
Signature: Date: 6/2/15	Signature: Date: 6/2/15

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LS Research, LLC in Review

As an EMC Testing Laboratory, our Accreditation and Assessments are recognized through the following:

TESTING CERT #1255.01

A2LA – American Association for Laboratory Accreditation

Accreditation based on ISO/IEC 17025: 2005 with Electrical (EMC) Scope of Accreditation
A2LA Certificate Number: 1255.01

Federal Communications Commission (FCC) – USA

Listing of 3 Meter Semi-Anechoic Chamber based on Title 47 CFR – Part 2.948
FCC Registration Number: 90756

Industrie Canada Industry Canada

Canada

Industry Canada

On file, 3 Meter Semi-Anechoic Chamber based on RSS-212 – Issue 1
File Number: IC 3088-A
On file, 3 and 10 Meter OATS based on RSS-212 – Issue 1
File Number: IC 3088

U. S. Conformity Assessment Body (CAB) Validation

Validated by the European Commission as a U. S. Competent Body operating under the U. S./EU, Mutual Recognition Agreement (MRA) operating under the European Union Electromagnetic Compatibility –Council Directive 2004/108/EC (formerly 89/336/EEC, Article 10.2).
Date of Validation: January 16, 2001

Validated by the European Commission as a U.S. Notified Body operating under the U.S. /EU, Mutual Recognition Agreement (MRA) operating under the European Union Telecommunication Equipment – Council Directive 99/5/EC, Annex V.
Date of Validation: November 20, 2002
Notified Body Identification Number: 1243

1.0 Summary of Test Report

In April-May, 2015, the EUT, X3 SEMS + BT, was tested and MEETS the following requirements for the Zigbee radio and the RFID radio:

FCC Requirement	IC Requirement	Test Requirements	Measurement Procedure	Compliance (Yes/No)
15.247 (a)(2)	RSS-247 Section 5.2 (1)	6 dB Bandwidth of a Digital Modulation System	ANSI C63.10-2013 Section 11.8	Yes
15.247(b) & 1.1310	RSS-247 Section 5.4 (4)	Maximum Output Power	ANSI C63.10-2013 Section 11.9	Yes
15.247 (e)	RSS-247 Section 5.2 (2)	Power Spectral Density of a Digital Modulation System	ANSI C63.10-2013 Section 11.10	Yes
15.247(d)	RSS-247 Section 5.5	RF Conducted Spurious Emissions at the Transmitter Antenna Terminal	ANSI C63.10-2013 Section 11.11	Yes
15.247(c), 15.209 & 15.205	RSS-GEN Section 8.9, 8.10	Transmitter Radiated Emissions in Restricted Bands	ANSI C63.10-2013 Section 11.12 (6.3,6.5,6.6)	Yes
2.1055 (d)	RSS-GEN Section 6.11	Frequency Stability	ANSI C63.10-2013 Section 6.8	Yes
15.207	RSS-GEN Section 8.8	Power Line Conducted Emissions Measurements	ANSI C63.10-2013 Section 6.2	Yes

2.0 Test Facilities

All testing was performed at:

LS Research, LLC
W66 N220 Commerce Court
Cedarburg, Wisconsin, 53012 USA

LS Research, LLC is accredited by A2LA (American Association for Laboratory Accreditation) to the requirements of ISO/IEC 17025, 2005 “General Requirements for the Competence of Calibration and Testing Laboratories”.
LS Research, LLC’s scope of accreditation includes all test methods listed herein, unless otherwise noted.

3.0 Client Information

Manufacturer Name:	Tyco/Scott Health and Safety
Address:	4320 Goldmine Road
Contact Person:	Ann Carver

3.1 Equipment Under Test (EUT) Information

The following information has been supplied by the applicant.

Product Name:	X3 SEMS + BT
Model Number:	201122-31, 201122-32 and 201122-33
Serial Number:	Test
FCC ID	T5E201122A
IC Number	6453A-201122A

3.2 Product Description

Scott Emergency Management System (SEMS II) with Blue Tooth is a telemetry system for firefighter, comprises mainly of two devices a (1) Control Module which house the piezos for the Personnel Alarm Safety System (PASS) and (2) an Console unit which houses the telemetry radio being capable of bidirectional communications with a base station (gateway) comprised of a USB or PCMCIA card. The system operates on a radio frequency of 2.4 GHz, where by the console unit is capable of transmitting and receiving information to and from the base station. The transmission range is 450ft in a typical indoor environment and 2000ft line of sight (LOS). The Console also contains a blue tooth radio with ability to pair and transmit data every 60 seconds to an external APX Motorola radio which then forwards the data over a Motorola network. The console also contains a RFID scanner which allows a user to read RFID tag which can be programmed with information about the firefighter and the information is transmitted to the base station.

3.3 Modifications Incorporated In the EUT for Compliance Purposes

None noted at time of test

3.4 Deviations & Exclusions from Test Specifications

None noted at time of test

3.5 Additional Information

The single channel 2405 MHz was programmed using an Ember tool.

4.0 Conditions of Test

Environmental:

Temperature: 20-25º C
Relative Humidity: 30-60%
Atmospheric Pressure: 86-106 kPa

Voltage: 5VDC

5.0 Test Equipment

All test equipment is calibrated by a calibration laboratory accredited by A2LA to the requirements of ISO 17025. For a complete list of test equipment and calibration dates, see Appendix A. Unless otherwise noted, resolution bandwidth of measuring instrument used during testing for given frequency range, see below.

Frequency Range	Resolution Bandwidth
9 kHz – 150 kHz	200 Hz
150 kHz – 30 MHz	9 kHz
30 MHz – 1000 MHz	120 kHz
Above 1000 MHz	1 MHz

6.0 Conformance Summary

The EUT was found to MEET the requirements as described within the specification of FCC Title 47, CFR Part 15.247, 15.109, Industry Canada RSS-210, Issue 8 (2010), Annex 8, RSS-247 Issue 1, RSS-GEN Issue 4 (2014).

