TESTING
CERT #803.01, 803.02, 803.05, 803.06

ADDENDUM TO CELLYNX GROUP, INC. TEST REPORT FC09-112

FOR THE

MOBILE CELLULAR BOOSTER, MD015A

FCC PART 22H & RSS-131 (2003)

TESTING

DATE OF ISSUE: JULY 17, 2009

PREPARED FOR:

Cellynx Group, Inc.
5047 Robert J. Matthews
El Dorado Hills, CA 95762

W.O. No.: 89227

PREPARED BY:

Mary Ellen Clayton
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Date of test: July 1 - 8, 2009

Report No.: FC09-112A

TABLE OF CONTENTS

ADMINISTRATIVE INFORMATION

DATE OF TEST: July 1 - 8, 2009

DATE OF RECEIPT: July 1, 2009

REPRESENTATIVE: Michael Cecil

MANUFACTURER:
Cellynx Group, Inc.
5047 Robert J. Matthews
El Dorado Hills, CA 95762

TEST LOCATION:
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

TEST METHOD: FCC PART 22H & RSS-131 (2003)

PURPOSE OF TEST:
Original Report: To perform the testing of the Mobile Cellular Booster, MD015A with the requirements for FCC Part 22H & RSS-131 devices.
Addendum A: To correct the header on page 16.

APPROVALS
Steve Behm, Director of Engineering Services

TEST PERSONNEL:
Randy Clark, EMC Engineer

SUMMARY OF RESULTS

Test	Specification/Method	Results
RF Power Output	FCC 2.1033(c)(14)/2.1046/22.913 RSS 131 §6.2	Pass
Occupied Bandwidth Input and Output Plots	FCC 2.1033(c)(14)/2.1049(i)	Pass
Spurious Emissions at Antenna Terminal	FCC 2.1033(c)(14)/2.1051/22.917	Pass
Field Strength of Spurious Radiation	FCC 2.1033(c)(14)/2.1053/22.917	Pass
Blockedge		Pass
Input vs Output Plots		Pass
Intermodulation	FCC 2.1051 RSS 131 §6.3	Pass
Out of Band Rejection	FCC 2.1051	Pass
Passband Gain	RSS 131 §6.1	Pass
Bandwidth	RSS 131 §6.1	Pass
FCC Site File No.	90477	
IC Site File No.	3082A-2	

CONDITIONS DURING TESTING

No modifications to the EUT were necessary during testing.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit.

EQUIPMENT UNDER TEST

Mobile Cellular Booster
Manuf: Cellynx
Model: MD015A
Serial: 09262100003

PERIPHERAL DEVICES

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

Power Supply
Manuf: Sceptre Power
Model: S012BU1200100
Serial: NA

Signal Generator
Manuf: Agilent
Model: E4437B
Serial: MY41000126

Support Computer
Manuf: Dell
Model: PP23LB
Serial: 28862556913

Signal Generator
Manuf: Agilent
Model: E4437B
Serial: US39260159

Laptop Power Supply
Manuf: Dell
Model: LA65N50-00
Serial: CN-0DF263-71615-850-9C16

TEMPERATURE AND HUMIDITY DURING TESTING
The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

FCC 2.1033(c)(3) USER'S MANUAL
The necessary information is contained in a separate document.

FCC 2.1033 (c)(4) TYPE OF EMISSIONS
GXW, G7W, F9W

FCC 2.1033(c)(5) FREQUENCY RANGE
Downlink: 869-894 MHz and 1930-1990 MHz
Uplink: 824 – 849 MHz and 1850-1910 MHz

FCC 2.1033(c)(6) OPERATING POWER
Downlink: 322mW
Uplink: 513mW

FCC 2.1033(c)(8) DC VOLTAGES
The necessary information is contained in a separate document.

FCC 2.1033(c)(9) TUNE-UP PROCEDURE
The necessary information is contained in a separate document.

FCC 2.1033(c)(10) SCHEMATICS AND CIRCUITRY DESCRIPTION
The necessary information is contained in a separate document.

FCC 2.1033(c)(11) LABEL AND PLACEMENT
The necessary information is contained in a separate document.

FCC 2.1033(c)(12) SUBMITTAL PHOTOS
The necessary information is contained in a separate document.

FCC 2.1033(c)(13) MODULATION INFORMATION
CDMA, WCDMA, GSM, EDGE

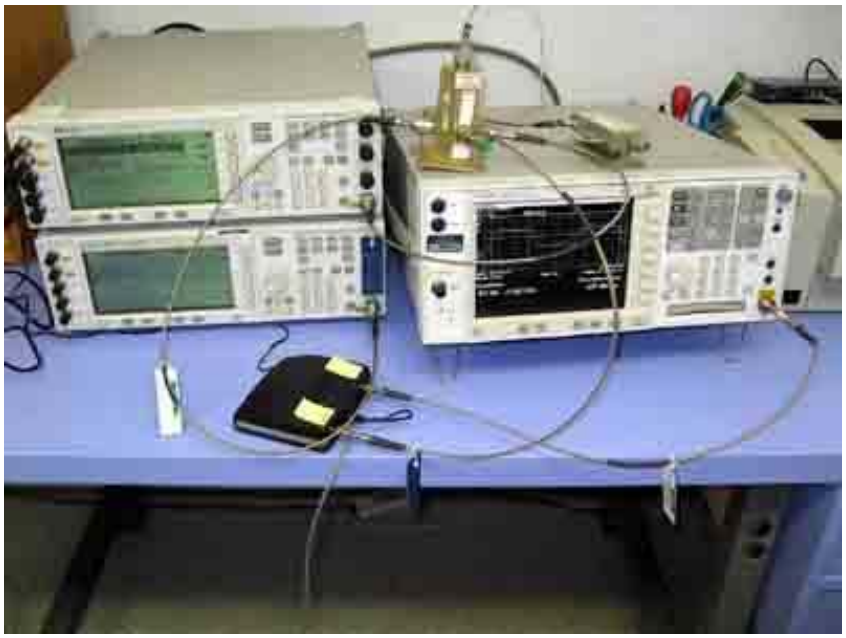
MEASUREMENT UNCERTAINTIES

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.

FCC 2.1033(c)(14)/2.1046/22.913 - RF POWER OUTPUT

Test Setup Photo



Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer:	**Cellynx Group**		
Specification:	**FCC 22.913**		
Work Order #:	**89227**	Date:	7/6/2009
Test Type:	**Antenna Conducted**	Time:	
Equipment:	**Mobile Cellular Booster**	Sequence#:	9
Manufacturer:	Cellynx	Tested By:	Randal Clark
Model:	MD015A		120V 60Hz
S/N:	09262100003		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	US39260159
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source. The power output is measured using multi-carrier mode using two tone input. The signal generators are set such that both signals are at equal amplitude at the output and such that the 3rd order intermodulation products meet the spurious emissions requirements of 22.917. Peak measurements are taken using the analyzer's internal channel power measurement.

The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

Frequency Range Investigated: Carrier
Operating Band: Uplink and Downlink

Temperature: 25ºC
Rel Humidity: 40%

Downlink Power Output Measurements

Modulation	*Channel*	*Peak Multicarrier Output (dBm)*	*Peak Multicarrier Output (mW)*
WCDMA	Low	25.02	317.7
	Mid	25.05	319.9
	High	25.08	322.1
CDMA	Low	24.08	255.9
	Mid	24.91	309.7
	High	24.07	255.3
GSM	Low	23.04	201.4
	Mid	23.46	221.8
	High	22.49	177.4
EDGE	Low	22.18	165.2
	Mid	23.34	215.8
	High	22.42	174.6

The maximum RF output for downlink is 322mW.
The maximum allowable antenna gain is 9.62dBi in order to satisfy both the power output requirements of 22.913 and RF Exposure requirements at a 20cm separation distance.

Uplink Power Output Measurements

Modulation	*Channel*	*Peak Multicarrier Output (dBm)*	*Peak Multicarrier Output (mW)*
WCDMA	Low	26.75	473.2
	Mid	26.93	493.2
	High	26.99	500.0
CDMA	Low	27.08	510.5
	Mid	26.03	400.9
	High	27.10	512.9
GSM	Low	25.93	391.7
	Mid	24.69	294.4
	High	25.44	349.9
EDGE	Low	25.58	361.4
	Mid	24.36	272.9
	High	24.86	306.2

The maximum RF output for uplink is 513mW.
The maximum allowable antenna gain is 7.37dBi in order to satisfy both the power output requirements of 22.913 and RF Exposure requirements at a 20cm separation distance.

FCC 2.1033(c)(14)/2.1049(i)- OCCUPIED BANDWIDTH

Test Setup Photo

Test Location:	CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)		
Customer:	**Cellynx Group**		
Specification:	**FCC 2.1049**		
Work Order #:	**89227**	Date:	7/6/2009
Test Type:	**Antenna Conducted**	Time:	
Equipment:	**Mobile Cellular Booster**	Sequence#:	14
Manufacturer:	Cellynx	Tested By:	Randal Clark
Model:	MD015A		120V 60Hz
S/N:	09262100003		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

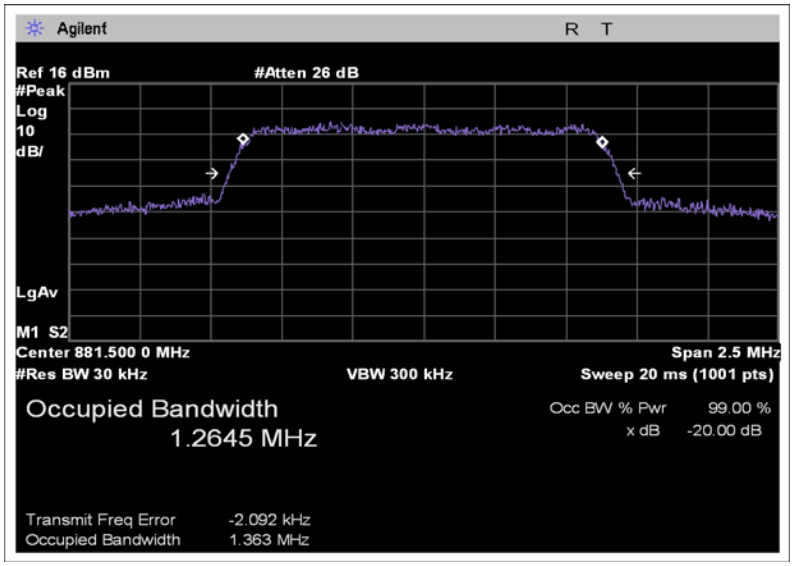
Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source.
The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value.
Frequency Range Investigated: Middle channel of each band.
Operating Band: Uplink and Downlink
Temperature: 25ºC & Rel Humidity: 40%

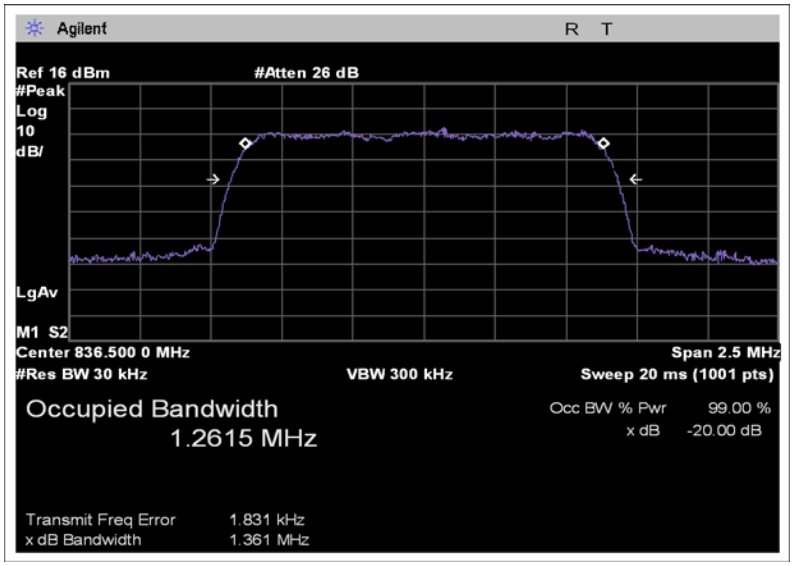
Modulation Type	Band	Measurement	Units
WCDMA	Downlink	4.13	MHz
WCDMA	Uplink	4.12	MHz
CDMA	Downlink	1.26	MHz
CDMA	Uplink	1.26	MHz
GSM	Downlink	244.7	kHz
GSM	Uplink	244.1	kHz
EDGE	Downlink	245.7	kHz
EDGE	Uplink	243.3	kHz

