



ADDENDUM A TO WILSON ELECTRONICS TEST REPORT FC06-049

FOR THE

BIDIRECTIONAL CELLULAR AMPLIFIER REPEATER, 801101

FCC PART 22H AND RSS-131

COMPLIANCE

DATE OF ISSUE: NOVEMBER 13, 2006

PREPARED FOR:

Wilson Electronics
3301 East Deseret Drive
St. George, UT 84790

P.O. No.: SBW801101-1
W.O. No.: 81892

PREPARED BY:

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

Date of test: August 29 - September 15, 2006

Report No.: FC06-049A

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ADMINISTRATIVE INFORMATION

DATE OF TEST: August 29 - September 15, 2006

DATE OF RECEIPT: August 29, 2006

FREQUENCY RANGE TESTED: 30 MHz - 9 GHz

MANUFACTURER: Wilson Electronics
3301 East Deseret Drive
St. George, UT 84790

REPRESENTATIVE: Riki Kline

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

TEST METHOD: FCC Part 22H, RSS-131 and RSS GEN

PURPOSE OF TEST: **Original Report** is to demonstrate the compliance of the Bidirectional Cellular Amplifier Repeater, 801101 with the requirements for FCC Part 22H and RSS-131 devices.
Addendum A is to revise pages 14, 16, 62 and 67 with no new testing.

FCC TO CANADA STANDARD CORRELATION MATRIX

Canadian Standard	Canadian Section	FCC Standard	FCC Section	Test Description
RSS 131	5.4	NA	NA	External Controls
RSS 131	5.5	47 CFR	1.1307	RF Exposure
RSS 131	6.1	NA	NA	Passband Gain and Bandwidth
RSS 131	6.2	NA	NA	RF Power Output
N/A	N/A	47 CFR	22.913	RF Power Output
RSS 131	6.3	TIA/EIA	603	Non-Linearity (Intermodulation Attenuation)
RSS 131	6.4	47 CFR	22.917	Spurious Emissions Limitations
RSS 131	6.5	NA	NA	Frequency Stability (Band Translators)
	3082A-1		784962	Site File No.

CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:



Joyce Walker
Quality Assurance Administrative Manager

TEST PERSONNEL:



Randy Clark
EMC Engineer



Mike Wilkinson
EMC Engineer/Lab Manager

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

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

EQUIPMENT UNDER TEST

Bidirectional Cellular Amplifier Repeater

Manuf: Wilson Electronics
Model: 801101
Serial: 8011018033282
FCC ID: PWO824WV
IC ID: 4726A-824WV

PERIPHERAL DEVICES

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

DC Power Supply

Manuf: Topward Electric Instruments Co., Ltd.
Model: TPS-2000
Serial: 920035

Digital Signal Generator

Manuf: Agilent
Model: E4432B
Serial: MY41000108

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

F1D, G7W, GXW, F9W

FCC 2.1033 (c)(5) FREQUENCY RANGE

824-849 MHz Uplink, 869-894 MHz Downlink.

FCC 2.1033 (c)(6) OPERATING POWER

2.14 Watts Uplink, 1.86 milliWatts Downlink.

FCC 2.1033 (c)(7) MAXIMUM POWER RATING

The effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 Watts. The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

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, AMPS and TDMA (EDGE & GSM)

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

Customer: **Wilson Electronics**
Specification: **FCC 2.1046**
Work Order #: **81892**
Test Type: **Antenna Conducted**
Equipment: **Bidirectional Cellular Amplifier Repeater**
Manufacturer: Wilson Electronics
Model: 801101
S/N: 8011018033282

Tested By: Randal Clark
12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 25A-MFN-30	9724	05/18/2005	05/18/2007	P01577

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation.

CDMA – RBW=8MHz, VBW=8MHz
GSM and EDGE – RBW=1MHz, VBW=3MHz
AMPS – RBW=300kHz, VBW=910kHz

Frequency Range Investigated: Carrier
Temperature: 81°F
Relative Humidity: 36%

Test Conditions: Only one signal is input to the amplifier. The input from the signal generator is set such that the maximum output is provided at the antenna terminals. The internal ALC of the amplifier limits the maximum power output to a factory set level. Power output is continuously variable and directly proportional to the supplied RF input. Minimum RF output power of 0.00 Watts is achieved with a 0.00 Watt RF input signal.

Uplink Output Ratings:

CDMA, AMPS and TDMA (EDGE & GSM) formats: 3Watts

Downlink Output Ratings:

All: <10mW

RF power output of the amplifier is routed to a spectrum analyzer through suitable attenuation.

Downlink - Conducted Power

<i>Frequency (MHz)</i>	<i>Modulation</i>	<i>Power Output (milliWatts)</i>
870.25	CDMA	0.68
881.5	CDMA	1.86
892.75	CDMA	1.38
869.28	GSM	0.19
881.5	GSM	0.30
893.72	GSM	0.25
869.28	EDGE	0.21
881.5	EDGE	0.48
893.72	EDGE	0.32
869.03	AMPS	0.18
881.5	AMPS	0.32
893.97	AMPS	0.24

Uplink – Conducted Power

<i>Frequency (MHz)</i>	<i>Modulation</i>	<i>Power Output (Watts)</i>
825.25	CDMA	1.95
836.5	CDMA	2.14
847.75	CDMA	1.70
824.28	GSM	1.38
836.5	GSM	1.58
848.72	GSM	1.23
824.28	EDGE	1.32
836.5	EDGE	1.41
848.72	EDGE	1.15
824.03	AMPS	1.32
836.5	AMPS	1.45
848.97	AMPS	1.15

Uplink – ERP Power

<i>Frequency (MHz)</i>	<i>Modulation</i>	<i>Power Output (Watts)</i>
825.25	CDMA	1.54
836.5	CDMA	1.69
847.75	CDMA	1.34
824.28	GSM	1.09
836.5	GSM	1.25
848.72	GSM	0.97
824.28	EDGE	1.04
836.5	EDGE	1.12
848.72	EDGE	0.91
824.03	AMPS	1.04
836.5	AMPS	1.14
848.97	AMPS	0.91

Note:

EIRP calculated using highest gain mobile antenna sold with equipment. Antenna consists of a 5.12 dBi gain antenna and 4 dB cable loss as declared by the manufacturer.

RSS-131 - RF POWER OUTPUT

EUT is a In Vehicle Wireless Dual Band Amplifier / Repeater
824 to 894 MHz AMPS band.

Uplink frequency range 824 - 849 MHz.

Downlink frequency range 869 - 894 MHz.

Test Conditions: Two signal generators are connected to a signal combiner. The output of the signal combine is connected to the Indoor/Outdoor antenna port of the EUT. The mean power (p mean) is evaluated at the Outdoor/Indoor antenna port of the EUT with a spectrum analyzer via a directional coupler. Coupling Loss: 30.7 for 800 MHz band.

Injection Frequencies (MHz)	Highest Measured Output Power (P dBm)	Mean Output Power (P + 3dB dBm)	Mean Output Power (Watts)
825& 826	17.3	20.3	0.107
847 & 848	17.2	20.2	0.105
870 & 871	-6.4	-3.4	0.000457
891 & 892	-5.5	-2.5	0.000562

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

Bandwidth settings used: 100 kHz.

Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 14:14:54

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 17

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Low Channel. Modulation Type: AMPS. Temperature: 81°F, Relative Humidity: 36%.

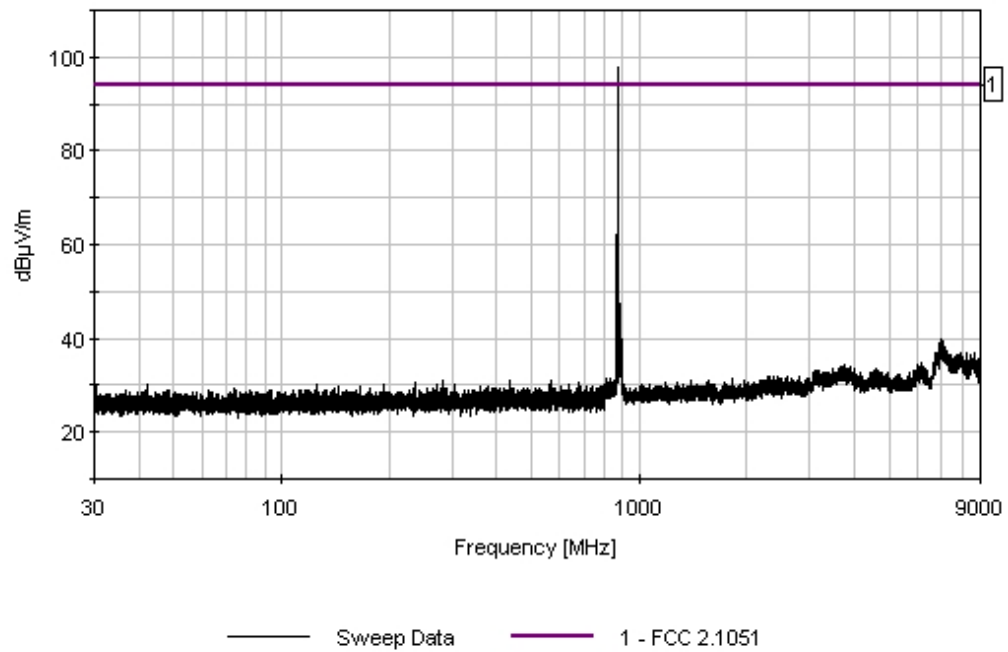
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	869.024M	97.3	+0.6				+0.0	97.9	97.9 Carrier	+0.0	RF Ou
2	1738.027M	28.3	+0.9				+0.0	29.2	94.0	-64.8	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 14:14:54 Wilson Electronics WVO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 17
Wilson Electronics M/N 801101 Downlink AMPS Low Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 14:19:16

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 18

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Mid Channel. Modulation Type: AMPS. Temperature: 81°F, Relative Humidity: 36%.

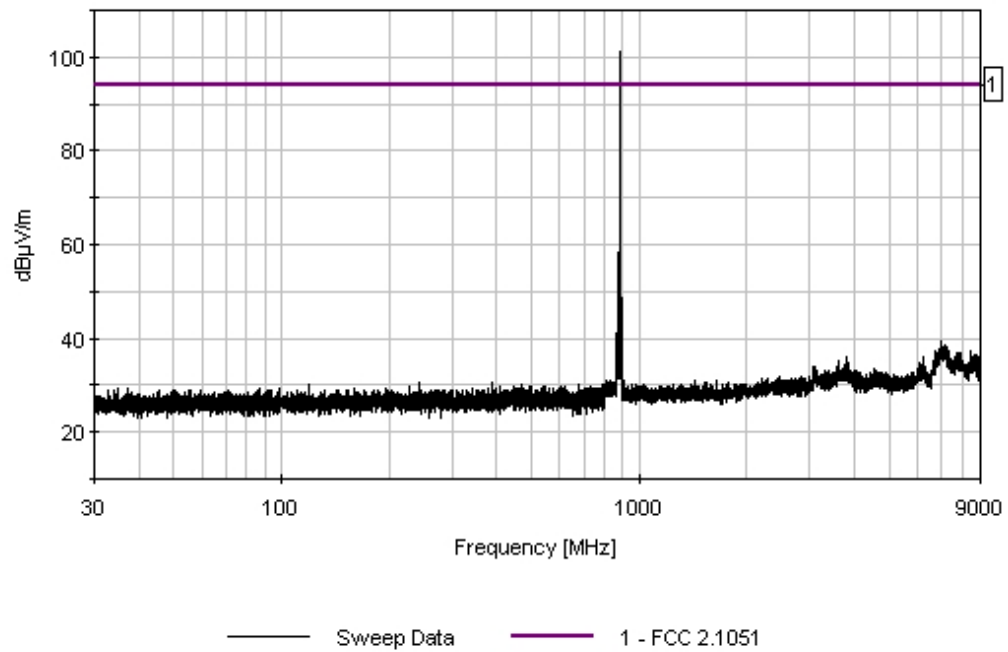
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	881.503M	100.7	+0.6				+0.0	101.3	101.3	0.0	RF Ou
2	1763.006M	29.1	+0.9				+0.0	30.0	94.0	-64.0	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 14:19:16 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 18
Wilson Electronics M/N 801101 Downlink AMPS Mid Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 14:21:31

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 19

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: High Channel. Modulation Type: AMPS. Temperature: 81°F, Relative Humidity: 36%.

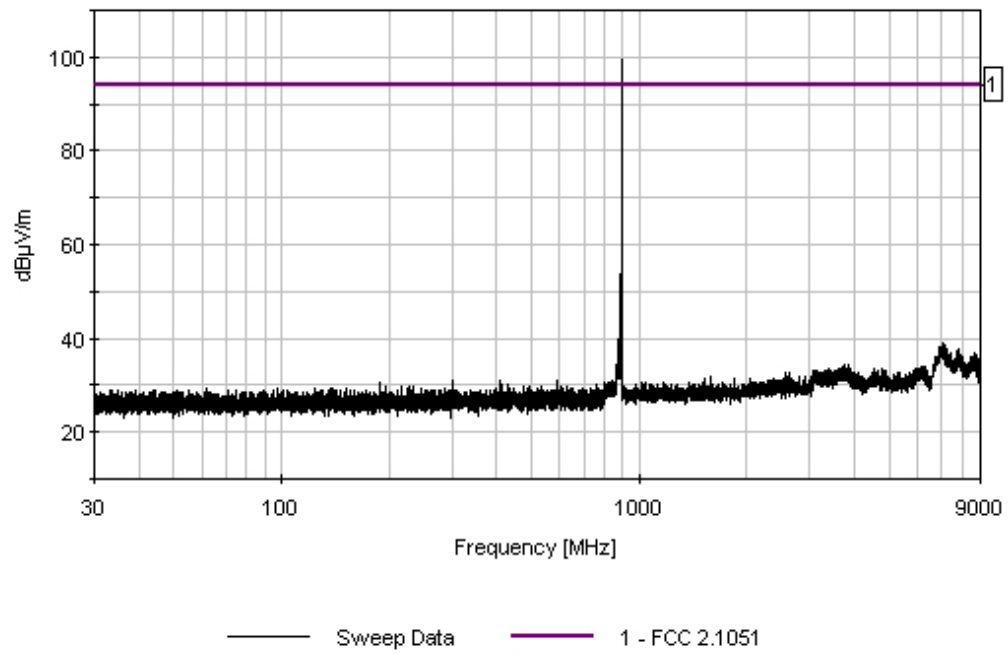
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	893.961M	98.8	+0.6				+0.0	99.4	99.4	0.0	RF Ou
2	1787.922M	26.2	+0.9				+0.0	27.1	94.0	-66.9	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 14:21:31 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 19
Wilson Electronics M/N 801101 Downlink AMPS High Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 16:43:59

Equipment: **Bidirectional Cellular Amplifier
Repeater**

Sequence#: 28

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Low Channel. Modulation Type: CDMA. Temperature: 81°F, Relative Humidity: 36%.

