### FCC PART 15, SUBPART B and C TEST REPORT

for

# FLOW METER TRANSMITTER PART NUMBER: 12530501

Prepared for GREAT PLAINS INDUSTRIES, INC. 5252 EAST 36<sup>TH</sup> STREET NORTH WICHITA, KANSAS 67220-3205

Prepared by:

JAMES ROSS

Approved by:

**BENIGNO CHAVEZ** 

COMPATIBLE ELECTRONICS INC. 114 OLINDA DRIVE BREA, CALIFORNIA 92823 (714) 579-0500

DATE: SEPTEMBER 7, 2005

	REPORT	APPENDICES			TOTAL		
	BODY	A	В	С	D	E	
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## Part Number: 12530501

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1	Plot Map And Layout of 3 Meter Radiated Test Site



### GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested: Flow Meter Transmitter

P/N: 12530501 S/N: N/A

Product Description: See Expository Statement

Modifications: The EUT was not modified in order to meet the specifications.

Manufacturer: Great Plains Industries, Inc.

5252 East 36<sup>th</sup> Street North Wichita, Kansas 67220-3205

Test Dates: August 29, 30, and 31, 2005

Test Specifications: EMI requirements

CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209 and 15.249

Test Procedure: ANSI C63.4

Test Deviations: The test procedure was not deviated from during the testing.

### SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz - 30 MHz	This test was not performed because the EUT operates on battery power only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions, 10 kHz – 9.214 GHz	Complies with the <b>Class B</b> limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

FCC Part 15 Subpart B and FCC Section 15.249 Test Report

Flow Meter Transmitter

Part Number: 12530501

### 1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Flow Meter Transmitter P/N: 12530501. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

### 2. ADMINISTRATIVE DATA

### 2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

### 2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

### 2.3 Cognizant Personnel

Great Plains Industries, Inc.

Jeff Williams Project Engineer

Compatible Electronics, Inc.

Benigno Chavez Test Engineer James Ross Test Engineer Michael Christensen Lab Manager

### 2.4 Date Test Sample was Received

The test sample was received prior to the initial test date of August 29, 2005.

### 2.5 Disposition of the Test Sample

The sample has not yet been returned to Great Plains Industries, Inc. as of the date of this report.

### 2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF Radio Frequency
EMI Electromagnetic Interference
EUT Equipment Under Test

P/N Part Number S/N Serial Number HP Hewlett Packard

ITE Information Technology Equipment

CML Corrected Meter Limit

LISN Line Impedance Stabilization Network

TX Transmit RX Receive

PCB Printed Circuit Board GPI Great Plains Industries

### 3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4 2003	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz



Part Number: 12530501

### 4. DESCRIPTION OF TEST CONFIGURATION

### 4.1 Description Of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

The Flow Meter Transmitter P/N: 12530501 (EUT) was tested as a stand-alone device. The EUT was tested while it was continuously transmitting and in three orthogonal axis. The EUT has an antenna that is soldered to its PCB.

The final radiated data was taken in the mode above. Please see Appendix E for the data sheets.

Part Number: 12530501

### 4.1.1 Cable Construction and Termination

The EUT has no external cables.



FCC Part 15 Subpart B and FCC Section 15.249 Test Report

Flow Meter Transmitter Part Number: 12530501

### 5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

### 5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	PART NUMBER	SERIAL NUMBER	FCC ID
FLOW METER TRANSMITTER (EUT)	GREAT PLAINS INDUSTRIES, INC.	12530501	N/A	TKF125305

FCC Part 15 Subpart B and FCC Section 15.249 Test Report

Flow Meter Transmitter

Part Number: 12530501

### 5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU- FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Radiate Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	June 10, 2005	1 Year
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22279	June 10, 2005	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	June 11, 2005	1 Year
EMI Receiver	Rohde & Schwarz	ESIB40	100172	October 28, 2004	1 Year
Preamplifier	Com-Power	PA-103	1582	February 3, 2005	1 Year
Microwave Preamplifier	Com-Power	PA-122	181917	March 3, 2005	1 Year
Microwave Preamplifier	Com-Power	PA-122	25195	February 25, 2005	1 Year
Loop Antenna	Com-Power	AL-130	17070	July 28, 2005	1 Year
Biconical Antenna	Com Power	AB-900	15250	March 11, 2005	1 Year
Log Periodic Antenna	Com Power	AL-100	16247	August 22, 2005	1 Year
Horn Antenna	Com-Power	AH-118	10073	July 27, 2004	2 Year
Horn Antenna	Antenna Research	DRG-118/A	1053	January 16, 2004	2 Year
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
Antenna Mast	EMCO	2090	9609-1176	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
Computer	Hewlett Packard	D5251A 888	US74458128	N/A	N/A
Monitor	Hewlett Packard	D5258A	DK74889705	N/A	N/A

Part Number: 12530501

FCC Part 15 Subpart B and FCC Section 15.249 Test Report

Flow Meter Transmitter

### 6. TEST SITE DESCRIPTION

### **6.1** Test Facility Description

Please refer to section 2.1 and 7.1 of this report for EMI test location.

### 6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT is battery and was not grounded.

Part Number: 12530501

FCC Part 15 Subpart B and FCC Section 15.249 Test Report
Flow Meter Transmitter

### 7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

### 7.1 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com-Power Active Loop Antenna Model: AL-130 was used for frequencies from 9 kHz to 30 MHz, the Com-Power Preamplifier Model: PA-103 was used for frequencies from 30 MHz to 1 GHz, and the Com-Power Microwave Preamplifier Model: PA-122 was used for frequencies from 1 GHz to 18 GHz. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 9.214 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results. The loop antenna was also rotated in the horizontal and vertical axis in order to ensure accurate results.

