

Report No.: FZ721518-02

Project No: CB10604171

FCC DFS Test Report

Equipment

: cnPilot E501S Outdoor

Brand Name

: Cambium Networks

Model No.

: cnPilot E501S Outdoor

FCC ID

: Z8H89FT0029

Standard

: 47 CFR FCC Part 15.407

Frequency Range: 5250 MHz - 5350 MHz

5470 MHz - 5725 MHz

Applicant

: Cambium Networks Inc.

3800 Golf Road, Suite 360 Rolling Meadows, IL 60008,

USA

Manufacturer

: Cambium Networks Inc.

3800 Golf Road, Suite 360 Rolling Meadows, IL 60008,

USA

Operate Mode

: Master

The product sample received on Feb. 15, 2017 and completely tested on Mar. 29, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 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

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TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No.

: 1 of 110

Report Version Issued Date

: Rev. 02

: May 05, 2017



Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information	5
1.2	Accessories	9
1.3	Support Equipment	9
1.4	Testing Applied Standards	9
1.5	Testing Location Information	9
2	TEST CONFIGURATION OF EUT	10
2.1	Test Channel Frequencies Configuration	10
2.2	The Worst Case Measurement Configuration	10
3	DYNAMIC FREQUENCY SELECTION (DFS) TEST RESULT	11
3.1	General DFS Information	11
3.2	Radar Test Waveform Calibration	14
3.3	UNII Detection Bandwidth	23
3.4	Channel Availability Check (CAC)	27
3.5	In-service Monitoring	31
3.6	Statistical Performance Check	36
4	TEST EQUIPMENT AND CALIBRATION DATA	109
5	MEASUREMENT UNCERTAINTY	110
APPI	ENDIX A. TEST PHOTOS	A1 ~ A2
PHO [°]	TOGRAPHS OF EUT V01	

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 2 of 110 Report Version : Rev. 02

Issued Date : May 05, 2017



Summary of Test Result

	Conformance Test Specifications					
Report Clause	Ref. Std. Clause	Description	Limit	Result		
3.3	FCC KDB 905462 7.8.1	DFS: UNII Detection Bandwidth Measurement	100% of the 99% BW	Complied		
3.4	FCC KDB 905462 7.8.2.1	DFS: Initial Channel Availability Check Time	CAC ≥ 60 sec	Complied		
3.4	FCC KDB 905462 7.8.2.2	DFS: Radar Burst at the Beginning of the Channel Availability Check Time	Detection Threshold: -49 dBm	Complied		
3.4	FCC KDB 905462 7.8.2.3	DFS: Radar Burst at the End of the Channel Availability Check Time	Detection Threshold: -49 dBm	Complied		
3.5	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Channel Move Time (CMT)	CMT ≤ 10sec	Complied		
3.5	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Channel Closing Transmission Time (CCTT)	CCTT ≤ 60 ms starting at CMT 200ms	Complied		
3.5	FCC KDB 905462 7.8.3	DFS: In-Service Monitoring for Non-Occupancy Period (NOP)	NOP ≥ 30 min	Complied		
3.6	FCC KDB 905462 7.8.4	DFS: Statistical Performance Check	Table 5 - 7 (KDB 905462)	Complied		
3.1.4	FCC KDB 905462 8.1	User Access Restrictions	DFS controls	Complied		

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 3 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017

Revision History

Report No.	Version	Description	Issued Date
FZ721518-02	Rev. 01	Initial issue of report	May 03, 2017
FZ721518-02	Rev. 02	Changing the antenna gain of 5GHz to 14dBi.	May 05, 2017

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 4 of 110 Report Version : Rev. 02 : May 05, 2017

Report No.: FZ721518-02

Issued Date



1 General Description

1.1 Information

1.1.1 RF General Information

Specification Items	Description		
Product Type	WLAN (2TX, 2RX)		
Radio Type	Intentional Transceiver		
Power Type	From PoE		
Modulation	IEEE 802.11a: OFDM (BPSK / QP	SK / 16QAM / 64QAM)	
	IEEE 802.11n/ac: see the below ta	able	
Data Rate (Mbps)	IEEE 802.11a: OFDM (6/9/12/18/2	4/36/48/54)	
	IEEE 802.11n/ac: see the below ta	able	
Channel Bandwidth	20/40/80 MHz operating channel bandwidth		
Operating Mode	☐ Client with radar detection		
	☐ Client without radar detection		
Communication Mode		☐ Frame Based	
TPC Function	With TPC	☐ Without TPC	
Weather Band (5600~5650MHz)			
Power-on cycle	80MHz: Requires 32.609 seconds to complete its power-on cycle.		
Software / Firmware Version	3.3-a0		
Note: EUT employ a TPC mechanism and TPC have the capability to operate at least 6 dB below highest RI output power.			

Report No.: FZ721518-02

: 5 of 110

: Rev. 02

: May 05, 2017

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

Report Version
FAX: 886-3-327-0973

Issued Date



TPC Power Result

Mode	Min Power	Max Power	Min EIRP	Max EIRP
	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_(6Mbps)_2TX	-	-	-	-
5.25-5.35GHz	8.25	14.25	21.25	27.25
5.47-5.725GHz	8.42	14.42	21.42	27.42
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	8.31	14.31	21.31	27.31
5.47-5.725GHz	8.40	14.40	21.40	27.40
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	10.93	16.93	23.93	29.93
5.47-5.725GHz	10.97	16.97	23.97	29.97
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-
5.25-5.35GHz	6.22	12.22	19.22	25.22
5.47-5.725GHz	10.96	16.96	23.96	29.96

Report No.: FZ721518-02

Antenna & Band width

Antenna	Two (TX)			
Band width Mode	20 MHz	40 MHz	80 MHz	
IEEE 802.11a	V	X	X	
IEEE 802.11n	V	V	X	
IEEE 802.11ac	V	V	V	

IEEE 11n/ac Spec.

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11n (HT20)	2	MCS0-15
802.11n (HT40)	2	MCS0-15
802.11ac (VHT20)	2	MCS 0-9/Nss1-2
802.11ac (VHT40)	2	MCS 0-9/Nss1-2
802.11ac (VHT80)	2	MCS 0-9/Nss1-2

Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 (HT: High Throughput). Then EUT support HT20 and HT40.

Note 2: IEEE Std. 802.11ac modulation consists of VHT20, VHT40, VHT80 and VHT160 (VHT: Very High Throughput). Then EUT support VHT20, VHT40 and VHT80.

Note 3: Modulation modes consist of below configuration:

11a: IEEE 802.11a, HT20/HT40: IEEE 802.11n, VHT20/VHT40/VHT80: IEEE 802.11ac

 SPORTON INTERNATIONAL INC.
 Page No.
 : 6 of 110

 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain	(dBi)
Ant.	Fort	Diana	Wiodel Name	Antenna Type		2.4GHz	5GHz
1	1, 2	Cambium	A005332	Embedded Ant.	I-PEX	10.5	-
2	1, 2	Cambium	A005332	Embedded Ant.	I-PEX	-	14

Note1: The EUT has two antennas.

Note2: For Ant.2, since antenna gain varies by frequency at the DFS frequency tested 5.5GHz. The Customer showed gain = 14dBi.

<For 2.4GHz Band>

For IEEE 802.11b/g/n mode (2TX/2RX)

Port 1, Port 2 can be used as transmitting/receiving antenna.

Port 1, Port 2 could transmit/receive simultaneously.

<For 5GHz Band>

For IEEE 802.11a/n/ac mode (2TX/2RX)

Port 1, Port 2 can be used as transmitting/receiving antenna.

Port 1, Port 2 could transmit/receive simultaneously.

1.1.3 DFS Band Carrier Frequencies

There are three bandwidth systems.

For 20MHz bandwidth systems, use Channel 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140.

For 40MHz bandwidth systems, use Channel 54, 62, 102, 110, 118, 126, 134.

For 80MHz bandwidth systems, use Channel 58, 106, 122.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
	52	5260 MHz	60	5300 MHz
5250~5350 MHz	54	5270 MHz	62	5310 MHz
Band 2	56	5280 MHz	64	5320 MHz
	58	5290 MHz	-	-
	100	5500 MHz	120	5600 MHz
	102	5510 MHz	122	5610 MHz
	104	5520 MHz	124	5620 MHz
5470~5725 MHz	106	5530 MHz	126	5630 MHz
5470~5725 MH2 Band 3	108	5540 MHz	128	5640 MHz
Danu 3	110	5550 MHz	132	5660 MHz
	112	5560 MHz	134	5670 MHz
	116	5580 MHz	136	5680 MHz
	118	5590 MHz	140	5700 MHz

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 7 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



1.1.4 Table for Class III Change

This product is an extension of original one reported under Sporton project number: 721518 Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Adding 5GHz DFS band 2 and band 3 (5250~5350 MHz, 5470~5725 MHz)	All itama toot
for this device.	All items test

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

Page No.

Report Version
Issued Date

FCC ID: Z8H89FT0029

Page No. : 8 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017

1.2 Accessories

Other	
Wall-mounted rack (1)*1	
Wall-mounted rack (2)*2 (Set)	

Report No.: FZ721518-02

: 9 of 110

: Rev. 02

: May 05, 2017

1.3 Support Equipment

	Support Equipment					
No.	Equipment	Brand Name	Model Name	FCC ID		
1	PC	DELL	T3400	DoC		
2	Notebook	DELL	E4300	DoC		
3	WLAN Dongle	LINKSYS	AE6000	Q87-AE6000		
4	PoE	Cambium Networks	NET-P30-56IN	DoC		

1.4 Testing Applied Standards

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

FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

1.5 Testing Location Information

	Testing Location							
	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.						
		TEL : 886-3-327-3456 FAX : 886-3-327-0973						
\boxtimes	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.						
	TEL: 886-3-656-9065 FAX: 886-3-656-9085							
Tes	Test Condition Test Site No. Test Engineer Test Environment Test Date							
	DFS Site DF01-CB DK Chang& Benson Su 23.9°C / 58% 27-Mar-17 ~ 29-Mar-17					27-Mar-17 ~ 29-Mar-17		

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086D with Industry Canada.

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

Report Version
FAX: 886-3-327-0973

Issued Date



2 Test Configuration of EUT

2.1 Test Channel Frequencies Configuration

Test Channel Frequencies Configuration				
IEEE Std.	Test Channel Freq. (MHz)			
802.11ac (VHT20)	5500 MHz			
802.11ac (VHT40)	5510 MHz			
802.11ac (VHT80)	5530 MHz			

Report No.: FZ721518-02

: 10 of 110

: May 05, 2017

: Rev. 02

2.2 The Worst Case Measurement Configuration

Th	The Worst Case Mode for Following Conformance Tests				
Tests Item Dynamic Frequency Selection (DFS)					
Test Condition	Conducted measurement at transmit chains The EUT shall be configured to operate at the highest transmitter output power setting. If more than one antenna assembly is intended for this power setting, the gain of the antenna assembly with the lowest gain shall be used.				
Modulation Mode	802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80)				

Note 1: The EUT can only be used in Y-axis position.

Note 2: The PoE below is for measurement only, would not be marked.

Support Unit	Brand	Model	FCC ID
PoE	Cambium Networks	NET-P30-56IN	DoC

Note3: All the specification of test configurations and test modes were based on customer's request.

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

Page No.

Report Version
Issued Date



3 Dynamic Frequency Selection (DFS) Test Result

3.1 General DFS Information

3.1.1 DFS Parameters

Table D.1: DFS requirement values					
Parameter Value					
Non-occupancy period	Minimum 30 minutes				
Channel Availability Check Time	60 seconds				
Channel Move Time	10 seconds (Note 1).				
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second periods. (Notes 1 and 2).				
U-NII Detection Bandwidth	Minimum 100% of the 99% power bandwidth (Note 3).				

Report No.: FZ721518-02

- Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
- Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate Channel changes (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
- Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.

Table D.2: Interference threshold values				
Maximum Transmit Power	Value (see note)			
EIRP ≥ 200 mW	-64 dBm			
EIRP < 200 mW and PSD < 10dBm/MHz	-62 dBm			
EIRP < 200 mW and PSD >= 10dBm/MHz	-64 dBm			

- Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.
- Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911D01.

 SPORTON INTERNATIONAL INC.
 Page No.
 : 11 of 110

 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017

3.1.2 Applicability of DFS Requirements Prior to Use of a Channel

	DFS Operational mode				
Requirement	Master	Client without radar detection	Client with radar detection		
Non-Occupancy Period	Yes	Not required	Yes		
DFS Detection Threshold	Yes	Not required	Yes		
Channel Availability Check Time	Yes	Not required	Not required		
U-NII Detection Bandwidth	Yes	Not required	Yes		

Report No.: FZ721518-02

: 12 of 110

: May 05, 2017

: Rev. 02

3.1.3 Applicability of DFS Requirements during Normal Operation

	DFS Operational mode				
Requirement	Master	Client without radar detection	Client with radar detection		
DFS Detection Threshold	Yes	Not required	Yes		
Channel Closing Transmission Time	Yes	Yes	Yes		
Channel Move Time	Yes	Yes	Yes		
U-NII Detection Bandwidth	Yes	Not required	Yes		

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

Page No.

Report Version

Issued Date



3.1.4 User Access Restrictions

User Access Restrictions □ DFS controls (hardware or software) related to radar detection are NOT accessible to the user. Manufacturer statement confirming that information regarding the parameters of the detected Radar Waveforms is not available to the end user.

Report No.: FZ721518-02

: 13 of 110

: May 05, 2017

: Rev. 02

3.1.5 Channel Loading/Data Streaming

	The data file (MPEG-4) has been transmitting in a streaming mode.
\boxtimes	Software to ping the client is permitted to simulate data transfer with random ping intervals.
\boxtimes	Minimum channel loading of approximately 17%.
	Unicast protocol has been used.

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

Page No.

Report Version
Issued Date



3.2 Radar Test Waveform Calibration

3.2.1 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (µsec)	PRI (µsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Trials
0	1	1428	18	See Note 1	See Note 1
1A	1	15 unique PRI in KDB 905462 D02 Table 5a	[(1) (19×10 ⁶)]	60%	15
1B	1	15 unique PRI within 518-3066, Excluding 1A PRI	$Roundup \left\{ \left(\frac{1}{360} \right) \times \left(\frac{19 \times 10^6}{PRI} \right) \right\}$	60%	15
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggrega	ate (Radar Type	80%	120		

Report No.: FZ721518-02

Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.

A minimum of 30 unique waveforms are required for each of the short pulse radar types 1 through 4. If more than 30 waveforms are used for short pulse radar types 1 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. The aggregate is the average of the percentage of successful detections of short pulse radar types 1-4.

3.2.2 Long Pulse Radar Test Waveform

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per <i>Burst</i>	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Each waveform is defined as follows:

- The transmission period for the Long Pulse Radar test signal is 12 seconds.
- There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst Count.
- Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
- The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
- Each pulse has a linear FM chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a transmission period will have the same chirp width. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz.
- If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time

 SPORTON INTERNATIONAL INC.
 Page No.
 : 14 of 110

 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017



between the first and second pulses is chosen independently of the time between the second and third pulses.

Report No.: FZ721518-02

The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst Count. Each interval is of length (12,000,000 / Burst Count) microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and [(12,000,000 / Burst Count) – (Total Burst Length) + (One Random PRI Interval)] microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.

3.2.3 Frequency Hopping Radar Test Waveform

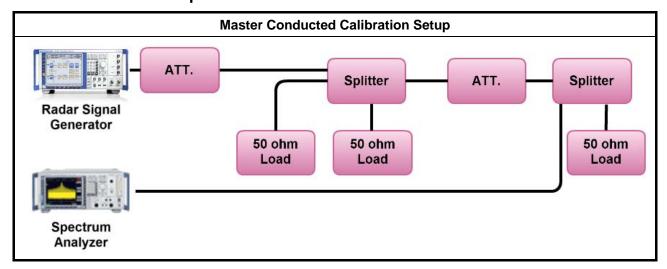
Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (ms)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	0.333	300	70%	30

The FCC Type 6 waveform uses a static waveform with 100 bursts in the instruments ARB. In addition, the RF list mode is operated with a list containing 100 frequencies from a randomly generated list and it had be ensured that at least one of the random frequencies falls into the UNII Detection Bandwidth of the DUT. Each burst from the waveform file initiates a trigger pulse at the beginning that switches the RF list from one item to the next one.

3.2.4 DFS Threshold Level

DFS Threshold Level							
DFS Threshold level:	-49	dBm	□ at the antenna connector				
			in front of the antenna				
The Interference Radar Detection Threshold Level is is $-64 dBm + 14 [dBi] + 1 dB = -49 dBm$. That happeen taken into account the output power range and antenna gain.							