If some emissions are seen to be within 3 dB of their respective limits:
As these levels are within the tolerances of the test equipment and site employed, there is a possibility that this unit, or a similar unit selected out of production may not meet the required limit specification if tested by another agency.

LS Research, LLC certifies that the data contained herein was taken under conditions that meet or exceed the requirements of the test specifications. The results in this Test Report apply only to the item(s) tested on the above-specified dates. Any modifications made to the EUT subsequent to the indicated test date(s) will invalidate the data herein, and void this certification.

Appendix A – Test Equipment

LS RESEARCH LLC
Wireless Product Development
Equipment Calibration

Date : 17-Apr-2015 Type Test : Emissions Job # : C-2202

Prepared By: Shane Rismeyer Customer : Tyco/Scott Health and Safety Quote #: 315096

No.	Asset #	Description	Manufacturer	Model #	Serial #	Cal Date	Cal Due Date	Equipment Status
1	EE 960073	Spectrum Analyzer	Agilent	E4446A	US45300564	10/19/2014	10/19/2015	Active Calibration
2	EE 960088	8GHz MXE Spectrum Analyzer	Agilent	N9038A	MY51210138	1/9/2015	1/9/2016	Active Calibration
3	AA 960078	Log Periodic Antenna	EMCO	93146	9701-4855	1/19/2015	1/19/2016	Active Calibration
4	AA 960150	Biconical Antenna	ETS	3110B	0003-3346	1/22/2015	1/22/2016	Active Calibration
5	EE 960146	Std. Gain Horn Ant. w/preamp	Adv. Micro / EMCO	WLA622-4 / 3160-09	123001	8/19/2014	8/19/2015	Active Calibration
6	AA 960137	Standard Gain Horn Ant.	EMCO	3160-10	69259	8/19/2014	8/19/2015	Active Calibration
7	AA 960158	Double Ridge Horn Antenna	ETS Lindgren	3117	109300	7/9/2014	7/9/2015	Active Calibration
8	EE 960159	0.8 - 21GHz LNA	Mini-Circuits	ZVA-213X-S+	740411007	7/9/2014	7/9/2015	Active Calibration
9	AA 960161	Highpass Filter	K&L Microwave	11SH10-8000	2	2/6/2015	2/6/2016	Active Calibration
10	AA 960006	Active Loop Antenna	EMCO	6502	9205-2753	8/19/2014	8/19/2015	Active Calibration

Project Engineer: Quality Assurance: Peter Fielen

Appendix B – Test Data

B.1 – RF Conducted Emissions

Manufacturer	Tyco/Scott
Test Location	LS Research, LLC
Rule Part	FCC Part 15.247 / RSS-210 Annex 8/ RSS-247
General Measurement Procedure	ANSI C63.10 Section 6.7
General Description of Measurement	A direct measurement of the transmitted signal was performed at the antenna port of the EUT via a cable connection to a spectrum analyzer. An attenuator was placed in series with the cable to protect the spectrum analyzer. The loss from the cable and the attenuator were added on the analyzer as gain offset settings there by allowing direct measurements, without the need for any further corrections. The EUT was configured to run in a continuous transmit mode, while being supplied with typical data as a modulation source.

B.1.1 – RF Conducted – Fundamental Bandwidth

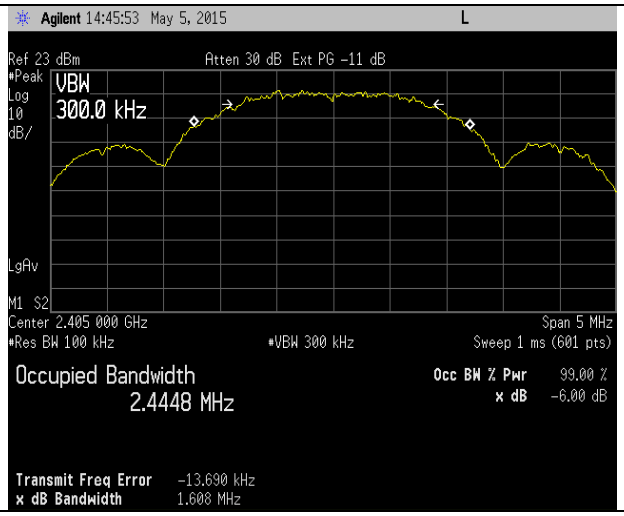
Manufacturer	Tyco/Scott
Date	5/5/15
Operator	Shane Rismeyer
Temp. / R.H.	20 - 25º C / 30 - 60% R.H.
Rule Part	FCC 15.247 (a)(2) IC RSS-247 Section 5.2(1)
Specific Measurement Procedure	ANSI C63.10-2013 Section 11.8
Additional Description of Measurement	Peak detector used
Additional Notes	Continuous transmit modulated used for this test.