Test Plots
Tested By: Randy Clark

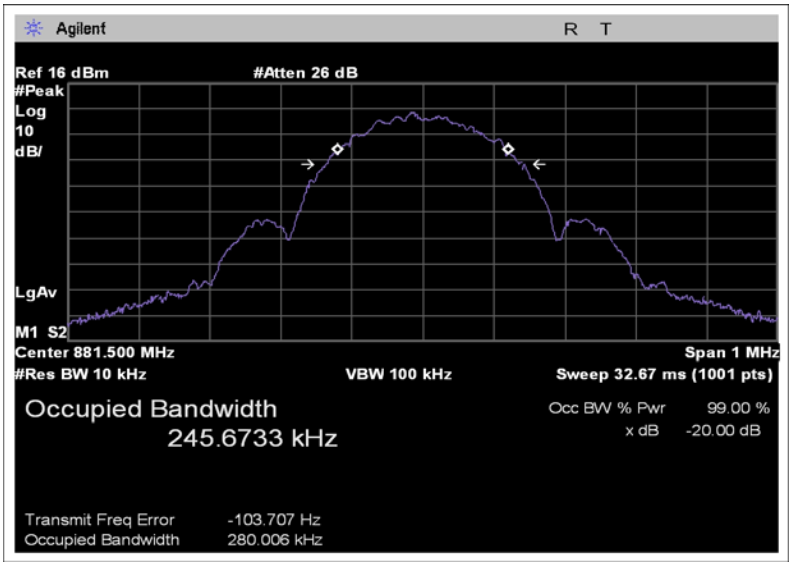
OCCUPIED BANDWIDTH – CDMA DOWNLINK



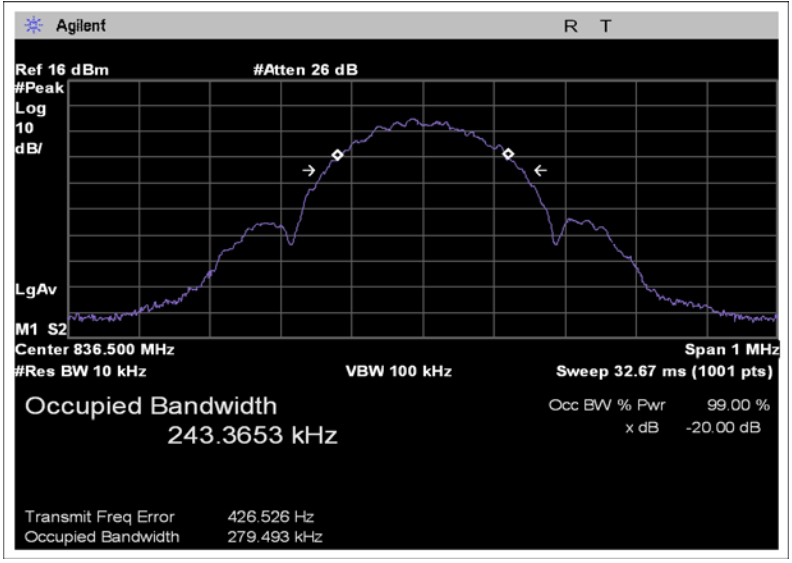
OCCUPIED BANDWIDTH – CDMA UPLINK



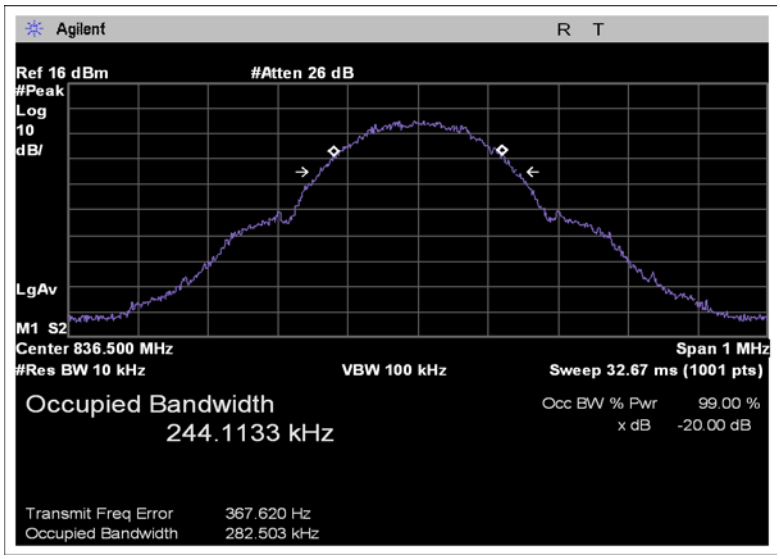
OCCUPIED BANDWIDTH – EDGE DOWNLINK



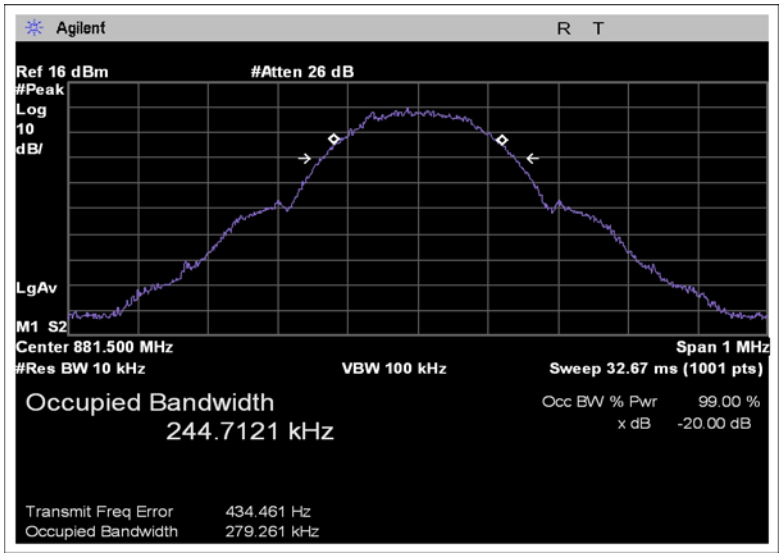
OCCUPIED BANDWIDTH – EDGE UPLINK



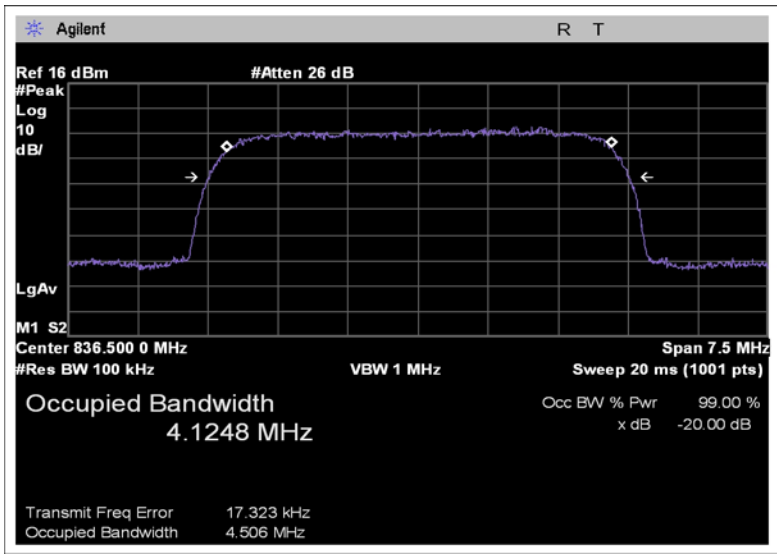
OCCUPIED BANDWIDTH – GSM DOWNLINK



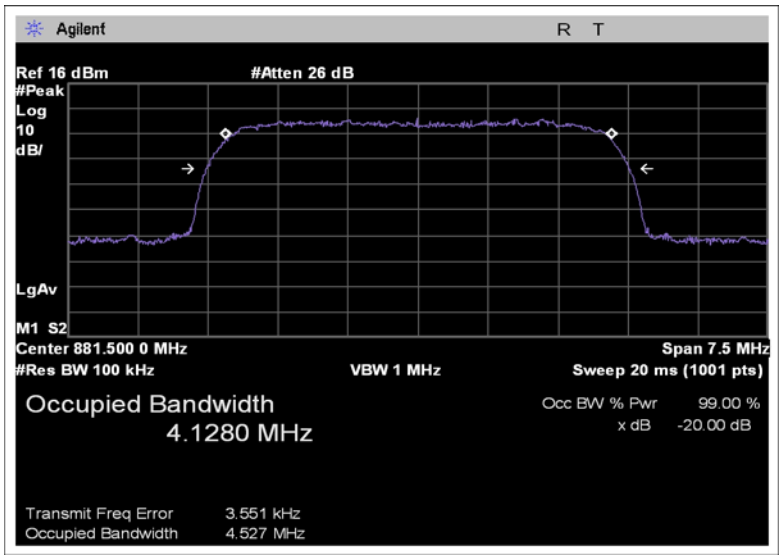
OCCUPIED BANDWIDTH – GSM UPLINK



OCCUPIED BANDWIDTH – WCDMA DOWNLINK



OCCUPIED BANDWIDTH – WCDMA UPLINK



FCC 2.1033(c)(14)/2.1051/22.917 - SPURIOUS EMISSIONS AT ANTENNA TERMINAL

Test Setup Photos

Test Data Sheets

Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Cellynx Group**
Specification: **FCC 22.917**
Work Order #: **89227** Date: 7/7/2009
Test Type: **Antenna Conducted** Time: 11:05:25
Equipment: **Mobile Cellular Booster** Sequence#: 8
Manufacturer: Cellynx Tested By: Randal Clark
Model: MD015A 120V 60Hz
S/N: 09262100003

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	NA	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551
Cable, 24" 2.92mm 40GHz	NA	01/15/2008	01/15/2010	AN03008

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source.

The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

Bandwidths used: RBW=100kHz, VBW=300kHz

Frequency Range Investigated: 30MHz to 10GHz
Operating Band: Uplink and Downlink

Temperature: 25ºC
Rel Humidity: 40%

Transducer Legend:

T1=ATT-ANP02138-052009-10dB	T2=CAB-AN03008-40GHZ-2FT
T3=ATT-ANP05551-070109-DC BLOCK	

Measurement Data: Reading listed by margin. Test Lead: Downlink

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	4121.408M	72.4	+10.1	+0.5	+0.0		+0.0	83.0	94.0 EDGE Low Channel	-11.0	Uplin
2	2472.792M	71.7	+10.0	+0.4	+0.0		+0.0	82.1	94.0 EDGE Low Channel	-11.9	Uplin
3	1648.534M	71.0	+9.9	+0.3	+0.0		+0.0	81.2	94.0 EDGE Low Channel	-12.8	Uplin
4	2476.550M	69.2	+10.0	+0.4	+0.0		+0.0	79.6	94.0 CDMA Low Channel	-14.4	Uplin
5	1672.962M	67.5	+9.9	+0.4	+0.0		+0.0	77.8	94.0 EDGE Mid Channel	-16.2	Uplin
6	3297.128M	66.6	+10.0	+0.5	+0.0		+0.0	77.1	94.0 EDGE Low Channel	-16.9	Uplin
7	5769.848M	65.2	+10.1	+0.6	+0.0		+0.0	75.9	94.0 EDGE Low Channel	-18.1	Uplin
8	3301.660M	64.8	+10.0	+0.5	+0.0		+0.0	75.3	94.0 CDMA Low Channel	-18.7	Uplin
9	1648.680M	65.0	+9.9	+0.3	+0.0		+0.0	75.2	94.0 GSM Low Channel	-18.8	Uplin
10	1650.140M	64.1	+9.9	+0.4	+0.0		+0.0	74.4	94.0 CDMA Low Channel	-19.6	Uplin
11	1697.414M	62.3	+9.9	+0.4	+0.0		+0.0	72.6	94.0 EDGE High Channel	-21.4	Uplin
12	4182.428M	61.8	+10.0	+0.5	+0.0		+0.0	72.3	94.0 EDGE Mid Channel	-21.7	Uplin
13	1673.140M	61.6	+9.9	+0.4	+0.0		+0.0	71.9	94.0 GSM Mid Channel	-22.1	Uplin
14	4126.910M	60.8	+10.1	+0.5	+0.0		+0.0	71.4	94.0 CDMA Low Channel	-22.6	Uplin
15	5855.398M	60.5	+10.1	+0.6	+0.0		+0.0	71.2	94.0 EDGE Mid Channel	-22.8	Uplin
16	1673.320M	60.9	+9.9	+0.4	+0.0		+0.0	71.2	94.0 CDMA Mid Channel	-22.8	Uplin
17	4183.080M	60.3	+10.0	+0.5	+0.0		+0.0	70.8	94.0 CDMA Mid Channel	-23.2	Uplin

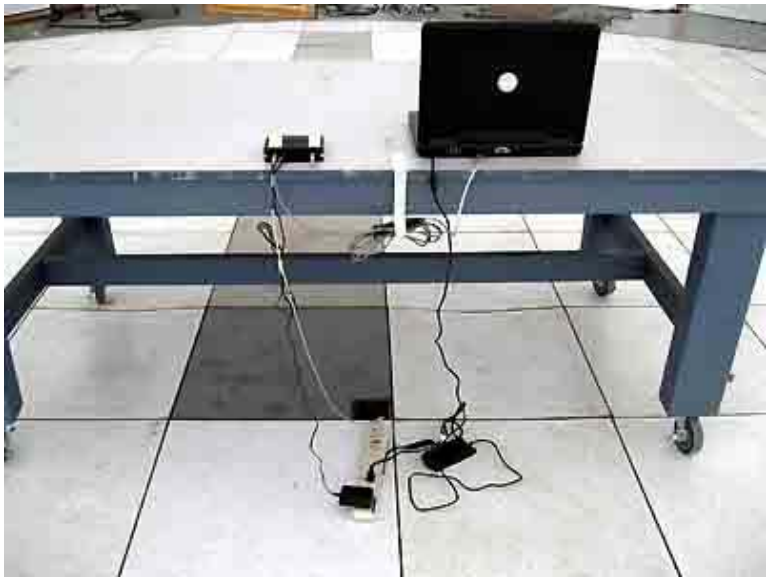
18	4237.610M	58.5	+10.0	+0.5	+0.0	+0.0	69.0	94.0	-25.0	Uplin CDMA High Channel
19	2510.180M	58.2	+10.0	+0.4	+0.0	+0.0	68.6	94.0	-25.4	Uplin CDMA Mid Channel
20	1655.060M	56.9	+9.9	+0.4	+0.0	+0.0	67.2	94.0	-26.8	Uplin WCDMA Low Channel
21	5775.510M	56.4	+10.1	+0.6	+0.0	+0.0	67.1	94.0	-26.9	Uplin CDMA Low Channel
22	1674.940M	56.7	+9.9	+0.4	+0.0	+0.0	67.0	94.0	-27.0	Uplin WCDMA Mid Channel
23	1697.300M	56.6	+9.9	+0.4	+0.0	+0.0	66.9	94.0	-27.1	Uplin GSM High Channel
24	3345.400M	56.4	+10.0	+0.5	+0.0	+0.0	66.9	94.0	-27.1	Uplin CDMA Mid Channel
25	3346.020M	56.2	+10.0	+0.5	+0.0	+0.0	66.7	94.0	-27.3	Uplin EDGE Mid Channel
26	2509.466M	56.2	+10.0	+0.4	+0.0	+0.0	66.6	94.0	-27.4	Uplin EDGE Mid Channel
27	1695.200M	56.3	+9.9	+0.4	+0.0	+0.0	66.6	94.0	-27.4	Uplin CDMA High Channel
28	3390.820M	55.9	+10.1	+0.5	+0.0	+0.0	66.5	94.0	-27.5	Uplin CDMA High Channel
29	1687.080M	55.9	+9.9	+0.4	+0.0	+0.0	66.2	94.0	-27.8	Uplin WCDMA High Channel
30	2542.710M	55.2	+10.0	+0.4	+0.0	+0.0	65.6	94.0	-28.4	Uplin CDMA High Channel
31	4945.758M	54.4	+10.1	+0.6	+0.0	+0.0	65.1	94.0	-28.9	Uplin EDGE Low Channel
32	5856.800M	53.6	+10.1	+0.6	+0.0	+0.0	64.3	94.0	-29.7	Uplin CDMA Mid Channel
33	4217.200M	52.6	+10.0	+0.5	+0.0	+0.0	63.1	94.0	-30.9	Uplin WCDMA High Channel
34	4143.960M	50.4	+10.1	+0.5	+0.0	+0.0	61.0	94.0	-33.0	Uplin WCDMA Low Channel
35	4182.960M	50.4	+10.0	+0.5	+0.0	+0.0	60.9	94.0	-33.1	Uplin WCDMA Mid Channel
36	5933.170M	50.0	+10.1	+0.6	+0.0	+0.0	60.7	94.0	-33.3	Uplin CDMA High Channel