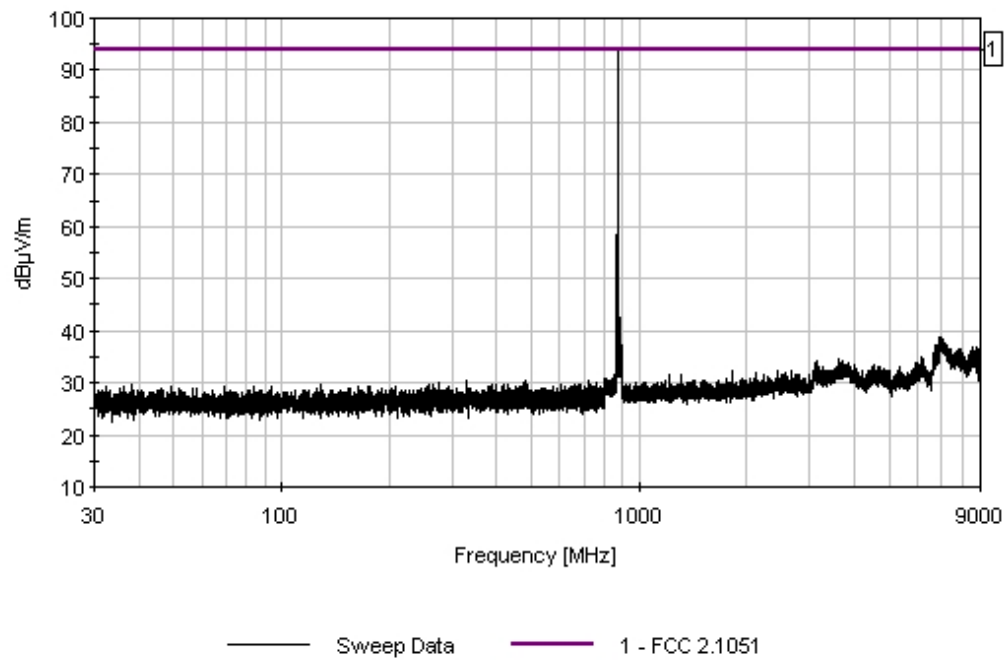
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dB μ V	T1 dB				Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	870.359M	88.5	+0.6				+0.0	89.1	89.1 Carrier	+0.0	RF Ou
2	1740.718M	26.4	+0.9				+0.0	27.3	94.0	-66.7	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 16:43:59 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 28
Wilson Electronics M/N 801101 Downlink CDMA Low Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 16:41:25

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 27

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Mid Channel. Modulation Type: CDMA. Temperature: 81°F, Relative Humidity: 36%.

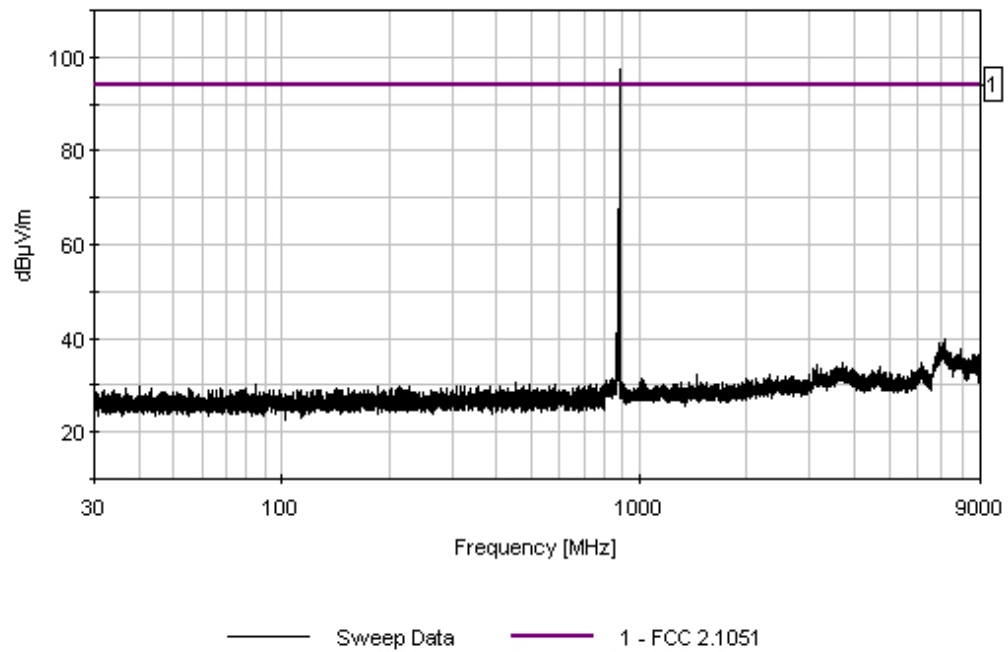
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	881.615M	90.6	+0.6				+0.0	91.2	91.2	+0.0	RF Ou
									CDMA		
2	1763.230M	27.5	+0.9				+0.0	28.4	94.0	-65.6	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 16:41:25 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 27
Wilson Electronics M/N 801101 Downlink CDMA Mid Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 16:38:50

Equipment: **Bidirectional Cellular Amplifier
Repeater**

Sequence#: 26

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: High Channel. Modulation Type: CDMA. Temperature: 81°F, Relative Humidity: 36%.

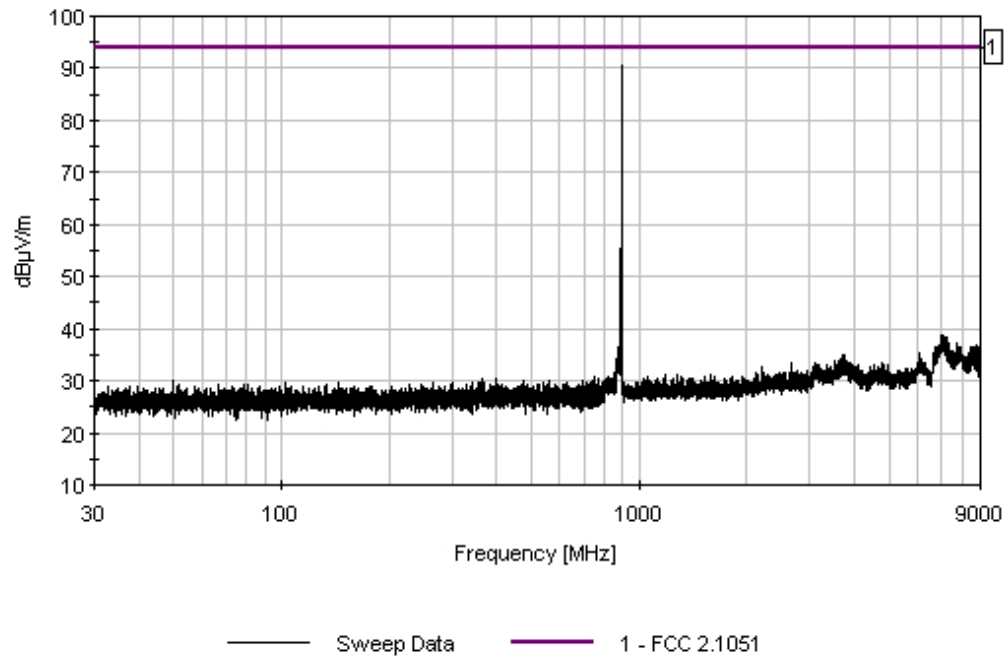
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	892.472M	90.1	+0.6				+0.0	90.7	90.7	+0.0	RF Ou
									Carrier		
2	2676.864M	27.3	+1.1				+0.0	28.4	94.0	-65.6	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 16:38:50 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 26
Wilson Electronics M/N 801101 Downlink CDMA High Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 16:20:49

Equipment: **Bidirectional Cellular Amplifier
Repeater**

Sequence#: 22

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Low Channel. Modulation Type: EDGE. Temperature: 81°F, Relative Humidity: 36%.

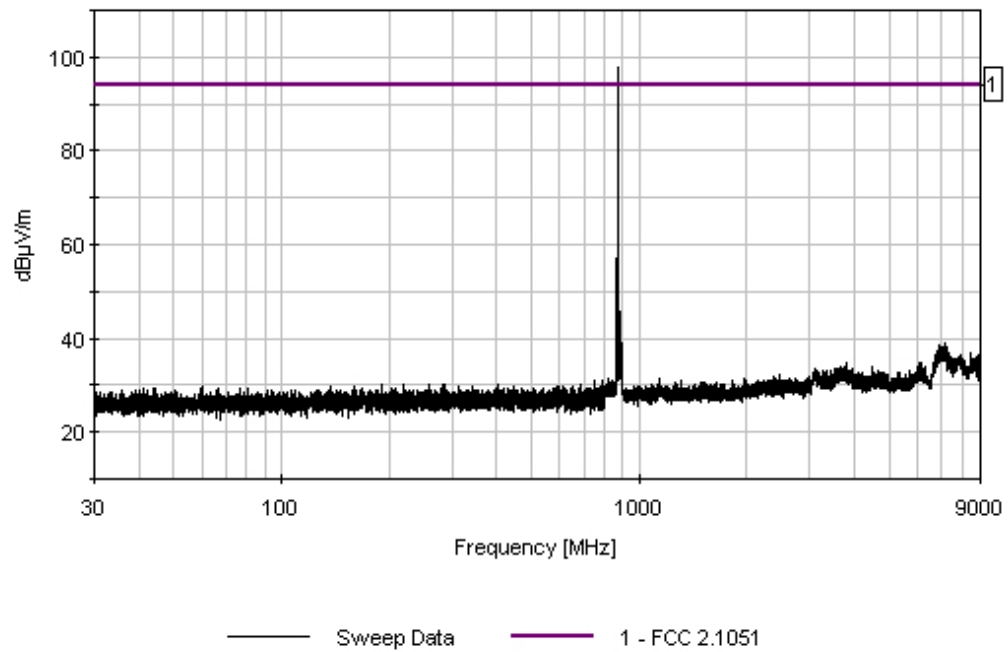
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	869.267M	97.3	+0.6				+0.0	97.9	97.9	+0.0	RF Ou
									Carrier		
2	1738.534M	25.0	+0.9				+0.0	25.9	94.0	-68.1	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 16:20:49 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 22
Wilson Electronics M/N 801101 Downlink EDGE Low Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 16:15:42

Equipment: **Bidirectional Cellular Amplifier
Repeater**

Sequence#: 21

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Mid Channel. Modulation Type: EDGE. Temperature: 81°F, Relative Humidity: 36%.

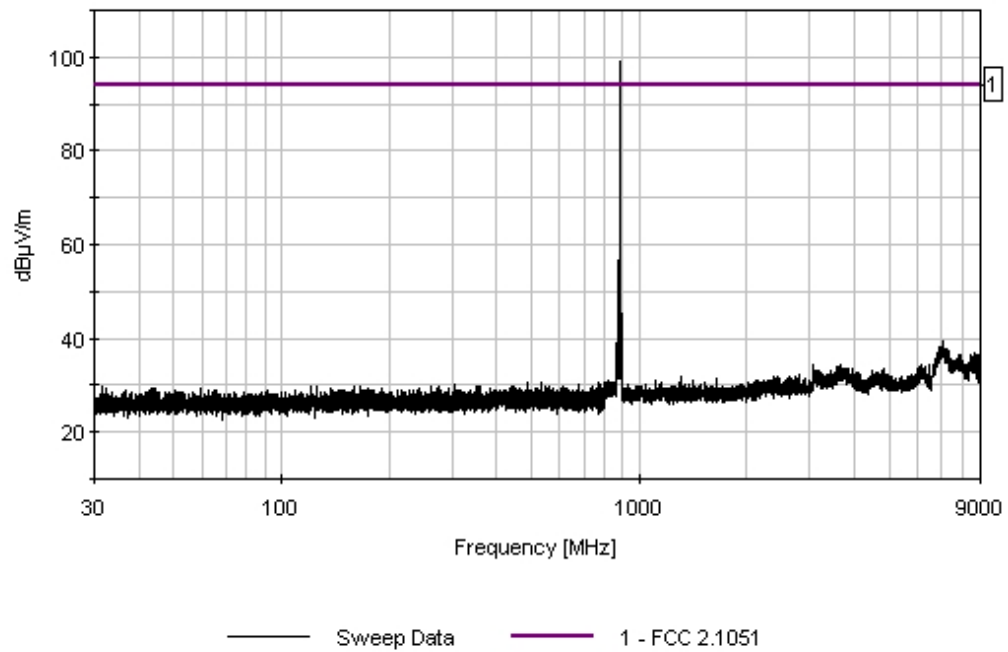
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	881.485M	98.7	+0.6				+0.0	99.3	99.3	+0.0	RF Ou
									Carrier		
2	1762.970M	25.9	+0.9				+0.0	26.8	94.0	-67.2	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 16:15:42 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 21
Wilson Electronics M/N 801101 Downlink EDGE Mid Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 14:28:03

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 20

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: High Channel. Modulation Type: EDGE. Temperature: 81°F, Relative Humidity: 36%.

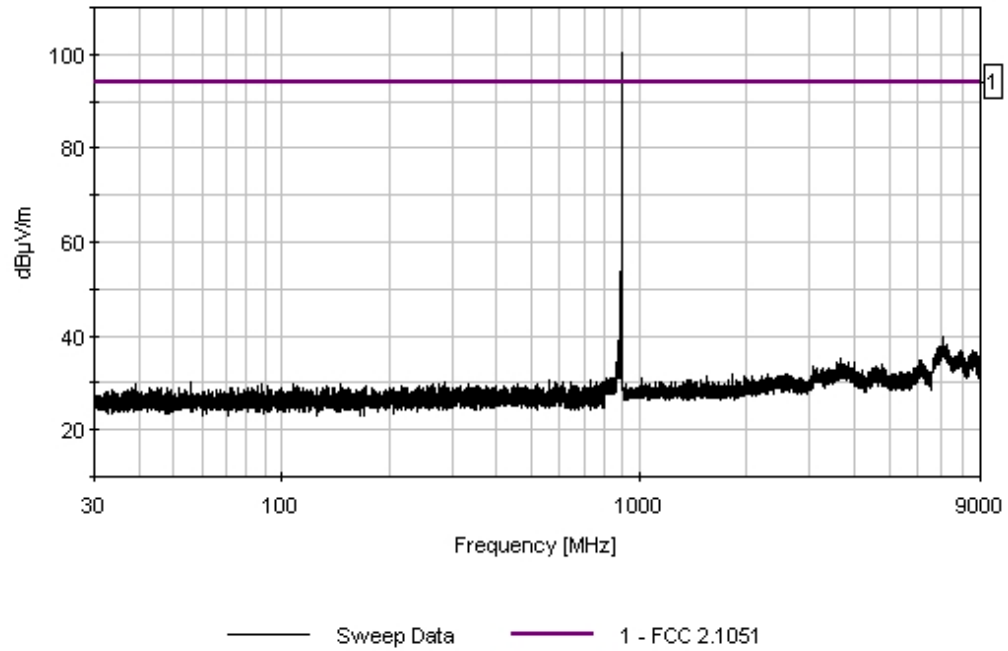
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	893.712M	99.7	+0.6				+0.0	100.3	100.3	+0.0	RF Ou
									Carrier		
2	1787.424M	28.1	+0.9				+0.0	29.0	94.0	-65.0	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 14:28:03 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 20
Wilson Electronics M/N 801101 Downlink EDGE High Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 16:24:18

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 23

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Low Channel. Modulation Type: GSM. Temperature: 81°F, Relative Humidity: 36%.