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance to obtain final test data. The final qualification data sheets are located in Appendix E.

FCC Part 15 Subpart B and FCC Section 15.249 Test Report

Flow Meter Transmitter

Part Number: 12530501

### 8. CONCLUSIONS

The Flow Meter Transmitter P/N: 12530501 meets all of the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.



Part Number: 12530501

APPENDIX A

LABORATORY RECOGNITIONS

## LABORATORY RECOGNITIONS

### Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200528-0

Voluntary Control Council for Interference - Registration Numbers: R-983, C-1026, R-984 and C-1027

Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Conformity Assessment Body for the EMC Directive Under the US/EU MRA Appointed by NIST

### Compatible Electronics is recognized or on file with the following agencies:

**Federal Communications Commission** 

**Industry Canada** 

Radio-Frequency Technologies (Competent Body)

Part Number: 12530501



### APPENDIX B

## **MODIFICATIONS TO THE EUT**

## MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.249 or FCC Class B specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made to the EUT during testing.





### **APPENDIX C**

## ADDITIONAL MODELS COVERED UNDER THIS REPORT



# ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Flow Meter Transmitter

P/N: 12530501 S/N: N/A

There are no additional models covered under this report.

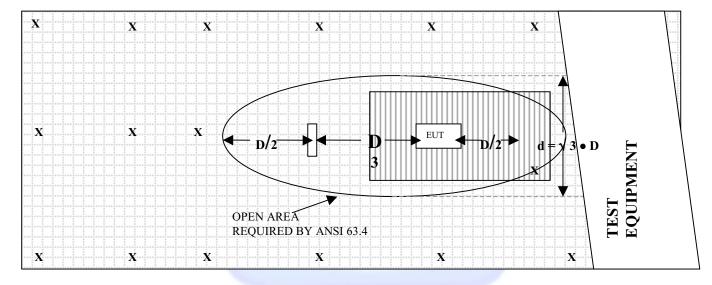


### APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

## FIGURE 1: PLOT MAP AND LAYOUT OF 3 METER RADIATED TEST SITE

### **OPEN LAND > 15 METERS**



### **OPEN LAND > 15 METERS**

**OPEN LAND > 15 METERS** 

X = GROUND RODS = GROUND SCREEN

**D** = TEST DISTANCE (meters) = WOOD COVER

## **COM-POWER AL-130**

## **LOOP ANTENNA**

S/N: 17070

CALIBRATION DATE: JULY 28, 2005

	T	_
FREQUENCY	MAGNETIC	ELECTRIC
(MHz)	(dB/m)	(dB/m)
0.009	-43.3	8.16
0.01	-44.1	7.41
0.02	-44.0	7.54
0.05	-42.7	8.8
0.07	-42.0	9.53
0.1	-41.7	9.84
0.2	-43.6	7.87
0.3	-40.9	10.6
0.5	-41.0	10.7
0.7	-40.5	10.97
1	-40.5	11.04
2	-40.5	11.03
3	-40.6	10.9
4	-42.9	8.63
5	-44.3	7.23
10	-53.7	-2.17
15	-62.6	-11.14
20	-58.9	-7.43
25	-51.5	-0.03
30	-63.1	-11.6

## **COM-POWER AB-900**

## **BICONICAL ANTENNA**

S/N: 15250

CALIBRATION DATE: MARCH 11, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	10.90	120	13.10
35	10.90	125	12.40
40	10.90	140	11.90
45	10.30	150	11.80
50	11.40	160	13.30
60	10.40	175	15.40
70	7.40	180	14.60
80	6.20	200	15.70
90	8.20	250	16.50
100	10.10	300	19.20



## **COM-POWER AL-100**

## LOG PERIODIC ANTENNA

S/N: 16247

CALIBRATION DATE: AUGUST 22, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.70	700	19.72
400	13.19	800	20.59
500	14.99	900	21.10
600	15.95	1000	24.35



## **COM-POWER AH-118**

## HORN ANTENNA

S/N: 10073

CALIBRATION DATE: JULY 27, 2004

FREQUENCY (GHz)	FACTOR	FREQUENCY (GHz)	FACTOR
	(dB)		(dB)
1.0	25.3	10.0	39.8
1.5	28.3	10.5	38.6
2.0	31.5	11.0	38.5
2.5	31.2	11.5	40.4
3.0	30.4	12.0	42.0
3.5	30.5	12.5	41.7
4.0	30.9	13.0	41.9
4.5	32.0	13.5	43.7
5.0	34.1	14.0	45.5
5.5	33.7	14.5	45.8
6.0	34.2	15.0	40.5
6.5	35.1	15.5	41.8
7.0	37.1	16.0	41.5
7.5	40.4	16.5	40.2
8.0	39.8	17.0	43.3
8.5	38.4	17.5	46.6
9.0	37.5	18.0	47.1
9.5	42.4		



## ANTENNA RESEARCH DRG-118/A

## HORN ANTENNA

S/N: 1053

CALIBRATION DATE: JANUARY 16, 2004

FREQUENCY	FACTOR	FREQUENCY	FACTOR	
(GHz)	(dB)	(GHz)	(dB)	
1.0	24.4	10.0	38.7	
1.5	25.2	10.5	39.0	
2.0	28.2	11.0	38.9	
2.5	28.5	11.5	41.3	
3.0	30.1	12.0	40.5	
3.5	31.0	12.5	40.0	
4.0	31.2	13.0	40.2	
4.5	31.9	13.5	40.5	
5.0	33.2	14.0	41.6	
5.5	33.7	14.5	44.8	
6.0	34.3	15.0	41.4	
6.5	35.0	15.5	39.2	
7.0	36.7	16.0	39.4	
7.5	37.3	16.5	40.9	
8.0	37.1	17.0	42.6	
8.5	37.3	17.5	45.1	
9.0	37.7	18.0	41.7	
9.5	38.6			