37	1762.980M	50.0	+9.9	+0.4	+0.2	+0.0	60.5	94.0	-33.5	Downl EDGE Mid Channel
38	1738.565M	49.6	+9.9	+0.4	+0.2	+0.0	60.1	94.0	-33.9	Downl EDGE Low Channel
39	3378.020M	48.9	+10.1	+0.5	+0.0	+0.0	59.5	94.0	-34.5	Uplin WCDMA High Channel
40	1787.475M	48.9	+9.9	+0.4	+0.2	+0.0	59.4	94.0	-34.6	Downl EDGE High Channel
41	1762.840M	48.6	+9.9	+0.4	+0.2	+0.0	59.1	94.0	-34.9	Downl GSM Mid Channel
42	1738.535M	48.3	+9.9	+0.4	+0.2	+0.0	58.8	94.0	-35.2	Downl GSM Low Channel
43	5018.902M	48.2	+10.0	+0.6	+0.0	+0.0	58.8	94.0	-35.2	Uplin EDGE Mid Channel
44	2485.480M	48.1	+10.0	+0.4	+0.0	+0.0	58.5	94.0	-35.5	Uplin WCDMA Low Channel
45	5863.600M	47.7	+10.1	+0.6	+0.0	+0.0	58.4	94.0	-35.6	Uplin WCDMA Mid Channel
46	3346.040M	47.5	+10.0	+0.5	+0.0	+0.0	58.0	94.0	-36.0	Uplin WCDMA Mid Channel
47	5940.922M	47.2	+10.1	+0.6	+0.0	+0.0	57.9	94.0	-36.1	Uplin EDGE High Channel
48	3394.844M	47.3	+10.1	+0.5	+0.0	+0.0	57.9	94.0	-36.1	Uplin EDGE High Channel
49	3312.100M	47.1	+10.0	+0.5	+0.0	+0.0	57.6	94.0	-36.4	Uplin WCDMA Low Channel
50	1787.300M	47.0	+9.9	+0.4	+0.2	+0.0	57.5	94.0	-36.5	Downl GSM High Channel
51	4243.546M	46.5	+10.0	+0.5	+0.0	+0.0	57.0	94.0	-37.0	Uplin EDGE High Channel
52	2510.540M	46.6	+10.0	+0.4	+0.0	+0.0	57.0	94.0	-37.0	Uplin WCDMA Mid Channel
53	6594.232M	46.1	+10.1	+0.7	+0.0	+0.0	56.9	94.0	-37.1	Uplin EDGE Low Channel
54	2533.620M	46.3	+10.0	+0.4	+0.0	+0.0	56.7	94.0	-37.3	Uplin WCDMA High Channel
55	5020.420M	45.9	+10.0	+0.6	+0.0	+0.0	56.5	94.0	-37.5	Uplin CDMA Mid Channel
56	4950.420M	45.5	+10.0	+0.6	+0.0	+0.0	56.1	94.0	-37.9	Uplin

								CDMA Low Channel		
57	5791.220M	45.3	+10.1	+0.6	+0.0	+0.0	56.0	94.0	-38.0	Uplin
								WCDMA Low Channel		
58	5902.640M	45.2	+10.1	+0.6	+0.0	+0.0	55.9	94.0	-38.1	Uplin
								WCDMA High Channel		
59	1762.680M	45.2	+9.9	+0.4	+0.2	+0.0	55.7	94.0	-38.3	Downl
								CDMA Mid Channel		
60	4346.425M	44.9	+10.0	+0.5	+0.3	+0.0	55.7	94.0	-38.3	Downl
								EDGE Low Channel		
61	5769.545M	44.6	+10.1	+0.6	+0.0	+0.0	55.3	94.0	-38.7	Uplin
								GSM Low Channel		
62	1740.210M	44.2	+9.9	+0.4	+0.2	+0.0	54.7	94.0	-39.3	Downl
								CDMA Low Channel		
63	4407.510M	43.8	+9.9	+0.5	+0.4	+0.0	54.6	94.0	-39.4	Downl
								EDGE Mid Channel		
64	2681.205M	43.6	+10.0	+0.4	+0.4	+0.0	54.4	94.0	-39.6	Downl
								EDGE High Channel		
65	3525.945M	42.6	+10.0	+0.5	+0.3	+0.0	53.4	94.0	-40.6	Downl
								EDGE Mid Channel		
66	1785.810M	42.8	+9.9	+0.4	+0.2	+0.0	53.3	94.0	-40.7	Downl
								CDMA High Channel		
67	2644.445M	42.6	+10.0	+0.4	+0.3	+0.0	53.3	94.0	-40.7	Downl
								EDGE Mid Channel		
68	1761.320M	41.6	+9.9	+0.4	+0.2	+0.0	52.1	94.0	-41.9	Downl
								WCDMA Mid Channel		
69	4468.330M	40.6	+9.9	+0.5	+0.4	+0.0	51.4	94.0	-42.6	Downl
								EDGE High Channel		
70	1777.060M	40.4	+9.9	+0.4	+0.2	+0.0	50.9	94.0	-43.1	Downl
								WCDMA High Channel		
71	1747.960M	39.8	+9.9	+0.4	+0.2	+0.0	50.3	94.0	-43.7	Downl
								WCDMA Low Channel		

FCC 2.1033(c)(14)/2.1053/22.917 - FIELD STRENGTH OF SPURIOUS RADIATION

Test Setup Photos



Test Data Sheets

Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Cellynx Group**
Specification: **FCC 22.917**
Work Order #: **89227** Date: 7/7/2009
Test Type: **Radiated Scan** Time: 14:32:11
Equipment: **Mobile Cellular Booster** Sequence#: 19
Manufacturer: Cellynx Tested By: Randal Clark
Model: MD015A
S/N: 09262100003

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Site A 10 meter cable set		05/10/2009	05/10/2011	MA10M
6dB Attenuator	none	05/20/2009	05/20/2011	ANP05656
HP-8447D Preamp	2727A05444	06/20/2008	06/20/2010	AN00062
Antenna, Bilog	2455	12/22/2008	12/22/2010	AN01992
Cable, 10’ 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Andrew-25'	N/A	05/19/2009	05/19/2011	AN01012
Cable, Andrews Hardline HF-005-20	NA	05/20/2009	05/20/2011	ANP04274
Preamp HP83051A	3332A00309	11/13/2008	11/13/2010	AN02115
EMCO 3115 Horn Antenna	9006-3413	06/06/2008	06/06/2010	AN00327

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source. The signal generator is located below the floor. The laptop is located on the table next to the equipment under test.

The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

Bandwidths used: RBW=100kHz, VBW=300kHz

Frequency Range Investigated: 30MHz to 10GHz
Operating Band: Uplink and Downlink
Input Signal: CW

Temperature: 25ºC
Rel Humidity: 40%

No EUT emissions detected within 20dB of the limit.

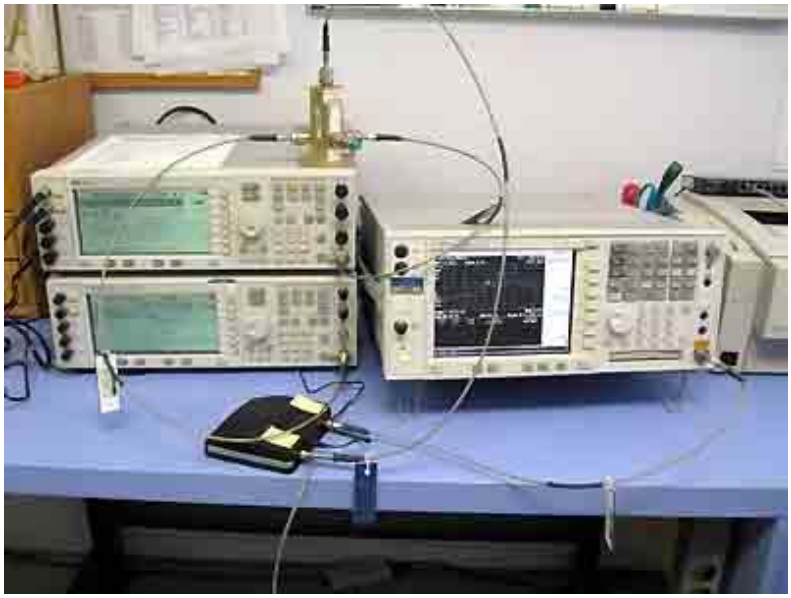
Transducer Legend:

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq	Rdng					Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV	dBµV	dB	Ant

FCC 2.1051/2.1053 – BLOCK EDGE

Test Setup Photos



Test Data Sheets

Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Cellynx Group**
Specification: **FCC 22.917**
Work Order #: **89227** Date: 7/2/2009
Test Type: **Antenna Conducted** Time: 14:09:32
Equipment: **Mobile Cellular Booster** Sequence#: 5
Manufacturer: Cellynx Tested By: Randal Clark
Model: MD015A 120V 60Hz
S/N: 09262100003

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551
Cable, 24" 2.92mm 40GHz	NA	01/15/2008	01/15/2010	AN03008

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	US39260159
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source. Two-tone signal input is used as required for intermodulation attenuation.

The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

Frequency Range Investigated: Block Edge
Operating Band: Uplink and Downlink

Temperature: 25ºC
Rel Humidity: 40%

Transducer Legend:

T1=ATT-ANP02138-052009-10dB	T2=ANP05551 DC Block
T3=CAB-AN03008-40GHZ-2FT	

Measurement Data: Reading listed by margin. Test Lead: Uplink

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	868.710M	82.8	+9.9	+0.7	+0.3		+0.0	93.7	94.0 GSM	-0.3	Downl
2	849.260M	83.4	+9.9	+0.0	+0.3		+0.0	93.6	94.0 EDGE	-0.4	Uplin
3	868.710M	82.6	+9.9	+0.7	+0.3		+0.0	93.5	94.0 EDGE	-0.5	Downl
4	894.280M	82.3	+9.9	+0.7	+0.3		+0.0	93.2	94.0 EDGE	-0.8	Downl
5	867.780M	82.2	+9.9	+0.7	+0.3		+0.0	93.1	94.0 CDMA	-0.9	Downl
6	823.710M	82.6	+9.9	+0.0	+0.2		+0.0	92.7	94.0 EDGE	-1.3	Uplin
7	822.780M	81.7	+9.9	+0.0	+0.2		+0.0	91.8	94.0 CDMA	-2.2	Uplin
8	850.420M	81.2	+9.9	+0.0	+0.3		+0.0	91.4	94.0 CDMA	-2.6	Uplin
9	894.280M	80.4	+9.9	+0.7	+0.3		+0.0	91.3	94.0 GSM	-2.7	Downl
10	823.680M	79.7	+9.9	+0.0	+0.2		+0.0	89.8	94.0 GSM	-4.2	Uplin
11	849.260M	78.9	+9.9	+0.0	+0.3		+0.0	89.1	94.0 GSM	-4.9	Uplin
12	865.300M	77.9	+9.9	+0.7	+0.3		+0.0	88.8	94.0 WCDMA	-5.2	Downl
13	895.120M	77.3	+9.9	+0.7	+0.3		+0.0	88.2	94.0 CDMA	-5.8	Downl
14	897.100M	73.4	+9.9	+0.7	+0.3		+0.0	84.3	94.0 WCDMA	-9.7	Downl
15	819.800M	74.1	+9.9	+0.0	+0.2		+0.0	84.2	94.0 WCDMA	-9.8	Uplin
16	852.700M	73.5	+9.9	+0.0	+0.3		+0.0	83.7	94.0 WCDMA	-10.3	Uplin

INPUT VS. OUTPUT PLOTS

Test Setup Photo

Test Data Sheets

Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer:	**Cellynx Group**		
Specification:	**FCC 2.1049**		
Work Order #:	**89227**	Date:	7/6/2009
Test Type:	**Antenna Conducted**	Time:	
Equipment:	**Mobile Cellular Booster**	Sequence#:	15
Manufacturer:	Cellynx	Tested By:	Randal Clark
Model:	MD015A		120V 60Hz
S/N:	09262100003		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	US39260159
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

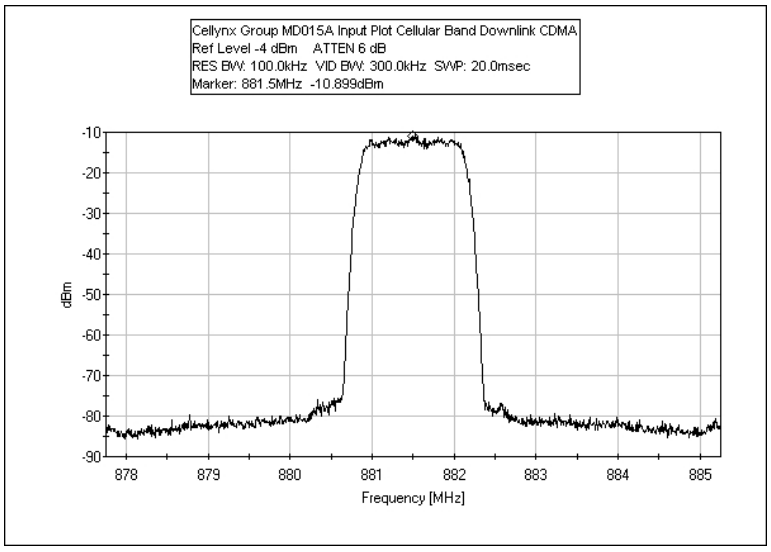
Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source. For the input plots, the signal generator is set to a static amplitude for all modulations which is higher than that which was used for the input signal for the output plots. For the output plots, the signal generator is set to a static amplitude for all modulations corresponding to approximately that which would give the maximum RF power output level.