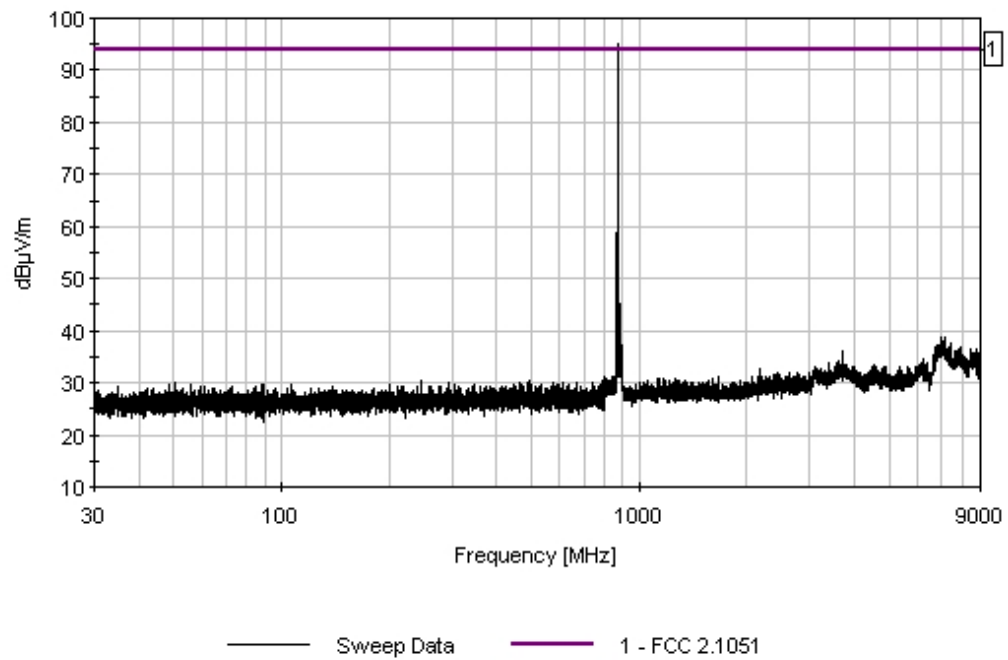
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	869.348M	96.4	+0.6				+0.0	97.0	97.0	+0.0	RF Ou
									Carrier		
2	1738.663M	28.4	+0.9				+0.0	29.3	94.0	-64.7	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 16:24:18 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 23
Wilson Electronics M/N 801101 Downlink GSM Low Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 16:28:34

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 24

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Mid Channel. Modulation Type: GSM. Temperature: 81°F, Relative Humidity: 36%.

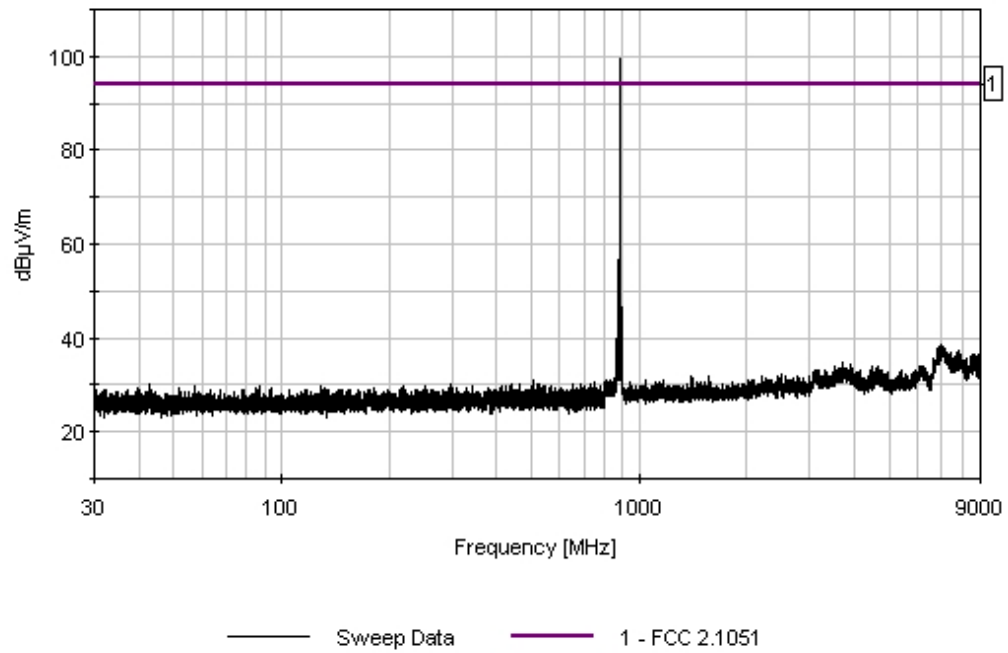
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	881.570M	98.8	+0.6				+0.0	99.4	99.4	+0.0	RF Ou
									Carrier		
2	1763.140M	26.6	+0.9				+0.0	27.5	94.0	-66.5	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 16:28:34 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 24
Wilson Electronics M/N 801101 Downlink GSM Mid Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 16:31:42

Equipment: **Bidirectional Cellular Amplifier
Repeater**

Sequence#: 25

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: High Channel. Modulation Type: GSM. Temperature: 81°F, Relative Humidity: 36%.

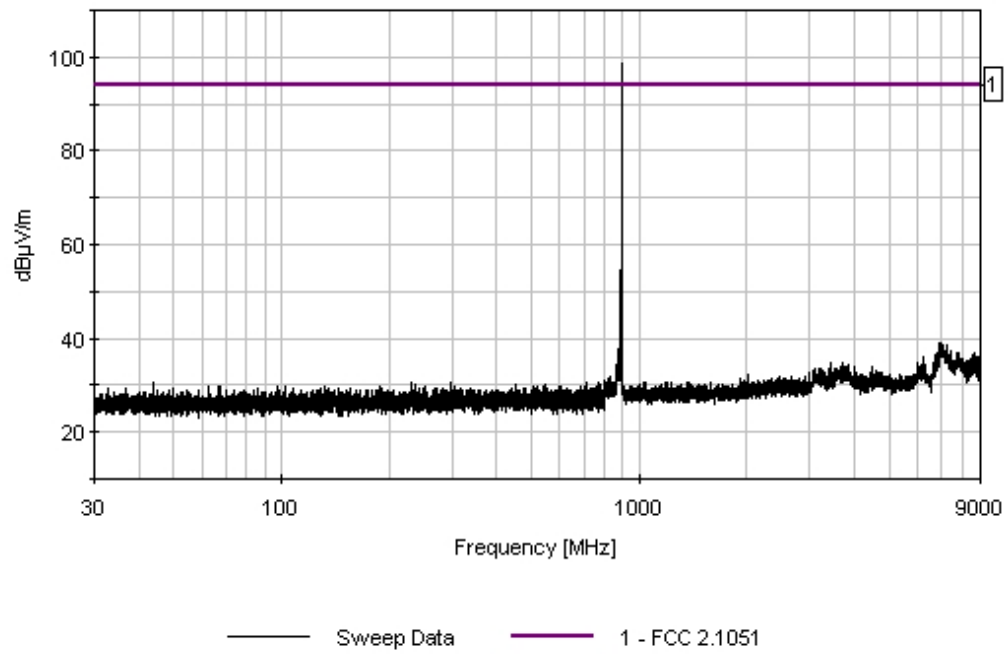
Transducer Legend:

T1=Cable 40 GHz 36"

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

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	893.655M	98.2	+0.6				+0.0	98.8	98.8	+0.0	RF Ou
									Carrier		
2	1787.310M	26.0	+0.9				+0.0	26.9	94.0	-67.1	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 16:31:42 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Downlink 12VDC Sequence#: 25
Wilson Electronics M/N 801101 Downlink GSM High Channel



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

Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 2.1051**
 Work Order #: **81892** Date: 9/13/2006
 Test Type: **Antenna Conducted** Time: 13:55:33
 Equipment: **Bidirectional Cellular Amplifier Repeater** Sequence#: 16
 Manufacturer: Wilson Electronics Tested By: Randal Clark
 Model: 801101 12VDC
 S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 25A-MFN-30	9724	05/18/2005	05/18/2007	P01577

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Low Channel. Modulation Type: AMPS. Temperature: 81°F, Relative Humidity: 36%.

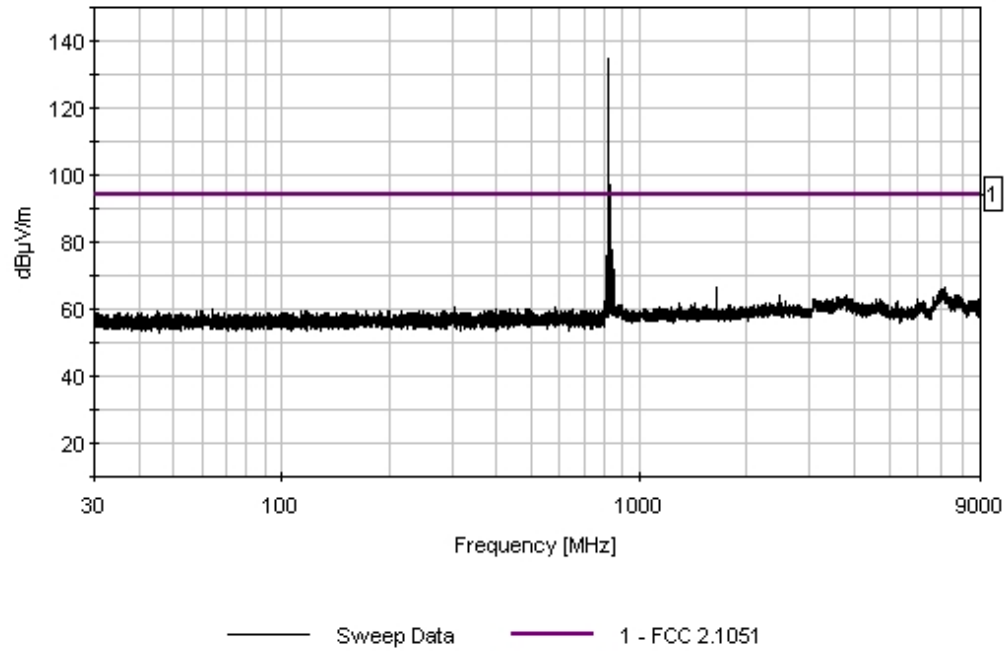
Transducer Legend:

T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin. Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	824.021M	104.1	+0.6	+30.1			+0.0	134.8	134.8	+0.0	RF Ou
2	1648.069M	37.4	+0.8	+30.2			+0.0	68.4	94.0	-25.6	RF Ou
3	2472.072M	36.7	+1.0	+30.0			+0.0	67.7	94.0	-26.3	RF Ou
4	3296.093M	30.5	+1.2	+29.7			+0.0	61.4	94.0	-32.6	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 13:55:33 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 16
Wilson Electronics M/N 801101 Uplink AMPS Low Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 13:53:07

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 15

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Mid Channel. Modulation Type: AMPS. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

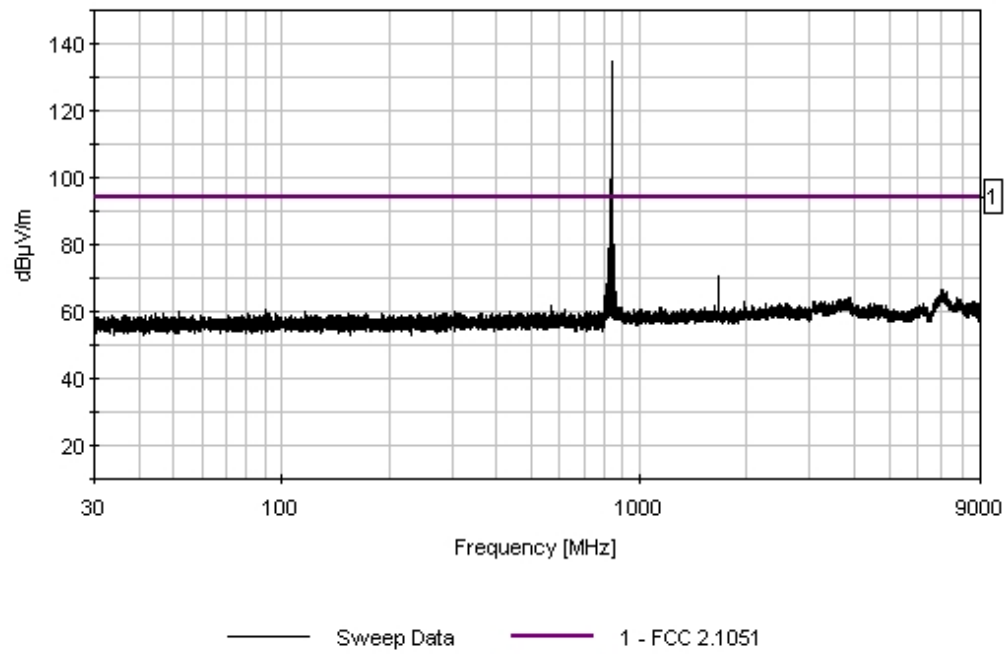
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	836.491M	104.2	+0.6	+30.1		+0.0	134.9	134.9 Carrier	+0.0	RF Ou
2	1672.988M	41.4	+0.8	+30.1		+0.0	72.3	94.0	-21.7	RF Ou
3	3346.024M	34.4	+1.2	+29.7		+0.0	65.3	94.0	-28.7	RF Ou
4	2509.473M	33.0	+1.0	+30.0		+0.0	64.0	94.0	-30.0	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 13:53:07 Wilson Electronics WVO#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 15
Wilson Electronics M/N 801101 Uplink AMPS Mid Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 13:50:15

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 14

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: High Channel. Modulation Type: AMPS. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

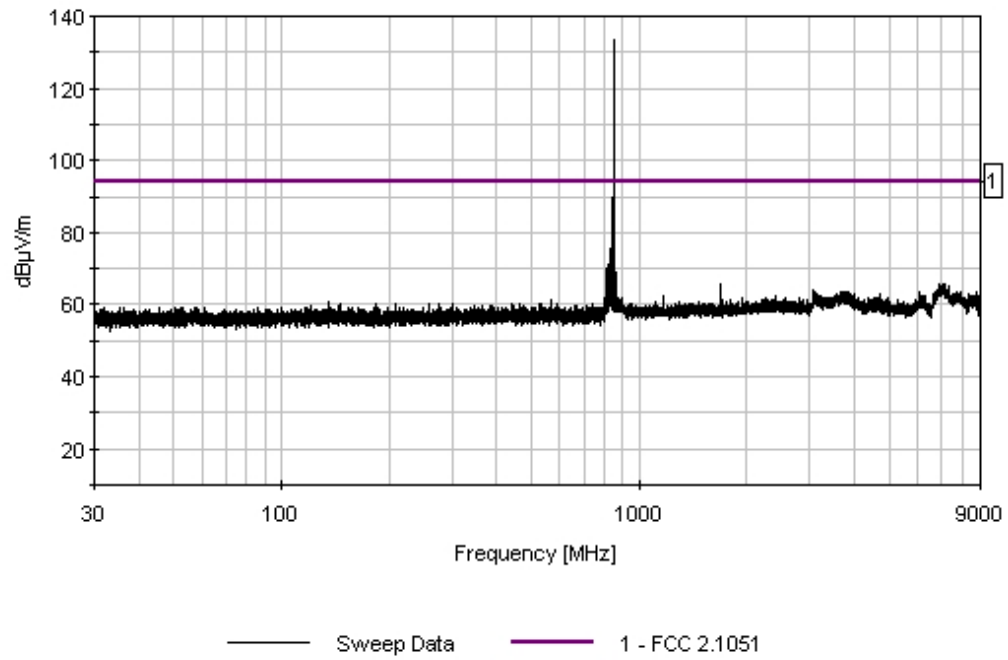
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	848.991M	102.7	+0.6	+30.1		+0.0	133.4	133.4	+0.0	RF Ou
								Carrier		
2	1697.955M	36.2	+0.8	+30.1		+0.0	67.1	94.0	-26.9	RF Ou
3	2546.946M	32.8	+1.0	+29.9		+0.0	63.7	94.0	-30.3	RF Ou
4	3395.922M	30.3	+1.2	+29.7		+0.0	61.2	94.0	-32.8	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 13:50:15 Wilson Electronics WO#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 14
Wilson Electronics M/N 801101 Uplink AMPS High Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 12:19:19