## **COM-POWER PA-103**

## **PREAMPLIFIER**

S/N: 1582

## CALIBRATION DATE: FEBRUARY 3, 2005

EDECHENCY	E. CEOD	EA CEOD	
FREQUENCY	FACTOR	FREQUENCY	FACTOR
(MHz)	(dB)	(MHz)	(dB)
30	33.2	300	33.0
40	33.0	350	32.8
50	33.1	400	32.8
60	33.0	450	32.8
70	33.2	500	32.5
80	33.2	550	32.5
90	33.1	600	32.4
100	33.2	650	32.4
125	33.1	700	32.3
150	33.0	750	32.2
175	33.0	800	32.2
200	33.0	850	32.4
225	33.0	900	31.8
250	33.0	950	32.3
275	32.9	1000	32.0



## **COM-POWER PA-122**

## MICROWAVE PREAMPLIFIER

S/N: 181917

CALIBRATION DATE: MARCH 3, 2005

	,	Ţ.		
FREQUENCY	FACTOR	FREQUENCY	FACTOR	
(GHz)	(dB)	(GHz)	(dB)	
1.0	34.780	6.0	35.568	
1.1	34.443	6.5	34.984	
1.2	33.921	7.0	33.916	
1.3	33.862	7.5	33.463	
1.4	33.646	8.0	33.932	
1.5	33.784	8.5	34.828	
1.6	33.892	9.0	36.153	
1.7	33.886	9.5	36.797	
1.8	33.921	10.0	36.822	
1.9	33.943	11.0	33.815	
2.0	34.076	12.0	33.359	
2.5	34.232	13.0	33.733	
3.0	34.464	14.0	34.559	
3.5	34.613	15.0	34.807	
4.0	34.929	16.0	34.631	
4.5	35.164	17.0	34.121	
5.0	35.321	18.0	33.375	
5.5	35.366	19.0	33.122	



## **COM-POWER PA-122**

## MICROWAVE PREAMPLIFIER

S/N: 25195

CALIBRATION DATE: FEBRUARY 25, 2005

FREQUENCY	FACTOR	FREQUENCY	FACTOR	
(GHz)	(dB)	(GHz)	(dB)	
1.0	31.45	6.0	31.35	
1.1	31.34	6.5	31.10	
1.2	31.29	7.0	30.54	
1.3	31.28	7.5	29.72	
1.4	31.25	8.0	29.22	
1.5	31.21	8.5	28.75	
1.6	31.14	9.0	28.67	
1.7	31.07	9.5	29.14	
1.8	31.12	10.0	30.12	
1.9	31.04	11.0	29.30	
2.0	31.20	12.0	29.86	
2.5	31.56	13.0	30.57	
3.0	32.17	14.0	29.90	
3.5	32.56	15.0	30.14	
4.0	32.51	16.0	31.13	
4.5	32.52	17.0	29.97	
5.0	32.33	18.0	28.77	
5.5	31.60			



### FRONT VIEW - LAB B

GREAT PLAINS INDUSTRIES, INC. FLOW METER TRANSMITTER P/N: 12530501

FCC SUBPART B AND C - FUNDAMENTAL AND HARMONICS - 08-29-05



#### **REAR VIEW - LAB B**

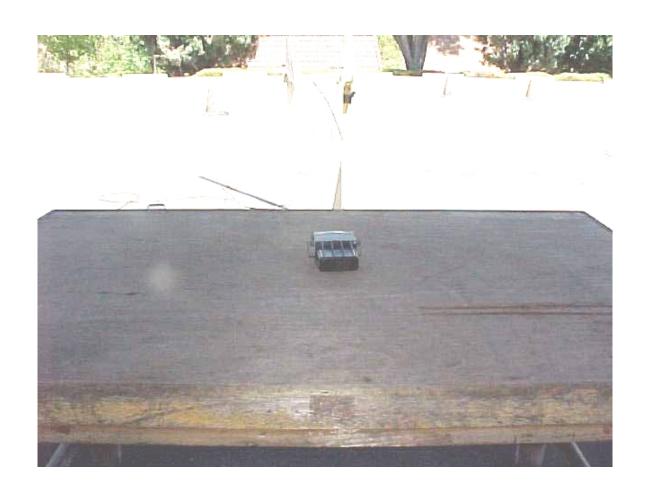
GREAT PLAINS INDUSTRIES, INC.
FLOW METER TRANSMITTER
P/N: 12530501

FCC SUBPART B AND C - FUNDAMENTAL AND HARMONICS - 08-29-05



### FRONT VIEW - LAB A

GREAT PLAINS INDUSTRIES, INC.
FLOW METER TRANSMITTER
P/N: 12530501
FCC SUBPART B AND C - RADIATED EMISSIONS – 08-30-05



### **REAR VIEW - LAB A**

GREAT PLAINS INDUSTRIES, INC.
FLOW METER TRANSMITTER
P/N: 12530501
FCC SUBPART B AND C - RADIATED EMISSIONS – 08-30-05



Report Number: **B50831A1 FCC Part 15 Subpart B** and **FCC Section 15.249** Test Report