Table

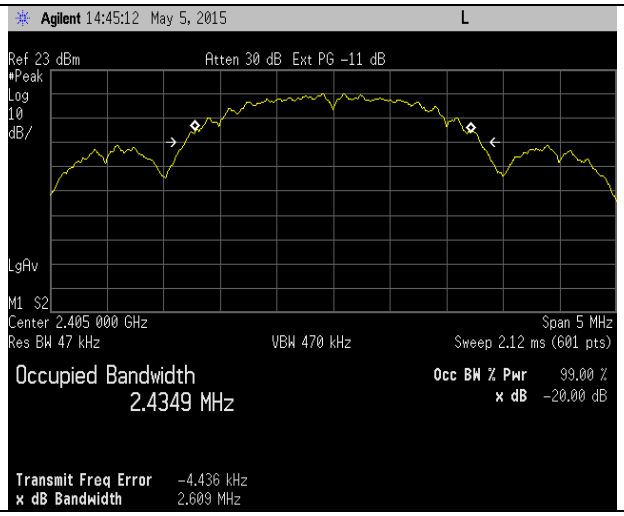
Channel	Frequency (MHz)	99% BW (MHz)	6 dB DTS BW (MHz)	6 dB BW limit (MHz)	20 dB BW (MHz)	99% BW (MHz)
1	2405	2.435	1.608	0.500	2.609	2.435

Plots

Channel – 2405 MHz



6 dB DTS BW



99% and 20dB BW

B.1.2 – RF Conducted – Fundamental Power and Spectral Density

Manufacturer	Tyco/Scott
Date	9/14/15
Operator	Aidi Zainal
Temp. / R.H.	20 - 25º C / 30-60% R.H.
Rule Part	FCC 15.247 (b) & (e) IC RSS-247 Section 5.4 (4) & 5.2 (2)
Specific Measurement Procedure	KDB 558074 D01 DTS Meas Guidance v03r03 Section 9.1.1 : Peak output power Section 10.2 : Peak PSD
Additional Description of Measurement	3 kHz resolution bandwidth used for Power Spectral Density measurement
Additional Notes	Continuous transmit modulated used for this test. Sample Calculation: Margin (dB) = Limit – Measured level

Output Power Table

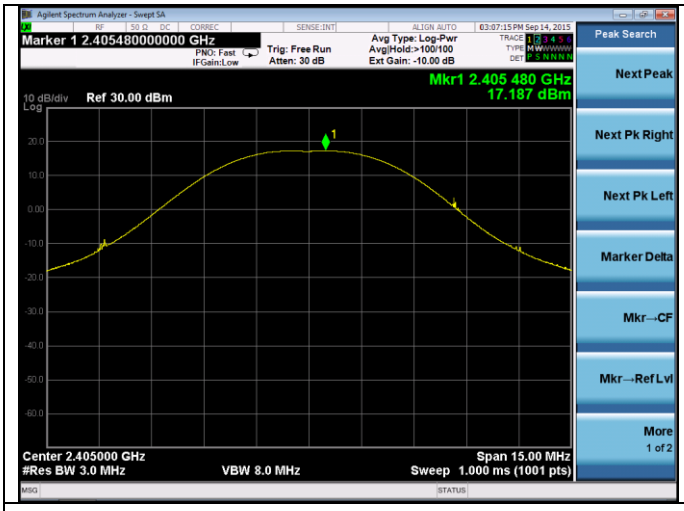
Channel	Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dBm)
1	2405	17.2	30.0	12.8

PSD Table

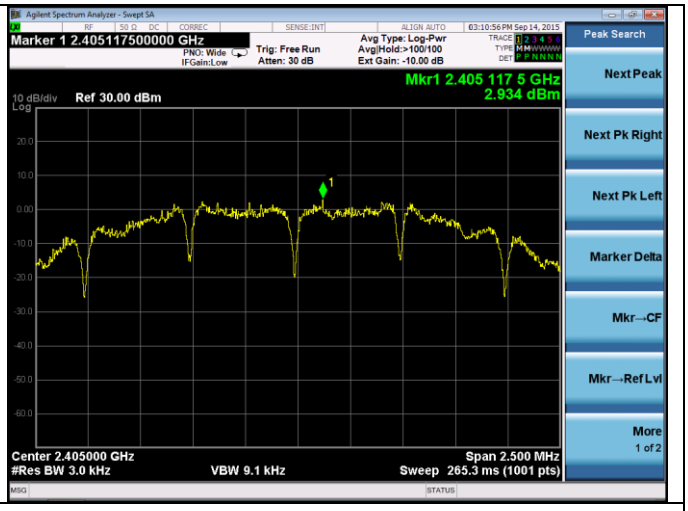
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limit (dBm)	Margin (dBm)
1	2405	2.9	8.0	5.1

Plots

Channel – 2405 MHz



Output Power



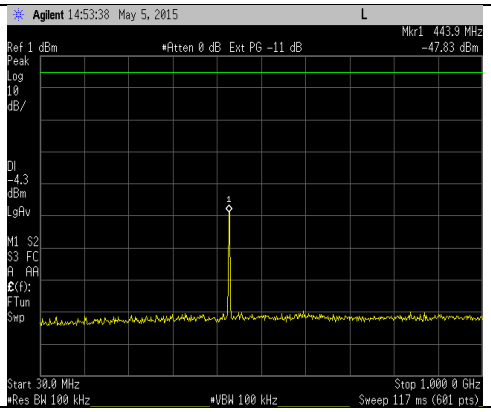
Power Spectral Density

B.1.3 – RF Conducted – Emissions in non-restricted frequency bands

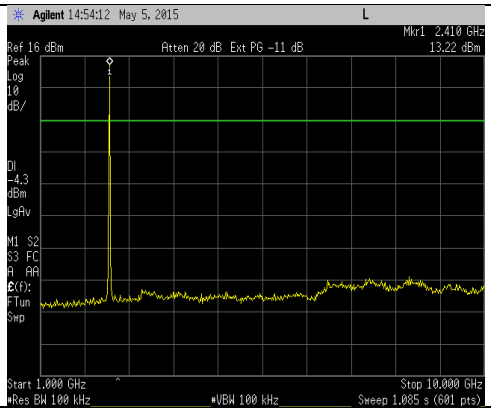
Manufacturer	Tyco/Scott
Date	5/5/15
Operator	Shane Rismeyer
Temp. / R.H.	20 - 25º C / 30-60% R.H.
Rule Part	FCC 15.247 (d) IC RSS-247 Section 5.5
Specific Measurement Procedure	FCC KDB 558074 Section 11.0 – Emissions in non-restricted frequency bands
Additional Description of Measurement	RF Conducted Measurement
Additional Notes	No Emissions found to be within 15 dB of limit Continuous transmit modulated used for this test.