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 5

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Low Channel. Modulation Type: CDMA. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

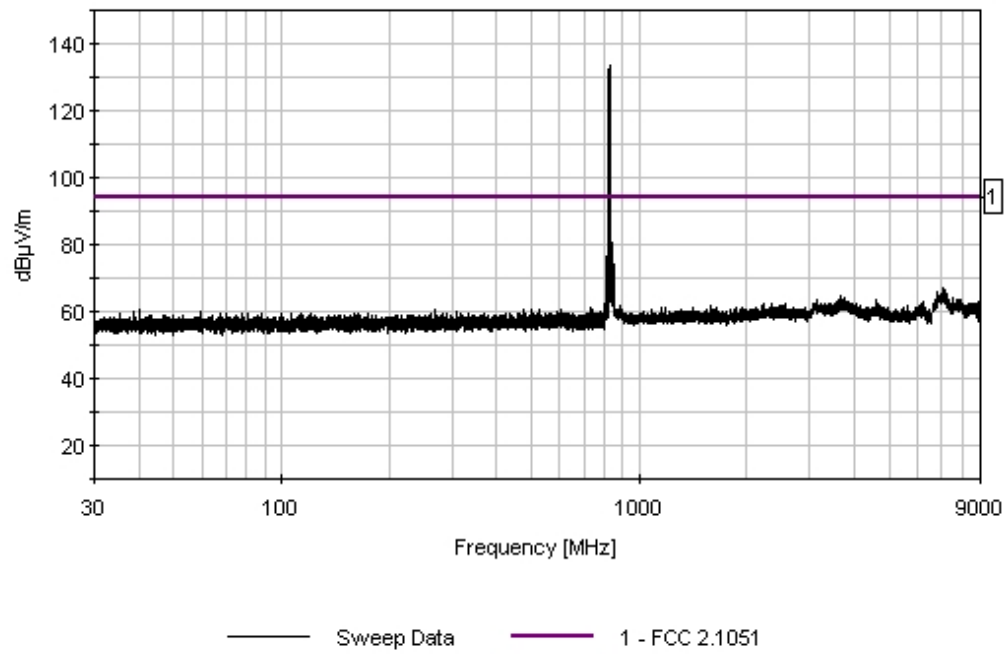
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	825.228M	101.8	+0.6	+30.1	+0.0	132.5	132.5	+0.0	RF Ou
							Carrier		
2	2475.747M	30.3	+1.0	+30.0	+0.0	61.3	94.0	-32.7	RF Ou
3	1650.498M	29.3	+0.8	+30.2	+0.0	60.3	94.0	-33.7	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 12:19:19 Wilson Electronics WVO#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 5
Wilson Electronics M/N 801101 Uplink CDMA Low Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 12:22:16

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 6

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Mid Channel. Modulation Type: CDMA. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

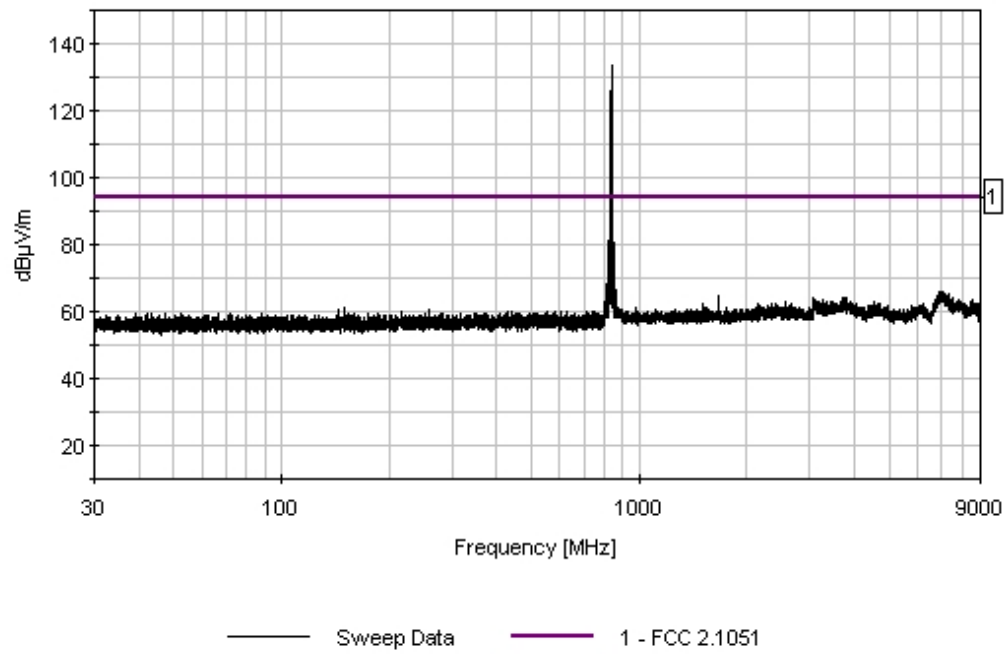
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	836.471M	100.1	+0.6	+30.1		+0.0	130.8	130.8 Carrier	+0.0	RF Ou
2	1673.002M	37.1	+0.8	+30.1		+0.0	68.0	94.0	-26.0	RF Ou
3	3346.010M	33.6	+1.2	+29.7		+0.0	64.5	94.0	-29.5	RF Ou
4	2509.539M	32.2	+1.0	+30.0		+0.0	63.2	94.0	-30.8	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 12:22:16 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 6
Wilson Electronics M/N 801101 Uplink CDMA Mid Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 12:26:12

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 7

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: High Channel. Modulation Type: CDMA. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

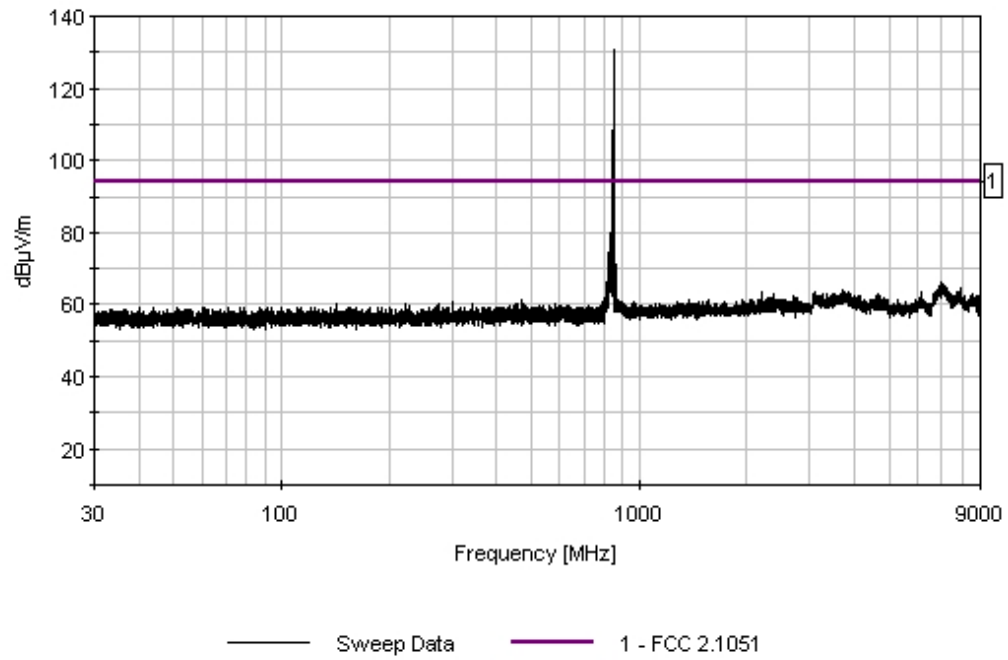
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	847.737M	99.9	+0.6	+30.1		+0.0	130.6	130.6	+0.0	RF Ou
								Carrier		
2	1695.516M	41.0	+0.8	+30.1		+0.0	71.9	94.0	-22.1	RF Ou
3	2543.300M	37.2	+1.0	+29.9		+0.0	68.1	94.0	-25.9	RF Ou
4	3391.037M	30.2	+1.2	+29.7		+0.0	61.1	94.0	-32.9	RF Ou
5	1695.474M	28.8	+0.8	+30.1		+0.0	59.7	94.0	-34.3	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 12:26:12 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 7
Wilson Electronics M/N 801101 Uplink CDMA High Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 13:16:20

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 11

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Low Channel. Modulation Type: EDGE. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

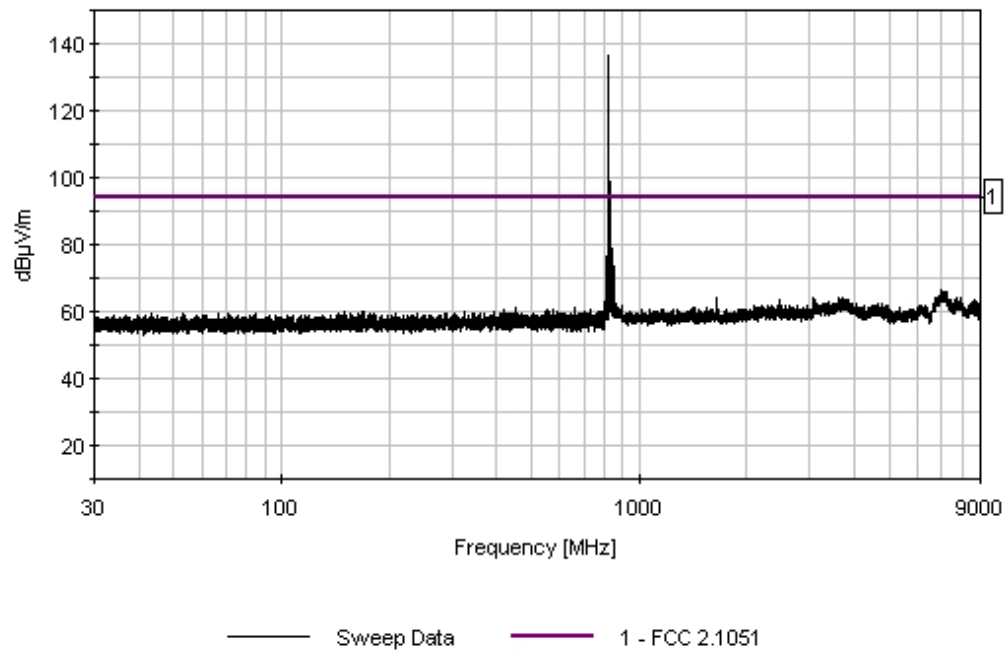
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	824.303M	105.7	+0.6	+30.1		+0.0	136.4	136.4 Carrier	+0.0	RF Ou
2	1648.546M	35.9	+0.8	+30.2		+0.0	66.9	94.0	-27.1	RF Ou
3	2472.822M	35.5	+1.0	+30.0		+0.0	66.5	94.0	-27.5	RF Ou
4	3297.062M	31.9	+1.2	+29.7		+0.0	62.8	94.0	-31.2	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 13:16:20 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 11
Wilson Electronics M/N 801101 Uplink EDGE Low Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 13:19:12

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 12

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Mid Channel. Modulation Type: EDGE. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

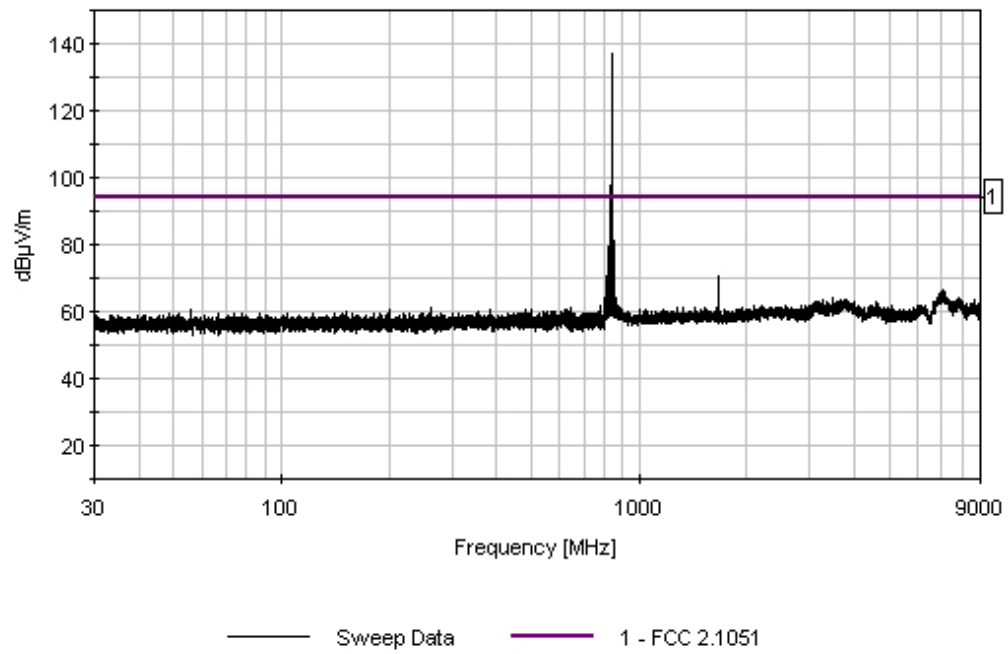
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	836.497M	106.1	+0.6	+30.1		+0.0	136.8	136.8 Carrier	+0.0	RF Ou
2	1672.979M	41.0	+0.8	+30.1		+0.0	71.9	94.0	-22.1	RF Ou
3	3345.982M	35.6	+1.2	+29.7		+0.0	66.5	94.0	-27.5	RF Ou
4	2509.548M	33.9	+1.0	+30.0		+0.0	64.9	94.0	-29.1	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 13:19:12 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 12
Wilson Electronics M/N 801101 Uplink EDGE Mid Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 13:21:44

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 13

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: High Channel. Modulation Type: EDGE. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

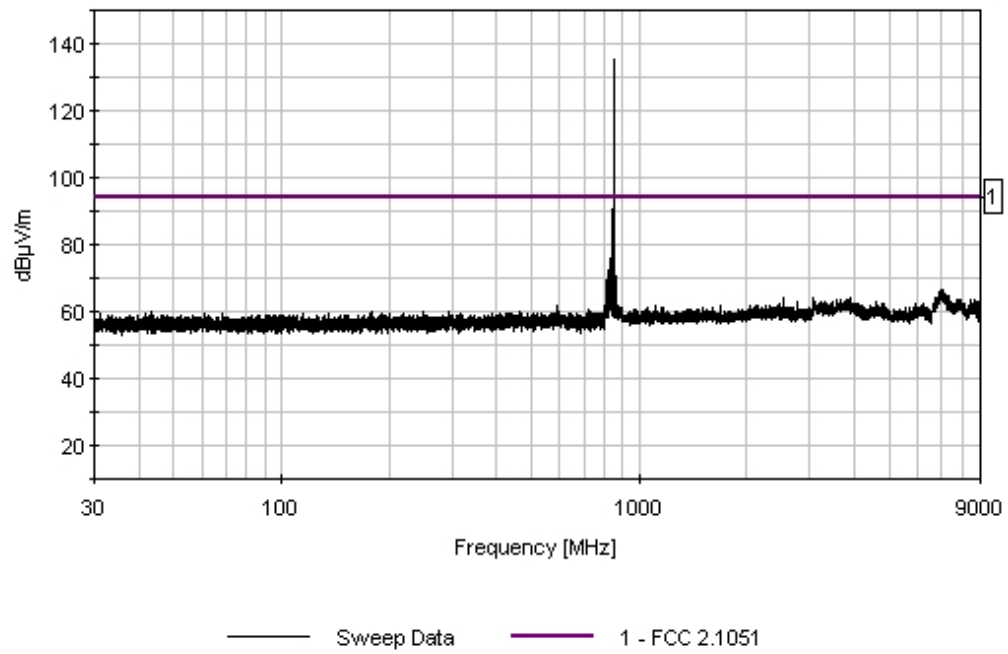
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	848.715M	104.8	+0.6	+30.1		+0.0	135.5	135.5	+0.0	RF Ou
								Carrier		
2	1697.538M	34.4	+0.8	+30.1		+0.0	65.3	94.0	-28.7	RF Ou
3	2546.094M	33.8	+1.0	+29.9		+0.0	64.7	94.0	-29.3	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 13:21:44 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 13
Wilson Electronics M/N 801101 Uplink EDGE High Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 13:13:47