The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

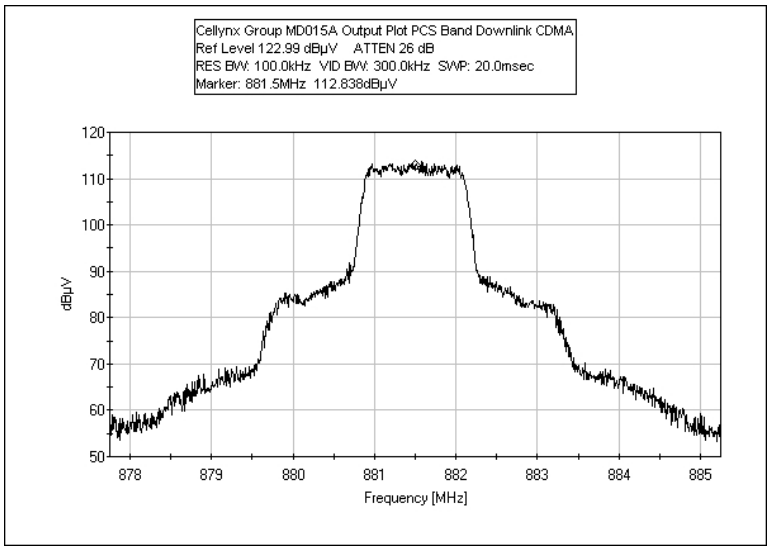
Frequency Range Investigated: Middle channel of each band.
Operating Band: Uplink and Downlink

Temperature: 25ºC
Rel Humidity: 40%

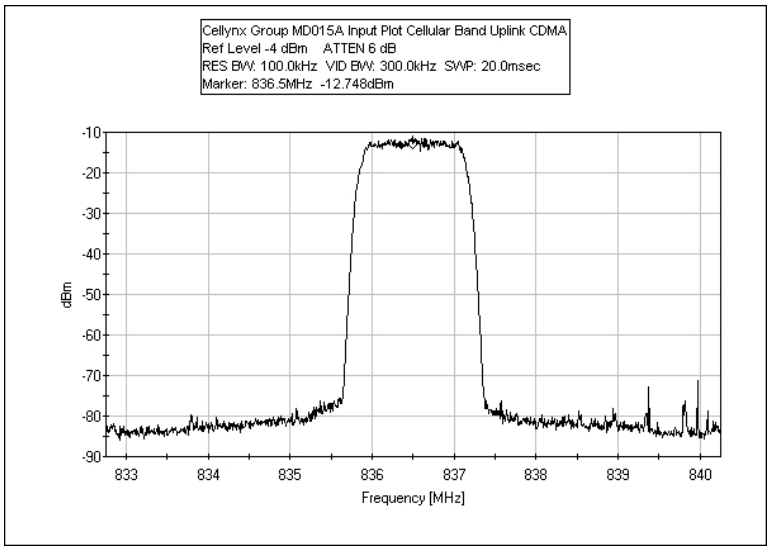
INPUT VS. OUTPUT PLOTS - CDMA DOWNLINK – INPUT



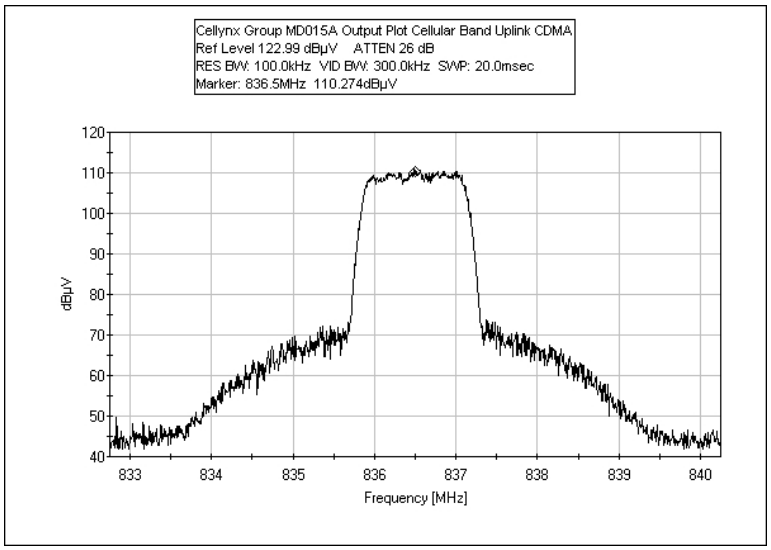
INPUT VS. OUTPUT PLOTS - CDMA DOWNLINK – OUTPUT



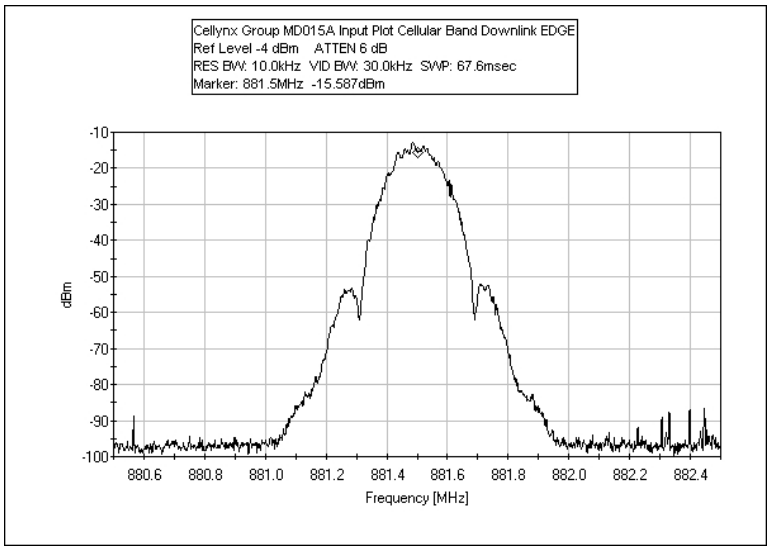
INPUT VS. OUTPUT PLOTS - CDMA UPLINK – INPUT



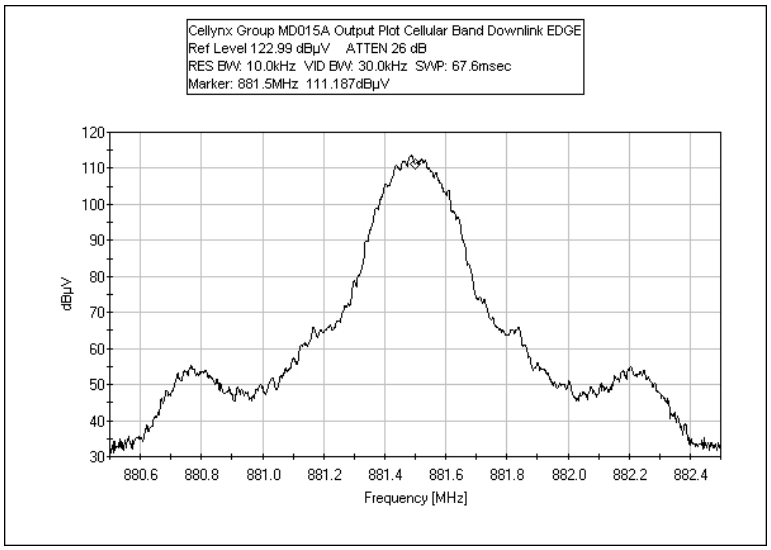
INPUT VS. OUTPUT PLOTS - CDMA UPLINK – OUTPUT



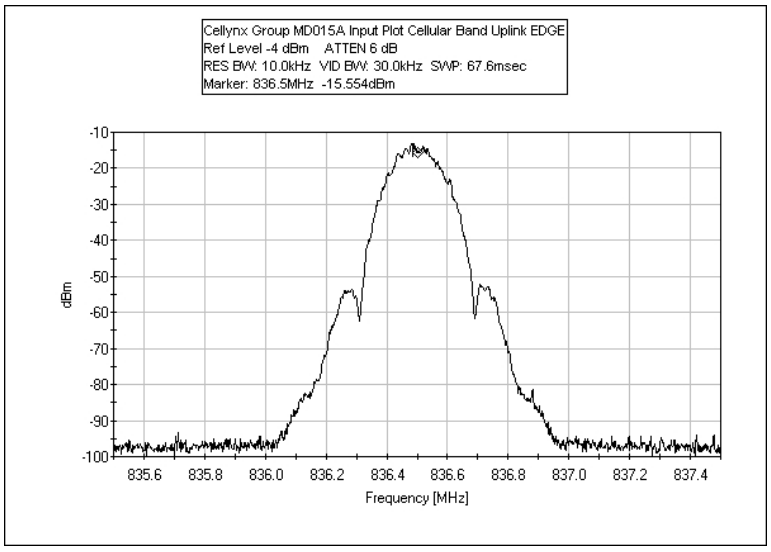
INPUT VS. OUTPUT PLOTS - EDGE DOWNLINK – INPUT



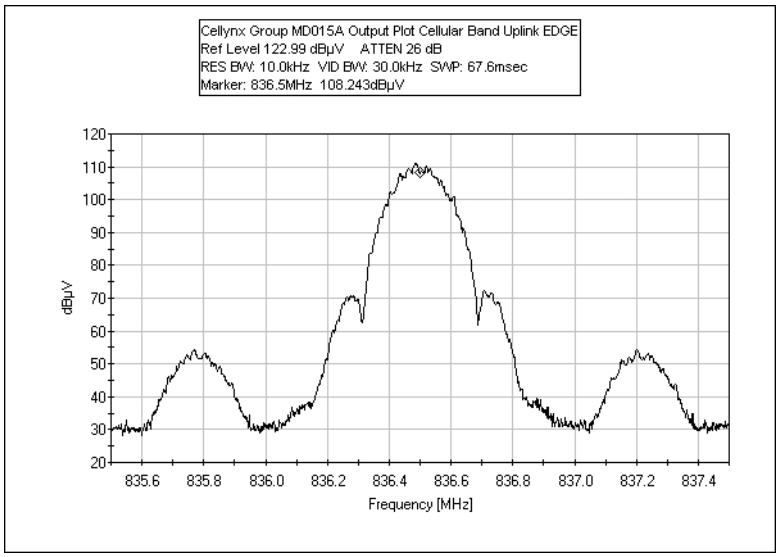
INPUT VS. OUTPUT PLOTS - EDGE DOWNLINK – OUTPUT



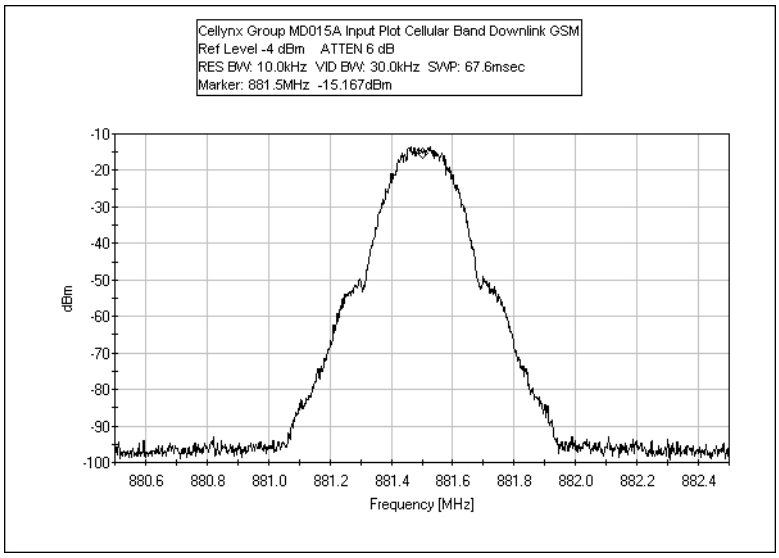
INPUT VS. OUTPUT PLOTS - EDGE UPLINK – INPUT



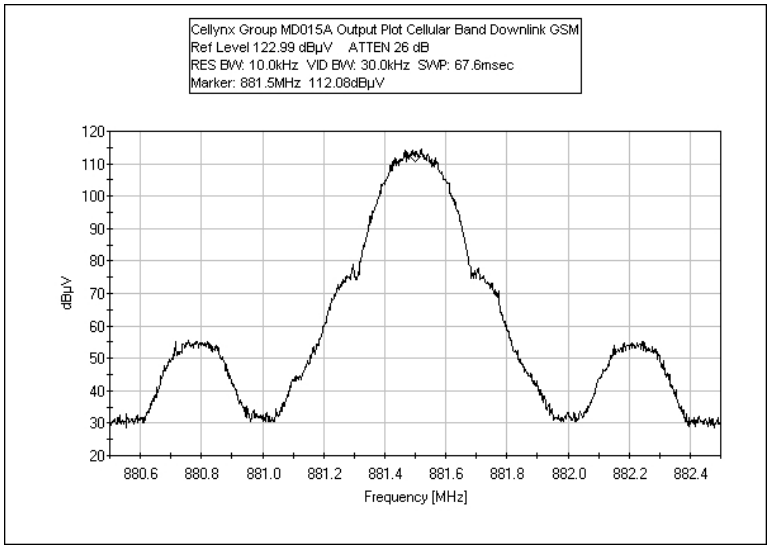
INPUT VS. OUTPUT PLOTS - EDGE UPLINK – OUTPUT



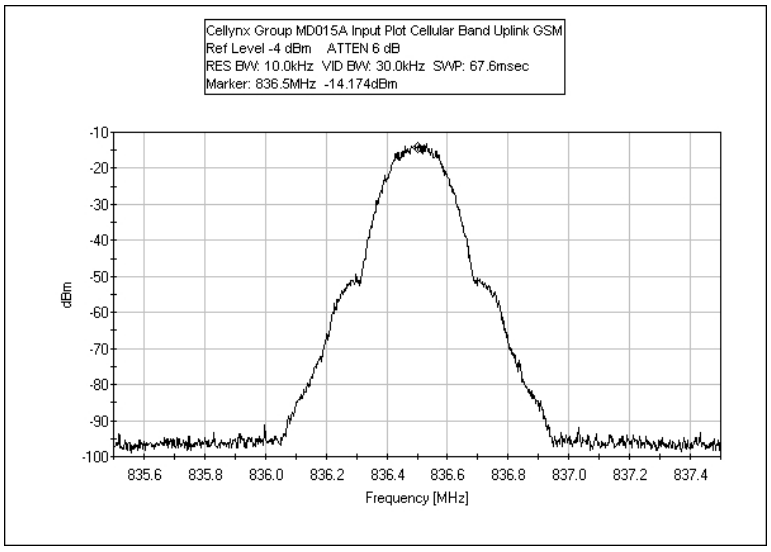
INPUT VS. OUTPUT PLOTS - GSM DOWNLINK – INPUT



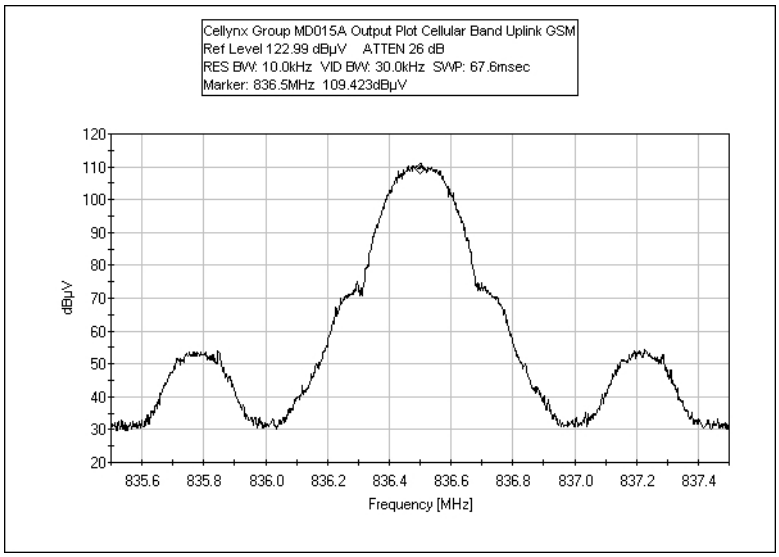
INPUT VS. OUTPUT PLOTS - GSM DOWNLINK – OUTPUT