Plots start next page

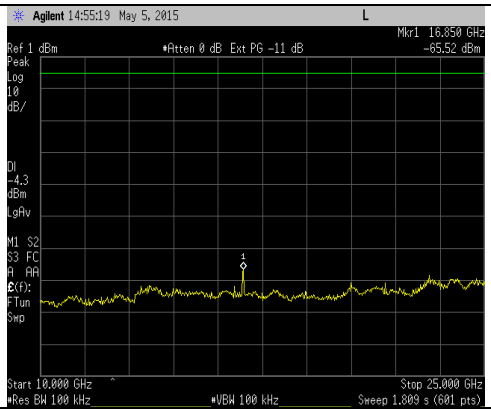
Channel – 2405 MHz



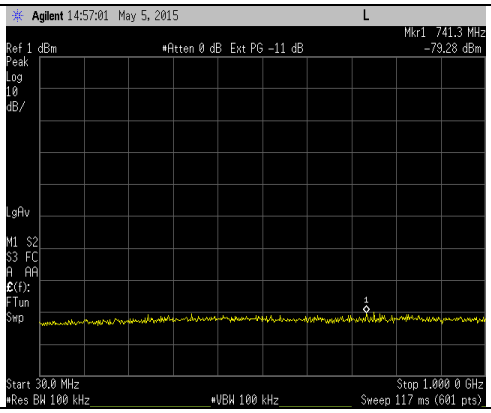
30-1000 MHz



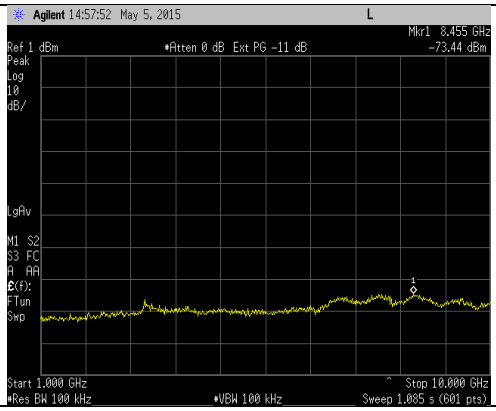
1 - 10 GHz



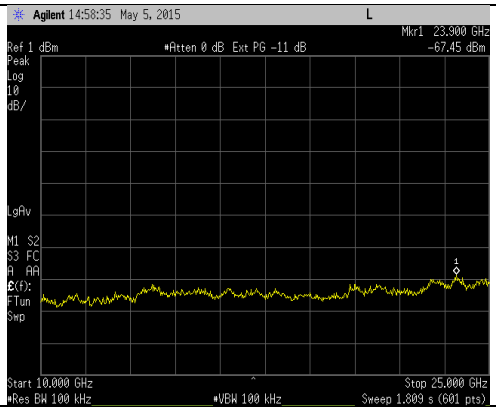
10-25 GHz



30-1000 MHz (Receive Mode)



1 - 10 GHz (Receive Mode)



10-25 GHz (Receive Mode)

B.2 – Radiated Emissions

Rule Part(s)	FCC: 15.247 / 15.205 / 15.209 IC: RSS-GEN Section 8.9,8.10			
Measurement Procedure	ANSI C63.10 – 2013 Section 11.12 (6.3,6.5,6.6)			
Test Location	LS Research, LLC - FCC Listed 3 meter Semi-Anechoic Chamber			
Test Distance	See data section			
EUT Placement	Above 1 GHz: 150 cm height non-conductive table above reference ground plane covered with absorbers Below 1 GHz: 80 cm height non-conductive table above reference ground plane			
Frequency Range of Measurement	Biconical: 30-300 MHz	Log Periodic Dipole Array: 300-1000 MHz	Double-Ridged Waveguide Horn: 1-18 GHz	Standard Gain Horn: 18-26GHz
Measurement Detectors	30-1000MHz RBW: 120 kHz VBW: At least 300 kHz		1 - 40 GHz: RBW : 1MHz VBW: ≥ 3 (MHz) Peak 10 Hz Average	
Description of Measurement	1) The antenna, cable, pre-amp, and other necessary measurement system correction factors are loaded onto the EMI receiver / spectrum analyzer when the measurements are performed. The data is gathered and reported as the corrected values. 2) The EUT is placed on a non-conductive pedestal centered on a turn-table in the test location with the antenna at the test distance from the EUT 3) Maximum radiated RF emissions are determined by rotation of azimuth and scanning the sense antenna between 1 and 4 meters in height using both horizontal and vertical antenna polarities. Maximized levels are manually noted at degree values of azimuth and at sense antenna height.			
Example Calculations	Reported Measurement data = Raw receiver measurement + Antenna Correction Factor + Cable factor (dB) - amplification factor (when applicable) + Additional factor (when applicable)			

Limits:

Frequency (MHz)	3 m Limit (μV/m)	3 m Limit (dBμV/m)	Type
30-88	100	40.0	Quasi-Peak
88-216	150	43.5	Quasi-Peak
216-960	200	46.0	Quasi-Peak
Above 960	500	54.0	Average (>1 GHz)