Flow Meter Transmitter Part Number: 12530501

**APPENDIX E** 

**DATA SHEETS** 



### FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: A

Part #: 12530501 Tested By: James Ross

S/N: N/A

Configuration -- Continuous Transmit Mode

#### **Fundamental**

					Peak /	Ant.	Table	
Freq.	Level				QP/	Height	Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
903.4	84.82	V	114	-29.18	Peak	1.3	0	X - AXIS
903.4		V	94	-9.18	QP			
903.4	90.32	Н	114	-23.68	Peak	1	270	X - AXIS
903.4		Н	94	-3.68	QP			
903.4	90.02	V	114	-23.98	Peak	1	90	Y - AXIS
903.4		V	94	-3.98	QP			
903.4	85.42	Н	114	-28.58	Peak	1	90	Y - AXIS
903.4		Н	94	-8.58	QP			
903.4	84.32	V	114	-29.68	Peak	1.2	0	Z - AXIS
903.4		V	94	-9.68	QP			
903.4	89.02	Н	114	-24.98	Peak	1	90	Z - AXIS
903.4		Н	94	-4.98	QP			



## FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1806.8	49.75	V	74	-24.25	Peak	1.14	345	X - Axis
1806.8		V	54	-4.25	Avg			
2710.2	47.35	V	74	-26.65	Peak	2.22	270	X - Axis
2710.2	47.55	V	54	-6.65	Avg	2.22	210	A - Axis
3613.6	46.73	V	74	-27.27	Peak	1.4	185	X - Axis
3613.6		V	54	-7.27	Avg			
4517	44.28	V	74	-29.72	Peak	2.82	270	X - Axis
4517		V	54	-9.72	Avg			
5420.4		V	74	-74	Peak			No Emissions
5420.4		V	54	-54	Avg			
6323.8		V	74	-74	Peak			No Emissions
6323.8		V	54	-54	Avg			
7227.2		\ /	74	-74	Deel			No Estate a
7227.2		V	54	-74 -54	Peak			No Emissions
1221.2		V	54	-34	Avg			
8130.6		V	74	-74	Peak			No Emissions
8130.6		V	54	-54	Avg			
9034		V	74	-74	Peak			No Emissions
9034		V	54	-54	Avg			140 Elilloolollo



FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1806.8	48.78	V	74	-25.22	Peak	2.34	190	Y - Axis
1806.8		V	54	-5.22	Avg			
2710.2	47.9	V	74	-26.1	Peak	1.77	185	Y - Axis
2710.2	77.0	V	54	-6.1	Avg	1.77	100	1 7003
3613.6	45.36	V	74	-28.64	Peak	3.4	270	Y - Axis
3613.6	45.50	V	54	-8.64	Avg	3.4	210	r - Axis
4517	43.32	V	74	-30.68	Peak	2.11	355	Y - Axis
4517		V	54	-10.68	Avg			
5420.4		V	74	-74	Peak			No Emissions
5420.4		V	54	-54	Avg			
6323.8		V	74	-74	Peak			No Emissions
6323.8		V	54	-54	Avg			
7227.2		V	74	-74	Peak			No Emissions
7227.2		V	54	-54	Avg			140 Emissions
8130.6		V	74	-74	Peak			No Emissions
8130.6		V	54	-74 -54	Avg			INO ETHISSIONS
3.00.0		,	<u> </u>	<u> </u>				
9034		V	74	-74	Peak		_	No Emissions
9034		V	54	-54	Avg			



FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1806.8	45.75	V	74	-28.25	Peak	2.33	265	Z - Axis
1806.8		V	54	-8.25	Avg			
07400	10.10			00.00		0.04	40=	
2710.2	40.12	V	74	-33.88	Peak	3.01	195	Z - Axis
2710.2		V	54	-13.88	Avg			
3613.6	45.59	V	74	-28.41	Peak	1.92	90	Z - Axis
3613.6		V	54	-8.41	Avg			
4517	41.15	V	74	-32.85	Peak	2.42	185	Z - Axis
4517		V	54	-12.85	Avg			
5400.4			7.4	7.4	Deele			
5420.4		V	74	-74	Peak			No Emissions
5420.4		V	54	-54	Avg			
6323.8		V	74	-74	Peak			No Emissions
6323.8		V	54	-54	Avg			
7227.2		V	74	-74	Peak			No Emissions
7227.2		V	54	-54	Avg			
8130.6		V	74	-74	Peak			No Emissions
8130.6		V	54	-54	Avg			TTO ETHIOGISTIS
9034		V	74	-74	Peak			No Emissions
9034		V	54	-54	Avg			

## FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1806.8	44.78	Н	74	-29.22	Peak	2.61	90	X - Axis
1806.8		Н	54	-9.22	Avg			
2710.2	45.54	Н	74	-28.46	Peak	3.72	265	X - Axis
2710.2	45.54	H	74 54	-26.46 -8.46	Avg	3.12	200	X - AXIS
2. 10.2			0.	0.10	,			
3613.6	44.57	Н	74	-29.43	Peak	3.56	45	X - Axis
3613.6		Н	54	-9.43	Avg			
4517	41.68	Н	74	-32.32	Peak	2.02	125	X - Axis
4517	41.00	H	54	-12.32	Avg	2.02	120	V - WXI2
			<u> </u>		_ , <del>g</del>			
5420.4		Н	74	-74	Peak			No Emissions
5420.4		Н	54	-54	Avg			
6323.8		Н	74	-74	Peak			No Emissions
6323.8		Н	54	-54	Avg			TVO EITHOSIONS
7227.2		Н	74	-74	Peak			No Emissions
7227.2		Н	54	-54	Avg			
8130.6		Н	74	-74	Peak			No Emissions
8130.6		Н	54	-54	Avg			TTO LIMICOIONO
					•			
9034		Н	74	-74	Peak			No Emissions
9034		Н	54	-54	Avg			



## FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1806.8	45.12	Н	74	-28.88	Peak	3.7	75	Y - Axis
1806.8		Н	54	-8.88	Avg			
2710.2	45.42	Н	74	-28.58	Peak	2.12	330	Y - Axis
2710.2		Н	54	-8.58	Avg			. 7000
3613.6	44.69	Н	74	-29.31	Peak	1.02	215	Y - Axis
3613.6		Н	54	-9.31	Avg			
4517	41.32	Н	74	-32.68	Peak	2.3	90	Y - Axis
4517		Н	54	-12.68	Avg			
5420.4		Н	74	-74	Peak			No Emissions
5420.4		Н	54	-54	Avg			THE EMISSIONS
6323.8		Н	74	-74	Peak			No Emissions
6323.8		Н	54	-54	Avg			
7227.2		Н	74	-74	Peak			No Emissions
7227.2		Н	54	-54	Avg			
8130.6		Н	74	-74	Peak			No Emissions
8130.6		Н	54	-54	Avg			
9034		Н	74	-74	Peak			No Emissions
9034		Н	54	-54	Avg			



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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1806.8	44.13	Н	74	-29.87	Peak	2.02	90	Z - Axis
1806.8		Н	54	-9.87	Avg			
2710.2	46.1	Н	74	-27.9	Peak	3.22	265	Z - Axis
2710.2	40.1	Н	54	-7.9	Avg	0.22	200	Z - AXIS
3613.6	44.82	Н	74	-29.18	Peak	3.05	45	Z - Axis
3613.6	44.02	Н	54	-29.16 -9.18	Avg	3.05	45	Z - AXIS
4517	41.6	Н	74	-32.4	Peak	1.97	125	Z - Axis
4517		Н	54	-12.4	Avg			
5420.4		Н	74	-74	Peak			No Emissions
5420.4		Н	54	-54	Avg			
6323.8		Н	74	-74	Peak			No Emissions
6323.8		Н	54	-54	Avg			
7227.2		Н	74	-74	Peak			No Emissions
7227.2		Н	54	-54	Avg			NO LINISSIONS
0400.0			7.4	7.4	Daal			No Fortistico
8130.6 8130.6		H	74 54	-74 -54	Peak Avg			No Emissions
3130.0		11	J <del>4</del>	-04	Avy			
9034		Н	74	-74	Peak			No Emissions
9034		Н	54	-54	Avg			



#### FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: A

Part #: 12530501 Tested By: James Ross

S/N: N/A

Configuration -- Continuous Transmit Mode

#### **Fundamental**

					Peak /	Ant.	Table	
Freq.	Level				QP /	Height	Angle	
(MHz)	`	Pol (v/h)		Margin	Avg	(m)	(deg)	Comments
912.47	82.72	V	114	-31.28	Peak	1	180	X - AXIS
912.47		V	94	-11.28	QP			
912.47	88.52	Н	114	-25.48	Peak	1	90	X - AXIS
912.47		Н	94	-5.48	QP			
912.47	87.52	V	114	-26.48	Peak	1	90	Y - AXIS
912.47		V	94	-6.48	QP			
912.47	85.52	Н	114	-28.48	Peak	1	90	Y - AXIS
912.47		Н	94	-8.48	QP			
912.47	84.82	V	114	-29.18	Peak	1	40	Z - AXIS
912.47		V	94	-9.18	QP			
912.47	86.72	Н	114	-27.28	Peak	1	270	Z - AXIS
912.47		Н	94	-7.28	QP			



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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1824.94	43.55	V	74	-30.45	Peak	1	180	X - Axis
1824.9		V	54	-10.45	Avg			
2737.4	44.55	V	74	-29.45	Peak	3.65	180	X - Axis
2737.4		V	54	-9.45	Avg			11 1200
3649.88	44.63	V	74	-29.37	Peak	3.53	175	X - Axis
3649.9		V	54	-9.37	Avg	3.33		,,,,,,,,
4562.35	42.68	V	74	-31.32	Peak	1.68	90	X - Axis
4562.4		V	54	-11.32	Avg			71 7000
5474.8		V	74	-74	Peak			No Emissions
5474.8		V	54	-54	Avg			TTO ETHIODIOTIO
6387.29		V	74	-74	Peak			No Emissions
6387.3		V	54	-54	Avg			
7299.76		V	74	-74	Peak			No Emissions
7299.8		V	54	-54	Avg			110 Emissions
8212.23		V	74	-74	Peak			No Emissions
8212.23		V	54	-54	Avg			
9124.7		V	74	-74	Peak			No Emissions
9124.7		V	54	-54	Avg			110 Emissions



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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1824.94	48.36	V	74	-25.64	Peak	1.9	0	Y - Axis
1824.9		V	54	-5.64	Avg			
2737.4	48.2	V	74	-25.8	Peak	2.45	355	Y - Axis
2737.4		V	54	-5.8	Avg			
3649.88	44.88	V	74	-29.12	Peak	2.55	355	Y - Axis
3649.9		V	54	-9.12	Avg			
4562.35	41.94	V	74	-32.06	Peak	2.67	290	Y - Axis
4562.4		V	54	-12.06	Avg			
5474.8		V	74	-74	Peak			No Emissions
5474.8		V	54	-54	Avg			
6387.29		V	74	-74	Peak			No Emissions
6387.3		V	54	-54	Avg			
7299.76		V	74	-74	Peak			No Emissions
7299.8		V	54	-54	Avg			
8212.23		V	74	-74	Peak			No Emissions
8212.23		V	54	-54	Avg			
9124.7		V	74	-74	Peak			No Emissions
9124.7		V	54	-54	Avg			