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 10

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Low Channel. Modulation Type: GSM. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

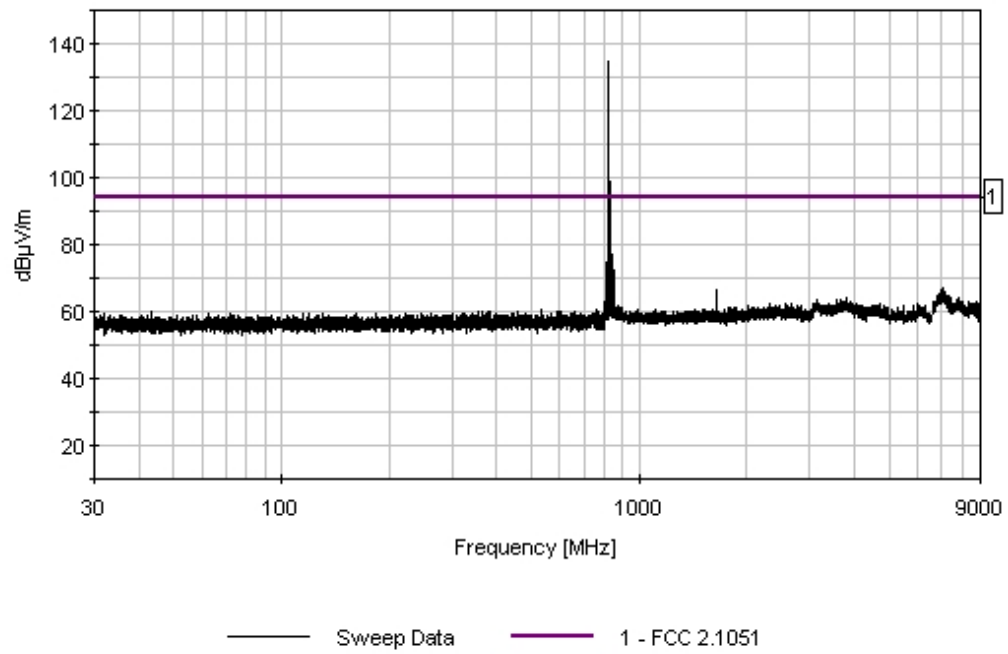
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	824.354M	104.1	+0.6	+30.1		+0.0	134.8	134.8 Carrier	+0.0	RF Ou
2	1648.708M	36.6	+0.8	+30.2		+0.0	67.6	94.0	-26.4	RF Ou
3	2473.041M	33.0	+1.0	+30.0		+0.0	64.0	94.0	-30.0	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 13:13:47 Wilson Electronics WVO#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 10
Wilson Electronics M/N 801101 Uplink GSM Low Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 13:10:55

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 9

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Mid Channel. Modulation Type: GSM. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

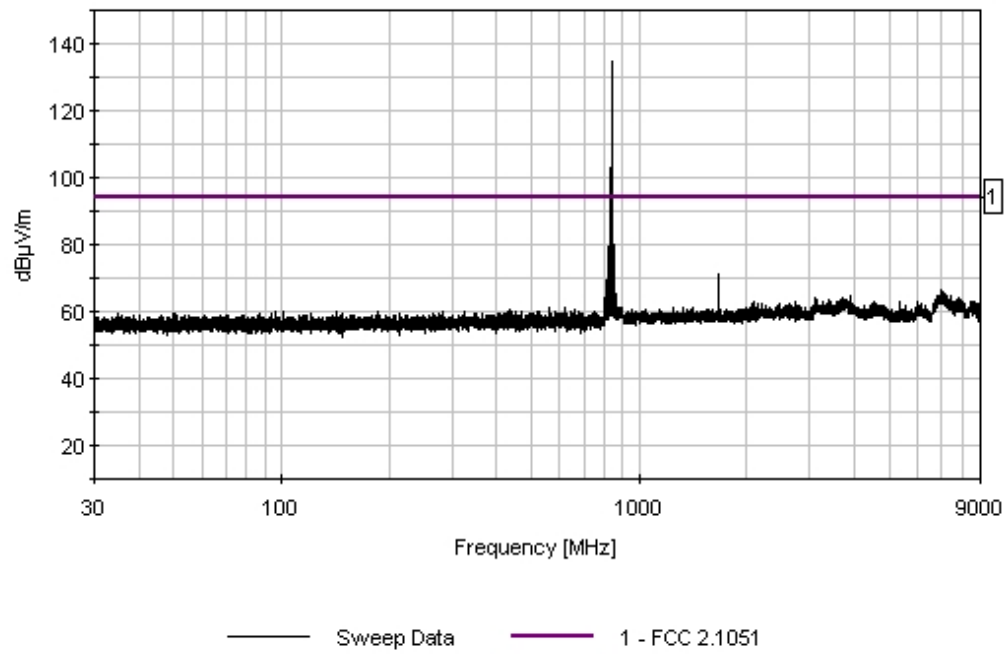
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	836.570M	104.0	+0.6	+30.1		+0.0	134.7	134.7 Carrier	+0.0	RF Ou
2	1673.143M	41.3	+0.8	+30.1		+0.0	72.2	94.0	-21.8	RF Ou
3	3346.289M	34.3	+1.2	+29.7		+0.0	65.2	94.0	-28.8	RF Ou
4	2509.713M	30.5	+1.0	+30.0		+0.0	61.5	94.0	-32.5	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 13:10:55 Wilson Electronics WVO#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 9
Wilson Electronics M/N 801101 Uplink GSM Mid Channel



Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 12:31:14

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 8

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.		
	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: High Channel. Modulation Type: GSM. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

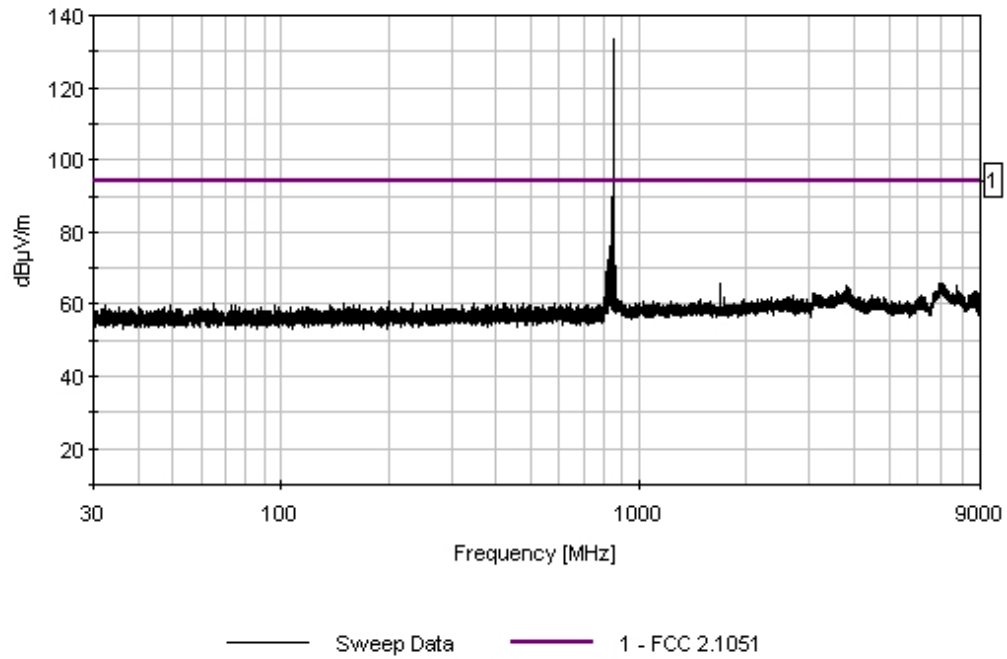
T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data: Reading listed by margin.

Test Lead: RF Output Uplink

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	Dist dB	Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	848.791M	102.7	+0.6	+30.1		+0.0	133.4	133.4	+0.0	RF Ou
								Carrier		
2	1697.306M	36.2	+0.8	+30.1		+0.0	67.1	94.0	-26.9	RF Ou
3	3394.588M	33.1	+1.2	+29.7		+0.0	64.0	94.0	-30.0	RF Ou
4	2546.385M	31.5	+1.0	+29.9		+0.0	62.4	94.0	-31.6	RF Ou

CKC Laboratories Date: 9/13/2006 Time: 12:31:14 Wilson Electronics W/O#: 81892
FCC 2.1051 Test Lead: RF Output Uplink 12VDC Sequence#: 8
Wilson Electronics M/N 801101 Uplink GSM High Channel



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

Bandwidth settings used: 100 kHz.

Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **Wilson Electronics**
 Specification: **FCC 2.1053**
 Work Order #: **81892** Date: 9/13/2006
 Test Type: **Maximized Emissions** Time: 08:31:26
 Equipment: **Bidirectional Cellular Amplifier Repeater** Sequence#: 31
 Manufacturer: Wilson Electronics Tested By: Randal Clark
 Model: 801101
 S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
EMCO Loop Antenna	1074	05/13/2005	05/13/2007	00226
Chase CBL6111C Bilog	2456	06/07/2005	06/07/2007	01991
EMCO 3115 Horn Antenna	9307-4085	04/29/2005	04/29/2007	00656
ARA MWH-1826/B Horn Antenna	1005	11/05/2004	11/05/2006	02046
HP 8447D Preamp	1937A02604	03/11/2005	03/11/2007	00099
HP 8449B Preamp	3008A00301	12/14/2004	12/14/2006	2010
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Cable, Pasternack 48"	NA	02/08/2005	02/08/2007	P05203
Cable, Andrews Hardline	NA	05/27/2005	05/27/2007	P01012

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Data represents worst case of all channels. Modulation Type: Data represents worst case of all modulations. Temperature: 81°F, Relative Humidity: 36%. **No EUT emissions detected within 20 dB of the limit.**

Transducer Legend:

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Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	dB	dB	dB	dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
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FCC 2.1033(c)(14)/2.1053/22.917 – UPLINK FIELD STRENGTH OF SPURIOUS RADIATION

Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 2.1053**
 Work Order #: **81892** Date: 9/15/2006
 Test Type: **Maximized Emissions** Time: 15:26:36
 Equipment: **Bidirectional Cellular Amplifier Repeater** Sequence#: 32
 Manufacturer: Wilson Electronics Tested By: Randal Clark
 Model: 801101
 S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
EMCO Loop Antenna	1074	05/13/2005	05/13/2007	00226
Chase CBL6111C Bilog	2456	06/07/2005	06/07/2007	01991
EMCO 3115 Horn Antenna	9307-4085	04/29/2005	04/29/2007	00656
ARA MWH-1826/B Horn Antenna	1005	11/05/2004	11/05/2006	02046
HP 8447D Preamp	1937A02604	03/11/2005	03/11/2007	00099
HP 8449B Preamp	3008A00301	12/14/2004	12/14/2006	2010
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Cable, Pasternack 48"	NA	02/08/2005	02/08/2007	P05203
Cable, Andrews Hardline	NA	05/27/2005	05/27/2007	P01012

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Data represents worst case of all channels. Modulation Type: Data represents worst case of all modulations. Temperature: 81°F, Relative Humidity: 36%. **No EUT emissions detected within 20 dB of the limit.**

Transducer Legend:

Measurement Data: Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	dB	dB	dB	dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
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DOWNLINK OCCUPIED BANDWIDTH

Customer: **Wilson Electronics**
 Specification: **FCC 2.1049**
 Work Order #: **81892**
 Test Type: **Antenna Conducted**
 Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
 Model: 801101
 S/N: 8011018033282

Tested By: Randal Clark
 12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36" NA		02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

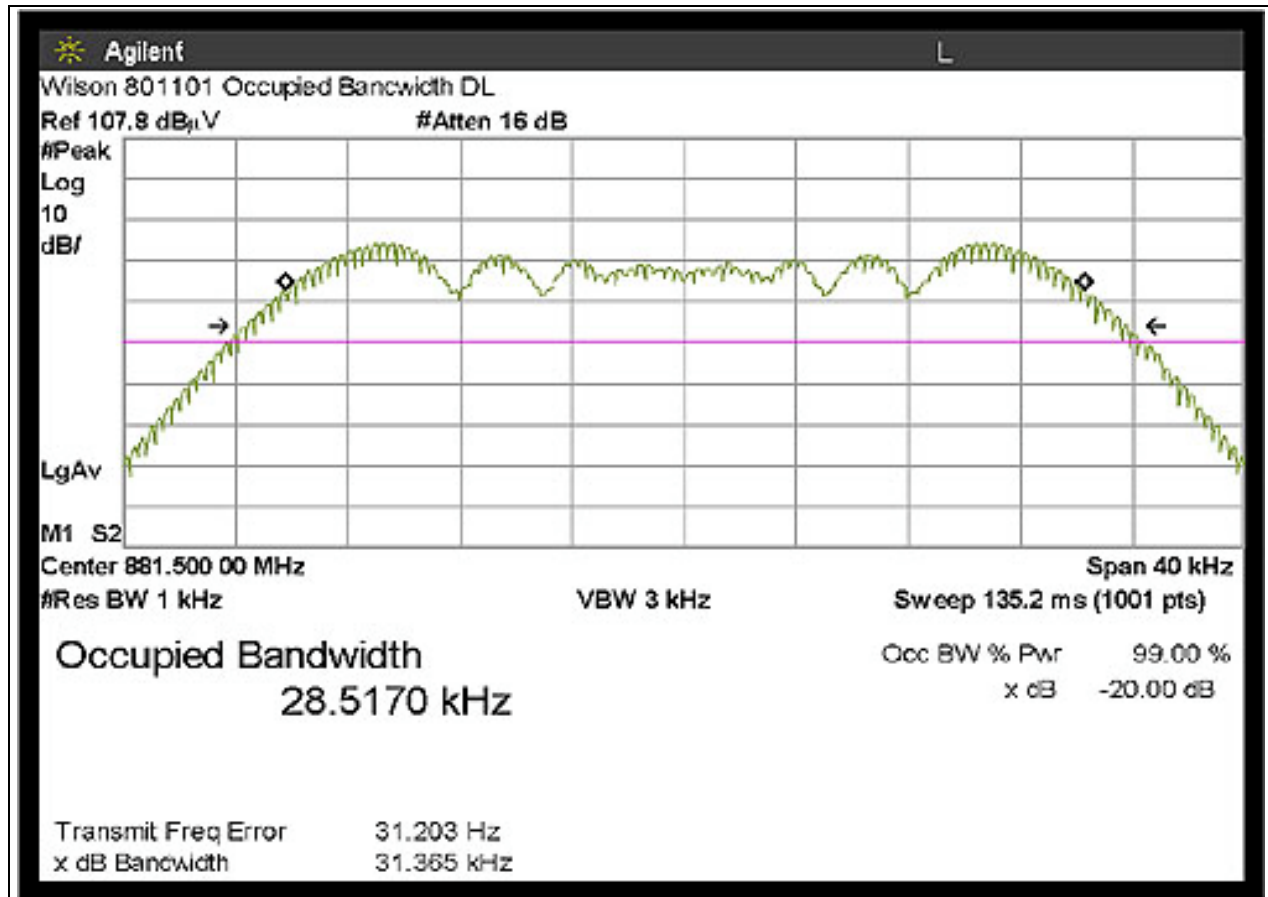
Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation.