B.2.1 – Radiated Band-Edge Restricted Bands

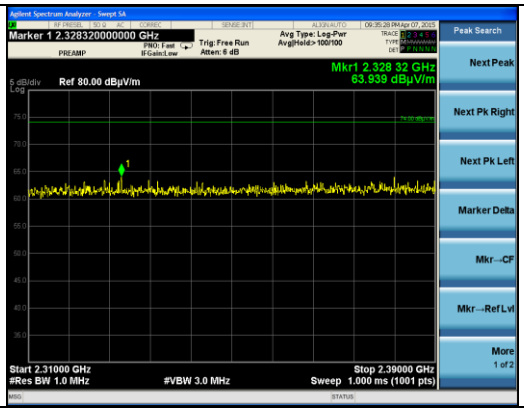
Manufacturer	Tyco/Scott
Date	4/7/15
Operator	Mike Hintzke
Temp. / R.H.	20 - 25º C / 30-60% R.H.
Rule Part	FCC 15.247/ 15.205 / 15.209 IC RSS-247 / RSS-GEN
Measurement Procedure	ANSI C63.10-2013 Section 11.12
Test Distance	3 meter (1-4 GHz)
EUT Placement	150 cm height non-conductive table centered on turn-table , absorbers covering ground plane
Detectors	Peak; RBW 1MHz VBW 3 MHz (10Hz VBW for average measurements)
Additional Notes	1) EUT maximized in azimuth and antenna height with maximum results reported.

Example Calculation:
FCC 15.209 Average Limit @ 3 meter (dBµV/m) – Peak Reading (dBµV/m) = Margin

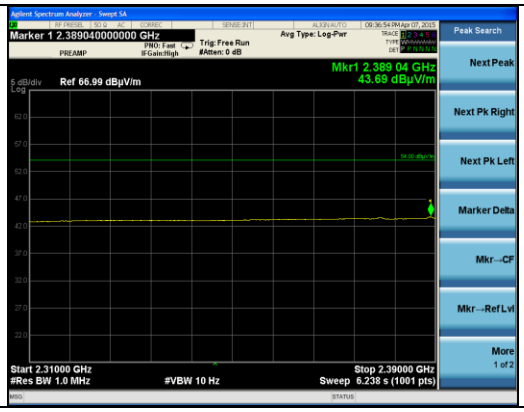
Data Table

Channel	Frequency (MHz)	EUT orientation/ Antenna Polarity	Height (cm)	Azimuth (degree)	Peak Reading (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Avg Reading (dBµV/m)	Avg Limit (dBµV/m)	Margin (dB)
1	2389	Side/Vertical	3.73	251	63.9	74.0	10.1	43.7	54.0	10.3

Plots



Channel (2405 MHz)
Lower Band-edge (2310-2390 MHz)
Peak



Channel (2405 MHz)
Lower Band-edge (2310-2390 MHz)
Average

B.2.2 – Radiated Harmonics in Restricted Bands

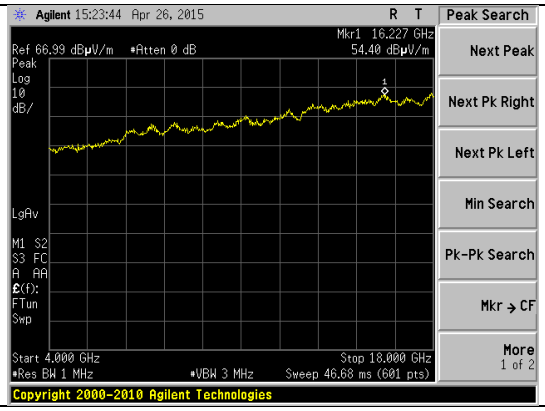
Manufacturer	Tyco/Scott
Date	2/18/15
Operator	Shane Rismeyer
Temp. / R.H.	20 - 25º C / 30-60% R.H.
Rule Part	FCC 15.247/ 15.205 / 15.209 IC RSS-247 / RSS-GEN
Measurement Procedure	ANSI C63.10-2013 Section 11.12
Test Distance	3 meters 4-26 GHz
EUT Placement	150 cm height non-conductive table centered on turn-table , absorbers covering ground plane
Detectors	Peak; RBW 1 MHz Average VBW (10Hz)
Additional Notes	1) Tested in continuous transmit modulated mode with EUT in three orientations at maximum power. (Worst case 1 Mbps)

Example Calculation:
FCC 15.209 Average Limit @ 3 meters (dBµV/m) – Average Reading (dBµV/m) = Margin

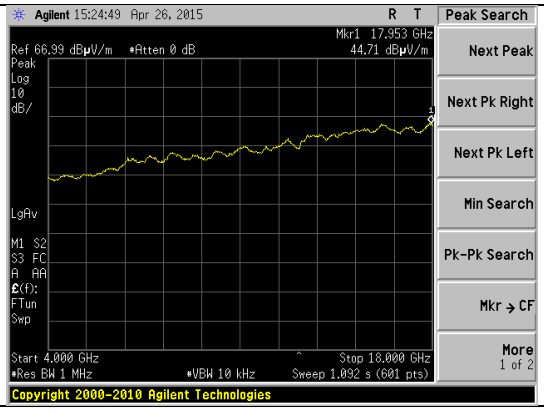
Data Table

Frequency (MHz)	Height (cm)	Azimuth (degree)	Peak Reading (dBµV/m)	Avg Reading (dBµV/m)	Avg Limit (dBµV/m)	Margin (dB)	Antenna Polarity	Orientation
4810	170	280	55.4	45.8	54.0	8.2	H	Flat
4810	174	57	56.5	46.4	54.0	8.6	V	Vertical
4810	182	0	53.0	43.2	54.0	10.8	V	Side