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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1824.94	44.09	V	74	-29.91	Peak	2.18	90	Z - Axis
1824.9		V	54	-9.91	Avg			
2737.4	38.74	V	74	-35.26	Peak	1	80	Z - Axis
2737.4		V	54	-15.26	Avg			
3649.88	46.72	V	74	-27.28	Peak	3.06	280	Z - Axis
3649.9		V	54	-7.28	Avg			
4562.35	39.66	V	74	-34.34	Peak	2.32	280	Z - Axis
4562.4		V	54	-14.34	Avg			
5474.8		V	74	-74	Peak			No Emissions
5474.8		V	54	-54	Avg			
6387.29		V	74	-74	Peak			No Emissions
6387.3		V	54	-74 -54	Avg			INO ETHISSIONS
7299.76		V	74	-74	Peak			No Emissions
7299.8		V	54	-54	Avg			
8212.23		V	74	-74	Peak			No Emissions
8212.23		V	54	-74 -54	Avg			INO LIHISSIONS
			-	-				
9124.7		V	74	-74	Peak			No Emissions
9124.7		V	54	-54	Avg			



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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq. (MHz)	Level	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1824.94	45.4	H H	74	-28.6	Peak	3.01	90	X - Axis
1824.9	43.4	H	54	-8.6	Avg	3.01	90	V - WY12
1024.5		11	51	-0.0	Avg			
2737.4	45.35	Н	74	-28.65	Peak	2.32	265	X - Axis
2737.4		Н	54	-8.65	Avg			
3649.88	44.77	Н	74	-29.23	Peak	2.06	80	X - Axis
3649.9		Н	54	-9.23	Avg	2.00	- 00	77 7000
4562.35	40.42	Н	74	-33.58	Peak	1.8	80	X - Axis
4562.4		Н	54	-13.58	Avg			
5 4 7 4 0			7.	7.	Б			
5474.8		Н	74	-74	Peak			No Emissions
5474.8		Н	54	-54	Avg			
6387.29		Н	74	-74	Peak			No Emissions
6387.3		Н	54	-54	Avg			
7299.76		Н	74	-74	Peak			No Emissions
7299.70		H	54	-74 -54	Avg			NO EIIISSIOIIS
7 200.0			<u> </u>	0.	7.19			
8212.23		Н	74	-74	Peak			No Emissions
8212.23		Н	54	-54	Avg			
0404 =			7.					
9124.7		Н	74	-74	Peak			No Emissions
9124.7		Н	54	-54	Avg			



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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level	<b>5</b> 17 71			Peak / QP /	Ant. Height	Table Angle	
(MHz)	(dBuV)	Pol (v/h)		Margin	Avg	(m)	(deg)	Comments
1824.94	40.73	Н	74	-33.27	Peak	3.9	0	Y - Axis
1824.9		Н	54	-13.27	Avg			
2737.4	39.79	Н	74	-34.21	Peak	2.04	125	Y - Axis
2737.4		Н	54	-14.21	Avg	-		-
3649.88	46.71	Н	74	-27.29	Peak	2.13	15	Y - Axis
3649.9		Н	54	-7.29	Avg			
4562.35	41.75	Н	74	-32.25	Peak	1.54	350	Y - Axis
4562.4		Н	54	-12.25	Avg			. , , , , ,
5474.8		Н	74	-74	Peak			No Emissions
5474.8		Н	54	-54	Avg			
6387.29		Н	74	-74	Peak			No Emissions
6387.3		Н	54	-54	Avg			
7299.76		Н	74	-74	Peak			No Emissions
7299.8		Н	54	-54	Avg			
8212.23		Н	74	-74	Peak			No Emissions
8212.23		Н	54	-54	Avg			
9124.7		Н	74	-74	Peak			No Emissions
9124.7		Н	54	-54	Avg			



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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1824.94	46.15	Н	74	-27.85	Peak	3.55	270	Z - Axis
1824.9		Н	54	-7.85	Avg			
2737.4	48.4	Н	74	-25.6	Peak	2.57	270	Z - Axis
2737.4	-	Н	54	-5.6	Avg	-		-
3649.88	43.62	Н	74	-30.38	Peak	2.67	270	Z - Axis
3649.9		Н	54	-10.38	Avg	-		
4562.35	42.5	Н	74	-31.5	Peak	2.61	345	Z - Axis
4562.4		Н	54	-11.5	Avg			
5474.8		Н	74	-74	Peak			No Emissions
5474.8		Н	54	-54	Avg			
6387.29		Н	74	-74	Peak			No Emissions
6387.3		Н	54	-54	Avg			
7299.76		Н	74	-74	Peak			No Emissions
7299.8		Н	54	-54	Avg			
8212.23		Н	74	-74	Peak			No Emissions
8212.23		Н	54	-54	Avg			
9124.7		Н	74	-74	Peak			No Emissions
9124.7		Н	54	-54	Avg			



## FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Configuration -- Continuous Transmit Mode

## **Fundamental**

F					Peak /	Ant.	Table	
Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	QP / Avg	Height (m)	Angle (deg)	Comments
921.4	81.23	V	114	-32.77	Peak	1.2	0	X - AXIS
921.4		V	94	-12.77	QP			
921.4	88.73	Н	114	-25.27	Peak	1	270	X - AXIS
921.4		Н	94	-5.27	QP			
921.4	83.03	V	114	-30.97	Peak	1	90	Y - AXIS
921.4		V	94	-10.97	QP			
921.4	83.13	Н	114	-30.87	Peak	1	90	Y - AXIS
921.4		Н	94	-10.87	QP			
921.4	83.03	V	114	-30.97	Peak	1.1	345	Z - AXIS
921.4		V	94	-10.97	QP			
921.4	85.33	H	114	-28.67	Peak	1.5	275	Z - AXIS
921.4		Н	94	-8.67	QP			



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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