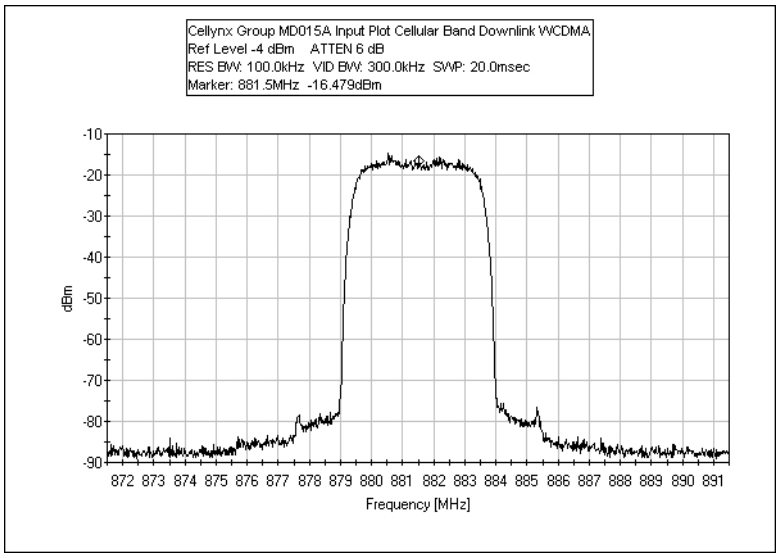
INPUT VS. OUTPUT PLOTS - GSM UPLINK – INPUT



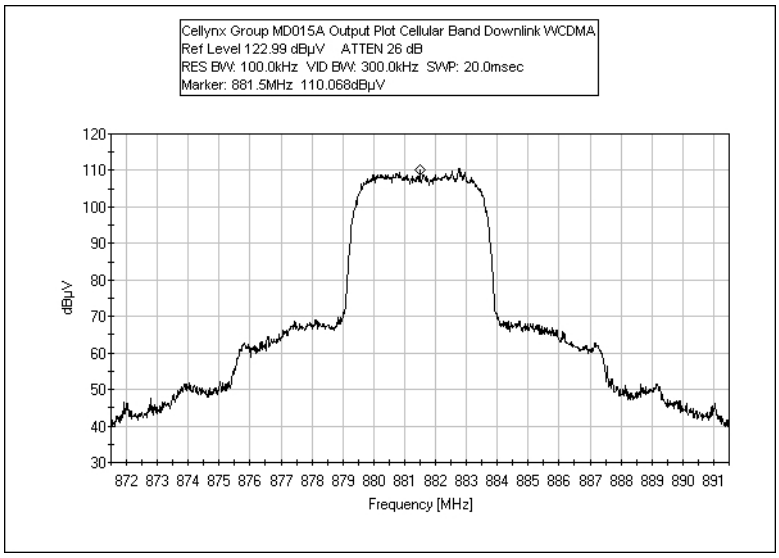
INPUT VS. OUTPUT PLOTS - GSM UPLINK – OUTPUT



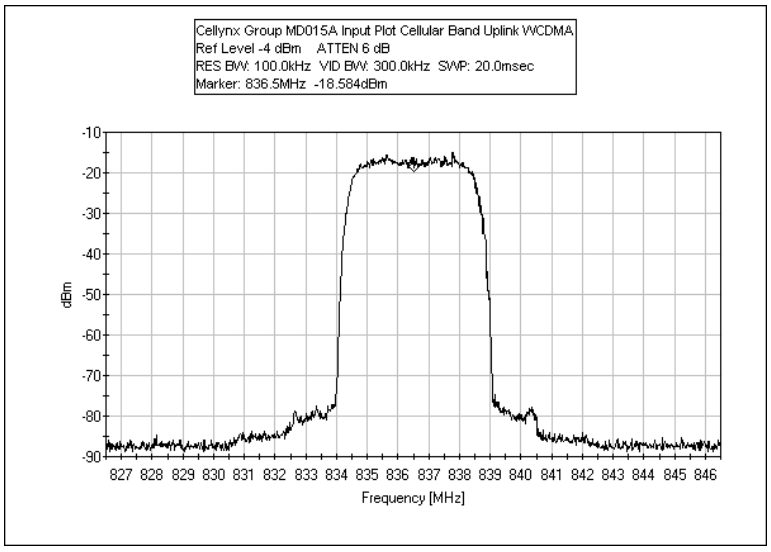
INPUT VS. OUTPUT PLOTS - WCDMA DOWNLINK – INPUT



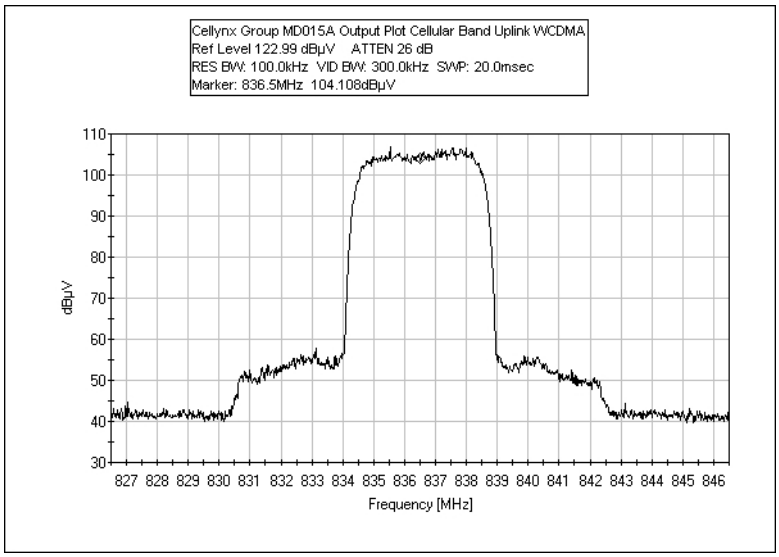
INPUT VS. OUTPUT PLOTS - WCDMA DOWNLINK – OUTPUT



INPUT VS. OUTPUT PLOTS - WCDMA UPLINK – INPUT

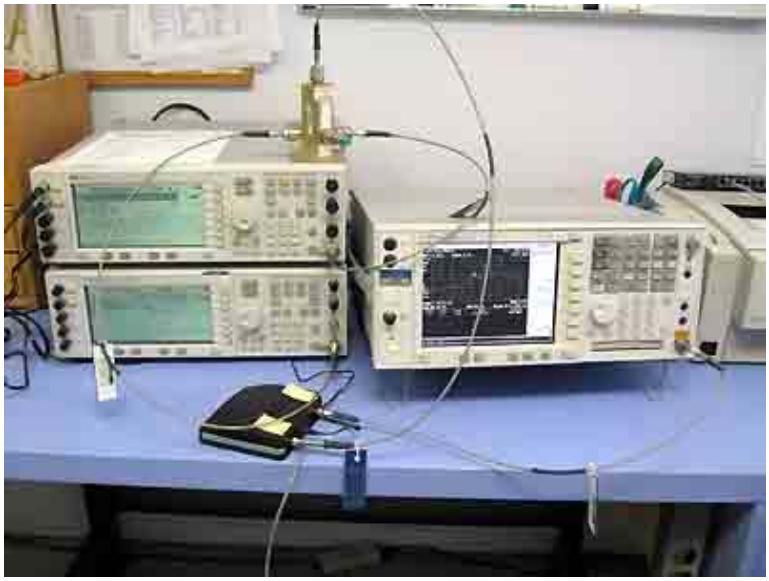


INPUT VS. OUTPUT PLOTS - WCDMA UPLINK – OUTPUT



FCC 2.1051 – INTERMODULATION

Test Setup Photo



Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariopsa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Cellynx Group**
Specification: **FCC 22.917**
Work Order #: **89227** Date: 7/2/2009
Test Type: **Antenna Conducted**
Equipment: **Mobile Cellular Booster**
Manufacturer: Cellynx Tested By: Randal Clark
Model: MD015A 120V 60Hz
S/N: 09262100003

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	US39260159
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source. Signal generator source provides two-tone input for the amplifier. Input level is set such that the maximum aggregate authorized power output level is obtained.

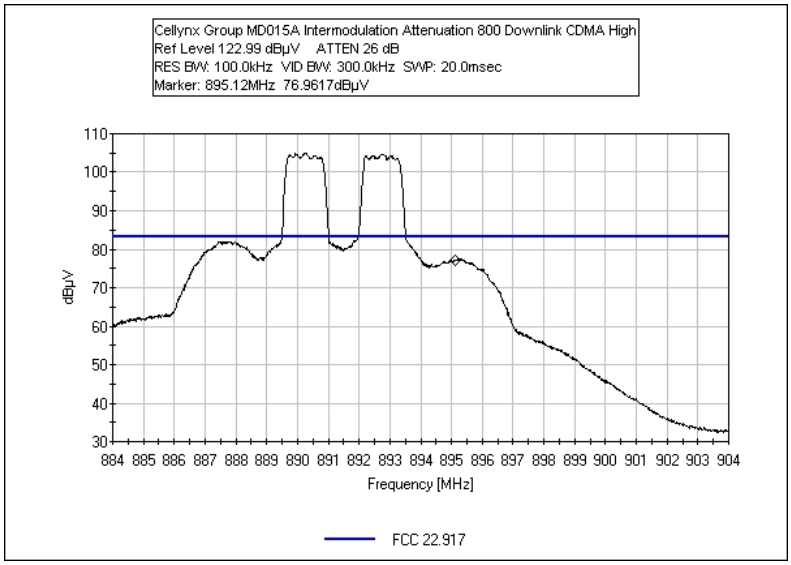
The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

Frequency Range Investigated: Carrier
Operating Band: Uplink and Downlink

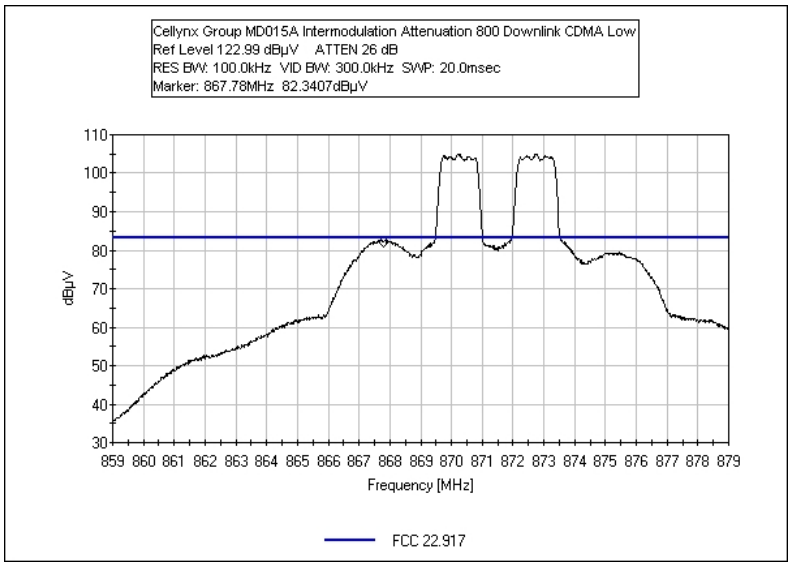
Temperature: 25ºC
Rel Humidity: 40%

Test Plots
Tested By: Randy Clark

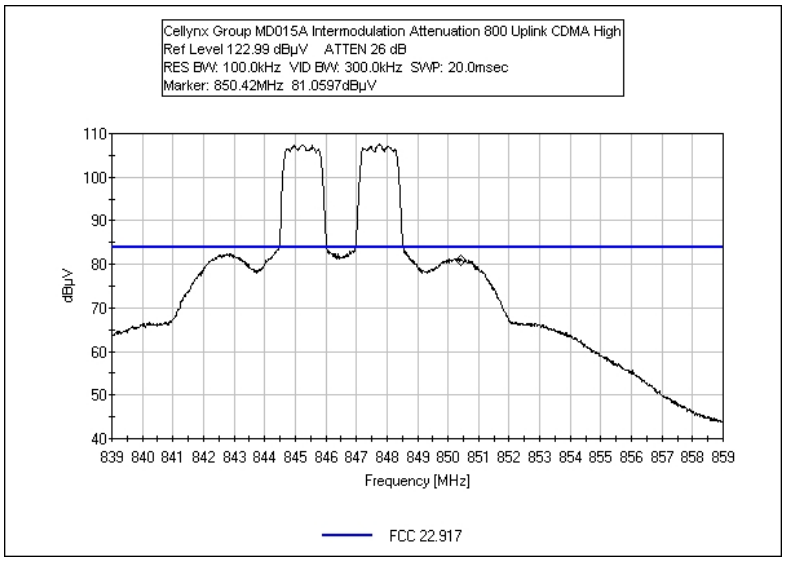
FCC 2.1051 INTERMODULATION – CDMA DOWNLINK - HIGH



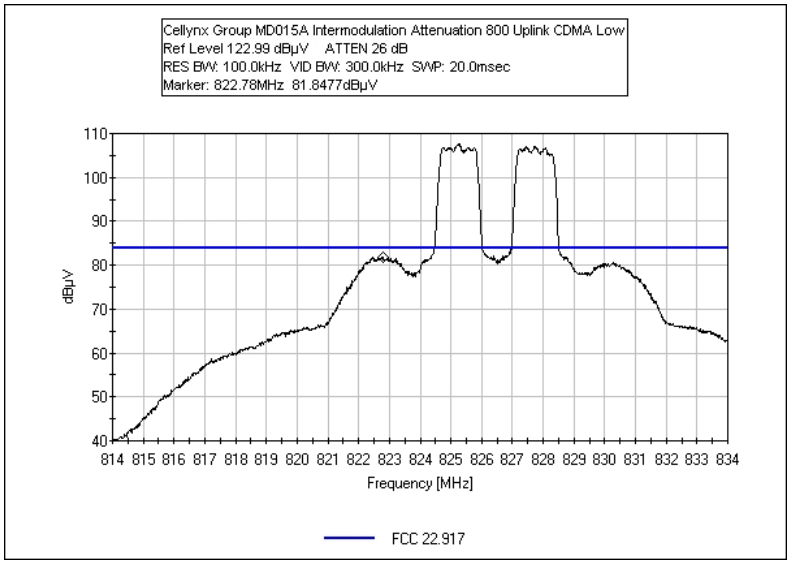
FCC 2.1051 INTERMODULATION – CDMA DOWNLINK - LOW