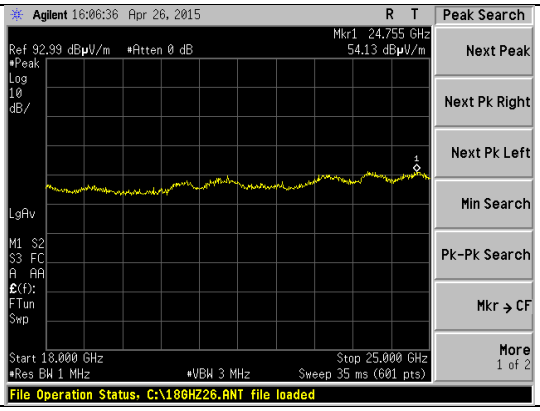
Plots - Channel



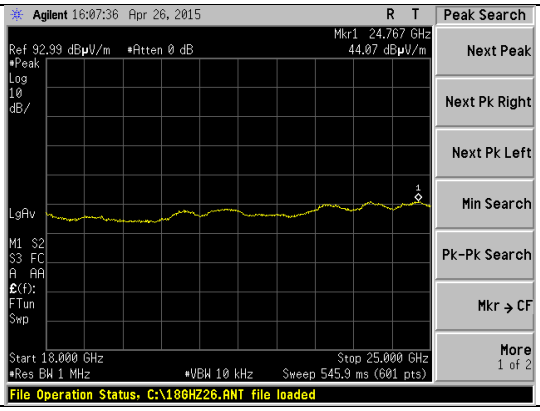
4-18 GHz



4-18 GHz (Reduced VBW)



18-25 GHz



18-25 GHz (Reduced VBW)

B.2.3 – Radiated Emissions Transmit Mode

Manufacturer	Tyco/Scott
Date	4/15/15
Operator	Shane Rismeyer
Temp. / R.H.	20 - 25º C / 30-60% R.H.
Rule Part	FCC 15.247/ 15.205 / 15.209 IC RSS-247 / RSS-GEN
Measurement Procedure	ANSI C63.10-2013 Section 6.3, 6.5, 6.6
Test Distance	3 meter 30-4000 MHz
EUT Placement	80 cm height non-conductive table centered on turn-table 150 cm height non-conductive table centered on turn-table , absorbers covering ground plane
Detectors	Quasi-Peak; 120 kHz and Peak; RBW 1 MHz
Additional Notes	1) Tested in continuous transmit modulated mode with EUT in three orientations at maximum power. 2) Emissions not effected by channel or transmit or receive mode.

Example Calculation:

Limit (dBµV/m) – Reading (dBµV/m) = Margin

Table

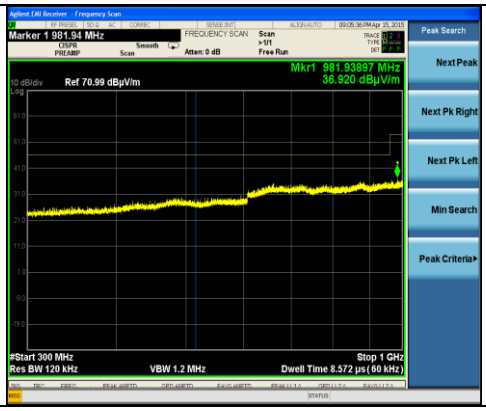
Frequency (MHz)	Height (cm)	Azimuth (degree)	Peak Reading (dBµV/m)	Quasi Peak Limit (dBµV/m)	Margin (dB)	Antenna Polarity	EUT orientation
298	1	0	31.5	46.0	14.5	H	Vertical
298.8	1	0	31.0	46.0	15.0	V	Vertical
981.9	1	0	36.9	54.0	17.1	H	Vertical
691.3	1	0	36.1	46.0	9.9	V	Vertical

Plots

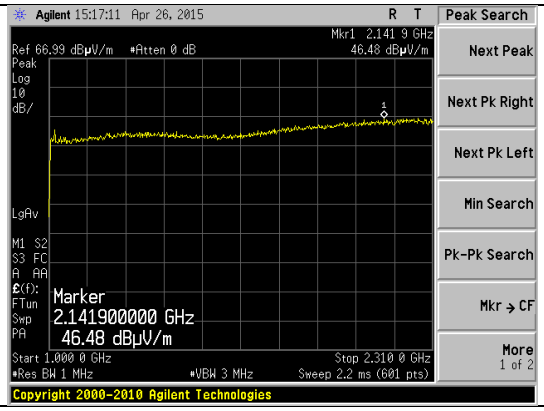
30-300 MHz Vertical

30-300 MHz Horizontal

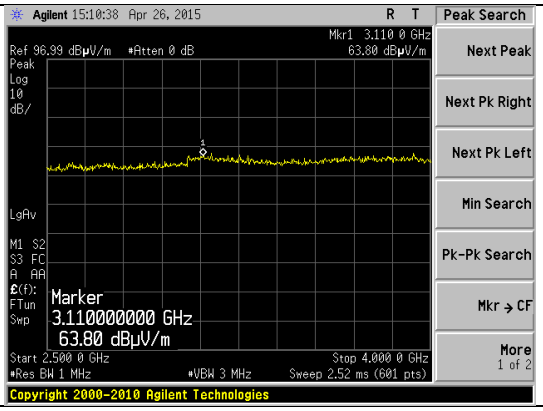
300-1000 MHz Vertical



300-1000 MHz Horizontal



1000 - 2310 MHz



2500 - 4000 MHz

B.2.4 – Radiated Emissions Receive Mode

Manufacturer	Tyco/Scott
Date	2/6/15
Operator	Shane Rismeyer
Temp. / R.H.	20 - 25º C / 30-60% R.H.
Rule Part	15.109 / RSS-GEN
Measurement Procedure	ANSI C63.4 – 2014
Test Distance	3 meter 30-25000MHz
EUT Placement	80 cm height non-conductive table centered on turn-table
Detectors	Quasi-Peak; RBW 120 kHz and Peak; RBW 1 MHz
Additional Notes	1) Tested in continuous transmit modulated mode with EUT in three orientations at maximum power. 2) Maximum results reported 3) Emissions not effected by channel or transmit or receive mode.

