

Report No. : FR462324-01AN

FCC Test Report

Equipment : Sophos Wireless Access Point AP100

Brand Name : Sophos Model No. : AP 100

FCC ID : 2ACTO-AP100

Standard : 47 CFR FCC Part 15.407

Operating Band : 5250 MHz - 5350 MHz

5470 MHz - 5725 MHz

FCC Classification: NII

Applicant : Sophos Ltd

The Pentagon, Abingdon, OX14 3YP,

United Kingdom

Manufacturer : Edimax Technology Co., Ltd.

No.3, Wu-Chuan 3rd Road, Wu-Ku Industrial Park,

New Taipei City 24891, Taiwan R.O.C.

The product sample received on Aug. 6, 2014 and completely tested on Aug. 27, 2014. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2009 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:

Vic Hsiao / Supervisor

Testing Laboratory
1190

SPORTON INTERNATIONAL INC. Page No. : 1 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



FCC Test Report

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information	5
1.2	Support Equipment	8
1.3	Testing Applied Standards	8
1.4	Testing Location Information	8
1.5	Measurement Uncertainty	9
2	TEST CONFIGURATION OF EUT	10
2.1	The Worst Case Modulation Configuration	10
2.2	The Worst Case Power Setting Parameter	
2.3	The Worst Case Measurement Configuration	11
2.4	Test Setup Diagram	12
3	TRANSMITTER TEST RESULT	13
3.1	Emission Bandwidth	13
3.2	RF Output Power	17
3.3	Peak Power Spectral Density	22
3.4	Transmitter Bandedge Emissions	26
3.5	Transmitter Unwanted Emissions	30
4	TEST EQUIPMENT AND CALIBRATION DATA	95

Report No.: FR462324-01AN



FCC Test Report

Summary of Test Result

Report No.: FR462324-01AN

Conformance Test Specifications					
Report Clause	Ref. Std. Clause	Description			
1.1.2	15.203	Antenna Requirement	Complied		
3.1	15.407(a)	Emission Bandwidth	Complied		
3.2	15.407(a)	RF Output Power (Maximum Conducted Output Power)	Complied		
3.3	15.407(a)	Peak Power Spectral Density	Complied		
3.4	15.407(b)	Transmitter Bandedge Emissions	Complied		
3.5	15.407(b)	Transmitter Unwanted Emissions	Complied		

SPORTON INTERNATIONAL INC. Page No. : 3 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



Revision History

Report No.: FR462324-01AN

Report No.	Version	Description	Issued Date
FR462324AN	Rev. 01	Initial issue of report	Sep. 16, 2014
FR462324-01AN	Rev. 01	C2PC for Add Band 2 and band 3	Sep. 29, 2014

SPORTON INTERNATIONAL INC. Page No. : 4 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



1 General Description

1.1 Information

1.1.1 RF General Information

RF General Information						
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	RF Output Power (dBm)	
5250-5350	а	5260-5320	52-64 [4]	1	21.75	
5470-5725		5500-5700	100-140 [8]	1	21.54	
5250-5350	n (HT20)	5260-5320	52-64 [4]	3/3	21.18 / 21.01	
5470-5725	ac (VHT20)	5500-5700	100-140 [8]	3/3	21.00 / 21.08	
5250-5350	n (HT40)	5270-5310	54-62 [2]	3/3	21.85 / 21.98	
5470-5725	ac (VHT40)	5510-5670	102-134 [3]	3/3	22.12 / 22.26	
5250-5350	ac (VHT80)	5290	58 [1]	3	16.50	
5470-5725		5530	106 [1]	3	16.35	

Report No.: FR462324-01AN

Note 1: RF output power specifies that Maximum Conducted Output Power.

Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

Note 3: 802.11ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.

1.1.2 Antenna Information

	Antenna Category					
\boxtimes	External antenna (antenna permanently attached)					
	No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.					

	Antenna General Information					
No.	Ant. Cat.	Ant. Type	Gain (dBi)			
1			2.58			
2	External	Dipole	2.58			
3			2.58			

Remark:

- 1. 11a only include 1TX and Port1 for emission.
- 2. HT20 and HT40 only include 3TX and Data Rate are MCS0 ~ MCS23.
- 3. VHT20 only include 3TX and Data Rate are MCS0 ~ MCS8.
- 4. VHT40 and VHT80 only include 3TX and Data Rate are MCS0 ~ MCS9.

SPORTON INTERNATIONAL INC. : 5 of 95
TEL: 886-3-327-3456 : Report Version : Rev. 01



FCC Test Report

1.1.3 Type of EUT

	Identify EUT					
EU	EUT Serial Number N/A					
Pre	Presentation of Equipment Production ; Pre-Production ; Prototype					
			of EUT			
\boxtimes	Stand-alone					
	Combined (EUT where t	ne radio part is fully integ	grated within another device	e)		
	Combined Equipment - E	Brand Name / Model No.	:			
	Plug-in radio (EUT intend	ded for a variety of host	systems)			
	Host System - Brand Na	me / Model No.:				
	Other:					
1.1.	4 Test Signal Duty	Cycle				
		Operated Mode fo	r Worst Duty Cycle			
	Operated normally mode	e for worst duty cycle				
\square	Operated test mode for	worst duty cycle				
	Test Signal Du	ty Cycle (x)		Outy Factor (10 log 1/x)		
\boxtimes	100% - IEEE 802.11a			0		
\boxtimes	100% - IEEE 802.11n (H	IT20)		0		
\boxtimes	100% - IEEE 802.11n (H	IT40)		0		
\boxtimes	100% - IEEE 802.11ac (VHT20)		0		
\boxtimes	100% - IEEE 802.11ac (VHT40)		0		
\boxtimes	100% - IEEE 802.11ac (VHT80)		0		
1.1.	1.1.5 EUT Operational Condition					
Sup	pply Voltage	AC mains	□ DC	System		
Тур	e of DC Source	External DC supply	☐ From Host System			
Tes	t Voltage	Vnom (120 V)				
Tes	t Climatic	Tnom (20°C)		☐ Tmin (-20°C)		

Report No.: FR462324-01AN

SPORTON INTERNATIONAL INC. Page No. : 6 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



FCC Test Report

1.1.6 DFS and TPC Information

The DFS Related Operating Mode(s) of the Equipment					
☐ Slave with radar detec	tion				
☐ Slave without radar de	etection				
Software / Firmware Vers	sion	9.203-3			
Power-on Cycle. (Master)		100.5 sec			
Communication Mode			☐ Frame Based		
IEEE Std. 802.11 Frequency Range (MHz)		TPC (Transmit Power Control)	Active Scan		
a / n (HT20) / ac (VHT20) 🗵 5250-5350		Yes	Yes		
n (HT40) / ac (VHT40)	⊠ 5470-5725	Yes	Yes		
ac (VHT80)	5600-5650	-	-		

Report No.: FR462324-01AN

SPORTON INTERNATIONAL INC. Page No. : 7 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

FCC Test Report No.: FR462324-01AN

1.2 Support Equipment

	Support Equipment - RF Conducted					
No.	No. Equipment Brand Name Model Name FCC ID					
1	Notebook	DELL	E5520	-		

Support Equipment - Radiated Emission					
No.	Equipment	Brand Name	Model Name	FCC ID	
1	Adapter	APD	DA-48T12	-	
2	PoE	Customer provide	Customer provide	-	
3	Notebook (Remote)	DELL	E5530	DoC	
4	HUB (Remote)	DELL	Power Connect 2816	DoC	
5	UTM (Remote)	SOPHOS	UTM110/120	DoC	

1.3 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- ANSI C63.10-2009
- FCC KDB 789033 D02 v01
- FCC KDB 644545 D03 v01
- FCC KDB 662911 v02r01
- ◆ FCC-14-30A1-UNII

1.4 Testing Location Information

	Testing Location						
\boxtimes	HWA YA	ADD	:	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.			
		TEL	:	886-3-327-3456 FAX	: 886-3-327-0973		
	Test Condition Test Site No. Test Engineer Test Environment					Test Environment	
RF Conducted				TH06-HY	Cain	22.2°C / 64%	
l	Radiated Emission 03CH02-HY Daniel 24.8°C / 59%			24.8°C / 59%			

SPORTON INTERNATIONAL INC. Page No. : 8 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



1.5 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Report No.: FR462324-01AN

	Measurement Uncertainty	
Test Item		Uncertainty
Emission bandwidth, 26dB bandwidth		±1.4 %
RF output power, conducted		±0.6 dB
Power density, conducted		±0.8 dB
Unwanted emissions, conducted	9 – 150 kHz	±0.4 dB
	0.15 – 30 MHz	±0.4 dB
	30 – 1000 MHz	±0.5 dB
	1 – 18 GHz	±0.7 dB
	18 – 40 GHz	±0.8 dB
	40 – 200 GHz	N/A
All emissions, radiated	9 – 150 kHz	±2.5 dB
	0.15 – 30 MHz	±2.3 dB
	30 – 1000 MHz	±2.6 dB
	1 – 18 GHz	±3.6 dB
	18 – 40 GHz	±3.8 dB
	40 – 200 GHz	N/A
Temperature		±0.8 °C
Humidity		±3 %
DC and low frequency voltages		±3 %
Time		±1.4 %
Duty Cycle		±1.4 %

SPORTON INTERNATIONAL INC. Page No. : 9 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



2 Test Configuration of EUT

2.1 The Worst Case Modulation Configuration

Worst Modulation Used for Conformance Testing									
Modulation Mode	Worst Data Rate / MCS								
11a	1	6-54Mbps	6 Mbps						
HT20	3	MCS 0-23	MCS 0						
HT40	3	MCS 0-23	MCS 0						
VHT20	3	MCS 0-8	MCS 0						
VHT40	3	MCS 0-9	MCS 0						
VHT80	3	MCS 0-9	MCS 0						

Report No.: FR462324-01AN

: 10 of 95

: Rev. 01

2.2 The Worst Case Power Setting Parameter

The W	The Worst Case Power Setting Parameter (5250-5350MHz band)								
Test Software Version		DOS Command							
				Test Fred	quency (MHz)				
Modulation Mode	N _{TX}		NCB: 20MH	Z	NCB:	40MHz	NCB: 80MHz		
		5260	5300	5320	5270	5310	5290		
11a	1	20	20	20	-	-	-		
HT20	3	14.5	14.5	14.5	-	-	-		
HT40	3	-	-	-	16.5	14	-		
VHT20	3	14.5	14.5	14.5	-	-	-		
VHT40	3	-	-	-	16.5	14	-		
VHT80	3	-	-	-	-	-	10.5		

The W	orst (Case Pow	er Setting	g Paramet	er (5470-	5725MHz	band)		
Test Software Version		DOS Command							
				Tes	t Frequer	ncy (MHz)			
Modulation Mode	N_{TX}	N	CB: 20M	łz	N	CB: 40MH	łz	NCB: 80MHz	
		5500	5580	5700	5510	5550	5670	5530	
11a	1	21	21.5	21	-	-	-	-	
HT20	3	16.5	16.5	15	-	-	-	-	
HT40	3	-	-	-	14	17	16.5	-	
VHT20	3	16.5	16.5	13.5	-	-	-	-	
VHT40	3	-	-	-	14.5	17	16.5	-	
VHT80	3	-	-	-	-	-	-	12.5	

SPORTON INTERNATIONAL INC. Page No.
TEL: 886-3-327-3456 Report Version

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests					
Tests Item	RF Output Power, Peak Power Spectral Density, Emission Bandwidth, Peak Excursion, Transmitter Conducted Unwanted Emissions Transmitter Conducted Bandedge Emissions				
Test Condition	Conducted measurement at transmit chains				
Modulation Mode	11a, HT20, HT40, VHT20, VHT40, VHT80				

Report No.: FR462324-01AN

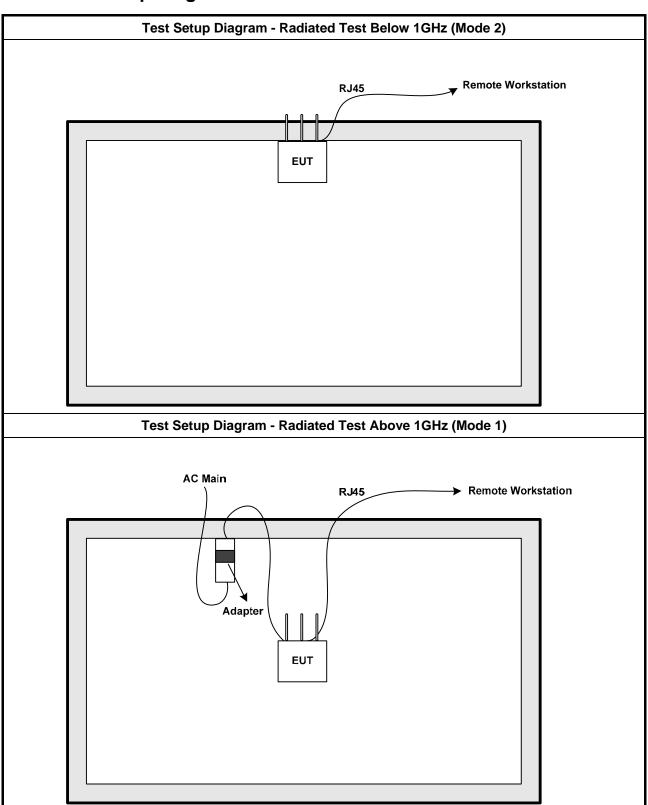
Th	e Worst Case Mode for Following Conf	formance Tests		
Tests Item	Transmitter Radiated Unwanted Emissions Transmitter Radiated Bandedge Emissions			
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.			
	☐ EUT will be placed in fixed position.			
User Position	EUT will be placed in mobile position and operating multiple positions. EUT shall be performed two orthogonal planes. The worst planes is Z.			
	EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions.			
Operating Mode < 1GHz	Operating Mode Description			
1	EUT with AC power (Transmitter)			
2	EUT with PoE (Transmitter)			
The operating	ng mode 2 is the worst case and it was	record in this test report.		
Operating Mode > 1GHz	Operating Mode Description			
1	EUT with AC power (Transmitter)			
Modulation Mode	11a, HT20, HT40, VHT20, VHT40, VHT8	30		
	X Plane	Z Plane		
Orthogonal Planes of EUT				

SPORTON INTERNATIONAL INC. Page No. : 11 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



Report No.: FR462324-01AN

Test Setup Diagram 2.4



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 Page No. : 12 of 95 Report Version : Rev. 01



3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

	Emission Bandwidth Limit							
	EIIIISSIOII DAIIUWIUUII LIIIIIU							
UN	JNII Devices							
	For the 5.15-5.25 GHz band, N/A							
\boxtimes	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.							
\boxtimes	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.							
	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.							