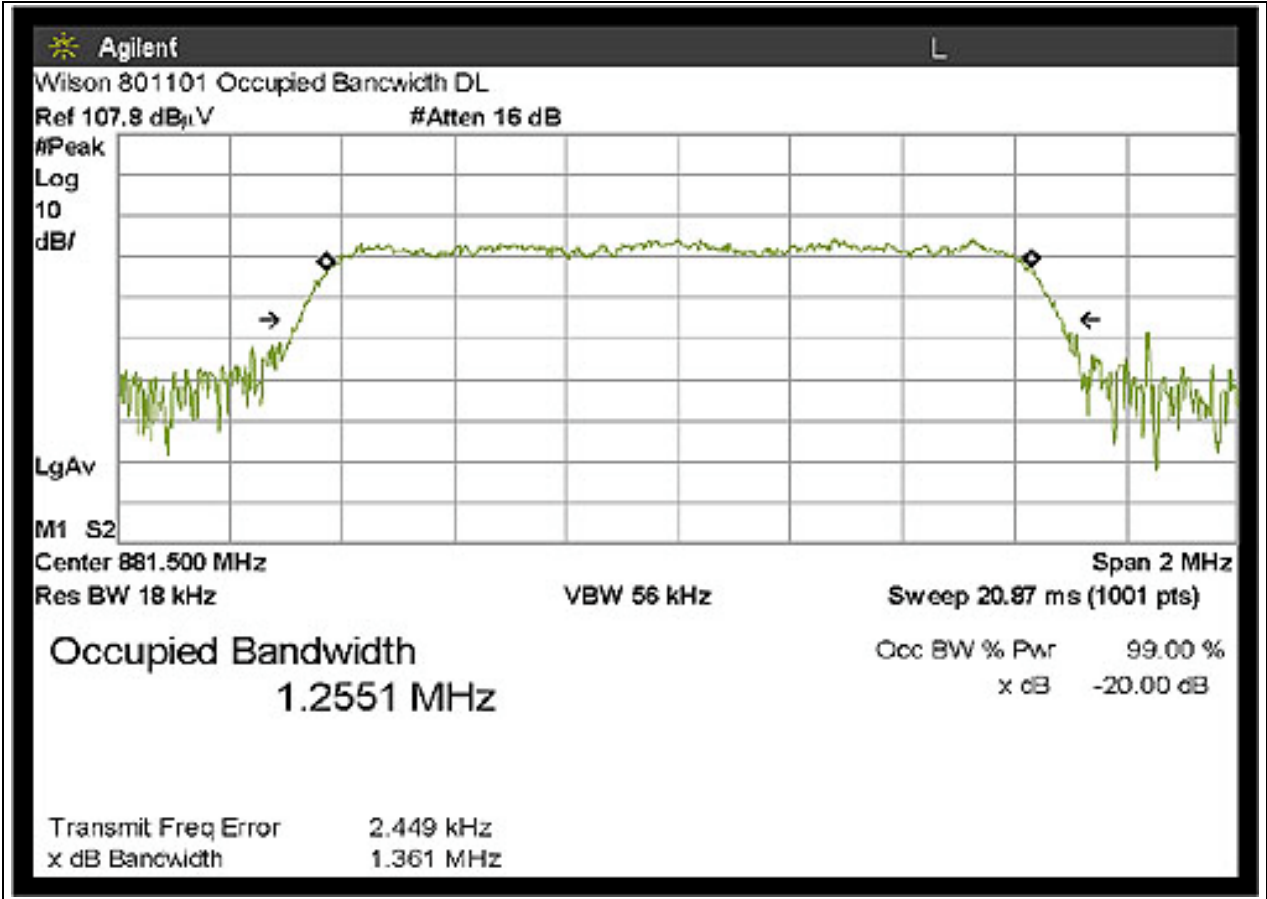
Frequency Range Investigated: Carrier
 Temperature: 81°F
 Relative Humidity: 36%

Frequency	Modulation	20dB BW (kHz)	99% BW (kHz)
881.5	CDMA	1361.0	1255.1
881.5	GSM	285.3	245.1
881.5	EDGE	281.5	243.6
881.5	AMPS	31.3	28.5

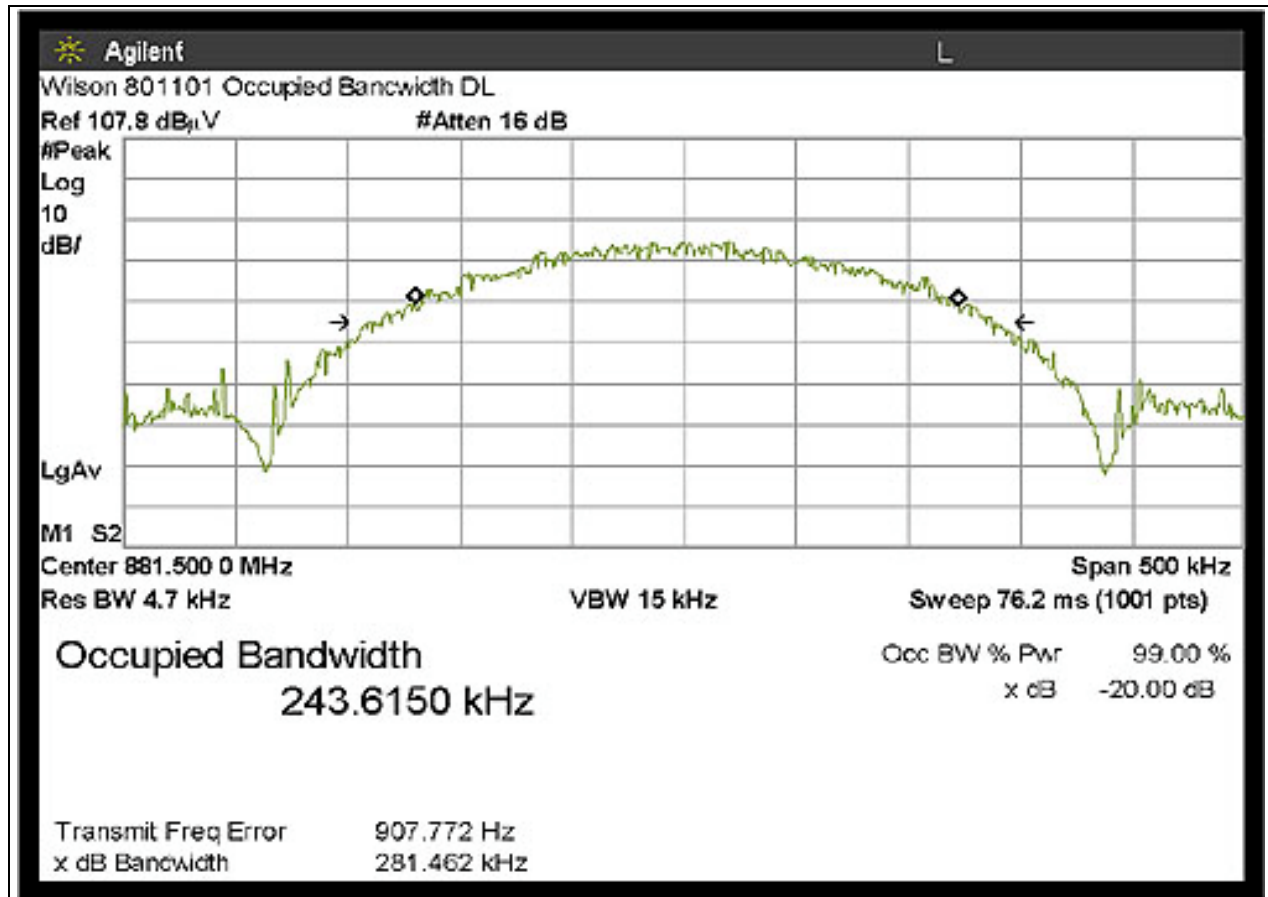
DOWNLINK OCCUPIED BANDWIDTH - AMPS



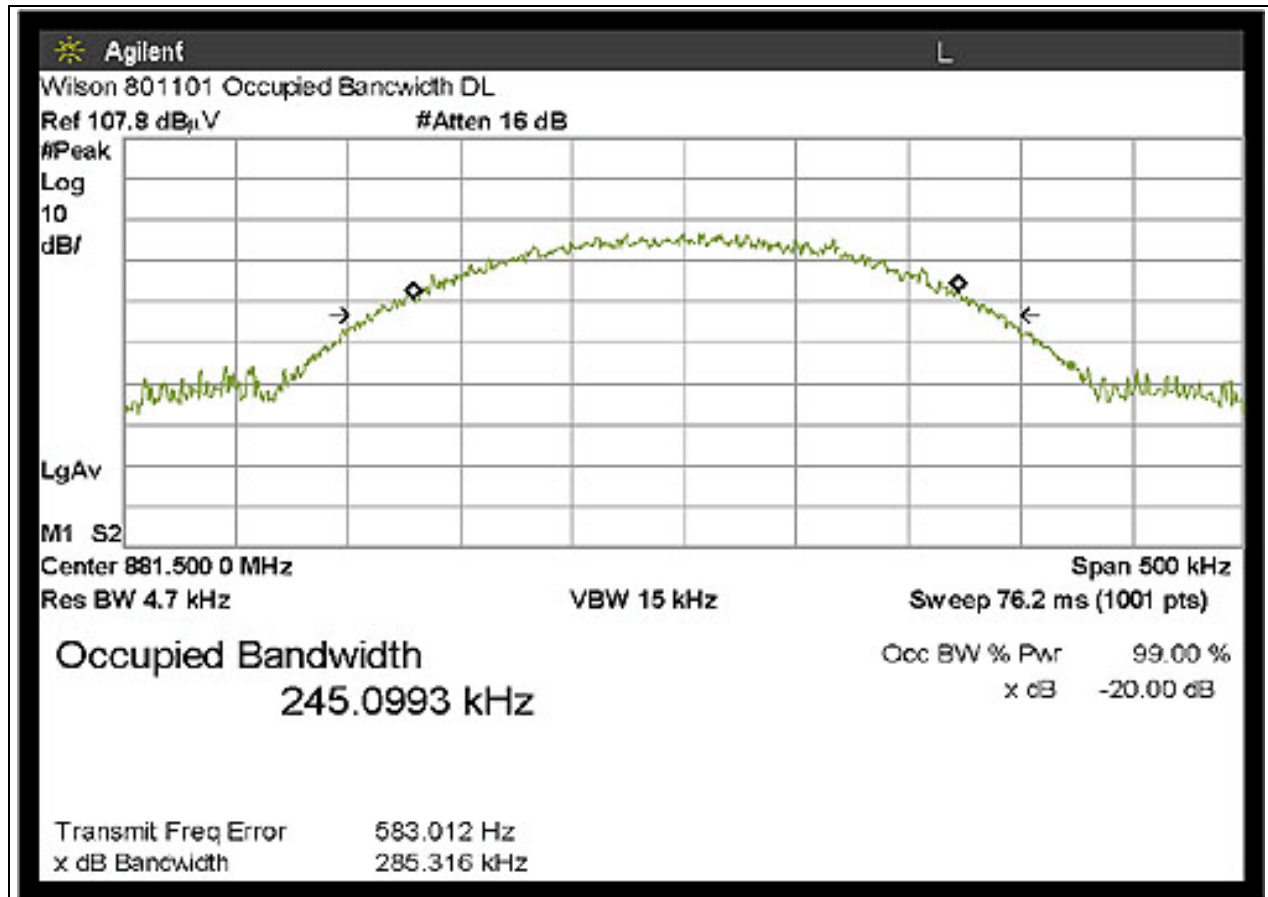
DOWNLINK OCCUPIED BANDWIDTH - CDMA



DOWNLINK OCCUPIED BANDWIDTH - EDGE



DOWNLINK OCCUPIED BANDWIDTH - GSM



UPLINK OCCUPIED BANDWIDTH

Customer: **Wilson Electronics**
 Specification: **FCC 2.1049**
 Work Order #: **81892**
 Test Type: **Antenna Conducted**
 Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
 Model: 801101
 S/N: 8011018033282

Tested By: Randal Clark
 12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 25A-MFN-30	9724	05/18/2005	05/18/2007	P01577

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

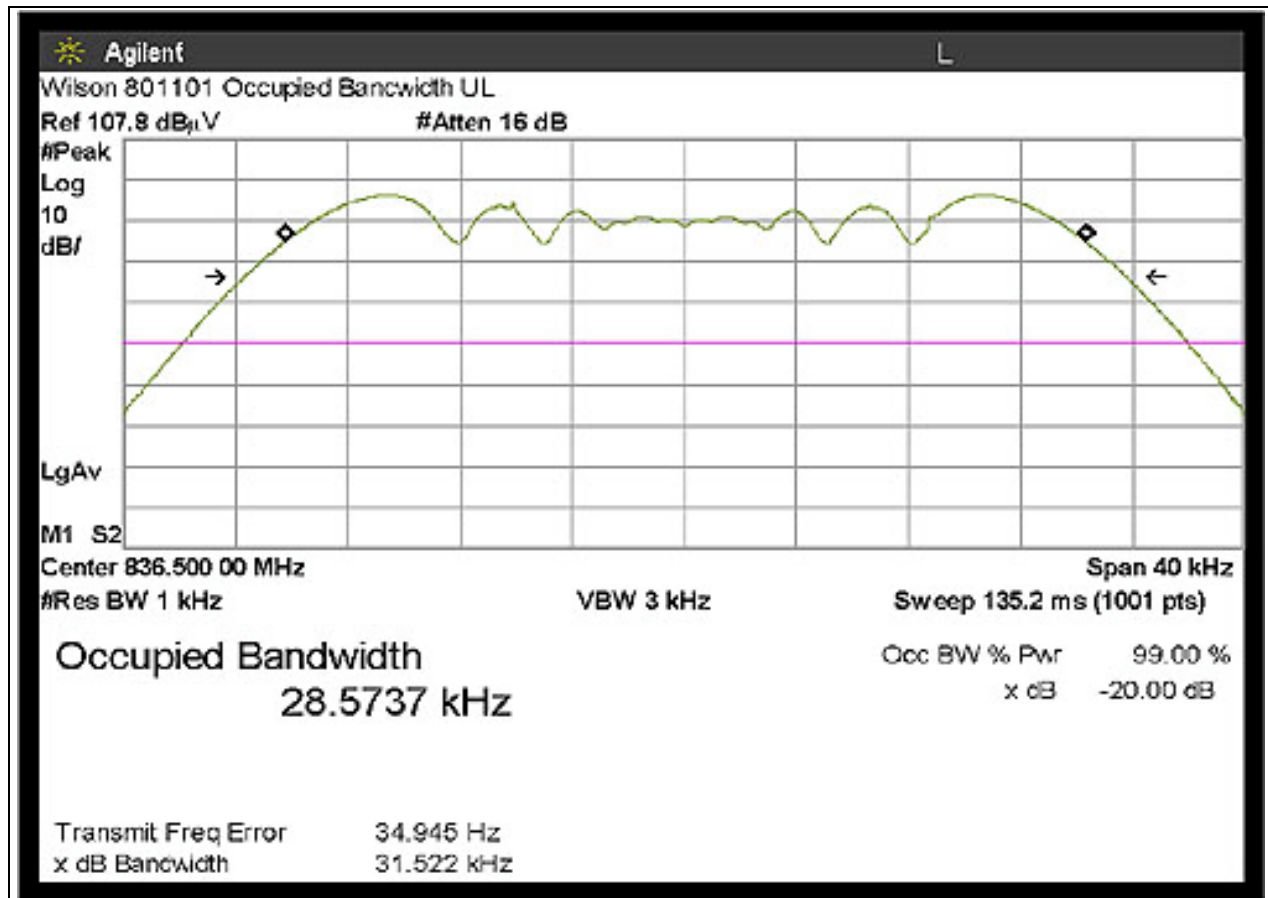
Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation.