_					Peak /	Ant.	Table	
Freq.	Level				QP /	Height	Angle	
(MHz)	•	Pol (v/h)		Margin	Avg	(m)	(deg)	Comments
1842.8	46.11	V	74	-27.89	Peak	2.91	280	X - Axis
1842.8		V	54	-7.89	Avg			
2764.2	44.29	V	74	-29.71	Peak	2.54	180	X - Axis
2764.2		V	54	-9.71	Avg			
3685.6	45.69	V	74	-28.31	Peak	3.53	175	X - Axis
3685.6	40.00	V	54	-8.31	Avg	0.00	173	X - Axis
3000.0		V	- 51	-0.01	Avg			
4607	42.67	V	74	-31.33	Peak	2.1	355	X - Axis
4607		V	54	-11.33	Avg			
5528.4		V	74	-74	Peak			No emissions
5528.4		V	54	-54	Avg			
0440.0			7.4	7.4	Daali			Ni
6449.8		V	74	-74	Peak			No emissions
6449.8		V	54	-54	Avg			
7371.2		V	74	-74	Peak			No emissions
7371.2		V	54	-54	Avg			110 011110010110
8292.6		V	74	-74	Peak			No emissions
8292.6		V	54	-54	Avg			
0011			7.	-,	D. I			
9214		V	74	-74	Peak			No emissions
9214		V	54	-54	Avg			

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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1842.8	48.66	V	74	-25.34	Peak	2.36	355	Y - Axis
1842.8		V	54	-5.34	Avg			
2764.2	47.32	V	74	-26.68	Peak	3.74	0	Y - Axis
2764.2	77.02	V	54	-6.68	Avg	0.74	- 0	1 7003
3685.6	45.89	V	74	-28.11	Peak	1.7	10	Y - Axis
3685.6	45.09	V	54	-8.11	Avg	1.7	10	r - Axis
4607	40.52	V	74	-33.48	Peak	1.32	15	Y - Axis
4607		V	54	-13.48	Avg			
5528.4		V	74	-74	Peak			No emissions
5528.4		V	54	-54	Avg			
6449.8		V	74	-74	Peak			No emissions
6449.8		V	54	-54	Avg			
7371.2		V	74	-74	Peak			No emissions
7371.2		V	54	-54	Avg			
8292.6		V	74	-74	Peak			No emissions
8292.6		V	54	-54	Avg			140 611113310113
0244		\/	74	7.4	Deals			No aminaino
9214		V	74 54	-74	Peak			No emissions
9214		V	54	-54	Avg			

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Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1842.8	51.32	V	74	-22.68	Peak	2.43	50	Z - Axis
1842.8		V	54	-2.68	Avg			
0704.0	40.00		74	22.70	Deel	0.04	205	7 4 1
2764.2 2764.2	40.22	V	74 54	-33.78 -13.78	Peak	2.91	225	Z - Axis
2704.2		V	54	-13.70	Avg			
3685.6	49.27	V	74	-24.73	Peak	2.53	275	Z - Axis
3685.6		V	54	-4.73	Avg			
4607	40.98	V	74	-33.02	Peak	1.76	325	Z - Axis
4607		V	54	-13.02	Avg			
EE00.4		W	74	74	Dools			No aminaiana
5528.4 5528.4		V	74 54	-74 -54	Peak Avg			No emissions
3320.4		V	34	-04	Avg			
6449.8		V	74	-74	Peak			No emissions
6449.8		V	54	-54	Avg			
7371.2		V	74	-74	Peak			No emissions
7371.2		V	54	-54	Avg			
8292.6		V	74	-74	Peak			No emissions
8292.6		V	54	-54	Avg			140 CITIIOSIOTIS
3202.0		•	<u> </u>	<b>.</b>	5			
9214		V	74	-74	Peak			No emissions
9214		V	54	-54	Avg			



FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)	(dBuV)	Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1842.8	50	Н	74	-24	Peak	3.79	0	X - Axis
1842.8		Н	54	-4	Avg			
2764.2	44.5	Н	74	-29.5	Peak	1.26	135	X - Axis
2764.2	44.5	H	54	-29.5 -9.5	Avg	1.20	133	A - AXIS
			-					
3685.6	46.68	Н	74	-27.32	Peak	3.36	45	X - Axis
3685.6		Н	54	-7.32	Avg			
4607		Н	74	-74	Peak			No emissions
4607		Н	54	-54	Avg			TVO CITILOGICITO
					_			
5528.4		Н	74	-74	Peak			No emissions
5528.4		Н	54	-54	Avg			
6449.8		Н	74	-74	Peak			No emissions
6449.8		Н	54	-54	Avg			
7371.2		Н	74	-74	Peak			No emissions
7371.2		Н	54	-54	Avg			
8292.6		Н	74	-74	Peak			No emissions
8292.6		Н	54	-54	Avg			
0044			74	7.4	Deal			N
9214		Н	74	-74	Peak			No emissions
9214		Н	54	-54	Avg			



FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1842.8	47.98	Н	74	-26.02	Peak	1.04	0	Y - Axis
1842.8		Н	54	-6.02	Avg			
2764.2	41	Н	74	-33	Peak	2.66	125	Y - Axis
2764.2		Н	54	-13	Avg			
3685.6	47.86	Н	74	-26.14	Peak	1.89	15	Y - Axis
3685.6		Н	54	-6.14	Avg			-
4607	42.52	Н	74	-31.48	Peak	1.91	345	Y - Axis
4607		Н	54	-11.48	Avg			
==== 1								
5528.4		Н	74	-74	Peak			No emissions
5528.4		Н	54	-54	Avg			
6449.8		Н	74	-74	Peak			No emissions
6449.8		Н	54	-54	Avg			
=0=4.0								
7371.2		Н	74	-74	Peak			No emissions
7371.2		Н	54	-54	Avg			
8292.6		Н	74	-74	Peak			No emissions
8292.6		Н	54	-54	Avg			
9214		Н	74	-74	Peak			No emissions
9214		Н	54	-54	Avg			