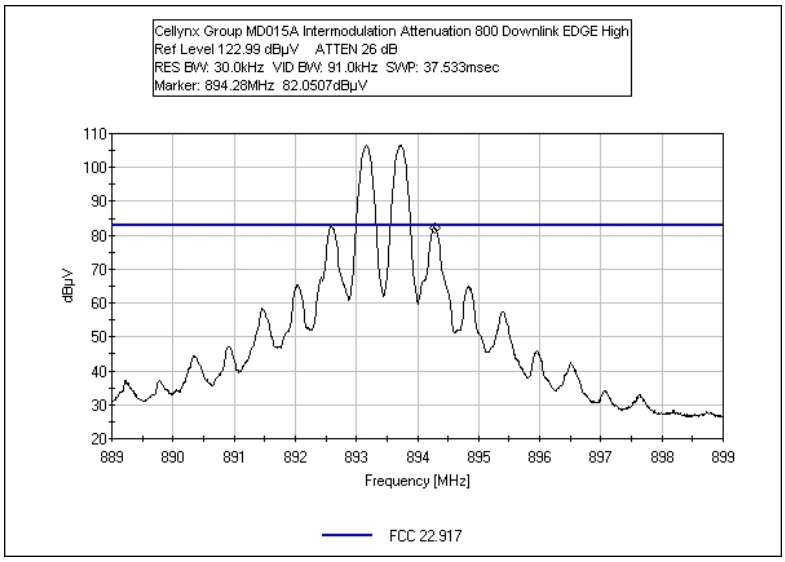
FCC 2.1051 INTERMODULATION – CDMA UPLINK – HIGH



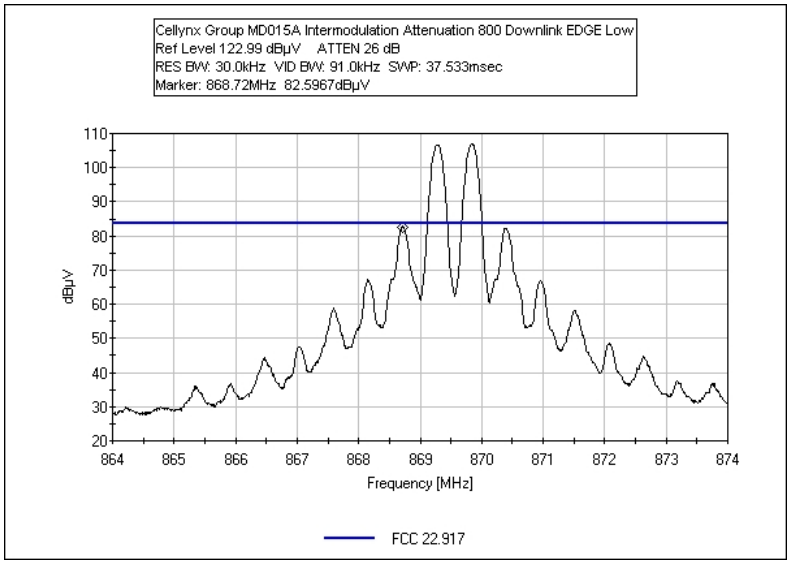
FCC 2.1051 INTERMODULATION – CDMA UPLINK - LOW



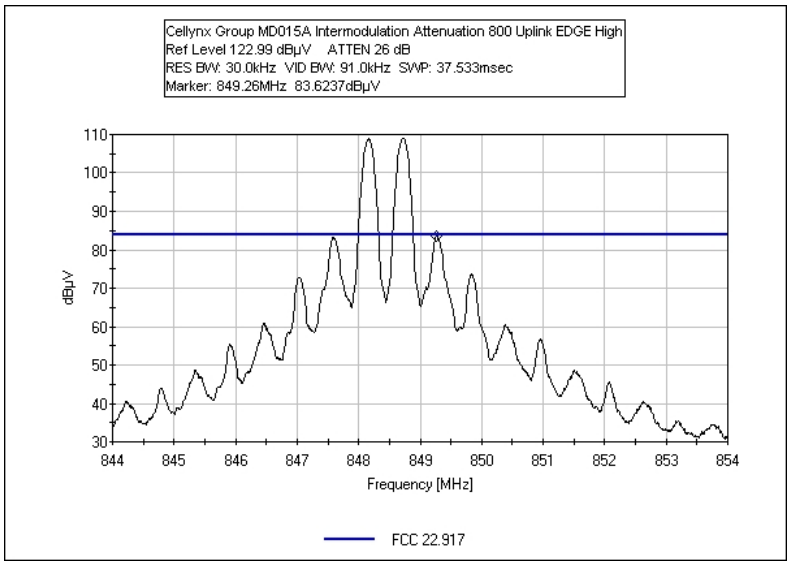
FCC 2.1051 INTERMODULATION – EDGE DOWNLINK – HIGH



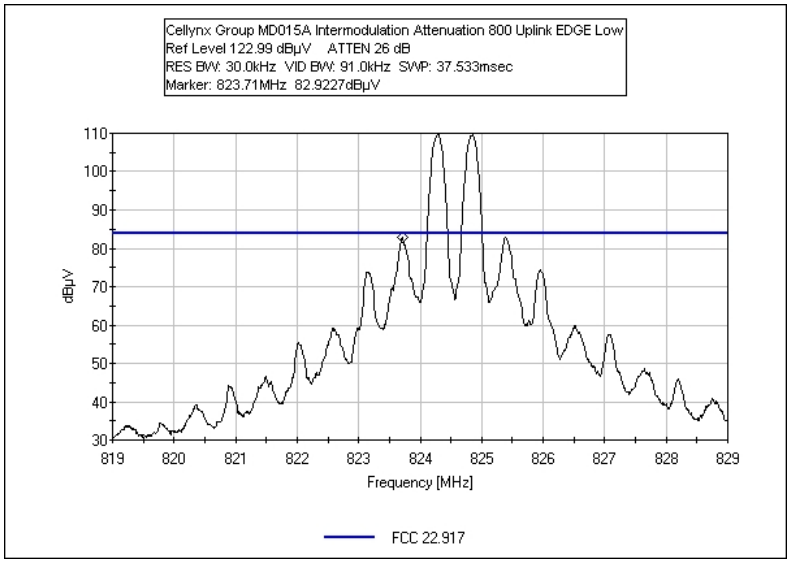
FCC 2.1051 INTERMODULATION – EDGE DOWNLINK – LOW



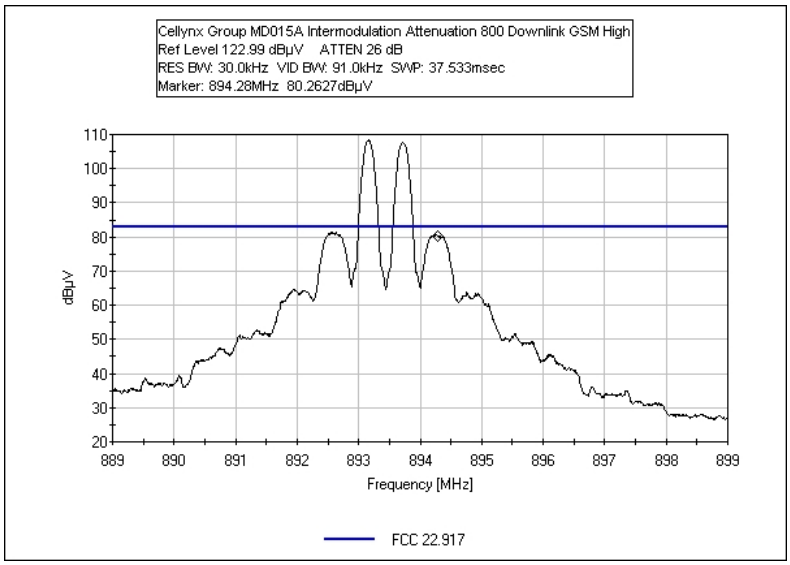
FCC 2.1051 INTERMODULATION – EDGE UPLINK – HIGH



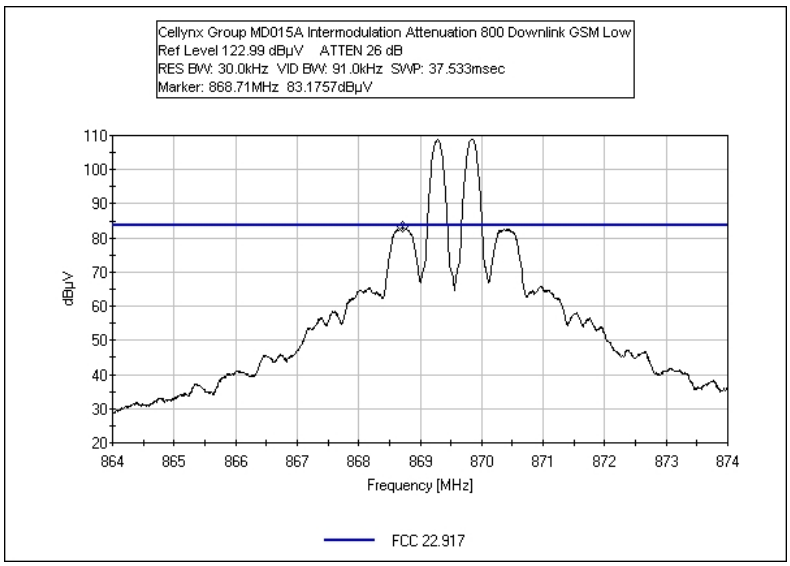
FCC 2.1051 INTERMODULATION – EDGE UPLINK – LOW



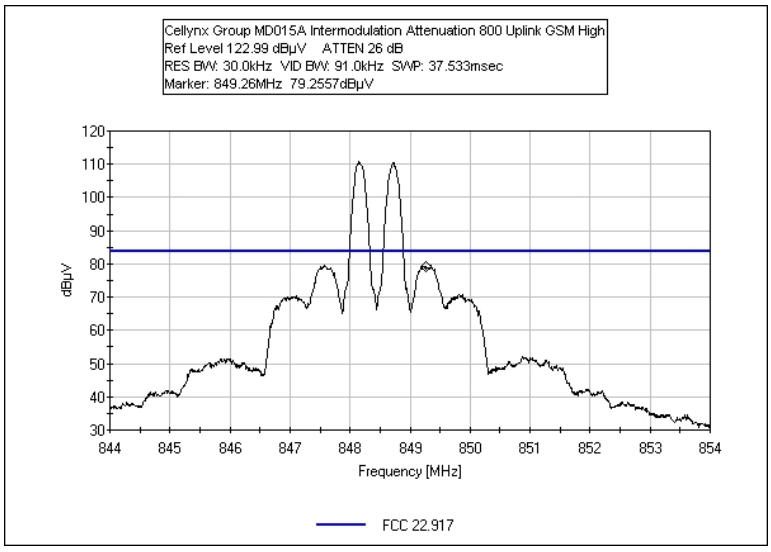
FCC 2.1051 INTERMODULATION – GSM DOWNLINK – HIGH



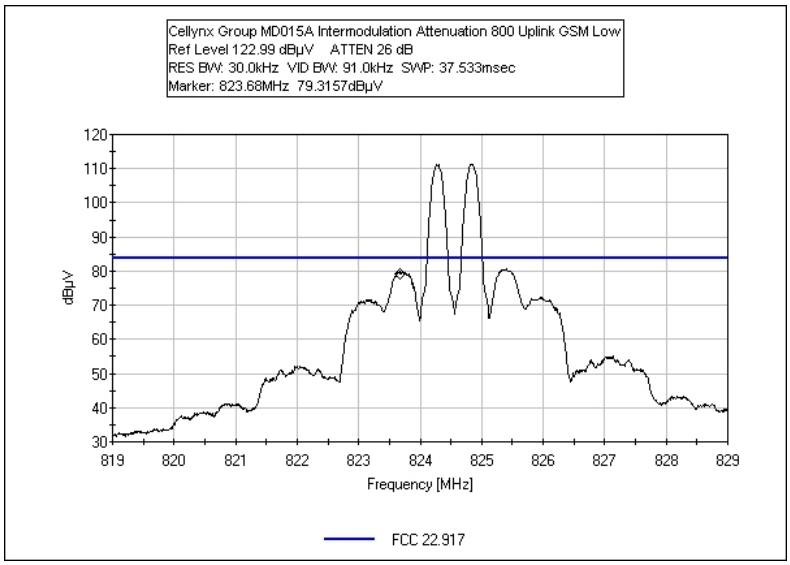
FCC 2.1051 INTERMODULATION – GSM DOWNLINK – LOW



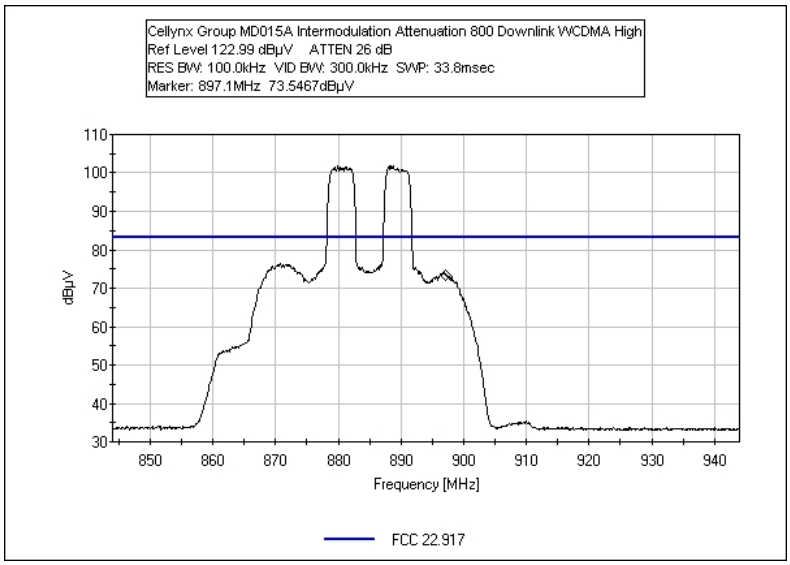
FCC 2.1051 INTERMODULATION – GSM UPLINK – HIGH



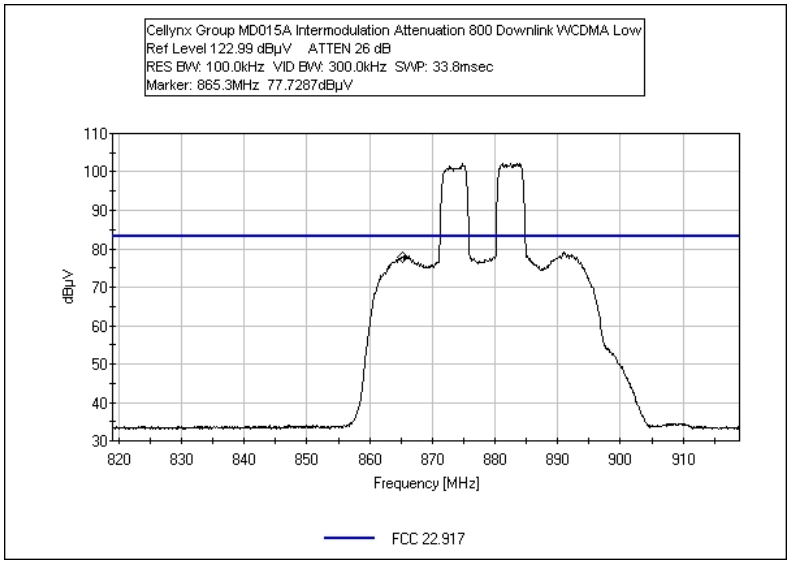
FCC 2.1051 INTERMODULATION – GSM UPLINK – LOW