Report No.: FR462324-01AN

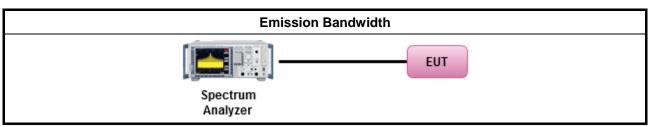
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

			Test Method
\boxtimes	For	the e	mission bandwidth shall be measured using one of the options below:
		Ref	er as FCC KDB 789033 D02 v01, clause C for EBW and clause D for OBW measurement.
		Ref	er as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
		Ref	er as IC RSS-Gen, clause 4.6 for bandwidth testing.
\boxtimes	For	cond	ucted measurement.
		The 1.	EUT supports single transmit chain and measurements performed on this transmit chain port
		The	EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
		The	EUT supports multiple transmit chains using options given below:
			Option 1: Multiple transmit chains measurements need to be performed on one of the active transmit chains (antenna outputs). All measurement had be performed on transmit chains 1.
			Option 2: Multiple transmit chains measurements need to be performed on each transmit chains individually (antenna outputs). All measurement had be performed on all transmit chains.

3.1.4 Test Setup



SPORTON INTERNATIONAL INC. Page No. : 13 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



3.1.5 Test Result of Emission Bandwidth

	UNII Emission Bandwidth Result (5250-5350MHz band)									
Condit	ion		Emission Bandwidth (MHz)							
		F===		99% Bandwidt	h	2	26dB Bandwidt	h		
Modulation Mode	N _{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 1	Chain Port 2	Chain Port 3		
11a	1	5260	16.64	-	-	20.15	-	-		
11a	1	5300	16.89	-	-	20.05	-	-		
11a	1	5320	16.69	-	-	20.07	-	-		
HT20	3	5260	17.74	17.79	17.71	21.20	20.65	21.35		
HT20	3	5300	17.74	17.89	17.71	21.30	22.87	21.22		
HT20	3	5320	18.16	17.71	17.91	21.82	20.67	22.40		
HT40	3	5270	36.74	36.66	36.66	46.04	46.08	44.28		
HT40	3	5310	36.70	36.66	36.70	44.76	44.56	45.00		
VHT20	3	5260	18.06	17.76	17.79	21.07	20.40	21.50		
VHT20	3	5300	17.91	17.84	17.76	20.80	22.45	21.57		
VHT20	3	5320	17.89	17.84	17.69	21.47	21.25	21.00		
VHT40	3	5270	36.58	36.82	36.58	45.28	44.72	43.88		
VHT40	3	5310	36.74	36.74	36.66	43.88	45.04	43.76		
VHT80	3	5290	75.72	75.80	75.80	87.76	87.36	85.04		
Resu	ılt			•	Com	plied	•	•		

Report No.: FR462324-01AN

SPORTON INTERNATIONAL INC. Page No. : 14 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

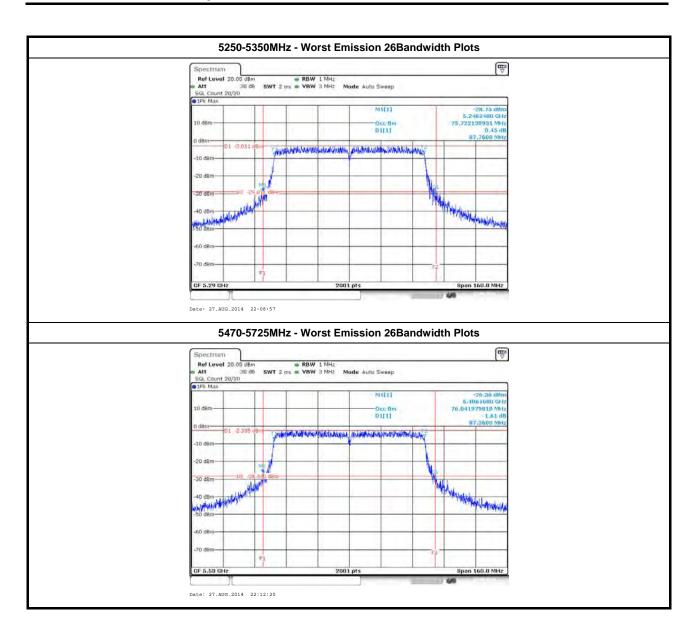


FCC Test Report

Condit	ion		Emission Bandwidth (MHz)						
		Freg.		99% Bandwidt	1	2	26dB Bandwidt	h	
Modulation Mode	N _{TX}	(MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Chain Port 1	Chain Port 2	Chain Port 3	
11a	1	5500	16.61	-	-	20.27	-	-	
11a	1	5580	16.49	-	-	19.67	-	-	
11a	1	5700	16.74	-	-	20.10	-	-	
HT20	3	5500	17.84	18.01	17.84	21.60	21.50	22.02	
HT20	3	5580	17.76	17.74	18.06	20.80	22.17	21.22	
HT20	3	5700	17.89	17.76	17.89	20.72	21.02	22.10	
HT40	3	5510	36.70	36.74	36.62	44.84	42.96	44.44	
HT40	3	5550	36.74	36.58	36.62	45.24	44.44	45.40	
HT40	3	5670	36.58	36.66	36.54	44.40	45.44	43.16	
VHT20	3	5500	17.69	17.71	17.79	21.15	20.60	21.05	
VHT20	3	5580	17.71	17.81	17.91	21.92	21.00	22.07	
VHT20	3	5700	17.96	17.86	17.76	21.15	21.30	21.15	
VHT40	3	5510	36.66	36.66	36.70	44.88	45.80	45.32	
VHT40	3	5550	36.74	36.50	36.62	45.48	44.60	43.48	
VHT40	3	5670	36.66	36.54	36.58	43.40	45.80	44.76	
VHT80	3	5530	75.88	76.04	75.80	87.04	87.36	85.28	

Report No. : FR462324-01AN

SPORTON INTERNATIONAL INC. Page No. : 15 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



Report No.: FR462324-01AN

3.2 RF Output Power

3.2.1 RF Output Power Limit

	Maximum Conducted Output Power Limit
UNI	Devices
	For the 5.15-5.25 GHz band:
	Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_T > 6 dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees \leq 125mV [21dBm]
	Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} = 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$
	Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 V If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$.
	Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesse of 250 mW. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
\boxtimes	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
\boxtimes	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesse of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
	For the 5.725-5.85 GHz band:
	Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$.
	Point-to-point systems (P2P): the maximum conducted output power (P _{Out}) shall not exceed the lesser of 1 W.
	= maximum conducted output power in dBm, = the maximum transmitting antenna directional gain in dBi.

Report No.: FR462324-01AN

3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

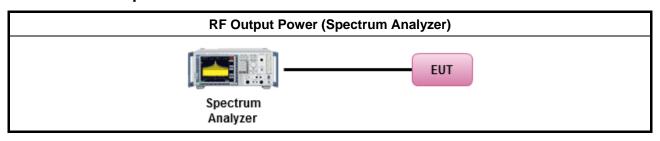
SPORTON INTERNATIONAL INC. Page No. : 17 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

3.2.3 Test Procedures

		Test Method					
	Max	rimum Conducted Output Power					
	[dut	y cycle ≥ 98% or external video / power trigger]					
	\boxtimes	Refer as FCC KDB 789033 D02 v01, clause E Method SA-1 (spectral trace averaging).					
		Refer as FCC KDB 789033 D02 v01, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)					
	duty	cycle < 98% and average over on/off periods with duty factor					
		Refer as FCC KDB 789033 D02 v01, clause E Method SA-2 (spectral trace averaging).					
	Refer as FCC KDB 789033 D02 v01, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)						
	Wideband RF power meter and average over on/off periods with duty factor						
		Refer as FCC KDB 789033 D02 v01, clause E Method PM (using an RF average power meter).					
\boxtimes	For	conducted measurement.					
		The EUT supports single transmit chain and measurements performed on this transmit chain port 1.					
		The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.					
	\boxtimes	The EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.					
		If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$					

Report No.: FR462324-01AN

3.2.4 Test Setup



SPORTON INTERNATIONAL INC. Page No. : 18 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

3.2.5 Directional Gain for Power Measurement

Directional Gain (DG) Result							
Transmit Chair	ns No.	1	2	3	-		
Maximum G _{AN}	(dBi)	2.58	2.58	2.58	-		
Modulation Mode	DG (dBi) (See the Note 3)	N _{TX}	N _{ss} (Min.)	STBC	Array Gain (dB)		
11a	2.58	1	1	-	-		
HT20	7.35	3	1/2/3	-	4.77		
HT40	7.35	3	1/2/3	-	4.77		
VHT20	7.35	3	1/2/3	-	4.77		
VHT40	7.35	3	1/2/3	-	4.77		
VHT80	7.35	3	1/2/3	-	4.77		

Report No.: FR462324-01AN

- Note 1: For all transmitter outputs with equal antenna gains, directional gain is to be computed as follows: Any transmit signals are correlated, Directional Gain = G_{ANT} + 10 log(N_{TX})

 All transmit signals are completely uncorrelated, Directional Gain = G_{ANT}
- Note 2: For all transmitter outputs with unequal antenna gains, directional gain is to be computed as follows: Any transmit signals are correlated, Directional Gain = 10 log[(10^{G1/20} +... + 10^{GN/20})² /N_{TX}] All transmit signals are completely uncorrelated, Directional Gain = 10 log[(10^{G1/10} +... + 10^{GN/10)}/N_{TX}]
- Note 3: For Spatial Multiplexing, Directional Gain (DG) = G_{ANT} + 10 log(N_{TX}/N_{SS}), where Nss = the number of independent spatial streams data.
- Note 4: For CDD transmissions, directional gain is calculated as power measurements: Directional Gain (DG) = G_{ANT} + Array Gain, where Array Gain is as follows: Array Gain = 0 dB (i.e., no array gain) for $N_{TX} \le 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{TX}

SPORTON INTERNATIONAL INC. Page No. : 19 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



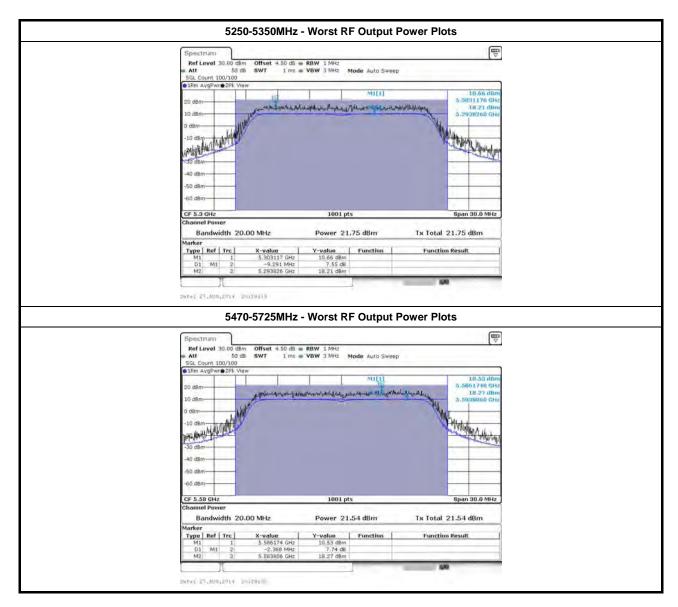
3.2.6 Test Result of Maximum Conducted Output Power

	Maximum Conducted Output Power (5250-5350MHz band)									
		F===		Output Po	Antonno Coin					
Modulation Mode	N _{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Sum Chain	Antenna Gain (dBi)	Power Limit		
11a	1	5260	21.64	-	-	21.64	2.58	24.22		
11a	1	5300	21.75	-	-	21.75	2.58	24.33		
11a	1	5320	21.62	-	-	21.62	2.58	24.20		
HT20	3	5260	15.79	16.85	15.47	20.85	7.35	28.20		
HT20	3	5300	16.01	16.81	15.80	21.00	7.35	28.35		
HT20	3	5320	15.83	16.67	16.67	21.18	7.35	28.53		
HT40	3	5270	17.26	16.98	17.00	21.85	7.35	29.20		
HT40	3	5310	15.18	15.97	15.19	20.23	7.35	27.58		
VHT20	3	5260	15.97	17.00	15.63	21.01	7.35	28.36		
VHT20	3	5300	16.09	17.09	15.30	20.99	7.35	28.34		
VHT20	3	5320	16.11	16.89	15.53	20.98	7.35	28.33		
VHT40	3	5270	17.35	17.22	17.04	21.98	7.35	29.33		
VHT40	3	5310	15.18	15.98	15.17	20.23	7.35	27.58		
VHT80	3	5290	11.38	12.36	11.37	16.50	7.35	23.85		
Resu	ılt					Complied				

Report No.: FR462324-01AN

Maximum Conducted Output Power (5470-5725MHz band)									
		F		Output Po	Antonno Coin				
Modulation Mode	N _{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	Chain Port 3	Sum Chain	Antenna Gain (dBi)	Power Limit	
11a	1	5500	20.70	-	-	20.70	2.58	23.28	
11a	1	5580	21.54	-	-	21.54	2.58	24.12	
11a	1	5700	21.01	-	-	21.01	2.58	23.59	
HT20	3	5500	16.22	16.37	16.08	21.00	7.35	28.35	
HT20	3	5580	16.21	16.36	15.95	20.95	7.35	28.30	
HT20	3	5700	14.85	14.76	14.23	19.39	7.35	26.74	
HT40	3	5510	13.32	13.60	13.63	18.29	7.35	25.64	
HT40	3	5550	17.50	17.01	17.52	22.12	7.35	29.47	
HT40	3	5670	16.93	16.95	16.44	21.55	7.35	28.90	
VHT20	3	5500	16.37	16.56	15.77	21.02	7.35	28.37	
VHT20	3	5580	16.42	16.69	15.75	21.08	7.35	28.43	
VHT20	3	5700	13.44	13.32	12.07	17.76	7.35	25.11	
VHT40	3	5510	13.72	14.02	13.96	18.67	7.35	26.02	
VHT40	3	5550	17.48	17.55	17.45	22.26	7.35	29.61	
VHT40,	3	5670	16.83	16.90	16.49	21.51	7.35	28.86	
VHT80	3	5530	11.34	11.74	11.65	16.35	7.35	23.70	
Resu	ılt				•	Complied			

SPORTON INTERNATIONAL INC. Page No. : 20 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



Report No.: FR462324-01AN

Operated Mode for Worst Duty Cycle					
Operated normally mode for worst duty cycle					
Operated test mode for worst duty cycle					
Test Signal Duty Cycle (x)	Power Duty Factor [dB] – (10 log 1/x)				
100% - IEEE 802.11a	0				
100% - IEEE 802.11n (HT20)	0				
100% - IEEE 802.11n (HT40)	0				
100% - IEEE 802.11ac (VHT20)	0				
100% - IEEE 802.11ac (VHT40)	0				
100% - IEEE 802.11ac (VHT80)	0				

Note 1: RF Output Power Plots w/o Duty Factor

SPORTON INTERNATIONAL INC. Page No. : 21 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

3.3 Peak Power Spectral Density

3.3.1 Peak Power Spectral Density Limit

		Peak Power Spectral Density Limit
UNI	I Dev	vices
	For	the 5.15-5.25 GHz band:
		Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
		Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
		Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$.
		Mobile or Portable Client: the peak power spectral density (PPSD) \leq 11 dBm/MHz. If $G_{TX} > 6$ dBi, then PPSD= 11 $-$ ($G_{TX} - 6$)
\boxtimes		the 5.25-5.35 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. If $G_{TX} > 6$ dBi, a PPSD= 11 – ($G_{TX} - 6$).
\boxtimes		the 5.47-5.725 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. If $G_{TX} > 6$ dBi, a PPSD= 11 – ($G_{TX} - 6$).
	For	the 5.725-5.85 GHz band:
		Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) \leq 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then PPSD= $30 - (G_{TX} - 6)$.
		Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
pow	er sh	peak power spectral density that he same method as used to determine the conducted output nall be used to determine the power spectral density. And power spectral density in dBm/MHz e maximum transmitting antenna directional gain in dBi.

