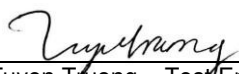
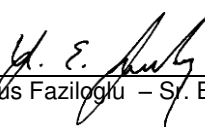




Test Report

Curtis-Straus LLC, a wholly owned subsidiary of BV CPS

Report No	EQ0060-1 Issue 2
Client	Ideal Industries, Inc.
Address	Becker Place Sycamore, IL 60178
Phone	815-895-1295
Items tested	SCELV1000
FCC ID	2AAMXSCELV1000
IC ID	11250A-SCELV1000
FRN	0002862225
Equipment Type	Digital Transmission System
Equipment Code	DTS
Emission Designator	758KG1D
FCC/IC Rule Parts	47 CFR 15.247, RSS-247 issue 1
Test Dates	January 14 and 15, 2016
Results	As detailed within this report
Prepared by	 Tuyen Truong – Test Engineer
Authorized by	 Yunus Faziloglu – Sr. EMC Engineer
Issue Date	<u>2/26/2016</u>
Conditions of Issue	This Test Report is issued subject to the conditions stated in the 'Conditions of Testing' section on page 41 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 12-07-15



Summary

This test report supports an application for certification of a transmitter operating pursuant to 47 CFR 15.247 and RSS-247. The product is the SCELV1000. It is a transmitter that operates in the range 902-928MHz.

We found that the product met the above requirements without modifications. The test sample was received in good condition on January 14, 2016.

Release Control Record

Issue No.	Reason for change	Date Issued
1	Original Release	February 26, 2016



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Test Methodology

All testing was performed according to the following rules/procedures/documents;

CFR 47 Part 15.247, RSS-247 Issue 1, RSS-Gen Issue 4, FCC KDB 558074 D01 DTS Measurement Guidance v03r04 and ANSI C63.10-2013.

Radiated emissions were maximized by rotating the device around three orthogonal axes as well as varying the test antenna's height and polarity. AC line conducted emissions testing was performed with a 50 Ω /50 μ H LISN. The EUT operating voltage was 120/277VAC at 60Hz.

RF measurements were performed at the antenna port.

The environmental conditions were as shown below.

Date	Temperature	Humidity
January 14, 2016	21°	30%RH
January 15, 2016	22°C	29%RH

The following bandwidths were used during radiated spurious and line conducted emissions.

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

Product Tested - Configuration Documentation

EUT Configuration										
Work Order:	Q0060									
Company:	Ideal Industries, Inc.									
Company Address:	Becker Place									
	Sycamore, IL 60178									
Contact:	Tim Tunnell									
	MN			PN			SN			
EUT:	SCELV1000						010fcc01			
EUT Description:	Line Dimming Luminaire Controller									
EUT TX Frequency:	902.7-927.3 MHz									
Port Label	Port Type	# ports	# populated	cable type	shielded	ferrites	length (m)	in/out	under test	comment
120/277VAC Power	Power AC	1	1	Power AC	No	No	6	in	yes	
Software Operating Mode Description:										
The EUT needs to be connected to the AC power lines. The EUT is rated up to 277V AC input. The EUT provides AC power and an AC dimming output. The EUT will be mounted to a light fixture during normal operation. The black wire is the AC hot. The white wire is the AC neutral. The red wire is the AC dimming output. A power cord is to be connected to the AC hot and neutral to allow the unit to be plugged into an outlet for testing. Operating Frequency: 902 to 928MHz, channel(s) are factory programmed, for testing the EUT has test software allowing channel selection by power cycling EUT, EUT has the lowest channel (902.7MHz), mid channel (915MHz), highest channel (927.3MHz). Modulation: Digital Modulation Spread Spectrum										

Statement of Conformity

The SCELV1000 has been found to conform to the following parts of 47 CFR and RSS 247 as detailed below:

RSS-GEN	RSP-100	RSS 247	Part 15	Comments
6.3			15.15(b)	There are no controls accessible to the user that varies the output power to operate in violation of the regulatory requirements.
	3.1		15.19	The label is shown in the label exhibit.
	4		15.21	Information to the user is shown in the instruction manual exhibit.
			15.27	No special accessories are required for compliance.
3, 6.1			15.31	The EUT was tested in accordance with the measurement standards in this section.
6.13			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 integrated hardwired to the PCB with a gain of 4.55dBi.
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 AC Line conducted emissions requirements of this section.
			15.247	The unit complies with the requirements of 15.247
		RSS 247		The unit complies with the requirements of RSS-247
6.6				Occupied Bandwidth measurements were made.

Modifications Required for Compliance

No modifications required for Compliance

Test Results**Bandwidth****LIMIT**

The minimum 6 dB bandwidth shall be at least 500 kHz. [15.247(a) (2)]

MEASUREMENTS / RESULTS

DTS Bandwidth (Conducted) Table							
Date: 14-Jan-16		Company: Ideal Industries, Inc.				Work Order: Q0060	
Engineer: Jason Haley		EUT Desc: SCELV1000				EUT Operating Voltage/Frequency: 120Vac/60Hz	
Temp: 20.2°C		Humidity: 35%		Pressure: 1007mBar			
Frequency Range: 902-928MHz							
Notes: Measured per DTS Meas Guidance V03r04 Section 8.2							
Frequency (MHz)	Resolution Bandwidth Setting (kHz)	Video Bandwidth Setting (kHz)	Frequency Span Setting (MHz)	Detector Function	Measured DTS Bandwidth (kHz)	FCC Part 15.247(a) (2) Emission Bandwidth	
						Limit (kHz minimum)	Result (Pass/Fail)
902.7	100	300	2	Peak	662.5	500.0	Pass
915.0	100	300	2	Peak	663.7	500.0	Pass
927.3	100	300	2	Peak	663.6	500.0	Pass
Table Result: Pass							

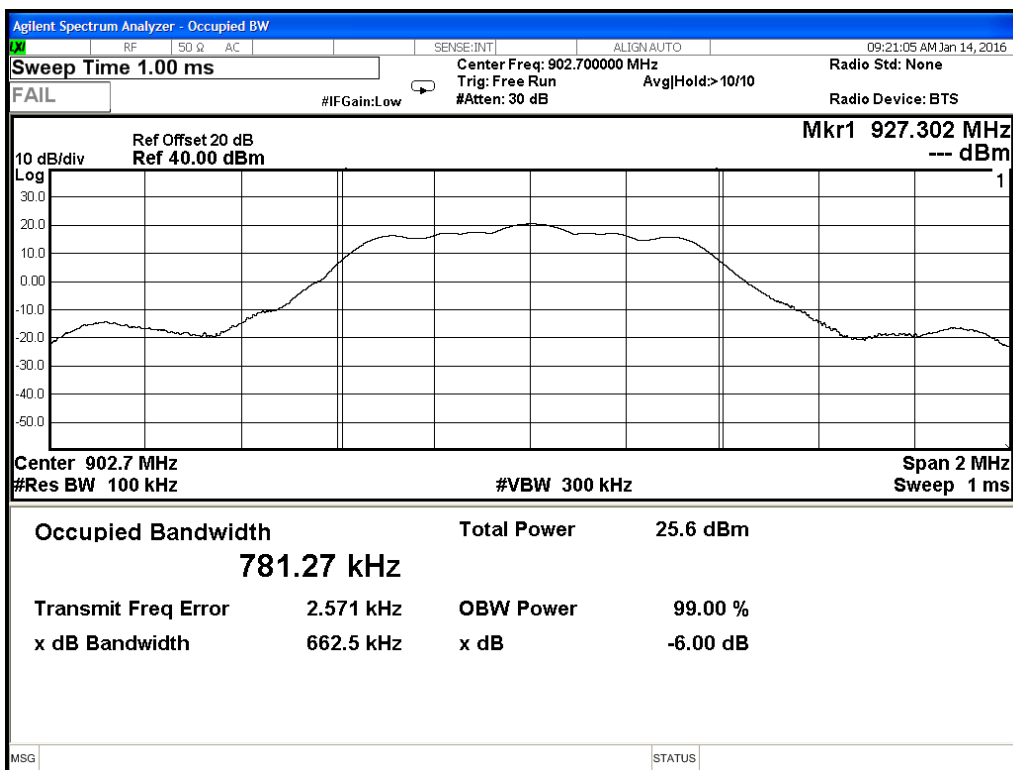
Rev. 1/12/2016

Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on	
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/19/2016	3/19/2014	
TH A#2084		HTC-1	HDE		2084	II	4/2/2016	4/2/2015	
Spectrum Analyzers / Receivers/Preselectors		Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
MXE EMI Receiver		20Hz-8.4GHz	N9038A	Agilent	MY53290009	1168255	I	6/16/2016	6/16/2015
Preamps/Couplers Attenuators / Filters		Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
HF 20dB 50W Attenuator		0.009-18 GHz	PE 7019-20	Pasternack	1	791	II	7/31/2016	7/31/2015

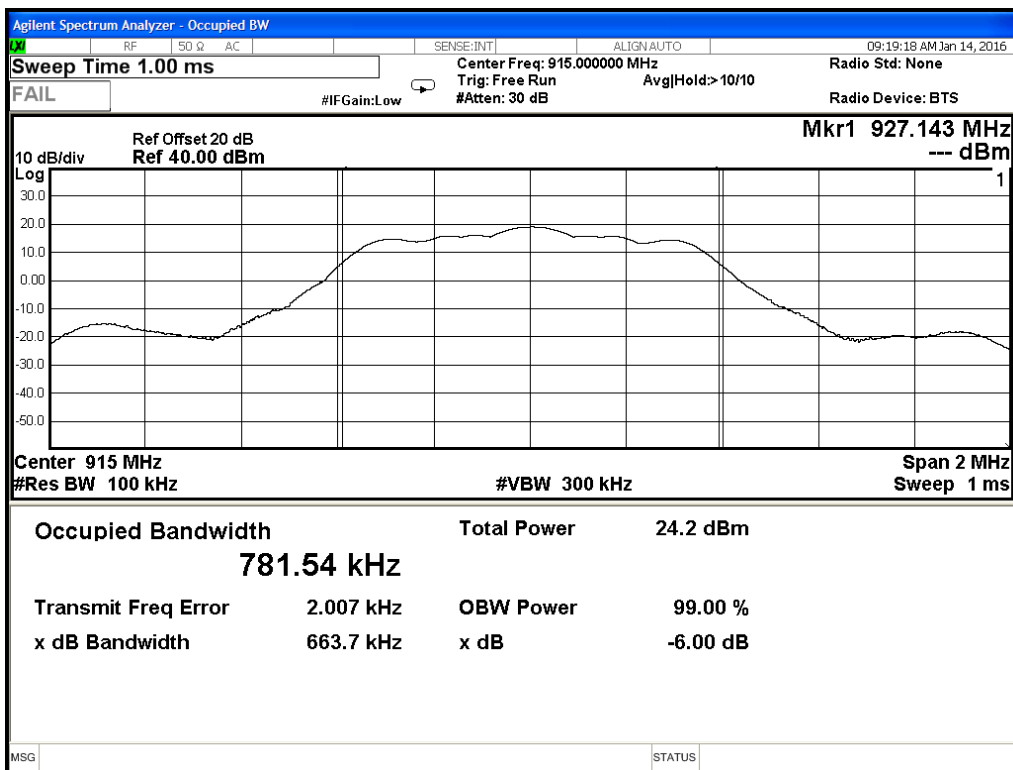
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



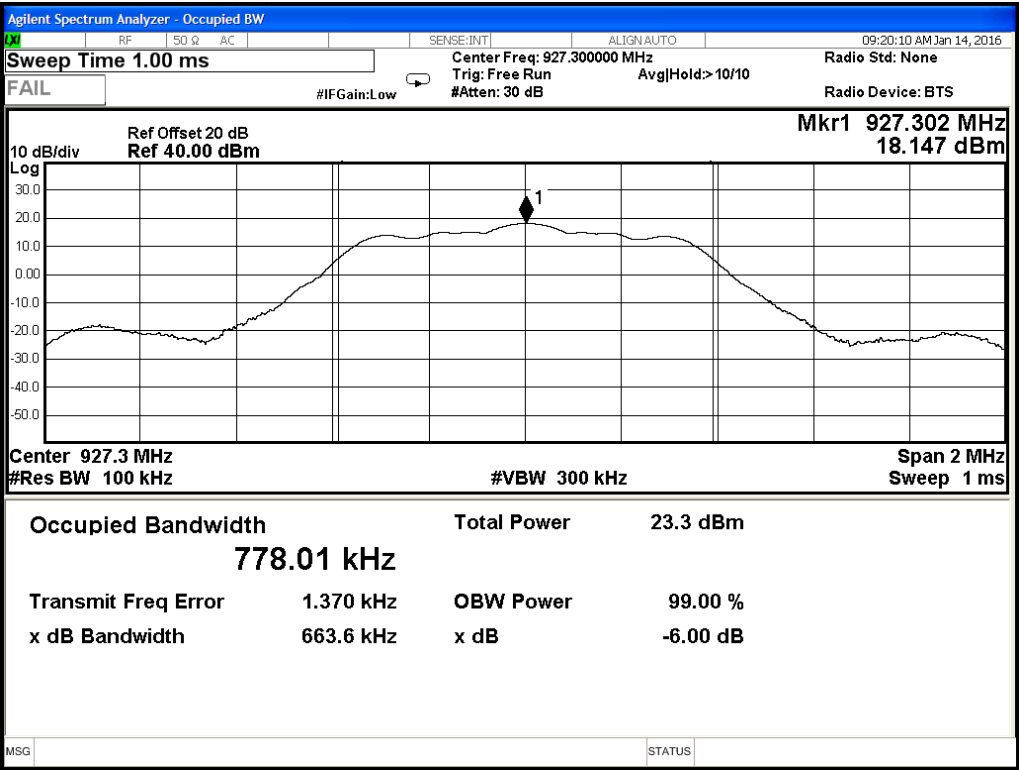
PLOTS



DTS Bandwidth Plot, Low Channel



DTS Bandwidth Plot, Mid Channel



DTS Bandwidth, High Channel

Peak Power**LIMIT**

Conducted Output Power

1 Watt

[15.247(b) (3)]

MEASUREMENTS / RESULTS

Conducted Output Power Table								
Date: 14-Jan-16			Company: Ideal Industries, Inc.			Work Order: Q0060		
Engineer: Jason Haley			EUT Desc: SCELV1000			EUT Operating Voltage/Frequency: 120/60		
Temp: 20.2°C			Humidity: 35%			Pressure: 1007mBar		
Frequency Range: 902-928MHz								
Notes: Measured per DTS Meas Guidance V03r04 Section 9.2.2, Method AVGSA-1 (trace averaging with the EUT transmitting at full power throughout each sweep)								
Frequency (MHz)	Resolution Bandwidth Setting (kHz)	Video Bandwidth Setting (kHz)	Frequency Span Setting (MHz)	Detector Function	Measured Power Level (dBm)	FCC Part 15.247 b 3. Conducted Output Power		
						Limit (dBm)	Margin (dB)	Result (Pass/Fail)
902.7	30	100	2	RMS	20.71	30.0	-9.3	Pass
915.0	30	100	2	RMS	19.16	30.0	-10.8	Pass
927.3	30	100	2	RMS	18.34	30.0	-11.7	Pass
Table Result: Pass by -9.3 dB Worst Freq: 902.7 MHz								

Rev. 1/12/2016

Meteorological MetersWeather Clock (Pressure Only)
TH A#2084**MN**BA928
HTC-1**Mfr**Oregon Scientific
HDE**SN**

C3166-1

Asset831
2084**Cat**I
II**Calibration Due**3/19/2016
4/2/2016**Calibrated on**3/19/2014
4/2/2015**Spectrum Analyzers / Receivers / Preselectors**

