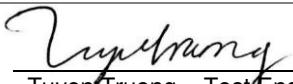
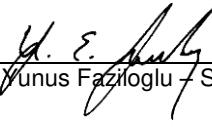




BUREAU
VERITAS

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Test Report

Report No	EQ1735-3
Client	DogWatch Inc.
Address	10 Michigan Drive Natick, MA 01760
Phone	(800) 793-3436 x625
Items tested	Smart Portal (M/N: SF-P10)
FCC ID	L66DWSFP
IC ID	8187A-DWSFP
FRN	0018536615
Equipment Type	Low Power Communication Device Transmitter
Equipment Code	DXX
Standards	CFR 47 FCC 15.249, RSS 210 Issue 9 Annex B.10
Test Dates	July 19 to 22, 2016
Results	As detailed within this report
Prepared by	 Tuyen Truong – Test Engineer
Authorized by	 Yunus Faziloglu – Sr. EMC Engineer
Issue Date	9/16/2016
Conditions of Issue	This Test Report is issued subject to the conditions stated in the 'Conditions of Testing' section on page 20 of this report.

Curtis-Straus LLC is accredited by the American Association for Laboratory Accreditation for the specific scope of accreditation under Certificate Number 1627-01. This report may contain data which is not covered by the A2LA accreditation.



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Form Final Report REV 2-16-07 (DW)



Product Tested - Configuration Documentation

EUT Configuration										
Work Order:	Q1735									
Company:	DogWatch Inc.									
Company Address:	10 Michigan Drive									
	Natick, MA, 01760									
Contact:	Frederic Peterson									
EUT:	MN			PN				SN		
	SF-P10			--				3 (used for TX at 902.1 MHz)		
	SF-P10			--				1 (used for TX at 915.1 MHz)		
	SF-P10			--				7 (used for TX at 927.9 MHz)		
	SF-P10			--				8 (used for RX mode)		
EUT Description:	Smart Portal									
EUT Max Frequency:	27 MHz (Associated Circuitry)									
EUT TX Frequency:	902.1 to 927.9 MHz									
Support Equipment	MN							SN		
D Link Router	EBR-2310							--		
Linksys Switch (used for AC Mains CEMI)	EZX88W ver.3.1							--		
Port Label	Port Type	# ports	# populated	cable type	shielded	ferrites	length (m)	in/out	under test	comment
AC/DC power	Power AC	1	1	Power AC	No	No	2.4	in	yes	
Ethernet	Ethernet	1	1	Ethernet	No	No	1.8	in	yes	
Antenna	other	1	1	Coaxial	Yes	No	0.047	in	yes	SMA Reverse Polarity
Software Operating Mode Description:										
EUT is set to transmit at the following channels 902.1, 915.1, 921.5 and 927.9MHz. EUT is normally in "Receive" mode; except it transmits once every minute. Modulation is FSK. Data rate = 3kbps, Duty-Cycle = 100%.										
Performance Criteria:										
EMI testing only										



Reason for change

Original Release

Date Issued

September 16, 2016

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Testing Cert. No. 1627-01

Summary

This test report supports an application for certification of a transmitter operating pursuant to CFR 47 FCC 15.249, RSS 210 Issue 9 Annex B.10. The product operates in the 902.1MHz to 927.9MHz frequency range.

We found that the product met the above requirements without modifications. The test samples were received in good condition.

Model tested: SF-P10

Test results in this report represent the following additional models. The differences between models are in software that control features. All models share the same circuit boards and RF parameters.

Additional Models: SF-P20, SF-P30, SF-P40



Reason for change

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Test Methodology

Radiated emissions testing was performed according to the procedures specified in ANSI C63.10-2013 and RSS-Gen Issue 4. Radiated Emissions were maximized in the orientation of final installation.

AC Mains Conducted Emission was tested with a 50Ω/50µH LISN.

The product was tested with modulation ON.

Operating channel frequency = 902.1 MHz (EUT Sample #3)

Operating channel frequency = 915.1 MHz (EUT Sample #1)

Operating channel frequency = 927.9 MHz (EUT Sample #7)

The EUT operating voltage is 120VAC/60Hz.

Following bandwidths were used during radiated spurious emissions and line conducted emissions tests.

Frequency	RBW	VBW
0.15-30MHz	9kHz	30kHz
30-1000MHz	120kHz	1MHz
1-25GHz	1MHz	3MHz



Reason for change
Original Release

Date Issued
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Compliance Statement

The product complied with the following parts of CFR 47 and RSS 210 as detailed below:

RSS-GEN	RSP-100	RSS 210	Part 15	Comments
6.3			15.15(b)	There are no controls accessible to the users that vary the output power.
	3.1		15.19	The label is shown in the label exhibit.
	3.2		15.21	Information to the user is shown in the instruction manual exhibit.
			15.27	No special accessories are required for compliance.
6.1, 6.5			15.31	The EUT was tested in accordance with the measurement standards in this section.
			15.33	Frequency range was investigated according to this section, unless noted in specific rule section under which the equipment operates.
8.1			15.35	The EUT emissions were measured using the measurement detector and bandwidth specified in this section, unless noted in specific rule section under which the equipment operates.
8.3			15.203	The antenna for this device is detachable with RP-SMA connector.
8.10			15.205 15.209	The fundamental is not in a Restricted band and the spurious and harmonic emissions in the Restricted bands comply with the general emission limits of 15.209 or RSS-Gen as applicable
8.8			15.207	EUT meets the limits in 15.207
		B.10(a)	15.249(a)	The fundamental and harmonics meet the limits in 15.249(a)
		B.10(b)	15.249(d)	Spurious emissions meet the limits in 15.209.
6.6				99% emissions bandwidth plots included.



Test Results

Fundamental Measurements

LIMITS

The field strength from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902 - 928 MHz	50	500
2400 - 2483.5 MHz	50	500
5725 - 5875 MHz	50	500
24.0 - 24.25 GHz	250	2500

[15.249(a)]

MEASUREMENTS / RESULTS

Radiated Emissions Table

Date: 19-Jul-16	Company: Dogwatch Inc.	Work Order: Q1735							
Engineer: Tuyen Truong	EUT Desc: SF-P10	EUT Operating Voltage/Frequency: 120Vac/60Hz							
Temp: 22°C	Humidity: 39%	Pressure: 1015mBar							
Frequency Range: Fundamental Frequencies		Measurement Distance: 3m							
Notes: EUT Samples (SN#1 (915.1 MHz), SN# 3 (902.1 MHz), SN#7 (927.9 MHz))		EUT TX Frequencies: 902.1 to 927.9 MHz							
Antenna Polarization (H/V)	Frequency (MHz)	Reading (dB _u V)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dB _u V/m)	FCC 15.249		
							Limit (dB _u V/m)	Margin (dB)	Result (Pass/Fail)
v	902.1	63.7	0.0	22.5	2.1	88.3	93.9	-5.6	Pass
v	915.1	62.8	0.0	22.4	2.1	87.3	93.9	-6.6	Pass
v	927.9	63.8	0.0	22.5	2.1	88.4	93.9	-5.5	Pass
Table Result: Pass		by -5.5 dB			Worst Freq: 927.9 MHz				
Test Site: EMI Chamber 1		Cable 1: Asset #2051		Cable 2: Asset #1784		Cable 3: ---		Antenna: Red-Brown	
Analyzer: Asset #1328		Preamp: none		Preselector: ---					
CSsoft Radiated Emissions Calculator v 1.017.165								Copyright Curtis-Straus LLC 2000	
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor									