Report No.: FR462324-01AN

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

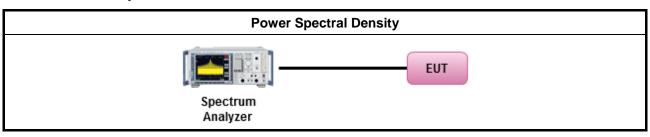
SPORTON INTERNATIONAL INC. Page No. : 22 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

3.3.3 Test Procedures

		Test Method
	outp funct	s power spectral density procedures that the same method as used to determine the conducted out power shall be used to determine the peak power spectral density and use the peak search cion on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density be measured using below options:
		Refer as FCC KDB 789033 D02 v01, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
	[duty	cycle ≥ 98% or external video / power trigger]
	\boxtimes	Refer as FCC KDB 789033 D02 v01, clause E Method SA-1 (spectral trace averaging).
		Refer as FCC KDB 789033 D02 v01, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty	cycle < 98% and average over on/off periods with duty factor
		Refer as FCC KDB 789033 D02 v01, clause E Method SA-2 (spectral trace averaging).
		Refer as FCC KDB 789033 D02 v01, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
\boxtimes	For o	conducted measurement.
	\boxtimes	The EUT supports single transmit chain and measurements performed on this transmit chain port 1.
		The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
		The EUT supports multiple transmit chains using options given below:
		Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
		Option 2: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
		If multiple transmit chains, EIRP PPSD calculation could be following as methods: $ PPSD_{total} = PPSD_1 + PPSD_2 + \ldots + PPSD_n \\ (calculated in linear unit [mW] and transfer to log unit [dBm]) \\ EIRP_{total} = PPSD_{total} + DG $
		Each individually PPSD plots refer as test report clause 3.3.5 with each individually PPSD plots.

Report No.: FR462324-01AN

3.3.4 Test Setup



SPORTON INTERNATIONAL INC. Page No. : 23 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

3.3.5 Test Result of Peak Power Spectral Density

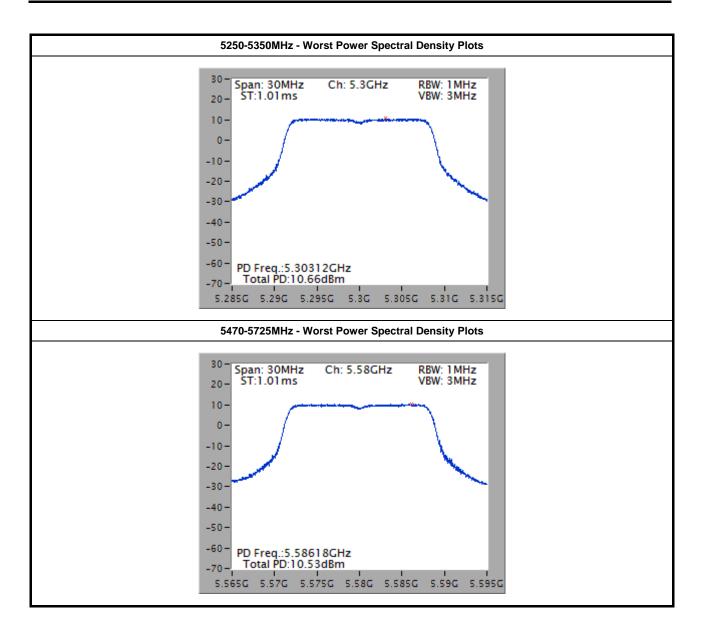
	Peak Power Spectral Density Result (5250-5350MHz band)										
Modulation Mode	N _{TX}	Freq. (MHz)	Peak Power Spectral Density (dBm)	PSD Limit	Antenna Gain (dBi)						
11a	1	5260	10.51	11.00	2.58						
11a	1	5300	10.66	11.00	2.58						
11a	1	5320	10.61	11.00	2.58						
HT20	3	5260	9.19	9.65	7.35						
HT20	3	5300	9.41	9.65	7.35						
HT20	3	5320	9.39	9.65	7.35						
HT40	3	5270	7.16	9.65	7.35						
HT40	3	5310	5.59	9.65	7.35						
VHT20	3	5260	9.35	9.65	7.35						
VHT20	3	5300	9.51	9.65	7.35						
VHT20	3	5320	9.32	9.65	7.35						
VHT40	3	5270	7.24	9.65	7.35						
VHT40	3	5310	5.62	9.65	7.35						
VHT80	3	5290	-1.40	9.65	7.35						
Resu	ılt			Complied							

Report No.: FR462324-01AN

	Peak Power Spectral Density Result (5470-5725MHz band)									
Modulation Mode	N _{TX}	Freq. (MHz)	Peak Power Spectral Density (dBm)	PSD Limit	Antenna Gain (dBi)					
11a	1	5500	9.67	11.00	2.58					
11a	1	5580	10.53	11.00	2.58					
11a	1	5700	9.99	11.00	2.58					
HT20	3	5500	9.44	9.65	7.35					
HT20	3	5580	9.42	9.65	7.35					
HT20	3	5700	7.86	9.65	7.35					
HT40	3	5510	3.74	9.65	7.35					
HT40	3	5550	7.58	9.65	7.35					
HT40	3	5670	7.11	9.65	7.35					
VHT20	3	5500	9.35	9.65	7.35					
VHT20	3	5580	9.51	9.65	7.35					
VHT20	3	5700	6.23	9.65	7.35					
VHT40	3	5510	4.00	9.65	7.35					
VHT40	3	5550	7.60	9.65	7.35					
VHT40	3	5670	6.90	9.65	7.35					
VHT80	3	5530	-1.40	9.65	7.35					
Resu	ult			Complied						

SPORTON INTERNATIONAL INC. Page No. : 24 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01





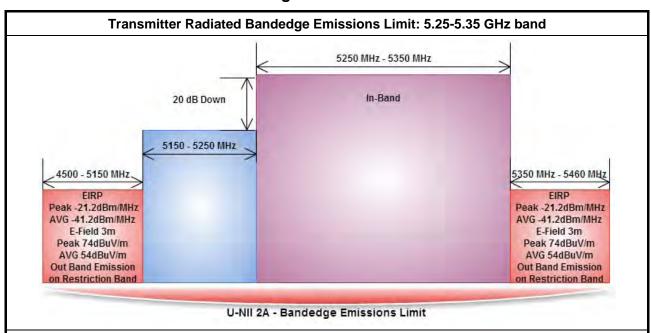
FAX: 886-3-327-0973

Page No. : 25 of 95 Report Version : Rev. 01



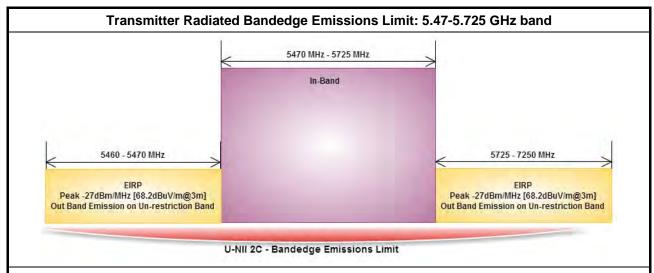
3.4 Transmitter Bandedge Emissions

3.4.1 Transmitter Radiated Bandedge Emissions Limit



Report No.: FR462324-01AN

Refer as FCC KDB 789033 D02 v01, G)2)c)(i) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.



Refer as FCC KDB 789033 D02 v01, G)2)c)(i) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

SPORTON INTERNATIONAL INC. Page No. : 26 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



FCC Test Report Report No.: FR462324-01AN

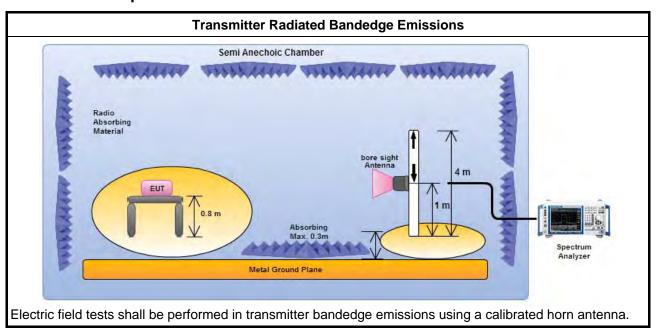
3.4.3 Test Procedures

		Test Method						
\boxtimes	The	average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].						
\boxtimes	Refer as ANSI C63.10, clause 6.9.2.2 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.							
	char will d at lo	UT operate in adjacent contiguous bands, bandedge testing performed at the lowest frequency need at lower-band and highest frequency channel at higher-band. Transmitter in-band emissions consist of adjacent contiguous bands (e.g., IEEE 802.11ac VHT160 The lowest frequency channel ower-band and highest frequency channel at higher-band in-band emissions will consist of two cent contiguous bands.)						
		Operating in 5.15-5.25 GHz band (lower-band) and 5.25-5.35 GHz band (higher-band).						
		Operating in 5.47-5.725 GHz band (lower-band) and 5.725-5.85 GHz band (higher-band).						
	char	JT operate in individual non-contiguous bands, bandedge testing performed at the lowest frequency nnel and highest frequency channel within lower-band and higher-band. (e.g., (e.g., IEEE 802.11ac 160)						
		Operating in 5.25-5.35 GHz band (lower-band) and 5.47-5.725 GHz band (higher-band).						
		Operating in 5.15-5.25 GHz band (lower-band) and 5.725-5.85 GHz band (higher-band).						
\boxtimes	Fort	the transmitter unwanted emissions shall be measured using following options below:						
	\boxtimes	Refer as FCC KDB 789033 D02 v01, clause H)2) for unwanted emissions into non-restricted bands.						
		Refer as FCC KDB 789033 D02 v01, clause H)1) for unwanted emissions into restricted bands.						
		Refer as FCC KDB 789033 D02 v01, H)6) Method AD (Trace Averaging).						
		Refer as FCC KDB 789033 D02 v01, H)6) Method VB (Reduced VBW).						
		Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.						
		Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.						
		Refer as FCC KDB 789033 D02 v01, clause H)5) measurement procedure peak limit.						
		Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.						
\boxtimes	Fort	the transmitter bandedge emissions shall be measured using following options below:						
		Refer as FCC KDB 789033 D02 v01, clause H)3)d) for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).						
		Refer as ANSI C63.10, clause 6.9.2 for band-edge testing.						
		Refer as ANSI C63.10, clause 6.9.3 for marker-delta method for band-edge measurements.						
\boxtimes	For	radiated measurement, refer as ANSI C63.10, clause 6.6. Test distance is 3m.						
	perfo equi extra dista mea	surements may be performed at a distance other than the limit distance provided they are not ormed in the near field and the emissions to be measured can be detected by the measurement pment. When performing measurements at a distance other than that specified, the results shall be applied to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear ance for field-strength measurements, inverse of linear distance-squared for power-density surements). Measurements in the bandedge are typically made at a closer distance 3m, because instrumentation noise floor is typically close to the radiated emission limit.						

SPORTON INTERNATIONAL INC. Page No. : 27 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

SPORTON LAB.

3.4.4 Test Setup



Report No.: FR462324-01AN

SPORTON INTERNATIONAL INC. Page No. : 28 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

3.4.5 Transmitter Radiated Bandedge Emissions (with Antenna)

U-NII 5250-5350MHz Transmitter Radiated Bandedge (with Antenna)										
Modulation Mode	N _{TX}	Freq. (MHz)	Measure Distance (m)	Freq. (MHz) PK	Level (dBuV/m) PK	Limit (dBuV/m) PK	Freq. (MHz) AV	Level (dBuV/m) AV	Limit (dBuV/m) AV	Pol.
11a	1	5260	3	5124.60	59.80	74	5109.60	46.06	54	V
11a	1	5320	3	5352.56	67.47	74	5350.04	52.13	54	V
HT20	3	5260	3	5144.40	60.34	74	5115.00	46.76	54	V
HT20	3	5320	3	5352.56	70.05	74	5352.14	52.98	54	V
HT40	3	5270	3	5146.20	60.83	74	5118.00	47.20	54	V
HT40	3	5310	3	5353.54	70.05	74	5350.03	52.88	54	V
VHT20	3	5260	3	5124.00	60.26	74	5116.20	46.90	54	V
VHT20	3	5320	3	5350.74	70.61	74	5350.32	52.83	54	V
VHT40	3	5270	3	5110.20	60.72	74	5112.60	46.95	54	V
VHT40	3	5310	3	5351.20	68.05	74	5350.12	52.55	54	V
VHT80	3	5290	3	5117.40	59.00	74	5134.80	45.45	54	V
VHT80	3	5290	3	5351.40	70.37	74	5350.50	52.70	54	V

Report No.: FR462324-01AN

Modulation	١	Freq.	Measure	Freq.	Level	Limit	Freq.	Level	Limit	
Mode	N _{TX}	(MHz)	Distance (m)	(MHz) PK	(dBuV/m) PK	(dBuV/m) PK	(MHz) AV	(dBuV/m) AV	(dBuV/m) AV	Pol.
11a	1	5500	3	5459.28	65.82	74	5460.00	48.83	54	V
11a	1	5700	3	5726.00	66.47	68.2	-	-	-	V
HT20	3	5500	3	5448.24	61.10	74	5449.20	47.17	54	V
HT20	3	5700	3	5725.04	66.57	68.2	-	-	-	V
HT40	3	5510	3	5455.60	59.78	74	5459.90	46.33	54	V
HT40	3	5670	3	5728.60	66.45	68.2	-	-	-	V
VHT20	3	5500	3	5459.28	62.32	74	5451.40	46.95	54	V
VHT20	3	5700	3	5727.12	66.97	68.2	-	-	-	V
VHT40	3	5510	3	5452.00	58.12	74	5458.40	46.40	54	V
VHT40	3	5670	3	5726.20	66.58	68.2	-	-	-	V
VHT80	3	5530	3	5458.80	65.40	74	5459.76	51.69	54	V
VHT80	3	5530	3	5725.04	51.97	68.2	-	-	-	V