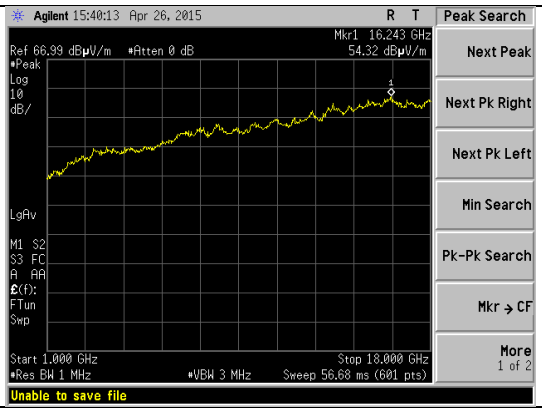
Example Calculation:

Limit (dBµV/m) – Reading (dBµV/m) = Margin

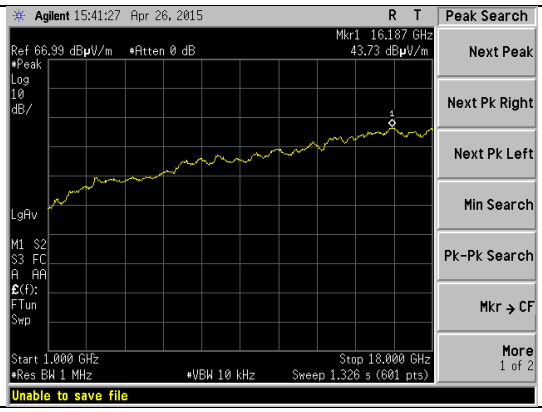
Table

Frequency (MHz)	Height (cm)	Azimuth (degree)	Peak Reading (dBµV/m)	Quasi Peak Limit (dBµV/m)	Margin (dB)	Antenna Polarity	EUT orientation
298	1	0	31.5	46.0	14.5	H	Vertical
298.8	1	0	31.0	46.0	15.0	V	Vertical
981.9	1	0	36.9	54.0	17.1	H	Vertical
691.3	1	0	36.1	46.0	9.9	V	Vertical

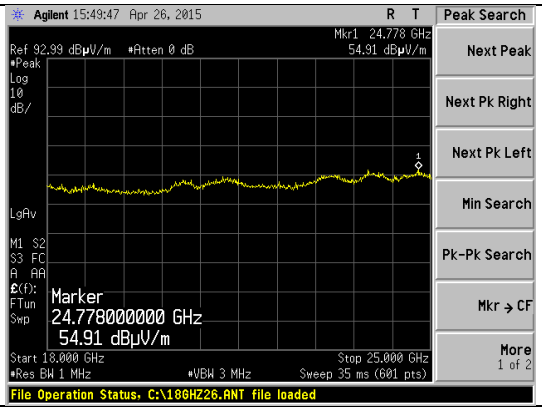
Plots



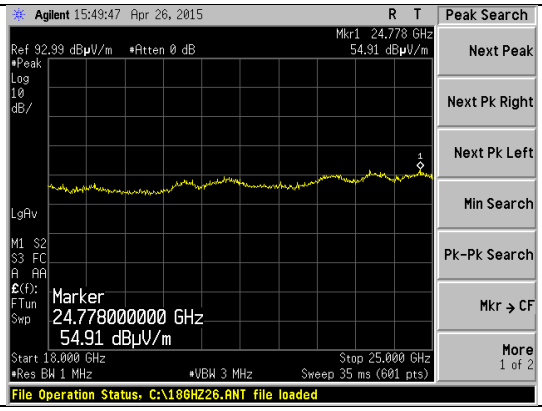
1000 – 18000 MHz



1000 – 18000 MHz (reduced VBW)



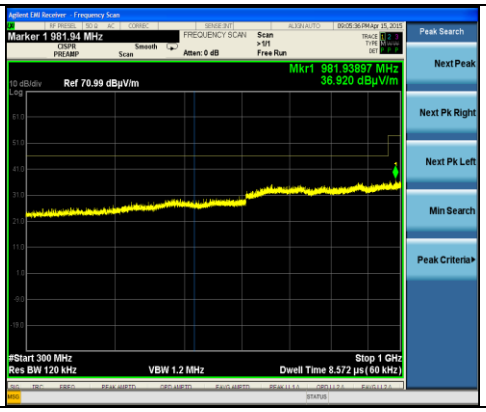
18-25 GHz



18-25 GHz (Reduced VBW)

300-1000 MHz Vertical

300-1000 MHz Horizontal

	
30-300 MHz Vertical	30-300 MHz Horizontal

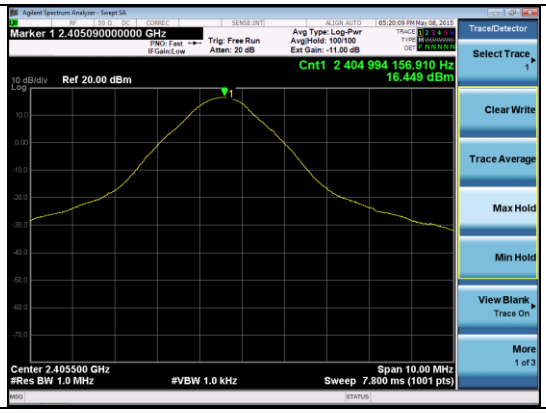
B3 – Frequency Stability

Manufacturer	Tyco/Scott
Operator	Shane Rismeyer
Rule Part	FCC 2.1055 RSS-GEN Section 6.11
Measurement Procedure	ANSI C63.10-2013 Section 6.8
Additional Notes	The power and frequency stability of the device was examined as a function of the input voltage available to the EUT. A Spectrum Analyzer was used to measure the RF output power and frequency at the appropriate frequency markers. Power was supplied by an external bench-type DC power supply and was varied from the nominal. The power was then cycled On/Off to observe system response. No unusual response was observed, the emission characteristics were well behaved, and the system returned to the same state of operation as before the power cycle. Below is data showing stability of the fundamental frequency. Continuous transmit modulated used for this test.