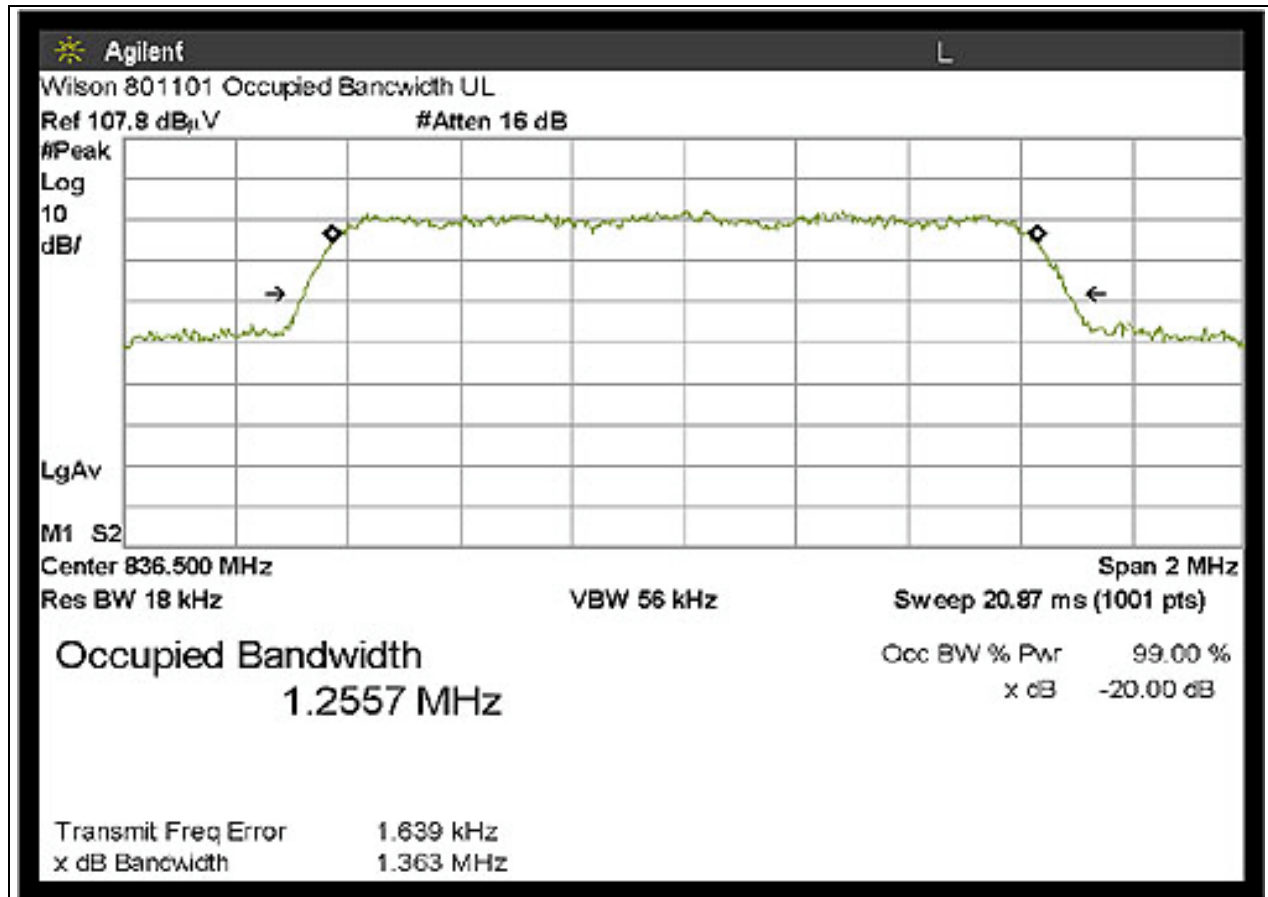
Frequency Range Investigated: Carrier
 Temperature: 81°F
 Relative Humidity: 36%

Frequency	Modulation	20dB BW (kHz)	99% BW (kHz)
836.5	CDMA	1363	1256
836.5	GSM	277.0	244.9
836.5	EDGE	283.7	247.5
836.5	AMPS	31.5	28.6

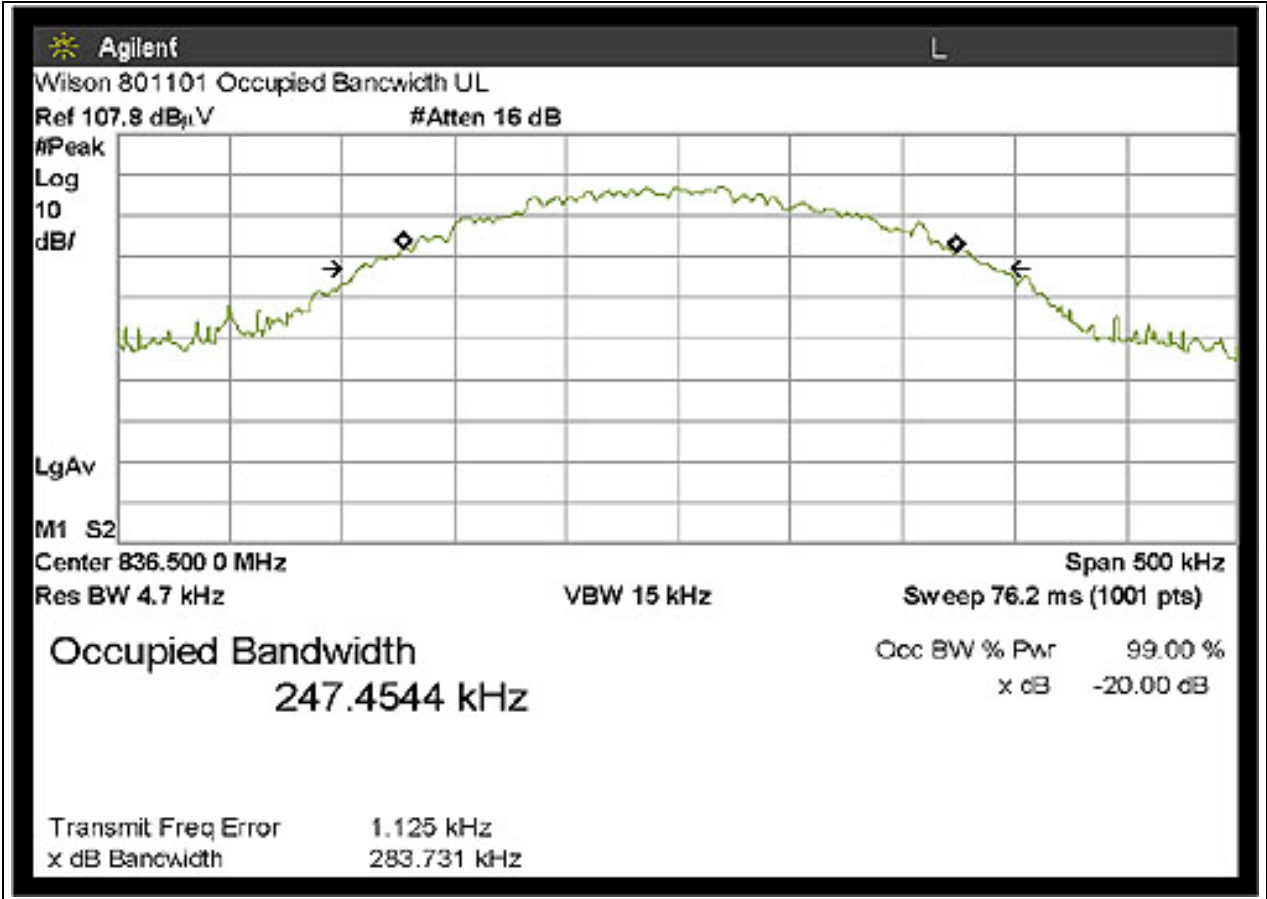
UPLINK OCCUPIED BANDWIDTH - AMPS



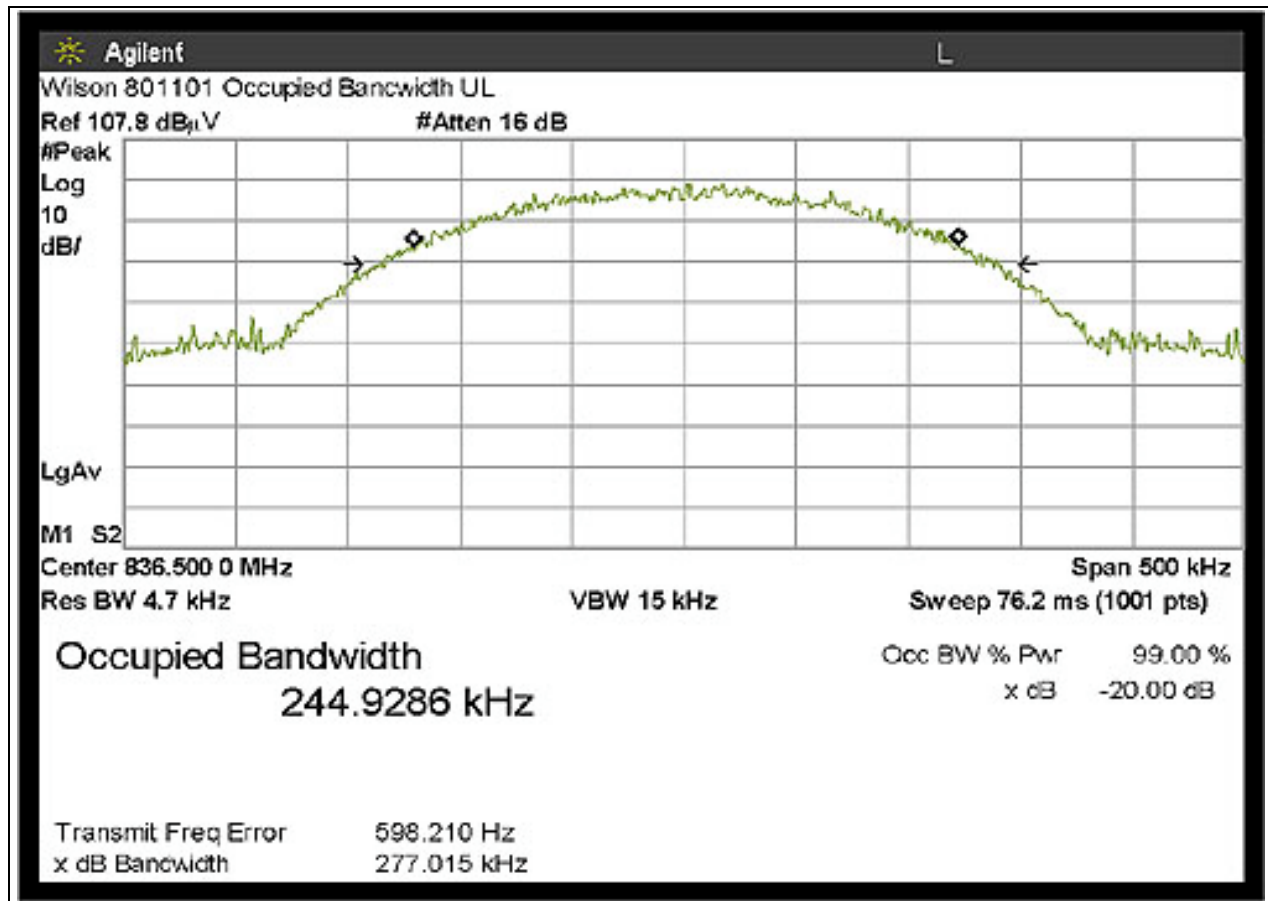
UPLINK OCCUPIED BANDWIDTH - CDMA



UPLINK OCCUPIED BANDWIDTH - EDGE



UPLINK OCCUPIED BANDWIDTH - GSM



DOWNLINK BAND EDGE

Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 14:14:54

Equipment: **Bidirectional Cellular Amplifier
Repeater**

Sequence#: 17

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

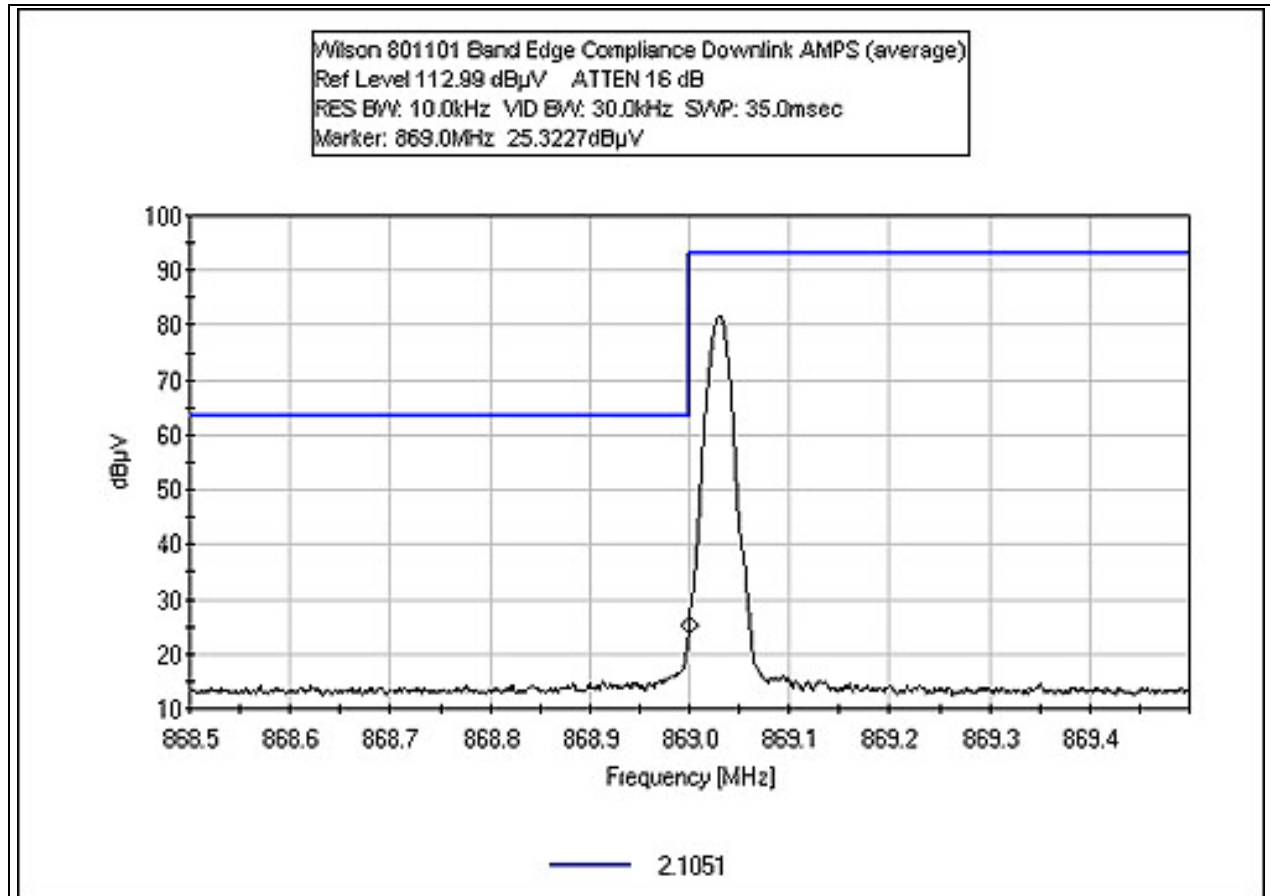
Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