MXE EMI Receiver

Range

20Hz-8.4GHz

MN

N9038A

Mfr

Agilent

SN

MY53290009

Asset

1168255

Cat

I

Calibration Due

6/16/2016

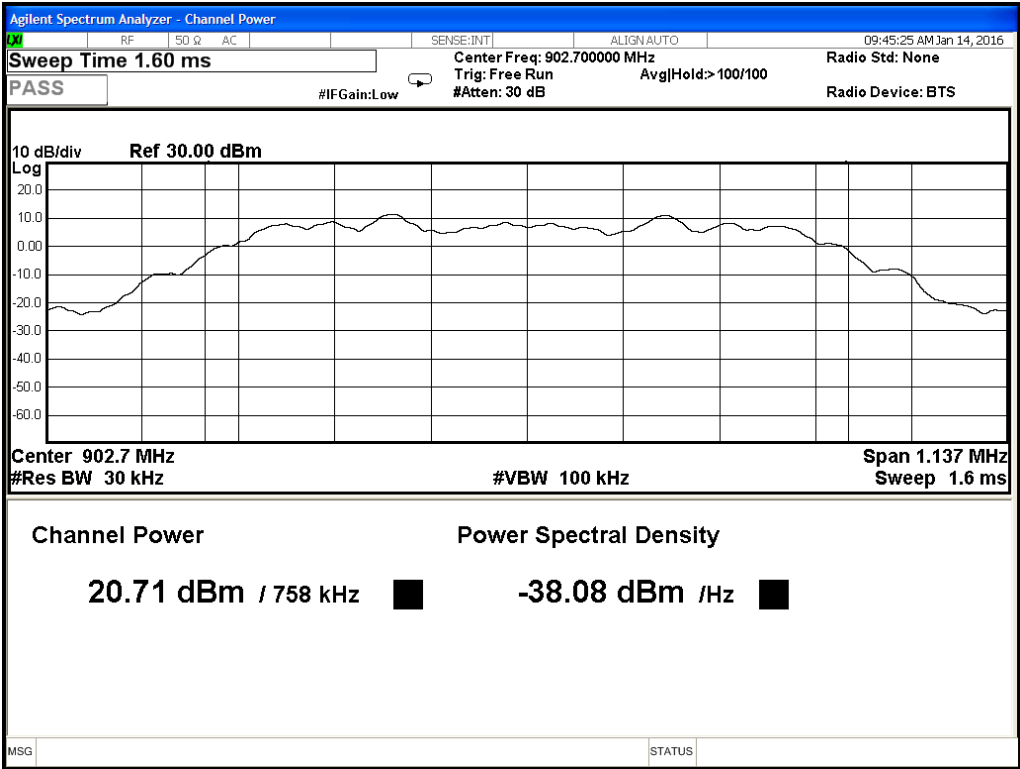
Calibrated on

6/16/2015

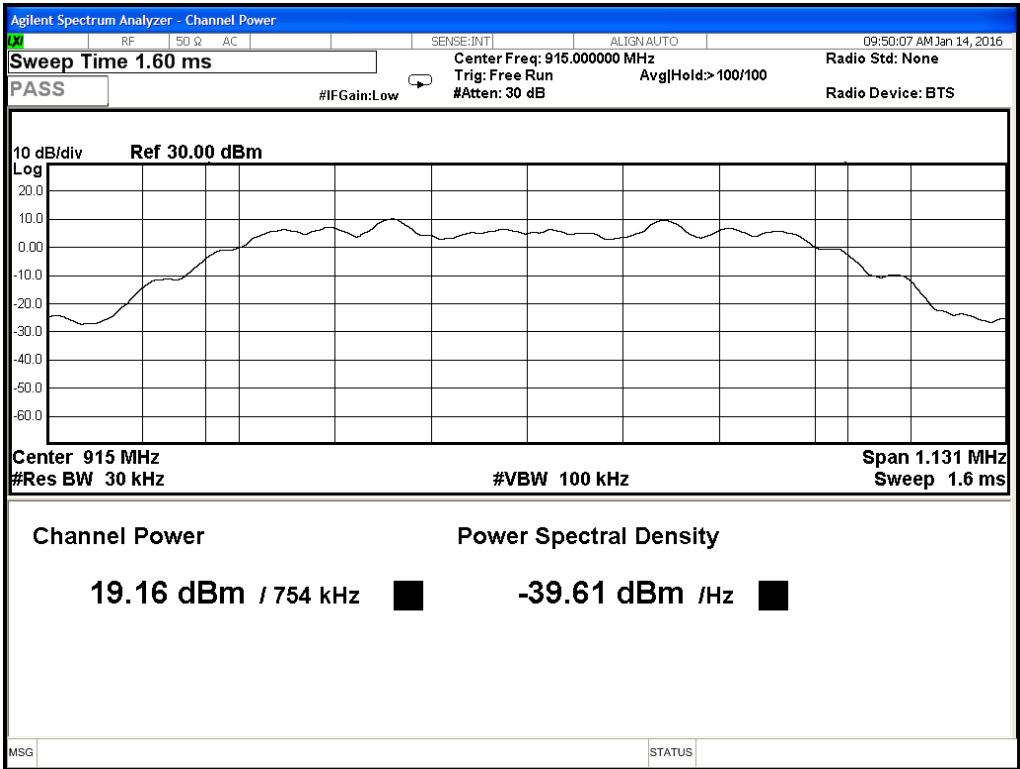
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



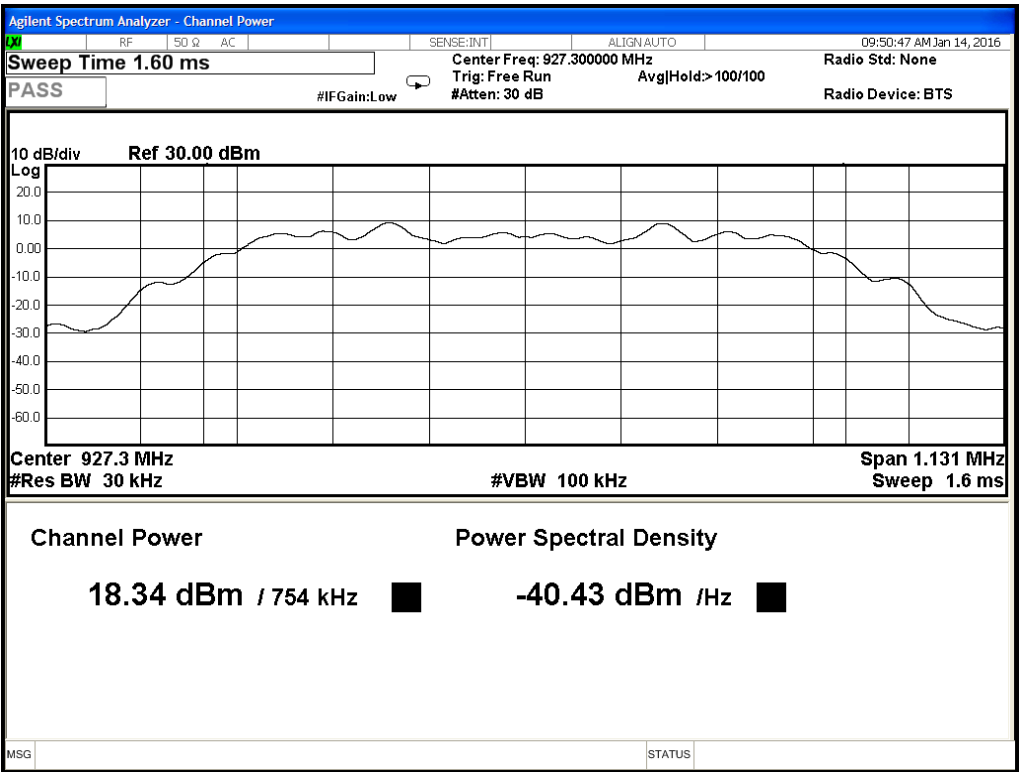
PLOTS



Peak Output Power, Low Channel



Peak Output Power, Mid Channel



Peak Output Power, High Channel

Radiated Spurious Emissions

LIMITS

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).
[15.247(d)]

Testing has been performed on 3 channels (low, middle and high). Worst case results are shown in the following data tables.

MEASUREMENTS / RESULTS

Radiated Emissions Table												
Date: 15-Jan-16			Company: Ideal Industries, Inc.						Work Order: Q0060			
Engineer: Jason Haley			EUT Desc: SCELV1000						EUT Operating Voltage/Frequency: 115/60			
Temp: 22°C			Humidity: 27%			Pressure: 1007mBar						
Frequency Range: 30-1000MHz								Measurement Distance: 3 m				
Notes: EUT transmitting at 902MHz. Z-axis.								EUT Max Freq: 928MHz				
Antenna Polarization (H / V)	Frequency (MHz)	Reading (dBμV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Reading (dBμV/m)	---			FCC Part 15.209		
							Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)
V, pk	76.895372	43.0	25.3	8.4	0.5	26.6	---	---	---	40.0	-13.4	Pass
V, pk	263.470272	40.8	25.4	12.5	1.0	28.9	---	---	---	46.0	-17.1	Pass
H, pk	302.13527	45.1	25.3	13.4	1.0	34.2	---	---	---	46.0	-11.8	Pass
H, pk	305.451104	46.9	25.3	13.5	1.0	36.1	---	---	---	46.0	-9.9	Pass
H, pk	308.648516	45.4	25.3	13.6	1.1	34.8	---	---	---	46.0	-11.2	Pass
V, pk	311.964351	47.2	25.3	13.8	1.1	36.8	---	---	---	46.0	-9.2	Pass
V, pk	321.497375	46.6	25.0	14.0	1.0	36.6	---	---	---	46.0	-9.4	Pass
V, pk	326.471126	46.7	25.0	13.9	1.1	36.7	---	---	---	46.0	-9.3	Pass
V, pk	337.721279	48.9	25.2	14.0	1.2	38.9	---	---	---	46.0	-7.1	Pass
H, pk	340.918691	44.2	25.2	14.0	1.2	34.2	---	---	---	46.0	-11.8	Pass
H, pk	342.635819	44.5	25.2	14.1	1.1	34.5	---	---	---	46.0	-11.5	Pass
V, pk	345.833231	48.3	25.1	14.1	1.1	38.4	---	---	---	46.0	-7.6	Pass
H, pk	350.806983	44.5	25.0	14.3	1.0	34.8	---	---	---	46.0	-11.2	Pass
QP Horz	757.2	39.5	24.8	20.9	1.8	37.4	---	---	---	46.0	-8.6	Pass
Table Result: Pass by -7.1 dB							Worst Freq: 337.72 MHz					
Test Site: EMI Chamber 2			Cable 1: Asset #2052				Cable 2: Asset #2053			Cable 3: ---		
Analyzer: Rental SA#5			Preamp: Blue-Blk				Antenna: Red-White			Preselector: ---		
CSsoft Radiated Emissions Calculator v 1.017.154												
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor												
Copyright Curtis-Straus LLC 2000												

Radiated Emissions Table															
Date: 15-Jan-16				Company: Ideal Industries, Inc.						Work Order: Q0060					
Engineer: Jason Haley				EUT Desc: SCELV1000						EUT Operating Voltage/Frequency: 115/60					
Temp: 22°C				Humidity: 27%						Pressure: 1007mBar					
Frequency Range: 1-6GHz										Measurement Distance: 3 m					
Notes: Z-axis (worst case.)										EUT Max Freq: 928MHz					
Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dBμV)	Average Reading (dBμV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dBμV/m)	Adjusted Avg Reading (dBμV/m)	FCC Part 15.209			FCC Part 15.209			
									Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)	
V, low ch	2708.1	42.21	27.8	20.3	32.9	3.5	58.3	43.9	74.0	-15.7	Pass	54.0	-10.1	Pass	
H, low ch	2708.1	45.21	29.5	20.3	32.9	3.5	61.3	45.6	74.0	-12.7	Pass	54.0	-8.4	Pass	
H, mid ch	2745.0	47.09	31.2	20.2	33.0	3.5	63.4	47.5	74.0	-10.6	Pass	54.0	-6.5	Pass	
V, mid ch	2745.0	43.56	29.7	20.2	33.0	3.5	59.9	46.0	74.0	-14.1	Pass	54.0	-8.0	Pass	
V, high ch	2781.9	45.0	29.4	20.1	33.0	3.5	61.4	45.8	74.0	-12.6	Pass	54.0	-8.2	Pass	
H, high ch	2781.9	48.28	33.8	20.1	33.0	3.5	64.7	50.2	74.0	-9.3	Pass	54.0	-3.8	Pass	
Table Result:				Pass by -3.8 dB						Worst Freq: 2781.9 MHz					
Test Site: EMI Chamber 2				Cable 1: Asset #2052						Cable 2: Asset #2053			Cable 3: ---		
Analyzer: Asset #1328				Preamp: Asset #1517						Antenna: Blue Horn			Preselector: ---		
CSsoft Radiated Emissions Calculator v 1.017.154															
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor															
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BUREAU
VERITAS

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Radiated Emissions Table

Date: 15-Jan-16		Company: Ideal Industries, Inc.				Work Order: Q0060						
Engineer: Jason Haley		EUT Desc: SCELV1000				EUT Operating Voltage/Frequency: 115/60						
Temp: 22°C		Humidity: 27%				1007mBar						
6-10GHz						Measurement Distance: 1 m						
Notes: No signals found. Peak readings were below the average limit.						EUT Max Freq: 928						
Antenna Polarization (H / V)	Frequency (MHz)	Peak Reading (dBμV)	Preamp Factor (dB)	Antenna Factor (dB/m)	Cable Factor (dB)	Adjusted Peak Reading (dBμV/m)	---			FCC Part 15.209		
							Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)	Limit (dBμV/m)	Margin (dB)	Result (Pass/Fail)
Noise floor	7551.0	27.8	17.1	36.0	5.7	52.4	---	---	---	63.5	-11.1	Pass
Noise floor	10000.0	25.7	17.1	37.9	6.6	53.1	---	---	---	63.5	-10.4	Pass
Table Result:				by -10.4 dB		Worst Freq: 10000.0 MHz						
Test Site: EMI Chamber 2		Cable 1: Asset #2052				Cable 2: Asset #2053				Cable 3: ---		
Analyzer: Asset #1328		Preamp: Asset #1517				Antenna: Blue Horn				Preselector: ---		
CSsoft Radiated Emissions Calculator		v 1.017.154				Copyright Curtis-Straus LLC 2000						
Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor												

Rev. 1/14/2016

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	8/19/2016	8/19/2015
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range		Cat	Calibration Due	Calibrated on
EMI Chamber 2	719150	2762A-7	A-0015	30-1000MHz		II	3/22/2017	3/22/2015
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
1517 HF Preamp	1-20GHz	CS	CS	N/A	1517	II	8/6/2016	8/6/2015
High Pass Filter	0.03-6.5 GHz	11SH10-1000/T3000-0/0	K&L	1	1310	II	1/7/2017	1/7/2016
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Red-White Bilog	30-2000MHz	JB1	Sunol	A091604-1	1105	I	8/12/2017	8/12/2015
Blue Horn	1-18Ghz	3117	ETS	157647	1861	I	2/8/2017	2/8/2015
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/19/2016	3/19/2014
TH A#2081		HTC-1	HDE		2081	II	4/2/2016	4/2/2015
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
Asset #2052	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015
Asset #2053	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015

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



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Conducted Spurious Emissions

LIMITS

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth that contains the highest level of desired power based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be **30 dB** instead of 20 dB ...
[15.247(d)]

MEASUREMENTS / RESULTS

Band Edge Measurements

Band-edge Measurements (Conducted) Table							
Date: 14-Jan-16		Company: Ideal Industries, Inc.			Work Order: Q0060		
Engineer: Jason Haley		EUT Desc: SCELV1000			EUT Operating Voltage/Frequency: 120/60		
Temp: 20.2°C		Humidity: 35%			Pressure: 1007mBar		
Frequency Range: 902-928MHz							
Notes: Measured per DTS Meas Guidance V03r04 Section 11.0							
Band-Edge Emission Frequency (MHz)	Band-edge Emission Level (dBm)	In-band Emission Peak Level (dBm)	Delta Level (dBm)	FCC Part 15.247 e			
				Limit (dBm)	Margin (dB)	Result (Pass/Fail)	
900.37	-40.3	18.8	-59.1	-30.0	-29.1	Pass	
900.658	-35.3	18.8	-54.1	-30.0	-24.1	Pass	
901.21	-25.8	18.8	-44.6	-30.0	-14.6	Pass	
901.84	-15.6	18.8	-34.4	-30.0	-4.4	Pass	
902.0	-21.0	18.8	-39.8	-30.0	-9.8	Pass	
928.0	-24.7	16.4	-41.1	-30.0	-11.1	Pass	
928.17	-21.8	16.4	-38.2	-30.0	-8.2	Pass	
928.745	-33.9	16.4	-50.3	-30.0	-20.3	Pass	
929.365	-42.1	16.4	-58.5	-30.0	-28.5	Pass	
930.9	-48.4	16.4	-64.8	-30.0	-34.8	Pass	
Table Result: Pass by -4.4 dB				Worst Freq: 901.84 MHz			

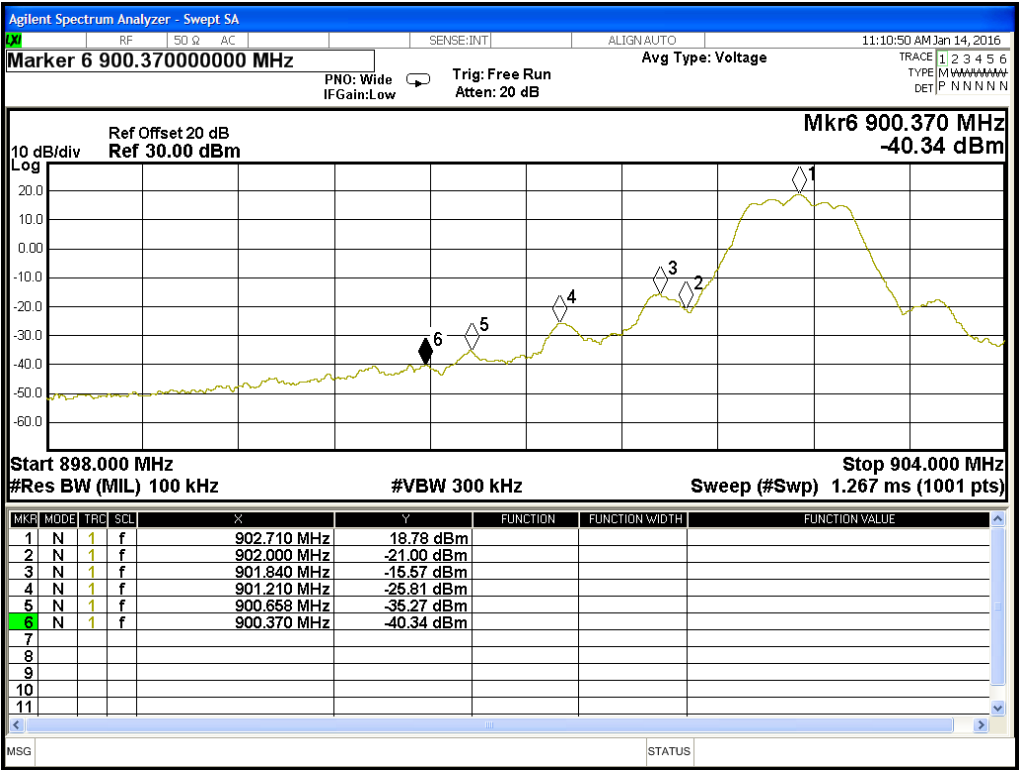
Rev. 1/12/2016

Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/19/2016	3/19/2014
TH A#2084		HTC-1	HDE		2084	II	4/2/2016	4/2/2015
Spectrum Analyzers / Receivers / Preselectors		Range	MN	Mfr	SN	Asset	Calibration Due	Calibrated on
MXE EMI Receiver		20Hz-8.4GHz	N9038A	Agilent	MY53290009	1168255	6/16/2016	6/16/2015
Preamps / Couplers Attenuators / Filters		Range	MN	Mfr	SN	Asset	Calibration Due	Calibrated on
HF 20dB 50W Attenuator		0.009-18 GHz	PE 7019-20	Pasternack	1	791	7/31/2016	7/31/2015