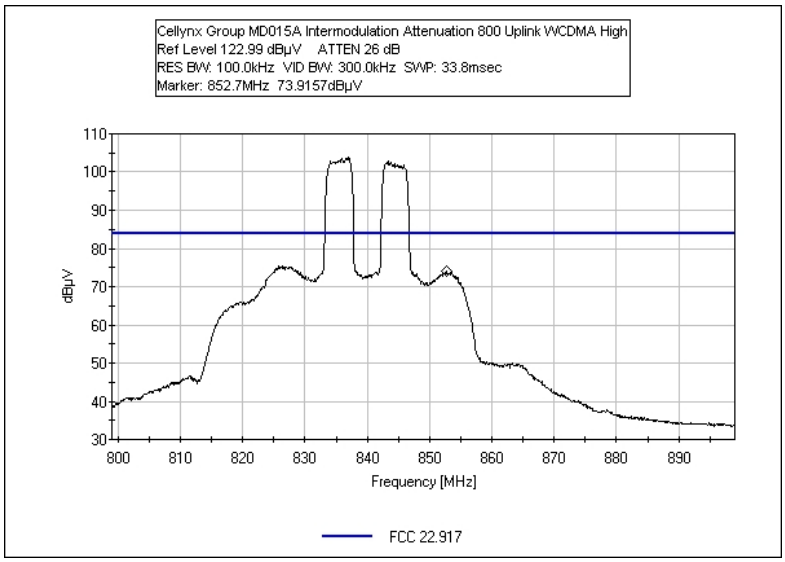
FCC 2.1051 INTERMODULATION – WCDMA DOWNLINK – HIGH



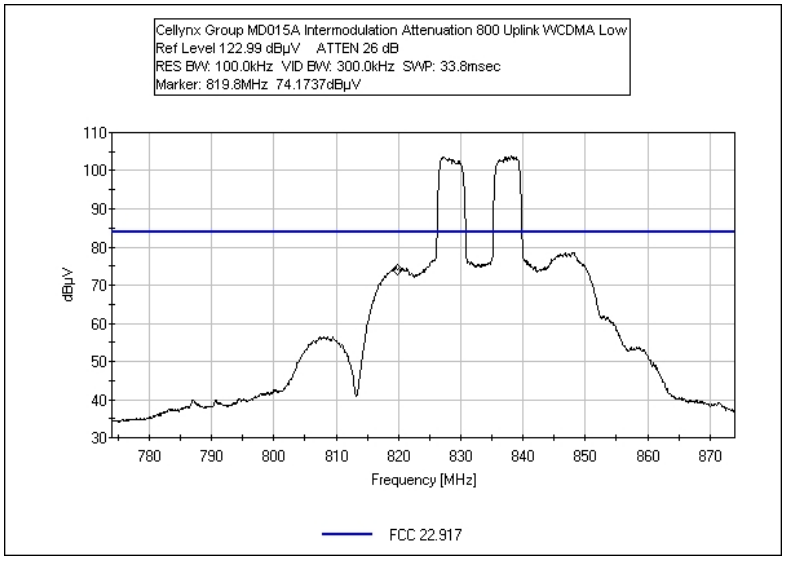
FCC 2.1051 INTERMODULATION – WCDMA DOWNLINK – LOW



FCC 2.1051 INTERMODULATION – WCDMA UPLINK – HIGH



FCC 2.1051 INTERMODULATION – WCDMA UPLINK – LOW



FCC 2.1051 – OUT OF BAND REJECTION

Test Setup Photo

Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Cellynx Group**
Specification: **FCC 22.917**
Work Order #: **89227** Date: 7/1/2009
Test Type: **Antenna Conducted**
Equipment: **Mobile Cellular Booster**
Manufacturer: Cellynx Tested By: Randal Clark
Model: MD015A 120V 60Hz
S/N: 09262100003

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	US39260159
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source. The reference signal is injected at -30dBm (output at signal generator). The signal generator is adjusted over the entire range of the provided plot.

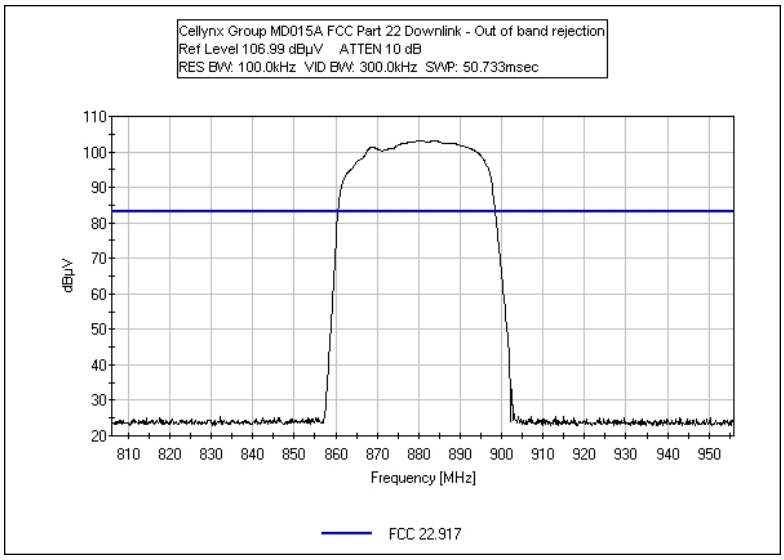
The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

Frequency Range Investigated: Carrier
Operating Band: Uplink and Downlink

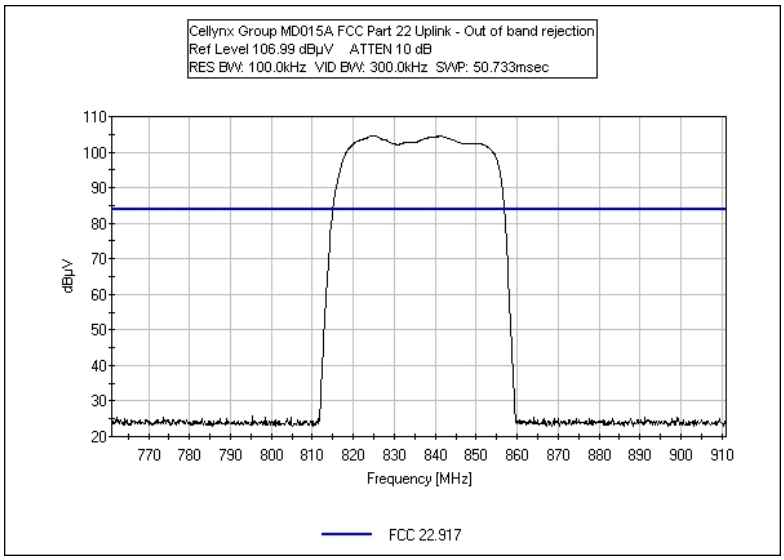
Temperature: 25ºC
Rel Humidity: 40%

Test Plots
Tested By: Randy Clark

FCC 2.1051 – OUT OF BAND REJECTION – DONWLINK

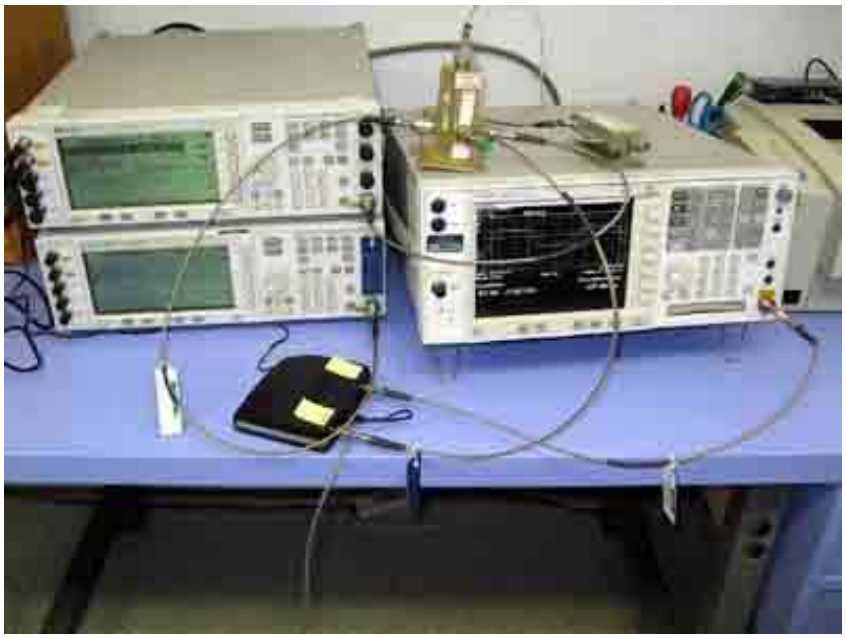


FCC 2.1051 – OUT OF BAND REJECTION – UPLINK



RSS 131 §6.1 – PASSBAND GAIN

Test Setup Photo



Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Cellynx Group**
Specification: **RSS 131**
Work Order #: **89227** Date: 7/1/2009
Test Type: **Antenna Conducted**
Equipment: **Mobile Cellular Booster**
Manufacturer: Cellynx Tested By: Randal Clark
Model: MD015A 120V 60Hz
S/N: 09262100003

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	US39260159
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source. The reference signal is injected at -40dBm (output at signal generator). The measured gain is the peak gain from the signal generator at a constant input.

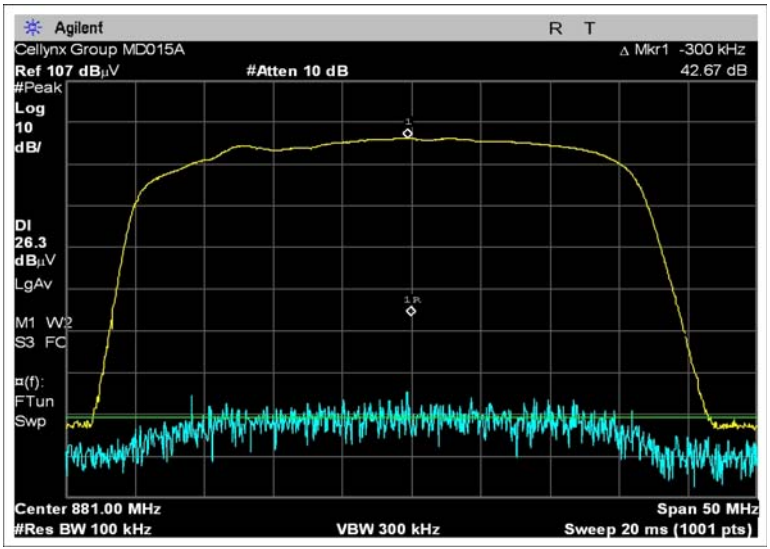
The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

Frequency Range Investigated: Carrier
Operating Band: Uplink and Downlink

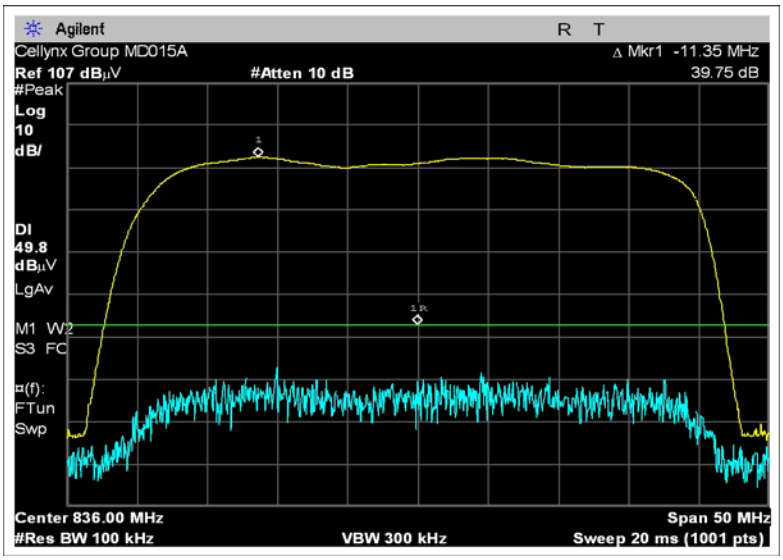
Temperature: 25ºC
Rel Humidity: 40%

Test Plots
Tested By: Randy Clark

RSS 131 §6.1 – PASSBAND GAIN – DOWNLINK

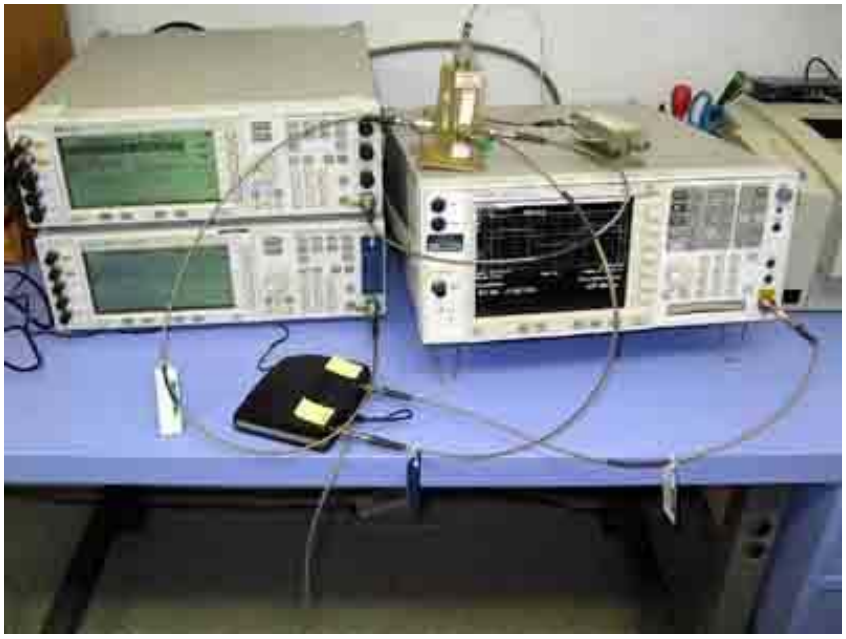


RSS 131 §6.1 – PASSBAND GAIN – UPLINK



RSS 131 §6.1 –BANDWIDTH

Test Setup Photo



Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Cellynx Group**
Specification: **RSS 131**
Work Order #: **89227** Date: 7/1/2009
Test Type: **Antenna Conducted**
Equipment: **Mobile Cellular Booster**
Manufacturer: Cellynx Tested By: Randal Clark
Model: MD015A 120V 60Hz
S/N: 09262100003

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	US39260159
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source. The reference signal is injected at -30dBm (output at signal generator). The signal generator is adjusted over the entire range of the provided plot. Pass band gain is measured at the 20dBc points from the peak output of the amplifier.