SPORTON INTERNATIONAL INC. Page No. : 29 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



3.5 Transmitter Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit									
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)						
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300						
0.490~1.705	24000/F(kHz)	33.8 - 23	30						
1.705~30.0	30	29	30						
30~88	100	40	3						
88~216	150	43.5	3						
216~960	200	46	3						
Above 960	500	54	3						

Report No.: FR462324-01AN

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

	Un-restricted band emissions above 1GHz Limit						
Operating Band Limit							
5.15 - 5.25 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
5.25 - 5.35 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
5.47 - 5.725 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
5.725 - 5.85 GHz	5.715 5.725 GHz: e.i.r.p17 dBm [78.2 dBuV/m@3m] 5.85 5.86 GHz: e.i.r.p17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p27 dBm [68.2 dBuV/m@3m]						

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

SPORTON INTERNATIONAL INC. Page No. : 30 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



FCC Test Report Report No.: FR462324-01AN

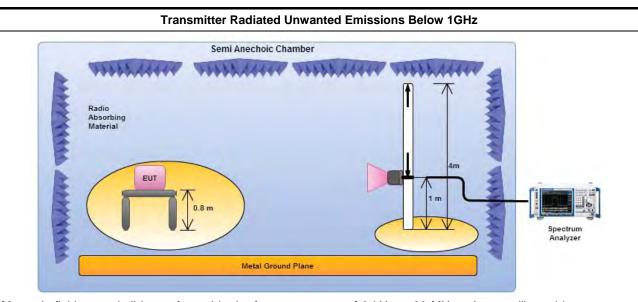
3.5.3 Test Procedures

	Test Method									
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).										
The	average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].									
For the transmitter unwanted emissions shall be measured using following options below:										
Refer as FCC KDB 789033 D02 v01, clause G)2) for unwanted emissions into non-restricted bands.										
Refer as FCC KDB 789033 D02 v01, clause G)1) for unwanted emissions into restricted bands										
Refer as FCC KDB 789033 D02 v01, G)6) Method AD (Trace Averaging).										
	Refer as FCC KDB 789033 D02 v01, G)6) Method VB (Reduced VBW).									
	Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.									
	Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.									
	Refer as FCC KDB 789033 D02 v01, clause G)5) measurement procedure peak limit.									
	Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.									
For	radiated measurement.									
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.									
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.									
\boxtimes	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. For 1 GHz to 5 GHz, test distance is 3m; For 5 GHz to 40 GHz, test distance is 3m.									
The	any unwanted emissions level shall not exceed the fundamental emission level.									
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.										

SPORTON INTERNATIONAL INC. Page No. : 31 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Test Setup

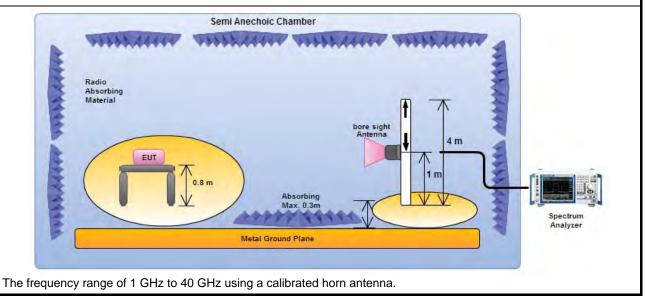
3.5.4



Report No.: FR462324-01AN

Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna. Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna.

Transmitter Radiated Unwanted Emissions Above 1GHz



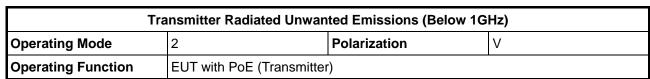
3.5.5 Transmitter Radiated Unwanted Emissions-with Antenna (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

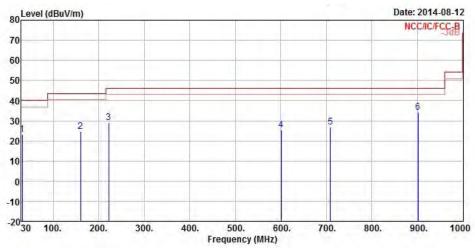
SPORTON INTERNATIONAL INC. Page No. : 32 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

3.5.6

Transmitter Radiated Unwanted Emissions (Below 1GHz)



Report No.: FR462324-01AN



	Freq	Level	Over Limit	Limit Line		Antenna Factor				A/Pos	T/Pos
-	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	31.94	23.30	-16.70	40.00	32.74	17.57	0.76	27.77	Peak		
2	159.98	24.67	-18.83	43.50	40.24	10.16	1.83	27.56	Peak		
3	222.06	29.11	-16.89	46.00	44.80	9.51	2.17	27.37	Peak		
4	600.36	25.22	-20.78	46.00	31.32	18.70	3.70	28.50	Peak	644	666
5	709.00	26.96	-19.04	46.00	32.14	19.07	4.03	28.28	Peak	1	
6	901.06	34.30	-11.70	46.00	36.93	20.59	4.55	27.77	Peak	7-2-	

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).

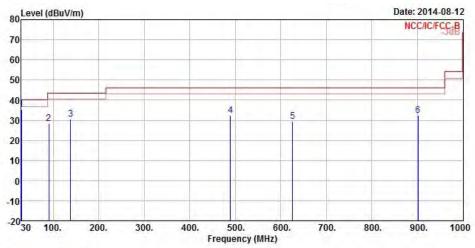
Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 33 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

FCC Test Report

Report No. : FR462324-01AN





	7520		Freq		7550			Level	Over Limit	1 - 7 - 7		Antenna Factor				A/Pos	T/Pos
7								MHz	MHz	MHz	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB
1	30.00	35.53	-4.47	40.00	44.12	18.47	0.75	27.81	QP		1999						
2	90.14	28.20	-15.30	43.50	45.89	8.68	1.34	27.71	Peak	1-2-							
2	138.64	30.46	-13.04	43.50	45.12	11.28	1.69	27.63	Peak								
4	489.78	32.33	-13.67	46.00	39.89	17.61	3.21	28.38	Peak	1666							
5	625.58	29.49	-16.51	46.00	35.05	19.11	3.78	28.45	Peak	1,							
6	901.06	32.32	-13.68	46.00	34.95	20.59	4.55	27.77	Peak								

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

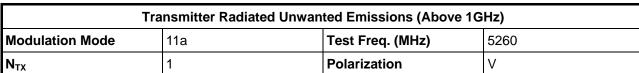
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).

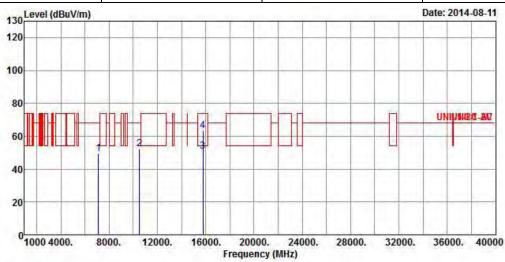
Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 34 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5250-5350MHz

Report No.: FR462324-01AN





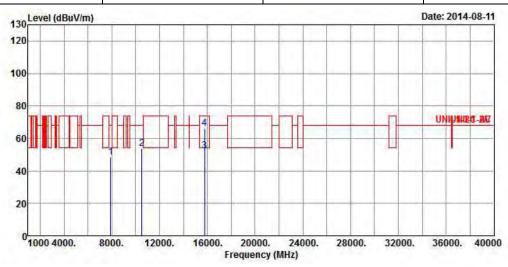
			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7134.00	49.42	-18.78	68.20	43.17	35.94	5.23	34.92	Peak		222
2	10520.00	52.09	-16.11	68.20	43.51	37.22	6.27	34.91	Peak		
3	15780.00	50.62	-3.38	54.00	37.35	40.60	7.79	35.12	Average		
4	15780.00	63.30	-10.70	74.00	50.03	40.60	7.79	35.12	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 35 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

port Report No. : FR462324-01AN

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	11a	Test Freq. (MHz)	5260							
N_{TX}	1	Polarization	Н							

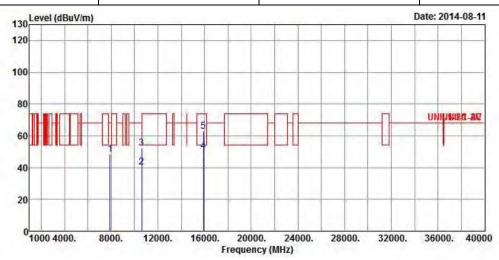


	Freq	Level				Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7920.00	48.67	-19.53	68.20	42.70	35.72	5.38	35.13	Peak		
2	10520.00	53.90	-14.30	68.20	45.32	37.22	6.27	34.91	Peak		
3	15780.00	52.06	-1.94	54.00	38.79	40.60	7.79	35.12	Average		
4	15780.00	66.16	-7.84	74.00	52.89	40.60	7.79	35.12	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 36 of 95
TEL: 886-3-327-3456 : Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	11a	Test Freq. (MHz)	5300						
N _{TX}	1	Polarization	V						

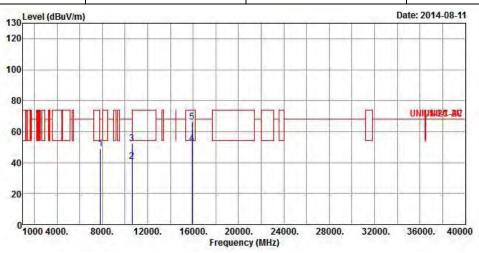


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	444	10000
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7920.00	48.64	-19.56	68.20	42.67	35.72	5.38	35.13	Peak	lage	1225
2	10600.00	40.43	-13.57	54.00	31.58	37.30	6.27	34.72	Average		
3	10600.00	52.23	-15.97	68.20	43.38	37.30	6.27	34.72	Peak		
4	15900.00	50.28	-3.72	54.00	37.01	40.81	7.69	35.23	Average		
5	15900.00	62.86	-11.14	74.00	49.59	40.81	7.69	35.23	Peak	244	222

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 37 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode 11a Test Freq. (MHz) 5300									
N _{TX}	1	Polarization	Н							

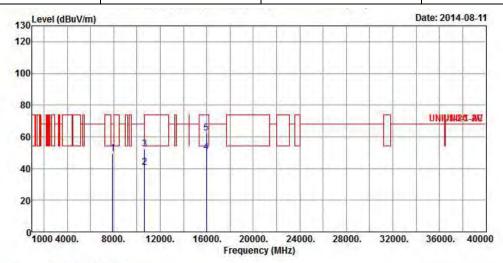


	Freq	Level	Over Limit			Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7828.00	48.90	-19.30	68.20	42.83	35.73	5.44	35.10	Peak	1445	1224
2	10600.00	40.70	-13.30	54.00	31.85	37.30	6.27	34.72	Average		
3	10600.00	52.39	-15.81	68.20	43.54	37.30	6.27	34.72	Peak		
4	15900.00	52.14	-1.86	54.00	38.87	40.81	7.69	35.23	Average		
5	15900.00	66.12	-7.88	74.00	52.85	40.81	7.69	35.23	Peak	1446	222

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 38 of 95
TEL: 886-3-327-3456 : Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode 11a Test Freq. (MHz) 5320									
N_{TX}	V									

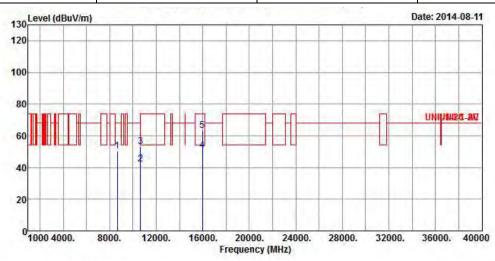


			0ver	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7920.00	49.32	-18.88	68.20	43.35	35.72	5.38	35.13	Peak	+++	666
2	10640.00	40.92	-13.08	54.00	31.91	37.34	6.26	34.59	Average	1000	1000
3	10640.00	52.06	-21.94	74.00	43.05	37.34	6.26	34.59	Peak	+++	444
4	15960.00	50.26	-3.74	54.00	37.02	40.94	7.62	35.32	Average		
5	15960.00	62.21	-11.79	74.00	48.97	40.94	7.62	35.32	Peak	666	-555

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 39 of 95
TEL: 886-3-327-3456 : Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode 11a Test Freq. (MHz) 5320									
N_{TX}	1	Polarization	Н						



	Freq	Level				Antenna Factor		19.50.00		A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8660.00	50.32	-17.88	68.20	43.85	35.97	5.62	35.12	Peak	444	444
2	10640.00	42.02	-11.98	54.00	33.01	37.34	6.26	34.59	Average	1000	1000
3	10640.00	53.45	-20.55	74.00	44.44	37.34	6.26	34.59	Peak	+++	444
4	15960.00	50.94	-3.06	54.00	37.70	40.94	7.62	35.32	Average		
5	15960.00	63.23	-10.77	74.00	49.99	40.94	7.62	35.32	Peak	666	688

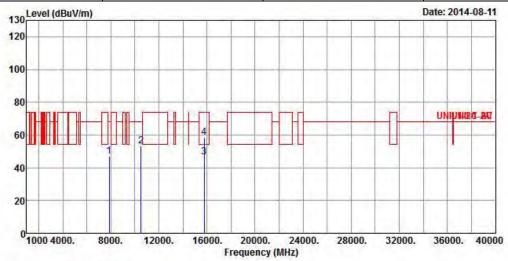
- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 40 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

FCC Test Report

Report No.: FR462324-01AN

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	HT20	Test Freq. (MHz)	5260						
N _{TX}	3	Polarization	V						

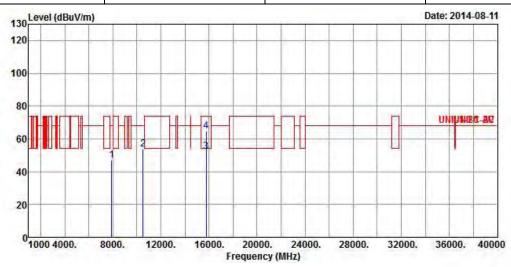


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7874.00	47.19	-21.01	68.20	41.17	35.73	5.41	35.12	Peak	1444	4
2	10520.00	53.40	-14.80	68.20	44.82	37.22	6.27	34.91	Peak		
3	15780.00	46.70	-7.30	54.00	33.43	40.60	7.79	35.12	Average		
4	15780.00	58.53	-15.47	74.00	45.26	40.60	7.79	35.12	Peak		-

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 41 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode HT20 Test Freq. (MHz) 5260									
N_{TX}	3	Polarization	Н						

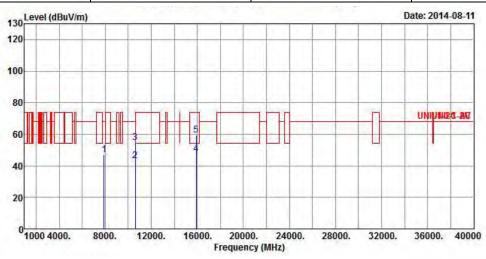


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	2000	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	_		deg
1	7920.00	46.88	-21.32	68.20	40.91	35.72	5.38	35.13	Peak	Nage:	1222
2	10520.00	53.88	-14.32	68.20	45.30	37.22	6.27	34.91	Peak		
3	15780.00	52.17	-1.83	54.00	38.90	40.60	7.79	35.12	Average		
4	15780.00	64.76	-9.24	74.00	51.49	40.60	7.79	35.12	Peak	Lebe	