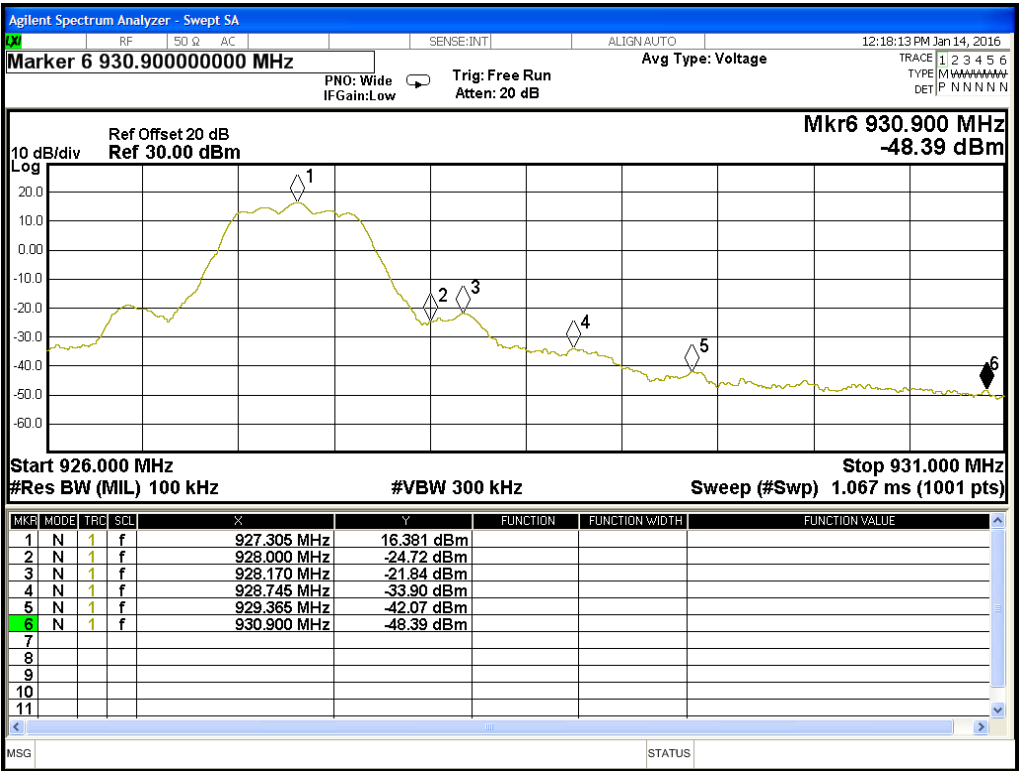
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



PLOTS



Band Edge, Lower Channel



Band Edge, Upper Channel



Conducted Spurious Emission

Non-Restricted Band Spurious Emissions Measurements (Conducted) Table								
Date: 14-Jan-16		Company: Ideal Industries, Inc.				Work Order: Q0060		
Engineer: Jason Haley		EUT Desc: SCELV1000				EUT Operating Voltage/Frequency: 120/60		
Temp: 20.2°C		Humidity: 35%		Pressure: 1007mBar				
Frequency Range: 9kHz to 9.3GHz								
Notes: Non-Restricted Band Emissions measured per DTS Meas Guidance V03r04 Section 11.1 b, maximum conducted (average) output power.								
EUT Transmit Band	Spurious Emission Frequency (MHz)	Spurious Emission Level (dBm)	Maximum In-band Peak PSD Level in 100kHz (dBm)	Delta Level (dBc)	FCC Part 15.247 d			
					Limit (dBc)	Margin (dB)	Result (Pass/Fail)	
Low	0.0091	-63.6	18.5	-82.1	-30.0	-52.1	Pass	
Low	0.1540	-59.8	18.5	-78.3	-30.0	-48.3	Pass	
Low	901.8	-13.3	18.5	-31.8	-30.0	-1.8	Pass	
Low	1805	-41.2	18.5	-59.7	-30.0	-29.7	Pass	
Low	3156	-57.3	18.5	-75.8	-30.0	-45.8	Pass	
Low	5758	-57.2	18.5	-75.7	-30.0	-45.7	Pass	
Low	7223	-59.2	18.5	-77.7	-30.0	-47.7	Pass	
Low	8739	-59.3	18.5	-77.8	-30.0	-47.8	Pass	
Low	9127	-57.7	18.5	-76.2	-30.0	-46.2	Pass	
Mid	0.0091	-64.5	18.5	-83.0	-30.0	-53.0	Pass	
Mid	0.1500	-61.4	18.5	-79.9	-30.0	-49.9	Pass	
Mid	786.7	-49.2	18.5	-67.7	-30.0	-37.7	Pass	
Mid	1830.0	-43.1	18.5	-61.6	-30.0	-31.6	Pass	
Mid	3176.0	-57.9	18.5	-76.4	-30.0	-46.4	Pass	
Mid	6089.0	-58.6	18.5	-77.1	-30.0	-47.1	Pass	
Mid	7015.0	-58.9	18.5	-77.4	-30.0	-47.4	Pass	
Mid	8784.0	-59.8	18.5	-78.3	-30.0	-48.3	Pass	
Mid	9109.0	-59.3	18.5	-77.8	-30.0	-47.8	Pass	
High	0.0095	-65.6	18.5	-84.1	-30.0	-54.1	Pass	
High	0.1500	-61.2	18.5	-79.7	-30.0	-49.7	Pass	
High	794.0	-46.0	18.5	-64.5	-30.0	-34.5	Pass	
High	928.2	-21.2	18.5	-39.7	-30.0	-9.7	Pass	
High	3063	-58.5	18.5	-77.0	-30.0	-47.0	Pass	
High	5631	-58.7	18.5	-77.2	-30.0	-47.2	Pass	
High	7515	-58.9	18.5	-77.4	-30.0	-47.4	Pass	
High	8811	-60.2	18.5	-78.7	-30.0	-48.7	Pass	
High	8995	-60.0	18.5	-78.5	-30.0	-48.5	Pass	
Table Result: Pass by -1.8 dB Worst Freq: 901.8 MHz								

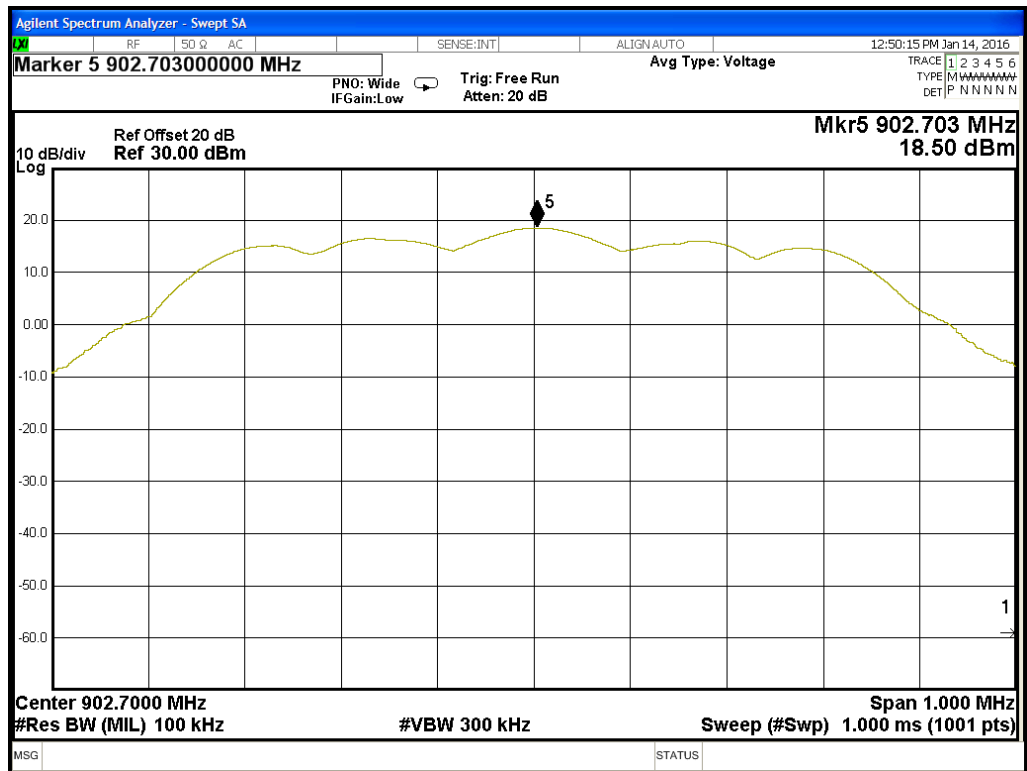
Rev. 1/12/2016

Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/19/2016	3/19/2014
TH A#2084		HTC-1	HDE		2084	II	4/2/2016	4/2/2015
Spectrum Analyzers / Receivers / Preselectors		Range	MN	Mfr	SN	Asset	Calibration Due	Calibrated on
MXE EMI Receiver		20Hz-8.4GHz	N9038A	Agilent	MY53290009	1168255	6/16/2016	6/16/2015
SA #5 (1178898)		9kHz-26.5GHz	E4407B	Agilent	US40241082	1178898	12/30/2016	12/30/2015
Preamps / Couplers Attenuators / Filters		Range	MN	Mfr	SN	Asset	Calibration Due	Calibrated on
HF 20dB 50W Attenuator		0.009-18 GHz	PE 7019-20	Pasternack	1	791	7/31/2016	7/31/2015

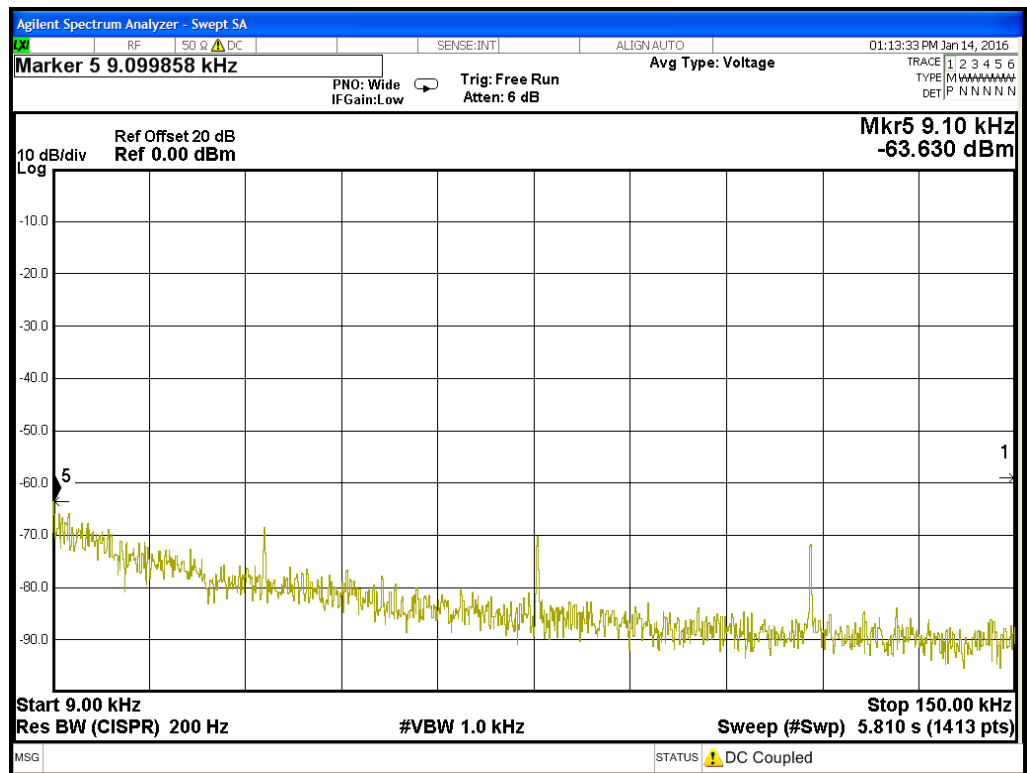
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



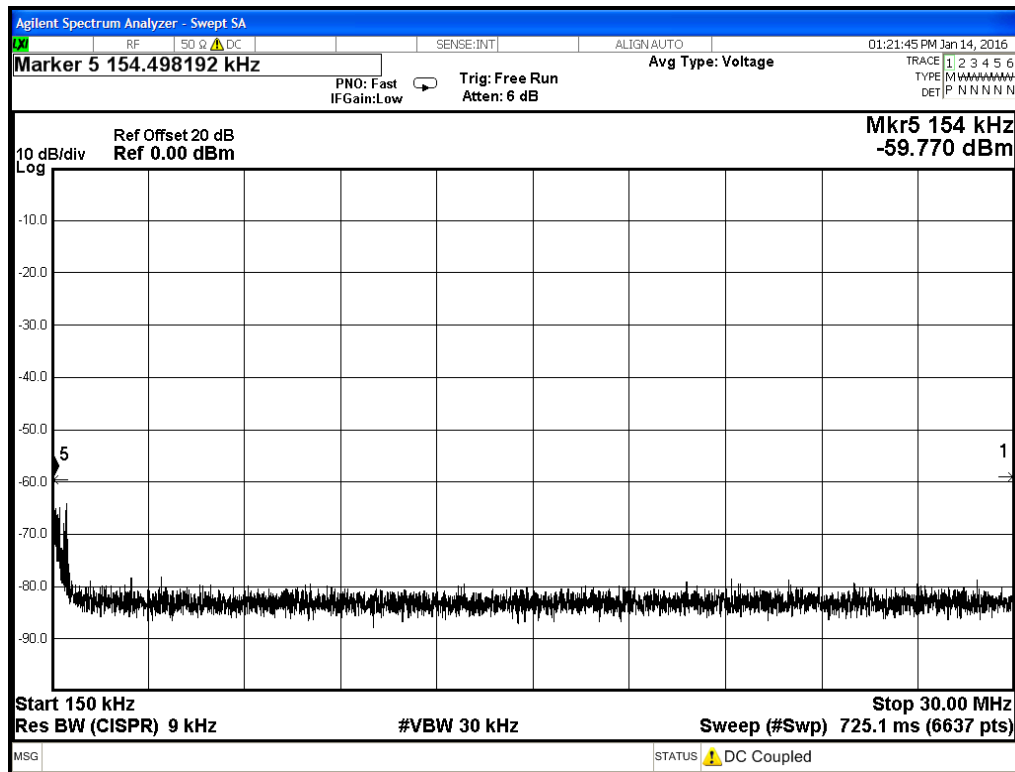
PLOTS



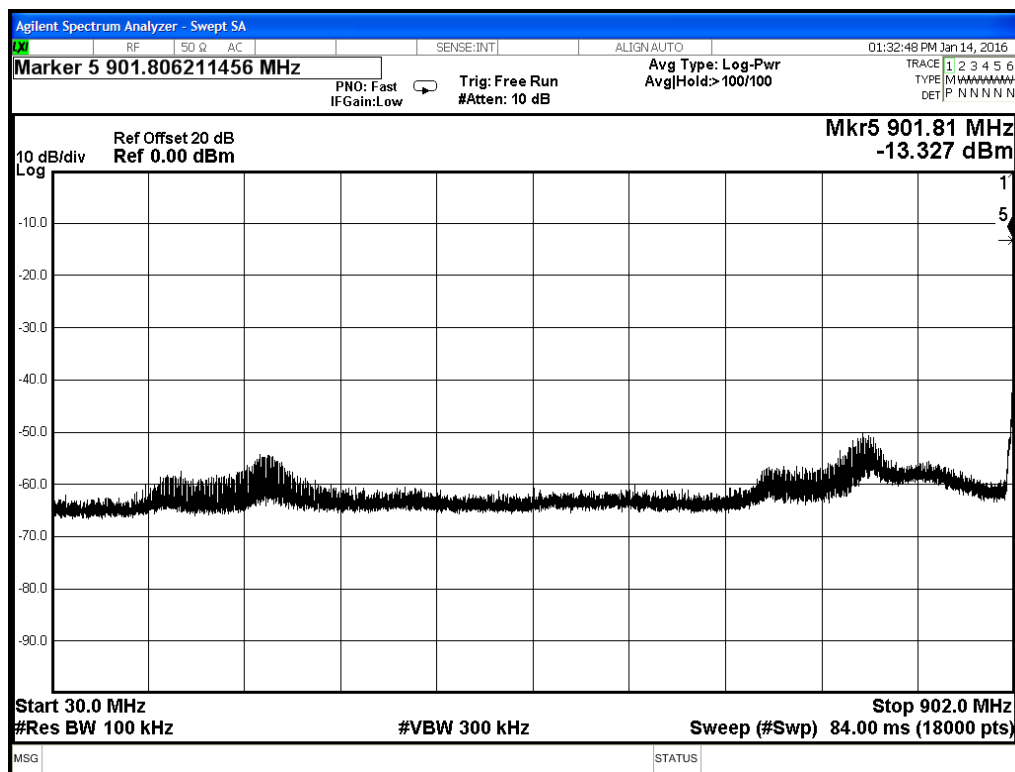
Conducted Emissions - Antenna Port, Reference Measurement



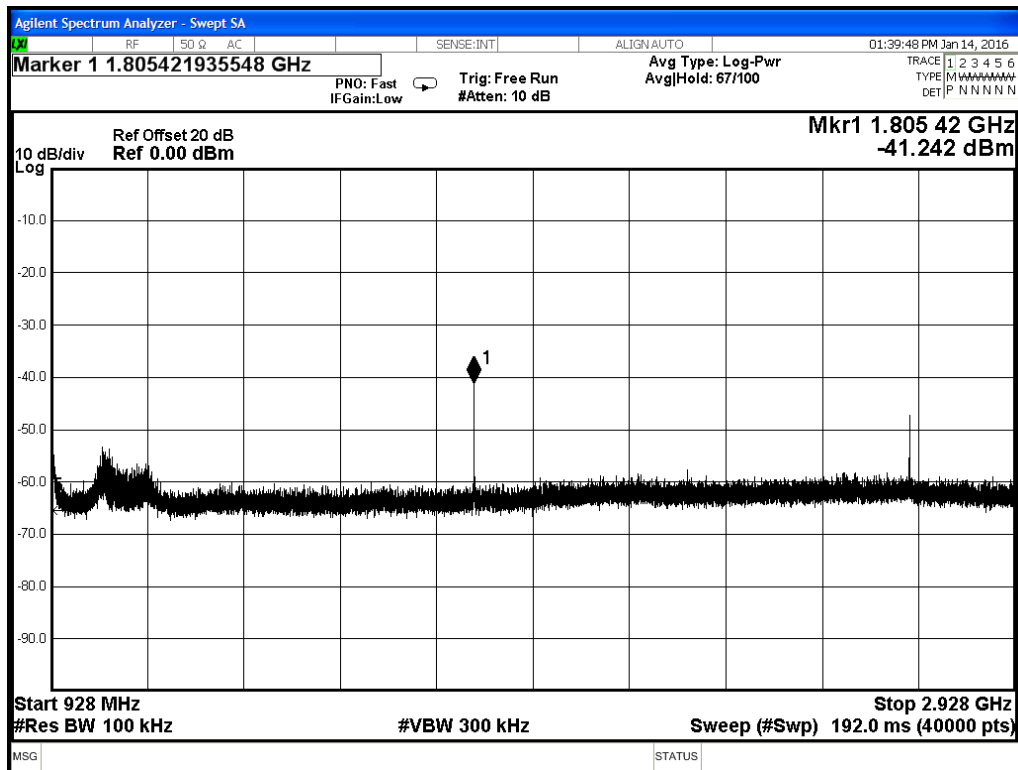
Conducted EMI at the Antenna port, 9-150kHz, low channel



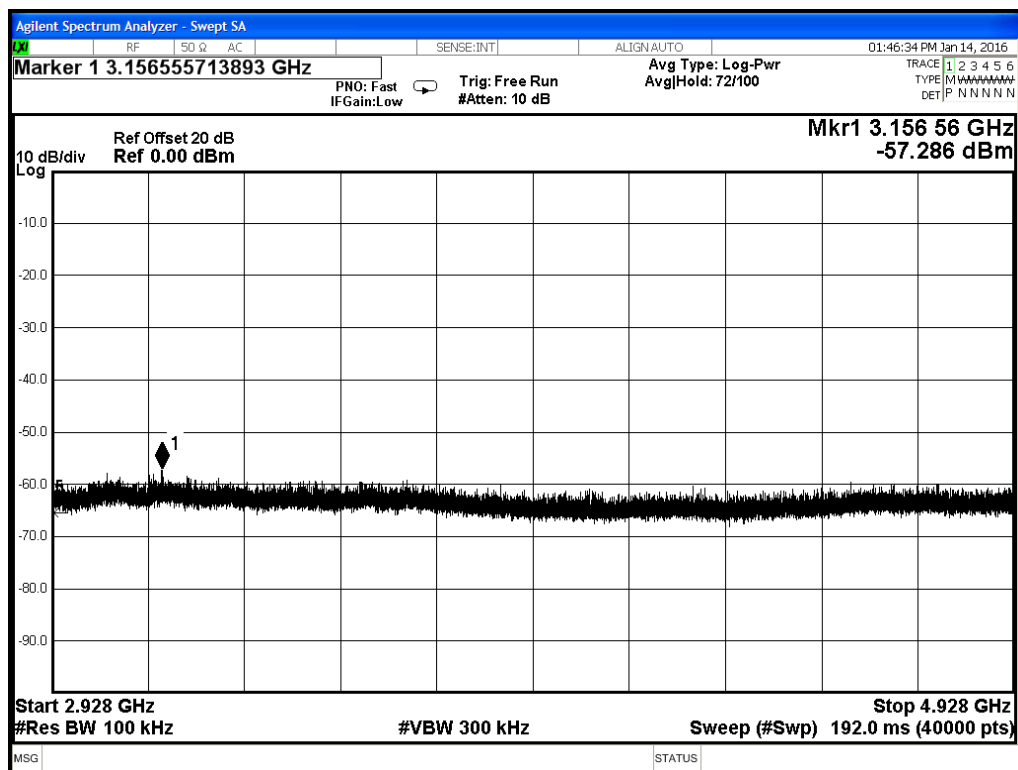
Conducted EMI at the Antenna port, 0.15-30MHz, low channel



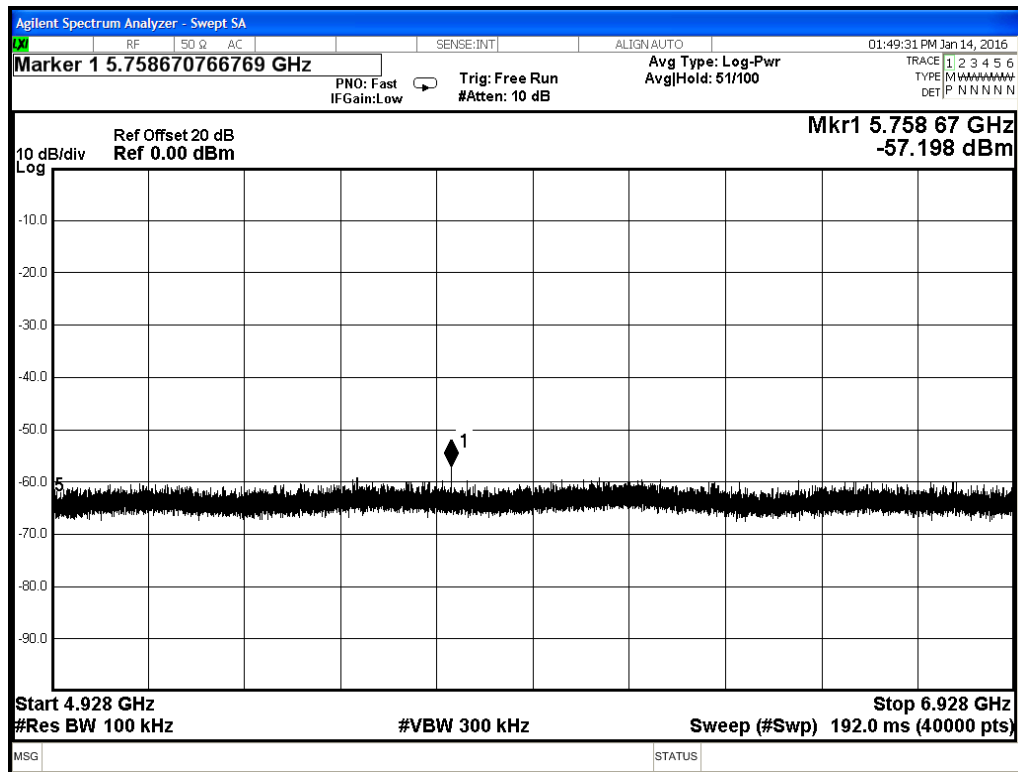
Conducted EMI at the Antenna port, 30-902MHz, low channel



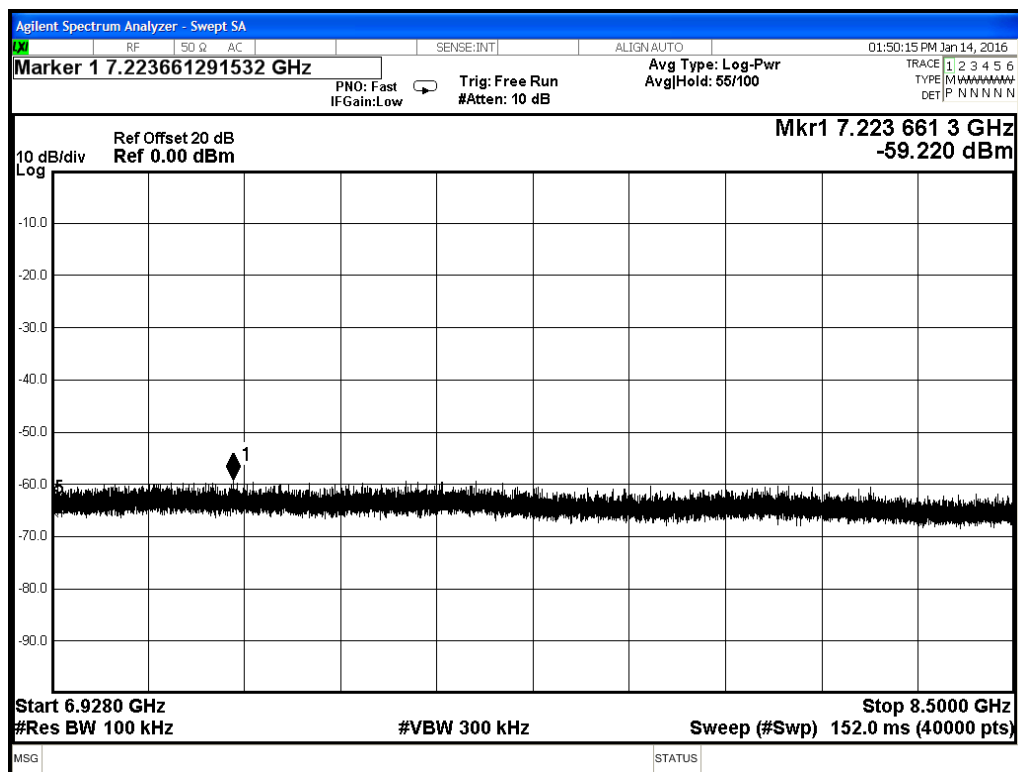
Conducted EMI at the Antenna port, 928-2928MHz, low channel



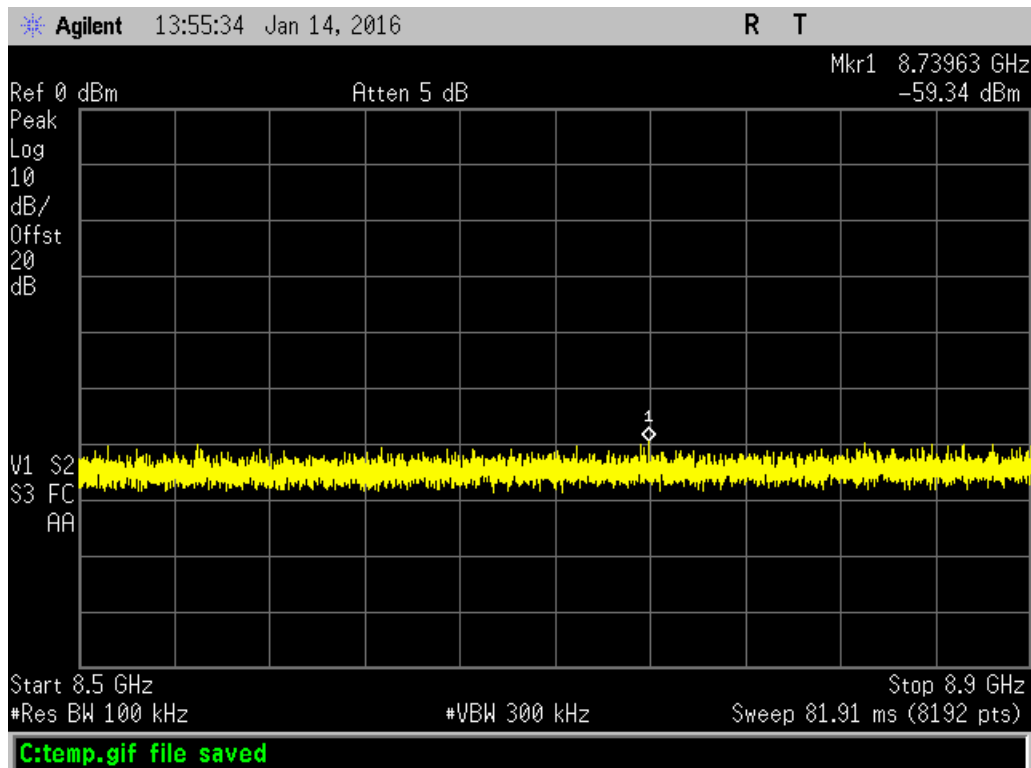
Conducted EMI at the Antenna port, 2928-4928MHz, low channel



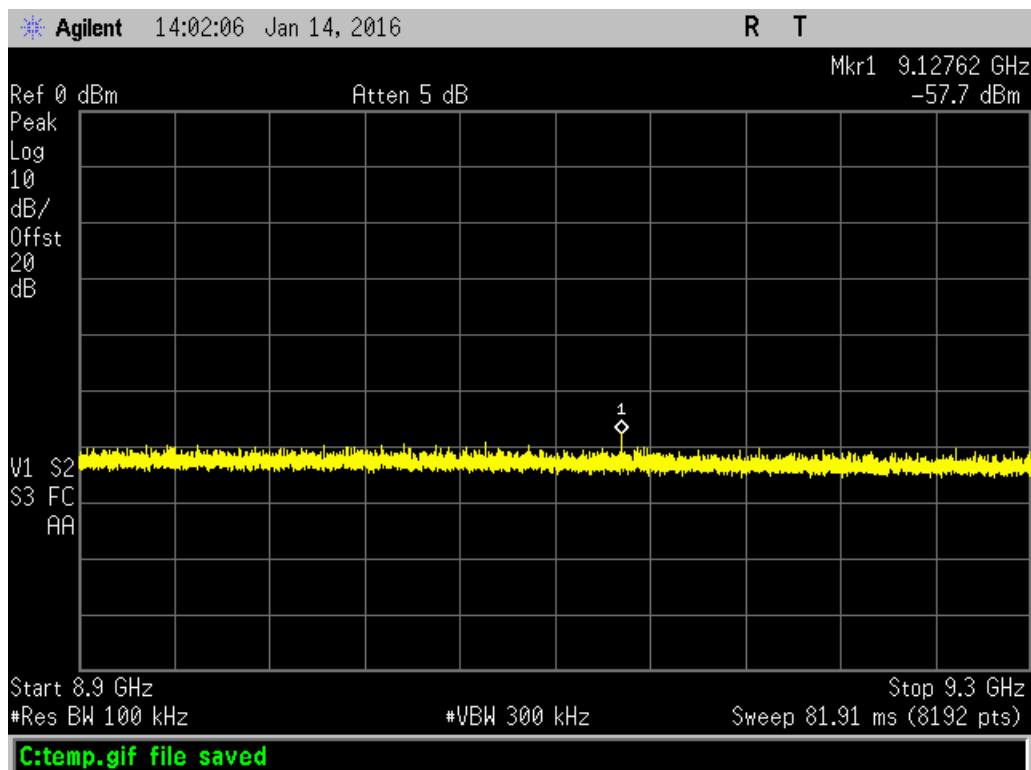
Conducted EMI at the Antenna port, 4928-6928MHz, low channel



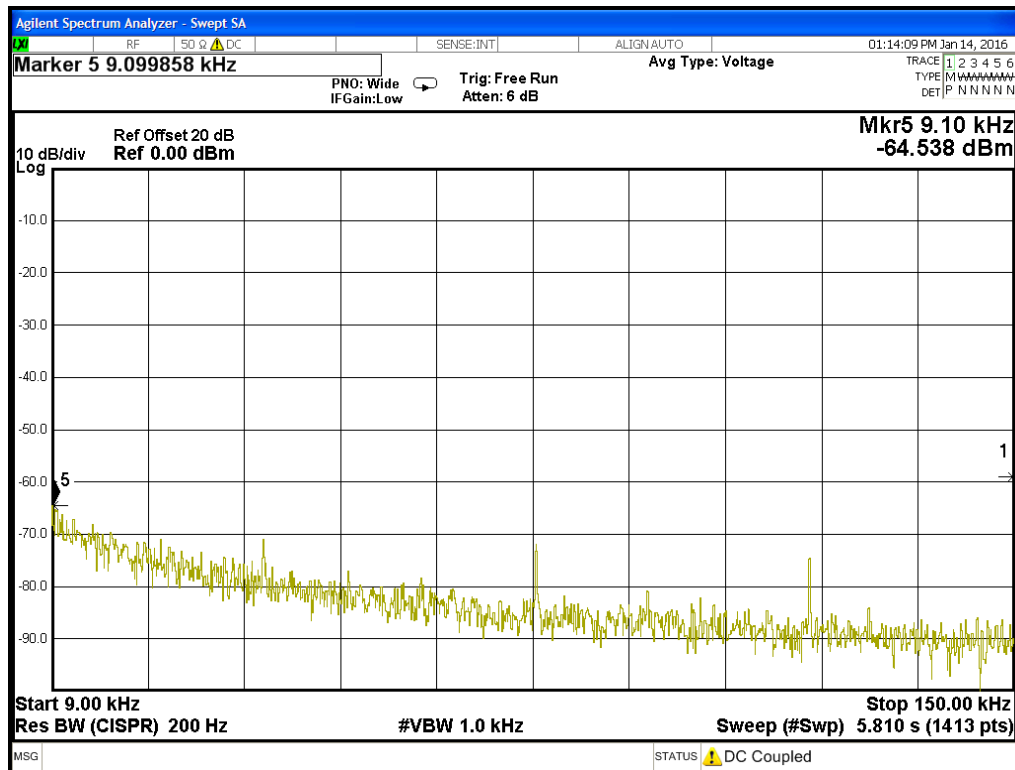
Conducted EMI at the Antenna port, 6928-8500MHz, low channel



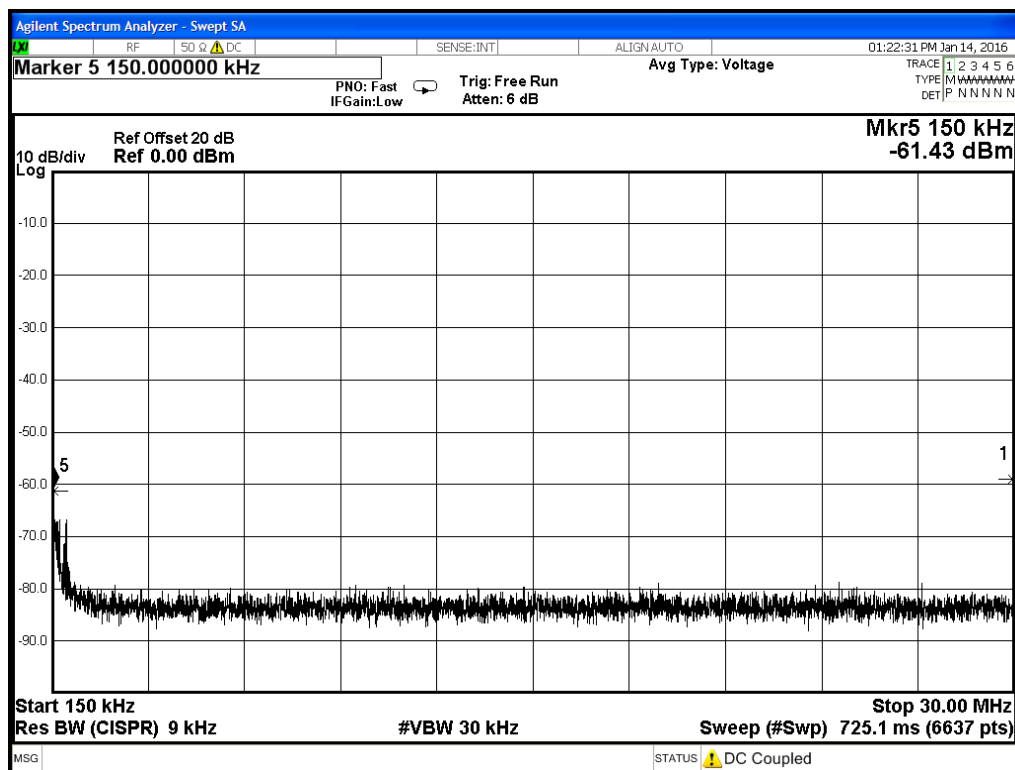
Conducted EMI at the Antenna port, 8.5-8.9GHz, low channel



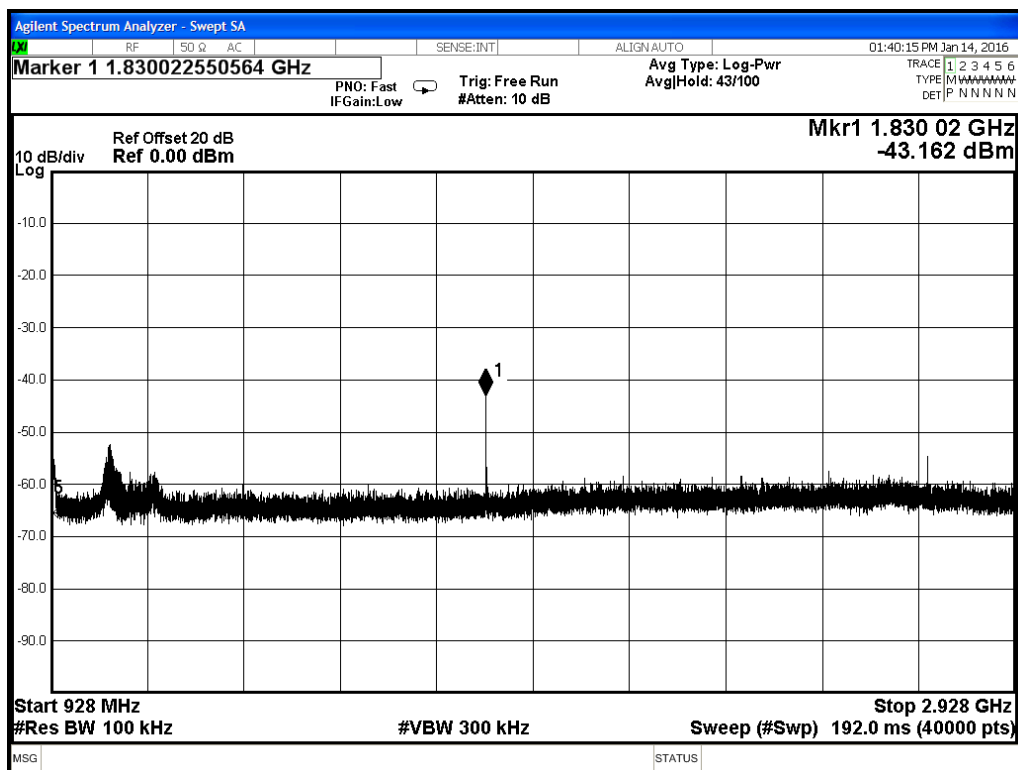
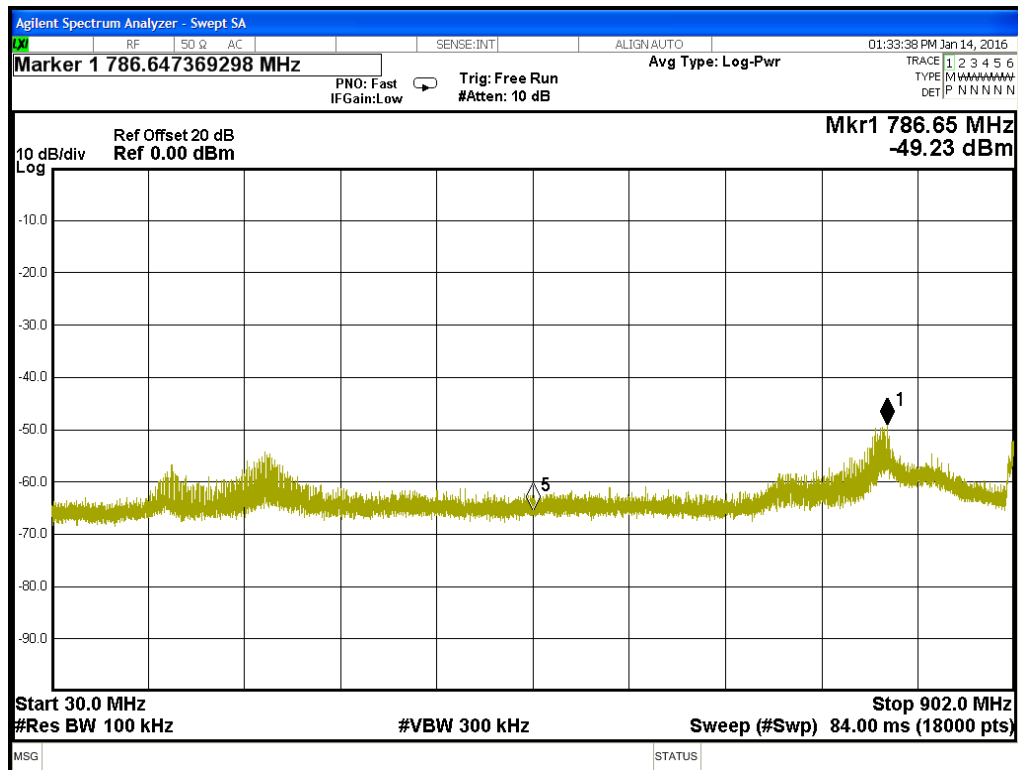
Conducted EMI at the Antenna port, 8.9-9.3GHz, low channel

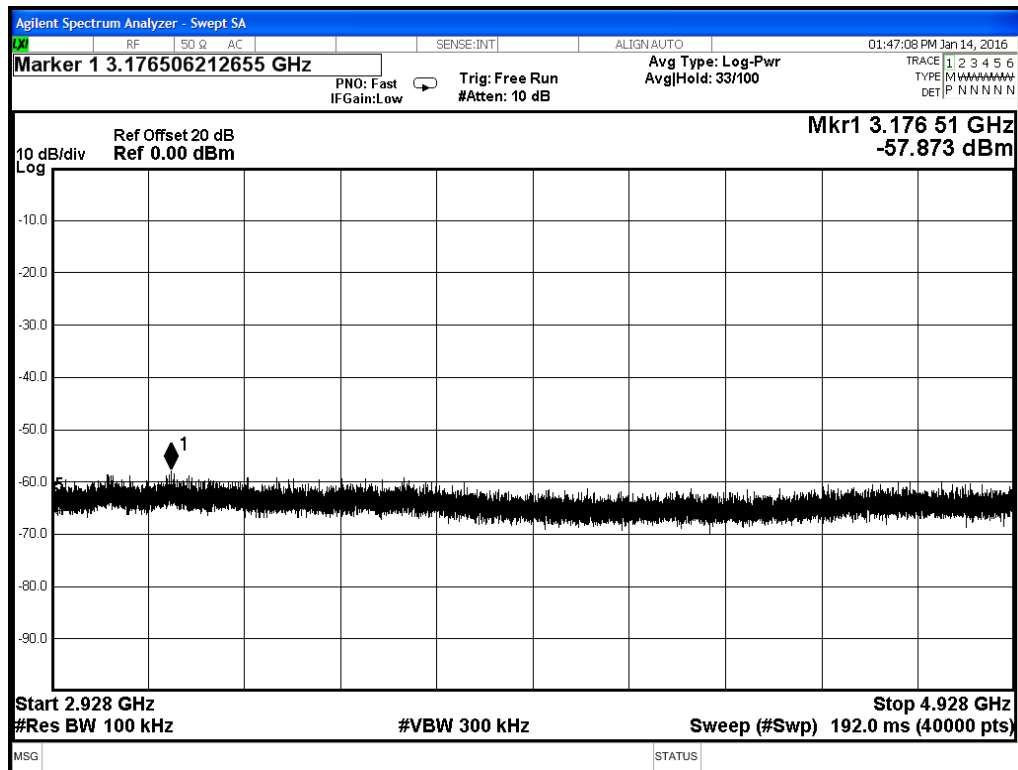


Conducted EMI at the Antenna port, 9-150kHz, mid channel

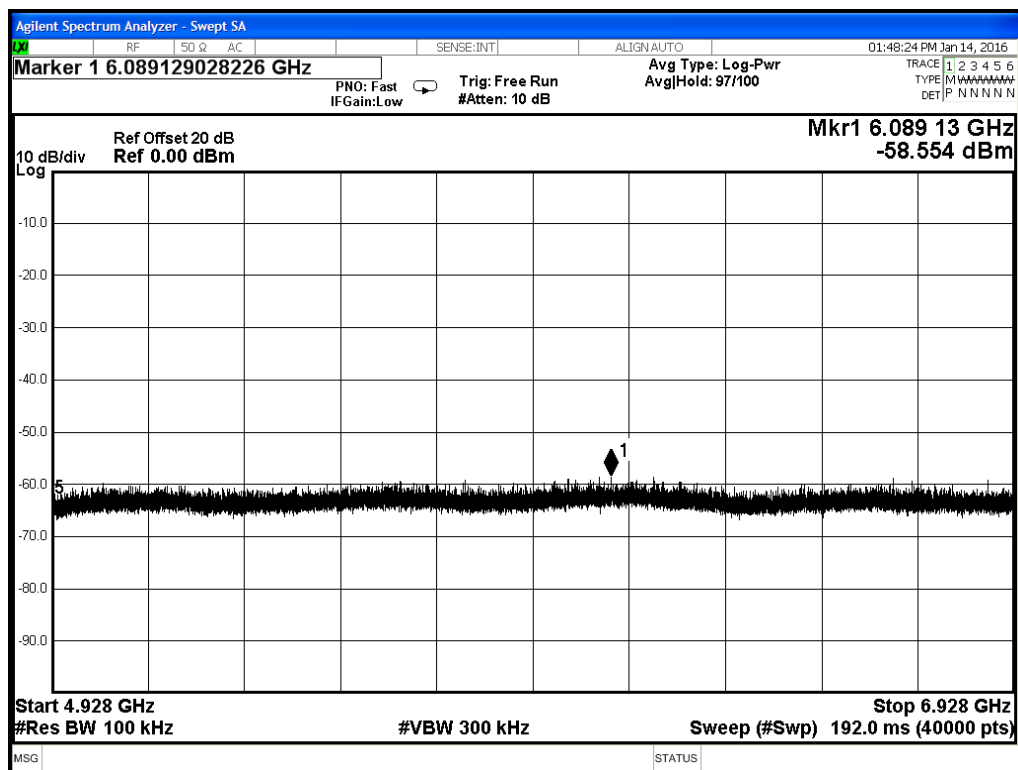


Conducted EMI at the Antenna port, 0.15-30MHz, mid channel

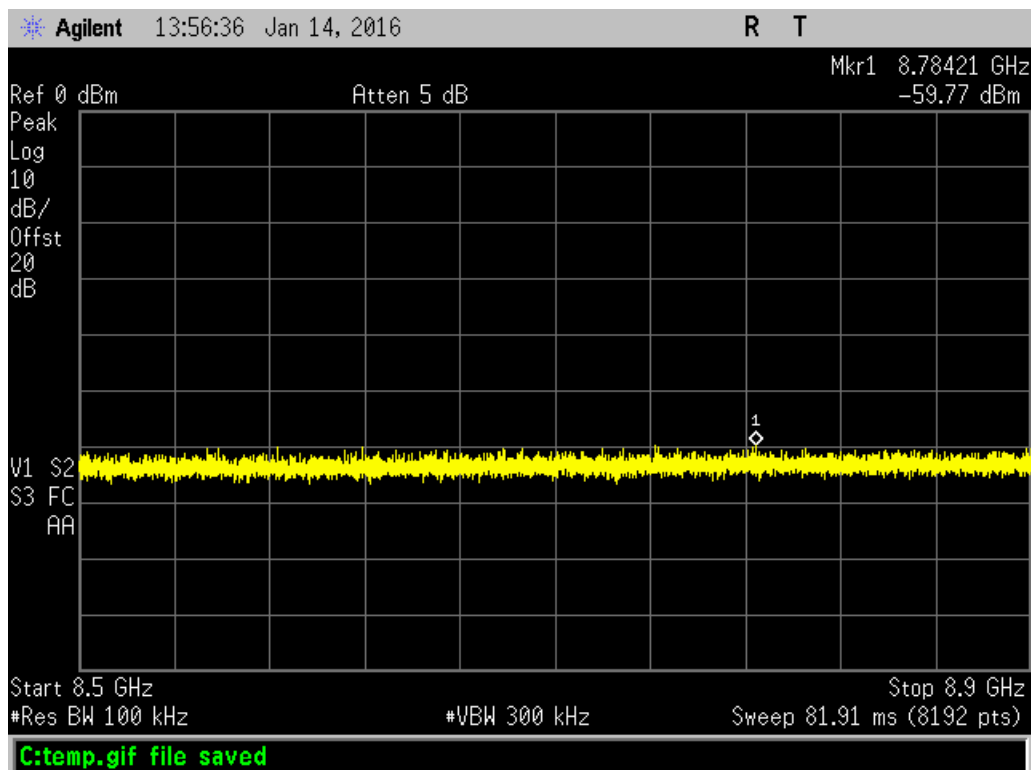
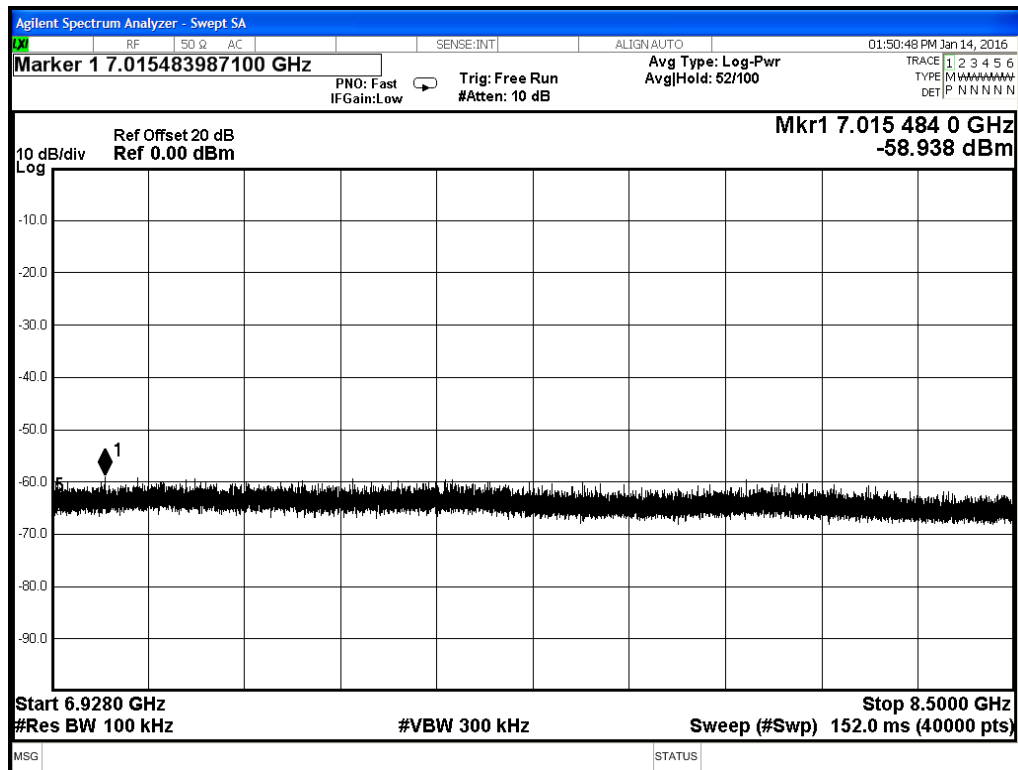


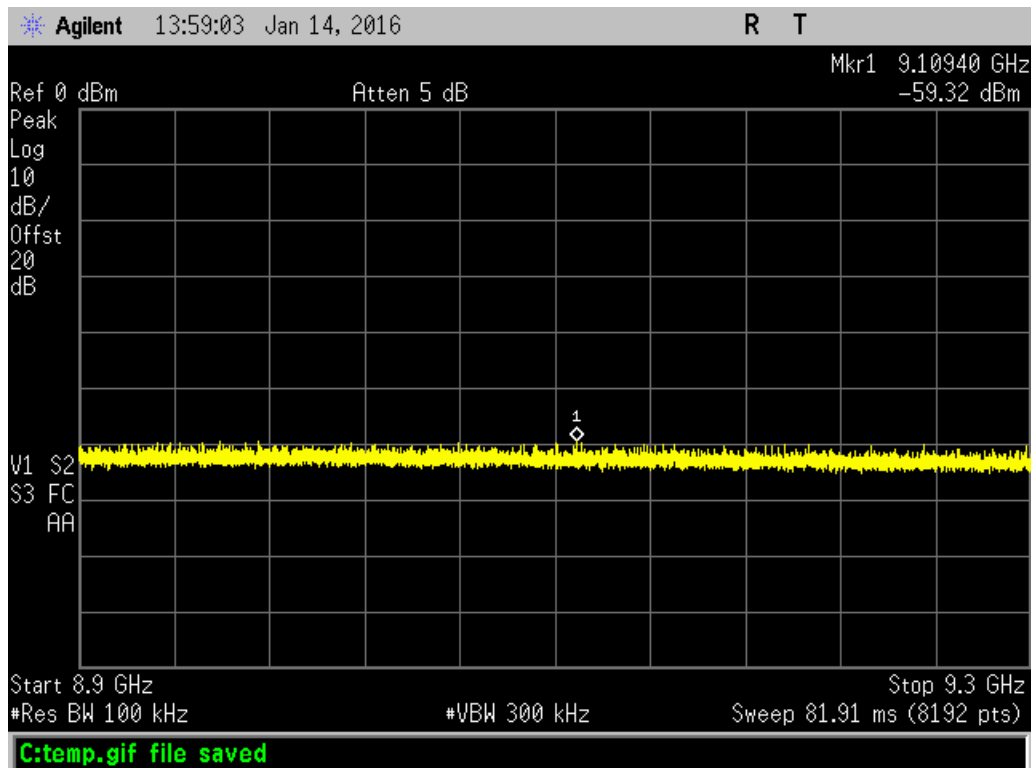


Conducted EMI at the Antenna port, 2928-4928MHz, mid channel

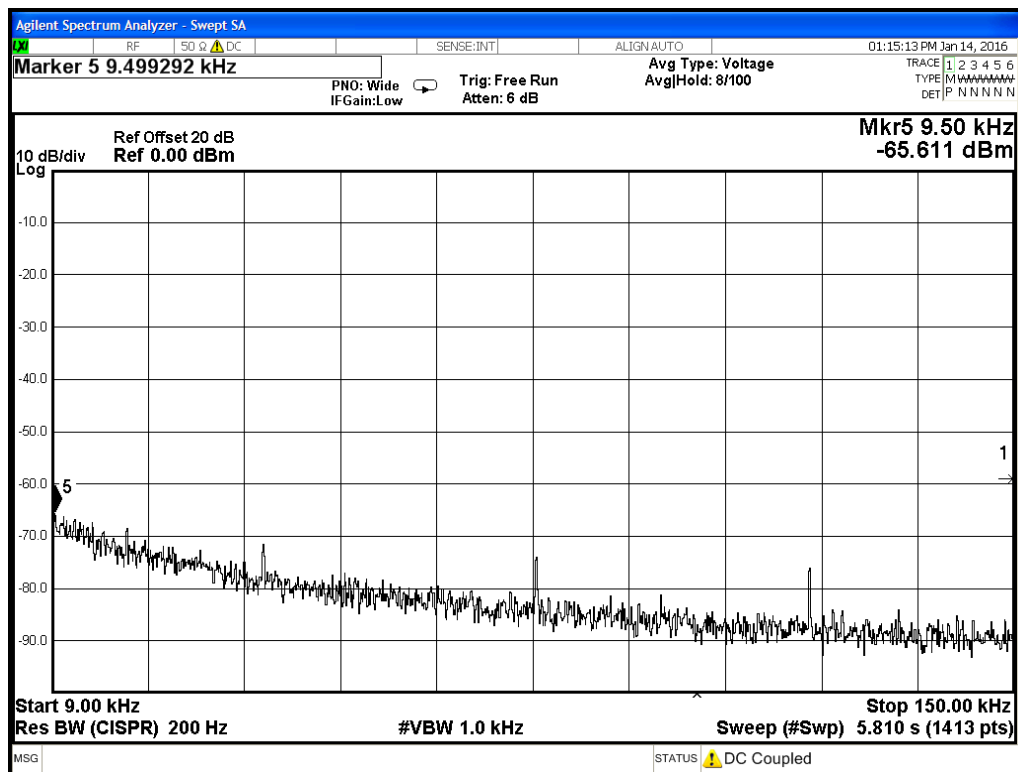


Conducted EMI at the Antenna port, 4928-6928MHz, mid channel

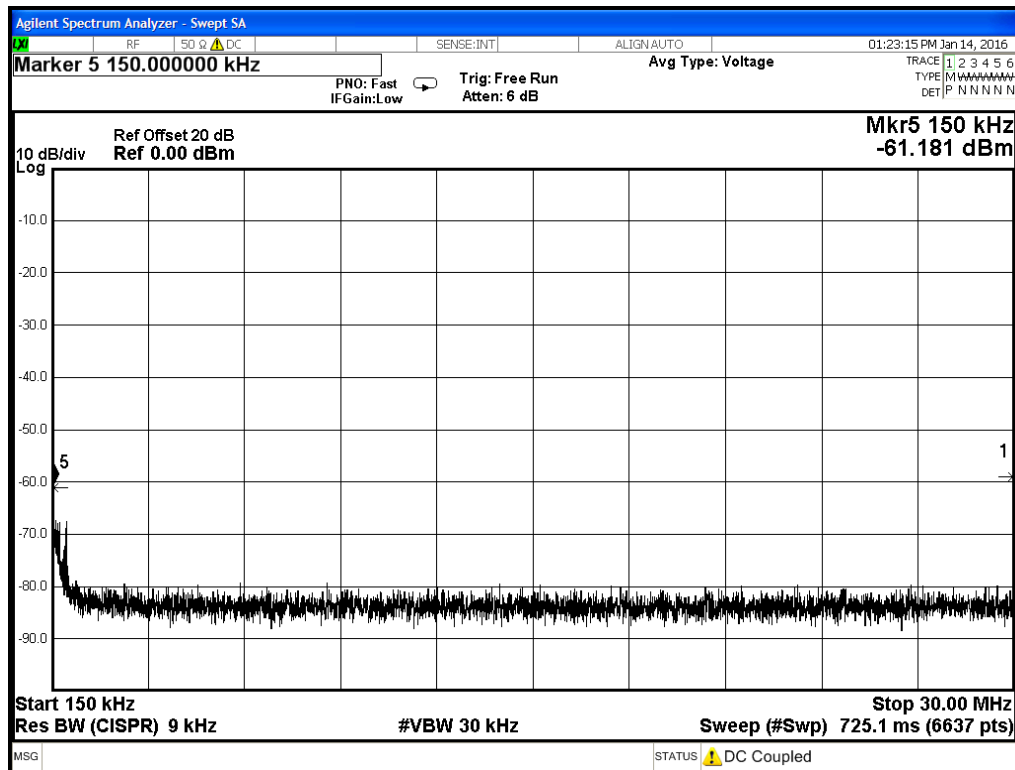




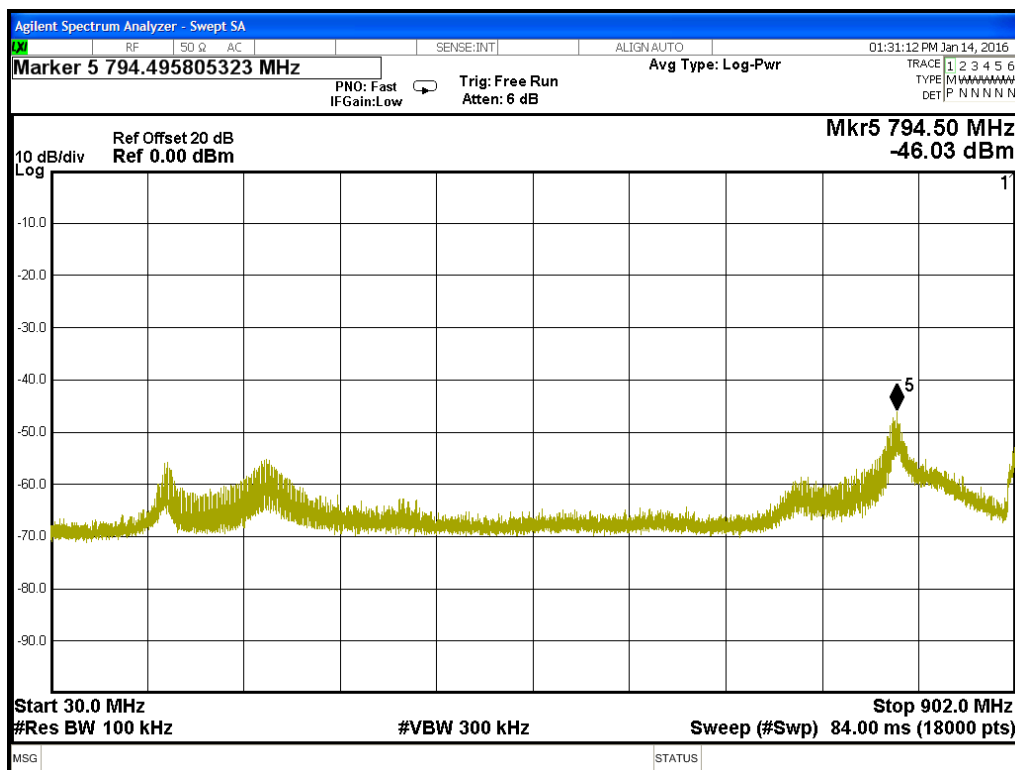
Conducted EMI at the Antenna port, 8.9-9.3GHz, mid channel



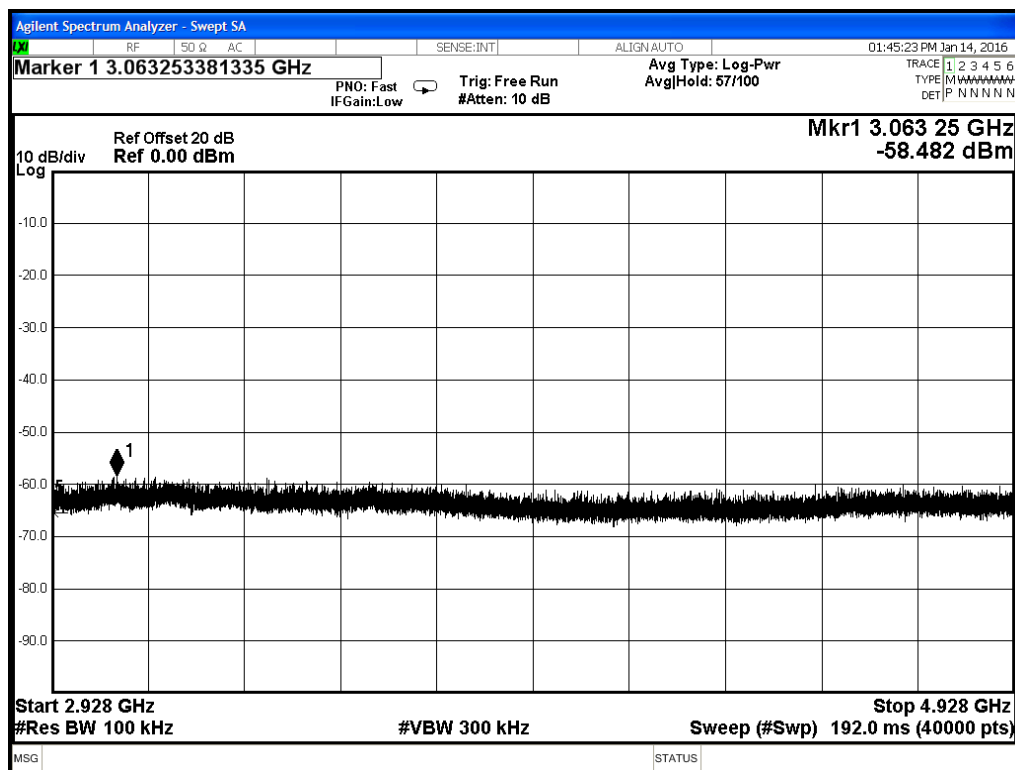
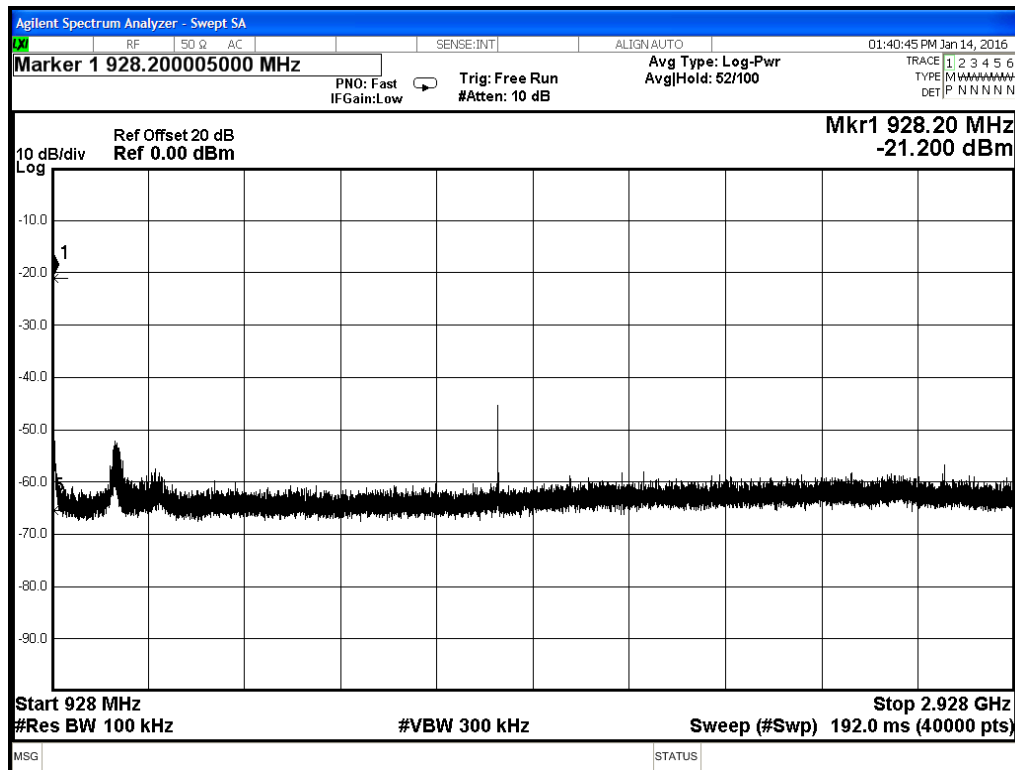
Conducted EMI at the Antenna port, 9-150kHz, high channel

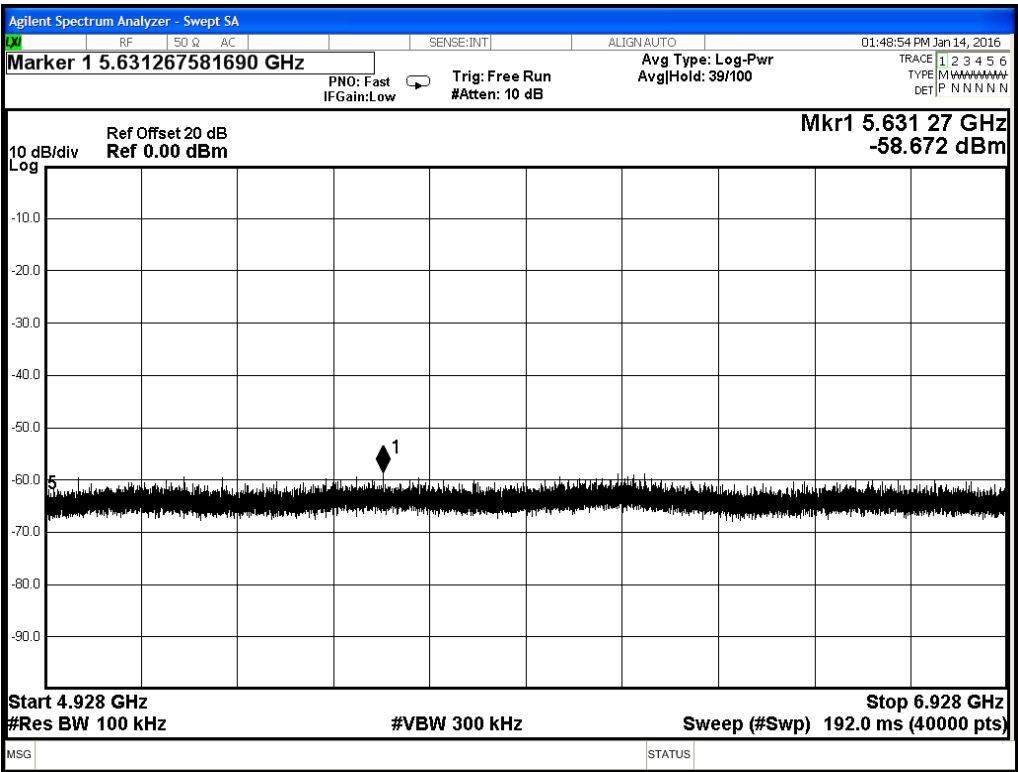


Conducted EMI at the Antenna port, 0.15-30MHz, high channel

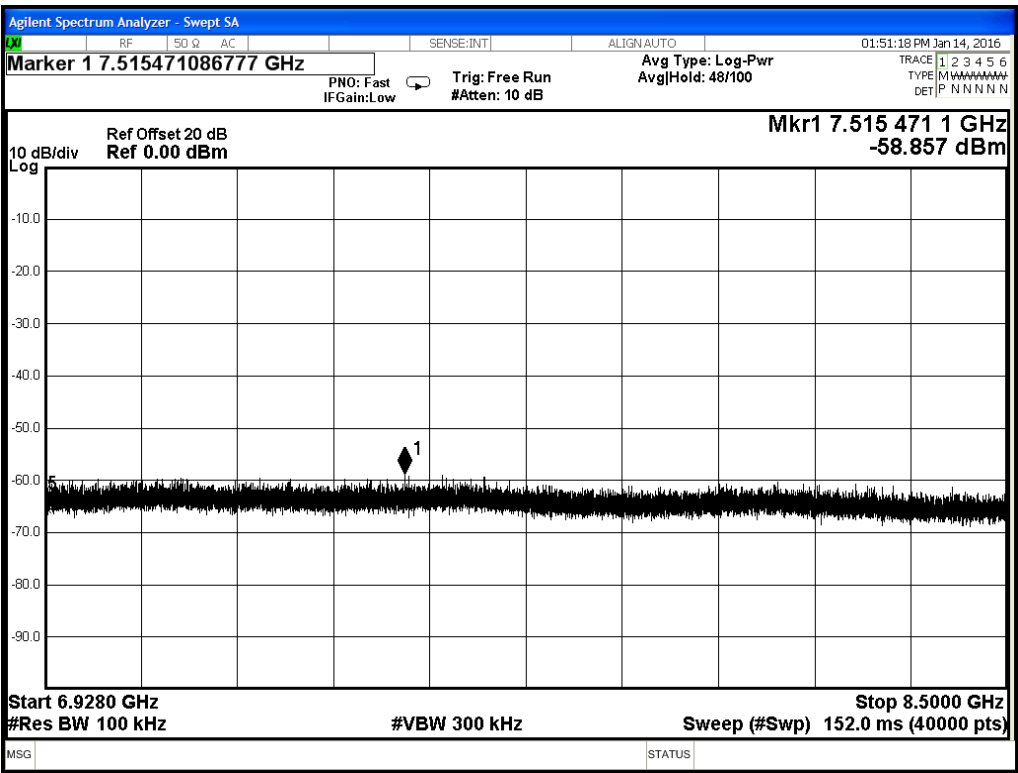


Conducted EMI at the Antenna port, 30-902MHz

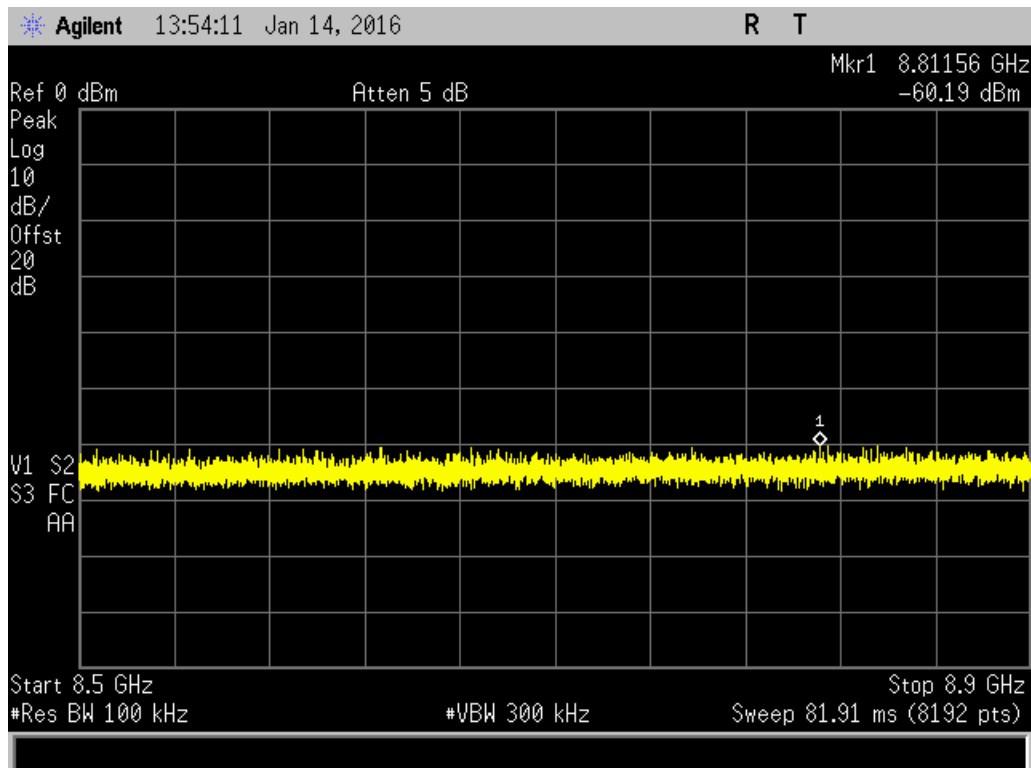




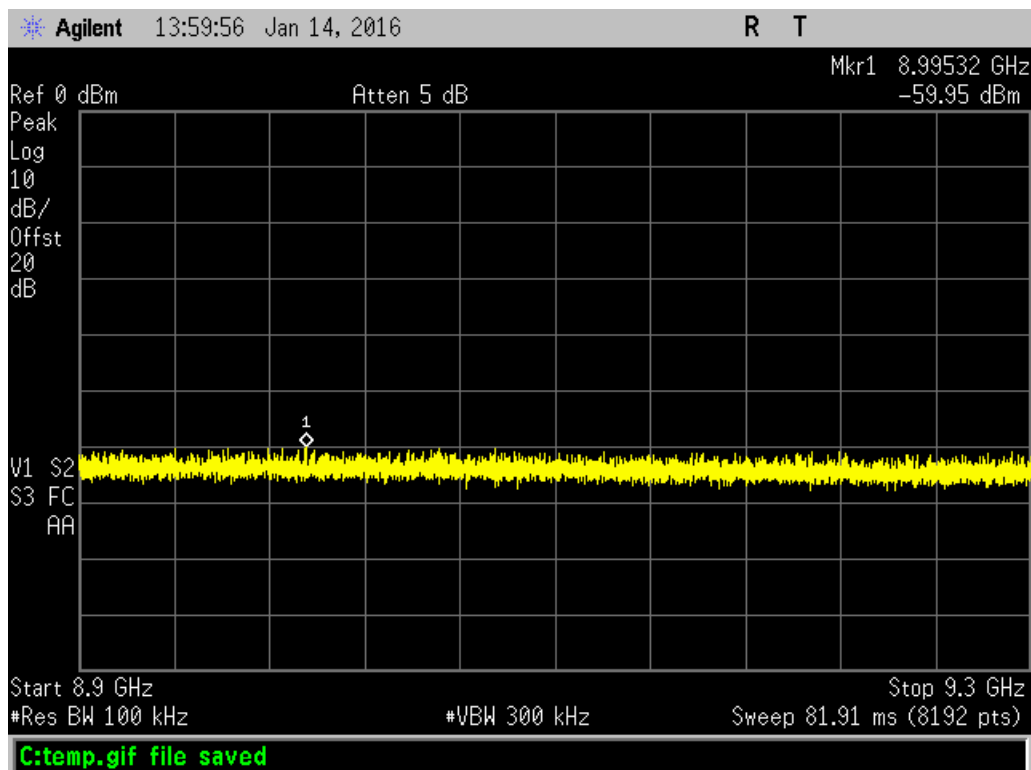
Conducted EMI at the Antenna port, 4928-6928MHz, high channel



Conducted EMI at the Antenna port, 6928-8500MHz, high channel



Conducted EMI at the Antenna port, 8.5-8.9GHz, high channel



Conducted EMI at the Antenna port, 8.9-9.3GHz, high channel

Power Spectral Density

LIMIT

...the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.
[15.247(e)]

MEASUREMENTS / RESULTS

Power Spectral Density (Conducted) Table									
Date: 14-Jan-16			Company: Ideal Industries, Inc.				Work Order: Q0060		
Engineer: Jason Haley			EUT Desc: SCELV1000				EUT Operating Voltage/Frequency: 120/60		
Temp: 20.2°C			Humidity: 35%		Pressure: 1007mBar				
Frequency Range: 902-928MHz									
Notes: Measured per DTS Meas Guidance V03r04 Section 10.3, Method AVGPDS-1 (trace averaging with the EUT transmitting at full power throughout each sweep)									
Frequency (MHz)	Resolution Bandwidth Setting (kHz)	Video Bandwidth Setting (kHz)	Frequency Span Setting (MHz)	Detector Function	Measured Level (dBm)	FCC Part 15.247 e			
						Limit (dBm)	Margin (dB)	Result (Pass/Fail)	
902.7	9	30	1.2	RMS	7.375	8.0	-0.6	Pass	
915.0	9	30	1.2	RMS	5.81	8.0	-2.2	Pass	
927.3	9	30	1.2	RMS	4.962	8.0	-3.0	Pass	
Table Result: Pass by -0.6 dB Worst Freq: 902.7 MHz									

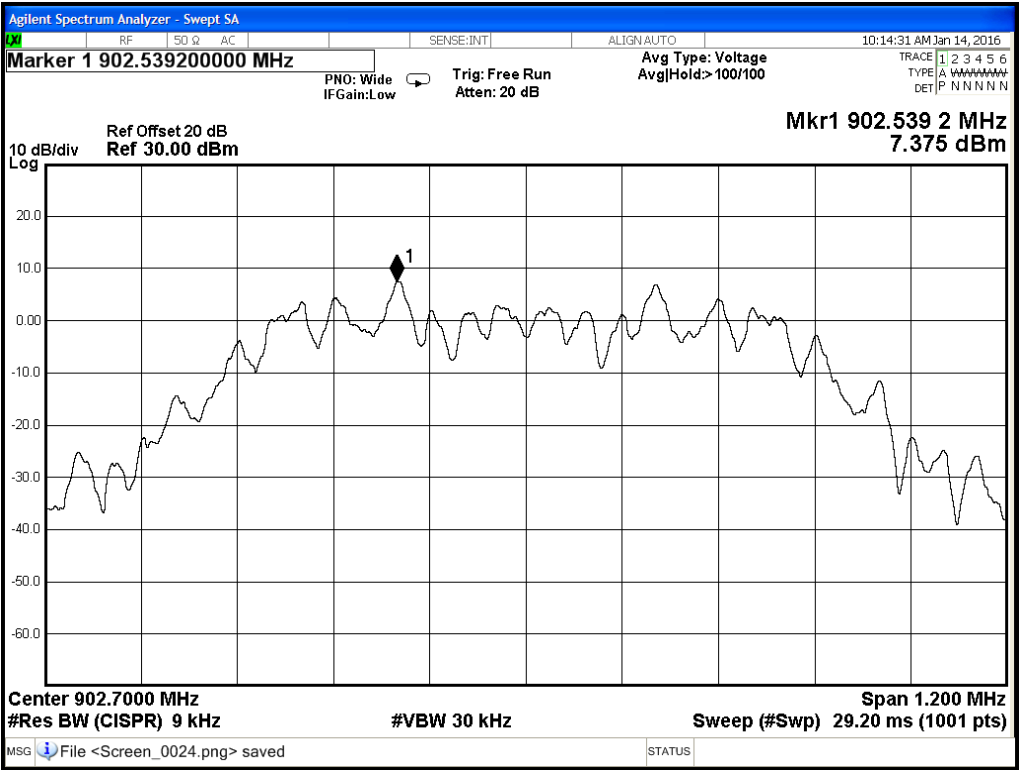
Rev. 1/12/2016

Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/19/2016	3/19/2014
TH A#2084		HTC-1	HDE		2084	II	4/2/2016	4/2/2015
Spectrum Analyzers / Receivers / Preselectors		Range	MN	Mfr	SN	Asset	Calibration Due	Calibrated on
MXE EMI Receiver		20Hz-8.4GHz	N9038A	Agilent	MY53290009	1168255	6/16/2016	6/16/2015
Preamps / Couplers Attenuators / Filters		Range	MN	Mfr	SN	Asset	Calibration Due	Calibrated on
HF 20dB 50W Attenuator		0.009-18 GHz	PE 7019-20	Pasternack	1	791	7/31/2016	7/31/2015

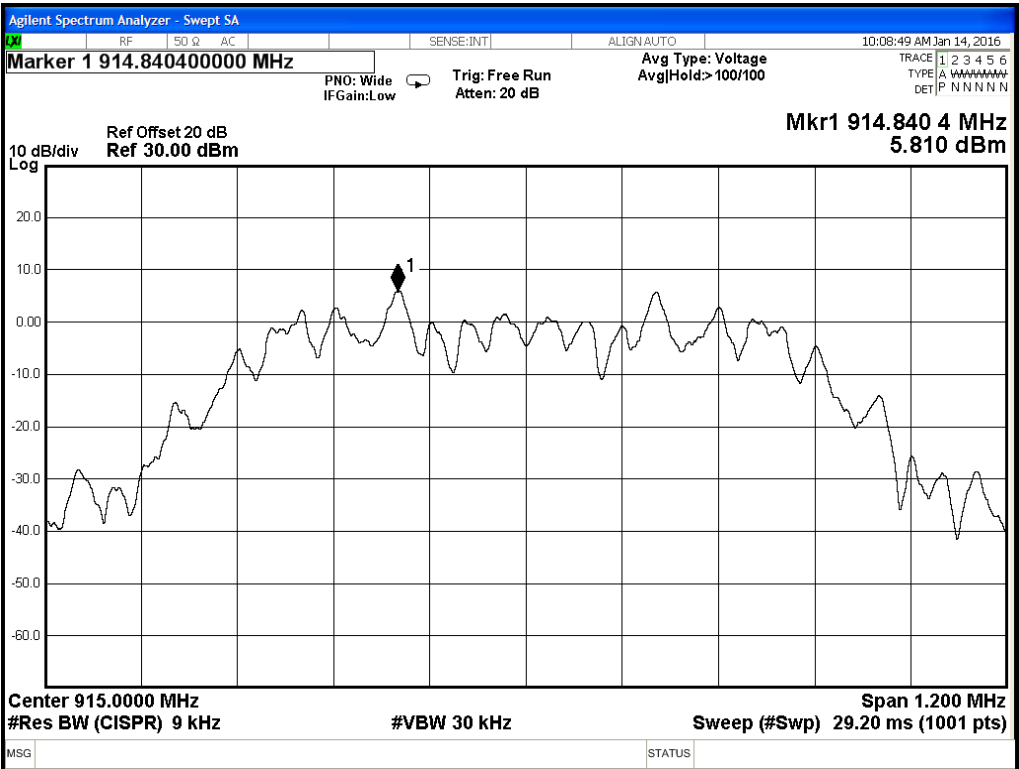
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



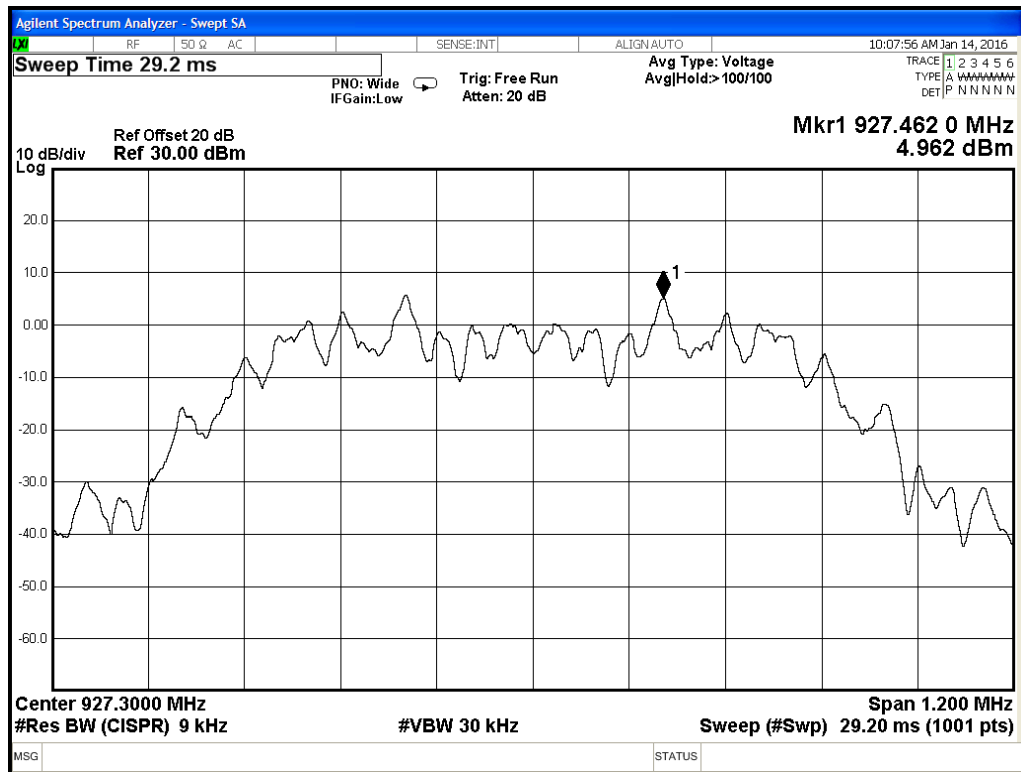
PLOTS



Power Spectral Density, Low Channel



Power Spectral Density, Mid Channel



Power Spectral Density, High Channel

AC Line Conducted Emissions LIMITS

Frequency of emission (MHz)	Quasi-peak limit (dBμV)	Average limit (dBμV)
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

AC Conducted Emissions Data Table															
Date: 15-Jan-16				Company: Ideal Industries, Inc.				Work Order: Q0060							
Engineer: Nirak So				EUT Desc: SCELV1000											
Temp: 20.8 °C				Humidity: 36%				Pressure: 1002 mBar							
Notes: Verified that EUT was trasmitting at 902MHz & 928MHz before started the scanning															
Frequency Range: 0.15 to 30MHz								EUT Input Voltage/Frequency: 120Vac, 60Hz							
Frequency (MHz)	Quasi-Peak Readings		Average Readings		LISN Factors		Cable Factor (dB)	ATTN Factor (dB)	FCC 15.207			FCC 15.207			
	QP1 (dBµV)	QP2 (dBµV)	AVG1 (dBµV)	AVG2 (dBµV)	L1 (dB)	L2 (dB)			QP Limit (dBµV)	Margin (dB)	Result (Pass/Fail)	AVG Limit (dBµV)	Margin (dB)	Result (Pass/Fail)	
0.15	22.5	25.9	5.2	5.2	-0.1	-0.1	-0.1	-19.7	66.0	-20.3	Pass	56.0	-31.0	Pass	
0.17	28.3	27.3	4.0	4.0	-0.1	-0.1	-0.1	-19.7	64.8	-16.7	Pass	54.8	-31.1	Pass	
0.21	21.5	21.5	4.4	4.4	-0.1	-0.1	-0.1	-19.7	63.2	-22.0	Pass	53.2	-29.1	Pass	
0.48	22.3	22.2	11.2	12.2	0.0	0.0	-0.1	-19.7	56.4	-14.4	Pass	46.4	-14.5	Pass	
7.35	18.1	20.8	7.9	7.9	0.0	-0.1	-0.2	-19.6	60.0	-19.4	Pass	50.0	-22.3	Pass	
22.30	11.2	11.1	5.0	5.0	-0.1	-0.1	-0.3	-19.7	60.0	-28.7	Pass	50.0	-24.9	Pass	
Result: Pass								Worst Margin:		-14.5 dB		Frequency:		0.480 MHz	
Measurement Device: LISN ASSET 1726(Line 1) LISN ASSET 1727(Line 2)								Cable: CEMI-10		Spectrum Analyzer: Rental SA #5					
								Attenuator: 20dB Attenuator-74		Site: CEMI6					

AC Conducted Emissions Data Table														
Date: 15-Jan-16						Company: Ideal Industries, Inc.				Work Order: Q0060				
Engineer: Nirak So						EUT Desc: SCELV1000				Pressure: 1002 mBar				
Temp: 20.8 °C						Humidity: 36%								
Notes: Verified that EUT was trasmitting at 902MHz & 928MHz before started the scanning														
Frequency Range: 0.15 to 30MHz										EUT Input Voltage/Frequency: 277Vac, 60Hz				
Frequency (MHz)	Quasi-Peak Readings		Average Readings		LISN Factors		Cable Factor (dB)	ATTN Factor (dB)	FCC 15.207			FCC 15.207		
	QP1 (dBµV)	QP2 (dBµV)	AVG1 (dBµV)	AVG2 (dBµV)	L1 (dB)	L2 (dB)			QP Limit (dBµV)	Margin (dB)	Result (Pass/Fail)	AVG Limit (dBµV)	Margin (dB)	Result (Pass/Fail)
0.48	26.4	27.8	18.0	21.2	0.0	0.0	-0.1	-19.7	56.4	-8.9	Pass	46.4	-5.5	Pass
0.43	24.4	27.4	12.5	16.0	0.0	0.0	-0.1	-19.7	57.2	-10.0	Pass	47.2	-11.4	Pass
0.72	20.8	21.8	9.1	12.3	0.0	0.0	-0.1	-19.6	56.0	-14.5	Pass	46.0	-14.0	Pass
0.92	20.1	22.5	6.6	7.2	0.0	0.0	-0.1	-19.7	56.0	-13.7	Pass	46.0	-19.0	Pass
0.37	21.5	23.9	10.0	13.2	0.0	0.0	-0.1	-19.7	58.5	-14.8	Pass	48.5	-15.6	Pass
1.73	16.8	18.5	3.7	3.7	-0.1	-0.1	-0.1	-19.6	56.0	-17.7	Pass	46.0	-22.5	Pass
7.30	18.3	19.8	8.3	8.3	-0.1	-0.1	-0.2	-19.6	60.0	-20.3	Pass	50.0	-21.8	Pass
Result: Pass							Worst Margin:		-5.5 dB		Frequency:		0.475 MHz	
Measurement Device: LISN Asset 1791							Cable: CEMI-10				Spectrum Analyzer: Rental SA #5			
							Attenuator: 20dB Attenuator-74				Site: CEMI 6			

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Spectrum Analyzers / Receivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
SA #2 (1860)	9kHz-26.5 GHz	E7405A	Agilent	MY45104916	1860	I	12/23/2016	12/23/2015
LISNs/Measurement Probes	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
LISN Asset 1726	150kHz-30MHz	LI-150A	Com-Power	201092	1726	I	1/23/2016	1/23/2015
LISN Asset 1727	150kHz-30MHz	LI-150A	Com-Power	201093	1727	I	1/23/2016	1/23/2015
LISN Asset 1791	9KHz-30MHz	NNLK 8121	Schwarzbeck	NNLK 8121-603	1791	I	5/26/2016	5/26/2015
Conducted Test Sites (Mains / Telco)	FCC Code	VCCI Code				Cat	Calibration Due	Calibrated on
CEMI 6	719150	A-0015				III	NA	N/A
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	3/19/2016	3/19/2014
TH A#2085		HTC-1	HDE		2085	II	4/2/2016	4/2/2015
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
CEMI-10	9kHz - 2GHz		C-S			II	4/4/2016	4/4/2015
Attenuators	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
20dB Attenuator-74	9kHz-2GHz			N/A		II	7/29/2016	7/29/2015

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

Occupied Bandwidth

REQUIREMENT

When an occupied bandwidth is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, as calculated or measured. [RSS-GEN 6.6]

MEASUREMENTS / RESULTS

RSS-GEN 4.6.1 Occupied Bandwidth (Conducted) Table				
Date: 14-Jan-16		Company: Ideal Industries, Inc.		Work Order: Q0060
Engineer: Jason Haley		EUT Desc: SCELV1000		EUT Operating Voltage/Frequency: 120/60
Temp: 20.2°C		Humidity: 35%		Pressure: 1007mBar
Frequency Range: 902-928MHz				
Notes:				
Frequency	Resolution Bandwidth	Video Bandwidth	Frequency Span	Occupied Bandwidth
(MHz)	Setting (kHz)	Setting (kHz)	Setting (MHz)	(MHz)
902.7	30	100	2	0.758
915.0	30	100	2	0.754
927.3	30	100	2	0.755

Rev. 1/12/2016

Meteorological Meters

Weather Clock (Pressure Only)
TH A#2084

MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
BA928	egon Scienti	C3166-1	831	I	3/19/2016	3/19/2014
HTC-1	HDE		2084	II	4/2/2016	4/2/2015

Spectrum Analyzers / Receivers / Preselectors

MXE EMI Receiver

Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
20Hz-8.4GHz	N9038A	Agilent	MY53290009	1168255	I	6/16/2016	6/16/2015

Preamps / Couplers Attenuators / Filters

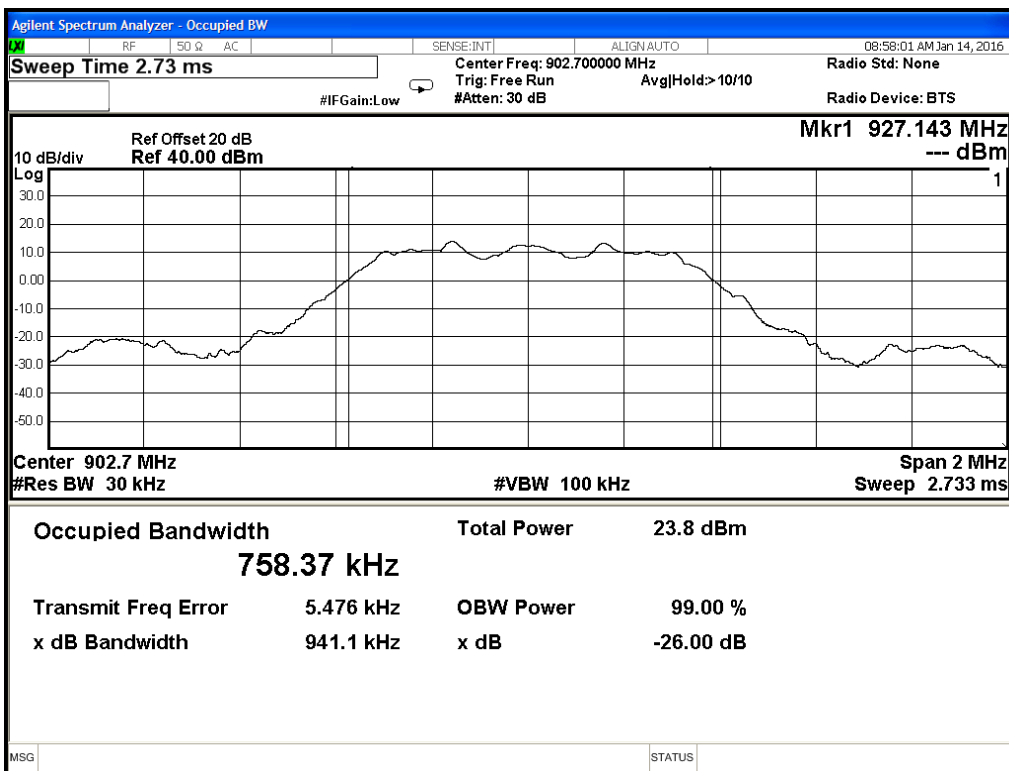
HF 20dB 50W Attenuator

Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
0.009-18 GHz	PE 7019-20	Pasternack	1	791	II	7/31/2016	7/31/2015

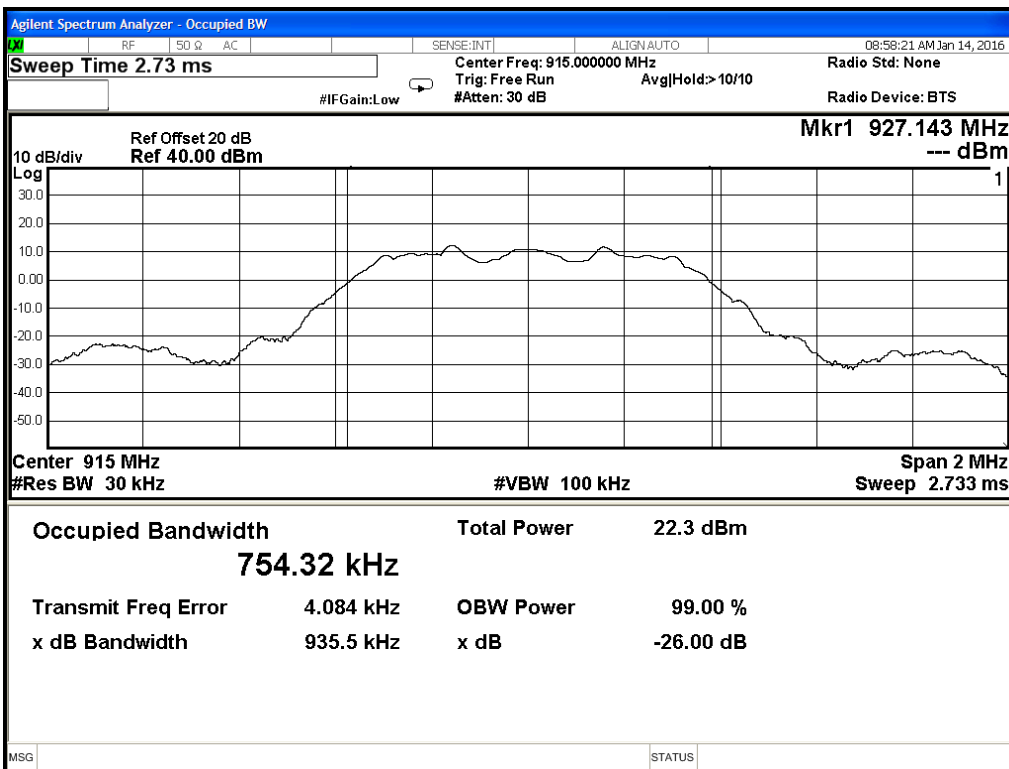
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.



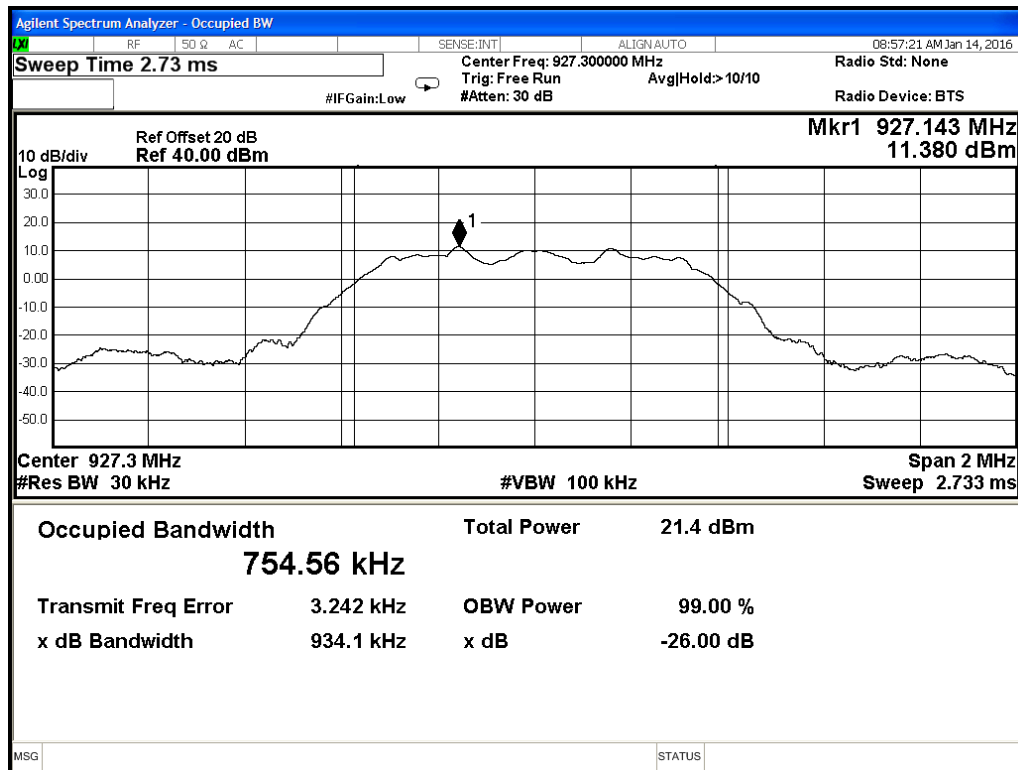
PLOTS



Occupied Bandwidth, Low Channel



Occupied Bandwidth, Mid Channel



Occupied Bandwidth, High Channel

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)	5.6dB	N/A
NIST	4.6dB	5.2dB (Ucisprr)
CISPR		
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 (Ucisprr)
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%	5%
	0.3dB	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		



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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-STRAUS (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 where 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.



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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.

The complete list of the Approved Subcontractors Curtis-Straus may use to delegate the performance of work can be provided upon request.
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