Rev. 7/4/2016

Spectrum Analyzers / Receivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
SA EMI Chamber (1328)	9kHz-13.2 GHz	E4405B	Agilent	MY44210241	1328	I	2/26/2017	2/26/2016
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range		Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz		II	3/21/2017	3/21/2015
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
none (n/a)								
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Red-Brown Biolog	30-2000MHz	JB1	Sunol	A0032406	1218	I	12/4/2016	12/4/2014
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
TH A#2080		HTC-1	HDE	2080	II		4/5/2017	4/5/2016
Barometric A#2160		5396-0321	Monarch Instruments	4000060	2160	I	3/7/2017	3/7/2016
Cables	Range	Mfr		Cat	Calibration Due	Calibrated on		
Asset #1784	9kHz - 18GHz	Florida RF			3/7/2017	3/7/2016		
Asset #2051	9kHz - 18GHz	Florida RF		II	3/2/2017	3/2/2016		

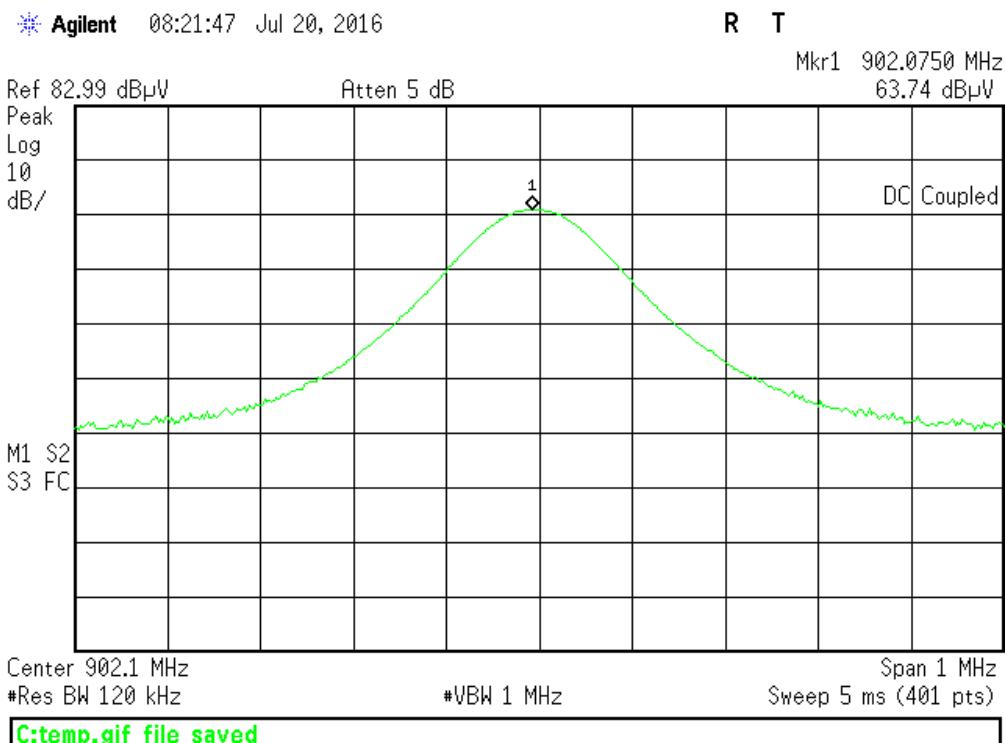
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



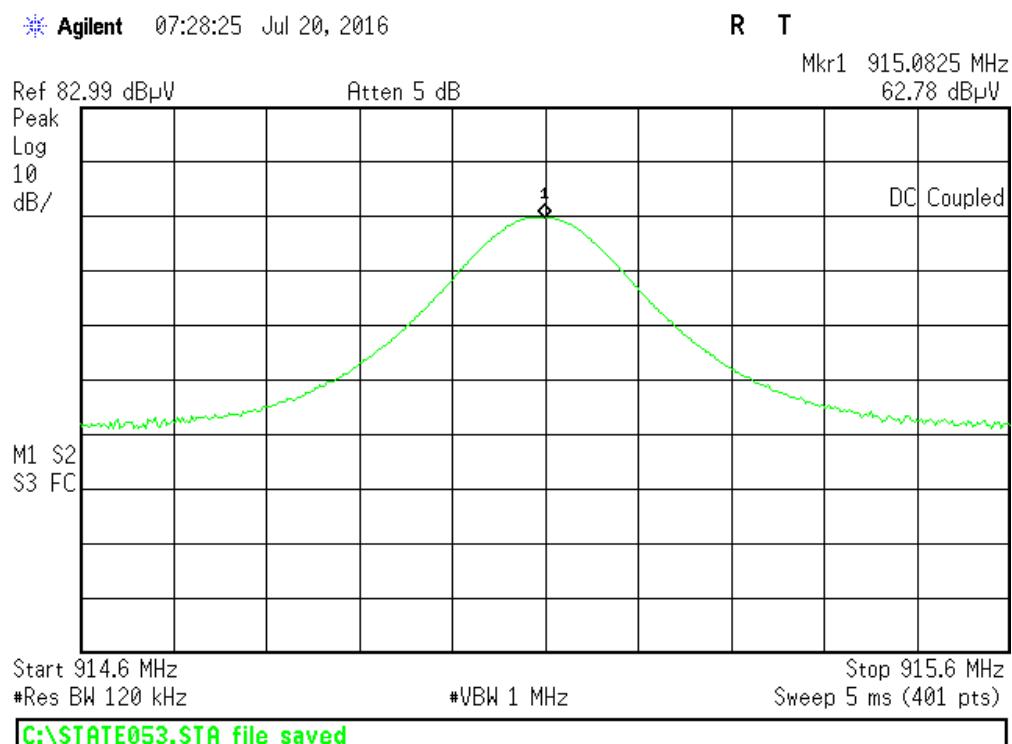
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Plot(s)

Peak Power - Low Channel (902.1 MHz)

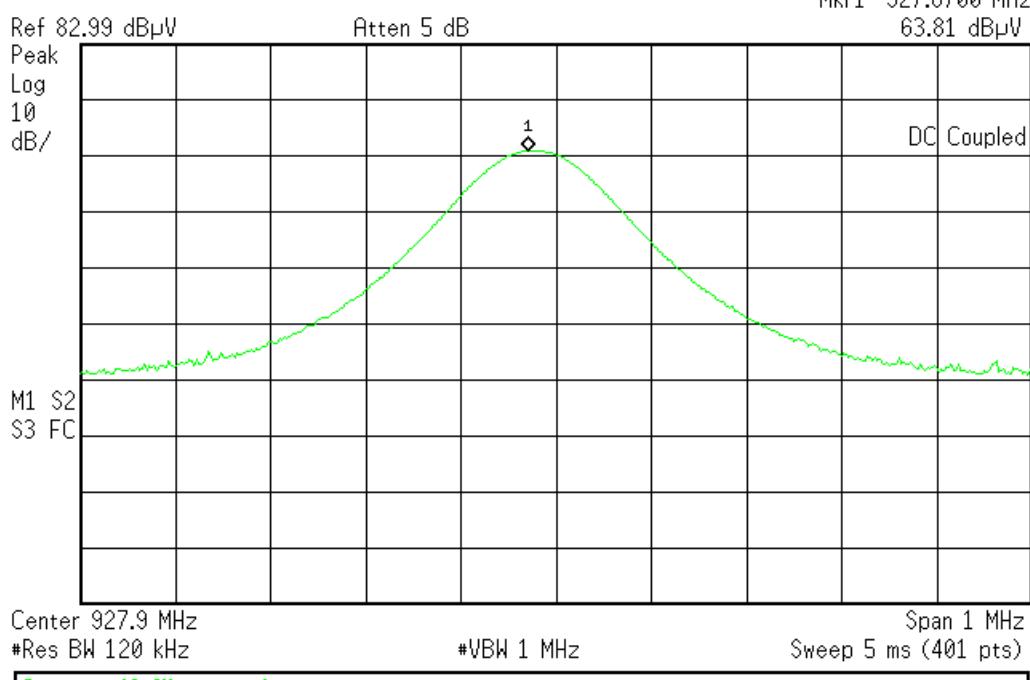


Peak Power - Mid Channel (915.1 MHz)