FCC 15.249

Great Plains Industries, Inc. Date: 8/29/05 Flow Meter Transmitter Lab: B

Part #: 12530501 Tested By: James Ross

S/N: N/A

Freq.	Level				Peak / QP /	Ant. Height	Table Angle	
(MHz)		Pol (v/h)	Limit	Margin	Avg	(m)	(deg)	Comments
1842.8	47.93	Н	74	-26.07	Peak	3.01	270	Z - Axis
1842.8		Н	54	-6.07	Avg			
2764.2	48.23	Н	74	-25.77	Peak	3.43	280	Z - Axis
2764.2		Н	54	-5.77	Avg			
3685.6	44.96	Н	74	-29.04	Peak	1.52	280	Z - Axis
3685.6		Н	54	-9.04	Avg			
4607	43.11	Н	74	-30.89	Peak	2.37	325	Z - Axis
4607		Н	54	-10.89	Avg		0_0	
5528.4		Н	74	-74	Peak			No emissions
5528.4		Н	54	-54	Avg			140 CITIISSIONS
6449.8		Н	74	-74	Peak			No emissions
6449.8		Н	54	-54	Avg			
7371.2		Н	74	-74	Peak			No emissions
7371.2		Н	54	-54	Avg			
8292.6		Н	74	-74	Peak			No emissions
8292.6		Н	54	-54	Avg			
9214		Н	74	-74	Peak			No emissions
9214		Н	54	-54	Avg			

# **RADIATED EMISSIONS**

**DATA SHEETS** 





Test Location : Compatible Electronics Page : 1/1
Customer : Great Plains Industries, Inc. Date : 8/30/2005
Manufacturer : Great Plains Industries, Inc. Time : 8:24:31

Serial # : N/A

**Specification**: FCC Class B

Distance correction factor (20 \* log(test/spec) : 0.00

Test Mode : Spurious Emissions - 10 kHz to 1 GHz

Tested By: James Ross

Pol Rdng Cable Cor'd Limit Delta Freq Ant Amp R-L loss factor gain rdg = R= 1 MHZ dBu∨ dв dв dв dBu∨ dBuV/m dΒ

No spurious emission discovered between the above noted frequency range







Test Location : Compatible Electronics Page : 1/1
Customer : Great Plains Industries, Inc. Date : 8/29/2005
Manufacturer : Great Plains Industries, Inc. Time : 18:31:27

Eut name : Flow Meter Transmitter Lab : B
Part # : 12530501 Test Distance : 3.0

Serial # : N/A

**Specification**: FCC Class B

Distance correction factor (20 \* log(test/spec) : 0.00

Test Mode : Spurious Emissions - 1 GHz to 9.214 GHz

Tested By: James Ross

Pol Rdng Cable Cor'd Limit Delta Freq Ant Amp R-L loss factor gain rdg = R= 1 MHZ dBu∨ dв dв dв dBu∨ dBuV/m dΒ

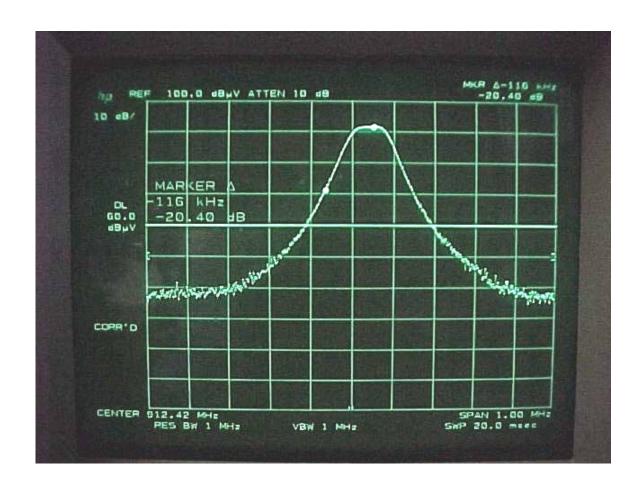
No spurious emission discovered between the above noted frequency range





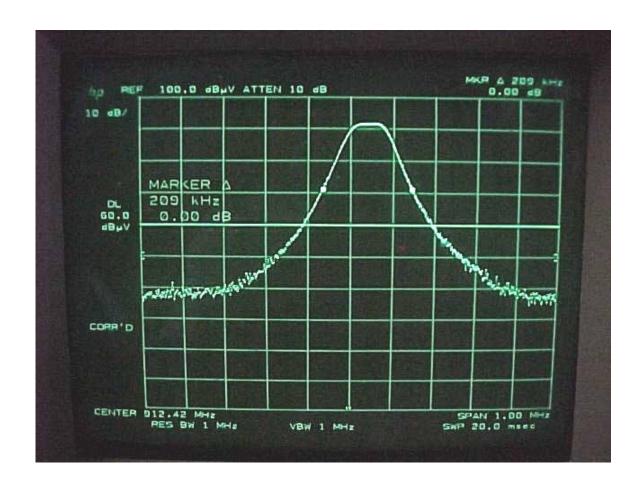
-20 dB BANDWIDTH

**PHOTOGRAPHS** 



GREAT PLAINS INDUSTRIES, INC.
FLOW METER TRANSMITTER
P/N: 12530501
FCC SUBPART C – -20dB BANDWIDTH – 08-31-05

# PHOTOGRAPH SHOWING THE -20dB BANDWIDTH



GREAT PLAINS INDUSTRIES, INC.
FLOW METER TRANSMITTER
P/N: 12530501
FCC SUBPART C – -20dB BANDWIDTH – 08-31-05

# PHOTOGRAPH SHOWING THE -20dB BANDWIDTH