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 42 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode HT20 Test Freq. (MHz) 5300									
N_{TX}	3	Polarization	V						

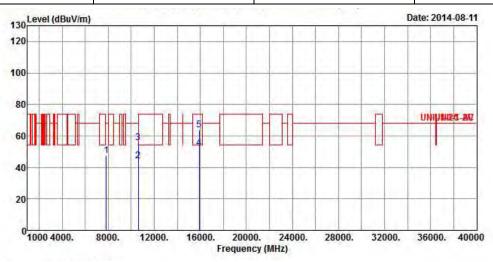


	Freq	Level		Limit Line						A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg
1	7920.00	46.83	-21.37	68.20	40.86	35.72	5.38	35.13	Peak	483	666
2	10600.00	42.96	-11.04	54.00	34.11	37.30	6.27	34.72	Average	1000	
3	10600.00	54.65	-13.55	68.20	45.80	37.30	6.27	34.72	Peak	+++	
4	15900.00	47.35	-6.65	54.00	34.08	40.81	7.69	35.23	Average		
5	15900.00	59.43	-14.57	74.00	46.16	40.81	7.69	35.23	Peak	555	666

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 43 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode HT20 Test Freq. (MHz) 5300									
N_{TX}	N _{TX} 3 Polarization H									

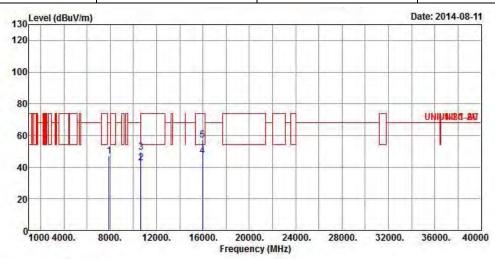


	Freq	Level				Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg
1	7828.00	47.37	-20.83	68.20	41.30	35.73	5.44	35.10	Peak	444	444
2	10600.00	43.93	-10.07	54.00	35.08	37.30	6.27	34.72	Average		
3	10600.00	55.57	-12.63	68.20	46.72	37.30	6.27	34.72	Peak		444
4	15900.00	52.17	-1.83	54.00	38.90	40.81	7.69	35.23	Average		
5	15900.00	63.94	-10.06	74.00	50.67	40.81	7.69	35.23	Peak	688	

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 44 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode HT20 Test Freq. (MHz) 5320									
N _{TX}										

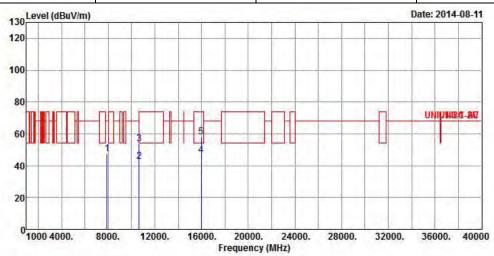


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7920.00	47.13	-21.07	68.20	41.16	35.72	5.38	35.13	Peak	. 200	
2	10640.00	42.46	-11.54	54.00	33.45	37.34	6.26	34.59	Average		
3	10640.00	49.48	-24.52	74.00	40.47	37.34	6.26	34.59	Peak		
4	15960.00	47.25	-6.75	54.00	34.01	40.94	7.62	35.32	Average		
5	15960.00	57.13	-16.87	74.00	43.89	40.94	7.62	35.32	Peak	1555	. 65-

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 45 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	HT20	Test Freq. (MHz)	5320						
N_{TX}	3	Polarization	Н						

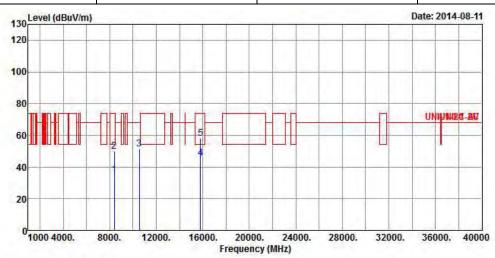


0.00000			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	200	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7920.00	47.26	-20.94	68.20	41.29	35.72	5.38	35.13	Peak	444	4
2	10640.00	42.50	-11.50	54.00	33.49	37.34	6.26	34.59	Average		
3	10640.00	53.73	-20.27	74.00	44.72	37.34	6.26	34.59	Peak		
4	15960.00	46.31	-7.69	54.00	33.07	40.94	7.62	35.32	Average	-	
5	15960.00	58.02	-15.98	74.00	44.78	40.94	7.62	35.32	Peak	444	444

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 46 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)											
Modulation Mode	Modulation Mode HT40 Test Freq. (MHz) 5270										
N_{TX}	N _{TX} 3 Polarization V										

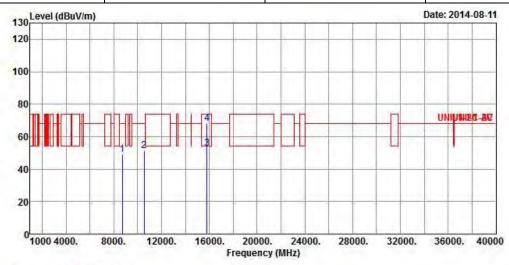


	Freq	Level	Over Limit	Limit Line		Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8396.00	34.88	-19.12	54.00	28.68	35.86	5.44	35.10	Average		
2	8396.00	49.68	-24.32	74.00	43.48	35.86	5.44	35.10	Peak		444
3	10540.00	51.44	-16.76	68.20	42.79	37.23	6.27	34.85	Peak		
4	15810.00	45.70	-8.30	54.00	32.43	40.66	7.76	35.15	Average		
5	15810.00	57.83	-16.17	74.00	44.56	40.66	7.76	35.15	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 47 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode HT40 Test Freq. (MHz) 5270									
N_{TX}	3	Polarization	Н						

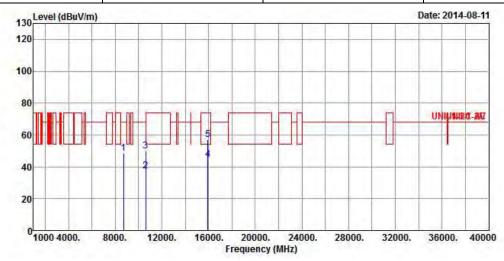


2 50000			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8732.00	48.97	-19.23	68.20	42.42	35.99	5.70	35.14	Peak	1222	1224
2	10540.00	51.32	-16.88	68.20	42.67	37.23	6.27	34.85	Peak		
3	15810.00	52.92	-1.08	54.00	39.65	40.66	7.76	35.15	Average		
4	15810.00	68.09	-5.91	74.00	54.82	40.66	7.76	35.15	Peak		1,000

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 48 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	HT40	Test Freq. (MHz)	5310						
N_{TX}	3	Polarization	V						

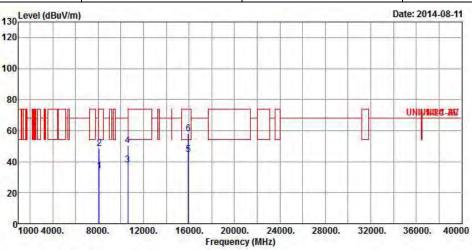


			0ver	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	08973	23.52.
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8710.00	48.54	-19.66	68.20	41.98	35.99	5.70	35.13	Peak		
2	10620.00	37.59	-16.41	54.00	28.67	37.32	6.26	34.66	Average		
3	10620.00	49.93	-24.07	74.00	41.01	37.32	6.26	34.66	Peak		
4	15930.00	44.66	-9.34	54.00	31.38	40.88	7.66	35.26	Average		
5	15930.00	57.21	-16.79	74.00	43.93	40.88	7.66	35.26	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 49 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	HT40	Test Freq. (MHz)	5310						
N _{TX}	3	Polarization	Н						

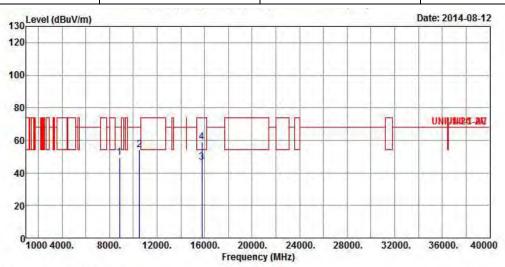


	Freq	Level	Over Limit	Limit Line		Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8116.00	34.11	-19.89	54.00	28.16	35.75	5.35	35.15	Average		
2	8116.00	48.61	-25.39	74.00	42.66	35.75	5.35	35.15	Peak		444
3	10620.00	37.85	-16.15	54.00	28.93	37.32	6.26	34.66	Average		
4	10620.00	50.23	-23.77	74.00	41.31	37.32	6.26	34.66	Peak		
5	15930.00	44.58	-9.42	54.00	31.30	40.88	7.66	35.26	Average		
6	15930.00	58.13	-15.87	74.00	44.85	40.88	7.66	35.26	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 50 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	VHT20	Test Freq. (MHz)	5260						
N_{TX}	3	Polarization	V						

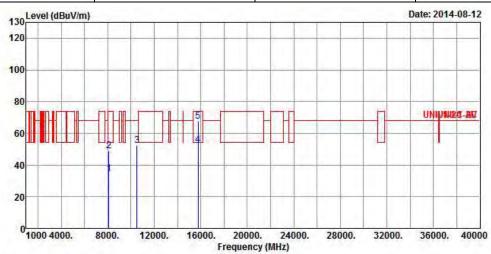


NEW T			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	9.31.2	12/19/19/1
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8864.00	49.27	-18.93	68.20	42.53	36.05	5.86	35.17	Peak		666
2	10520.00	53.99	-14.21	68.20	45.41	37.22	6.27	34.91	Peak	1000	1000
3	15780.00	46.76	-7.24	54.00	33.49	40.60	7.79	35.12	Average	455	444
4	15780.00	58.82	-15.18	74.00	45.55	40.60	7.79	35.12	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 51 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	VHT20	Test Freq. (MHz)	5260						
N_{TX}	3	Polarization	Н						

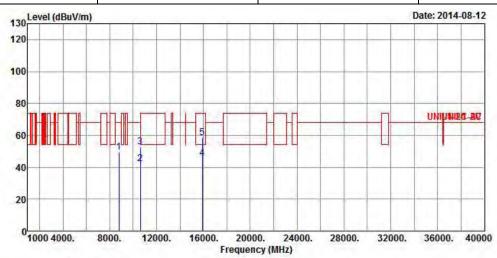


	Freq	Level				Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg
1	8116.00	34.74	-19.26	54.00	28.79	35.75	5.35	35.15	Average		
2	8116.00	48.97	-25.03	74.00	43.02	35.75	5.35	35.15	Peak		
3	10520.00	52.37	-15.83	68.20	43.79	37.22	6.27	34.91	Peak		
4	15780.00	52.58	-1.42	54.00	39.31	40.60	7.79	35.12	Average		
5	15780.00	67.49	-6.51	74.00	54.22	40.60	7.79	35.12	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 52 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	VHT20	Test Freq. (MHz)	5300						
N_{TX}	3	Polarization	V						

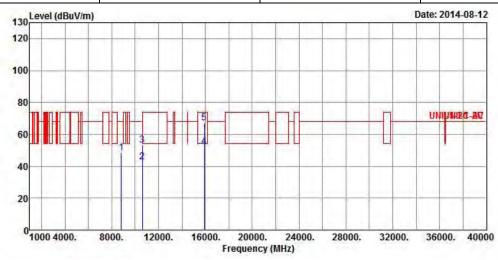


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8776.00	49.48	-18.72	68.20	42.88	36.01	5.74	35.15	Peak	1220	1244
2	10600.00	42.09	-11.91	54.00	33.24	37.30	6.27	34.72	Average		
3	10600.00	52.76	-15.44	68.20	43.91	37.30	6.27	34.72	Peak		
4	15900.00	45.62	-8.38	54.00	32.35	40.81	7.69	35.23	Average		
5	15900.00	58.58	-15.42	74.00	45.31	40.81	7.69	35.23	Peak	244	224

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 53 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	VHT20	Test Freq. (MHz)	5300						
N_{TX}	3	Polarization	Н						



			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	4.4	No.
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg
1	8820.00	48.67	-19.53	68.20	41.98	36.03	5.82	35.16	Peak	1222	1224
2	10600.00	42.78	-11.22	54.00	33.93	37.30	6.27	34.72	Average		1.000
3	10600.00	53.33	-14.87	68.20	44.48	37.30	6.27	34.72	Peak		
4	15900.00	52.22	-1.78	54.00	38.95	40.81	7.69	35.23	Average		
5	15900.00	66.96	-7.04	74.99	53.69	49.81	7.69	35.23	Peak	225	225

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

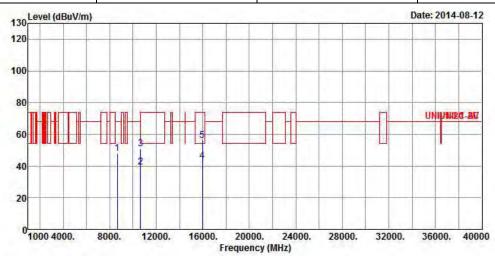
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 54 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode VHT20 Test Freq. (MHz) 5320								
N _{TX} 3 Polarization V								

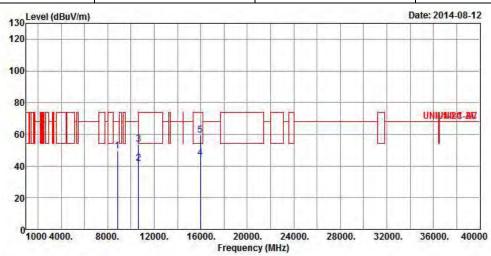


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		14.12.
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8666.00	47.86	-20.34	68.20	41.36	35.97	5.66	35.13	Peak		
2	10640.00	39.22	-14.78	54.00	30.21	37.34	6.26	34.59	Average		444
3	10640.00	50.64	-23.36	74.00	41.63	37.34	6.26	34.59	Peak		
4	15960.00	43.04	-10.96	54.00	29.80	40.94	7.62	35.32	Average		
5	15960.00	56.26	-17.74	74.00	43.02	40.94	7.62	35.32	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 55 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode VHT20 Test Freq. (MHz) 5320								
N _{TX} 3 Polarization H								

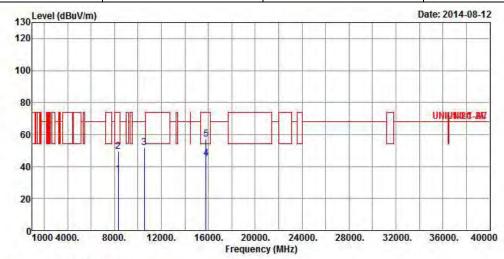


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	06.77	1112
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8864.00	49.48	-18.72	68.20	42.74	36.05	5.86	35.17	Peak		
2	10640.00	41.51	-12.49	54.00	32.50	37.34	6.26	34.59	Average		
3	10640.00	53.78	-20.22	74.00	44.77	37.34	6.26	34.59	Peak		
4	15960.00	45.23	-8.77	54.00	31.99	40.94	7.62	35.32	Average		
5	15960.00	59.44	-14.56	74.00	46.20	40.94	7.62	35.32	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 56 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode VHT40 Test Freq. (MHz) 5270								
N _{TX}	3	Polarization	V					

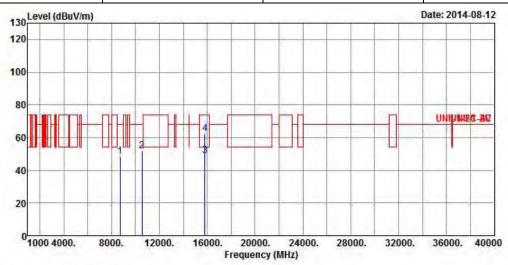


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	100.00	14.12.
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8314.00	34.79	-19.21	54.00	28.67	35.82	5.42	35.12	Average		
2	8314.00	49.45	-24.55	74.00	43.33	35.82	5.42	35.12	Peak		
3	10540.00	51.95	-16.25	68.20	43.30	37.23	6.27	34.85	Peak		
4	15810.00	45.29	-8.71	54.00	32.02	40.66	7.76	35.15	Average		
5	15810.00	56.97	-17.03	74.00	43.70	40.66	7.76	35.15	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 57 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode VHT40 Test Freq. (MHz) 5270								
N _{TX} 3 Polarization H								

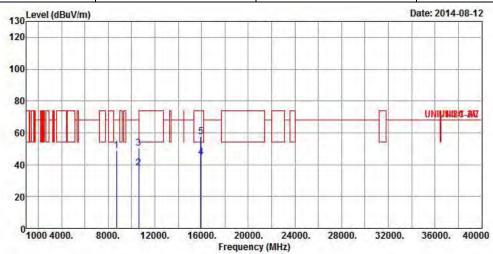


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		100
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8732.00	48.51	-19.69	68.20	41.96	35.99	5.70	35.14	Peak	1222	1222
2	10540.00	52.05	-16.15	68.20	43.40	37.23	6.27	34.85	Peak		
3	15810.00	48.96	-5.04	54.00	35.69	40.66	7.76	35.15	Average		
4	15810.00	62.19	-11.81	74.00	48.92	40.66	7.76	35.15	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 58 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation ModeVHT40Test Freq. (MHz)5310								
N_{TX}	3	Polarization	V					

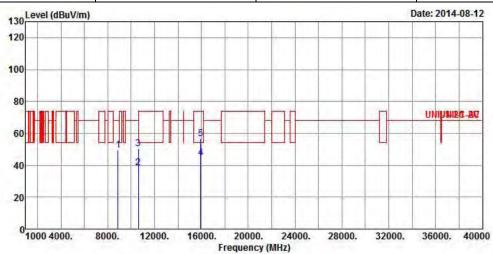


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8732.00	48.74	-19.46	68.20	42.19	35.99	5.70	35.14	Peak		144
2	10620.00	37.67	-16.33	54.00	28.75	37.32	6.26	34.66	Average		
3	10620.00	50.57	-23.43	74.00	41.65	37.32	6.26	34.66	Peak		
4	15930.00	44.61	-9.39	54.00	31.33	40.88	7.66	35.26	Average	. ++++	HHH
5	15930.00	57.52	-16.48	74.00	44.24	40.88	7.66	35.26	Peak	444	552

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 59 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	VHT40	Test Freq. (MHz)	5310					
N _{TX}	3	Polarization	Н					

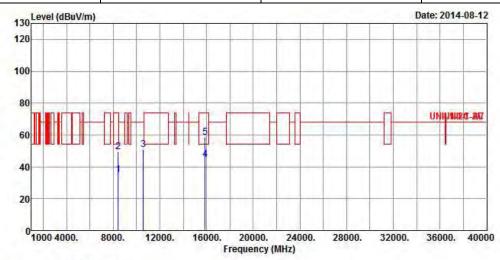


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8886.00	49.62	-18.58	68.20	42.88	36.05	5.86	35.17	Peak	1222	1444
2	10620.00	38.50	-15.50	54.00	29.58	37.32	6.26	34.66	Average		1
3	10620.00	50.15	-23.85	74.00	41.23	37.32	6.26	34.66	Peak		
4	15930.00	44.62	-9.38	54.00	31.34	40.88	7.66	35.26	Average		
5	15930.00	56.81	-17.19	74.00	43.53	40.88	7,66	35.26	Peak	244	444

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 60 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation ModeVHT80Test Freq. (MHz)5290									
N_{TX}	N _{TX} 3 Polarization V									

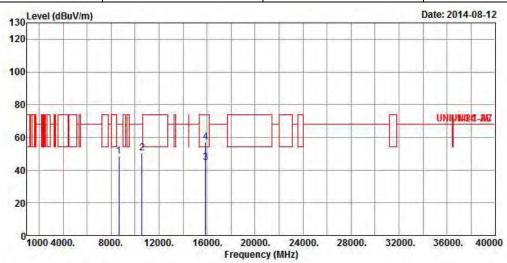


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8424.00	34.86	-19.14	54.00	28.65	35.87	5.44	35.10	Average		
2	8424.00	49.42	-24.58	74.00	43.21	35.87	5.44	35.10	Peak		444
3	10580.00	51.00	-17.20	68.20	42.16	37.29	6.27	34.72	Peak		
4	15870.00	44.72	-9.28	54.00	31.43	40.78	7.72	35.21	Average		
5	15870.00	58.74	-15.26	74.00	45.45	40.78	7.72	35.21	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 61 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	Modulation Mode VHT80 Test Freq. (MHz) 5290								
N_{TX}									



			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	18.77	14.72.
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8644.00	48.45	-19.75	68.20	41.99	35.96	5.62	35.12	Peak	1-94	
2	10580.00	50.13	-18.07	68.20	41.29	37.29	6.27	34.72	Peak		
3	15870.00	44.73	-9.27	54.00	31.44	40.78	7.72	35.21	Average		
4	15870.00	57.06	-16.94	74.00	43.77	40.78	7.72	35.21	Peak		

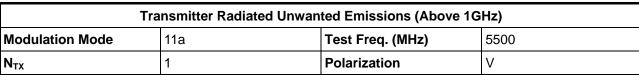
- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

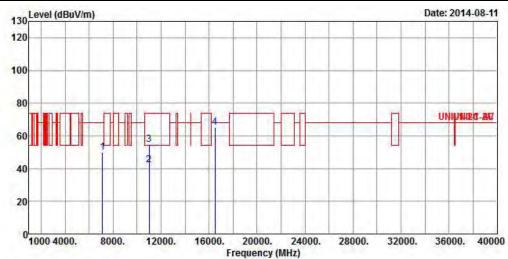
SPORTON INTERNATIONAL INC. Page No. : 62 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01



3.5.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5470-5725MHz

Report No.: FR462324-01AN



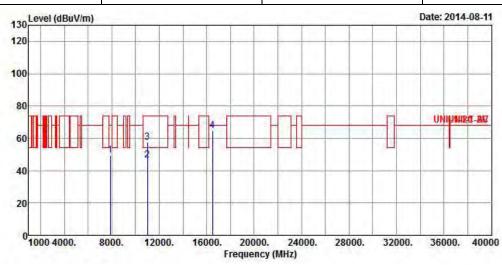


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7134.00	49.83	-18.37	68.20	43.58	35.94	5.23	34.92	Peak	1	
2	11000.00	42.20	-11.80	54.00	31.98	37.70	6.23	33.71	Average		
3	11000.00	54.71	-19.29	74.00	44.49	37.70	6.23	33.71	Peak		
4	16500.00	65.25	-2.95	68.20	50.19	41.20	8.70	34.84	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 63 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode 11a Test Freq. (MHz) 5500									
N _{TX}	N _{TX} 1 Polarization H									



			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	06973	11.00
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7874.00	49.22	-18.98	68.20	43.20	35.73	5.41	35.12	Peak	1-96	
2	11000.00	46.43	-7.57	54.00	36.21	37.70	6.23	33.71	Average		222
3	11000.00	57.50	-16.50	74.00	47.28	37.70	6.23	33.71	Peak		
4	16500.00	64.75	-3.45	68.20	49.69	41.20	8.70	34.84	Peak	444	222

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

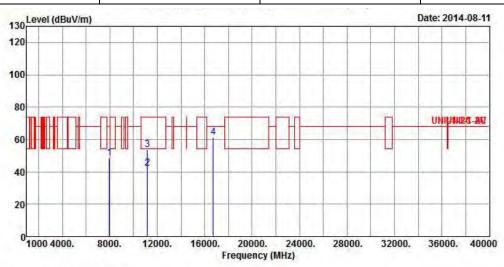
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 64 of 95
TEL: 886-3-327-3456 : Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	Modulation Mode 11a Test Freq. (MHz) 5580							
N _{TX}	1	Polarization	V					

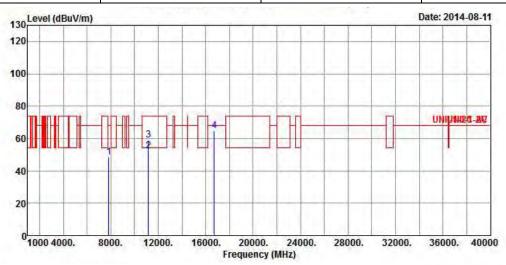


			0ver	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg
1	7966.00	48.62	-19.58	68.20	42.74	35.71	5.31	35.14	Peak	483	666
2	11160.00	42.00	-12.00	54.00	31.79	37.87	6.28	33.94	Average		inne.
3	11160.00	53.87	-20.13	74.00	43.66	37.87	6.28	33.94	Peak	444	444
4	16740.00	61.60	-6.60	68.20	45.73	41.44	8.86	34.43	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 65 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	Modulation Mode 11a Test Freq. (MHz) 5580								
N_{TX}	N _{TX} 1 Polarization H								

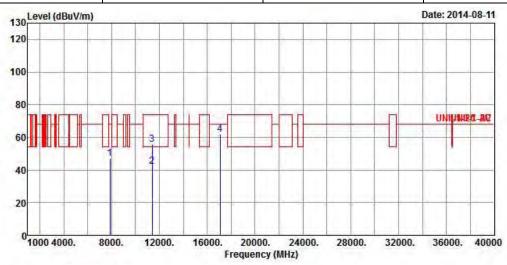


	Freq	Level				Antenna Factor		F 1 - 5 3 25 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg
1	7828.00	48.33	-19.87	68.20	42.26	35.73	5.44	35.10	Peak	444	666
2	11160.00	52.17	-1.83	54.00	41.96	37.87	6.28	33.94	Average	1000	inne
3	11160.00	58.78	-15.22	74.00	48.57	37.87	6.28	33.94	Peak	444	444
4	16740.00	64.90	-3.30	68.20	49.03	41.44	8.86	34.43	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 66 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode 11a Test Freq. (MHz) 5700									
N_{TX}	N _{TX} 1 Polarization V									

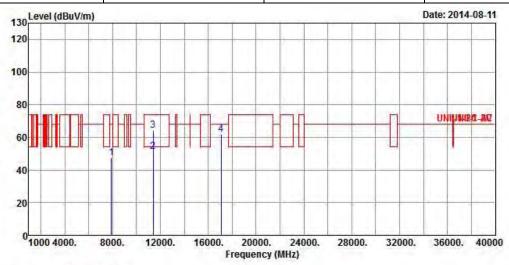


		Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
7874.00	47.23	-20.97	68.20	41.21	35.73	5.41	35.12	Peak	1222	1224
11400.00	42.21	-11.79	54.00	32.10	38.10	6.34	34.33	Average		
11400.00	55.77	-18.23	74.00	45.66	38.10	6.34	34.33	Peak		
17100.00	61.67	-6.53	68.20	44.99	41.62	8.98	33.92	Peak		
	MHz 7874.00 11400.00 11400.00	MHz dBuV/m 7874.00 47.23 11400.00 42.21 11400.00 55.77	Freq Level Limit MHz dBuV/m dB 7874.00 47.23 -20.97 11400.00 42.21 -11.79 11400.00 55.77 -18.23	Freq Level Limit Line MHz dBuV/m dB dBuV/m 7874.00 47.23 -20.97 68.20 11400.00 42.21 -11.79 54.00 11400.00 55.77 -18.23 74.00	Freq Level Limit Line Level MHz dBuV/m dB dBuV/m dBuV 7874.00 47.23 -20.97 68.20 41.21 11400.00 42.21 -11.79 54.00 32.10 11400.00 55.77 -18.23 74.00 45.66	Freq Level Limit Line Level Factor MHz dBuV/m dB dBuV/m dBuV dB/m 7874.00 47.23 -20.97 68.20 41.21 35.73 11400.00 42.21 -11.79 54.00 32.10 38.10 11400.00 55.77 -18.23 74.00 45.66 38.10	Freq Level Limit Line Level Factor Loss MHz dBuV/m dB dBuV/m dBuV dB/m dB 7874.00 47.23 -20.97 68.20 41.21 35.73 5.41 11400.00 42.21 -11.79 54.00 32.10 38.10 6.34 11400.00 55.77 -18.23 74.00 45.66 38.10 6.34	Freq Level Limit Line Level Factor Loss Factor MHz dBuV/m dB dBuV/m dBuV dB/m dB dB 7874.00 47.23 -20.97 68.20 41.21 35.73 5.41 35.12 11400.00 42.21 -11.79 54.00 32.10 38.10 6.34 34.33 11400.00 55.77 -18.23 74.00 45.66 38.10 6.34 34.33	Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB 7874.00 47.23 -20.97 68.20 41.21 35.73 5.41 35.12 Peak 11400.00 42.21 -11.79 54.00 32.10 38.10 6.34 34.33 Average 11400.00 55.77 -18.23 74.00 45.66 38.10 6.34 34.33 Peak	Freq Level Line Level Factor Loss Factor Remark MHz dBuV/m dB dB/m dB dB cm 7874.00 47.23 -20.97 68.20 41.21 35.73 5.41 35.12 Peak 11400.00 42.21 -11.79 54.00 32.10 38.10 6.34 34.33 Average 11400.00 55.77 -18.23 74.00 45.66 38.10 6.34 34.33 Peak

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 67 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode	11a	Test Freq. (MHz)	5700					
N _{TX}	1	Polarization	Н					