* Agilent 09:55:53 Jul 20, 2016

R T

Mkr1 927.8700 MHz
63.81 dB μ V

Peak Power - High Channel (927.9 MHz)



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Radiated Spurious Emissions LIMITS

15.249 (d) *Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.*

MEASUREMENTS / RESULTS

TX mode

Radiated Emissions Table							Work Order: Q1735						
Date: 20-Jul-16	Company: Dogwatch Inc.				EUT Operating Voltage/Frequency: 120Vac/60Hz								
Engineer: Ahmed Ahmed	EUT Desc: SF-P10												
Temp: 22°C	Humidity: 39%				Pressure: 1002mBar								
Frequency Range: 30-1000MHz							Measurement Distance: 3m						
Notes: All three channels (EUT samples, S/N 3, 1 and 7) were investigated. Only the worst case recorded.							EUT Max Freq: 902.1 to 927.9 MHz						
Antenna Polarization (H / V)	Frequency (MHz)	Reading (dB _μ V)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dB _μ V/m)	---						
							Limit (dB _μ V/m)	Margin (dB)	Result (Pass/Fail)				
V	41.77	43.4	25.2	12.6	0.5	31.3	---	---	---				
V	65.4	50.0	25.3	7.9	0.6	33.2	---	---	40.0				
V	70.85	49.0	25.3	8.3	0.6	32.6	---	---	40.0				
V	125.4	50.5	25.2	14.2	0.9	40.4	---	---	43.5				
H	163.5	44.2	25.0	12.1	1.0	32.3	---	---	43.5				
V	163.5	45.0	25.0	12.1	1.0	33.1	---	---	43.5				
V	400.0	45.3	25.2	15.6	1.6	37.3	---	---	46.0				
H	400.0	45.0	25.2	15.6	1.6	37.0	---	---	46.0				
V	680.0	41.1	24.8	20.3	1.9	38.5	---	---	46.0				
Table Result: Pass by -3.1 dB							Worst Freq: 125.4 MHz						
Test Site: EMI Chamber 1	Cable 1: Asset #2051			Cable 2: Asset #1784			Antenna: Red-Brown						
Analyzer: Asset #1328	Preamp: Blue-Blk												
CSsoft Radiated Emissions Calculator	v 1.017.165						Copyright Curtis-Straus LLC 2000						
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor													

Rev. 7/4/2016									
Spectrum Analyzers / Receivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on	
SA EMI Chamber (1328)	9kHz-13.2 GHz	E4405B	Agilent	MY44210241	1328	I	2/26/2017	2/26/2016	
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range		Cat	Calibration Due	Calibrated on	
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz		II	3/21/2017	3/21/2015	
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on	
Blue-Black	0.009-2000MHz	ZFL-1000-LN	CS	N/A	800	II	12/27/2016	12/27/2015	
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on	
Red-Brown Biolog	30-2000MHz	JB1	Sunol	A0032406	1218	I	12/4/2016	12/4/2014	
Meteorological Meters	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on		
TH A#2080	HTC-1	HDE	2080				4/5/2017	4/5/2016	
Barometric A#2160	5396-0321	Monarch Instruments	4000060	2160	I		3/7/2017	3/7/2016	
Cables	Range	Mfr			Cat	Calibration Due	Calibrated on		
Asset #1784	9kHz - 18GHz	Florida RF			II	3/7/2017	3/7/2016		
Asset #2051	9kHz - 18GHz	Florida RF			II	3/2/2017	3/2/2016		

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Radiated Emissions Table

Date: 21-Jul-16 Engineer: Ahmed Ahmed Temp: 23°C		Company: Dogwatch Inc. EUT Desc: SF-P10 Humidity: 35%								Work Order: Q1735 EUT Operating Voltage/Frequency: 120Vac/60Hz Pressure: 1005													
Frequency Range: 1-10GHz										Measurement Distance: 3m													
Notes: TX mode, EUT set at the channel (902.1MHz). SN:03										EUT Max Freq: 902.1 to 927.9 MHz													
Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dB _{UV})	Average Reading (dB _{UV})	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dB _{UV} /m)	Adjusted Avg Reading (dB _{UV} /m)	FCC 15.209 High Frequency - Peak			FCC 15.209 High Frequency - Average											
Table Result: Pass by -8.9 dB Worst Freq: 5412.6.4 MHz																							
Test Site: EMI Chamber 1 Analyzer: Asset #1328		Cable 1: Asset #2051 Preamp: Asset #1517				Cable 2: Asset #1784 Antenna: Blue Horn				Copyright Curtis-Straus LLC 2000													
CSSoft Radiated Emissions Calculator v 1.017.165 Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor																							

Radiated Emissions Table

Date: 21-Jul-16 Engineer: Ahmed Ahmed Temp: 23°C		Company: Dogwatch Inc. EUT Desc: SF-P10 Humidity: 35%								Work Order: Q1735 EUT Operating Voltage/Frequency: 120Vac/60Hz Pressure: 1005													
Frequency Range: 1-10GHz										Measurement Distance: 3m													
Notes: TX mode, EUT set at the channel (915.1MHz). SN:01										EUT Max Freq: 902.1 to 927.9 MHz													
Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dB _{UV})	Average Reading (dB _{UV})	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dB _{UV} /m)	Adjusted Avg Reading (dB _{UV} /m)	FCC 15.209 High Frequency - Peak			FCC 15.209 High Frequency - Average											
Table Result: Pass by -8.1 dB Worst Freq: 5490.6.4 MHz																							
Test Site: EMI Chamber 1 Analyzer: Asset #1328		Cable 1: Asset #2051 Preamp: Asset #1517				Cable 2: Asset #1784 Antenna: Blue Horn				Copyright Curtis-Straus LLC 2000													
CSSoft Radiated Emissions Calculator v 1.017.165 Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor																							

Radiated Emissions Table

Date: 20-Jul-16 Engineer: Ahmed Ahmed Temp: 22°C		Company: Dogwatch Inc. EUT Desc: SF-P10 Humidity: 39%								Work Order: Q1735 EUT Operating Voltage/Frequency: 120Vac/60Hz Pressure: 1002mBar													
Frequency Range: 1-10GHz										Measurement Distance: 3m													
Notes: TX mode, EUT set at the channel (927.9MHz). SN:07										EUT Max Freq: 902.1 to 927.9MHz													
Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dB _{UV})	Average Reading (dB _{UV})	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dB _{UV} /m)	Adjusted Avg Reading (dB _{UV} /m)	FCC 15.209 High Frequency - Peak			FCC 15.209 High Frequency - Average											
Table Result: Pass by -9.4 dB Worst Freq: 4639.5 MHz																							
Test Site: EMI Chamber 1 Analyzer: Asset #1328		Cable 1: Asset #2051 Preamp: Asset #1517				Cable 2: Asset #1784 Antenna: Blue Horn				Copyright Curtis-Straus LLC 2000													
CSSoft Radiated Emissions Calculator v 1.017.165 Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor																							



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Spectrum Analyzers / Receivers / Preselectors		Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
SA EMI Chamber (1328)		9kHz-13.2 GHz	E4405B	Agilent	MY44210241	1328	I	2/26/2017	2/26/2016
Radiated Emissions Sites	EMI Chamber 1	FCC Code	719150	IC Code	2762A-6	VCCI Code	Range	Calibration Due	Calibrated on
						A-0015	30-1000MHz	3/21/2017	3/21/2015
Preamps / Couplers Attenuators / Filters	1517 HF Preamp	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
		1-20GHz	CS	CS	N/A	1517	II	8/6/2016	8/6/2015
Antennas	Blue Horn	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
		1-18Ghz	3117	ETS	157647	1861	I	2/8/2017	2/8/2015
Meteorological Meters	Weather Clock (Pressure Only)	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on	
	TH A#2080	BA928	Oregon Scientific	C3166-1	831	I	4/28/2018	4/28/2016	
		HTC-1	HDE	2080	II	II	4/5/2017	4/5/2016	
Cables	Asset #1784	Range	Mfr			Cat	Calibration Due	Calibrated on	
		9kHz - 18GHz	Florida RF			II	3/7/2017	3/7/2016	
	Asset #2051	9kHz - 18GHz	Florida RF			II	3/2/2017	3/2/2016	

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

RX mode

Radiated Emissions Table

Date: 20-Jul-16	Company: Dogwatch Inc.	Work Order: Q1735										
Engineer: Ahmed Ahmed	EUT Desc: SF-P10	EUT Operating Voltage/Frequency: 120Vac/60Hz										
Temp: 22°C	Humidity: 39%	Pressure: 1002mBar										
Frequency Range: 30-1000MHz		Measurement Distance: 3m										
Notes: RX mode SN:08		EUT Max Freq: 902.1 to 927.9 MHz										
Antenna Polarization (H / V)	Frequency (MHz)	Reading (dB _{UV})	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dB _{UV} /m)	---			FCC 15.209		
							Limit (dB _{UV} /m)	Margin (dB)	Result (Pass/Fail)	Limit (dB _{UV} /m)	Margin (dB)	Result (Pass/Fail)
V	44.875	45.0	25.2	10.5	0.5	30.8	---	---	---	40.0	-9.2	Pass
V	63.775	50.0	25.3	7.8	0.6	33.1	---	---	---	40.0	-6.9	Pass
V	120.7	50.0	25.2	14.0	0.9	39.7	---	---	---	43.5	-3.8	Pass
V	125.85	51.0	25.2	14.2	0.9	40.9	---	---	---	43.5	-2.6	Pass
V	200.0	51.4	24.9	12.6	1.0	40.1	---	---	---	43.5	-3.4	Pass
V	400.0	47.0	25.2	15.6	1.6	39.0	---	---	---	46.0	-7.0	Pass

Table Result: Pass by -2.6 dB

Worst Freq: 125.85 MHz

Test Site: EMI Chamber 1
Analyzer: Asset #1328
CSsoft Radiated Emissions Calculator v1.017.165
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor

Cable 1: Asset #2051
Preamp: Blue-Blk
Cable 2: Asset #1784
Antenna: Red-Brown

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Spectrum Analyzers / Receivers / Preselectors		Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
SA EMI Chamber (1328)		9kHz-13.2 GHz	E4405B	Agilent	MY44210241	1328	I	2/26/2017	2/26/2016
Radiated Emissions Sites	EMI Chamber 1	FCC Code	719150	IC Code	2762A-6	VCCI Code	Range	Calibration Due	Calibrated on
						A-0015	30-1000MHz	3/21/2017	3/21/2015
Preamps / Couplers Attenuators / Filters	Blue-Black	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
		0.009-2000MHz	ZFL-1000-LN	CS	N/A	800	II	12/27/2016	12/27/2015
Antennas	Red-Brown BiLog	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
		30-2000MHz	JB1	Sunol	A0032406	1218	I	12/4/2016	12/4/2014
Meteorological Meters	TH A#2080	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on	
	Barometric A#2160	HTC-1	HDE	2080	II	II	4/5/2017	4/5/2016	
		5396-0321	Monarch Instruments	4000060	2160	I	3/7/2017	3/7/2016	
Cables	Asset #1784	Range	Mfr			Cat	Calibration Due	Calibrated on	
	Asset #2051	9kHz - 18GHz	Florida RF			II	3/7/2017	3/7/2016	
		9kHz - 18GHz	Florida RF			II	3/2/2017	3/2/2016	

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Radiated Emissions Table

Date: 20-Jul-16	Company: Dogwatch Inc.	Work Order: Q1735												
Engineer: Ahmed Ahmed	EUT Desc: SF-P10	EUT Operating Voltage/Frequency: 120Vac/60Hz												
Temp: 22°C	Humidity: 39%	Pressure: 1002mBar												
Frequency Range: 1-10GHz		Measurement Distance: 3m												
Notes: RX mode SN:07		EUT Max Freq: 27 MHz EUT TX Freq: 902.1 to 927.9 MHz												
Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dB _u V)	Average Reading (dB _u V)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dB _u V/m)	Adjusted Avg Reading (dB _u V/m)	FCC 15.209 High Frequency - Peak			FCC 15.209 High Frequency - Average		
									Limit (dB _u V/m)	Margin (dB)	Result (Pass/Fail)	Limit (dB _u V/m)	Margin (dB)	Result (Pass/Fail)
V	1855.8	31.0	19.0	18.8	30.9	3.2	46.3	34.3	74.0	-27.7	Pass	54.0	-19.7	Pass
V	2783.7	31.8	20.0	20.1	33.0	4.4	49.1	37.3	74.0	-24.9	Pass	54.0	-16.7	Pass
V	3711.6	32.9	21.0	19.1	33.4	5.5	52.7	40.8	74.0	-21.3	Pass	54.0	-13.2	Pass
V	4639.5	30.5	18.0	17.9	34.3	6.0	52.9	40.4	74.0	-21.1	Pass	54.0	-13.6	Pass
V	5567.4	30.4	19.0	17.6	34.9	6.8	54.5	43.1	74.0	-19.5	Pass	54.0	-10.9	Pass
Table Result:		Pass	by	-10.9 dB				Worst Freq:			5567.4 MHz			
Test Site: EMI Chamber 1	Cable 1: Asset #2051		Cable 2: Asset #1784		Antenna: Blue Horn									
Analyzer: Asset #1328	Preamp: Asset #1517												Copyright Curtis-Straus LLC 2000	
CSsoft Radiated Emissions Calculator v 1.017.165														
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor														

Rev. 7/4/2016

Spectrum Analyzers / Receivers /Preselectors SA EMI Chamber (1328)	Range 9kHz-13.2 GHz	MN E4405B	Mfr Agilent	SN MY44210241	Asset 1328	Cat I	Calibration Due 2/26/2017	Calibrated on 2/26/2016
Radiated Emissions Sites EMI Chamber 1	FCC Code 719150	IC Code 2762A-6	VCCI Code A-0015	Range 30-1000MHz		Cat II	Calibration Due 3/21/2017	Calibrated on 3/21/2015
Preamps /Couplers Attenuators / Filters 1517 HF Preamp	Range 1-20GHz	MN CS	Mfr CS	SN N/A	Asset 1517	Cat II	Calibration Due 8/6/2016	Calibrated on 8/6/2015
Antennas Blue Horn	Range 1-18Ghz	MN 3117	Mfr ETS	SN 157647	Asset 1861	Cat I	Calibration Due 2/8/2017	Calibrated on 2/8/2015
Meteorological Meters Weather Clock (Pressure Only) TH A#2080	MN BA928 HTC-1	Mfr Oregon Scientific HDE	SN C3166-1	Asset 831 2080	Cat I II	Calibration Due 4/28/2018 4/5/2017	Calibrated on 4/28/2016 4/5/2016	
Cables Asset #1784 Asset #2051	Range 9kHz - 18GHz 9kHz - 18GHz	Mfr Florida RF Florida RF			Cat II II	Calibration Due 3/7/2017 3/2/2017	Calibrated on 3/7/2016 3/2/2016	

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



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AC Line Conducted Emissions

LIMITS

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

*Decreases with the logarithm of the frequency.

[47 CFR 15.207(a)]

MEASUREMENTS / RESULTS

TX mode

AC Conducted Emissions Data Table																																																																																																																																										
Date: 22-Jul-16 Engineer: Chris Bramley Temp: 25.2 °C					Company: Dogwatch Inc. EUT Desc: SF-P10 Humidity: 46%																																																																																																																																					
Notes: TX mode, EUT(SN:07) set at the channel (927.9MHz). ITE Power Supply, Ethernet terminated to Linksys Switch.					Work Order: Q1735 Pressure: 998 mBar																																																																																																																																					
Frequency Range: 0.15-30MHz EUT Input Voltage/Frequency: 120V/60Hz																																																																																																																																										
<table border="1"> <thead> <tr> <th rowspan="2">Frequency (MHz)</th> <th colspan="2">Quasi-Peak Readings</th> <th colspan="2">Average Readings</th> <th colspan="2">LISN Factors</th> <th rowspan="2">Cable Factor (dB)</th> <th rowspan="2">ATTN Factor (dB)</th> <th colspan="3">FCC 15.207</th> </tr> <tr> <th>QP1 (dBμV)</th> <th>QP2 (dBμV)</th> <th>AVG1 (dBμV)</th> <th>AVG2 (dBμV)</th> <th>L1 (dB)</th> <th>L2 (dB)</th> <th>QP Limit (dBμV)</th> <th>Margin (dB)</th> <th>Result (Pass/Fail)</th> <th>AVG Limit (dBμV)</th> <th>Margin (dB)</th> <th>Result (Pass/Fail)</th> </tr> </thead> <tbody> <tr> <td>0.150</td><td>44.6</td><td>42.8</td><td>10.1</td><td>8.6</td><td>-0.1</td><td>-0.1</td><td>0.0</td><td>-19.4</td><td>66.0</td><td>-1.9</td><td>Pass</td><td>56.0</td><td>-26.3</td><td>Pass</td></tr> <tr> <td>0.232</td><td>38.2</td><td>36.3</td><td>16.7</td><td>15.4</td><td>-0.1</td><td>-0.1</td><td>0.0</td><td>-19.4</td><td>62.4</td><td>-4.7</td><td>Pass</td><td>52.4</td><td>-16.2</td><td>Pass</td></tr> <tr> <td>0.348</td><td>30.5</td><td>30.6</td><td>21.6</td><td>19.1</td><td>0.0</td><td>0.0</td><td>0.0</td><td>-19.4</td><td>59.0</td><td>-8.9</td><td>Pass</td><td>49.0</td><td>-7.9</td><td>Pass</td></tr> <tr> <td>0.378</td><td>31.1</td><td>31.9</td><td>28.5</td><td>26.8</td><td>0.0</td><td>0.0</td><td>0.0</td><td>-19.5</td><td>58.3</td><td>-6.9</td><td>Pass</td><td>48.3</td><td>-0.3</td><td>Pass</td></tr> <tr> <td>0.725</td><td>19.8</td><td>20.6</td><td>17.4</td><td>16.8</td><td>0.0</td><td>0.0</td><td>-0.1</td><td>-19.5</td><td>56.0</td><td>-15.9</td><td>Pass</td><td>46.0</td><td>-9.1</td><td>Pass</td></tr> <tr> <td>1.044</td><td>18.5</td><td>19.0</td><td>16.3</td><td>14.8</td><td>0.0</td><td>0.0</td><td>-0.1</td><td>-19.4</td><td>56.0</td><td>-17.5</td><td>Pass</td><td>46.0</td><td>-10.2</td><td>Pass</td></tr> <tr> <td>1.334</td><td>17.3</td><td>17.9</td><td>14.8</td><td>13.8</td><td>0.0</td><td>0.0</td><td>-0.1</td><td>-19.4</td><td>56.0</td><td>-18.6</td><td>Pass</td><td>46.0</td><td>-11.7</td><td>Pass</td></tr> </tbody> </table>	Frequency (MHz)	Quasi-Peak Readings		Average Readings		LISN Factors		Cable Factor (dB)	ATTN Factor (dB)	FCC 15.207			QP1 (dB μ V)	QP2 (dB μ V)	AVG1 (dB μ V)	AVG2 (dB μ V)	L1 (dB)	L2 (dB)	QP Limit (dB μ V)	Margin (dB)	Result (Pass/Fail)	AVG Limit (dB μ V)	Margin (dB)	Result (Pass/Fail)	0.150	44.6	42.8	10.1	8.6	-0.1	-0.1	0.0	-19.4	66.0	-1.9	Pass	56.0	-26.3	Pass	0.232	38.2	36.3	16.7	15.4	-0.1	-0.1	0.0	-19.4	62.4	-4.7	Pass	52.4	-16.2	Pass	0.348	30.5	30.6	21.6	19.1	0.0	0.0	0.0	-19.4	59.0	-8.9	Pass	49.0	-7.9	Pass	0.378	31.1	31.9	28.5	26.8	0.0	0.0	0.0	-19.5	58.3	-6.9	Pass	48.3	-0.3	Pass	0.725	19.8	20.6	17.4	16.8	0.0	0.0	-0.1	-19.5	56.0	-15.9	Pass	46.0	-9.1	Pass	1.044	18.5	19.0	16.3	14.8	0.0	0.0	-0.1	-19.4	56.0	-17.5	Pass	46.0	-10.2	Pass	1.334	17.3	17.9	14.8	13.8	0.0	0.0	-0.1	-19.4	56.0	-18.6	Pass	46.0	-11.7	Pass	Result: Pass			Worst Margin: -0.3 dB			Frequency: 0.378 MHz		
Frequency (MHz)		Quasi-Peak Readings		Average Readings		LISN Factors				Cable Factor (dB)	ATTN Factor (dB)	FCC 15.207																																																																																																																														
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1.334	17.3	17.9	14.8	13.8	0.0	0.0	-0.1	-19.4	56.0	-18.6	Pass	46.0	-11.7	Pass																																																																																																																												
Measurement Device: LISN ASSET 1726(Line 1) LISN ASSET 1727(Line 2)					Cable: CEMI-02		Spectrum Analyzer: SA EMI Chamber (1328)																																																																																																																																			
Attenuator: 20dB Attenuator-60					Site: CEMI 3																																																																																																																																					
C-S CEMI Calculator Version 3.0.14 Adjusted Reading = Raw Reading + LISN Insertion Loss + Cable Loss + Attenuation Equipment Factor Sheet rev: 7/5/2016																																																																																																																																										

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Rev. 7/4/2016										
Spectrum Analyzers / Receivers /Preselectors SA EMI Chamber (1328)			Range 9kHz-13.2 GHz	MN E4405B	Mfr Agilent	SN MY44210241	Asset 1328	Cat I	Calibration Due 2/26/2017	Calibrated on 2/26/2016
LISNs/Measurement Probes LISN Asset 1726 LISN Asset 1727			Range 150kHz-30MHz 150kHz-30MHz	MN LI-150A LI-150A	Mfr Com-Power Com-Power	SN 201092 201093	Asset 1726 1727	Cat I I	Calibration Due 2/4/2017 2/4/2017	Calibrated on 2/4/2016 2/4/2016
Conducted Test Sites (Mains / Telco) CEMI 3			FCC Code 719150	VCCI Code A-0015			Cat III	Calibration Due NA	Calibrated on N/A	
Meteorological Meters Weather Clock (Pressure Only) TH A#2078			MN BA928 HTC-1	Mfr Oregon Scientific HDE	SN C3166-1 2078	Asset 831 II	Cat I II	Calibration Due 4/28/2018 4/5/2017	Calibrated on 4/28/2016 4/5/2016	
Cables CEMI-02			Range 9kHz - 2GHz	Mfr C-S			Cat II	Calibration Due 4/10/2017	Calibrated on 4/10/2016	
Attenuators 20dB Attenuator-60			Range 9kHz-2GHz	MN N/A	Mfr	SN	Asset II	Calibration Due 4/12/2017	Calibrated on 4/12/2016	

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RX mode**AC Conducted Emissions Data Table**

AC Conducted Emissions Data Table								Company: Dogwatch Inc.			Work Order: Q1735			
								EUT Desc: SF-P10			Pressure: 998 mBar			
								Humidity: 46%						
Notes: RX mode, EUT(SN:08), ITE Power Supply, Ethernet terminated to Linksys Switch.														
Frequency (MHz)	Quasi-Peak Readings		Average Readings		LISN Factors		Cable Factor (dB)	ATTN Factor (dB)	FCC 15.207		EUT Input Voltage/Frequency: 120V/60Hz			
	QP1 (dB μ V)	QP2 (dB μ V)	AVG1 (dB μ V)	AVG2 (dB μ V)	L1 (dB)	L2 (dB)			QP Limit (dB μ V)	Margin (dB)	Result (Pass/Fail)	AVG Limit (dB μ V)	Margin (dB)	Result (Pass/Fail)
0.150	44.5	44.2	3.8	3.1	-0.1	-0.1	0.0	-19.4	66.0	-2.0	Pass	56.0	-32.6	Pass
0.290	33.2	33.0	22.5	22.3	0.0	0.0	-0.1	-19.4	60.5	-7.8	Pass	50.5	-8.5	Pass
0.348	31.6	32.4	28.7	27.3	0.0	0.0	0.0	-19.4	59.0	-7.1	Pass	49.0	-0.8	Pass
0.405	27.8	30.0	25.6	25.1	0.0	0.0	0.0	-19.4	57.8	-8.3	Pass	47.8	-2.7	Pass
0.637	26.0	26.4	24.1	23.2	0.0	0.0	-0.1	-19.4	56.0	-10.1	Pass	46.0	-2.4	Pass
1.042	25.2	25.1	22.8	22.3	0.0	0.0	-0.1	-19.4	56.0	-11.3	Pass	46.0	-3.7	Pass
1.445	22.5	21.7	21.8	20.9	0.0	0.0	-0.1	-19.4	56.0	-14.0	Pass	46.0	-4.6	Pass
Result: Pass				Worst Margin: -0.8 dB				Frequency: 0.348 MHz						
Measurement Device: LISN ASSET 1726(Line 1) LISN ASSET 1727(Line 2)				Cable: CEMI-02				Spectrum Analyzer: SA EMI Chamber (1328)						
				Attenuator: 20dB Attenuator-60				Site: CEMI 3						
C-S CEMI Calculator Version 3.0.14 Adjusted Reading = Raw Reading + LISN Insertion Loss + Cable Loss + Attenuation														

Rev. 7/4/2016

Spectrum Analyzers / Receivers /Preselectors SA EMI Chamber (1328)	Range 9kHz-13.2 GHz	MN E4405B	Mfr Agilent	SN MY44210241	Asset 1328	Cat I	Calibration Due 2/26/2017	Calibrated on 2/26/2016
LISNs/Measurement Probes LISN Asset 1726 LISN Asset 1727	Range 150kHz-30MHz 150kHz-30MHz	MN LI-150A LI-150A	Mfr Com-Power Com-Power	SN 201092 201093	Asset 1726 1727	Cat I I	Calibration Due 2/4/2017 2/4/2017	Calibrated on 2/4/2016 2/4/2016
Conducted Test Sites (Mains / Telco) CEMI 3	FCC Code 719150	VCCI Code A-0015				Cat III	Calibration Due NA	Calibrated on N/A
Meteorological Meters Weather Clock (Pressure Only) TH A#2078		MN BA928 HTC-1	Mfr Oregon Scientific HDE	SN C3166-1 2078	Asset 831 2078	Cat I II	Calibration Due 4/28/2018 4/5/2017	Calibrated on 4/28/2016 4/5/2016
Cables CEMI-02	Range 9kHz - 2GHz		Mfr C-S			Cat II	Calibration Due 4/10/2017	Calibrated on 4/10/2016
Attenuators 20dB Attenuator-60	Range 9kHz-2GHz	MN	Mfr	SN N/A	Asset	Cat II	Calibration Due 4/12/2017	Calibrated on 4/12/2016

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Occupied Bandwidth

REQUIREMENT

When an occupied bandwidth is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is its 99% emission bandwidth, as calculated or measured.

[RSS-GEN 6.6]

MEASUREMENTS / RESULTS

99% Occupied Bandwidth - Radiated Emissions Table																		
Date: 20-Jul-16	Company: Dogwatch Inc.					Work Order: Q1735												
Engineer: Tuyen Truong	EUT Desc: SF-P10					EUT Operating Voltage/Frequency: 120Vac/60Hz												
Temp: 22°C	Humidity: 39%					Pressure: 1015mBar												
Frequency Range: Fundamental Frequencies					Measurement Distance: 3m													
Notes: EUT Samples (SN#1 (915.1 MHz), SN# 3 (902.1 MHz), SN#7 (927.9 MHz)					EUT TX Frequencies: 902.1 to 927.9 MHz													
Antenna Polarization (H / V)	Channel / Frequency (MHz)	99% OCC BW Readings (kHz)																
v	902.1	14.0429																
v	915.1	14.0598																
v	927.9	14.0228																
Test Site: EMI Chamber 1	Cable 1: Asset #2051			Cable 2: Asset #1784			Cable 3: ---											
Analyzer: Asset #1328	Preamp: none			Antenna: Red-Brown			Preselector: ---											
CSsoft Radiated Emissions Calculator	v 1.017.165						Copyright Curtis-Straus LLC 2000											
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor																		

Rev. 7/4/2016

Spectrum Analyzers / Receivers /Preselectors SA EMI Chamber (1328)	Range 9kHz-13.2 GHz	MN E4405B	Mfr Agilent	SN MY44210241	Asset 1328	Cat I	Calibration Due 2/26/2017	Calibrated on 2/26/2016
Radiated Emissions Sites EMI Chamber 1	FCC Code 719150	IC Code 2762A-6	VCCI Code A-0015	Range 30-1000MHz		Cat II	Calibration Due 3/21/2017	Calibrated on 3/21/2015
Preamps /Couplers Attenuators / Filters none (n/a)	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Antennas Red-Brown BiLog	Range 30-2000MHz	MN JB1	Mfr Sunol	SN A0032406	Asset 1218	Cat I	Calibration Due 12/4/2016	Calibrated on 12/4/2014
Meteorological Meters TH A#2080 Barometric A#2160		MN HTC-1	Mfr HDE	SN 2080	Asset 2160	Cat II	Calibration Due 4/5/2017 3/7/2017	Calibrated on 4/5/2016 3/7/2016
Cables Asset #1784 Asset #2051	Range 9kHz - 18GHz 9kHz - 18GHz		Mfr Florida RF Florida RF			Cat II	Calibration Due 3/7/2017 3/2/2017	Calibrated on 3/7/2016 3/2/2016

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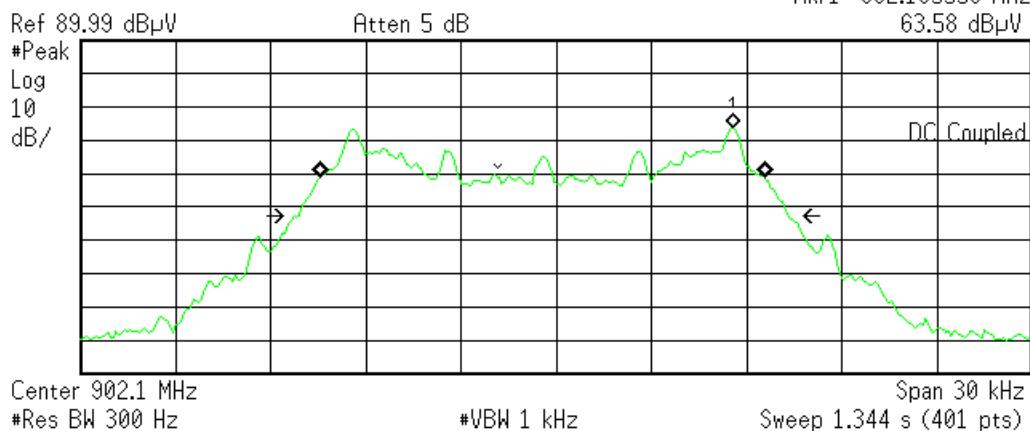


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Plot(s)

* Agilent 08:37:41 Jul 20, 2016

R T

Mkr1 902.105550 MHz
63.58 dB μ V

Occupied Bandwidth
14.0429 kHz

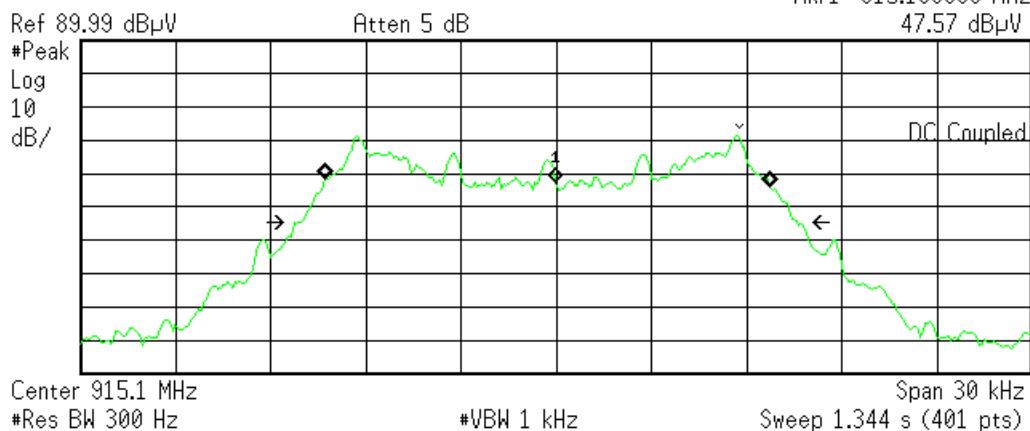
Transmit Freq Error -422.358 Hz
x dB Bandwidth 15.383 kHz

C:\temp.gif file saved

Occupied Bandwidth - Low Channel (902.1 MHz)

* Agilent 07:57:33 Jul 20, 2016

R T

Mkr1 915.100000 MHz
47.57 dB μ V

Occupied Bandwidth
14.0598 kHz

Transmit Freq Error -258.958 Hz
x dB Bandwidth 15.697 kHz

C:\temp.gif file saved

Occupied Bandwidth - Mid channel (915.1 MHz)



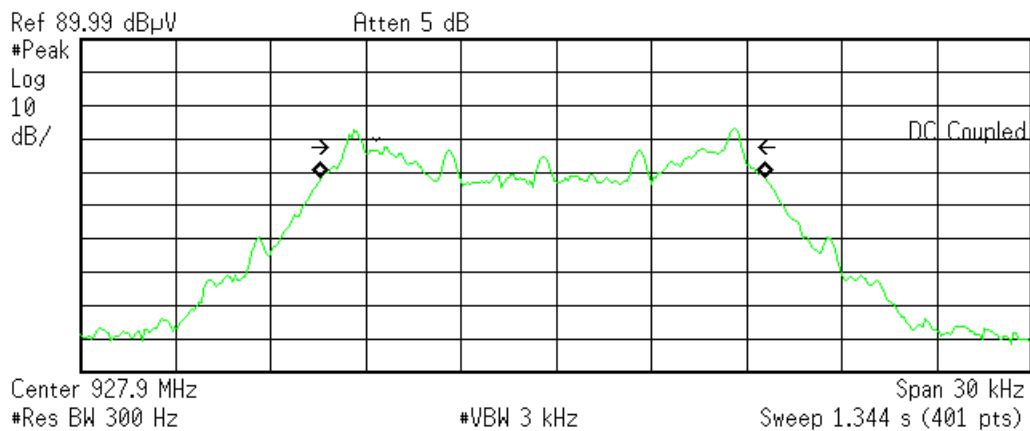
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* Agilent 10:03:24 Jul 20, 2016

R T



Transmit Freq Error -396.266 Hz
x dB Bandwidth 12.494 kHz

C:\temp.gif file saved

Occupied Bandwidth - High Channel (927.9 MHz)



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Measurement Uncertainty

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement	Expanded Uncertainty k=2	Maximum allowable uncertainty
Radiated Emissions (30-1000MHz)		
NIST	5.6dB	N/A
CISPR	4.6dB	5.2dB (Ucispqr)
Radiated Emissions (1-26.5GHz)	4.6dB	N/A
Radiated Emissions (above 26.5GHz)	4.9dB	N/A
Magnetic Radiated Emissions	5.6dB	N/A
Conducted Emissions		
NIST	3.9dB	N/A
CISPR	3.6dB	3.6dB (Ucispqr)
Telco Conducted Emissions (Current)	2.9dB	N/A
Telco Conducted Emissions (Voltage)	4.4dB	N/A
Electrostatic Discharge	11.5%	N/A
Radiated RF Immunity (Uniform Field)	1.6dB	N/A
Electrical Fast Transients	23.1%	N/A
Surge	23.1%	N/A
Conducted RF Immunity	3dB	N/A
Magnetic Immunity	12.8%	N/A
Dips and Interrupts	2.3V	N/A
Harmonics	3.5%	N/A
Flicker	3.5%	N/A
Radio frequency (@ 2.4GHz)	3.23×10^{-8}	1×10^{-7}
RF power, conducted	0.40dB	0.75dB
Maximum frequency deviation:		
• Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency	3.4% 0.3dB	5% 3dB
Adjacent channel power	1.9dB	3dB
Conducted spurious emission of transmitter, valid up to 12.75GHz	2.39dB	3dB
Conducted emission of receivers	1.3dB	3dB
Radiated emission of transmitter, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of transmitter, valid up to 80GHz	3.3dB	6dB
Radiated emission of receiver, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of receiver, valid up to 80GHz	3.3dB	6dB
Humidity	2.37%	5%
Temperature	0.7°C	1.0°C
Time	4.1%	10%
RF Power Density, Conducted	0.4dB	3dB
DC and low frequency voltages	1.3%	3%
Voltage (AC, <10kHz)	1.3%	2%
Voltage (DC)	0.62%	1%
The above reflects a 95% confidence level		



Conditions Of Testing

[Bureau Veritas Consumer Products Services, Inc., a Massachusetts corporation], and/or its affiliates (collectively, the "Company") will conduct, at the request of the Submitter ("Client"), the tests specified on the submitted Test Request Form or equivalent in accordance with, and subject to, the following terms and conditions (collectively, "Conditions"):

1. All orders for tests are subject to acceptance by the Company, and no order will constitute a binding commitment of the Company unless and until such order is accepted by it, as evidenced by the issuance of a written report ("Test Report") by the Company. The Test Report is issued solely by the Company, is intended for the exclusive use of Client and shall not be published, used for advertising purposes, copied or replicated for distribution to any other person or entity or otherwise publicly disclosed without the prior written consent of the Company. By submitting a request for services to the Company, Client consents to the disclosure to accreditation bodies of those records of Client relevant to the accreditation body's assessment of the Company's competence and compliance with relevant accreditation criteria. The Company shall not be liable for any loss or damage whatsoever resulting from the failure of the Company to provide its services within any time period for completion estimated by the Company. If Client anticipates using the Test Report in any legal proceeding, arbitration, dispute resolution forum or other proceeding, it shall so notify the Company prior to submitting the Test Report in such proceeding. The Company has no obligation to provide a fact or expert witness at such proceeding unless the Company agrees in advance to do so for a separate and additional fee.
2. The Test Report will set forth the findings of the Company solely with respect to the test samples identified therein. Unless specifically and expressly indicated in the Test Report, the results set forth in such Test Report are not intended to be indicative or representative of the quality or characteristics of the lot from which a test sample is taken, and Client shall not rely upon the Test Report as being so indicative or representative of the lot or of the tested product in general. The Test Report will reflect the findings of the Company at the time of testing only, and the Company shall have no obligation to update the Test Report after its issuance. The Test Report will set forth the results of the tests performed by the Company based upon the written information provided to the Company. The Test Report will be based solely on the samples and written information submitted to the Company by Client, and the Company shall not be obligated to conduct any independent investigation or inquiry with respect thereto.
3. The Company may, in its sole discretion, destroy samples which have been furnished to the Company for testing and which have not been destroyed in the course of testing. The Company may delegate the performance of all or a portion of the services contemplated hereunder to an affiliate, agent or subcontractor of the Company, and Client consents to such delegation.
4. These Conditions and the Test Report represent the entire understanding of the parties hereto with respect to the subject matter hereof and of the Test Report, and no modification, variance or extrapolation with respect thereto shall be permitted without the prior written consent of the Company.
5. The names, service marks, trademarks and copyrights of the Company and its affiliates, including the names "BUREAU VERITAS," "BUREAU VERITAS CONSUMER PRODUCTS SERVICES" "BVCPS", "MTL", "ACTS", "MTL-ACTS" and CURTIS-STRAUSS (collectively, the "Marks") are and shall remain the sole property of the Company or its affiliates and shall not be used by Client except solely to the extent that Client obtains the prior written approval of the Company and then only in the manner prescribed by the Company. Client shall not contest the validity of the Marks or take any action that might impair the value or goodwill associated with the Marks or the image or reputation of the Company or its affiliates.
6. Payment in full shall be due 30 days after the date of invoice. Interest shall be due on overdue amounts from the due date until paid at an interest rate of 1.5% per month or, if less, the maximum rate permitted by law. The Company reserves the right, at any time and from time to time, to revoke any credit extended to Client. Client shall reimburse the Company for any costs it incurs in collecting past due amounts, including court costs and fees and expenses of attorneys and collection agencies. The Test Report may not be used or relied upon by Client if and for so long as Client fails to pay when due any invoice issued by the Company or any affiliate of it to Client or any affiliate or subsidiary of Client together with interest and penalties, if any, accrued thereon.
7. The Company disclaims any and all responsibility or liability arising out of or in connection with e-mail transmissions of such information.
8. Client understands and agrees that the Company is neither an insurer nor a guarantor, that the Company does not take the place of Client or any designer, manufacturer, agent, buyer, distributor or transportation or shipping company, and that the Company disclaims all liability in such capacities. Client further understands that if it seeks assurance against loss or damage, it should obtain appropriate insurance.
9. Client agrees that the Company, by providing the services, does not take the place of Client nor any third party, nor does the Company release them from any of their obligations, nor does the Company otherwise assume, abridge, abrogate or undertake to discharge any duty of any third party to Client or any duty of Client or any third party to any other third party, and Client will not release any third party from its obligations and duties with respect to the tested goods.
10. Client shall, on a timely basis, (a) provide adequate instructions to the Company in order to enable the Company to perform properly its services, (b) provide, or cause Client's suppliers and contractors to provide, the Company with all documents necessary to enable the Company to perform its services, (c) furnish the Company with all relevant information regarding Client's intended use and purposes of the tested goods, (d) advise the Company of essential dates and deadlines relevant to the tested goods and (e) fully exercise all rights and remedies available to Client against third parties in respect of the tested goods.
11. The Company shall undertake due care and ordinary skill in the performance of its services to Client, and the Company shall accept responsibility only were such skill has not been exercised and, even in such event, only to the extent of the limitation of liability set forth herein.
12. If Client desires to assert a claim arising from or relating to (i) the performance, purported performance or non-performance of any services by the Company or (ii) the sale, resale, manufacture, distribution or use of any tested goods, it must submit that claim to the Company in a writing that sets forth with particularity the basis for such claim within 60 days from discovery of the potential claim and not more than six months after the date of issuance of the Test Report to Client. Client waives any and all such claims including, without limitation, claims that the Test Report is inaccurate, incomplete or misleading or that additional or different testing is required, unless and then only to the extent that Client submits a written claim to the Company within both such time periods.



13. CLIENT SHALL, EXCEPT TO THE EXTENT OF COMPANY'S LIABILITY TO CLIENT HEREUNDER (WHICH IN NO EVENT SHALL EXCEED THE LIMITATION OF LIABILITY HEREIN), HOLD HARMLESS AND INDEMNIFY THE COMPANY, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AGENTS AND SUBCONTRACTORS AGAINST ALL ACTUAL OR ALLEGED THIRD PARTY CLAIMS FOR LOSS, DAMAGE OR EXPENSE OF WHATSOEVER NATURE AND HOWSOEVER ARISING FROM OR RELATING TO (i) THE PERFORMANCE, PURPORTED PERFORMANCE OR NON-PERFORMANCE OF ANY SERVICES BY THE COMPANY OR (ii) THE SALE, RESALE, MANUFACTURE, DISTRIBUTION OR USE OF ANY TESTED GOODS.

14. EXCEPT AS MAY OTHERWISE BE EXPRESSLY AGREED TO IN WRITING BY THE COMPANY AND NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN OR IN ANY TEST REPORT, NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, IS MADE.

15. (A) IN NO EVENT WHATSOEVER SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE TEST REPORT OR THE SERVICES PROVIDED BY THE COMPANY HEREUNDER, INCLUDING WITHOUT LIMITATION LOSS OF OR DAMAGE TO PROPERTY; LOSS OF INCOME, PROFIT OR USE; OR ANY CLAIMS OR DEMANDS MADE AGAINST CLIENT OR ANY OTHER PERSON BY ANY THIRD PARTY IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE SERVICES PROVIDED BY THE COMPANY HEREUNDER.

(B) NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN, AND IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS TO CLIENT AND THE COMPANY ASSOCIATED WITH THE TESTING SERVICES CONTEMPLATED HEREBY, THE RISKS HAVE BEEN ALLOCATED SUCH THAT UNDER NO CIRCUMSTANCES WHATSOEVER SHALL THE LIABILITY OF THE COMPANY TO CLIENT OR ANY THIRD PARTY IN RESPECT OF ANY CLAIM FOR LOSS, DAMAGE OR EXPENSE, OF WHATSOEVER NATURE OR MAGNITUDE, AND HOWSOEVER ARISING, EXCEED AN AMOUNT EQUAL TO FIVE (5) TIMES THE AMOUNT OF THE FEES PAID TO THE COMPANY FOR THE SPECIFIC SERVICES WHICH GAVE RISE TO SUCH CLAIM OR U.S.\$10,000, WHICHEVER IS THE LESSER AMOUNT.

16. The Company shall not be liable for any loss or damage resulting from any delay or failure in performance of its obligations hereunder resulting directly or indirectly from any event of force majeure or any event outside the control of the Company. If any such event occurs, the Company may immediately cancel or suspend its performance hereunder without incurring any liability whatsoever to Client.

17. Company's services, including these Conditions, shall be governed by, and construed in accordance with, the local laws of the country where the Company performs the tests or, in the case of tests performed in the United States of America, the laws of Massachusetts without regard to conflicts of laws principles. If any aspect(s) of these Conditions is found to be illegal or unenforceable, the validity, legality and enforceability of all remaining aspects of these Conditions shall not in any way be affected or impaired thereby. Any proceeding related to the subject matter hereof shall be brought, if at all, in the courts of the country where the Company performs the tests or, in the case of tests performed in the United States of America, in the courts of Massachusetts. Client waives the right to interpose any counterclaim or setoffs of any nature in any litigation arising hereunder.

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