3.2.5 Calibration Setup



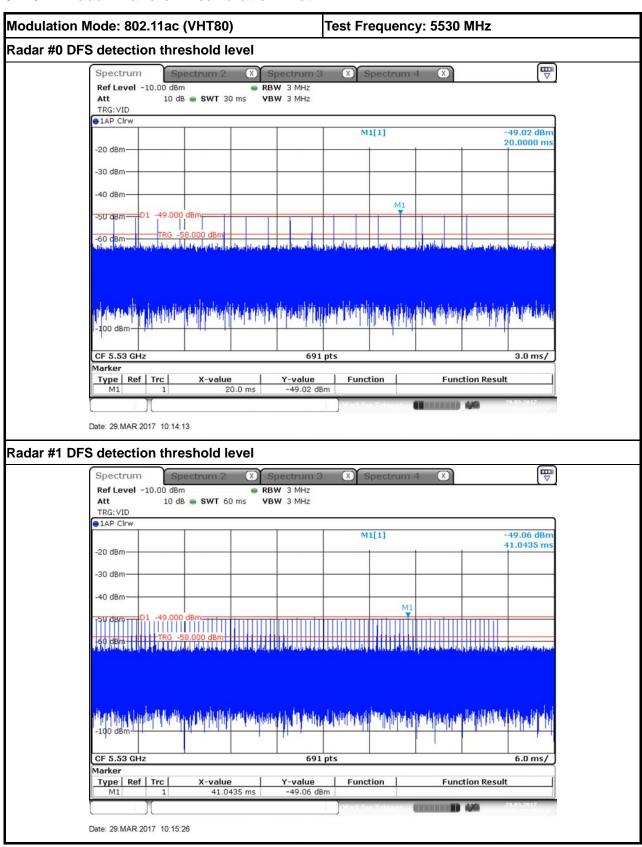
 SPORTON INTERNATIONAL INC.
 Page No.
 : 15 of 110

 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017



3.2.6 Radar Waveform calibration Plot

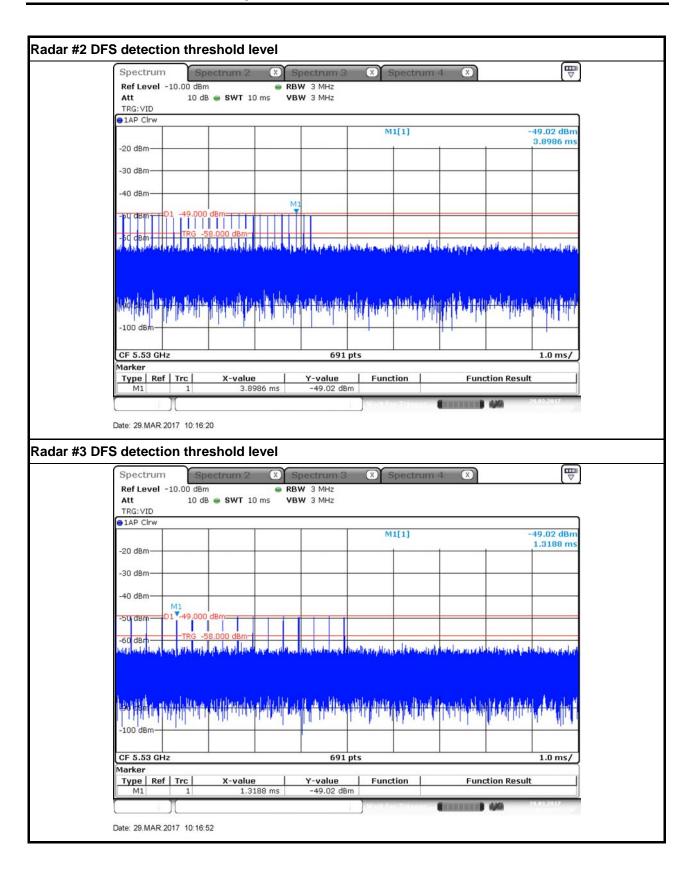


SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 16 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017

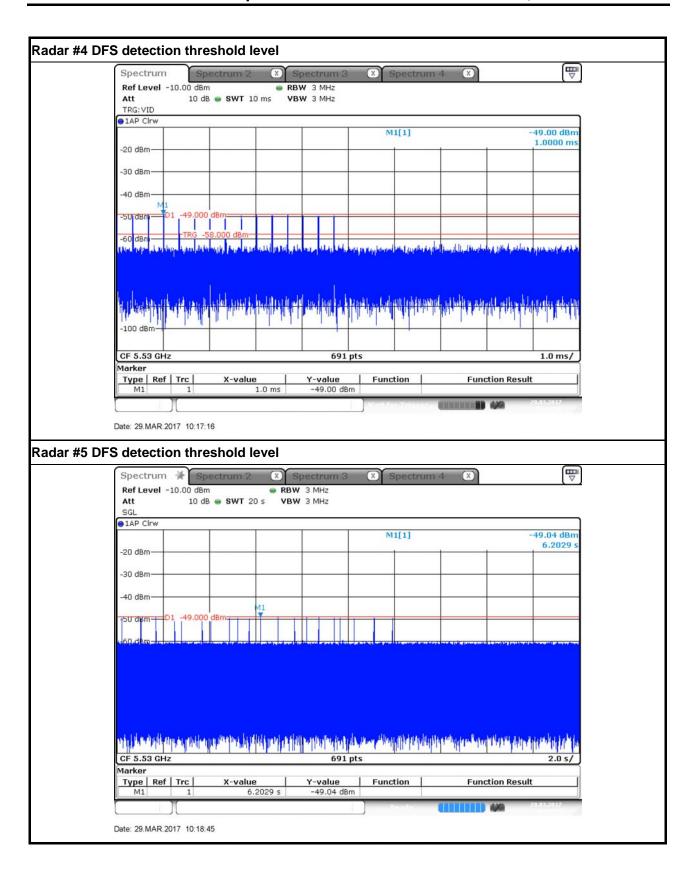


SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029

: 17 of 110 Page No. Report Version : Rev. 02

Issued Date : May 05, 2017



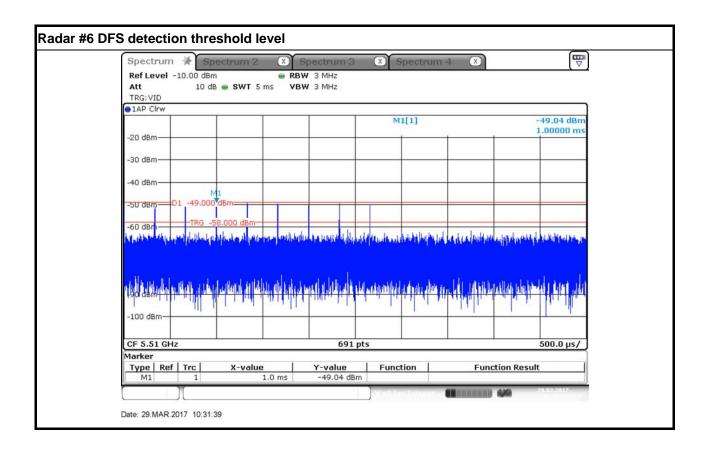
SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029

 Page No.
 : 18 of 110

 Report Version
 : Rev. 02

 Issued Date
 : May 05, 2017



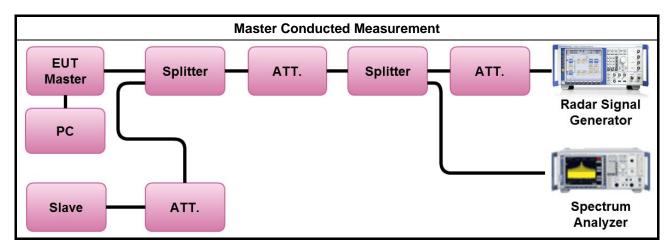
SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 19 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



3.2.7 **Test Setup**

A spectrum analyzer is used as a monitor to verify that the EUT has vacated the Channel within the (Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the Non-Occupancy Period after the detection and Channel move.



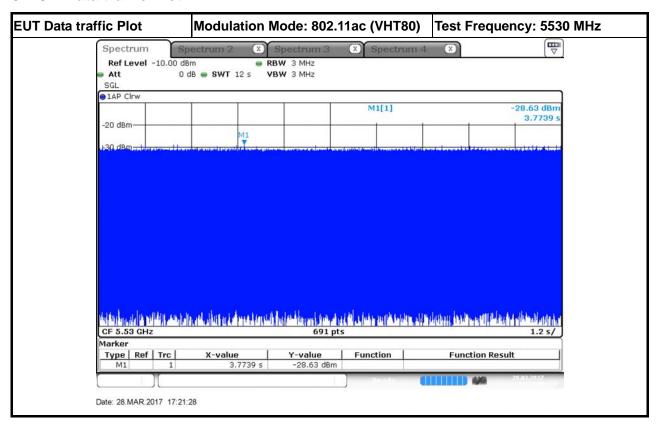
SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 20 of 110 Report Version : Rev. 02

Issued Date

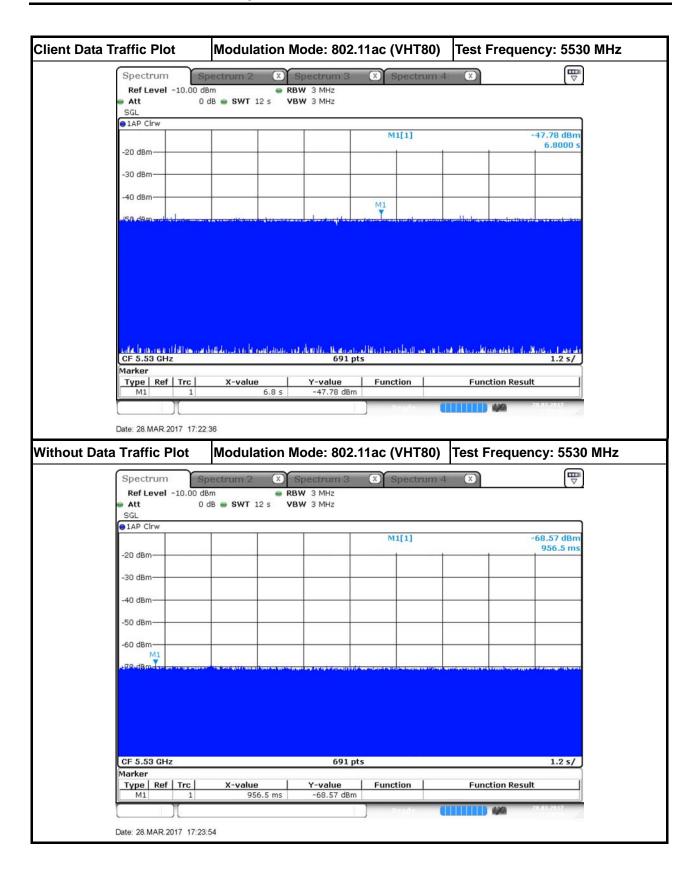
: May 05, 2017

3.2.8 **Data traffic Plot**



SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 21 of 110 Report Version : Rev. 02 Issued Date : May 05, 2017



SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 22 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017

3.3 UNII Detection Bandwidth

3.3.1 UNII Detection Bandwidth Limit

Channel Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	UNII Detection Bandwidth Min. Limit (MHz)
20	17.800	18
40	37.771	38
80	75.542	76

Report No.: FZ721518-02

UNII Detection Bandwidth is minimum 100% of the 99% power bandwidth. A single radar Burst is generated for a minimum of 10 trials, and the response of the UUT is noted. The UUT must detect the Radar Waveform 90% or more of the time.

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method

During the U-NII Detection Bandwidth detection test, radar type 0 is used and for each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic. The EUT is set up as a standalone device (no associated Client and no traffic). The radar frequency is increased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The highest frequency at which detection is greater than or equal to 90% is denoted as F_H. The radar frequency is decreased in 1 MHz steps, repeating the above test sequence, until the detection rate falls below 90%. The lowest frequency at which detection is greater than or equal to 90% is denoted as F_L. UNII Detection Bandwidth = F_H - F_L.

 SPORTON INTERNATIONAL INC.
 Page No.
 : 23 of 110

 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017

3.3.4 Test Result of UNII Detection Bandwidth

	EU	T Fre	quer	ncy=5	5500	MHz					
Channel Bandwidth (MHz)	20		_								
		DF	S De	tecti	on Tr	ials (1=De	tecti	on, 0	= No	Detection)
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate
			3	4	,	O	,	0	9	10	(%)
5490	0	0	0	0	0	0	0	0	0	0	0%
5491(FL)	1	0	1	1	1	1	1	1	1	1	90%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5506	1	1	1	1	1	1	1	1	1	1	100%
5507	1	1	1	1	1	1	1	1	1	1	100%
5508	1	1	1	1	1	1	1	1	1	1	100%
5509(FH)	1	1	1	0	1	1	1	1	1	1	90%
5510	0	0	0	0	0	0	0	0	0	0	0%
Radar Type 0-Detection Bandwidth (I	MHz)	= (FH	I-FL)	= (55	09MI	Hz-54	91MI	Hz)=			18
UNII Detection Bandwidth Min. Limit	(MHz) =									18
Test Result											Complied

Report No. : FZ721518-02

: 24 of 110

: May 05, 2017

: Rev. 02

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

Page No.

Report Version
Issued Date



	EU	T Fre	quer	ncy=5	5510	MHz					
Channel Bandwidth (MHz)	40										
DFS Detection Trials (1=Detection, 0= N							= No	Detection)			
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5490	0	0	0	0	0	0	0	0	0	0	0%
5491(FL)	1	1	1	1	1	1	1	1	1	1	90%
5492	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5526	1	1	1	1	1	1	1	1	1	1	100%
5527	1	1	1	1	1	1	1	1	1	1	100%
5528	1	1	1	1	1	1	1	1	1	1	100%
5529(FH)	1	1	1	1	1	1	1	1	1	0	90%
5530	0	0	0	0	0	0	0	0	0	0	0%
Radar Type 0-Detection Bandwidth	(MHz)	= (FF	I-FL)	= (55	29MI	Hz-54	91MI	Hz)=			38
JNII Detection Bandwidth Min. Lim	t (MHz) =									38
Test Result	•		•	•		•	•	•			Complied

Report No. : FZ721518-02

: 25 of 110

: May 05, 2017

: Rev. 02

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

Report Version
Issued Date



	EU	T Fre	auer	ncv=5	5530	MHz					
Channel Bandwidth (MHz)	80			,							
		DF	Detection)								
Radar Frequency (MHz)	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5490	0	0	0	0	0	0	0	0	0	0	0%
5491(FL)	1	1	1	1	1	1	1	1	1	1	90%
5492	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5567	1	1	1	1	1	1	1	1	1	1	100%
5568	1	1	1	1	1	1	1	1	1	1	100%
5569(FH)	1	1	1	1	1	1	1	1	1	1	90%
5570	0	0	0	0	0	0	0	0	0	0	0%
Radar Type 0-Detection Bandwidth	(MHz)	= (FF	H-FL)	= (55	69MI	Hz-54	91MI	Hz)=	•	•	78
UNII Detection Bandwidth Min. Limi	t (MHz) =		•				•			76
Test Result	•										Complied

SPORTON INTERNATIONAL INC.
TEL: 886-3-327-3456
FAX: 886-3-327-0973

FCC ID: Z8H89FT0029

Page No. : 26 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017

3.4 Channel Availability Check (CAC)

3.4.1 Channel Availability Check Limit

Channel Availability Check Limit

Report No.: FZ721518-02

The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute (60 sec) on the intended operating frequency.

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method

- For Initial Channel Availability Check Time. The EUT does not emit beacon, control, or data signals on the test Channel until the power-up sequence has been completed and the UNII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.
- For Radar Burst at the Beginning of the Channel Availability Check Time. To verify successful radar detection on the selected Channel during a period equal to the Beginning of the Channel Availability Check Time.
- For Radar Burst at the End of the Channel Availability Check Time. To verify successful radar detection on the selected Channel during a period equal to the End of the Channel Availability Check Time.

 SPORTON INTERNATIONAL INC.
 Page No.
 : 27 of 110

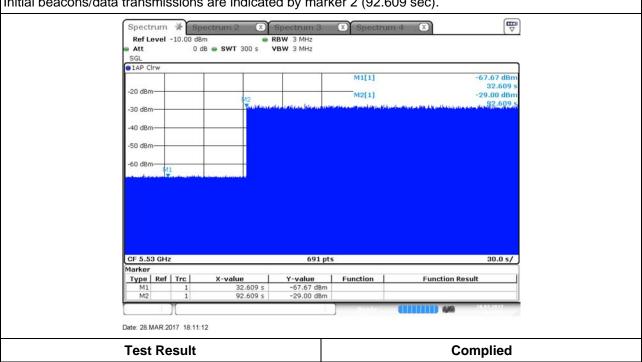
 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017

3.4.4 Test Result of Initial Channel Availability Check Time

Modulation Mode	Freq.	Radar Test Signal
802.11ac (VHT80)	5530 MHz	N/A

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (32.609 sec). The initial CAC time of the EUT is indicated by marker 1 (32.609 sec). Initial beacons/data transmissions are indicated by marker 2 (92.609 sec).



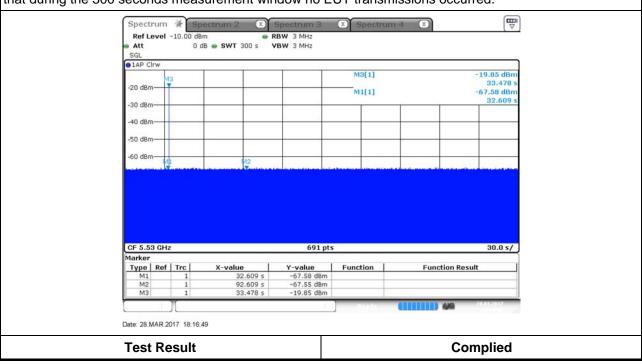
SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 28 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017

3.4.5 Test Result of Radar Burst at the Beginning of the Channel Availability Check Time

Modulation Mode	Freq. (MHz)	Radar Type Signal
802.11ac (VHT80)	5530 MHz	0

Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 266.522 seconds after the radar Burst has been generated. Verify that during the 300 seconds measurement window no EUT transmissions occurred.



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029

 Page No.
 : 29 of 110

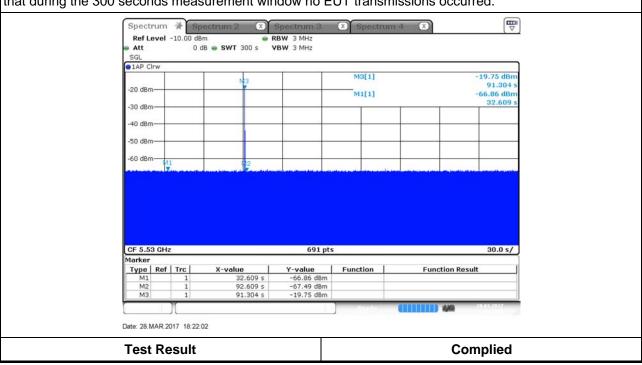
 Report Version
 : Rev. 02

 Issued Date
 : May 05, 2017

3.4.6 Test Result of Radar Burst at the End of the Channel Availability Check Time

Modulation Mode	Freq. (MHz)	Radar Type Signal
802.11ac (VHT80)	5530 MHz	0

Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 208.696 seconds after the radar Burst has been generated. Verify that during the 300 seconds measurement window no EUT transmissions occurred.



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 30 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017

3.5 In-service Monitoring

3.5.1 In-service Monitoring Limit

In-service Monitoring Limit						
Channel Move Time	10 sec					
Channel Closing Transmission Time	200 ms + an aggregate of 60 ms over remaining 10 sec periods.					
Non-occupancy period	Minimum 30 minutes					

Report No.: FZ721518-02

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method

- ✓ Verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time. Client Device will associate with the EUT. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time limits.
- ✓ Verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time. One 12 sec plot needs to be reported for the Short Pulse Radar Types 0. And zoom-in a 60 ms plot verified channel closing time for the aggregate transmission time starting from 200ms after the end of the radar signal to the completion of the channel move.
- Verified during In-Service Monitoring; Non-Occupancy Period. Client Device will associate with the EUT. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Non-Occupancy Period). Compare the Non-Occupancy Period limits.

 SPORTON INTERNATIONAL INC.
 Page No.
 : 31 of 110

 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017



3.5.4 Test Result of In-service Monitoring

Modulation Mode: 802.11ac (VHT80)

Parameter	Test Result	Limit	
Farameter	Туре 0		
Test Channel (MHz)	5530 MHz	-	
Channel Move Time (sec.)	0.487	< 10s	
Channel Closing Transmission Time (ms) (Note)	20.290	< 60ms	
Non-Occupancy Period (min.)	≧30	≧ 30 min	

Report No.: FZ721518-02

Note: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.

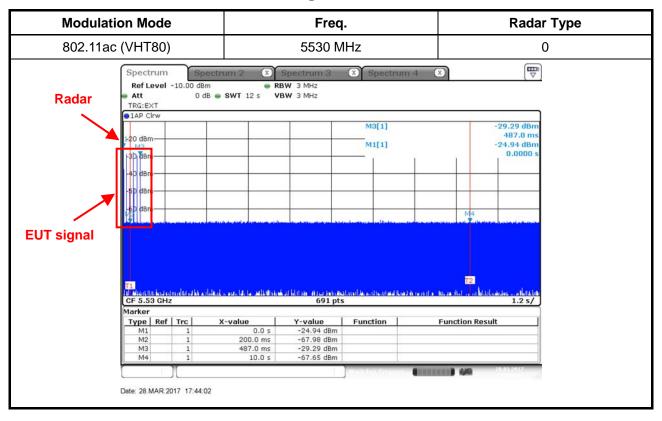
 SPORTON INTERNATIONAL INC.
 Page No.
 : 32 of 110

 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017



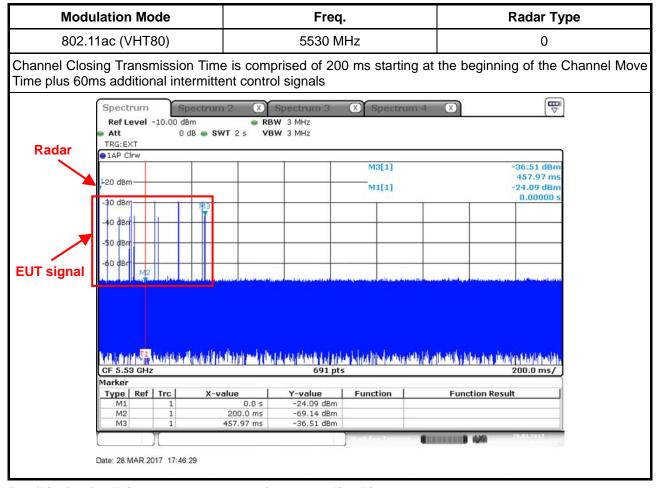
3.5.5 Test Plot of In-Service Monitoring for Channel Move Time



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 33 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017

3.5.6 Test Plot of In-Service Monitoring for Channel Closing Transmission Time



Dwell is the dwell time per spectrum analyzer sampling bin.

S is the sweep time

B is the number of spectrum analyzer sampling bins

C is the intermittent control signals of Channel Closing Transmission Time

N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission

Dwell (2.899 ms)= S (2000 ms) / B (690)

 $C(20.290 \text{ ms}) = N(7) \times Dwell(2.899 \text{ms})$

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 34 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017

Non-Occupancy Period During the 30 minutes observation time, UUT did not make any transmissions on a channel after signal was detected on that channel by either the Channel Availability Check or the In-Service Monitor of the	Mod	ulation Mode		Freq.					
During the 30 minutes observation time, UUT did not make any transmissions on a channel after signal was detected on that channel by either the Channel Availability Check or the In-Service Monitorial Spectrum 2	802.	11ac (VHT80)	· ·	5530 MHz					
signal was detected on that channel by either the Channel Availability Check or the In-Service Monitorial Spectrum Spect	Non-Occupancy Per	iod							
Ref Level -10.00 dBm									
M1 -18.56 dBm 104.35 s	Att SGL	0 dB • SWT 2000 s VBW 3 N							
3m-			M1[1]						

691 pts

Y-value -18.56 dBm

X-value 104.35 s

Date: 28.MAR.2017 19:35:47

CF 5.53 GHz

Marker

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 35 of 110 Report Version : Rev. 02 Issued Date : May 05, 2017

200.0 s/

Function Result

3.6 **Statistical Performance Check**

3.6.1 **Statistical Performance Check Limit**

Radar Type	Minimum Percentage of Successful Detection (Pd)	Minimum Trials
1	60%	30
2	60%	30
3	60%	30
4	60%	30
Aggregate (Radar Types 1-4)	80%	120
5	80%	30
6	70%	30

Report No.: FZ721518-02

The percentage of successful detection is calculated by:

 $\frac{TotalWaveformDetections}{-} \times 100 = Probability of Detection Radar Waveform$

In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows:

Pd1 + Pd2 + Pd3 + Pd4

4

3.6.2 **Measuring Instruments**

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

3.6.3 **Test Procedures**

Test Method

For Statistical Performance Check test. Demonstrating a minimum channel loading of approximately 17% or greater of the test. Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Short Pulse Radar Types 1-4 and 6 to ensure detection occurs. Then Observe the transmissions of the UUT at the end of the Burst on the Operating Channel for duration greater than 22 seconds for Long Pulse Radar Type 5 to ensure detection occurs. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs.

SPORTON INTERNATIONAL INC. Page No. : 36 of 110 TEL: 886-3-327-3456 Report Version : Rev. 02 FAX: 886-3-327-0973 Issued Date : May 05, 2017

3.6.4 Test Result of Statistical Performance Check

Modulation Mode: 802.11ac (VHT20)

Type 1 Radar Statistical Performance

Trial #	adar Statistical Perf	Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulse Per Second)	PRI (us)	1=Detection 0=No Detection
1	5491	1	1930.5	518	1
2	5492	23	326.2	3066	1
3	5493	19	1139.0	878	0
4	5494	12	1355.0	738	1
5	5495	4	1730.1	578	1
6	5496	8	1519.8	658	1
7	5497	15	1253.1	798	1
8	5498	6	1618.1	618	1
9	5499	14	1285.3	778	1
10	5500	3	1792.1	558	1
11	5501	13	1319.3	758	1
12	5502	9	1474.9	678	1
13	5503	7	1567.4	638	1
14	5504	17	1193.3	838	1
15	5505	10	1432.7	698	1
16	5506	-	1692.0	591	1
17	5507	-	328.1	3048	1
18	5508	-	373.4	2678	1
19	5509	-	574.4	1741	1
20	5498	-	1216.5	822	1
21	5499	-	801.3	1248	1
22	5500	-	488.5	2047	1
23	5501	-	956.0	1046	1
24	5502	-	517.6	1932	1
25	5503	-	1422.5	703	1
26	5504	-	542.0	1845	1
27	5505	-	741.3	1349	1
28	5506	-	881.8	1134	1
29	5493	-	427.4	2340	1
30	5494	-	628.9	1590	1
		Detection Percentage ((%)		96.667
Limit	60%				
Test Res	ult				Complied

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 37 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Type 2 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5493	2.6	221	23	1
2	5494	4.6	198	27	1
3	5495	1.1	184	29	1
4	5496	4.8	203	24	1
5	5497	2.4	162	25	1
6	5491	3.4	204	28	1
7	5492	2.3	170	27	1
8	5493	3.5	184	23	1
9	5494	4.9	150	27	1
10	5495	4.6	211	29	1
11	5496	2.9	158	23	1
12	5497	2.6	226	27	0
13	5498	1.6	204	26	1
14	5499	3.9	181	25	1
15	5500	4.6	202	24	1
16	5501	4.1	194	27	1
17	5502	2.3	193	28	1
18	5503	3.9	173	29	1
19	5504	4.3	188	23	1
20	5505	1.5	215	26	0
21	5506	4.9	227	27	1
22	5507	1.1	199	23	1
23	5508	4.5	155	29	1
24	5509	4.0	190	27	1
25	5503	2.4	151	23	1
26	5504	2.5	180	28	0
27	5505	2.5	228	23	1
28	5506	2.5	203	25	1
29	5507	1.5	188	25	1
30	5506	1.9	217	24	1
	De	etection Percentage (%	<u>~</u>		90.00
Limit					60%
Test Res	ult				Complied

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 38 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Type 3 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection ; 0=No Detection
1	5496	8.0	205	16	1
2	5497	6.7	382	18	1
3	5498	8.6	418	16	1
4	5499	9.4	351	17	0
5	5500	7.4	383	18	1
6	5502	9.8	232	16	1
7	5491	9.1	377	17	1
8	5492	9.6	457	16	1
9	5493	8.0	471	18	1
10	5508	9.0	304	18	0
11	5491	8.0	316	17	1
12	5492	9.8	325	16	1
13	5493	8.0	409	17	1
14	5494	9.9	200	17	1
15	5495	8.8	458	16	1
16	5496	8.0	232	18	0
17	5497	8.3	250	16	1
18	5498	8.7	270	16	1
19	5499	7.7	350	17	1
20	5500	7.1	230	16	1
21	5501	7.3	416	18	1
22	5502	7.6	498	18	0
23	5503	7.3	286	17	1
24	5504	7.3	287	16	1
25	5505	7.5	462	17	1
26	5506	6.2	300	17	1
27	5507	6.4	323	18	1
28	5508	7.1	420	16	0
29	5509	7.2	395	18	1
30	5508	8.4	377	16	1
		etection Percentage (%	/ 6)		83.333
Limit		3 (•		60%
Test Res	ult				Complied

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 39 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Type 4 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	18.0	242	15	1
2	5492	19.9	279	12	1
3	5493	12.9	487	14	1
4	5494	15.0	452	13	1
5	5495	16.3	230	12	1
6	5496	19.8	238	13	0
7	5497	18.2	420	16	1
8	5498	16.3	452	15	1
9	5499	14.2	495	12	1
10	5500	17.8	228	16	1
11	5501	19.1	211	16	1
12	5502	18.4	283	15	1
13	5503	11.8	411	12	1
14	5504	14.2	284	13	1
15	5505	13.9	202	12	0
16	5506	17.8	340	14	0
17	5507	15.6	290	16	1
18	5508	14.6	250	16	1
19	5509	14.4	484	15	1
20	5494	18.9	387	13	1
21	5495	11.1	348	15	1
22	5496	13.8	291	16	1
23	5497	14.3	295	12	1
24	5504	12.5	300	12	1
25	5505	12.5	322	14	0
26	5506	12.5	383	13	1
27	5495	15.7	322	16	1
28	5494	19.8	469	13	1
29	5495	18.6	406	15	0
30	5496	15.9	238	14	1
	De	etection Percentage (%	%)		83.333
Limit					60%
Test Resi	ult				Complied

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 40 of 110 Report Version : Rev. 02

Issued Date

: May 05, 2017



Total Type 1~4 Radar Statistical Performance

Radar Type #	Detection Percentage (%)
1	96.667
2	90.000
3	83.333
4	83.333
Aggregate (Radar Types 1-4)	88.333
Limit	80%
Test Result	Complied

Report No.: FZ721518-02

: 41 of 110

: May 05, 2017

: Rev. 02

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

Report Version
FAX: 886-3-327-0973

Issued Date

FCC ID: Z8H89FT0029



Type 5 Radar Statistical Performance

Center Freq. (MHz)	Low Edge (MHz)	High Edge (MHz)		
5500	5491	5509	VSG Freq. (MHz)	Detection
Trial	Chirp	Offset		
1	5	0	5500	1
2	20	0	5500	1
3	7	0	5500	1
4	8	0	5500	1
5	9	0	5500	1
6	10	0	5500	1
7	11	0	5500	1
8	12	0	5500	1
9	13	0	5500	1
10	14	0	5500	0
11	15	6	5497	1
12	16	6.4	5497	1
13	17	6.8	5498	1
14	20	8	5499	0
15	19	7.6	5499	1
16	18	7.2	5498	0
17	17	6.8	5498	1
18	16	6.4	5497	0
19	15	6	5497	1
20	14	5.6	5497	1
21	13	5.2	5504	1
22	12	4.8	5504	1
23	11	4.4	5505	1
24	10	4	5505	1
25	9	3.6	5505	1
26	8	3.2	5506	1
27	18	7.2	5502	0
28	19	7.6	5501	1
29	20	8	5501	1
30	5	2	5507	1
		otal		25
	Detection Per			83%
imit		5 (/		80%
est Result				Complied

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 42 of 110 Report Version : Rev. 02

Issued Date

: May 05, 2017



Trial Number	rial Number 1					
Number of Bur	sts in Trial		8			
Chirp Center F	requency			55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	1	62.1	5	-	-	1091
2	2	56	5	1729	-	133
3	2	91.3	5	1230	-	1057
4	3	50.7	5	1762	1616	1442
5	2	92.6	5	1723	-	544
6	2	87.3	5	1302	-	1089
7	2	59.5	5	1374		
8	2	52.2	5	1653	-	1237
Detection Check	k (1=Detection; 0	=No Detection)				1

Trial Number	Trial Number			2			
Number of Bu	ursts in Trial		9				
Chirp Center	Frequency			55	00		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	3	90	20	1007	1326	30	
2	2	73.7	20	1785	-	979	
3	1	78.1	20	-	-	683	
4	2	92.4	20	1281	-	950	
5	1	61.2	20	-	-	612	
6	3	67.2	20	1525	1870	17	
7	1	78.5	20	-	-	429	
8	2	60.3	20	1931	-	936	
9	3	92.9	20	1403	1476	548	
Detection Che	ck (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 43 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number	rial Number 3				3	
Number of Bui	lumber of Bursts in Trial			10		
Chirp Center F	requency			55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	3	63.4	7	1574	1607	801
2	1	98	7	-	-	966
3	1	58.7	7	-	-	185
4	1	88	7	-	-	1012
5	3	79.5	7	1562	1370	943
6	3	57.1	7	1900	1188	686
7	2	64.4	7	1090	-	599
8	1	78.7	7	-	-	1089
9	1	69.3	7	-	-	188
10	3	55.3	7	1375	1691	933
Detection Chec	k (1=Detection; 0	=No Detection)				1

Trial Number	rial Number 4					
Number of Bur	Bursts in Trial 11					
Chirp Center F	requency			55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	2	74.3	8	1642	-	24
2	1	83.1	8	-	-	985
3	2	59.5	8	1680	-	988
4	2	59.8	8	1786	-	800
5	2	77.6	8	1617	-	339
6	2	79.9	8	1553	-	1040
7	1	56	8	-	-	544
8	3	71.4	8	1406	1927	452
9	1	97.4	8	-	-	204
10	2	98.3	8	1037	-	926
11	1	63.6	8	-	-	1052
Detection Chec	k (1=Detection; C	=No Detection)				1

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 44 of 110 Report Version : Rev. 02 : May 05, 2017

Report No. : FZ721518-02

Issued Date



Trial Number	Frial Number			5		
Number of Bur	sts in Trial		12			
Chirp Center F	requency			55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	1	50	9	-	-	557
2	2	62.5	9	1731	-	567
3	2	55.4	9	1070	-	460
4	1	65.7	9	-	-	4
5	2	58	9	1512	-	64
6	2	60.9	9	1230	-	650
7	3	89.6	9	1598	1738	235
8	3	84.4	9	1271	1617	873
9	3	72.3	9	1498	1321	901
10	1	58.9	9	-	-	663
11	2	74.8	9	1584	-	919
12	1	71.8	9	-	-	375
Detection Chec	k (1=Detection; 0	=No Detection)				1

Trial Number	al Number			6				
Number of B	ursts in Trial		13					
Chirp Center	Frequency			5500				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)					
1	2	88.1	10	1257	-	846		
2	1	58.7	10	-	-	725		
3	2	97.1	10	1037	-	30		
4	3	83.1	10	1029	1106	490		
5	1	62.1	10	-	-	262		
6	2	71.4	10	1058	-	283		
7	2	86.3	10	1867	-	49		
8	3	77.3	10	1418	1876	634		
9	1	78.9	10	-	-	304		
10	3	79.2	10	1055	1572	564		
11	3	52	10	1582	1836	852		
12	3	56.5	10	1195	1542	525		
13	3	100	10	1638	1729	750		
Detection Che	eck (1=Detection; 0	=No Detection)		•		1		

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 45 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			7			
Number of Bui	rsts in Trial		14			
Chirp Center Frequency				55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	2	92.7	11	1208	-	231
2	2	81.3	11	1144	-	804
3	2	60.4	11	1555	-	34
4	2	62.1	11	1320	-	427
5	1	50	11	-	-	577
6	3	65.9	11	1020	1365	3
7	2	73.8	11	1308	-	51
8	2	74.3	11	1143	-	360
9	1	62.9	11	-	-	394
10	2	74.8	11	1404	-	317
11	2	69.7	11	1309	-	532
12	2	69.8	11	1688	-	339
13	2	77.4	11	1857	-	381
14	1	55.1	11	-	-	426
Detection Chec	k (1=Detection; 0	=No Detection)				1

Trial Number	Trial Number			8				
Number of Bur	rsts in Trial		15					
Chirp Center Frequency				55	00			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	1	91.7	12	-	-	776		
2	2	90	12	1196	-	187		
3	3	92.3	12	1486	1853	448		
4	2	66.8	12	1545	-	702		
5	1	64	12	-	-	403		
6	3	95.4	12	1123	1473	230		
7	3	66.8	12	1867	1401	604		
8	3	67.7	12	1472	1397	38		
9	1	68.2	12	-	-	735		
10	2	82.2	12	1297	-	610		
11	1	92.1	12	-	-	618		
12	2	57	12	1764	-	705		
13	2	58.5	12	1310	-	22		
14	3	85.5	12	1630	1447	641		
15	2	82.2	12	1371	-	109		
Detection Chec	k (1=Detection; 0	=No Detection)				1		

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 46 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			9				
Number of Bu	rsts in Trial		16				
Chirp Center Frequency				5500			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)		Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	2	74.4	13	1707	-	442	
2	2	63.6	13	1725	-	280	
3	2	71.3	13	1704	-	459	
4	3	77.6	13	1063	1405	197	
5	3	65.2	13	1731	1294	101	
6	3	55.1	13	1109	1549	17	
7	2	96.8	13	1034	-	131	
8	3	80.8	13	1533	1051	365	
9	1	60.4	13	-	-	222	
10	2	61.8	13	1312	-	371	
11	2	71.3	13	1657	-	33	
12	2	98.1	13	1024	-	291	
13	1	57.9	13	-	-	188	
14	1	91.8	13	-	-	163	
15	2	56.7	13	1259	-	426	
16	2	89.7	13	1690	-	606	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

Trial Number			10			
Number of Bui	rsts in Trial		17			
Chirp Center F	Chirp Center Frequency			55	00	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)
1	2	74.4	14	1107	-	462
2	1	87.6	14	-	-	653
3	2	61.7	14	1741	-	457
4	2	57.5	14	1566	-	388
5	2	66.1	14	1855	-	63
6	3	70.1	14	1044	1012	136
7	1	66.4	14	-	-	343
8	1	59.2	14	-	-	349
9	2	88.3	14	1240	-	362
10	1	64.7	14	-	-	221
11	2	73	14	1703	-	144
12	2	81.7	14	1450	-	671
13	3	70.1	14	1741	1278	320
14	1	63.6	14	-	-	196
15	1	58.7	14	-	-	413
16	2	65.9	14	1478	-	170
17	1	72.7	14	-	-	564
Detection Chec	k (1=Detection; C	=No Detection)				0

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 47 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			11				
Number of Bu	ırsts in Trial		18				
Chirp Center	Chirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	2	72.1	15	1193	-	130	
2	3	76.3	15	1484	1390	114	
3	1	86.1	15	-	-	14	
4	1	73.2	15	-	-	604	
5	1	81.2	15	-	-	548	
6	2	99.5	15	1398	-	173	
7	1	93.9	15	-	-	262	
8	2	75.9	15	1921	-	38	
9	3	79.2	15	1100	1429	84	
10	3	77	15	1166	1799	610	
11	1	91.8	15	-	-	339	
12	3	56.8	15	1330	1556	580	
13	2	83.1	15	1556	-	295	
14	2	63	15	1552	-	156	
15	1	65.7	15	-	-	439	
16	1	64.5	15	-	-	188	
17	1	88.5	15	-	-	419	
18	1	60.6	15	-	-	205	
Detection Che	ck (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 48 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number				12				
Number of Bu	rsts in Trial		19					
Chirp Center F	requency			54	97			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	2	90.5	16	1299	-	381		
2	2	88.4	16	1418	-	327		
3	2	53.7	16	1055	-	536		
4	1	80.5	16	-	-	285		
5	1	50.4	16	-	-	398		
6	2	61.2	16	1749	-	439		
7	2	78.8	16	1065	-	129		
8	3	75	16	1748	1820	325		
9	2	96.7	16	1254	-	440		
10	3	76.3	16	1848	1106	397		
11	1	73.3	16	-	-	232		
12	2	92.4	16	1317	-	91		
13	2	92.4	16	1854	-	256		
14	3	64.4	16	1240	1634	582		
15	2	67.3	16	1473	-	117		
16	2	84.1	16	1795	-	202		
17	1	80.9	16	-	-	135		
18	1	74.6	16	-	-	396		
19	2	97.6	16	1805	-	615		
Detection Chec	k (1=Detection; 0	=No Detection)	·		·	1		

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 49 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number	Trial Number			13				
Number of Bu	rsts in Trial		20					
Chirp Center I	Frequency			54	98			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)		Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	2	66.1	17	1417	-	388		
2	2	86.7	17	1693	-	348		
3	2	70.5	17	1263	-	215		
4	2	78	17	1446	-	28		
5	2	66	17	1185	-	585		
6	2	80.6	17	1855	-	65		
7	1	95.5	17	-	-	92		
8	1	98.8	17	-	-	68		
9	3	64.3	17	1641	1108	517		
10	1	75.1	17	-	-	121		
11	2	72.6	17	1499	-	448		
12	1	60.3	17	-	-	567		
13	2	54.9	17	1056	-	245		
14	2	98.8	17	1023	-	584		
15	2	60.9	17	1243	-	579		
16	2	62.7	17	1226	-	464		
17	1	80.1	17	-	-	89		
18	2	70.9	17	1711	-	153		
19	1	90.7	17	-	-	282		
20	1	98.9	17	-	-	71		
Detection Ched	ck (1=Detection; 0	=No Detection)				1		

Trial Number			14				
Number of Bursts in Trial				3	3		
Chirp Center Frequency				54	99		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Locat (MHz) Spacing (us) Spacing (us) With Interval				
1	2	67.5	20	1542	-	947	
2	3	83.6	20	1272	1696	124	
3	2	93.2	20	1877	-	701	
4	1	55.6	20	-	-	1123	
5	3	84.2	20	1733	1619	756	
6	3	69.1	20	1612	1071	1	
7	2	66.9	20	1905	-	7	
8	3	86.8	20 1697 1621 1082				
Detection Chec	k (1=Detection; C	=No Detection)		•		0	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 50 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			15					
Number of Bursts in Trial				()			
Chirp Center Frequency			54	99				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval (
1	2	62.2	19	1571	-	949		
2	2	85	19	1669	-	189		
3	2	64.5	19	1505	-	176		
4	2	50.4	19	1325	-	538		
5	2	66.1	19	1483	-	908		
6	2	71.2	19	1110	-	1017		
7	3	53.7	19	1445	1677	492		
8	3	62.5	19	1596	1341	349		
9	3	62	19 1929 1221 1105					
Detection Che	ck (1=Detection; 0	=No Detection)				1		

Trial Number			16			
Number of Bur	rsts in Trial		10			
Chirp Center Frequency				54	98	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)
1	2	80.5	18	1910	-	284
2	2	64.2	18	1661	-	751
3	2	90.1	18	1041	-	491
4	2	69.8	18	1495	-	107
5	1	73.1	18	-	-	490
6	3	77.2	18	1418	1145	1155
7	3	52.6	18	1732	1787	772
8	2	71.4	18	1562	-	121
9	2	89.8	18	1491	-	89
10	2	76.4	18	1355	-	615
Detection Chec	k (1=Detection; C	=No Detection)				0

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 51 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			17			
Number of Bur	sts in Trial		11			
Chirp Center Frequency				54	98	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval (us)			
1	2	51.2	17	1236	-	740
2	1	71.7	17	-	-	941
3	2	74.7	17	1164	-	370
4	2	50.9	17	1919	-	371
5	2	65.2	17	1206	-	1033
6	2	98	17	1182	-	346
7	2	58.7	17	1612	-	639
8	1	63.8	17	-	-	1056
9	3	86.3	17	1545	1065	205
10	1	94.4	17	-	-	753
11	3	88.5	17	1699	1319	58
Detection Chec	k (1=Detection; 0	=No Detection)				1

Trial Number			18			
Number of Bu	rsts in Trial		12			
Chirp Center Frequency				54	97	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Loc (MHz) Spacing (us) Spacing (us) Wi			
						Interval (ms)
1	2	88.7	16	1405	-	448
2	3	90.2	16	1544	1235	621
3	1	96.5	16	-	-	512
4	2	80.5	16	1090	-	321
5	2	63.7	16	1268	-	798
6	1	53.4	16	-	-	809
7	2	52.3	16	1043	-	301
8	3	54.7	16	1701	1104	796
9	3	75.6	16	1923	1729	669
10	2	59.2	16	1244	-	369
11	1	56.3	16	-	-	51
12	2	87.8	16	1608	-	733
Detection Chec	k (1=Detection; C	=No Detection)	•	•	•	0

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 52 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			19				
Number of Bui	rsts in Trial		13				
Chirp Center Frequency				54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Location Spacing (us) Spacing (us) Within Interval (m				
1	2	68.2	15	1104	-	229	
2	2	58.4	15	1627	-	488	
3	3	74.7	15	1861	1015	137	
4	2	58.2	15	1593	-	520	
5	1	51.6	15	-	-	799	
6	2	94.7	15	1469	-	43	
7	2	70.7	15	1091	-	126	
8	2	82.9	15	1472	-	607	
9	3	62.7	15	1168	1453	527	
10	2	63.1	15	1529	-	143	
11	1	96.1	15	-	-	176	
12	2	57	15	1457	-	882	
13	3	95.6	15	1707	1501	214	
Detection Chec	k (1=Detection; 0	=No Detection)	•	•	•	1	

Trial Number	Trial Number			20			
Number of Bur	sts in Trial		14				
Chirp Center Frequency				54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	1	95.7	14	-	-	117	
2	1	93.1	14	-	-	720	
3	1	55.8	14	-	-	297	
4	1	76.7	14	-	-	284	
5	2	68	14	1686	-	472	
6	3	94.1	14	1796	1393	264	
7	2	53.9	14	1293	-	525	
8	1	99.3	14	-	-	155	
9	2	73.3	14	1458	-	65	
10	2	93.3	14	1196	-	451	
11	3	55.8	14	1895	1034	243	
12	1	66.4	14	-	-	228	
13	2	65.6	14	1732	-	746	
14	2	76.5	14	1187	-	522	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 53 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			21			
Number of Bu	rsts in Trial		15			
Chirp Center Frequency				55	04	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)
1	1	85.1	13	-	-	565
2	2	72.5	13	1648	-	211
3	1	67.5	13	-	-	348
4	2	56.1	13	1360	-	156
5	1	71.1	13	-	-	718
6	2	93.1	13	1391	-	400
7	1	56.5	13	-	ı	482
8	1	63.8	13	-	ı	703
9	2	67.4	13	1727	ı	780
10	1	52.3	13	-	-	102
11	3	62.4	13	1228	1715	304
12	2	53.3	13	1630	ı	57
13	2	83.1	13	1205	1	768
14	2	93.7	13	1085	-	461
15	2	90.7	13	1297	1	746
Detection Chec	ck (1=Detection; 0	=No Detection)				1

Trial Number	Trial Number			22			
Number of Bui	rsts in Trial			1	6		
Chirp Center Frequency				55	04		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	98.8	12	1439	-	95	
2	1	54.5	12	-	-	676	
3	2	80.5	12	1360	-	8	
4	2	55.9	12	1906	-	373	
5	2	72.1	12	1623	-	254	
6	2	84.4	12	1604	-	480	
7	1	78.5	12	-	-	663	
8	1	88	12	-	-	314	
9	2	74.7	12	1157	-	596	
10	2	97.1	12	1673	-	264	
11	1	81.6	12	-	-	740	
12	1	83.6	12	-	-	163	
13	3	87.6	12	1757	1322	628	
14	2	58.5	12	1372	-	132	
15	3	91.8	12	1767	1183	106	
16	2	58.8	12	1432	-	659	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC. P
TEL: 886-3-327-3456 R

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 54 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			23			
Number of Bur	rsts in Trial		17			
Chirp Center Frequency				55	05	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)
1	1	96	11	-	-	284
2	2	92.5	11	1241	-	488
3	2	89.5	11	1347	-	76
4	2	74.8	11	1607	-	688
5	2	60.6	11	1523	-	28
6	2	71.5	11	1659	-	383
7	2	71.1	11	1454	-	182
8	1	98.7	11	-	-	20
9	2	85.1	11	1770	-	576
10	2	89.2	11	1086	-	410
11	2	60.7	11	1101	-	458
12	2	75.2	11	1719	-	348
13	2	75.7	11	1799	-	481
14	3	56.7	11	1132	1884	587
15	2	65	11	1885	-	480
16	2	64.6	11	1910	-	195
17	3	69.9	11	1410	1190	396
Detection Chec	k (1=Detection; 0	=No Detection)				1

Trial Number			24				
Number of Bur	sts in Trial			1	8		
Chirp Center F	Chirp Center Frequency			5505			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	3	83.8	10	1290	1021	536	
2	2	66.9	10	1112	-	44	
3	3	91	10	1220	1504	611	
4	2	86.1	10	1678	-	456	
5	3	65.5	10	1928	1222	330	
6	1	62.6	10	-	-	297	
7	3	68.7	10	1505	1200	351	
8	3	59.2	10	1452	1114	230	
9	1	73.9	10	-	-	222	
10	1	77.2	10	-	-	57	
11	2	96.4	10	1357	-	399	
12	2	99.9	10	1173	-	299	
13	2	99.9	10	1520	-	464	
14	1	86.7	10	-	-	294	
15	1	92.6	10	-	-	653	
16	1	77.1	10	-	-	550	
17	2	81.1	10	1664	-	566	
18	3	68.4	10	1536	1309	580	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 55 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number				25				
Number of Bu	rsts in Trial		19					
Chirp Center F	requency		5505					
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	3	68.2	9	1723	1868	471		
2	3	83.7	9	1711	1405	368		
3	2	69.7	9	1781	-	425		
4	1	59.7	9	-	-	440		
5	2	96.7	9	1484	-	123		
6	2	95.8	9	1319	-	261		
7	3	71.3	9	1095	1354	332		
8	3	53.2	9	1527	1427	427		
9	2	69.5	9	1771	-	397		
10	3	63.9	9	1075	1447	67		
11	2	93.4	9	1783	ı	174		
12	2	77.3	9	1564	ı	17		
13	2	73.1	9	1294	ı	216		
14	1	77.4	9	-	ı	292		
15	3	57.2	9	1722	1886	619		
16	2	68.7	9	1629	ı	233		
17	1	60.8	9	-	-	226		
18	3	69.7	9	1128	1224	599		
19	1	62.2	9	-	-	433		
Detection Chec	ck (1=Detection; 0	=No Detection)	·			1		

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 56 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			26				
Number of Bu	rsts in Trial		20				
Chirp Center F	requency			55	06		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)		Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	1	80.5	8	-	-	90	
2	3	62.6	8	1406	1343	319	
3	3	85.6	8	1190	1529	384	
4	2	83.9	8	1208	-	567	
5	2	92.4	8	1488	-	234	
6	2	54	8	1529	-	535	
7	3	81.3	8	1501	1812	325	
8	1	98.5	8	-	-	532	
9	1	85.8	8	-	-	272	
10	2	84.7	8	1593	-	182	
11	2	83.3	8	1705	-	134	
12	2	79.8	8	1567	-	286	
13	1	77.9	8	-	-	368	
14	3	98.4	8	1510	1569	290	
15	2	79.9	8	1588	-	231	
16	3	78	8	1140	1353	353	
17	3	55.2	8	1700	1327	53	
18	3	71.9	8	1081	1224	44	
19	1	62	8	-	-	298	
20	3	70.5	8	1888	1442	529	
Detection Chec	ck (1=Detection; 0	=No Detection)				1	

Trial Number				27			
Number of Bursts in Trial				3	3		
Chirp Center F	Chirp Center Frequency			55	02		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	2	69.1	18	1076	-	1436	
2	2	62.1	18	1688	-	22	
3	2	94.8	18	1891	-	897	
4	1	75.8	18	-	-	1186	
5	2	65.4	18	1713	-	589	
6	2	97.7	18	1292	-	614	
7	3	98.1	18	1670	1711	506	
8	2	85.4	18	1672	-	776	
Detection Chec	k (1=Detection; C	=No Detection)				0	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 57 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			28			
Number of Bursts in Trial				(9	
Chirp Center Frequency				55	01	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Location Spacing (us) Spacing (us) Within Interval (ms			
1	3	82	19	1233	1713	679
2	3	87.7	19	1554	1123	473
3	2	98.9	19	1518	-	869
4	1	55	19	-	-	719
5	1	93.6	19	-	-	902
6	2	58.7	19	1641	-	1243
7	2	88.7	19	1387	-	410
8	1	60.3	19	-	-	1154
9	1	97.7	19	-	-	512
Detection Che	ck (1=Detection; 0	=No Detection)				1

Trial Number			29				
Number of Bu	ırsts in Trial			10			
Chirp Center Frequency				55	01		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	1	69.6	20	-	-	1131	
2	1	74.5	20	-	-	290	
3	1	60.9	20	-	-	895	
4	1	74.6	20	-	-	202	
5	2	99.3	20	1501	-	139	
6	2	95.3	20	1065	-	854	
7	2	91.9	20	1722	-	219	
8	2	51	20	1285	-	57	
9	2	87.7	20	1747	-	141	
10	1	87.2	20	-	-	596	
Detection Che	ck (1=Detection; C	=No Detection)				1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 58 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			30				
Number of B	Number of Bursts in Trial			11			
Chirp Center Frequency				55	07		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	3	59.9	5	1901	1196	935	
2	2	77.1	5	1590	-	1038	
3	2	62.7	5	1227	-	690	
4	1	77.1	5	-	-	547	
5	3	99.8	5	1798	1790	551	
6	2	61.5	5	1135	-	876	
7	2	77.5	5	1583	-	448	
8	2	57.3	5	1890	-	736	
9	2	53.5	5	1757	-	362	
10	1	66.6	5	-	-	836	
11	3	80.7	5	1811	1289	410	
Detection Che	eck (1=Detection; 0	=No Detection)	•	•	•	1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 59 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Type 6 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulses / Hop	Pulse Width (us)	PRI (us)	1=Detection 0=No Detection
1	9	1	333	1	9
2	9	1	333	1	9
3	9	1	333	1	9
4	9	1	333	1	9
5	9	1	333	1	9
6	9	1	333	1	9
7	9	1	333	1	9
8	9	1	333	1	9
9	9	1	333	1	9
10	9	1	333	1	9
11	9	1	333	1	9
12	9	1	333	1	9
13	9	1	333	1	9
14	9	1	333	1	9
15	9	1	333	1	9
16	9	1	333	1	9
17	9	1	333	1	9
18	9	1	333	1	9
19	9	1	333	1	9
20	9	1	333	1	9
21	9	1	333	1	9
22	9	1	333	1	9
23	9	1	333	1	9
24	9	1	333	0	9
25	9	1	333	1	9
26	9	1	333	1	9
27	9	1	333	1	9
28	9	1	333	1	9
29	9	1	333	1	9
30	9	1	333	1	9
	D	etection Percenta	ge (%)		96.667
imit			- , ,		70%
est Res	ult				Complied

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 60 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Modulation Mode: 802.11ac (VHT40) Type 1 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulse Per Second)	PRI (us)	1=Detection 0=No Detection
1	5491	1	1930.5	518	1
2	5492	23	326.2	3066	1
3	5493	19	1139.0	878	1
4	5494	12	1355.0	738	1
5	5495	4	1730.1	578	1
6	5496	8	1519.8	658	1
7	5497	15	1253.1	798	0
8	5498	6	1618.1	618	1
9	5499	14	1285.3	778	1
10	5500	3	1792.1	558	1
11	5501	13	1319.3	758	1
12	5502	9	1474.9	678	1
13	5503	7	1567.4	638	0
14	5504	17	1193.3	838	1
15	5505	10	1432.7	698	1
16	5506	-	1692.0	591	1
17	5507	-	328.1	3048	1
18	5508	-	373.4	2678	1
19	5509	-	574.4	1741	0
20	5510	-	1216.5	822	1
21	5511	-	801.3	1248	1
22	5512	-	488.5	2047	1
23	5513	-	956.0	1046	1
24	5514	-	517.6	1932	1
25	5515	-	1422.5	703	1
26	5516	-	542.0	1845	1
27	5517	-	741.3	1349	1
28	5518	-	881.8	1134	1
29	5519	-	427.4	2340	1
30	5520	-	628.9	1590	1
		Detection Percentage	(%)		90.000
Limit					60%
Test Res	ult	<u> </u>	<u> </u>		Complied

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 61 of 110 Report Version : Rev. 02

Issued Date

: May 05, 2017



Type 2 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5515	2.6	221	23	1
2	5516	4.6	198	27	1
3	5517	1.1	184	29	1
4	5518	4.8	203	24	1
5	5519	2.4	162	25	1
6	5520	3.4	204	28	1
7	5521	2.3	170	27	1
8	5522	3.5	184	23	1
9	5523	4.9	150	27	0
10	5524	4.6	211	29	1
11	5525	2.9	158	23	1
12	5526	2.6	226	27	1
13	5527	1.6	204	26	1
14	5528	3.9	181	25	1
15	5529	4.6	202	24	0
16	5494	4.1	194	27	1
17	5495	2.3	193	28	1
18	5496	3.9	173	29	0
19	5515	4.3	188	23	1
20	5516	1.5	215	26	1
21	5517	4.9	227	27	1
22	5518	1.1	199	23	1
23	5495	4.5	155	29	0
24	5496	4.0	190	27	1
25	5497	2.4	151	23	1
26	5498	2.5	180	28	1
27	5499	2.5	228	23	1
28	5500	2.5	203	25	1
29	5501	1.5	188	25	0
30	5491	1.9	217	24	1
	D	etection Percentage (%)		83.333
Limit					60%
Test Resi	ult				Complied

 SPORTON INTERNATIONAL INC.
 Page 1

 TEL: 886-3-327-3456
 Reg

 FAX: 886-3-327-0973
 Issi

FCC ID: Z8H89FT0029

Page No. : 62 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Type 3 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5515	8.0	205	16	1
2	5516	6.7	382	18	1
3	5497	8.6	418	16	1
4	5498	9.4	351	17	1
5	5499	7.4	383	18	0
6	5500	9.8	232	16	1
7	5501	9.1	377	17	1
8	5502	9.6	457	16	1
9	5503	8.0	471	18	1
10	5504	9.0	304	18	0
11	5525	8.0	316	17	1
12	5526	9.8	325	16	1
13	5527	8.0	409	17	1
14	5528	9.9	200	17	1
15	5529	8.8	458	16	1
16	5494	8.0	232	18	1
17	5495	8.3	250	16	0
18	5496	8.7	270	16	1
19	5515	7.7	350	17	1
20	5516	7.1	230	16	1
21	5517	7.3	416	18	1
22	5518	7.6	498	18	0
23	5495	7.3	286	17	1
24	5496	7.3	287	16	1
25	5497	7.5	462	17	1
26	5498	6.2	300	17	1
27	5499	6.4	323	18	1
28	5500	7.1	420	16	1
29	5501	7.2	395	18	0
30	5491	8.4	377	16	1
	D	etection Percentage (9	%)		83.333
Limit					60%
Test Resu	ult				Complied

 SPORTON INTERNATIONAL INC.
 Pa

 TEL: 886-3-327-3456
 Re

 FAX: 886-3-327-0973
 Iss

FCC ID: Z8H89FT0029

Page No. : 63 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Type 4 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5515	18.0	242	15	1
2	5516	19.9	279	12	1
3	5517	12.9	487	14	1
4	5518	15.0	452	13	1
5	5519	16.3	230	12	1
6	5520	19.8	238	13	1
7	5521	18.2	420	16	1
8	5522	16.3	452	15	1
9	5523	14.2	495	12	0
10	5524	17.8	228	16	1
11	5525	19.1	211	16	1
12	5526	18.4	283	15	1
13	5527	11.8	411	12	0
14	5528	14.2	284	13	1
15	5529	13.9	202	12	1
16	5494	17.8	340	14	1
17	5495	15.6	290	16	0
18	5496	14.6	250	16	1
19	5515	14.4	484	15	1
20	5516	18.9	387	13	1
21	5517	11.1	348	15	0
22	5518	13.8	291	16	1
23	5495	14.3	295	12	1
24	5496	12.5	300	12	1
25	5497	12.5	322	14	1
26	5498	12.5	383	13	0
27	5499	15.7	322	16	1
28	5500	19.8	469	13	1
29	5501	18.6	406	15	1
30	5491	15.9	238	14	0
<u> </u>		etection Percentage (9	%)		80.000
imit		3 \	•		60%
est Resi	ult				Complied

SPORTON INTERNATIONAL INC.
TEL: 886-3-327-3456
FAX: 886-3-327-0973

FCC ID: Z8H89FT0029

Page No. : 64 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Total Type 1~4 Radar Statistical Performance

Radar Type #	Detection Percentage (%)
1	90.000
2	83.333
3	83.333
4	80.000
Aggregate (Radar Types 1-4)	84.167
Limit	80%
Test Result	Complied

Report No. : FZ721518-02

: 65 of 110

: May 05, 2017

: Rev. 02

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

Page No.

Report Version
Issued Date

FCC ID: Z8H89FT0029



Type 5 Radar Statistical Performance

Center Freq. (MHz)	Low Edge (MHz)	High Edge (MHz)		
5510	5491	5529	VSG Freq. (MHz)	Detection
Trial	Chirp	Offset		
1	5	0.0	5510	1
2	20	0.0	5510	1
3	7	0.0	5510	1
4	8	0.0	5510	1
5	9	0.0	5510	1
6	10	0.0	5510	1
7	11	0.0	5510	1
8	12	0.0	5510	1
9	13	0.0	5510	1
10	14	0.0	5510	1
11	15	6.0	5497	1
12	16	6.4	5497	1
13	17	6.8	5498	1
14	20	8.0	5499	1
15	19	7.6	5499	1
16	18	7.2	5498	1
17	17	6.8	5498	1
18	16	6.4	5497	0
19	15	6.0	5497	1
20	14	5.6	5497	1
21	13	5.2	5524	1
22	12	4.8	5524	0
23	11	4.4	5525	1
24	10	4.0	5525	1
25	9	3.6	5525	1
26	8	3.2	5526	0
27	18	7.2	5522	1
28	19	7.6	5521	1
29	20	8.0	5521	1
30	5	2.0	5527	1
	To	otal		27
	90%			
imit	Detection Per	• ,		80%
est Result				Complied

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 66 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number						
Number of Bur	sts in Trial		8			
Chirp Center F	requency			55	10	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	1	62.1	5	-	-	1091
2	2	56	5	1729	-	133
3	2	91.3	5	1230	-	1057
4	3	50.7	5	1762	1616	1442
5	2	92.6	5	1723	-	544
6	2	87.3	5	1302	-	1089
7	2	59.5	5	1291	-	1374
8	2	52.2	5	1653	-	1237
Detection Check	k (1=Detection; 0	=No Detection)				1

Trial Number			2				
Number of Bu	rsts in Trial		9				
Chirp Center	Frequency			55	10		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	3	90	20	1007	1326	30	
2	2	73.7	20	1785	-	979	
3	1	78.1	20	-	-	683	
4	2	92.4	20	1281	-	950	
5	1	61.2	20	-	-	612	
6	3	67.2	20	1525	1870	17	
7	1	78.5	20	-	-	429	
8	2	60.3	20	936			
9	3	92.9	20	1403	1476	548	
Detection Ched	ck (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 67 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number		3				
Number of Bur	rsts in Trial	sts in Trial 10			0	
Chirp Center F	Chirp Center Frequency			55	10	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	3	63.4	7	1574	1607	801
2	1	98	7	-	-	966
3	1	58.7	7	-	-	185
4	1	88	7	-	-	1012
5	3	79.5	7	1562	1370	943
6	3	57.1	7	1900	1188	686
7	2	64.4	7	1090	-	599
8	1	78.7	7	-	-	1089
9	1	69.3	7	-	-	188
10	3	55.3	7	1375	1691	933
Detection Chec	k (1=Detection; 0	=No Detection)				1

Trial Number						
Number of Bur	sts in Trial		11			
Chirp Center F	requency			55	10	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)		
1	2	74.3	8	1642	-	24
2	1	83.1	8	-	-	985
3	2	59.5	8	1680	-	988
4	2	59.8	8	1786	-	800
5	2	77.6	8	1617	-	339
6	2	79.9	8	1553	-	1040
7	1	56	8	-	-	544
8	3	71.4	8	1406	1927	452
9	1	97.4	8	-	-	204
10	2	98.3	8	1037	-	926
11	1	63.6	8	-	-	1052
Detection Chec	k (1=Detection; C	=No Detection)				1

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 68 of 110 Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			5				
Number of Bur	sts in Trial		12				
Chirp Center F	requency			55	10		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '			
1	1	50	9	_	-	Interval (ms) 557	
2	2	62.5	9	1731	-	567	
3	2	55.4	9	1070	-	460	
4	1	65.7	9	-	-	4	
5	2	58	9	1512	-	64	
6	2	60.9	9	1230	-	650	
7	3	89.6	9	1598	1738	235	
8	3	84.4	9	1271	1617	873	
9	3	72.3	9	1498	1321	901	
10	1	58.9	9	-	-	663	
11	2	74.8	9	1584	-	919	
12	1	71.8	9	-	-	375	
Detection Check	k (1=Detection; 0	=No Detection)				1	

Trial Number			6				
Number of Bursts in Trial			13				
Chirp Center Frequency			5510				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	2	88.1	10	1257	-	846	
2	1	58.7	10	-	-	725	
3	2	97.1	10	1037	-	30	
4	3	83.1	10	1029	1106	490	
5	1	62.1	10	-	-	262	
6	2	71.4	10	1058	-	283	
7	2	86.3	10	1867	-	49	
8	3	77.3	10	1418	1876	634	
9	1	78.9	10	-	-	304	
10	3	79.2	10	1055	1572	564	
11	3	52	10	1582	1836	852	
12	3	56.5	10	1195	1542	525	
13	3	100	10	1638	1729	750	
Detection Chec	k (1=Detection; 0	=No Detection)		•		1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 69 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			7				
Number of Bursts in Trial			14				
Chirp Center Frequency			5510				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	2	92.7	11	1208	-	231	
2	2	81.3	11	1144	-	804	
3	2	60.4	11	1555	-	34	
4	2	62.1	11	1320	-	427	
5	1	50	11	-	-	577	
6	3	65.9	11	1020	1365	3	
7	2	73.8	11	1308	-	51	
8	2	74.3	11	1143	-	360	
9	1	62.9	11	-	-	394	
10	2	74.8	11	1404	-	317	
11	2	69.7	11	1309	-	532	
12	2	69.8	11	1688	-	339	
13	2	77.4	11	1857	-	381	
14	1	55.1	11	-	-	426	
Detection Check (1=Detection; 0=No Detection)							

Trial Number			8				
Number of Bursts in Trial			15				
Chirp Center Frequency				5510			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	1	91.7	12	-	-	776	
2	2	90	12	1196	-	187	
3	3	92.3	12	1486	1853	448	
4	2	66.8	12	1545	-	702	
5	1	64	12	-	-	403	
6	3	95.4	12	1123	1473	230	
7	3	66.8	12	1867	1401	604	
8	3	67.7	12	1472	1397	38	
9	1	68.2	12	-	-	735	
10	2	82.2	12	1297	-	610	
11	1	92.1	12	-	-	618	
12	2	57	12	1764	-	705	
13	2	58.5	12	1310	-	22	
14	3	85.5	12	1630	1447	641	
15	2	82.2	12	1371	-	109	
Detection Check (1=Detection; 0=No Detection)						1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 70 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			9				
Number of Bursts in Trial			16				
Chirp Center Frequency			5510				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	2	74.4	13	1707	-	442	
2	2	63.6	13	1725	-	280	
3	2	71.3	13	1704	-	459	
4	3	77.6	13	1063	1405	197	
5	3	65.2	13	1731	1294	101	
6	3	55.1	13	1109	1549	17	
7	2	96.8	13	1034	-	131	
8	3	80.8	13	1533	1051	365	
9	1	60.4	13	-	-	222	
10	2	61.8	13	1312	-	371	
11	2	71.3	13	1657	-	33	
12	2	98.1	13	1024	-	291	
13	1	57.9	13	-	-	188	
14	1	91.8	13	-	-	163	
15	2	56.7	13	1259	-	426	
16	2	89.7	13	1690	-	606	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

Trial Number Number of Bursts in Trial			10 17					
								Chirp Center Frequency
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	2	74.4	14	1107	-	462		
2	1	87.6	14	-	-	653		
3	2	61.7	14	1741	-	457		
4	2	57.5	14	1566	-	388		
5	2	66.1	14	1855	-	63		
6	3	70.1	14	1044	1012	136		
7	1	66.4	14	-	-	343		
8	1	59.2	14	-	-	349		
9	2	88.3	14	1240	-	362		
10	1	64.7	14	-	-	221		
11	2	73	14	1703	-	144		
12	2	81.7	14	1450	-	671		
13	3	70.1	14	1741	1278	320		
14	1	63.6	14	-	-	196		
15	1	58.7	14	-	-	413		
16	2	65.9	14	1478	-	170		
17	1	72.7	14	-	-	564		
Detection Che	ck (1=Detection; C	=No Detection)				1		

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 71 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			11				
Number of Bursts in Trial			18				
Chirp Center Frequency				54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	2	72.1	15	1193	-	130	
2	3	76.3	15	1484	1390	114	
3	1	86.1	15	-	-	14	
4	1	73.2	15	-	-	604	
5	1	81.2	15	-	-	548	
6	2	99.5	15	1398	-	173	
7	1	93.9	15	-	-	262	
8	2	75.9	15	1921	-	38	
9	3	79.2	15	1100	1429	84	
10	3	77	15	1166	1799	610	
11	1	91.8	15	-	-	339	
12	3	56.8	15	1330	1556	580	
13	2	83.1	15	1556	-	295	
14	2	63	15	1552	-	156	
15	1	65.7	15	-	-	439	
16	1	64.5	15	-	-	188	
17	1	88.5	15	-	-	419	
18	1	60.6	15	-	-	205	
Detection Check (1=Detection; 0=No Detection)							

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 72 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			12					
Number of Bui	rsts in Trial		19					
Chirp Center F	Chirp Center Frequency			54	97			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)					
1	2	90.5	16	1299	-	381		
2	2	88.4	16	1418	-	327		
3	2	53.7	16	1055	-	536		
4	1	80.5	16	-	-	285		
5	1	50.4	16	-	-	398		
6	2	61.2	16	1749	-	439		
7	2	78.8	16	1065	-	129		
8	3	75	16	1748	1820	325		
9	2	96.7	16	1254	-	440		
10	3	76.3	16	1848	1106	397		
11	1	73.3	16	-	-	232		
12	2	92.4	16	1317	-	91		
13	2	92.4	16	1854	-	256		
14	3	64.4	16	1240	1634	582		
15	2	67.3	16	1473	-	117		
16	2	84.1	16	1795	-	202		
17	1	80.9	16	-	-	135		
18	1	74.6	16	-	-	396		
19	2	97.6	16	1805	-	615		
Detection Chec	k (1=Detection; 0	=No Detection)				1		

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 73 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number	Trial Number			13				
Number of Bu	rsts in Trial		20					
Chirp Center F	requency			5498				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	2	66.1	17	1417	-	388		
2	2	86.7	17	1693	-	348		
3	2	70.5	17	1263	-	215		
4	2	78	17	1446	-	28		
5	2	66	17	1185	-	585		
6	2	80.6	17	1855	-	65		
7	1	95.5	17	-	-	92		
8	1	98.8	17	-	-	68		
9	3	64.3	17	1641	1108	517		
10	1	75.1	17	-	-	121		
11	2	72.6	17	1499	-	448		
12	1	60.3	17	-	-	567		
13	2	54.9	17	1056	-	245		
14	2	98.8	17	1023	-	584		
15	2	60.9	17	1243	-	579		
16	2	62.7	17	1226	-	464		
17	1	80.1	17	-	-	89		
18	2	70.9	17	1711	-	153		
19	1	90.7	17	-	-	282		
20	1	98.9	17	-	-	71		
Detection Chec	ck (1=Detection; 0	=No Detection)				1		

Trial Number			14				
Number of Bursts in Trial				3	3		
Chirp Center F	Chirp Center Frequency			54	99		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	2	67.5	20	1542	-	947	
2	3	83.6	20	1272	1696	124	
3	2	93.2	20	1877	-	701	
4	1	55.6	20	-	-	1123	
5	3	84.2	20	1733	1619	756	
6	3	69.1	20	1612	1071	1	
7	2	66.9	20	1905	-	7	
8	3	86.8	20 1697 1621 1082				
Detection Chec	k (1=Detection; C	=No Detection)				1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 74 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			15					
Number of Bursts in Trial				()			
Chirp Center Frequency			54	99				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Loc Spacing (us) Spacing (us) W					
1	2	62.2	19	1571	-	949		
2	2	85	19	1669	-	189		
3	2	64.5	19	1505	-	176		
4	2	50.4	19	1325	-	538		
5	2	66.1	19	1483	-	908		
6	2	71.2	19	1110	-	1017		
7	3	53.7	19	1445	1677	492		
8	3	62.5	19	1596	1341	349		
9	3	62	19 1929 1221 1105					
Detection Che	ck (1=Detection; 0	=No Detection)				1		

Trial Number			16			
Number of Bur	rsts in Trial		10			
Chirp Center Frequency				54	98	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)
1	2	80.5	18	1910	-	284
2	2	64.2	18	1661	-	751
3	2	90.1	18	1041	-	491
4	2	69.8	18	1495	-	107
5	1	73.1	18	-	-	490
6	3	77.2	18	1418	1145	1155
7	3	52.6	18	1732	1787	772
8	2	71.4	18	1562	-	121
9	2	89.8	18	1491	-	89
10	2	76.4	18	1355	-	615
Detection Chec	k (1=Detection; C	=No Detection)				1

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 75 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			17					
Number of Bu	rsts in Trial			11				
Chirp Center Frequency				54	98			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Loca Spacing (us) Spacing (us) With Interva					
1	2	51.2	17	1236	-	740		
2	1	71.7	17	-	-	941		
3	2	74.7	17	1164	-	370		
4	2	50.9	17	1919	-	371		
5	2	65.2	17	1206	-	1033		
6	2	98	17	1182	-	346		
7	2	58.7	17	1612	-	639		
8	1	63.8	17	-	-	1056		
9	3	86.3	17	1545	1065	205		
10	1	94.4	17	-	-	753		
11	3	88.5	17	1699	1319	58		
Detection Ched	ck (1=Detection; 0	=No Detection)				1		

Trial Number			18			
Number of Bu	rsts in Trial		12			
Chirp Center Frequency				54	97	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within			
						Interval (ms)
1	2	88.7	16	1405	-	448
2	3	90.2	16	1544	1235	621
3	1	96.5	16	-	-	512
4	2	80.5	16	1090	-	321
5	2	63.7	16	1268	-	798
6	1	53.4	16	-	-	809
7	2	52.3	16	1043	-	301
8	3	54.7	16	1701	1104	796
9	3	75.6	16	1923	1729	669
10	2	59.2	16	1244	-	369
11	1	56.3	16	-	-	51
12	2	87.8	16	1608	-	733
Detection Chec	ck (1=Detection; C	=No Detection)	•	•	•	0

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 76 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			19			
Number of Bur	sts in Trial		13			
Chirp Center Frequency				54	97	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Local Spacing (us) Spacing (us) With Interval Interval Pulse 2-to-3 Pulse 2-to			
1	2	68.2	15	1104	-	229
2	2	58.4	15	1627	-	488
3	3	74.7	15	1861	1015	137
4	2	58.2	15	1593	-	520
5	1	51.6	15	-	-	799
6	2	94.7	15	1469	-	43
7	2	70.7	15	1091	-	126
8	2	82.9	15	1472	-	607
9	3	62.7	15	1168	1453	527
10	2	63.1	15	1529	-	143
11	1	96.1	15	-	-	176
12	2	57	15	1457	-	882
13	3	95.6	15	1707	1501	214
Detection Chec	k (1=Detection; 0	=No Detection)				1

Trial Number	Trial Number			20				
Number of Bur	rsts in Trial		14					
Chirp Center F	Chirp Center Frequency			54	97			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)				
1	1	95.7	14	-	-	117		
2	1	93.1	14	-	-	720		
3	1	55.8	14	-	-	297		
4	1	76.7	14	-	-	284		
5	2	68	14	1686	-	472		
6	3	94.1	14	1796	1393	264		
7	2	53.9	14	1293	-	525		
8	1	99.3	14	-	-	155		
9	2	73.3	14	1458	-	65		
10	2	93.3	14	1196	-	451		
11	3	55.8	14	1895	1034	243		
12	1	66.4	14	-	-	228		
13	2	65.6	14	1732	-	746		
14	2	76.5	14	1187	-	522		
Detection Chec	k (1=Detection; 0	=No Detection)				1		

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 77 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number	Trial Number			21				
Number of Bu	rsts in Trial		15					
Chirp Center F	requency			55	24			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)					
1	1	85.1	13	-	-	565		
2	2	72.5	13	1648	-	211		
3	1	67.5	13	-	-	348		
4	2	56.1	13	1360	-	156		
5	1	71.1	13	-	-	718		
6	2	93.1	13	1391	-	400		
7	1	56.5	13	-	-	482		
8	1	63.8	13	-	-	703		
9	2	67.4	13	1727	-	780		
10	1	52.3	13	-	-	102		
11	3	62.4	13	1228	1715	304		
12	2	53.3	13	1630	-	57		
13	2	83.1	13	1205	-	768		
14	2	93.7	13	1085	-	461		
15	2	90.7	13	1297	-	746		
Detection Chec	ck (1=Detection; 0	=No Detection)				1		

Report No. : FZ721518-02

Trial Number			22				
Number of Bur	sts in Trial		16				
Chirp Center F	Chirp Center Frequency			55	24		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)	
1	2	98.8	12	1439	-	95	
2	1	54.5	12	-	-	676	
3	2	80.5	12	1360	-	8	
4	2	55.9	12	1906	-	373	
5	2	72.1	12	1623	-	254	
6	2	84.4	12	1604	-	480	
7	1	78.5	12	-	-	663	
8	1	88	12	-	-	314	
9	2	74.7	12	1157	-	596	
10	2	97.1	12	1673	-	264	
11	1	81.6	12	-	-	740	
12	1	83.6	12	-	-	163	
13	3	87.6	12	1757	1322	628	
14	2	58.5	12	1372	-	132	
15	3	91.8	12	1767	1183	106	
16	2	58.8	12	1432	-	659	
Detection Chec	k (1=Detection; 0	=No Detection)				0	

 SPORTON INTERNATIONAL INC.
 Page No.
 : 78 of 110

 TEL: 886-3-327-3456
 Report Version
 : Rev. 02

 FAX: 886-3-327-0973
 Issued Date
 : May 05, 2017

FCC ID: Z8H89FT0029



Trial Number			23					
Number of Bu	rsts in Trial		17					
Chirp Center Frequency				55	25			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us) In				
1	1	96	11	-	-	284		
2	2	92.5	11	1241	-	488		
3	2	89.5	11	1347	-	76		
4	2	74.8	11	1607	-	688		
5	2	60.6	11	1523	-	28		
6	2	71.5	11	1659	-	383		
7	2	71.1	11	1454	-	182		
8	1	98.7	11	-	-	20		
9	2	85.1	11	1770	-	576		
10	2	89.2	11	1086	-	410		
11	2	60.7	11	1101	-	458		
12	2	75.2	11	1719	-	348		
13	2	75.7	11	1799	-	481		
14	3	56.7	11	1132	1884	587		
15	2	65	11	1885	-	480		
16	2	64.6	11	1910	-	195		
17	3	69.9	11	1410	1190	396		
Detection Chec	k (1=Detection; C	=No Detection)				1		

Trial Number			24				
Number of Bu	rsts in Trial			1	8		
Chirp Center F	Chirp Center Frequency			55	25		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)		Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	3	83.8	10	1290	1021	536	
2	2	66.9	10	1112	-	44	
3	3	91	10	1220	1504	611	
4	2	86.1	10	1678	-	456	
5	3	65.5	10	1928	1222	330	
6	1	62.6	10	-	-	297	
7	3	68.7	10	1505	1200	351	
8	3	59.2	10	1452	1114	230	
9	1	73.9	10	-	-	222	
10	1	77.2	10	-	-	57	
11	2	96.4	10	1357	-	399	
12	2	99.9	10	1173	-	299	
13	2	99.9	10	1520	-	464	
14	1	86.7	10	-	-	294	
15	1	92.6	10	-	-	653	
16	1	77.1	10	-	-	550	
17	2	81.1	10	1664	-	566	
18	3	68.4	10	1536	1309	580	
Detection Chec	ck (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 79 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number	•			2	5		
Number of B	ursts in Trial		19				
Chirp Center Frequency				55	25		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Chirp Width Pulse 1-to-2 Pulse 2-to-3			
1	3	68.2	9	1723	1868	471	
2	3	83.7	9	1711	1405	368	
3	2	69.7	9	1781	-	425	
4	1	59.7	9	-	-	440	
5	2	96.7	9	1484	-	123	
6	2	95.8	9	1319	-	261	
7	3	71.3	9	1095	1354	332	
8	3	53.2	9	1527	1427	427	
9	2	69.5	9	1771	-	397	
10	3	63.9	9	1075	1447	67	
11	2	93.4	9	1783	-	174	
12	2	77.3	9	1564	-	17	
13	2	73.1	9	1294	-	216	
14	1	77.4	9	-	-	292	
15	3	57.2	9	1722	1886	619	
16	2	68.7	9	1629	-	233	
17	1	60.8	9	-	-	226	
18	3	69.7	9	1128	1224	599	
19	1	62.2	9	-	-	433	
Detection Che	eck (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 80 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			26					
Number of Bui	rsts in Trial			2	0			
Chirp Center F	Chirp Center Frequency			55	26			
Burst	No. of Pulses	Pulse Width (us)	(MHz)	Chirp Width Pulse 1-to-2 Pulse 2-to-3				
1	1	80.5	8	-	-	90		
2	3	62.6	8	1406	1343	319		
3	3	85.6	8	1190	1529	384		
4	2	83.9	8	1208	-	567		
5	2	92.4	8	1488	-	234		
6	2	54	8	1529	-	535		
7	3	81.3	8	1501	1812	325		
8	1	98.5	8	-	-	532		
9	1	85.8	8	-	-	272		
10	2	84.7	8	1593	-	182		
11	2	83.3	8	1705	-	134		
12	2	79.8	8	1567	-	286		
13	1	77.9	8	-	-	368		
14	3	98.4	8	1510	1569	290		
15	2	79.9	8	1588	-	231		
16	3	78	8	1140	1353	353		
17	3	55.2	8	1700	1327	53		
18	3	71.9	8	1081	1224	44		
19	1	62	8	-	-	298		
20	3	70.5	8	1888	1442	529		
Detection Chec	k (1=Detection; 0	=No Detection)				0		

Trial Number	rial Number 27						
Number of Bur	rsts in Trial		8				
Chirp Center F	requency			55	22		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)				
1	2	69.1	18	1076	_	Interval (ms) 1436	
2	2	62.1	18	1688	-	22	
3	2	94.8	18	1891	-	897	
4	1	75.8	18	-	-	1186	
5	2	65.4	18	1713	-	589	
6	2	97.7	18	614			
7	3	98.1	18 1670 1711 506				
8	2	85.4	18	776			
Detection Chec	k (1=Detection; C	=No Detection)		•		1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 81 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			28					
Number of Bu	ırsts in Trial		9					
Chirp Center	Frequency			55	21			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)					
1	3	82	19	1233	1713	Interval (ms) 679		
2	3	87.7	19	1554	1123	473		
3	2	98.9	19	1518	-	869		
4	1	55	19	-	-	719		
5	1	93.6	19	-	-	902		
6	2	58.7	19	1641	-	1243		
7	2	88.7	19 1387 - 410					
8	1	60.3	19 1154					
9 1 97.7 19						512		
Detection Che	ck (1=Detection; 0	=No Detection)				1		

Trial Number			29				
Number of Bui	Number of Bursts in Trial			1	0		
Chirp Center Frequency				55	21		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)				
1	1	69.6	20	-	-	1131	
2	1	74.5	20	-	-	290	
3	1	60.9	20	-	-	895	
4	1	74.6	20	-	-	202	
5	2	99.3	20	1501	-	139	
6	2	95.3	20	1065	-	854	
7	2	91.9	20	1722	-	219	
8	2	51	20	57			
9	2	87.7	20	141			
10	1	596					
Detection Chec	k (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 82 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number	•		30				
Number of B	lumber of Bursts in Trial			11			
Chirp Center	Chirp Center Frequency			55	27		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Chirp Width Pulse 1-to-2 Pulse 2-to-3			
1	3	59.9	5	1901	1196	935	
2	2	77.1	5	1590	-	1038	
3	2	62.7	5	1227	-	690	
4	1	77.1	5	-	-	547	
5	3	99.8	5	1798	1790	551	
6	2	61.5	5	1135	-	876	
7	2	77.5	5	1583	-	448	
8	2	57.3	5	1890	-	736	
9	2	53.5	5 1757 - 3				
10	1	66.6	5	836			
11	3	80.7	5	1811	1289	410	
Detection Che	eck (1=Detection; C	=No Detection)	•	•		1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 83 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Type 6 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulses / Hop	Pulse Width (us)	PRI (us)	1=Detection 0=No Detection
1	5510	9	1	333	1
2	5510	9	1	333	1
3	5510	9	1	333	1
4	5510	9	1	333	1
5	5510	9	1	333	1
6	5510	9	1	333	1
7	5510	9	1	333	1
8	5510	9	1	333	1
9	5510	9	1	333	1
10	5510	9	1	333	0
11	5510	9	1	333	1
12	5510	9	1	333	1
13	5510	9	1	333	1
14	5510	9	1	333	1
15	5510	9	1	333	1
16	5510	9	1	333	1
17	5510	9	1	333	1
18	5510	9	1	333	1
19	5510	9	1	333	1
20	5510	9	1	333	1
21	5510	9	1	333	1
22	5510	9	1	333	1
23	5510	9	1	333	1
24	5510	9	1	333	1
25	5510	9	1	333	1
26	5510	9	1	333	1
27	5510	9	1	333	1
28	5510	9	1	333	1
29	5510	9	1	333	1
30	5510	9	1	333	1
	D	etection Percenta	age (%)		96.667
_imit	70%				
Test Res	Complied				

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 84 of 110

Report Version : Rev. 02

Issued Date : May 05, 2017



Modulation Mode: 802.11ac (VHT80)

Type 1 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Repetition Frequency Number	Pulse Repetition Frequency (Pulse Per Second)	PRI (us)	1=Detection 0=No Detection
1	5491	1	1930.5	518	1
2	5492	23	326.2	3066	1
3	5493	19	1139.0	878	1
4	5494	12	1355.0	738	1
5	5495	4	1730.1	578	1
6	5496	8	1519.8	658	1
7	5497	15	1253.1	798	1
8	5498	6	1618.1	618	1
9	5499	14	1285.3	778	1
10	5500	3	1792.1	558	0
11	5501	13	1319.3	758	1
12	5502	9	1474.9	678	1
13	5503	7	1567.4	638	1
14	5504	17	1193.3	838	1
15	5505	10	1432.7	698	1
16	5506	-	1692.0	591	1
17	5556	-	328.1	3048	1
18	5557	-	373.4	2678	0
19	5558	-	574.4	1741	1
20	5559	-	1216.5	822	1
21	5560	-	801.3	1248	1
22	5561	-	488.5	2047	1
23	5562	-	956.0	1046	1
24	5563	-	517.6	1932	1
25	5564	-	1422.5	703	1
26	5565	-	542.0	1845	1
27	5566	-	741.3	1349	1
28	5567	-	881.8	1134	1
29	5568	-	427.4	2340	1
30	5569	-	628.9	1590	1
		Detection Percentage	(%)		93.333
.imit					60%
est Res	ult				Complied

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

FCC ID: Z8H89FT0029

Page No. : 85 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Type 2 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	2.6	221	23	1
2	5493	4.6	198	27	1
3	5495	1.1	184	29	1
4	5497	4.8	203	24	1
5	5499	2.4	162	25	0
6	5501	3.4	204	28	1
7	5503	2.3	170	27	1
8	5505	3.5	184	23	1
9	5507	4.9	150	27	1
10	5509	4.6	211	29	1
11	5511	2.9	158	23	1
12	5513	2.6	226	27	0
13	5515	1.6	204	26	1
14	5517	3.9	181	25	1
15	5519	4.6	202	24	1
16	5521	4.1	194	27	0
17	5516	2.3	193	28	1
18	5530	3.9	173	29	1
19	5505	4.3	188	23	1
20	5498	1.5	215	26	1
21	5505	4.9	227	27	1
22	5512	1.1	199	23	0
23	5519	4.5	155	29	1
24	5526	4.0	190	27	1
25	5533	2.4	151	23	1
26	5540	2.5	180	28	1
27	5547	2.5	228	23	1
28	5554	2.5	203	25	1
29	5561	1.5	188	25	1
30	5568	1.9	217	24	1
	D	etection Percentage (%)		86.667
.imit		60%			
est Resi				Complied	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 86 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Type 3 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	8.0	205	16	1
2	5496	6.7	382	18	1
3	5501	8.6	418	16	1
4	5506	9.4	351	17	1
5	5511	7.4	383	18	1
6	5516	9.8	232	16	0
7	5521	9.1	377	17	1
8	5526	9.6	457	16	1
9	5531	8.0	471	18	1
10	5536	9.0	304	18	1
11	5541	8.0	316	17	1
12	5546	9.8	325	16	1
13	5551	8.0	409	17	1
14	5552	9.9	200	17	0
15	5553	8.8	458	16	1
16	5554	8.0	232	18	0
17	5555	8.3	250	16	1
18	5556	8.7	270	16	1
19	5557	7.7	350	17	1
20	5558	7.1	230	16	1
21	5559	7.3	416	18	1
22	5560	7.6	498	18	1
23	5561	7.3	286	17	1
24	5562	7.3	287	16	1
25	5563	7.5	462	17	1
26	5564	6.2	300	17	1
27	5565	6.4	323	18	1
28	5566	7.1	420	16	0
29	5567	7.2	395	18	1
30	5568	8.4	377	16	0
•	D	etection Percentage (%)		83.333
Limit	60%				
Test Resu	Complied				

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 87 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Type 4 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	18.0	242	15	1
2	5492	19.9	279	12	1
3	5493	12.9	487	14	1
4	5494	15.0	452	13	0
5	5495	16.3	230	12	1
6	5496	19.8	238	13	1
7	5497	18.2	420	16	1
8	5498	16.3	452	15	1
9	5499	14.2	495	12	1
10	5500	17.8	228	16	1
11	5501	19.1	211	16	0
12	5502	18.4	283	15	1
13	5503	11.8	411	12	1
14	5504	14.2	284	13	1
15	5505	13.9	202	12	1
16	5506	17.8	340	14	1
17	5507	15.6	290	16	0
18	5508	14.6	250	16	1
19	5509	14.4	484	15	1
20	5510	18.9	387	13	1
21	5551	11.1	348	15	1
22	5553	13.8	291	16	1
23	5555	14.3	295	12	1
24	5557	12.5	300	12	0
25	5559	12.5	322	14	1
26	5561	12.5	383	13	1
27	5563	15.7	322	16	1
28	5565	19.8	469	13	0
29	5567	18.6	406	15	1
30	5569	15.9	238	14	0
•	D	etection Percentage (9	%)		80.000
Limit	60%				
Test Resu	Complied				

SPORTON INTERNATIONAL INC.
TEL: 886-3-327-3456
FAX: 886-3-327-0973

FCC ID: Z8H89FT0029

Report Version : Rev. 02 Issued Date : May 05, 2017

: 88 of 110

Page No.



Total Type 1~4 Radar Statistical Performance

Radar Type #	Detection Percentage (%)
1	93.333
2	86.667
3	83.333
4	80.000
Aggregate (Radar Types 1-4)	85.833
Limit	80%
Test Result	Complied

 SPORTON INTERNATIONAL INC.
 Page No.

 TEL: 886-3-327-3456
 Report Ve

 FAX: 886-3-327-0973
 Issued Da

FCC ID: Z8H89FT0029

 Page No.
 : 89 of 110

 Report Version
 : Rev. 02

 Issued Date
 : May 05, 2017



Type 5 Radar Statistical Performance

Center Freq. (MHz)	Low Edge (MHz)	High Edge (MHz)		
5530	5491	5569	VSG Freq. (MHz)	Detection
Trial	Chirp	Offset		
1	5	0	5530	1
2	20	0	5530	1
3	7	0	5530	1
4	8	0	5530	1
5	9	0	5530	1
6	10	0	5530	1
7	11	0	5530	1
8	12	0	5530	1
9	13	0	5530	1
10	14	0	5530	1
11	15	6	5497	1
12	16	6.4	5497	1
13	17	6.8	5498	1
14	20	8	5499	1
15	19	7.6	5499	1
16	18	7.2	5498	1
17	17	6.8	5498	1
18	16	6.4	5497	1
19	15	6	5497	1
20	14	5.6	5497	1
21	13	5.2	5564	1
22	12	4.8	5564	1
23	11	4.4	5565	1
24	10	4	5565	1
25	9	3.6	5565	1
26	8	3.2	5566	1
27	18	7.2	5562	1
28	19	7.6	5561	1
29	20	8	5561	1
30	5	2	5567	1
	To	otal		30
	Detection Per	centage (%)		100%
imit		· ,		80%
est Result				Complied

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 90 of 110 Report Version : Rev. 02 Issued Date

: May 05, 2017



Trial Number			1					
Number of Bur	sts in Trial			3	3			
Chirp Center F	requency			55	30			
Burst	No. of Pulses	Pulse Width (us)	(us) (MHz) Spacing (us) Spacing (us)			Starting Location Within Interval (ms)		
1	1	62.1	5	-	-	1091		
2	2	56	5	1729	-	133		
3	2	91.3	5	1230	-	1057		
4	3	50.7	5	1762	1616	1442		
5	2	92.6	5	1723	-	544		
6	2	87.3	5	1089				
7	2	59.5	5 1291 - 1374					
8	2	52.2	5	1237				
Detection Check	k (1=Detection; 0	=No Detection)				1		

Trial Number	Trial Number			2				
Number of Bu	ursts in Trial	Trial 9						
Chirp Center	Frequency			55	30			
Burst	Burst No of Pulses Pulse Width Chirp Width Pulse 1-to-2 Pulse 2-to-3				Starting Location Within Interval (ms)			
1	3	90	20	1007	1326	30		
2	2	73.7	20	1785	-	979		
3	1	78.1	20	-	-	683		
4	2	92.4	20	1281	-	950		
5	1	61.2	20	-	-	612		
6	3	67.2	20	1525	1870	17		
7	1	78.5	20	429				
8	2	60.3	20 1931 - 936					
9	3	92.9	20 1403 1476 548					
Detection Che	ck (1=Detection; 0	=No Detection)				1		

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 91 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number	Trial Number			3			
Number of Bui	Number of Bursts in Trial			10			
Chirp Center F	requency			55	30		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	3	63.4	7	1574	1607	801	
2	1	98	7	-	-	966	
3	1	58.7	7	-	-	185	
4	1	88	7	-	-	1012	
5	3	79.5	7	1562	1370	943	
6	3	57.1	7	1900	1188	686	
7	2	64.4	7	1090	-	599	
8	1	78.7	7	-	-	1089	
9	1	69.3	7 - 18				
10	3	55.3	7 1375 1691 933				
Detection Chec	k (1=Detection; 0	=No Detection)				1	

Trial Number			4					
Number of Bur	Number of Bursts in Trial			11				
Chirp Center F	requency			55	30			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Loc Spacing (us) Spacing (us) Winterv					
1	2	74.3	8	1642	-	24		
2	1	83.1	8	-	-	985		
3	2	59.5	8	1680	-	988		
4	2	59.8	8	1786	-	800		
5	2	77.6	8	1617	-	339		
6	2	79.9	8	1553	-	1040		
7	1	56	8	-	-	544		
8	3	71.4	8	1406	1927	452		
9	1	97.4	8	-	-	204		
10	2	98.3	8 1037 -					
11	1	63.6	8 1052					
Detection Chec	k (1=Detection; C	=No Detection)				1		

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 92 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			5					
Number of Bursts in Trial			12					
Chirp Center F	requency			55	30			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us) Spacing (us)				
1	1	50	9	_	-	Interval (ms) 557		
2	2	62.5	9	1731	-	567		
3	2	55.4	9	1070	-	460		
4	1	65.7	9	-	-	4		
5	2	58	9	1512	-	64		
6	2	60.9	9	1230	-	650		
7	3	89.6	9	1598	1738	235		
8	3	84.4	9	1271	1617	873		
9	3	72.3	9	1498	1321	901		
10	1	58.9	9	-	-	663		
11	2	74.8	9 1584 - 919					
12	1	71.8	9 375					
Detection Check	k (1=Detection; 0	=No Detection)				1		

Trial Number	Trial Number			6			
Number of B	mber of Bursts in Trial			13			
Chirp Center	Frequency			55	30		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Chirp Width Pulse 1-to-2 Pulse 2-to-3			
1	2	88.1	10	1257	-	846	
2	1	58.7	10	-	-	725	
3	2	97.1	10	1037	-	30	
4	3	83.1	10	1029	1106	490	
5	1	62.1	10	-	-	262	
6	2	71.4	10	1058	-	283	
7	2	86.3	10	1867	-	49	
8	3	77.3	10	1418	1876	634	
9	1	78.9	10	-	-	304	
10	3	79.2	10	1055	1572	564	
11	3	52	10	1582	1836	852	
12	3	56.5	10	1195	1542	525	
13	3	100	10	1638	1729	750	
Detection Che	eck (1=Detection; 0	=No Detection)		•		1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 93 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number	Trial Number			7				
Number of Bur	Number of Bursts in Trial			14				
Chirp Center F	Chirp Center Frequency			55	30			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Chirp Width Pulse 1-to-2 Pulse 2-to-3				
1	2	92.7	11	1208	-	231		
2	2	81.3	11	1144	1	804		
3	2	60.4	11	1555	-	34		
4	2	62.1	11	1320	-	427		
5	1	50	11	-	ı	577		
6	3	65.9	11	1020	1365	3		
7	2	73.8	11	1308	ı	51		
8	2	74.3	11	1143	ı	360		
9	1	62.9	11	-	-	394		
10	2	74.8	11	1404	ı	317		
11	2	69.7	11	1309	ı	532		
12	2	69.8	11	1688	-	339		
13	2	77.4	11	1857	1	381		
14	1	55.1	11 - 426					
Detection Chec	k (1=Detection; 0	=No Detection)				1		

Trial Number			8					
Number of Bu	rsts in Trial	15						
Chirp Center F	requency			55	30			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Chirp Width Pulse 1-to-2 Pulse 2-to-3				
1	1	91.7	12	-	-	776		
2	2	90	12	1196	-	187		
3	3	92.3	12	1486	1853	448		
4	2	66.8	12	1545	-	702		
5	1	64	12	-	-	403		
6	3	95.4	12	1123	1473	230		
7	3	66.8	12	1867	1401	604		
8	3	67.7	12	1472	1397	38		
9	1	68.2	12	-	-	735		
10	2	82.2	12	1297	-	610		
11	1	92.1	12	-	-	618		
12	2	57	12	1764	-	705		
13	2	58.5	12	1310	-	22		
14	3	85.5	12	1630	1447	641		
15	2	82.2	12 1371 - 109					
Detection Chec	k (1=Detection; 0	=No Detection)				1		

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 94 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			9			
Number of Bu	rsts in Trial		16			
Chirp Center F	requency			55	30	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)		Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)
1	2	74.4	13	1707	-	442
2	2	63.6	13	1725	-	280
3	2	71.3	13	1704	-	459
4	3	77.6	13	1063	1405	197
5	3	65.2	13	1731	1294	101
6	3	55.1	13	1109	1549	17
7	2	96.8	13	1034	-	131
8	3	80.8	13	1533	1051	365
9	1	60.4	13	-	-	222
10	2	61.8	13	1312	-	371
11	2	71.3	13	1657	-	33
12	2	98.1	13	1024	-	291
13	1	57.9	13	-	-	188
14	1	91.8	13	-	-	163
15	2	56.7	13	1259	-	426
16	2	89.7	13	1690	-	606
Detection Chec	k (1=Detection; 0	=No Detection)				1

Trial Number			10			
Number of Bui	rsts in Trial		17			
Chirp Center F	requency			55	30	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)
1	2	74.4	14	1107	-	462
2	1	87.6	14	-	-	653
3	2	61.7	14	1741	-	457
4	2	57.5	14	1566	-	388
5	2	66.1	14	1855	-	63
6	3	70.1	14	1044	1012	136
7	1	66.4	14	-	-	343
8	1	59.2	14	-	-	349
9	2	88.3	14	1240	-	362
10	1	64.7	14	-	-	221
11	2	73	14	1703	-	144
12	2	81.7	14	1450	-	671
13	3	70.1	14	1741	1278	320
14	1	63.6	14	-	-	196
15	1	58.7	14	-	-	413
16	2	65.9	14	1478	-	170
17	1	72.7	14	-	-	564
Detection Chec	k (1=Detection; 0	=No Detection)				1

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029

 Page No.
 : 95 of 110

 Report Version
 : Rev. 02

 Issued Date
 : May 05, 2017



Trial Number			11				
Number of Bu	ırsts in Trial		18				
Chirp Center	Chirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)	
1	2	72.1	15	1193	-	130	
2	3	76.3	15	1484	1390	114	
3	1	86.1	15	-	-	14	
4	1	73.2	15	-	-	604	
5	1	81.2	15	-	-	548	
6	2	99.5	15	1398	-	173	
7	1	93.9	15	-	-	262	
8	2	75.9	15	1921	-	38	
9	3	79.2	15	1100	1429	84	
10	3	77	15	1166	1799	610	
11	1	91.8	15	-	-	339	
12	3	56.8	15	1330	1556	580	
13	2	83.1	15	1556	-	295	
14	2	63	15	1552	-	156	
15	1	65.7	15	-	-	439	
16	1	64.5	15	-	-	188	
17	1	88.5	15	-	-	419	
18	1	60.6	15	-	-	205	
Detection Che	ck (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 96 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			12					
Number of Bu	rsts in Trial		19					
Chirp Center I	Frequency			54	97			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	2	90.5	16	1299	-	381		
2	2	88.4	16	1418	-	327		
3	2	53.7	16	1055	-	536		
4	1	80.5	16	-	-	285		
5	1	50.4	16	-	-	398		
6	2	61.2	16	1749	-	439		
7	2	78.8	16	1065	-	129		
8	3	75	16	1748	1820	325		
9	2	96.7	16	1254	-	440		
10	3	76.3	16	1848	1106	397		
11	1	73.3	16	-	-	232		
12	2	92.4	16	1317	-	91		
13	2	92.4	16	1854	-	256		
14	3	64.4	16	1240	1634	582		
15	2	67.3	16	1473	-	117		
16	2	84.1	16	1795	-	202		
17	1	80.9	16	-	-	135		
18	1	74.6	16	-	-	396		
19	2	97.6	16	1805	-	615		
Detection Chec	ck (1=Detection; 0	=No Detection)				1		

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456

FAX: 886-3-327-0973

FCC ID: Z8H89FT0029

Page No. : 97 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number	Trial Number			13				
Number of Bu	rsts in Trial		20					
Chirp Center F	requency			54	98			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)		
1	2	66.1	17	1417	-	388		
2	2	86.7	17	1693	-	348		
3	2	70.5	17	1263	-	215		
4	2	78	17	1446	-	28		
5	2	66	17	1185	-	585		
6	2	80.6	17	1855	-	65		
7	1	95.5	17	-	-	92		
8	1	98.8	17	-	-	68		
9	3	64.3	17	1641	1108	517		
10	1	75.1	17	-	-	121		
11	2	72.6	17	1499	-	448		
12	1	60.3	17	-	-	567		
13	2	54.9	17	1056	-	245		
14	2	98.8	17	1023	-	584		
15	2	60.9	17	1243	-	579		
16	2	62.7	17	1226	-	464		
17	1	80.1	17	-	-	89		
18	2	70.9	17	1711	-	153		
19	1	90.7	17	-	-	282		
20	1	98.9	17	-	-	71		
Detection Chec	ck (1=Detection; 0	=No Detection)				1		

Trial Number			14				
Number of Bursts in Trial				3	3		
Chirp Center Frequency				54	99		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within				
1	2	67.5	20	1542	_	Interval (ms) 947	
2	3	83.6	20	1272	1696	124	
3	2	93.2	20	1877	-	701	
4	1	55.6	20	-	-	1123	
5	3	84.2	20	1733	1619	756	
6	3	69.1	20	1612	1071	1	
7	2	66.9	20	1905	-	7	
8	3	86.8	20 1697 1621 1082				
Detection Chec	k (1=Detection; C	=No Detection)		•		1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 98 of 110 Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			15			
Number of Bu	Number of Bursts in Trial			ę)	
Chirp Center Frequency				54	99	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Location Spacing (us) Spacing (us) Within Interval (m			
1	2	62.2	19	1571	-	949
2	2	85	19	1669	-	189
3	2	64.5	19	1505	-	176
4	2	50.4	19	1325	-	538
5	2	66.1	19	1483	-	908
6	2	71.2	19	1110	-	1017
7	3	53.7	19	1445	1677	492
8	3	62.5	19	1596	1341	349
9	3	62	19	1929	1221	1105
Detection Chec	ck (1=Detection; C	=No Detection)				1

Trial Number			16				
Number of Bui	Number of Bursts in Trial			10			
Chirp Center Frequency				54	98		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval (i				
1	2	80.5	18	1910	-	284	
2	2	64.2	18	1661	-	751	
3	2	90.1	18	1041	ı	491	
4	2	69.8	18	1495	ı	107	
5	1	73.1	18	-	-	490	
6	3	77.2	18	1418	1145	1155	
7	3	52.6	18	1732	1787	772	
8	2	71.4	18	1562	-	121	
9	2	89.8	18	1491	-	89	
10	2	76.4	18	1355	-	615	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 99 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number			17				
Number of Bur	sts in Trial			11			
Chirp Center Frequency				54	98		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Pulse 2-to-3 Location Spacing (us) Within Interval (n				
1	2	51.2	17	1236	-	740	
2	1	71.7	17	-	-	941	
3	2	74.7	17	1164	-	370	
4	2	50.9	17	1919	-	371	
5	2	65.2	17	1206	-	1033	
6	2	98	17	1182	-	346	
7	2	58.7	17	1612	-	639	
8	1	63.8	17	-	-	1056	
9	3	86.3	17	1545	1065	205	
10	1	94.4	17	-	-	753	
11	3	88.5	17	1699	1319	58	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

Trial Number			18			
Number of Bu	rsts in Trial		12			
Chirp Center F	Chirp Center Frequency			54	97	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within			
						Interval (ms)
1	2	88.7	16	1405	-	448
2	3	90.2	16	1544	1235	621
3	1	96.5	16	-	-	512
4	2	80.5	16	1090	-	321
5	2	63.7	16	1268	-	798
6	1	53.4	16	-	-	809
7	2	52.3	16	1043	-	301
8	3	54.7	16	1701	1104	796
9	3	75.6	16	1923	1729	669
10	2	59.2	16	1244	-	369
11	1	56.3	16	-	-	51
12	2	87.8	16	1608	-	733
Detection Chec	ck (1=Detection; C	=No Detection)	•	•	•	1

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 100 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			19				
Number of Bur	sts in Trial		13				
Chirp Center Frequency				54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width Pulse 1-to-2 Pulse 2-to-3 Location (MHz) Spacing (us) Spacing (us) Within Interval (in the control of the control				
1	2	68.2	15	1104	-	229	
2	2	58.4	15	1627	-	488	
3	3	74.7	15	1861	1015	137	
4	2	58.2	15	1593	-	520	
5	1	51.6	15	-	-	799	
6	2	94.7	15	1469	-	43	
7	2	70.7	15	1091	-	126	
8	2	82.9	15	1472	-	607	
9	3	62.7	15	1168	1453	527	
10	2	63.1	15	1529	-	143	
11	1	96.1	15	-	-	176	
12	2	57	15	1457	-	882	
13	3	95.6	15	1707	1501	214	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

Trial Number	Trial Number			20			
Number of Bur	rsts in Trial		14				
Chirp Center F	Chirp Center Frequency			54	97		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Local Spacing (us) Spacing (us) With Interval Interval Control of the Control of t				
1	1	95.7	14	-	-	117	
2	1	93.1	14	-	-	720	
3	1	55.8	14	-	-	297	
4	1	76.7	14	-	-	284	
5	2	68	14	1686	-	472	
6	3	94.1	14	1796	1393	264	
7	2	53.9	14	1293	-	525	
8	1	99.3	14	-	-	155	
9	2	73.3	14	1458	-	65	
10	2	93.3	14	1196	-	451	
11	3	55.8	14	1895	1034	243	
12	1	66.4	14	-	-	228	
13	2	65.6	14	1732	-	746	
14	2	76.5	14	1187	-	522	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029

 Page No.
 : 101 of 110

 Report Version
 : Rev. 02

 Issued Date
 : May 05, 2017



Trial Number	Trial Number			21				
Number of Bu	rsts in Trial		15					
Chirp Center F	requency			55	64			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)		Starting Location Within Interval (ms)		
1	1	85.1	13	-	-	565		
2	2	72.5	13	1648	-	211		
3	1	67.5	13	-	-	348		
4	2	56.1	13	1360	-	156		
5	1	71.1	13	-	-	718		
6	2	93.1	13	1391	-	400		
7	1	56.5	13	-	-	482		
8	1	63.8	13	-	-	703		
9	2	67.4	13	1727	-	780		
10	1	52.3	13	-	-	102		
11	3	62.4	13	1228	1715	304		
12	2	53.3	13	1630	-	57		
13	2	83.1	13	1205	-	768		
14	2	93.7	13	1085	-	461		
15	2	90.7	13	1297	-	746		
Detection Chec	ck (1=Detection; 0	=No Detection)				1		

Trial Number			22			
Number of Bur	sts in Trial		16			
Chirp Center F	Chirp Center Frequency			55	64	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Pulse 1-to-2 Spacing (us)	Pulse 2-to-3 Spacing (us)	Starting Location Within Interval (ms)
1	2	98.8	12	1439	-	95
2	1	54.5	12	-	-	676
3	2	80.5	12	1360	-	8
4	2	55.9	12	1906	-	373
5	2	72.1	12	1623	-	254
6	2	84.4	12	1604	-	480
7	1	78.5	12	-	-	663
8	1	88	12	-	-	314
9	2	74.7	12	1157	-	596
10	2	97.1	12	1673	-	264
11	1	81.6	12	-	-	740
12	1	83.6	12	-	-	163
13	3	87.6	12	1757	1322	628
14	2	58.5	12	1372	-	132
15	3	91.8	12	1767	1183	106
16	2	58.8	12	1432	-	659
Detection Chec	k (1=Detection; 0	=No Detection)				1

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029

 Page No.
 : 102 of 110

 Report Version
 : Rev. 02

 Issued Date
 : May 05, 2017



Trial Number			23				
Number of Bursts in Trial			17				
Chirp Center F	requency			55	65		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	1	96	11	-	-	284	
2	2	92.5	11	1241	-	488	
3	2	89.5	11	1347	-	76	
4	2	74.8	11	1607	-	688	
5	2	60.6	11	1523	-	28	
6	2	71.5	11	1659	-	383	
7	2	71.1	11	1454	-	182	
8	1	98.7	11	-	-	20	
9	2	85.1	11	1770	-	576	
10	2	89.2	11	1086	-	410	
11	2	60.7	11	1101	-	458	
12	2	75.2	11	1719	-	348	
13	2	75.7	11	1799	-	481	
14	3	56.7	11	1132	1884	587	
15	2	65	11	1885	-	480	
16	2	64.6	11	1910	-	195	
17	3	69.9	11	1410	1190	396	
Detection Chec	k (1=Detection; C	=No Detection)				1	

Trial Number			24					
Number of Bur	Number of Bursts in Trial			18				
Chirp Center F	requency			55	65			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)				
1	3	83.8	10	1290	1021	536		
2	2	66.9	10	1112	-	44		
3	3	91	10	1220	1504	611		
4	2	86.1	10	1678	-	456		
5	3	65.5	10	1928	1222	330		
6	1	62.6	10	-	-	297		
7	3	68.7	10	1505	1200	351		
8	3	59.2	10	1452	1114	230		
9	1	73.9	10	-	-	222		
10	1	77.2	10	-	-	57		
11	2	96.4	10	1357	-	399		
12	2	99.9	10	1173	-	299		
13	2	99.9	10	1520	-	464		
14	1	86.7	10	-	-	294		
15	1	92.6	10	-	-	653		
16	1	77.1	10	-	-	550		
17	2	81.1	10	1664	-	566		
18	3	68.4	10	1536	1309	580		
Detection Chec	k (1=Detection; 0	=No Detection)				1		

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 103 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number Number of Bursts in Trial			25 19				
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	3	68.2	9	1723	1868	471	
2	3	83.7	9	1711	1405	368	
3	2	69.7	9	1781	-	425	
4	1	59.7	9	-	-	440	
5	2	96.7	9	1484	-	123	
6	2	95.8	9	1319	-	261	
7	3	71.3	9	1095	1354	332	
8	3	53.2	9	1527	1427	427	
9	2	69.5	9	1771	-	397	
10	3	63.9	9	1075	1447	67	
11	2	93.4	9	1783	-	174	
12	2	77.3	9	1564	-	17	
13	2	73.1	9	1294	-	216	
14	1	77.4	9	-	-	292	
15	3	57.2	9	1722	1886	619	
16	2	68.7	9	1629	-	233	
17	1	60.8	9	-	-	226	
18	3	69.7	9	1128	1224	599	
19	1	62.2	9	-	-	433	
Detection Che	ck (1=Detection; 0	=No Detection)				1	

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 104 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			26				
Number of Bursts in Trial			20				
Chirp Center F	requency			55	66		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz)	Starting Location Within Interval (ms)			
1	1	80.5	8	-	-	90	
2	3	62.6	8	1406	1343	319	
3	3	85.6	8	1190	1529	384	
4	2	83.9	8	1208	-	567	
5	2	92.4	8	1488	-	234	
6	2	54	8	1529	-	535	
7	3	81.3	8	1501	1812	325	
8	1	98.5	8	-	-	532	
9	1	85.8	8	-	-	272	
10	2	84.7	8	1593	-	182	
11	2	83.3	8	1705	-	134	
12	2	79.8	8	1567	-	286	
13	1	77.9	8	-	-	368	
14	3	98.4	8	1510	1569	290	
15	2	79.9	8	1588	-	231	
16	3	78	8	1140	1353	353	
17	3	55.2	8	1700	1327	53	
18	3	71.9	8	1081	1224	44	
19	1	62	8	-	-	298	
20	3	70.5	8	1888	1442	529	
Detection Chec	k (1=Detection; 0	=No Detection)				1	

Trial Number			27					
Number of Bui	Number of Bursts in Trial			8				
Chirp Center F	requency			55	62			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us)			Starting Location Within Interval (ms)		
1	2	69.1	18	1076	-	1436		
2	2	62.1	18	1688	-	22		
3	2	94.8	18	1891	-	897		
4	1	75.8	18	-	-	1186		
5	2	65.4	18	1713	-	589		
6	2	97.7	18	1292	-	614		
7	3	98.1	18 1670 1711 506					
8	2	85.4	18 1672 - 776					
Detection Chec	k (1=Detection; C	=No Detection)				1		

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 105 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017



Trial Number			28				
Number of Bursts in Trial				(9		
Chirp Center F	requency			55	61		
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us) Spacing (us)			Starting Location Within Interval (ms)	
1	3	82	19	1233	1713	679	
2	3	87.7	19	1554	1123	473	
3	2	98.9	19	1518	-	869	
4	1	55	19	-	-	719	
5	1	93.6	19	-	-	902	
6	2	58.7	19	1641	-	1243	
7	2	88.7	19	1387	-	410	
8	1	60.3	19 1154				
9	1	97.7	19 - 512				
Detection Chec	k (1=Detection; 0	=No Detection)				1	

Trial Number Number of Bursts in Trial			29 10			
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Spacing (us) Pulse 2-to-3 Spacing (us)			Starting Location Within Interval (ms)
1	1	69.6	20	-	-	1131
2	1	74.5	20	-	-	290
3	1	60.9	20	-	ı	895
4	1	74.6	20	-	ı	202
5	2	99.3	20	1501	ı	139
6	2	95.3	20	1065	ı	854
7	2	91.9	20	1722	ı	219
8	2	51	20	1285	ı	57
9	2	87.7	20	1747	-	141
10	1	87.2	20	-	-	596
Detection Che	ck (1=Detection; C	=No Detection)				1

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 106 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



Trial Number Number of Bursts in Trial			30			
				11		
Chirp Center	Frequency			55	67	
Burst	No. of Pulses	Pulse Width (us)	Chirp Width (MHz) Pulse 1-to-2 Pulse 2-to-3 Spacing (us)			Starting Location Within Interval (ms)
1	3	59.9	5	1901	1196	935
2	2	77.1	5	1590	-	1038
3	2	62.7	5	1227	-	690
4	1	77.1	5	-	-	547
5	3	99.8	5	1798	1790	551
6	2	61.5	5	1135	-	876
7	2	77.5	5	1583	-	448
8	2	57.3	5	1890	-	736
9	2	53.5	5	1757	-	362
10	1	66.6	5	-	-	836
11	3	80.7	5	1811	1289	410
Detection Che	eck (1=Detection; 0	=No Detection)	•	•	•	1

SPORTON INTERNATIONAL INC. TEL: 886-3-327-3456

FAX: 886-3-327-0973 FCC ID: Z8H89FT0029

 Page No.
 : 107 of 110

 Report Version
 : Rev. 02

 Issued Date
 : May 05, 2017



Type 6 Radar Statistical Performance

Trial #	Test Freq. (MHz)	Pulses / Hop	Pulse Width (us)	PRI (us)	1=Detection 0=No Detection
1	5530	9	1	333	1
2	5530	9	1	333	1
3	5530	9	1	333	1
4	5530	9	1	333	1
5	5530	9	1	333	1
6	5530	9	1	333	1
7	5530	9	1	333	1
8	5530	9	1	333	0
9	5530	9	1	333	1
10	5530	9	1	333	1
11	5530	9	1	333	1
12	5530	9	1	333	1
13	5530	9	1	333	1
14	5530	9	1	333	1
15	5530	9	1	333	1
16	5530	9	1	333	1
17	5530	9	1	333	1
18	5530	9	1	333	1
19	5530	9	1	333	1
20	5530	9	1	333	1
21	5530	9	1	333	1
22	5530	9	1	333	1
23	5530	9	1	333	1
24	5530	9	1	333	1
25	5530	9	1	333	1
26	5530	9	1	333	1
27	5530	9	1	333	1
28	5530	9	1	333	0
29	5530	9	1	333	1
30	5530	9	1	333	1
•	D	etection Percenta	age (%)		93.333
Limit					70%
Test Resi	ult				Complied

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 108 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	R&S	FSV40	101026	9kHz~40GHz	Sep. 14, 2016	Conducted (DF01-CB)
Vector Signal generator	R&S	SMU200A	102782	25MHz-6GHz	Dec. 16, 2016	Conducted (DF01-CB)
RF Power Divider	ANAREN	2 Way	DFS-01-DV-02	1GHz ~ 6GHz	Oct. 24, 2016	Conducted (DF01-CB)
RF Power Divider	MTJ	2 Way	DFS-01-DV-03	1GHz ~ 6GHz	Oct. 24, 2016	Conducted (DF01-CB)
RF Power Divider	ANAREN	4 Way	DFS-01-DV-01	1GHz ~ 6GHz	Oct. 24, 2016	Conducted (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-53	1 GHz –18 GHz	Oct. 24, 2016	Conducted (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-54	1 GHz –18 GHz	Oct. 24, 2016	Conducted (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-56	1 GHz –18 GHz	Oct. 24, 2016	Conducted (DF01-CB)
RF Cable-high	Woken	RG402	High Cable-60	1 GHz –18 GHz	Oct. 24, 2016	Conducted (DF01-CB)

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

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-327-0973 FCC ID: Z8H89FT0029 Page No. : 109 of 110
Report Version : Rev. 02

Issued Date : May 05, 2017



5 Measurement Uncertainty

Test Items	Uncertainty	Remark
Conducted Emission	1.7 dB	Confidence levels of 95%

 SPORTON INTERNATIONAL INC.
 Page

 TEL: 886-3-327-3456
 Repor

 FAX: 886-3-327-0973
 Issued

FCC ID: Z8H89FT0029

Page No. : 110 of 110
Report Version : Rev. 02
Issued Date : May 05, 2017