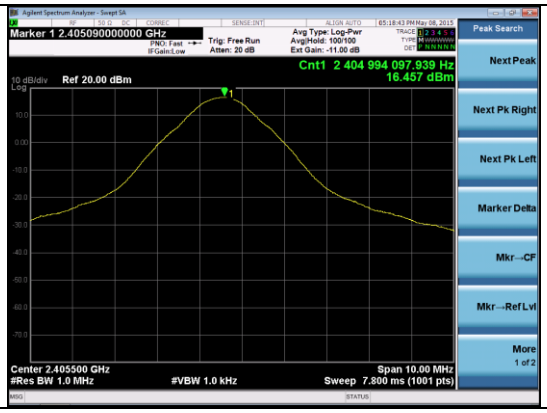
Table

Channel	Supply voltage (DC)		
	Nominal (5 VDC)	-15% (4.25 VDC)	Deviation (Hz)
Low (Hz)	2404994156	2404994097	59

Plots



Nominal (5 VDC)



-15% (4.25 VDC)

B.4 – Radiated Fundamental and Emissions below 30 MHz- RFID

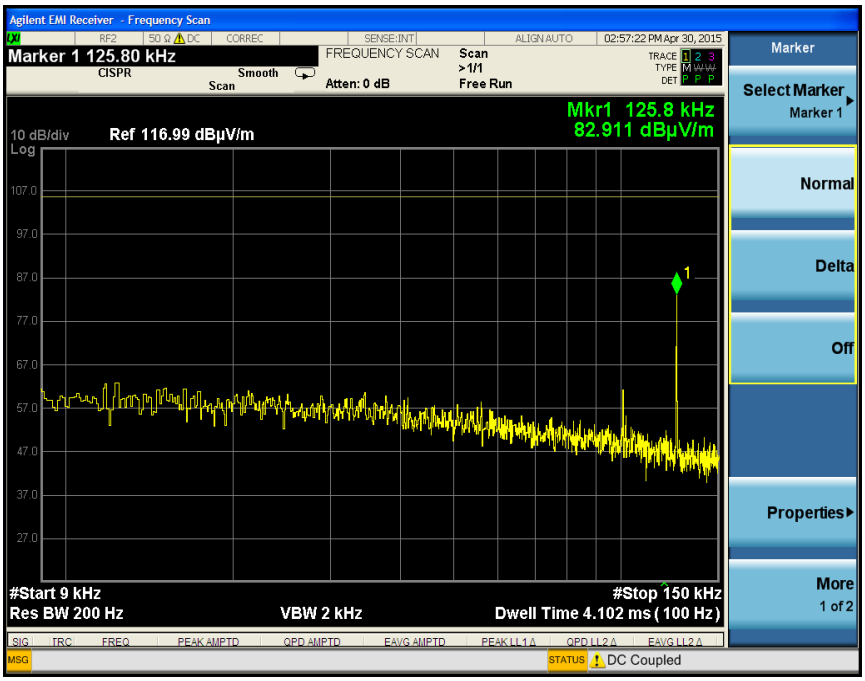
Manufacturer	Tyco/Scott
Date	4/30/15
Operator	Mike Hintzke
Temp. / R.H.	20 - 25º C / 30-60% R.H.
Rule Part	15.209 / 15.109 / RSS-GEN
Measurement Procedure	ANSI C63.10 - 2013
Test Distance	3 meter
EUT Placement	80 cm height non-conductive table centered on turn-table
Detectors	Peak
Additional Notes	1) Peak emissions compared to applicable limits. 2) 125 kHz fundamental (RFID) tested in continuous pulsed transmission mode (normal operation)

Example Calculation:
FCC 15.209 Limit @ 3 meter (dBµV/m) – Peak Reading (dBµV/m) = Margin

Emissions

Frequency (kHz)	Antenna Orientation	Azimuth (Degree)	Peak Level (dBµV/m)	Limit (dBµV/m)	Margin
125.8	Horizontal	0	82.9	105.5	22.6

Fundamental



Harmonics

Appendix C - Uncertainty Summary

This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level, using a coverage factor of k=2.

Table of Expanded Uncertainty Values, (K=2) for Specified Measurements

Measurement Type	Particular Configuration	Uncertainty Values
Radiated Emissions	3 – Meter chamber, Biconical Antenna	4.82 dB
Radiated Emissions	3-Meter Chamber, Log Periodic Antenna	4.88 dB
Radiated Emissions	3-Meter Chamber, Horn Antenna	4.85 dB
Absolute Conducted Emissions	Agilent PSA/ESA Series	1.38 dB
AC Line Conducted Emissions	Shielded Room/EMCO LISN	3.20 dB
Radiated Immunity	3 Volts/Meter in 3-Meter Chamber	2.05 Volts/Meter
Conducted Immunity	3 Volts level	2.33 V
EFT Burst, Surge, VDI	230 VAC	54.4 V
ESD Immunity	Discharge at 15kV	3200 V
Temperature/Humidity	Thermo-hygrometer	0.64° / 2.88 %RH

Appendix D - References

Publication	Year	Title
FCC CFR Parts 0-15	2015	Code of Federal Regulations – Telecommunications
ANSI C63.4	2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.
RSS-210 Annex 8	2010	Low-power License-exempt Radio communication Devices (All Frequency Bands): Category I Equipment
RSS-GEN Issue 4	2014	General Requirements and Information for the Certification of Radio Apparatus
ANSI C63.10	2013	American National Standard for Testing Unlicensed Wireless Devices
RSS-247 Issue 1	2015	Digital Transmissions Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices