

Meteorcomm LLC.

TEST REPORT FOR

**Base 48V
Model: 63030-48**

Tested To The Following Standards:

**Spurious Emissions Only
In Accordance With
FCC Part 80 and Part 90I**

Report No.: 94195-13

Date of issue: March 22, 2013



This test report bears the accreditation symbol indicating that the testing performed herein meets the test and reporting requirements of ISO/IEC 17025 under the applicable scope of EMC testing for CKC Laboratories, Inc.

We strive to create long-term, trust based relationships by providing sound, adaptive, customer first testing services. We embrace each of our customers' unique EMC challenges, not as an interruption to set processes, but rather as the reason we are in business.

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ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR:

Meteorcomm LLC.
1201 SW 7th Street
Renton, WA 98057

Representative: Fred Cleveland
Customer Reference Number: 12399

REPORT PREPARED BY:

Dianne Dudley
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Project Number: 94195

DATE OF EQUIPMENT RECEIPT:
DATE(S) OF TESTING:

March 14, 2013
March 14, 2013

Report Authorization

The test data contained in this report documents the observed testing parameters pertaining to and are relevant for only the sample equipment tested in the agreed upon operational mode(s) and configuration(s) as identified herein. Compliance assessment remains the client's responsibility. This report may not be used to claim product endorsement by A2LA or any government agencies. This test report has been authorized for release under quality control from CKC Laboratories, Inc.



Steve Behm
Director of Quality Assurance & Engineering Services
CKC Laboratories, Inc.

Test Facility Information



Our laboratories are configured to effectively test a wide variety of product types. CKC utilizes first class test equipment, anechoic chambers, data acquisition and information services to create accurate, repeatable and affordable test results.

TEST LOCATION(S):
CKC Laboratories, Inc.
22116 23rd Drive S.E., Suite A
Bothell, WA 98021-4413

Software Versions

CKC Laboratories Proprietary Software	Version
EMITest Emissions	5.00.14
Immunity	5.00.07

Site Registration & Accreditation Information

Location	CB #	TAIWAN	CANADA	FCC	JAPAN
Bothell	US0081	SL2-IN-E-1145R	3082C-1	318736	A-0148

SUMMARY OF RESULTS

Standard / Specification: FCC Part 80 & Part 90I

Description	Test Procedure/Method	Results
Radiated Spurious Emissions	FCC Part 80 / 47 CFR §80.211(f)	Pass
Radiated Spurious Emissions	FCC Part 90I / 47 CFR §90.210(b)	Pass

Conditions During Testing

This list is a summary of the conditions noted for or modifications made to the equipment during testing.

Summary of Conditions
None

EQUIPMENT UNDER TEST (EUT)

EQUIPMENT UNDER TEST

Base 48V

Manuf: Meteorcomm LLC.
Model: 63030-48
Serial: 63B4000101BK

GPS Antenna

Manuf: SYNERGY SYSTEMS, LLC
Model: SMA-35
Serial: NA

Programmable Power Supply

Manuf: Ametek
Model: XG100-17MGA
Serial: 1107A05456

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Laptop

Manuf: DELL
Model: Latitude E6410
Serial: Meteorcomm AN2421

Laptop Power Supply

Manuf: DELL
Model: FA90PE1-00
Serial: NA

Mouse

Manuf: DELL
Model: M-UAR DEL7
Serial: NA

FCC PART 80

This report contains EMC emissions test results under United States Federal Communications Commission (FCC) 47 CFR Part 80 for the filing of applications for licenses to operate radio facilities in the maritime services.

Part 80 Radiated Spurious Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. • 22116 23rd Drive SE, Suite A • Bothell, WA 98021 • (425) 402-1717

Customer: **Meteorcomm LLC.**
 Specification: **47 CFR §80.211(f) Spurious Emissions**
 Work Order #: **94195** Date: **3/14/2013**
 Test Type: **Maximized Emissions** Time: **15:14:12**
 Equipment: **Base 48V** Sequence#: **34**
 Manufacturer: Meteorcomm LLC. Tested By: Steven Pittsford
 Model: 63030-48
 S/N: 63B4000101BK

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN03227	Cable	32026-29080-29080-84	5/2/2011	5/2/2013
T2	AN02871	Spectrum Analyzer	E4440A	4/22/2011	4/22/2013
T3	AN01271	Preamp	83017A	8/18/2011	8/18/2013
T4	AN03123	Cable	32026-2-29801-12	10/14/2011	10/14/2013
T5	AN02308	Preamp	8447D	4/3/2012	4/3/2014
T6	AN01993	Biconilog Antenna	CBL6111C	3/2/2012	3/2/2014
T7	ANP05360	Cable	RG214	12/3/2012	12/3/2014
T8	ANP05366	Cable	RG-214	10/14/2011	10/14/2013
T9	AN00052	Loop Antenna	6502	5/16/2012	5/16/2014
T10	ANP05965	Cable	Various	8/26/2011	8/26/2013
T11	AN01467	Horn Antenna-ANSI	3115 C63.5 Calibration	10/19/2011	10/19/2013

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Programmable Power Supply	Ametek	XG100-17MGA	1107A05456
GPS Antenna	SYNERGY SYSTEMS, LLC	SMA-35	NA
Base 48V*	Meteorcomm LLC.	63030-48	63B4000101BK

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	DELL	Latitude E6410	Meteorcomm AN2421
Laptop Power Supply	DELL	FA90PE1-00	NA
Mouse	DELL	M-UAR DEL7	NA

Test Conditions / Notes:

Temperature: 21°C

Pressure: 103.4kPa

Humidity: 33%

Frequency: 9kHz-2.5GHz

Device is a transmitter/receiver operating at 217-220MHz. The transmitter is transmitting. Transmitter is tuned for Low and High Frequency (217.6125MHz & 219.9875MHz). Transmit and Receive ports terminated in characteristic load. EUT is powered by 48VDC via support power supply.

Ethernet traffic is established on maintenance port with support equipment located outside the test area. All EUT ports are filled. Below 30MHz CISPR Bandwidths, 30MHz-1GHz, RBW=100kHz VBW=300kHz & 1-2.5GHz, RBW=1MHz VBW=3MHz

Ext Attn: 0 dB

#	Freq	Rdng	Reading listed by margin.				Test Distance: 3 Meters						
			T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar		
			T5	T6	T7	T8							
			MHz	dB μ V	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant	
1	138.579k	60.1	+0.0	+0.0	+0.0	+0.0	+0.0	69.6	82.2	-12.6	Paral		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.5	+0.0	+0.0	360	67.9	82.2	-14.3	Perpe			
2	138.580k	58.4	+0.0	+0.0	+0.0	+0.0	+0.0			Low	141		
			+0.0	+0.0	+0.0	+0.0							
			+9.5	+0.0	+0.0								
3	134.067k	54.9	+0.0	+0.0	+0.0	+0.0	+0.0	64.4	82.2	-17.8	Paral		
			+0.0	+0.0	+0.0	+0.0	360		Low	141			
			+9.5	+0.0	+0.0								
4	134.067k	54.6	+0.0	+0.0	+0.0	+0.0	+0.0	64.1	82.2	-18.1	Paral		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.5	+0.0	+0.0								
5	138.438k	54.5	+0.0	+0.0	+0.0	+0.0	+0.0	64.0	82.2	-18.2	Paral		
			+0.0	+0.0	+0.0	+0.0	360		Low	141			
			+9.5	+0.0	+0.0								
6	138.580k	54.4	+0.0	+0.0	+0.0	+0.0	+0.0	63.9	82.2	-18.3	Perpe		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.5	+0.0	+0.0								
7	277.300k	54.1	+0.0	+0.0	+0.0	+0.0	+0.0	63.7	82.2	-18.5	Paral		
			+0.0	+0.0	+0.0	+0.0	Low		141				
			+9.6	+0.0	+0.0								
8	133.930k	54.0	+0.0	+0.0	+0.0	+0.0	+0.0	63.5	82.2	-18.7	Perpe		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.5	+0.0	+0.0								
9	123.069k	53.8	+0.0	+0.0	+0.0	+0.0	+0.0	63.4	82.2	-18.8	Paral		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.6	+0.0	+0.0								

10	277.340k	53.7	+0.0	+0.0	+0.0	+0.0	+0.0	63.3	82.2	-18.9	Paral
			+0.0	+0.0	+0.0	+0.0	357		High		141
			+9.6	+0.0	+0.0						
11	123.069k	53.2	+0.0	+0.0	+0.0	+0.0	+0.0	62.8	82.2	-19.4	Paral
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.6	+0.0	+0.0						
12	133.930k	52.5	+0.0	+0.0	+0.0	+0.0	+0.0	62.0	82.2	-20.2	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.5	+0.0	+0.0						
13	275.800k	52.2	+0.0	+0.0	+0.0	+0.0	+0.0	61.8	82.2	-20.4	Perpe
			+0.0	+0.0	+0.0	+0.0	19		Low		141
			+9.6	+0.0	+0.0						
14	277.660k	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	61.0	82.2	-21.2	Perpe
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.6	+0.0	+0.0						
15	439.974M	68.6	+0.6	+0.0	+0.0	+0.0	+0.0	61.0	82.2	-21.2	Horiz
			-28.1	+17.1	+1.4	+1.4	354		High		201
			+0.0	+0.0	+0.0						
16	123.070k	50.9	+0.0	+0.0	+0.0	+0.0	+0.0	60.5	82.2	-21.7	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.6	+0.0	+0.0						
17	123.070k	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	60.1	82.2	-22.1	Perpe
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.6	+0.0	+0.0						
18	413.860k	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	60.1	82.2	-22.1	Paral
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.6	+0.0	+0.0						
19	414.700k	50.0	+0.0	+0.0	+0.0	+0.0	+0.0	59.6	82.2	-22.6	Paral
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.6	+0.0	+0.0						
20	553.660k	48.7	+0.0	+0.0	+0.0	+0.0	+0.0	58.5	82.2	-23.7	Paral
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.8	+0.0	+0.0						
21	435.235M	66.1	+0.6	+0.0	+0.0	+0.0	+0.0	58.5	82.2	-23.7	Horiz
			-28.0	+17.0	+1.4	+1.4	360		Low		210
			+0.0	+0.0	+0.0						
22	136.041k	48.1	+0.0	+0.0	+0.0	+0.0	+0.0	57.6	82.2	-24.6	Paral
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.5	+0.0	+0.0						
23	413.300k	47.5	+0.0	+0.0	+0.0	+0.0	+0.0	57.1	82.2	-25.1	Perpe
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.6	+0.0	+0.0						
24	415.530k	47.1	+0.0	+0.0	+0.0	+0.0	+0.0	56.7	82.2	-25.5	Perpe
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.6	+0.0	+0.0						
25	555.000k	46.8	+0.0	+0.0	+0.0	+0.0	+0.0	56.6	82.2	-25.6	Paral
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.8	+0.0	+0.0						
26	439.976M	64.0	+0.6	+0.0	+0.0	+0.0	+0.0	56.4	82.2	-25.8	Vert
			-28.1	+17.1	+1.4	+1.4	360		High		192
			+0.0	+0.0	+0.0						

27	556.200k	46.2	+0.0	+0.0	+0.0	+0.0	+0.0	56.0	82.2	-26.2	Perpe
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.8	+0.0	+0.0						
28	555.260k	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	55.0	82.2	-27.2	Perpe
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.8	+0.0	+0.0						
29	136.041k	44.9	+0.0	+0.0	+0.0	+0.0	+0.0	54.4	82.2	-27.8	Paral
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.5	+0.0	+0.0						
30	692.490k	43.0	+0.0	+0.0	+0.0	+0.0	+0.0	52.9	82.2	-29.3	Paral
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.9	+0.0	+0.0						
31	136.040k	43.0	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	82.2	-29.7	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.5	+0.0	+0.0						
32	136.040k	42.5	+0.0	+0.0	+0.0	+0.0	+0.0	52.0	82.2	-30.2	Perpe
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.5	+0.0	+0.0						
33	104.880k	42.4	+0.0	+0.0	+0.0	+0.0	+0.0	52.0	82.2	-30.2	Paral
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.6	+0.0	+0.0						
34	105.444k	41.7	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	82.2	-31.0	Paral
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.5	+0.0	+0.0						
35	690.500k	41.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	82.2	-31.3	Perpe
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.9	+0.0	+0.0						
36	435.210M	58.0	+0.6	+0.0	+0.0	+0.0	+0.0	50.4	82.2	-31.8	Vert
			-28.0	+17.0	+1.4	+1.4			Low		212
			+0.0	+0.0	+0.0						
37	105.440k	40.7	+0.0	+0.0	+0.0	+0.0	+0.0	50.2	82.2	-32.0	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.5	+0.0	+0.0						
38	879.960M	48.4	+0.9	+0.0	+0.0	+0.0	+0.0	48.9	82.2	-33.3	Vert
			-27.5	+22.9	+2.0	+2.2	360		High		99
			+0.0	+0.0	+0.0						
39	1.107M	38.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	82.2	-34.1	Paral
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.8	+0.0	+0.0						
40	1099.870M	61.8	+0.9	+0.0	-36.3	+0.3	+0.0	47.7	82.2	-34.5	Vert
			+0.0	+0.0	+0.0	+0.0			High		99
			+0.0	+1.2	+19.8						
41	659.972M	51.3	+0.8	+0.0	+0.0	+0.0	+0.0	47.7	82.2	-34.5	Horiz
			-28.3	+20.3	+1.7	+1.9			High		129
			+0.0	+0.0	+0.0						
42	652.834M	51.3	+0.8	+0.0	+0.0	+0.0	+0.0	47.6	82.2	-34.6	Vert
			-28.3	+20.3	+1.7	+1.8	360		Low		154
			+0.0	+0.0	+0.0						
43	1100.075M	61.4	+1.0	+0.0	-36.3	+0.3	+0.0	47.4	82.2	-34.8	Horiz
			+0.0	+0.0	+0.0	+0.0			High		125
			+0.0	+1.2	+19.8						

44	659.952M	50.9	+0.8	+0.0	+0.0	+0.0	+0.0	47.3	82.2	-34.9	Vert
			-28.3	+20.3	+1.7	+1.9			High		139
			+0.0	+0.0	+0.0						
45	105.440k	37.8	+0.0	+0.0	+0.0	+0.0	+0.0	47.3	82.2	-34.9	Perpe
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.5	+0.0	+0.0						
46	879.946M	46.0	+0.9	+0.0	+0.0	+0.0	+0.0	46.5	82.2	-35.7	Horiz
			-27.5	+22.9	+2.0	+2.2			High		154
			+0.0	+0.0	+0.0						
47	1.109M	36.2	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	82.2	-36.2	Paral
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.8	+0.0	+0.0						
48	652.842M	49.3	+0.8	+0.0	+0.0	+0.0	+0.0	45.6	82.2	-36.6	Horiz
			-28.3	+20.3	+1.7	+1.8	360		Low		146
			+0.0	+0.0	+0.0						
49	1088.100M	59.7	+0.9	+0.0	-36.4	+0.3	+0.0	45.4	82.2	-36.8	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		119
			+0.0	+1.2	+19.7						
50	91.120M	61.3	+0.3	+0.0	+0.0	+0.0	+0.0	43.8	82.2	-38.4	Vert
			-28.0	+9.1	+0.6	+0.5			High		99
			+0.0	+0.0	+0.0						
51	870.450M	43.1	+0.9	+0.0	+0.0	+0.0	+0.0	43.5	82.2	-38.7	Horiz
			-27.5	+22.8	+2.0	+2.2			Low		99
			+0.0	+0.0	+0.0						
52	870.428M	42.3	+0.9	+0.0	+0.0	+0.0	+0.0	42.7	82.2	-39.5	Vert
			-27.5	+22.8	+2.0	+2.2			Low		99
			+0.0	+0.0	+0.0						
53	1400.075M	54.2	+1.1	+0.0	-35.3	+0.3	+0.0	42.7	82.2	-39.5	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		99
			+0.0	+1.4	+21.0						
54	249.990M	54.2	+0.5	+0.0	+0.0	+0.0	+0.0	42.1	82.2	-40.1	Horiz
			-27.1	+12.5	+1.0	+1.0	360		High		100
			+0.0	+0.0	+0.0						
55	1088.045M	56.2	+0.9	+0.0	-36.4	+0.3	+0.0	41.9	82.2	-40.3	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		140
			+0.0	+1.2	+19.7						
56	249.990M	53.7	+0.5	+0.0	+0.0	+0.0	+0.0	41.6	82.2	-40.6	Horiz
			-27.1	+12.5	+1.0	+1.0			Low		99
			+0.0	+0.0	+0.0						
57	692.846M	44.2	+0.8	+0.0	+0.0	+0.0	+0.0	40.9	82.2	-41.3	Vert
			-28.2	+20.5	+1.7	+1.9			Low		100
			+0.0	+0.0	+0.0						
58	693.110M	43.9	+0.8	+0.0	+0.0	+0.0	+0.0	40.6	82.2	-41.6	Vert
			-28.2	+20.5	+1.7	+1.9	360		High		99
			+0.0	+0.0	+0.0						
59	1399.975M	51.7	+1.1	+0.0	-35.3	+0.3	+0.0	40.2	82.2	-42.0	Vert
			+0.0	+0.0	+0.0	+0.0			Low		112
			+0.0	+1.4	+21.0						
60	23.630M	33.4	+0.1	+0.0	+0.0	+0.0	+0.0	40.0	82.2	-42.2	Paral
			+0.0	+0.0	+0.0	+0.0			High		141
			+6.3	+0.2	+0.0						

61	2000.090M	44.3	+1.4	+0.0	-34.3	+0.4	+0.0	40.0	82.2	-42.2	Vert
			+0.0	+0.0	+0.0	+0.0			High		100
			+0.0	+1.7	+26.5						
62	1399.900M	51.3	+1.1	+0.0	-35.3	+0.3	+0.0	39.8	82.2	-42.4	Horiz
			+0.0	+0.0	+0.0	+0.0	360		High		136
			+0.0	+1.4	+21.0						
63	61.200M	59.9	+0.2	+0.0	+0.0	+0.0	+0.0	39.7	82.2	-42.5	Vert
			-28.0	+6.7	+0.5	+0.4	5		Low		99
			+0.0	+0.0	+0.0						
64	1400.030M	50.8	+1.1	+0.0	-35.3	+0.3	+0.0	39.3	82.2	-42.9	Vert
			+0.0	+0.0	+0.0	+0.0		High			115
			+0.0	+1.4	+21.0						
65	2000.075M	43.6	+1.4	+0.0	-34.3	+0.4	+0.0	39.3	82.2	-42.9	Vert
			+0.0	+0.0	+0.0	+0.0		Low			102
			+0.0	+1.7	+26.5						
66	1424.975M	50.2	+1.1	+0.0	-35.2	+0.3	+0.0	38.9	82.2	-43.3	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		112
			+0.0	+1.4	+21.1						
67	28.803M	33.6	+0.2	+0.0	+0.0	+0.0	+0.0	38.7	82.2	-43.5	Perpe
			+0.0	+0.0	+0.0	+0.0		Low			141
			+4.7	+0.2	+0.0						
68	154.840M	52.9	+0.4	+0.0	+0.0	+0.0	+0.0	38.5	82.2	-43.7	Vert
			-27.6	+11.2	+0.8	+0.8	322		Low		99
			+0.0	+0.0	+0.0						
69	900.002M	37.7	+0.9	+0.0	+0.0	+0.0	+0.0	38.5	82.2	-43.7	Vert
			-27.4	+23.0	+2.0	+2.3		High			99
			+0.0	+0.0	+0.0						
70	23.633M	31.8	+0.1	+0.0	+0.0	+0.0	+0.0	38.4	82.2	-43.8	Paral
			+0.0	+0.0	+0.0	+0.0	11		Low		141
			+6.3	+0.2	+0.0						
71	600.000M	42.7	+0.7	+0.0	+0.0	+0.0	+0.0	38.4	82.2	-43.8	Horiz
			-28.3	+20.0	+1.6	+1.7	2	High			126
			+0.0	+0.0	+0.0						
72	564.776M	43.3	+0.7	+0.0	+0.0	+0.0	+0.0	38.4	82.2	-43.8	Horiz
			-28.3	+19.4	+1.6	+1.7	360		Low		126
			+0.0	+0.0	+0.0						
73	1000.020M	53.4	+0.9	+0.0	-36.8	+0.2	+0.0	38.2	82.2	-44.0	Horiz
			+0.0	+0.0	+0.0	+0.0		High			100
			+0.0	+1.2	+19.3						
74	90.120M	55.7	+0.3	+0.0	+0.0	+0.0	+0.0	38.1	82.2	-44.1	Vert
			-28.0	+9.0	+0.6	+0.5		Low			99
			+0.0	+0.0	+0.0						
75	600.010M	42.3	+0.7	+0.0	+0.0	+0.0	+0.0	38.0	82.2	-44.2	Horiz
			-28.3	+20.0	+1.6	+1.7		Low			131
			+0.0	+0.0	+0.0						
76	2499.990M	41.6	+1.6	+0.0	-34.0	+0.5	+0.0	38.0	82.2	-44.2	Horiz
			+0.0	+0.0	+0.0	+0.0	145		Low		112
			+0.0	+1.9	+26.4						
77	560.022M	42.9	+0.7	+0.0	+0.0	+0.0	+0.0	37.9	82.2	-44.3	Horiz
			-28.3	+19.3	+1.6	+1.7	360	High			123
			+0.0	+0.0	+0.0						

78	154.914M	52.3	+0.4	+0.0	+0.0	+0.0	+0.0	37.9	82.2	-44.3	Vert
			-27.6	+11.2	+0.8	+0.8			High		99
			+0.0	+0.0	+0.0						
79	88.560M	55.5	+0.3	+0.0	+0.0	+0.0	+0.0	37.7	82.2	-44.5	Horiz
			-28.0	+8.8	+0.6	+0.5			High		275
			+0.0	+0.0	+0.0						
80	900.002M	36.7	+0.9	+0.0	+0.0	+0.0	+0.0	37.5	82.2	-44.7	Horiz
			-27.4	+23.0	+2.0	+2.3	359		Low		99
			+0.0	+0.0	+0.0						
81	1999.990M	41.8	+1.4	+0.0	-34.3	+0.4	+0.0	37.5	82.2	-44.7	Horiz
			+0.0	+0.0	+0.0	+0.0	350		Low		112
			+0.0	+1.7	+26.5						
82	2399.995M	41.2	+1.5	+0.0	-34.0	+0.5	+0.0	37.5	82.2	-44.7	Horiz
			+0.0	+0.0	+0.0	+0.0			High		129
			+0.0	+1.9	+26.4						
83	2000.420M	41.8	+1.4	+0.0	-34.3	+0.4	+0.0	37.5	82.2	-44.7	Horiz
			+0.0	+0.0	+0.0	+0.0	360		High		129
			+0.0	+1.7	+26.5						
84	900.012M	36.6	+0.9	+0.0	+0.0	+0.0	+0.0	37.4	82.2	-44.8	Horiz
			-27.4	+23.0	+2.0	+2.3	360		High		99
			+0.0	+0.0	+0.0						
85	94.850M	54.3	+0.3	+0.0	+0.0	+0.0	+0.0	37.3	82.2	-44.9	Horiz
			-27.9	+9.5	+0.6	+0.5	360		Low		245
			+0.0	+0.0	+0.0						
86	799.998M	37.8	+0.8	+0.0	+0.0	+0.0	+0.0	37.1	82.2	-45.1	Horiz
			-27.9	+22.4	+1.9	+2.1	360		Low		99
			+0.0	+0.0	+0.0						
87	1599.985M	46.4	+1.2	+0.0	-34.9	+0.3	+0.0	37.0	82.2	-45.2	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		100
			+0.0	+1.5	+22.5						
88	1199.805M	50.1	+1.0	+0.0	-35.9	+0.3	+0.0	37.0	82.2	-45.2	Vert
			+0.0	+0.0	+0.0	+0.0			High		124
			+0.0	+1.3	+20.2						
89	1000.005M	52.1	+0.9	+0.0	-36.8	+0.2	+0.0	36.9	82.2	-45.3	Vert
			+0.0	+0.0	+0.0	+0.0	360		High		142
			+0.0	+1.2	+19.3						
90	1425.005M	48.1	+1.1	+0.0	-35.2	+0.3	+0.0	36.8	82.2	-45.4	Horiz
			+0.0	+0.0	+0.0	+0.0	360		High		99
			+0.0	+1.4	+21.1						
91	1000.005M	52.0	+0.9	+0.0	-36.8	+0.2	+0.0	36.8	82.2	-45.4	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		138
			+0.0	+1.2	+19.3						
92	900.016M	36.0	+0.9	+0.0	+0.0	+0.0	+0.0	36.8	82.2	-45.4	Vert
			-27.4	+23.0	+2.0	+2.3	360		Low		99
			+0.0	+0.0	+0.0						
93	2499.975M	40.1	+1.6	+0.0	-34.0	+0.5	+0.0	36.5	82.2	-45.7	Vert
			+0.0	+0.0	+0.0	+0.0	316		Low		102
			+0.0	+1.9	+26.4						
94	1799.895M	43.2	+1.3	+0.0	-34.6	+0.3	+0.0	36.4	82.2	-45.8	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		103
			+0.0	+1.6	+24.6						

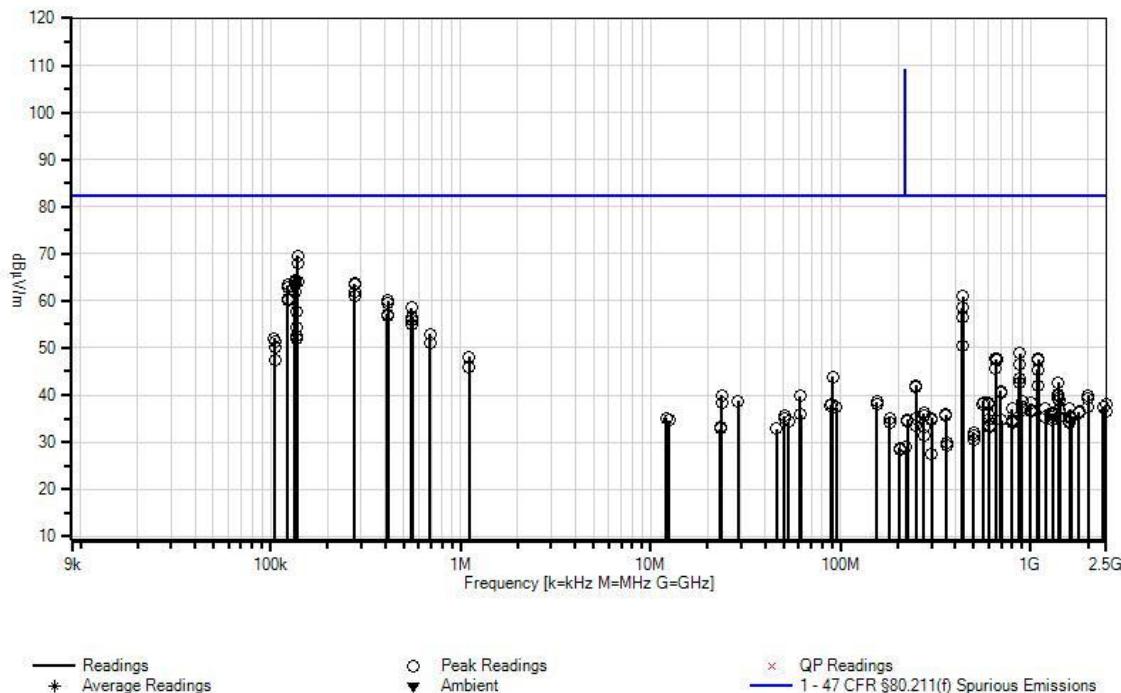
95	1000.045M	51.6	+0.9	+0.0	-36.8	+0.2	+0.0	36.4	82.2	-45.8	Vert
			+0.0	+0.0	+0.0	+0.0			Low		98
			+0.0	+1.2	+19.3						
96	1300.030M	48.4	+1.0	+0.0	-35.5	+0.3	+0.0	36.2	82.2	-46.0	Vert
			+0.0	+0.0	+0.0	+0.0			High		99
			+0.0	+1.3	+20.7						
97	275.000M	47.6	+0.5	+0.0	+0.0	+0.0	+0.0	36.2	82.2	-46.0	Horiz
			-27.1	+13.0	+1.1	+1.1	360		Low		126
			+0.0	+0.0	+0.0						
98	1799.930M	42.9	+1.3	+0.0	-34.6	+0.3	+0.0	36.1	82.2	-46.1	Vert
			+0.0	+0.0	+0.0	+0.0	360		High		100
			+0.0	+1.6	+24.6						
99	1300.155M	48.2	+1.0	+0.0	-35.5	+0.3	+0.0	36.0	82.2	-46.2	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		101
			+0.0	+1.3	+20.7						
100	61.515M	56.1	+0.2	+0.0	+0.0	+0.0	+0.0	35.9	82.2	-46.3	Vert
			-28.0	+6.7	+0.5	+0.4			High		99
			+0.0	+0.0	+0.0						
101	599.992M	40.2	+0.7	+0.0	+0.0	+0.0	+0.0	35.9	82.2	-46.3	Vert
			-28.3	+20.0	+1.6	+1.7	360		High		100
			+0.0	+0.0	+0.0						
102	357.582M	45.1	+0.6	+0.0	+0.0	+0.0	+0.0	35.9	82.2	-46.3	Horiz
			-27.5	+15.2	+1.2	+1.3			Low		114
			+0.0	+0.0	+0.0						
103	275.010M	46.9	+0.5	+0.0	+0.0	+0.0	+0.0	35.5	82.2	-46.7	Horiz
			-27.1	+13.0	+1.1	+1.1			High		99
			+0.0	+0.0	+0.0						
104	50.520M	54.1	+0.2	+0.0	+0.0	+0.0	+0.0	35.5	82.2	-46.7	Horiz
			-28.0	+8.5	+0.4	+0.3			High		275
			+0.0	+0.0	+0.0						
105	358.900M	44.7	+0.6	+0.0	+0.0	+0.0	+0.0	35.5	82.2	-46.7	Horiz
			-27.5	+15.2	+1.2	+1.3	15		High		99
			+0.0	+0.0	+0.0						
106	1425.075M	46.7	+1.1	+0.0	-35.2	+0.3	+0.0	35.4	82.2	-46.8	Horiz
			+0.0	+0.0	+0.0	+0.0			Low		99
			+0.0	+1.4	+21.1						
107	1624.935M	44.4	+1.2	+0.0	-34.9	+0.3	+0.0	35.4	82.2	-46.8	Vert
			+0.0	+0.0	+0.0	+0.0			High		100
			+0.0	+1.6	+22.8						
108	1199.980M	48.5	+1.0	+0.0	-35.9	+0.3	+0.0	35.4	82.2	-46.8	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		99
			+0.0	+1.3	+20.2						
109	1600.030M	44.8	+1.2	+0.0	-34.9	+0.3	+0.0	35.4	82.2	-46.8	Vert
			+0.0	+0.0	+0.0	+0.0	360		High		100
			+0.0	+1.5	+22.5						
110	1200.045M	48.4	+1.0	+0.0	-35.9	+0.3	+0.0	35.3	82.2	-46.9	Vert
			+0.0	+0.0	+0.0	+0.0			Low		101
			+0.0	+1.3	+20.2						
111	1299.980M	47.5	+1.0	+0.0	-35.5	+0.3	+0.0	35.3	82.2	-46.9	Horiz
			+0.0	+0.0	+0.0	+0.0			Low		99
			+0.0	+1.3	+20.7						

112	1199.990M	48.3	+1.0	+0.0	-35.9	+0.3	+0.0	35.2	82.2	-47.0	Horiz
			+0.0	+0.0	+0.0	+0.0	360		High		99
			+0.0	+1.3	+20.2						
113	180.600M	51.4	+0.4	+0.0	+0.0	+0.0	+0.0	35.1	82.2	-47.1	Horiz
			-27.4	+9.1	+0.8	+0.8			Low		147
			+0.0	+0.0	+0.0						
114	299.990M	46.0	+0.5	+0.0	+0.0	+0.0	+0.0	35.1	82.2	-47.1	Horiz
			-27.1	+13.5	+1.1	+1.1	360		Low		100
			+0.0	+0.0	+0.0						
115	1625.075M	44.1	+1.2	+0.0	-34.9	+0.3	+0.0	35.1	82.2	-47.1	Vert
			+0.0	+0.0	+0.0	+0.0	153		Low		100
			+0.0	+1.6	+22.8						
116	12.131M	25.3	+0.1	+0.0	+0.0	+0.0	+0.0	35.1	82.2	-47.1	Perpe
			+0.0	+0.0	+0.0	+0.0	5		Low		141
			+9.6	+0.1	+0.0						
117	250.008M	47.1	+0.5	+0.0	+0.0	+0.0	+0.0	35.0	82.2	-47.2	Vert
			-27.1	+12.5	+1.0	+1.0			Low		151
			+0.0	+0.0	+0.0						
118	50.500M	53.6	+0.2	+0.0	+0.0	+0.0	+0.0	35.0	82.2	-47.2	Horiz
			-28.0	+8.5	+0.4	+0.3			Low		245
			+0.0	+0.0	+0.0						
119	225.000M	48.9	+0.4	+0.0	+0.0	+0.0	+0.0	34.8	82.2	-47.4	Horiz
			-27.2	+10.8	+0.9	+1.0			High		134
			+0.0	+0.0	+0.0						
120	1299.945M	47.0	+1.0	+0.0	-35.5	+0.3	+0.0	34.8	82.2	-47.4	Horiz
			+0.0	+0.0	+0.0	+0.0			High		126
			+0.0	+1.3	+20.7						
121	600.000M	39.1	+0.7	+0.0	+0.0	+0.0	+0.0	34.8	82.2	-47.4	Vert
			-28.3	+20.0	+1.6	+1.7			Low		100
			+0.0	+0.0	+0.0						
122	700.004M	38.0	+0.8	+0.0	+0.0	+0.0	+0.0	34.7	82.2	-47.5	Horiz
			-28.2	+20.5	+1.7	+1.9	360		High		99
			+0.0	+0.0	+0.0						
123	300.004M	45.6	+0.5	+0.0	+0.0	+0.0	+0.0	34.7	82.2	-47.5	Horiz
			-27.1	+13.5	+1.1	+1.1	360		High		101
			+0.0	+0.0	+0.0						
124	12.551M	24.9	+0.1	+0.0	+0.0	+0.0	+0.0	34.7	82.2	-47.5	Perpe
			+0.0	+0.0	+0.0	+0.0	3		High		141
			+9.6	+0.1	+0.0						
125	699.996M	37.9	+0.8	+0.0	+0.0	+0.0	+0.0	34.6	82.2	-47.6	Horiz
			-28.2	+20.5	+1.7	+1.9			Low		99
			+0.0	+0.0	+0.0						
126	800.014M	35.3	+0.8	+0.0	+0.0	+0.0	+0.0	34.6	82.2	-47.6	Vert
			-27.9	+22.4	+1.9	+2.1			High		99
			+0.0	+0.0	+0.0						
127	225.000M	48.6	+0.4	+0.0	+0.0	+0.0	+0.0	34.5	82.2	-47.7	Horiz
			-27.2	+10.8	+0.9	+1.0			Low		99
			+0.0	+0.0	+0.0						
128	53.280M	53.6	+0.2	+0.0	+0.0	+0.0	+0.0	34.4	82.2	-47.8	Vert
			-28.0	+7.9	+0.4	+0.3			Low		99
			+0.0	+0.0	+0.0						

129	800.000M	35.1	+0.8	+0.0	+0.0	+0.0	+0.0	34.4	82.2	-47.8	Horiz
			-27.9	+22.4	+1.9	+2.1			High		177
			+0.0	+0.0	+0.0						
130	1599.725M	43.7	+1.2	+0.0	-34.9	+0.3	+0.0	34.3	82.2	-47.9	Horiz
			+0.0	+0.0	+0.0	+0.0	71		High		115
			+0.0	+1.5	+22.5						
131	1599.855M	43.6	+1.2	+0.0	-34.9	+0.3	+0.0	34.2	82.2	-48.0	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		99
			+0.0	+1.5	+22.5						
132	181.440M	50.5	+0.4	+0.0	+0.0	+0.0	+0.0	34.2	82.2	-48.0	Horiz
			-27.4	+9.1	+0.8	+0.8	67		High		134
			+0.0	+0.0	+0.0						
133	800.012M	34.9	+0.8	+0.0	+0.0	+0.0	+0.0	34.2	82.2	-48.0	Vert
			-27.9	+22.4	+1.9	+2.1	360		Low		140
			+0.0	+0.0	+0.0						
134	607.982M	37.7	+0.7	+0.0	+0.0	+0.0	+0.0	33.5	82.2	-48.7	Horiz
			-28.3	+20.0	+1.6	+1.8	360		High		125
			+0.0	+0.0	+0.0						
135	249.990M	45.6	+0.5	+0.0	+0.0	+0.0	+0.0	33.5	82.2	-48.7	Vert
			-27.1	+12.5	+1.0	+1.0	360		High		99
			+0.0	+0.0	+0.0						
136	275.024M	44.7	+0.5	+0.0	+0.0	+0.0	+0.0	33.3	82.2	-48.9	Vert
			-27.1	+13.0	+1.1	+1.1	360		Low		99
			+0.0	+0.0	+0.0						
137	23.510M	26.5	+0.1	+0.0	+0.0	+0.0	+0.0	33.2	82.2	-49.0	Perpe
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+6.4	+0.2	+0.0						
138	608.010M	37.3	+0.7	+0.0	+0.0	+0.0	+0.0	33.1	82.2	-49.1	Horiz
			-28.3	+20.0	+1.6	+1.8			Low		131
			+0.0	+0.0	+0.0						
139	46.050M	48.9	+0.2	+0.0	+0.0	+0.0	+0.0	32.8	82.2	-49.4	Horiz
			-28.0	+11.0	+0.4	+0.3			Low		245
			+0.0	+0.0	+0.0						
140	23.278M	26.1	+0.1	+0.0	+0.0	+0.0	+0.0	32.8	82.2	-49.4	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+6.4	+0.2	+0.0						
141	500.006M	38.3	+0.7	+0.0	+0.0	+0.0	+0.0	32.0	82.2	-50.2	Vert
			-28.2	+18.2	+1.4	+1.6			High		178
			+0.0	+0.0	+0.0						
142	275.010M	42.8	+0.5	+0.0	+0.0	+0.0	+0.0	31.4	82.2	-50.8	Vert
			-27.1	+13.0	+1.1	+1.1			High		99
			+0.0	+0.0	+0.0						
143	500.022M	37.6	+0.7	+0.0	+0.0	+0.0	+0.0	31.3	82.2	-50.9	Vert
			-28.2	+18.2	+1.4	+1.6	326		Low		100
			+0.0	+0.0	+0.0						
144	499.995M	36.9	+0.7	+0.0	+0.0	+0.0	+0.0	30.6	82.2	-51.6	Horiz
			-28.2	+18.2	+1.4	+1.6			Low		117
			+0.0	+0.0	+0.0						
145	499.992M	36.8	+0.7	+0.0	+0.0	+0.0	+0.0	30.5	82.2	-51.7	Horiz
			-28.2	+18.2	+1.4	+1.6			High		113
			+0.0	+0.0	+0.0						

146	359.560M	39.1	+0.6	+0.0	+0.0	+0.0	+0.0	30.0	82.2	-52.2	Vert
			-27.5	+15.3	+1.2	+1.3			High		125
			+0.0	+0.0	+0.0						
147	359.740M	38.5	+0.6	+0.0	+0.0	+0.0	+0.0	29.4	82.2	-52.8	Vert
			-27.5	+15.3	+1.2	+1.3	360		Low		109
			+0.0	+0.0	+0.0						
148	221.170M	43.5	+0.4	+0.0	+0.0	+0.0	+0.0	29.0	82.2	-53.2	Vert
			-27.2	+10.5	+0.9	+0.9	360		Low		133
			+0.0	+0.0	+0.0						
149	203.760M	44.7	+0.4	+0.0	+0.0	+0.0	+0.0	28.8	82.2	-53.4	Horiz
			-27.3	+9.2	+0.9	+0.9			High		134
			+0.0	+0.0	+0.0						
150	203.770M	44.2	+0.4	+0.0	+0.0	+0.0	+0.0	28.3	82.2	-53.9	Horiz
			-27.3	+9.2	+0.9	+0.9			Low		147
			+0.0	+0.0	+0.0						
151	300.010M	38.3	+0.5	+0.0	+0.0	+0.0	+0.0	27.4	82.2	-54.8	Vert
			-27.1	+13.5	+1.1	+1.1			Low		141
			+0.0	+0.0	+0.0						

CKC Laboratories, Inc. Date: 3/14/2013 Time: 15:14:12 Meteorcomm LLC. WO#: 94195
 Test Distance: 3 Meters Sequence#: 34 Parallel
 Meteorcomm LLC. Base 48V P/N: 63030-48



Test Setup Photos



FCC PART 90I

This report contains EMC emissions test results under United States Federal Communications Commission (FCC) 47 CFR Part 90I requirements for radio communications systems licensed and used in the Public Safety, Industrial/Business Radio Pool, and Radiolocation Radio Services.

Part 90I Radiated Spurious Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. • 22116 23rd Drive SE, Suite A • Bothell, WA 98021 • (425) 402-1717

Customer: **Meteorcomm LLC.**
 Specification: **47 CFR §90.210(b) Spurious Emissions Base 24**
 Work Order #: **94195** Date: 3/14/2013
 Test Type: **Maximized Emissions** Time: 15:14:12
 Equipment: **Base 48V** Sequence#: 34
 Manufacturer: Meteorcomm LLC. Tested By: Steven Pittsford
 Model: 63030-48
 S/N: 63B4000101BK

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN03227	Cable	32026-29080-29080-84	5/2/2011	5/2/2013
T2	AN02871	Spectrum Analyzer	E4440A	4/22/2011	4/22/2013
T3	AN01271	Preamp	83017A	8/18/2011	8/18/2013
T4	AN03123	Cable	32026-2-29801-12	10/14/2011	10/14/2013
T5	AN02308	Preamp	8447D	4/3/2012	4/3/2014
T6	AN01993	Biconilog Antenna	CBL6111C	3/2/2012	3/2/2014
T7	ANP05360	Cable	RG214	12/3/2012	12/3/2014
T8	ANP05366	Cable	RG-214	10/14/2011	10/14/2013
T9	AN00052	Loop Antenna	6502	5/16/2012	5/16/2014
T10	ANP05965	Cable	Various	8/26/2011	8/26/2013
T11	AN01467	Horn Antenna-ANSI 3115 C63.5 Calibration		10/19/2011	10/19/2013

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Programmable Power Supply	Ametek	XG100-17MGA	1107A05456
GPS Antenna	SYNERGY SYSTEMS, LLC	SMA-35	NA
Base 48V*	Meteorcomm LLC.	63030-48	63B4000101BK

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	DELL	Latitude E6410	Meteorcomm AN2421
Laptop Power Supply	DELL	FA90PE1-00	NA
Mouse	DELL	M-UAR DEL7	NA

Test Conditions / Notes:

Temperature: 21°C

Pressure: 103.4kPa

Humidity: 33%

Frequency: 9kHz-2.5GHz

Device is a transmitter/receiver operating at 217-220MHz. The transmitter is transmitting. Transmitter is tuned for Low and High Frequency (217.6125MHz & 219.9875MHz). Transmit and Receive ports terminated in characteristic load. EUT is powered by 48VDC via support power supply.

Ethernet traffic is established on maintenance port with support equipment located outside the test area. All EUT ports are filled. Below 30MHz CISPR Bandwidths, 30MHz-1GHz, RBW=100kHz VBW=300kHz & 1-2.5GHz, RBW=1MHz VBW=3MHz

Ext Attn: 0 dB

#	Freq	Rdng	Reading listed by margin.				Test Distance: 3 Meters						
			T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar		
			T5	T6	T7	T8							
			MHz	dB μ V	dB	dB	dB	Table	dB μ V/m	dB μ V/m	dB	Ant	
1	138.579k	60.1	+0.0	+0.0	+0.0	+0.0	+0.0	69.6	82.2	-12.6	Paral		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.5	+0.0	+0.0	360	67.9	82.2	-14.3	Perpe			
2	138.580k	58.4	+0.0	+0.0	+0.0	+0.0	+0.0			Low	141		
			+0.0	+0.0	+0.0	+0.0							
			+9.5	+0.0	+0.0								
3	134.067k	54.9	+0.0	+0.0	+0.0	+0.0	+0.0	64.4	82.2	-17.8	Paral		
			+0.0	+0.0	+0.0	+0.0	360		Low	141			
			+9.5	+0.0	+0.0								
4	134.067k	54.6	+0.0	+0.0	+0.0	+0.0	+0.0	64.1	82.2	-18.1	Paral		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.5	+0.0	+0.0								
5	138.438k	54.5	+0.0	+0.0	+0.0	+0.0	+0.0	64.0	82.2	-18.2	Paral		
			+0.0	+0.0	+0.0	+0.0	360		Low	141			
			+9.5	+0.0	+0.0								
6	138.580k	54.4	+0.0	+0.0	+0.0	+0.0	+0.0	63.9	82.2	-18.3	Perpe		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.5	+0.0	+0.0								
7	277.300k	54.1	+0.0	+0.0	+0.0	+0.0	+0.0	63.7	82.2	-18.5	Paral		
			+0.0	+0.0	+0.0	+0.0	Low		141				
			+9.6	+0.0	+0.0								
8	133.930k	54.0	+0.0	+0.0	+0.0	+0.0	+0.0	63.5	82.2	-18.7	Perpe		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.5	+0.0	+0.0								
9	123.069k	53.8	+0.0	+0.0	+0.0	+0.0	+0.0	63.4	82.2	-18.8	Paral		
			+0.0	+0.0	+0.0	+0.0	High		141				
			+9.6	+0.0	+0.0								

10	277.340k	53.7	+0.0	+0.0	+0.0	+0.0	+0.0	63.3	82.2	-18.9	Paral
			+0.0	+0.0	+0.0	+0.0	357		High		141
			+9.6	+0.0	+0.0						
11	123.069k	53.2	+0.0	+0.0	+0.0	+0.0	+0.0	62.8	82.2	-19.4	Paral
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.6	+0.0	+0.0						
12	133.930k	52.5	+0.0	+0.0	+0.0	+0.0	+0.0	62.0	82.2	-20.2	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.5	+0.0	+0.0						
13	275.800k	52.2	+0.0	+0.0	+0.0	+0.0	+0.0	61.8	82.2	-20.4	Perpe
			+0.0	+0.0	+0.0	+0.0	19		Low		141
			+9.6	+0.0	+0.0						
14	277.660k	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	61.0	82.2	-21.2	Perpe
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.6	+0.0	+0.0						
15	439.974M	68.6	+0.6	+0.0	+0.0	+0.0	+0.0	61.0	82.2	-21.2	Horiz
			-28.1	+17.1	+1.4	+1.4	354		High		201
			+0.0	+0.0	+0.0						
16	123.070k	50.9	+0.0	+0.0	+0.0	+0.0	+0.0	60.5	82.2	-21.7	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.6	+0.0	+0.0						
17	413.860k	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	60.1	82.2	-22.1	Paral
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.6	+0.0	+0.0						
18	123.070k	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	60.1	82.2	-22.1	Perpe
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.6	+0.0	+0.0						
19	414.700k	50.0	+0.0	+0.0	+0.0	+0.0	+0.0	59.6	82.2	-22.6	Paral
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.6	+0.0	+0.0						
20	435.235M	66.1	+0.6	+0.0	+0.0	+0.0	+0.0	58.5	82.2	-23.7	Horiz
			-28.0	+17.0	+1.4	+1.4	360		Low		210
			+0.0	+0.0	+0.0						
21	553.660k	48.7	+0.0	+0.0	+0.0	+0.0	+0.0	58.5	82.2	-23.7	Paral
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.8	+0.0	+0.0						
22	136.041k	48.1	+0.0	+0.0	+0.0	+0.0	+0.0	57.6	82.2	-24.6	Paral
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.5	+0.0	+0.0						
23	413.300k	47.5	+0.0	+0.0	+0.0	+0.0	+0.0	57.1	82.2	-25.1	Perpe
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.6	+0.0	+0.0						
24	415.530k	47.1	+0.0	+0.0	+0.0	+0.0	+0.0	56.7	82.2	-25.5	Perpe
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.6	+0.0	+0.0						
25	555.000k	46.8	+0.0	+0.0	+0.0	+0.0	+0.0	56.6	82.2	-25.6	Paral
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.8	+0.0	+0.0						
26	439.976M	64.0	+0.6	+0.0	+0.0	+0.0	+0.0	56.4	82.2	-25.8	Vert
			-28.1	+17.1	+1.4	+1.4	360		High		192
			+0.0	+0.0	+0.0						

27	556.200k	46.2	+0.0	+0.0	+0.0	+0.0	+0.0	56.0	82.2	-26.2	Perpe
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.8	+0.0	+0.0						
28	555.260k	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	55.0	82.2	-27.2	Perpe
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.8	+0.0	+0.0						
29	136.041k	44.9	+0.0	+0.0	+0.0	+0.0	+0.0	54.4	82.2	-27.8	Paral
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.5	+0.0	+0.0						
30	692.490k	43.0	+0.0	+0.0	+0.0	+0.0	+0.0	52.9	82.2	-29.3	Paral
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.9	+0.0	+0.0						
31	136.040k	43.0	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	82.2	-29.7	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.5	+0.0	+0.0						
32	136.040k	42.5	+0.0	+0.0	+0.0	+0.0	+0.0	52.0	82.2	-30.2	Perpe
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.5	+0.0	+0.0						
33	104.880k	42.4	+0.0	+0.0	+0.0	+0.0	+0.0	52.0	82.2	-30.2	Paral
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.6	+0.0	+0.0						
34	105.444k	41.7	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	82.2	-31.0	Paral
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.5	+0.0	+0.0						
35	690.500k	41.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	82.2	-31.3	Perpe
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.9	+0.0	+0.0						
36	435.210M	58.0	+0.6	+0.0	+0.0	+0.0	+0.0	50.4	82.2	-31.8	Vert
			-28.0	+17.0	+1.4	+1.4			Low		212
			+0.0	+0.0	+0.0						
37	105.440k	40.7	+0.0	+0.0	+0.0	+0.0	+0.0	50.2	82.2	-32.0	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+9.5	+0.0	+0.0						
38	879.960M	48.4	+0.9	+0.0	+0.0	+0.0	+0.0	48.9	82.2	-33.3	Vert
			-27.5	+22.9	+2.0	+2.2	360		High		99
			+0.0	+0.0	+0.0						
39	1.107M	38.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	82.2	-34.1	Paral
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+9.8	+0.0	+0.0						
40	1099.870M	61.8	+0.9	+0.0	-36.3	+0.3	+0.0	47.7	82.2	-34.5	Vert
			+0.0	+0.0	+0.0	+0.0			High		99
			+0.0	+1.2	+19.8						
41	659.972M	51.3	+0.8	+0.0	+0.0	+0.0	+0.0	47.7	82.2	-34.5	Horiz
			-28.3	+20.3	+1.7	+1.9			High		129
			+0.0	+0.0	+0.0						
42	652.834M	51.3	+0.8	+0.0	+0.0	+0.0	+0.0	47.6	82.2	-34.6	Vert
			-28.3	+20.3	+1.7	+1.8	360		Low		154
			+0.0	+0.0	+0.0						
43	1100.075M	61.4	+1.0	+0.0	-36.3	+0.3	+0.0	47.4	82.2	-34.8	Horiz
			+0.0	+0.0	+0.0	+0.0			High		125
			+0.0	+1.2	+19.8						

44	659.952M	50.9	+0.8	+0.0	+0.0	+0.0	+0.0	47.3	82.2	-34.9	Vert
			-28.3	+20.3	+1.7	+1.9			High		139
			+0.0	+0.0	+0.0						
45	105.440k	37.8	+0.0	+0.0	+0.0	+0.0	+0.0	47.3	82.2	-34.9	Perpe
			+0.0	+0.0	+0.0	+0.0			High		141
			+9.5	+0.0	+0.0						
46	879.946M	46.0	+0.9	+0.0	+0.0	+0.0	+0.0	46.5	82.2	-35.7	Horiz
			-27.5	+22.9	+2.0	+2.2			High		154
			+0.0	+0.0	+0.0						
47	1.109M	36.2	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	82.2	-36.2	Paral
			+0.0	+0.0	+0.0	+0.0			Low		141
			+9.8	+0.0	+0.0						
48	652.842M	49.3	+0.8	+0.0	+0.0	+0.0	+0.0	45.6	82.2	-36.6	Horiz
			-28.3	+20.3	+1.7	+1.8	360		Low		146
			+0.0	+0.0	+0.0						
49	1088.100M	59.7	+0.9	+0.0	-36.4	+0.3	+0.0	45.4	82.2	-36.8	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		119
			+0.0	+1.2	+19.7						
50	91.120M	61.3	+0.3	+0.0	+0.0	+0.0	+0.0	43.8	82.2	-38.4	Vert
			-28.0	+9.1	+0.6	+0.5			High		99
			+0.0	+0.0	+0.0						
51	870.450M	43.1	+0.9	+0.0	+0.0	+0.0	+0.0	43.5	82.2	-38.7	Horiz
			-27.5	+22.8	+2.0	+2.2			Low		99
			+0.0	+0.0	+0.0						
52	1400.075M	54.2	+1.1	+0.0	-35.3	+0.3	+0.0	42.7	82.2	-39.5	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		99
			+0.0	+1.4	+21.0						
53	870.428M	42.3	+0.9	+0.0	+0.0	+0.0	+0.0	42.7	82.2	-39.5	Vert
			-27.5	+22.8	+2.0	+2.2			Low		99
			+0.0	+0.0	+0.0						
54	249.990M	54.2	+0.5	+0.0	+0.0	+0.0	+0.0	42.1	82.2	-40.1	Horiz
			-27.1	+12.5	+1.0	+1.0	360		High		100
			+0.0	+0.0	+0.0						
55	1088.045M	56.2	+0.9	+0.0	-36.4	+0.3	+0.0	41.9	82.2	-40.3	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		140
			+0.0	+1.2	+19.7						
56	249.990M	53.7	+0.5	+0.0	+0.0	+0.0	+0.0	41.6	82.2	-40.6	Horiz
			-27.1	+12.5	+1.0	+1.0			Low		99
			+0.0	+0.0	+0.0						
57	692.846M	44.2	+0.8	+0.0	+0.0	+0.0	+0.0	40.9	82.2	-41.3	Vert
			-28.2	+20.5	+1.7	+1.9			Low		100
			+0.0	+0.0	+0.0						
58	693.110M	43.9	+0.8	+0.0	+0.0	+0.0	+0.0	40.6	82.2	-41.6	Vert
			-28.2	+20.5	+1.7	+1.9	360		High		99
			+0.0	+0.0	+0.0						
59	1399.975M	51.7	+1.1	+0.0	-35.3	+0.3	+0.0	40.2	82.2	-42.0	Vert
			+0.0	+0.0	+0.0	+0.0			Low		112
			+0.0	+1.4	+21.0						
60	2000.090M	44.3	+1.4	+0.0	-34.3	+0.4	+0.0	40.0	82.2	-42.2	Vert
			+0.0	+0.0	+0.0	+0.0			High		100
			+0.0	+1.7	+26.5						

61	23.630M	33.4	+0.1	+0.0	+0.0	+0.0	+0.0	40.0	82.2	-42.2	Paral
			+0.0	+0.0	+0.0	+0.0			High		141
			+6.3	+0.2	+0.0						
62	1399.900M	51.3	+1.1	+0.0	-35.3	+0.3	+0.0	39.8	82.2	-42.4	Horiz
			+0.0	+0.0	+0.0	+0.0	360		High		136
			+0.0	+1.4	+21.0						
63	61.200M	59.9	+0.2	+0.0	+0.0	+0.0	+0.0	39.7	82.2	-42.5	Vert
			-28.0	+6.7	+0.5	+0.4	5		Low		99
			+0.0	+0.0	+0.0						
64	1400.030M	50.8	+1.1	+0.0	-35.3	+0.3	+0.0	39.3	82.2	-42.9	Vert
			+0.0	+0.0	+0.0	+0.0			High		115
			+0.0	+1.4	+21.0						
65	2000.075M	43.6	+1.4	+0.0	-34.3	+0.4	+0.0	39.3	82.2	-42.9	Vert
			+0.0	+0.0	+0.0	+0.0			Low		102
			+0.0	+1.7	+26.5						
66	1424.975M	50.2	+1.1	+0.0	-35.2	+0.3	+0.0	38.9	82.2	-43.3	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		112
			+0.0	+1.4	+21.1						
67	28.803M	33.6	+0.2	+0.0	+0.0	+0.0	+0.0	38.7	82.2	-43.5	Perpe
			+0.0	+0.0	+0.0	+0.0			Low		141
			+4.7	+0.2	+0.0						
68	900.002M	37.7	+0.9	+0.0	+0.0	+0.0	+0.0	38.5	82.2	-43.7	Vert
			-27.4	+23.0	+2.0	+2.3			High		99
			+0.0	+0.0	+0.0						
69	154.840M	52.9	+0.4	+0.0	+0.0	+0.0	+0.0	38.5	82.2	-43.7	Vert
			-27.6	+11.2	+0.8	+0.8	322		Low		99
			+0.0	+0.0	+0.0						
70	564.776M	43.3	+0.7	+0.0	+0.0	+0.0	+0.0	38.4	82.2	-43.8	Horiz
			-28.3	+19.4	+1.6	+1.7	360		Low		126
			+0.0	+0.0	+0.0						
71	23.633M	31.8	+0.1	+0.0	+0.0	+0.0	+0.0	38.4	82.2	-43.8	Paral
			+0.0	+0.0	+0.0	+0.0	11		Low		141
			+6.3	+0.2	+0.0						
72	600.000M	42.7	+0.7	+0.0	+0.0	+0.0	+0.0	38.4	82.2	-43.8	Horiz
			-28.3	+20.0	+1.6	+1.7	2		High		126
			+0.0	+0.0	+0.0						
73	1000.020M	53.4	+0.9	+0.0	-36.8	+0.2	+0.0	38.2	82.2	-44.0	Horiz
			+0.0	+0.0	+0.0	+0.0			High		100
			+0.0	+1.2	+19.3						
74	90.120M	55.7	+0.3	+0.0	+0.0	+0.0	+0.0	38.1	82.2	-44.1	Vert
			-28.0	+9.0	+0.6	+0.5			Low		99
			+0.0	+0.0	+0.0						
75	2499.990M	41.6	+1.6	+0.0	-34.0	+0.5	+0.0	38.0	82.2	-44.2	Horiz
			+0.0	+0.0	+0.0	+0.0	145		Low		112
			+0.0	+1.9	+26.4						
76	600.010M	42.3	+0.7	+0.0	+0.0	+0.0	+0.0	38.0	82.2	-44.2	Horiz
			-28.3	+20.0	+1.6	+1.7			Low		131
			+0.0	+0.0	+0.0						
77	560.022M	42.9	+0.7	+0.0	+0.0	+0.0	+0.0	37.9	82.2	-44.3	Horiz
			-28.3	+19.3	+1.6	+1.7	360		High		123
			+0.0	+0.0	+0.0						

78	154.914M	52.3	+0.4	+0.0	+0.0	+0.0	+0.0	37.9	82.2	-44.3	Vert
			-27.6	+11.2	+0.8	+0.8			High		99
			+0.0	+0.0	+0.0						
79	88.560M	55.5	+0.3	+0.0	+0.0	+0.0	+0.0	37.7	82.2	-44.5	Horiz
			-28.0	+8.8	+0.6	+0.5			High		275
			+0.0	+0.0	+0.0						
80	2000.420M	41.8	+1.4	+0.0	-34.3	+0.4	+0.0	37.5	82.2	-44.7	Horiz
			+0.0	+0.0	+0.0	+0.0	360		High		129
			+0.0	+1.7	+26.5						
81	2399.995M	41.2	+1.5	+0.0	-34.0	+0.5	+0.0	37.5	82.2	-44.7	Horiz
			+0.0	+0.0	+0.0	+0.0			High		129
			+0.0	+1.9	+26.4						
82	900.002M	36.7	+0.9	+0.0	+0.0	+0.0	+0.0	37.5	82.2	-44.7	Horiz
			-27.4	+23.0	+2.0	+2.3	359		Low		99
			+0.0	+0.0	+0.0						
83	1999.990M	41.8	+1.4	+0.0	-34.3	+0.4	+0.0	37.5	82.2	-44.7	Horiz
			+0.0	+0.0	+0.0	+0.0	350		Low		112
			+0.0	+1.7	+26.5						
84	900.012M	36.6	+0.9	+0.0	+0.0	+0.0	+0.0	37.4	82.2	-44.8	Horiz
			-27.4	+23.0	+2.0	+2.3	360		High		99
			+0.0	+0.0	+0.0						
85	94.850M	54.3	+0.3	+0.0	+0.0	+0.0	+0.0	37.3	82.2	-44.9	Horiz
			-27.9	+9.5	+0.6	+0.5	360		Low		245
			+0.0	+0.0	+0.0						
86	799.998M	37.8	+0.8	+0.0	+0.0	+0.0	+0.0	37.1	82.2	-45.1	Horiz
			-27.9	+22.4	+1.9	+2.1	360		Low		99
			+0.0	+0.0	+0.0						
87	1599.985M	46.4	+1.2	+0.0	-34.9	+0.3	+0.0	37.0	82.2	-45.2	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		100
			+0.0	+1.5	+22.5						
88	1199.805M	50.1	+1.0	+0.0	-35.9	+0.3	+0.0	37.0	82.2	-45.2	Vert
			+0.0	+0.0	+0.0	+0.0			High		124
			+0.0	+1.3	+20.2						
89	1000.005M	52.1	+0.9	+0.0	-36.8	+0.2	+0.0	36.9	82.2	-45.3	Vert
			+0.0	+0.0	+0.0	+0.0	360		High		142
			+0.0	+1.2	+19.3						
90	900.016M	36.0	+0.9	+0.0	+0.0	+0.0	+0.0	36.8	82.2	-45.4	Vert
			-27.4	+23.0	+2.0	+2.3	360		Low		99
			+0.0	+0.0	+0.0						
91	1000.005M	52.0	+0.9	+0.0	-36.8	+0.2	+0.0	36.8	82.2	-45.4	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		138
			+0.0	+1.2	+19.3						
92	1425.005M	48.1	+1.1	+0.0	-35.2	+0.3	+0.0	36.8	82.2	-45.4	Horiz
			+0.0	+0.0	+0.0	+0.0	360		High		99
			+0.0	+1.4	+21.1						
93	2499.975M	40.1	+1.6	+0.0	-34.0	+0.5	+0.0	36.5	82.2	-45.7	Vert
			+0.0	+0.0	+0.0	+0.0	316		Low		102
			+0.0	+1.9	+26.4						
94	1799.895M	43.2	+1.3	+0.0	-34.6	+0.3	+0.0	36.4	82.2	-45.8	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		103
			+0.0	+1.6	+24.6						

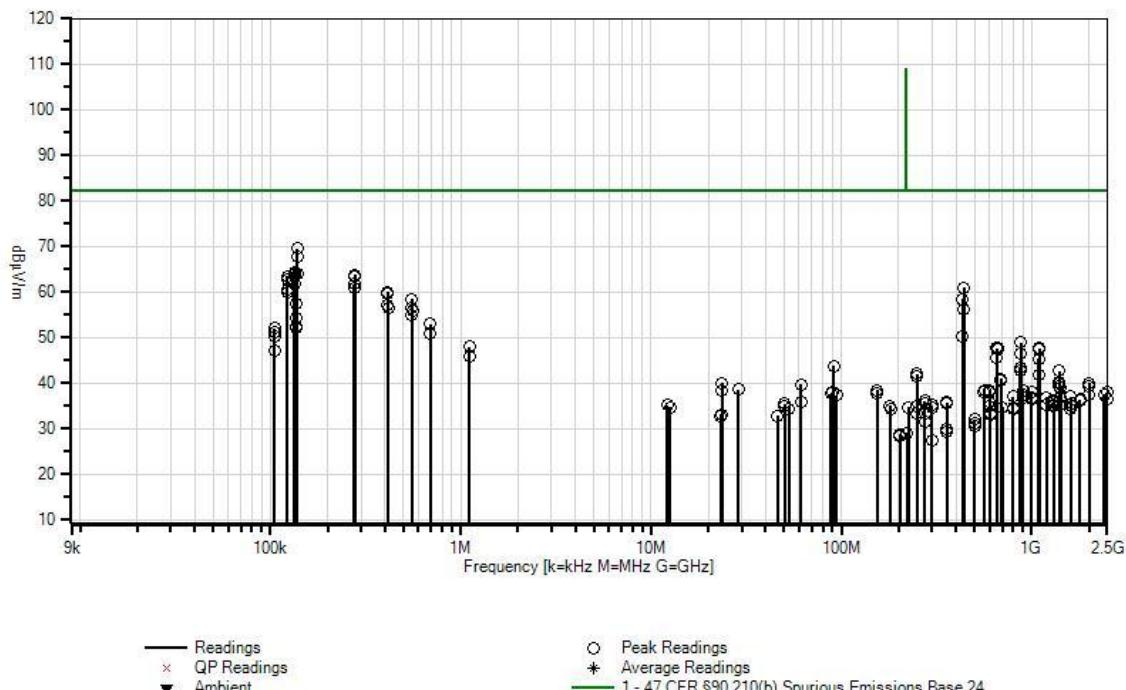
95	1000.045M	51.6	+0.9	+0.0	-36.8	+0.2	+0.0	36.4	82.2	-45.8	Vert
			+0.0	+0.0	+0.0	+0.0			Low		98
			+0.0	+1.2	+19.3						
96	1300.030M	48.4	+1.0	+0.0	-35.5	+0.3	+0.0	36.2	82.2	-46.0	Vert
			+0.0	+0.0	+0.0	+0.0			High		99
			+0.0	+1.3	+20.7						
97	275.000M	47.6	+0.5	+0.0	+0.0	+0.0	+0.0	36.2	82.2	-46.0	Horiz
			-27.1	+13.0	+1.1	+1.1	360		Low		126
			+0.0	+0.0	+0.0						
98	1799.930M	42.9	+1.3	+0.0	-34.6	+0.3	+0.0	36.1	82.2	-46.1	Vert
			+0.0	+0.0	+0.0	+0.0	360		High		100
			+0.0	+1.6	+24.6						
99	1300.155M	48.2	+1.0	+0.0	-35.5	+0.3	+0.0	36.0	82.2	-46.2	Vert
			+0.0	+0.0	+0.0	+0.0	360		Low		101
			+0.0	+1.3	+20.7						
100	61.515M	56.1	+0.2	+0.0	+0.0	+0.0	+0.0	35.9	82.2	-46.3	Vert
			-28.0	+6.7	+0.5	+0.4			High		99
			+0.0	+0.0	+0.0						
101	599.992M	40.2	+0.7	+0.0	+0.0	+0.0	+0.0	35.9	82.2	-46.3	Vert
			-28.3	+20.0	+1.6	+1.7	360		High		100
			+0.0	+0.0	+0.0						
102	357.582M	45.1	+0.6	+0.0	+0.0	+0.0	+0.0	35.9	82.2	-46.3	Horiz
			-27.5	+15.2	+1.2	+1.3			Low		114
			+0.0	+0.0	+0.0						
103	358.900M	44.7	+0.6	+0.0	+0.0	+0.0	+0.0	35.5	82.2	-46.7	Horiz
			-27.5	+15.2	+1.2	+1.3	15		High		99
			+0.0	+0.0	+0.0						
104	50.520M	54.1	+0.2	+0.0	+0.0	+0.0	+0.0	35.5	82.2	-46.7	Horiz
			-28.0	+8.5	+0.4	+0.3			High		275
			+0.0	+0.0	+0.0						
105	275.010M	46.9	+0.5	+0.0	+0.0	+0.0	+0.0	35.5	82.2	-46.7	Horiz
			-27.1	+13.0	+1.1	+1.1			High		99
			+0.0	+0.0	+0.0						
106	1624.935M	44.4	+1.2	+0.0	-34.9	+0.3	+0.0	35.4	82.2	-46.8	Vert
			+0.0	+0.0	+0.0	+0.0			High		100
			+0.0	+1.6	+22.8						
107	1425.075M	46.7	+1.1	+0.0	-35.2	+0.3	+0.0	35.4	82.2	-46.8	Horiz
			+0.0	+0.0	+0.0	+0.0			Low		99
			+0.0	+1.4	+21.1						
108	1600.030M	44.8	+1.2	+0.0	-34.9	+0.3	+0.0	35.4	82.2	-46.8	Vert
			+0.0	+0.0	+0.0	+0.0	360		High		100
			+0.0	+1.5	+22.5						
109	1199.980M	48.5	+1.0	+0.0	-35.9	+0.3	+0.0	35.4	82.2	-46.8	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		99
			+0.0	+1.3	+20.2						
110	1200.045M	48.4	+1.0	+0.0	-35.9	+0.3	+0.0	35.3	82.2	-46.9	Vert
			+0.0	+0.0	+0.0	+0.0			Low		101
			+0.0	+1.3	+20.2						
111	1299.980M	47.5	+1.0	+0.0	-35.5	+0.3	+0.0	35.3	82.2	-46.9	Horiz
			+0.0	+0.0	+0.0	+0.0			Low		99
			+0.0	+1.3	+20.7						

112	1199.990M	48.3	+1.0	+0.0	-35.9	+0.3	+0.0	35.2	82.2	-47.0	Horiz
			+0.0	+0.0	+0.0	+0.0	360		High		99
			+0.0	+1.3	+20.2						
113	12.131M	25.3	+0.1	+0.0	+0.0	+0.0	+0.0	35.1	82.2	-47.1	Perpe
			+0.0	+0.0	+0.0	+0.0	5		Low		141
			+9.6	+0.1	+0.0						
114	299.990M	46.0	+0.5	+0.0	+0.0	+0.0	+0.0	35.1	82.2	-47.1	Horiz
			-27.1	+13.5	+1.1	+1.1	360		Low		100
			+0.0	+0.0	+0.0						
115	1625.075M	44.1	+1.2	+0.0	-34.9	+0.3	+0.0	35.1	82.2	-47.1	Vert
			+0.0	+0.0	+0.0	+0.0	153		Low		100
			+0.0	+1.6	+22.8						
116	180.600M	51.4	+0.4	+0.0	+0.0	+0.0	+0.0	35.1	82.2	-47.1	Horiz
			-27.4	+9.1	+0.8	+0.8			Low		147
			+0.0	+0.0	+0.0						
117	50.500M	53.6	+0.2	+0.0	+0.0	+0.0	+0.0	35.0	82.2	-47.2	Horiz
			-28.0	+8.5	+0.4	+0.3			Low		245
			+0.0	+0.0	+0.0						
118	250.008M	47.1	+0.5	+0.0	+0.0	+0.0	+0.0	35.0	82.2	-47.2	Vert
			-27.1	+12.5	+1.0	+1.0			Low		151
			+0.0	+0.0	+0.0						
119	1299.945M	47.0	+1.0	+0.0	-35.5	+0.3	+0.0	34.8	82.2	-47.4	Horiz
			+0.0	+0.0	+0.0	+0.0			High		126
			+0.0	+1.3	+20.7						
120	600.000M	39.1	+0.7	+0.0	+0.0	+0.0	+0.0	34.8	82.2	-47.4	Vert
			-28.3	+20.0	+1.6	+1.7			Low		100
			+0.0	+0.0	+0.0						
121	225.000M	48.9	+0.4	+0.0	+0.0	+0.0	+0.0	34.8	82.2	-47.4	Horiz
			-27.2	+10.8	+0.9	+1.0			High		134
			+0.0	+0.0	+0.0						
122	300.004M	45.6	+0.5	+0.0	+0.0	+0.0	+0.0	34.7	82.2	-47.5	Horiz
			-27.1	+13.5	+1.1	+1.1	360		High		101
			+0.0	+0.0	+0.0						
123	12.551M	24.9	+0.1	+0.0	+0.0	+0.0	+0.0	34.7	82.2	-47.5	Perpe
			+0.0	+0.0	+0.0	+0.0	3		High		141
			+9.6	+0.1	+0.0						
124	700.004M	38.0	+0.8	+0.0	+0.0	+0.0	+0.0	34.7	82.2	-47.5	Horiz
			-28.2	+20.5	+1.7	+1.9	360		High		99
			+0.0	+0.0	+0.0						
125	800.014M	35.3	+0.8	+0.0	+0.0	+0.0	+0.0	34.6	82.2	-47.6	Vert
			-27.9	+22.4	+1.9	+2.1			High		99
			+0.0	+0.0	+0.0						
126	699.996M	37.9	+0.8	+0.0	+0.0	+0.0	+0.0	34.6	82.2	-47.6	Horiz
			-28.2	+20.5	+1.7	+1.9			Low		99
			+0.0	+0.0	+0.0						
127	225.000M	48.6	+0.4	+0.0	+0.0	+0.0	+0.0	34.5	82.2	-47.7	Horiz
			-27.2	+10.8	+0.9	+1.0			Low		99
			+0.0	+0.0	+0.0						
128	53.280M	53.6	+0.2	+0.0	+0.0	+0.0	+0.0	34.4	82.2	-47.8	Vert
			-28.0	+7.9	+0.4	+0.3			Low		99
			+0.0	+0.0	+0.0						

129	800.000M	35.1	+0.8	+0.0	+0.0	+0.0	+0.0	34.4	82.2	-47.8	Horiz
			-27.9	+22.4	+1.9	+2.1			High		177
			+0.0	+0.0	+0.0						
130	1599.725M	43.7	+1.2	+0.0	-34.9	+0.3	+0.0	34.3	82.2	-47.9	Horiz
			+0.0	+0.0	+0.0	+0.0	71		High		115
			+0.0	+1.5	+22.5						
131	1599.855M	43.6	+1.2	+0.0	-34.9	+0.3	+0.0	34.2	82.2	-48.0	Horiz
			+0.0	+0.0	+0.0	+0.0	360		Low		99
			+0.0	+1.5	+22.5						
132	181.440M	50.5	+0.4	+0.0	+0.0	+0.0	+0.0	34.2	82.2	-48.0	Horiz
			-27.4	+9.1	+0.8	+0.8	67		High		134
			+0.0	+0.0	+0.0						
133	800.012M	34.9	+0.8	+0.0	+0.0	+0.0	+0.0	34.2	82.2	-48.0	Vert
			-27.9	+22.4	+1.9	+2.1	360		Low		140
			+0.0	+0.0	+0.0						
134	249.990M	45.6	+0.5	+0.0	+0.0	+0.0	+0.0	33.5	82.2	-48.7	Vert
			-27.1	+12.5	+1.0	+1.0	360		High		99
			+0.0	+0.0	+0.0						
135	607.982M	37.7	+0.7	+0.0	+0.0	+0.0	+0.0	33.5	82.2	-48.7	Horiz
			-28.3	+20.0	+1.6	+1.8	360		High		125
			+0.0	+0.0	+0.0						
136	275.024M	44.7	+0.5	+0.0	+0.0	+0.0	+0.0	33.3	82.2	-48.9	Vert
			-27.1	+13.0	+1.1	+1.1	360		Low		99
			+0.0	+0.0	+0.0						
137	23.510M	26.5	+0.1	+0.0	+0.0	+0.0	+0.0	33.2	82.2	-49.0	Perpe
			+0.0	+0.0	+0.0	+0.0	360		High		141
			+6.4	+0.2	+0.0						
138	608.010M	37.3	+0.7	+0.0	+0.0	+0.0	+0.0	33.1	82.2	-49.1	Horiz
			-28.3	+20.0	+1.6	+1.8			Low		131
			+0.0	+0.0	+0.0						
139	23.278M	26.1	+0.1	+0.0	+0.0	+0.0	+0.0	32.8	82.2	-49.4	Perpe
			+0.0	+0.0	+0.0	+0.0	360		Low		141
			+6.4	+0.2	+0.0						
140	46.050M	48.9	+0.2	+0.0	+0.0	+0.0	+0.0	32.8	82.2	-49.4	Horiz
			-28.0	+11.0	+0.4	+0.3			Low		245
			+0.0	+0.0	+0.0						
141	500.006M	38.3	+0.7	+0.0	+0.0	+0.0	+0.0	32.0	82.2	-50.2	Vert
			-28.2	+18.2	+1.4	+1.6			High		178
			+0.0	+0.0	+0.0						
142	275.010M	42.8	+0.5	+0.0	+0.0	+0.0	+0.0	31.4	82.2	-50.8	Vert
			-27.1	+13.0	+1.1	+1.1			High		99
			+0.0	+0.0	+0.0						
143	500.022M	37.6	+0.7	+0.0	+0.0	+0.0	+0.0	31.3	82.2	-50.9	Vert
			-28.2	+18.2	+1.4	+1.6	326		Low		100
			+0.0	+0.0	+0.0						
144	499.995M	36.9	+0.7	+0.0	+0.0	+0.0	+0.0	30.6	82.2	-51.6	Horiz
			-28.2	+18.2	+1.4	+1.6			Low		117
			+0.0	+0.0	+0.0						
145	499.992M	36.8	+0.7	+0.0	+0.0	+0.0	+0.0	30.5	82.2	-51.7	Horiz
			-28.2	+18.2	+1.4	+1.6			High		113
			+0.0	+0.0	+0.0						

146	359.560M	39.1	+0.6	+0.0	+0.0	+0.0	+0.0	30.0	82.2	-52.2	Vert
			-27.5	+15.3	+1.2	+1.3			High		125
			+0.0	+0.0	+0.0						
147	359.740M	38.5	+0.6	+0.0	+0.0	+0.0	+0.0	29.4	82.2	-52.8	Vert
			-27.5	+15.3	+1.2	+1.3	360		Low		109
			+0.0	+0.0	+0.0						
148	221.170M	43.5	+0.4	+0.0	+0.0	+0.0	+0.0	29.0	82.2	-53.2	Vert
			-27.2	+10.5	+0.9	+0.9	360		Low		133
			+0.0	+0.0	+0.0						
149	203.760M	44.7	+0.4	+0.0	+0.0	+0.0	+0.0	28.8	82.2	-53.4	Horiz
			-27.3	+9.2	+0.9	+0.9			High		134
			+0.0	+0.0	+0.0						
150	203.770M	44.2	+0.4	+0.0	+0.0	+0.0	+0.0	28.3	82.2	-53.9	Horiz
			-27.3	+9.2	+0.9	+0.9			Low		147
			+0.0	+0.0	+0.0						
151	300.010M	38.3	+0.5	+0.0	+0.0	+0.0	+0.0	27.4	82.2	-54.8	Vert
			-27.1	+13.5	+1.1	+1.1			Low		141
			+0.0	+0.0	+0.0						

CKC Laboratories, Inc. Date: 3/14/2013 Time: 15:14:12 Meteorcomm LLC WO#: 94195
 Test Distance: 3 Meters Sequence#: 34 Parallel
 Meteorcomm LLC. Base 48V P/N: 63030-48



Test Setup Photos



SUPPLEMENTAL INFORMATION

Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

The reported measurement uncertainties are calculated based on the worst case of all laboratory environments from CKC Laboratories, Inc. test sites. Only those parameters which require estimation of measurement uncertainty are reported. The reported worst case measurement uncertainty is less than the maximum values derived in CISPR 16-4-2. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k=2$. Compliance is deemed to occur provided measurements are below the specified limits.

Emissions Test Details

TESTING PARAMETERS

Unless otherwise indicated, the following configuration parameters are used for equipment setup: The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in $\text{dB}\mu\text{V}/\text{m}$, the spectrum analyzer reading in $\text{dB}\mu\text{V}$ was corrected by using the following formula. This reading was then compared to the applicable specification limit.

SAMPLE CALCULATIONS	
Meter reading	(dB μ V)
+ Antenna Factor	(dB)
+ Cable Loss	(dB)
- Distance Correction	(dB)
- Preamplifier Gain	(dB)
= Corrected Reading	(dB μ V/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. Unless otherwise specified, the following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "positive peak" detector mode. Whenever a "quasi-peak" or "average" reading was recorded, the measurement was annotated with a "QP" or an "Ave" on the appropriate rows of the data sheets. In cases where quasi-peak or average limits were employed and data exists for multiple measurement types for the same frequency then the peak measurement was retained in the report for reference, however the numbering for the affected row was removed and an arrow or carrot ("") was placed in the far left-hand column indicating that the row above takes precedence for comparison to the limit. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the spectrum analyzer or receiver recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature called "peak hold," the measurement device had the ability to measure intermittent or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

Quasi-peak measurements were taken using the quasi-peak detector when the true peak values exceeded or were within 2 dB of a quasi-peak specification limit. Additional QP measurements may have been taken at the discretion of the operator.

Average

Average measurements were taken using the average detector when the true peak values exceeded or were within 2 dB of an average specification limit. Additional average measurements may have been taken at the discretion of the operator. If the specification or test procedure requires trace averaging, then the averaging was performed using 100 samples or as required by the specification. All other average measurements are performed using video bandwidth averaging. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point the measuring device is set into the linear mode and the scan time is reduced.