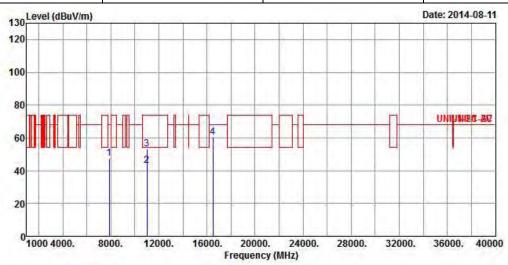


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7920.00	47.44	-20.76	68.20	41.47	35.72	5.38	35.13	Peak	1444	1224
2	11400.00	51.46	-2.54	54.00	41.35	38.10	6.34	34.33	Average	1.00	
3	11400.00	64.52	-9.48	74.00	54.41	38.10	6.34	34.33	Peak		
4	17100.00	61.66	-6.54	68.20	44.98	41.62	8.98	33.92	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 68 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	HT20	Test Freq. (MHz)	5500						
N_{TX}	3	Polarization	V						



	Frea	Level	Over Limit			Antenna Factor		Preamp Factor		A/Pos	T/Pos
	20.59	FEARE	T-WE	E ENE	27022	0,0000	2731	3,55000	(12 to 25) (1		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7874.00	47.31	-20.89	68.20	41.29	35.73	5.41	35.12	Peak	1225	1225
2	11000.00	43.32	-10.68	54.00	33.10	37.70	6.23	33.71	Average		
3	11000.00	53.25	-20.75	74.00	43.03	37.70	6.23	33.71	Peak		
4	16500.00	60.23	-7.97	68.20	45.17	41.20	8.70	34.84	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

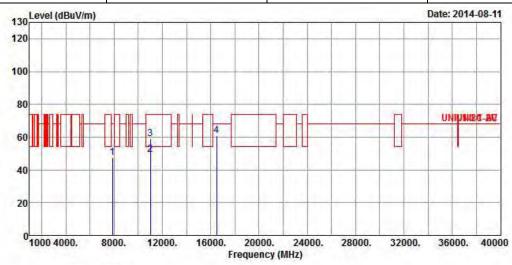
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 69 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	HT20	Test Freq. (MHz)	5500						
N_{TX}	3	Polarization	Н						

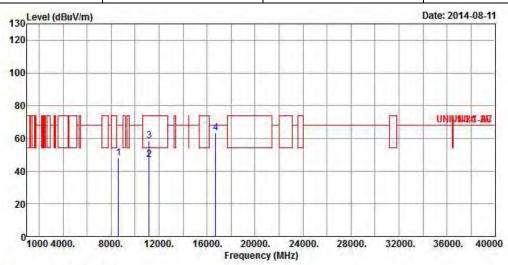


	Freq	Level				Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7874.00	47.53	-20.67	68.20	41.51	35.73	5.41	35.12	Peak	4.2	
2	11000.00	49.24	-4.76	54.00	39.02	37.70	6.23	33.71	Average		
3	11000.00	59.02	-14.98	74.00	48.80	37.70	6.23	33.71	Peak		
4	16500.00	60.96	-7.24	68.20	45.90	41.20	8.70	34.84	Peak	HHH	

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 70 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	HT20	Test Freq. (MHz)	5580						
N_{TX}	3	Polarization	V						

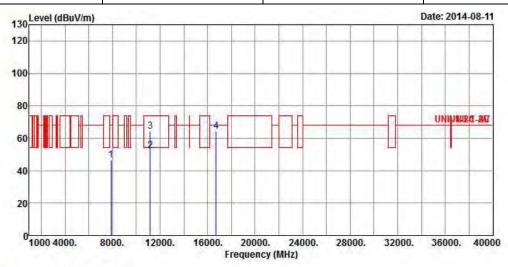


	Freq	Level		Limit Line						A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8614.00	47.93	-20.27	68.20	41.52	35.95	5.58	35.12	Peak		
2	11160.00	47.24	-6.76	54.00	37.03	37.87	6.28	33.94	Average		
3	11160.00	58.47	-15.53	74.00	48.26	37.87	6.28	33.94	Peak		
4	16740.00	63.27	-4.93	68.20	47.40	41.44	8.86	34.43	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 71 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode HT20 Test Freq. (MHz) 5580									
N _{TX} 3		Polarization	Н						

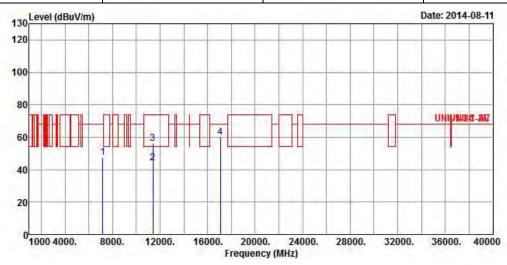


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7874.00	46.68	-21.52	68.20	40.66	35.73	5.41	35.12	Peak	1	
2	11160.00	52.29	-1.71	54.00	42.08	37.87	6.28	33.94	Average		
3	11160.00	64.20	-9.80	74.00	54.02	37.85	6.27	33.94	Peak		
4	16740.00	64.11	-4.09	68.20	48.24	41.44	8.86	34.43	Peak	1,000	

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 72 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode HT20 Test Freq. (MHz) 5700									
N_{TX}	3	Polarization	V						

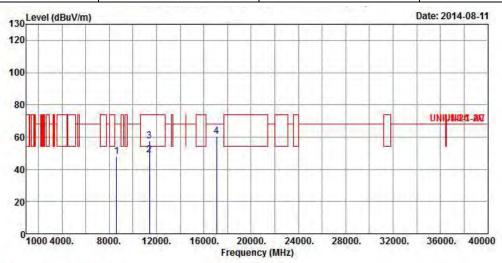


	Freq	Level				Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7180.00	47.32	-20.88	68.20	41.04	35.92	5.28	34.92	Peak	1-94	
2	11400.00	44.32	-9.68	54.00	34.21	38.10	6.34	34.33	Average		
3	11400.00	56.20	-17.80	74.00	46.09	38.10	6.34	34.33	Peak		
4	17100.00	59.91	-8.29	68.20	43.23	41.62	8.98	33.92	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 73 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode HT20 Test Freq. (MHz) 5700									
N_{TX}	3	Polarization	Н							

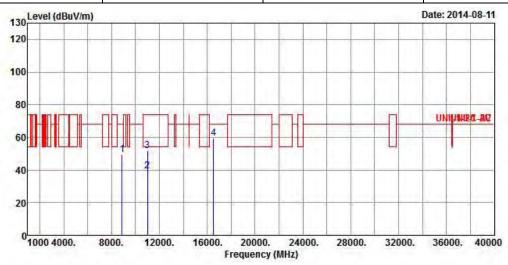


	Freq	Level		Limit Line				100000		A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	_		deg
1	8614.00	47.79	-20.41	68.20	41.38	35.95	5.58	35.12	Peak	484	666
2	11400.00	49.01	-4.99	54.00	38.90	38.10	6.34	34.33	Average		inne.
3	11400.00	57.38	-16.62	74.00	47.27	38.10	6.34	34.33	Peak	+++	444
4	17100.00	60.52	-7.68	68.20	43.84	41.62	8.98	33.92	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 74 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode HT40 Test Freq. (MHz) 5510									
N_{TX}	3	Polarization	V						

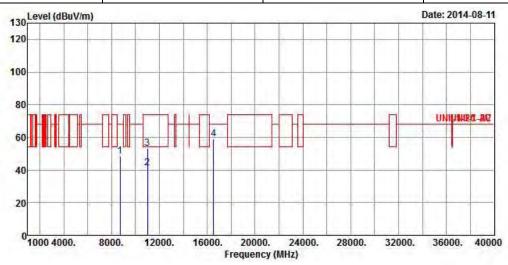


130110			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		N. C.
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8886.00	49.60	-18.60	68.20	42.86	36.05	5.86	35.17	Peak	1222	1224
2	11020.00	39.30	-14.70	54.00	29.09	37.72	6.24	33.75	Average		
3	11020.00	51.89	-22.11	74.00	41.68	37.72	6.24	33.75	Peak		
4	16530.00	59.48	-8.72	68.20	44.31	41.23	8.73	34.79	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 75 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode HT40 Test Freq. (MHz) 5510									
N_{TX}	3	Polarization	Н						

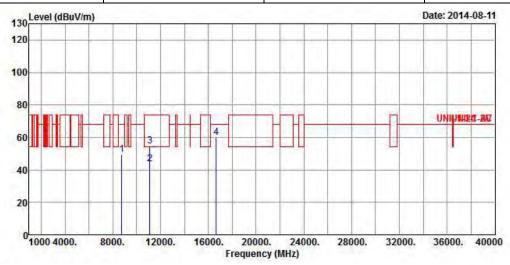


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8732.00	48.53	-19.67	68.20	41.98	35.99	5.70	35.14	Peak	1222	1224
2	11020.00	41.35	-12.65	54.00	31.14	37.72	6.24	33.75	Average		
3	11020.00	53.03	-20.97	74.00	42.82	37.72	6.24	33.75	Peak		
4	16530.00	58.77	-9.43	68.20	43.60	41.23	8.73	34.79	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 76 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode HT40 Test Freq. (MHz) 5550									
N _{TX}	3	Polarization	V							



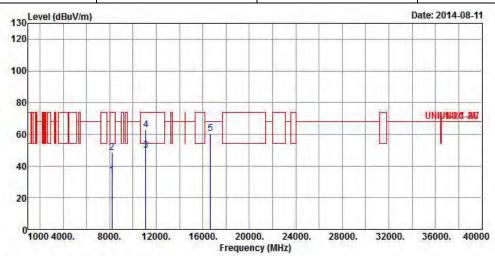
			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	18.77.5	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8754.00	49.54	-18.66	68.20	42.95	36.00	5.74	35.15	Peak		
2	11100.00	43.54	-10.46	54.00	33.34	37.80	6.26	33.86	Average		
3	11100.00	54.64	-19.36	74.00	44.44	37.80	6.26	33.86	Peak		
4	16650.00	60.05	-8.15	68.20	44.46	41.36	8.80	34.57	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 77 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Report Report No. : FR462324-01AN

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	HT40	Test Freq. (MHz)	5550						
N_{TX}	3	Polarization	Н						

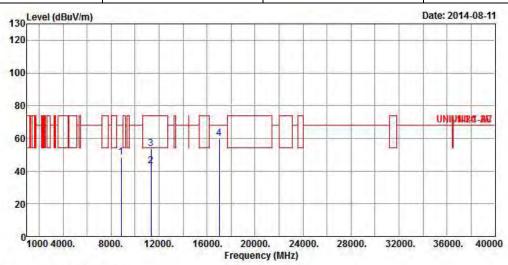


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8204.00	34.15	-19.85	54.00	28.12	35.78	5.38	35.13	Average	1	
2	8204.00	48.49	-25.51	74.00	42.46	35.78	5.38	35.13	Peak		444
3	11100.00	50.11	-3.89	54.00	39.91	37.80	6.26	33.86	Average		
4	11100.00	62.81	-11.19	74.00	52.61	37.80	6.26	33.86	Peak		
5	16650.00	60.51	-7.69	68.20	44.92	41.36	8.80	34.57	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 78 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode HT40 Test Freq. (MHz) 5670										
N_{TX}	3	Polarization	V								

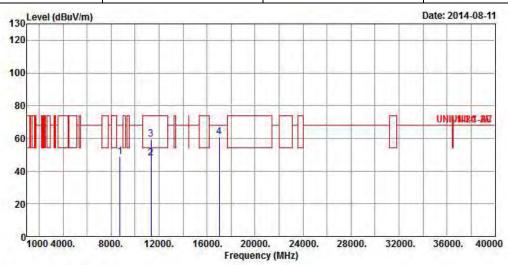


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	08773	1111
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8842.00	48.58	-19.62	68.20	41.90	36.03	5.82	35.17	Peak	1-92	
2	11340.00	42.98	-11.02	54.00	32.84	38.03	6.32	34.21	Average		
3	11340.00	53.86	-20.14	74.00	43.72	38.03	6.32	34.21	Peak		
4	17010.00	60.05	-8.15	68.20	43.33	41.69	8.99	33.96	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 79 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode HT40 Test Freq. (MHz) 5670										
N_{TX}	3	Polarization	Н								

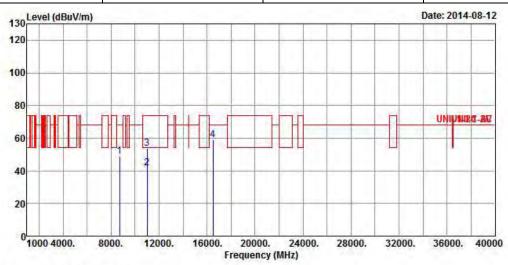


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	25.57.7	1112
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8754.00	48.92	-19.28	68.20	42.33	36.00	5.74	35.15	Peak	1	
2	11340.00	47.73	-6.27	54.00	37.59	38.03	6.32	34.21	Average		
3	11340.00	59.55	-14.45	74.00	49.41	38.03	6.32	34.21	Peak		
4	17010.00	60.77	-7.43	68.20	44.05	41.69	8.99	33.96	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 80 of 95
TEL: 886-3-327-3456 : Report Version : Rev. 01

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode VHT20 Test Freq. (MHz) 5500										
N_{TX}	3	Polarization	V								



			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8710.00	49.07	-19.13	68.20	42.51	35.99	5.70	35.13	Peak		
2	11000.00	41.69	-12.31	54.00	31.47	37.70	6.23	33.71	Average		
3	11000.00	53.78	-20.22	74.00	43.56	37.70	6.23	33.71	Peak		
4	16500.00	58.94	-9.26	68.20	43.88	41.20	8.70	34.84	Peak		

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

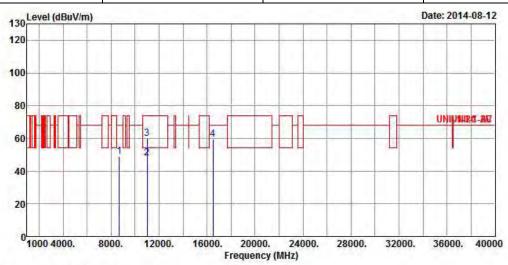
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 81 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Tra	nsmitter Radiated Unwan	ted Emissions (Above 1G	Hz)
Modulation Mode	VHT20	Test Freq. (MHz)	5500
N_{TX}	3	Polarization	Н

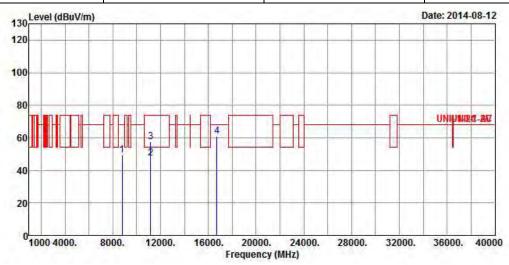


1,140			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8688.00	48.83	-19.37	68.20	42.33	35.97	5.66	35.13	Peak	1	
2	11000.00	48.19	-5.81	54.00	37.97	37.70	6.23	33.71	Average		
3	11000.00	60.11	-13.89	74.00	49.89	37.70	6.23	33.71	Peak		
4	16500.00	59.32	-8.88	68.20	44.26	41.20	8.70	34.84	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 82 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Tra	Transmitter Radiated Unwanted Emissions (Above 1GHz)										
Modulation Mode	Modulation Mode VHT20 Test Freq. (MHz) 5580										
N_{TX}	3	Polarization	V								

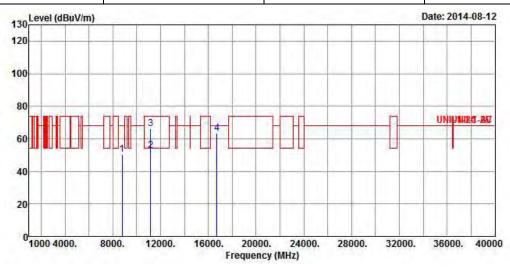


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8776.00	49.19	-19.01	68.20	42.59	36.01	5.74	35.15	Peak		
2	11160.00	47.31	-6.69	54.00	37.10	37.87	6.28	33.94	Average		
3	11160.00	57.74	-16.26	74.00	47.53	37.87	6.28	33.94	Peak		
4	16740.00	60.98	-7.22	68.20	45.11	41.44	8.86	34.43	Peak		1,222

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 83 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Tra	nsmitter Radiated Unwan	ted Emissions (Above 1G	Hz)							
Modulation Mode	Modulation Mode VHT20 Test Freq. (MHz) 5580									
N _{TX}	3	Polarization	Н							

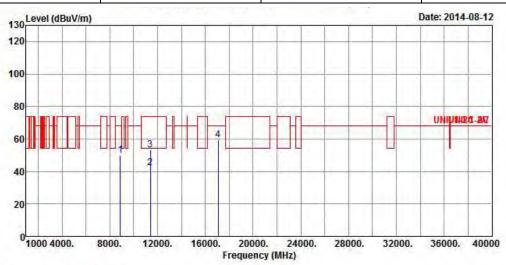


	Ford	Decret	Over			Antenna				A/Pos	T/Pos
	Freq	rever	Limit	Line	rever	Factor	LOSS	Factor	Kemark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8798.00	50.45	-17.75	68.20	43.81	36.02	5.78	35.16	Peak		
2	11160.00	52.85	-1.15	54.00	42.64	37.87	6.28	33.94	Average		244
3	11160.00	66.15	-7.85	74.00	55.94	37.87	6.28	33.94	Peak		
4	16740.00	63.24	-4.96	68.20	47.37	41.44	8.86	34.43	Peak	1.22	12.2

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 84 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation Mode VHT20 Test Freq. (MHz) 5700								
N_{TX}	3	Polarization	V					

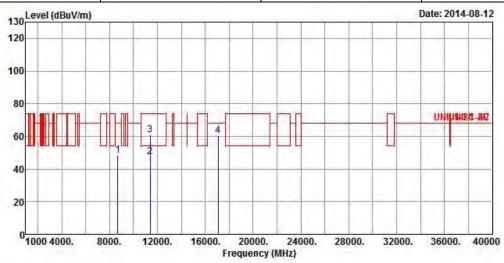


	Freq	Level				Antenna Factor		1000000		A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	-	cm	deg
1	8886.00	49.96	-18.24	68.20	43.22	36.05	5.86	35.17	Peak		444
2	11400.00	42.18	-11.82	54.00	32.07	38.10	6.34	34.33	Average	1000	1000
3	11400.00	53.17	-20.83	74.00	43.06	38.10	6.34	34.33	Peak	444	
4	17100.00	59.57	-8.63	68.20	42.89	41.62	8.98	33.92	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 85 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)								
Modulation ModeVHT20Test Freq. (MHz)5700								
N_{TX}	3	Polarization	Н					

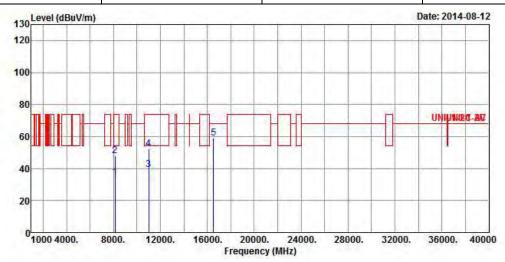


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8688.00	48.51	-19.69	68.20	42.01	35.97	5.66	35.13	Peak	1225	1224
2	11400.00	47.41	-6.59	54.00	37.30	38.10	6.34	34.33	Average		
3	11400.00	60.94	-13.06	74.00	50.83	38.10	6.34	34.33	Peak		
4	17100.00	60.48	-7.72	68.20	43.80	41.62	8.98	33.92	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 86 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)											
Modulation Mode	Modulation Mode VHT40 Test Freq. (MHz) 5510										
N _{TX}	N _{TX} 3 Polarization V										

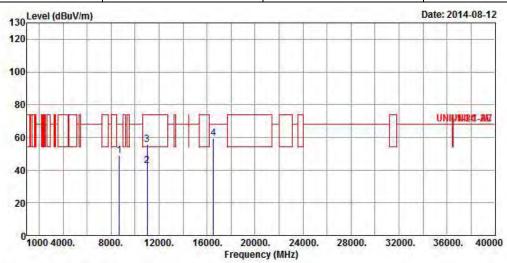


	Freq	Level	Over Limit			Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg
1	8138.00	34.47	-19.53	54.00	28.49	35.76	5.36	35.14	Average	1	
2	8138.00	48.10	-25.90	74.00	42.12	35.76	5.36	35.14	Peak		
3	11020.00	39.36	-14.64	54.00	29.15	37.72	6.24	33.75	Average		
4	11020.00	52.15	-21.85	74.00	41.94	37.72	6.24	33.75	Peak		
5	16530.00	58.87	-9.33	68.20	43.70	41.23	8.73	34.79	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 87 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode VHT40 Test Freq. (MHz) 5510									
N _{TX} 3 Polarization H									

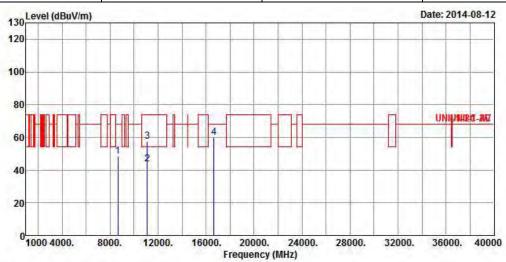


	Freq	Level		Limit Line						A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8688.00	48.76	-19.44	68.20	42.26	35.97	5.66	35.13	Peak		
2	11020.00	42.86	-11.14	54.00	32.65	37.72	6.24	33.75	Average		
3	11020.00	55.77	-18.23	74.00	45.56	37.72	6.24	33.75	Peak		
4	16530.00	59.46	-8.74	68.20	44.29	41.23	8.73	34.79	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 88 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode VHT40 Test Freq. (MHz) 5550									
N_{TX}	Polarization	V							

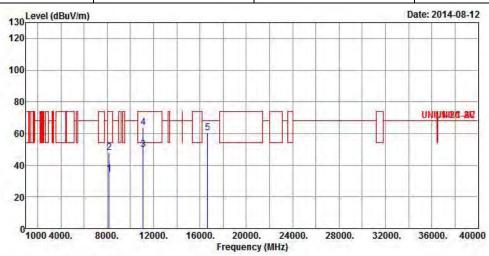


			Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8666.00	48.58	-19.62	68.20	42.08	35.97	5.66	35.13	Peak		
2	11100.00	43.63	-10.37	54.00	33.43	37.80	6.26	33.86	Average		
3	11100.00	57.44	-16.56	74.00	47.24	37.80	6.26	33.86	Peak		
4	16650.00	59.95	-8.25	68.20	44.36	41.36	8.80	34.57	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 89 of 95 TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)									
Modulation Mode	VHT40	Test Freq. (MHz)	5550						
N_{TX}	3	Polarization	Н						

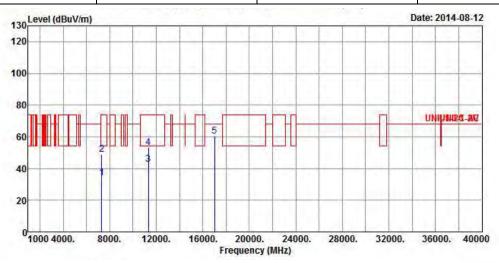


	Freq	Level	Over Limit			Antenna Factor				A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8160.00	34.73	-19.27	54.00	28.74	35.76	5.37	35.14	Average	444	1221
2	8160.00	48.20	-25.80	74.00	42.21	35.76	5.37	35.14	Peak		
3	11100.00	49.88	-4.12	54.00	39.68	37.80	6.26	33.86	Average		
4	11100.00	63.89	-10.11	74.00	53.69	37.80	6.26	33.86	Peak		
5	16650.00	60.67	-7.53	68.20	45.08	41.36	8.80	34.57	Peak	1224	225

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 90 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	VHT40	Test Freq. (MHz)	5670				
N_{TX}	3	Polarization	V				

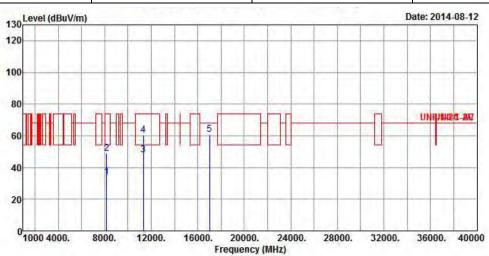


	Freq	Level				Antenna Factor		100000000000000000000000000000000000000		A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7324.00	34.28	-19.72	54.00	27.90	35.87	5.47	34.96	Average		444
2	7324.00	49.10	-24.90	74.00	42.72	35.87	5.47	34.96	Peak	1000	1000
3	11340.00	42.67	-11.33	54.00	32.53	38.03	6.32	34.21	Average	+++	444
4	11340.00	53.25	-20.75	74.00	43.11	38.03	6.32	34.21	Peak		
5	17010.00	60.21	-7.99	68.20	43.49	41.69	8.99	33.96	Peak		

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 91 of 95
TEL: 886-3-327-3456 : Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	VHT40	Test Freq. (MHz)	5670				
N_{TX}	3	Polarization	Н				

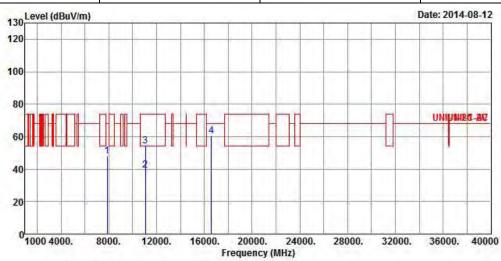


	Freq	Level				Antenna Factor		A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8160.00	34.15	-19.85	54.00	28.16	35.76	5.37	35.14	Average	444	444
2	8160.00	48.96	-25.04	74.00	42.97	35.76	5.37	35.14	Peak	1000	inch.
3	11340.00	47.79	-6.21	54.00	37.65	38.03	6.32	34.21	Average	+++	+++1
4	11340.00	60.26	-13.74	74.00	50.12	38.03	6.32	34.21	Peak		
5	17010.00	60.78	-7.42	68.20	44.06	41.69	8.99	33.96	Peak	688	688

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 92 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	VHT80	Test Freq. (MHz)	5530				
N_{TX}	3	Polarization	V				

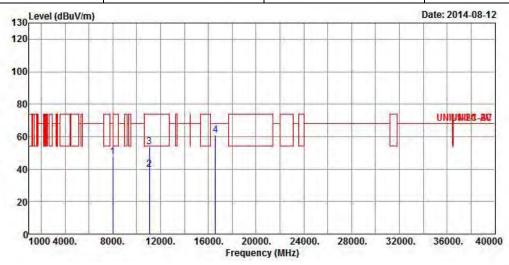


			0ver			Antenna				A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7864.00	48.14	-20.06	68.20	42.11	35.73	5.41	35.11	Peak	1222	1225
2	11060.00	39.26	-14.74	54.00	29.07	37.77	6.25	33.83	Average		
3	11060.00	54.20	-19.80	74.00	44.01	37.77	6.25	33.83	Peak		
4	16590.00	60.59	-7.61	68.20	45.23	41.29	8.77	34.70	Peak		1,000

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. : 93 of 95
TEL: 886-3-327-3456 : Report Version : Rev. 01

Transmitter Radiated Unwanted Emissions (Above 1GHz)							
Modulation Mode	VHT80	Test Freq. (MHz)	5530				
N_{TX}	3	Polarization	Н				



	-6		Over	Limit	Read	Antenna	Cable	Preamp		A/Pos	T/Pos
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7987.00	47.55	-20.65	68.20	41.69	35.70	5.31	35.15	Peak	222	1224
2	11060.00	40.00	-14.00	54.00	29.81	37.77	6.25	33.83	Average		
3	11060.00	53.82	-20.18	74.00	43.63	37.77	6.25	33.83	Peak		
4	16590.00	61.02	-7.18	68.20	45.66	41.29	8.77	34.70	Peak		Level

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

SPORTON INTERNATIONAL INC. Page No. : 94 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSV 40	101013	9kHz ~ 40GHz	Jan. 25, 2014	RF Conducted
Signal Generator	R&S	SMB 100A	175727	100kHz ~ 40GHz	Jan. 07, 2014	RF Conducted
RF Cable-1m	HUBER+SUHNER	SUCOFLEX_104	SN 324557	30MHz ~ 26.5GHz	Dec. 02, 2013	RF Conducted
AC Power Source	G.W	APS-9102	EL920581	AC 0V ~ 300V	Jul. 15, 2014	RF Conducted

Report No.: FR462324-01AN

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSP40	100593	9kHz ~ 40GHz	Oct. 03, 2013	Radiation
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	May 11, 2014	Radiation
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	Jul. 22, 2014	Radiation
Amplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	Aug. 28, 2013	Radiation
Horn Antenna	ETS-LINDGREN	3117	00091920	1GHz ~ 18GHz	Nov. 25, 2013	Radiation
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15GHz ~ 40GHz	Jan. 10, 2014	Radiation
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	Nov. 09, 2013	Radiation
RF Cable-high	SUHNER	SUCOFLEX106	03CH02-HY	1GHz ~ 40GHz	Mar. 05, 2014	Radiation
Bilog Antenna	SCHAFFNER	CBL61128	2723	30MHz ~ 2GHz	Oct. 10, 2013	Radiation
Turn Table	Chaintek Instruments	3000	MF7802058	0~ 360 degree	N/A	Radiation
Antenna Mast	MF	MF7802	MF780208205	1 ~ 4 m	N/A	Radiation

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5GHz ~ 40GHz	Apr. 19, 2013	Radiated
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	Dec. 02, 2012	Radiation

Note: Calibration Interval of instruments listed above is two year.

SPORTON INTERNATIONAL INC. Page No. : 95 of 95
TEL: 886-3-327-3456 Report Version : Rev. 01