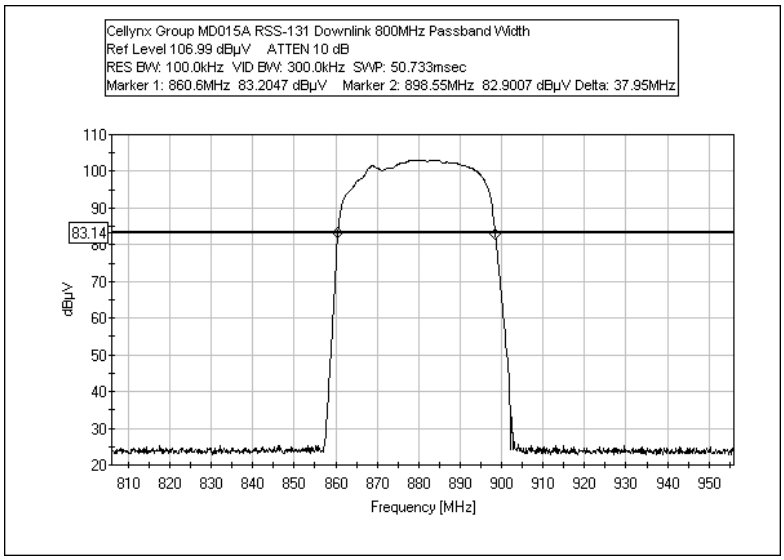
The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

Frequency Range Investigated: Carrier
Operating Band: Uplink and Downlink

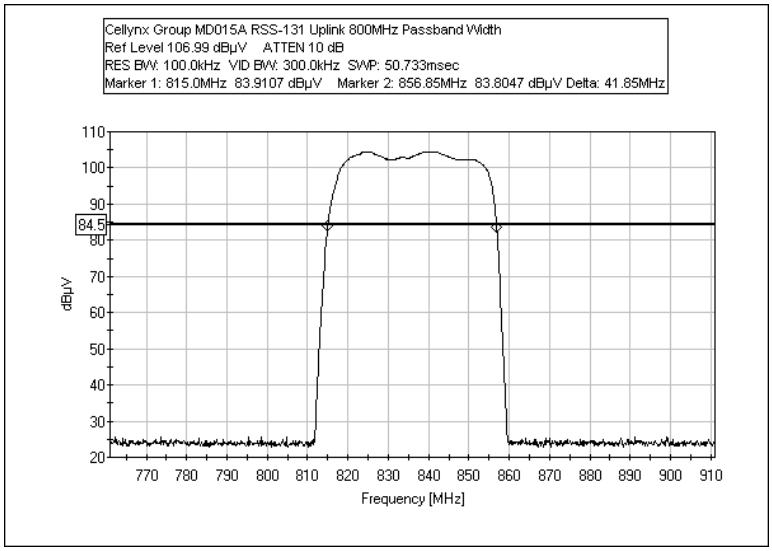
Temperature: 25ºC
Rel Humidity: 40%

Test Plots
Tested By: Randy Clark

RSS 131 §6.1 –BANDWIDTH – DOWNLINK

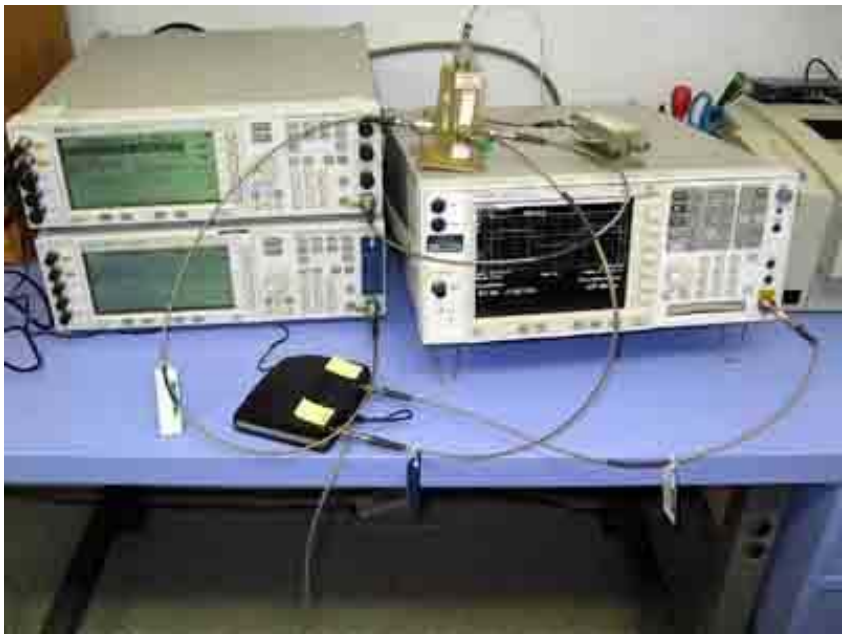


RSS 131 §6.1 –BANDWIDTH – UPLINK



RSS 131 §6.2 - RF POWER OUTPUT

Test Setup Photo



Test Location: CKC Laboratories, Inc. •5046 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer:	**Cellynx Group**		
Specification:	**RSS 131**		
Work Order #:	**89227**	Date:	7/1/2009
Test Type:	**Antenna Conducted**	Time:	14:06:50
Equipment:	**Mobile Cellular Booster**	Sequence#:	1
Manufacturer:	Cellynx	Tested By:	Randal Clark
Model:	MD015A		120V 60Hz
S/N:	09262100003		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
E4446A	US44300507	07/08/2008	07/08/2010	AN02660
Cable, 10' 2.92mm 40 GHz	na	06/10/2009	06/10/2011	ANP01403
Weinchel 10dB attenuator	C8596	05/20/2009	05/20/2011	ANP02138
Inmet DC Block	NA	07/01/2009	07/01/2011	ANP05551

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Mobile Cellular Booster*	Cellynx	MD015A	09262100003

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Sceptre Power	S012BU1200100	NA
Signal Generator	Agilent	E4437B	US39260159
Signal Generator	Agilent	E4437B	MY41000126
Laptop Power Supply	Dell	LA65N50-00	CN-0DF263-71615-850-9C16
Support Computer	Dell	PP23LB	28862556913

Test Conditions / Notes:

Equipment is a bidirectional mobile cellular booster amplifier operating on 824-849 paired with 869-894 MHz and 1850-1910 paired with 1930-1990 MHz. The equipment is connected directly to a signal generator source

The amplifier is controlled using an external computer running Gemini Program Interface GUI software v8.4.1.1. The software is used to control the internal attenuation of the amplifier. The tests were performed with the attenuators set to a static value of 6.0 corresponding to approximately 6dB of internal attenuation. In normal operation, the amplifier would insert attenuation automatically in order to ensure the input signal levels do not exceed a predetermined value. The firmware in the amplifier is v04.10.84.

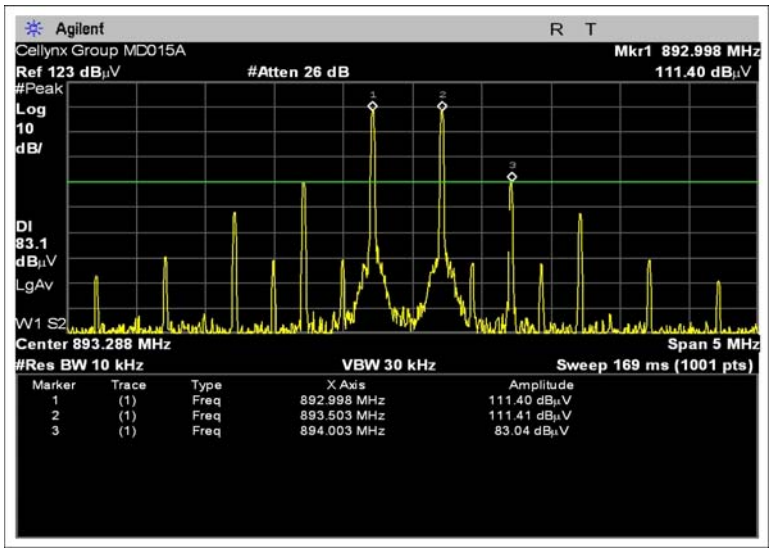
Frequency Range Investigated: Carrier
Operating Band: Uplink and Downlink

Temperature: 25ºC & Rel Humidity: 40%

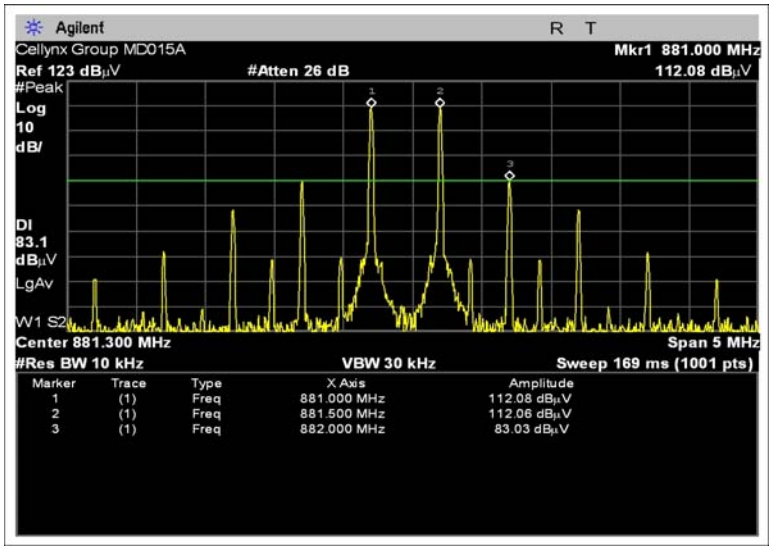
Band	Channel	Single Channel Output Power (dBm)	Rated Output Power Prated (dBm)
Downlink	Low	16.0	19.0
	Mid	16.0	19.0
	High	15.3	18.3
Uplink	Low	17.9	20.9
	Mid	16.4	19.4
	High	17.4	20.4

Test Plots
Tested By: Randy Clark

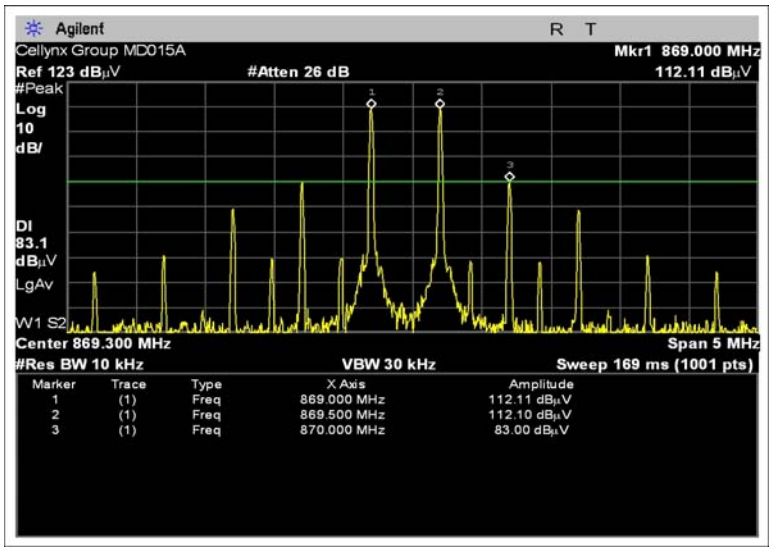
RSS 131 §6.2 - RF POWER OUTPUT – DOWNLINK – HIGH



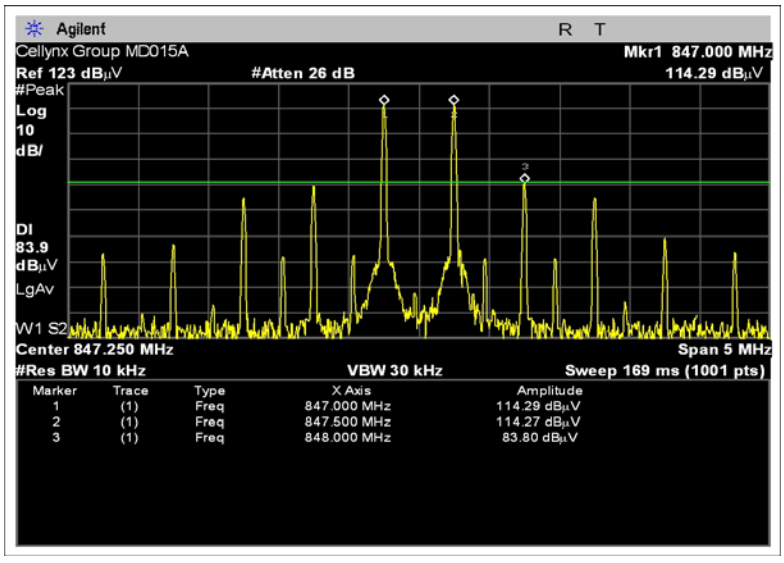
RSS 131 §6.2 - RF POWER OUTPUT – DOWNLINK – MIDDLE



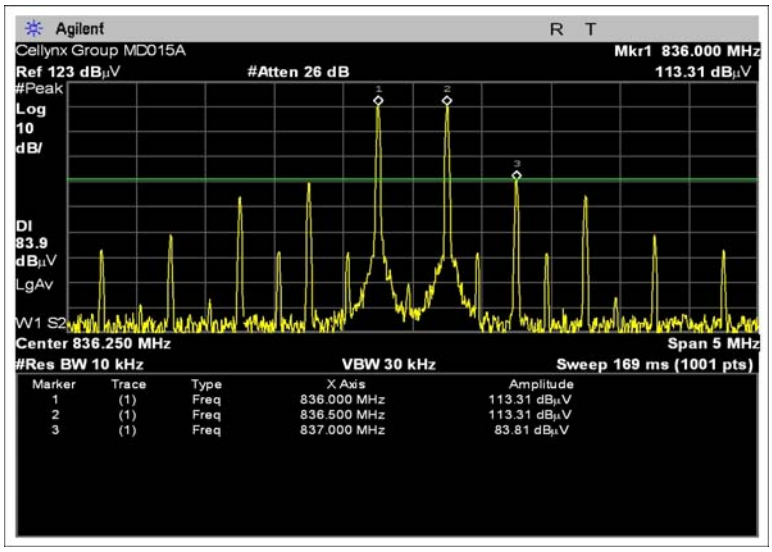
RSS 131 §6.2 - RF POWER OUTPUT – DOWNLINK - LOW



RSS 131 §6.2 - RF POWER OUTPUT – UPLINK – HIGH



RSS 131 §6.2 - RF POWER OUTPUT – UPLINK – MIDDLE



RSS 131 §6.2 - RF POWER OUTPUT – UPLINK - LOW