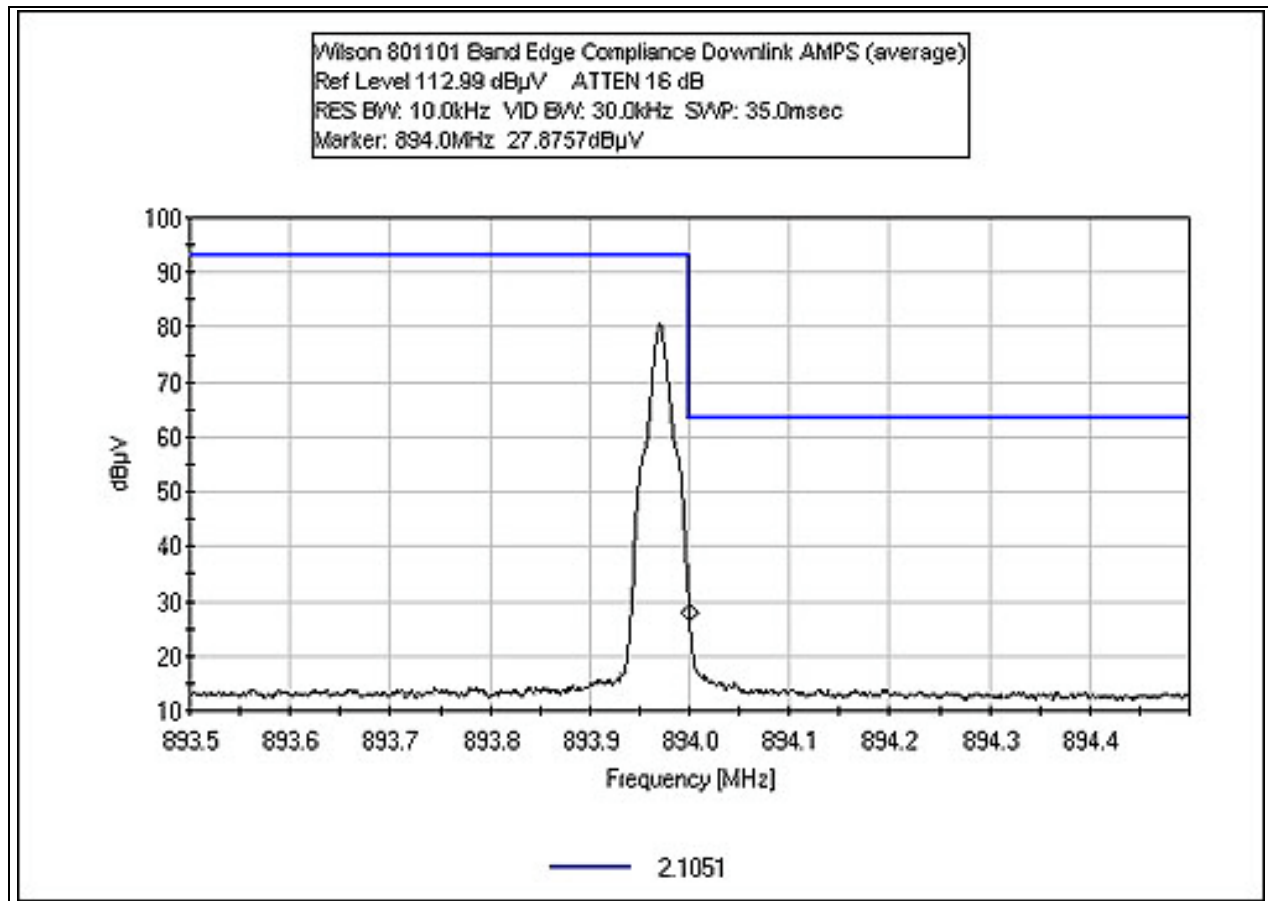
Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Band Edge. Temperature: 81°F, Relative Humidity: 36%.
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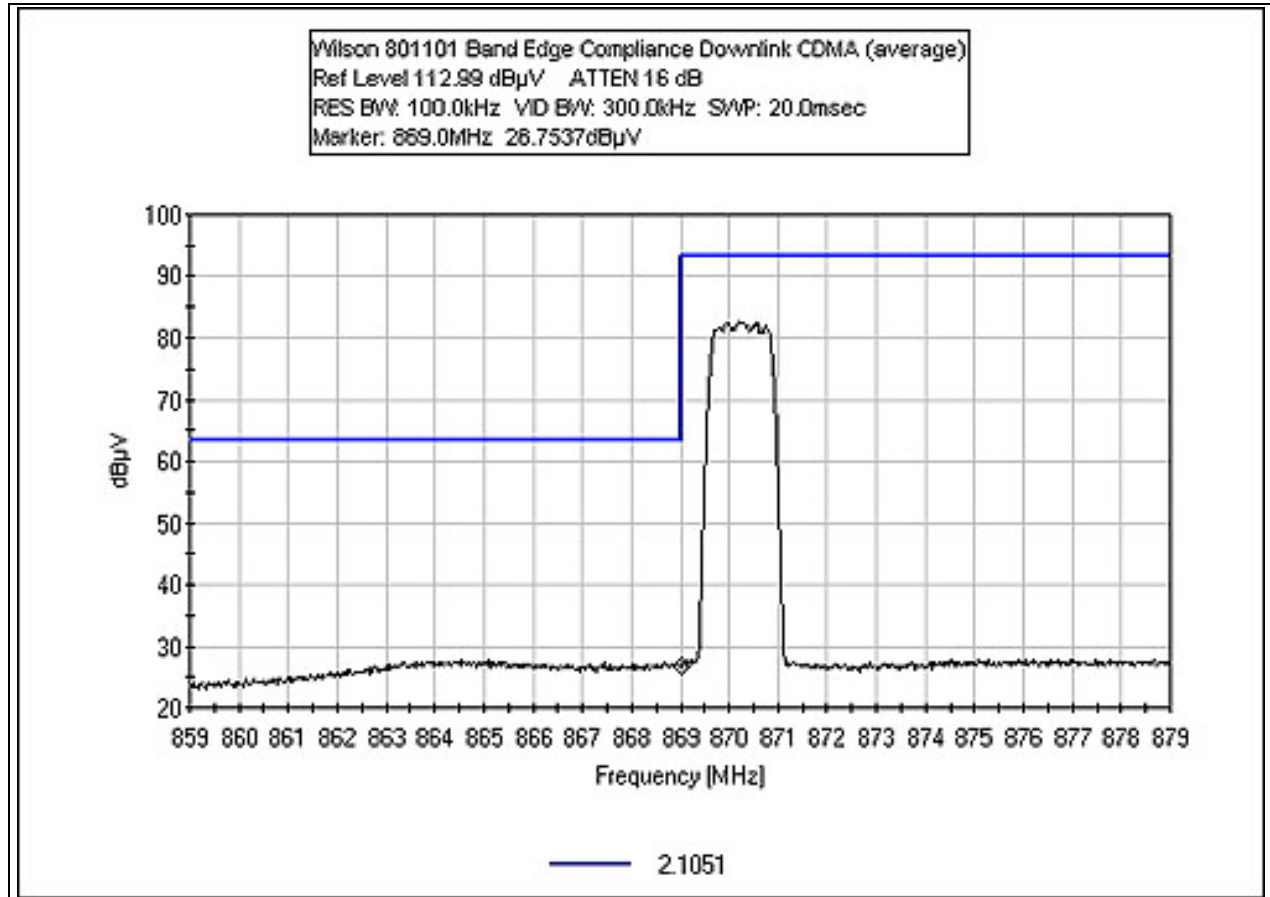
DOWNLINK BAND EDGE - AMPS LOW AVERAGE



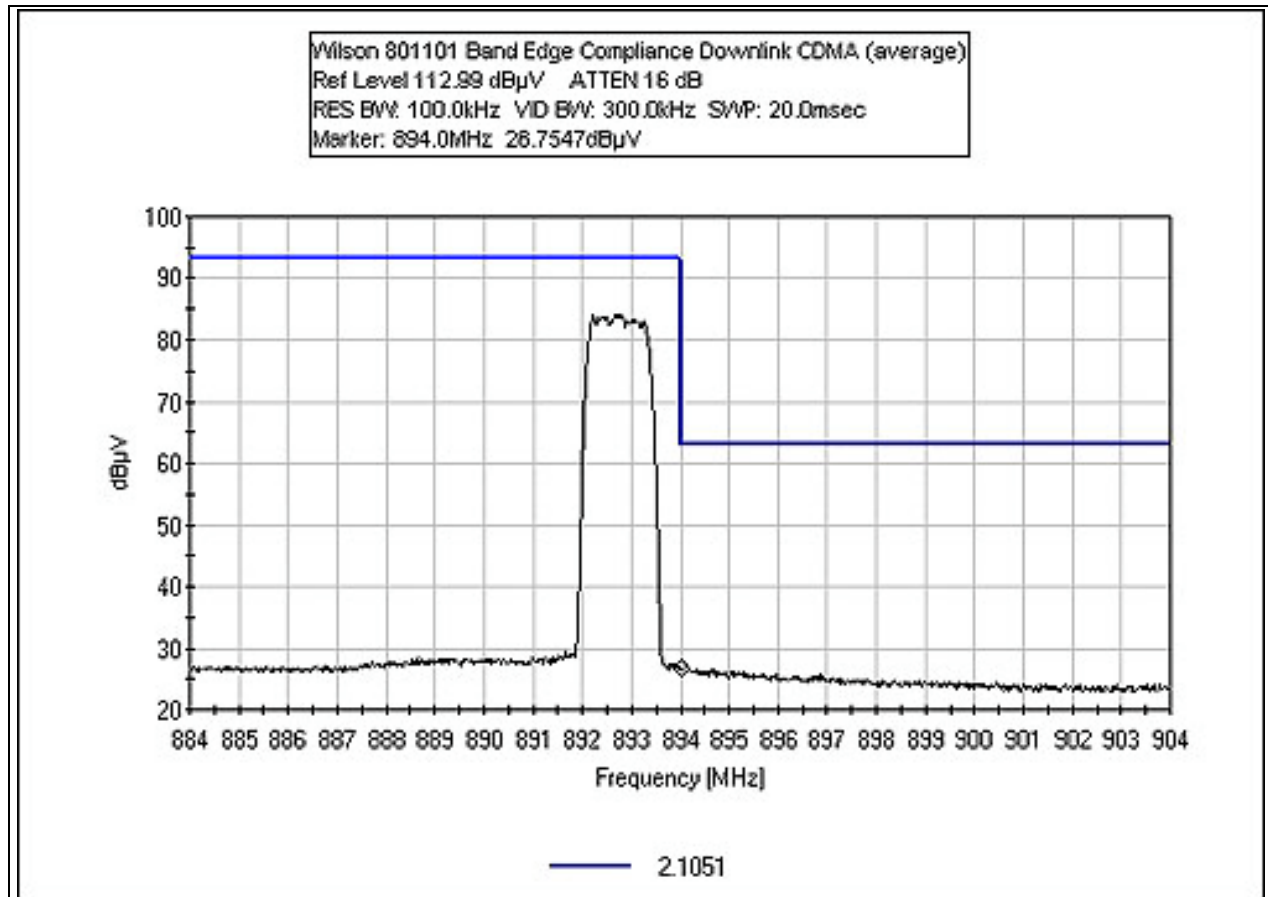
DOWNLINK BAND EDGE - AMPS HIGH AVERAGE



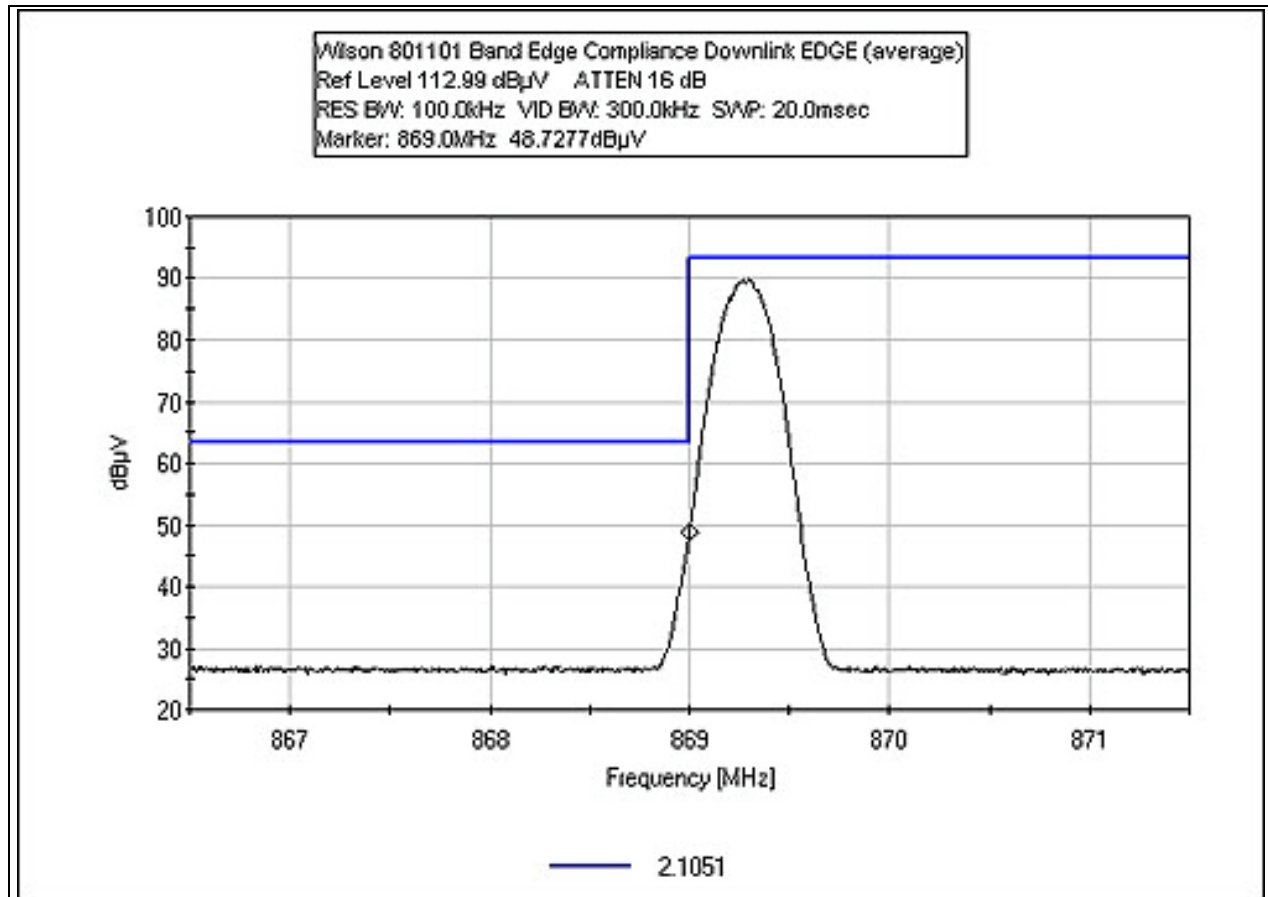
DOWNLINK BAND EDGE - CDMA LOW AVERAGE



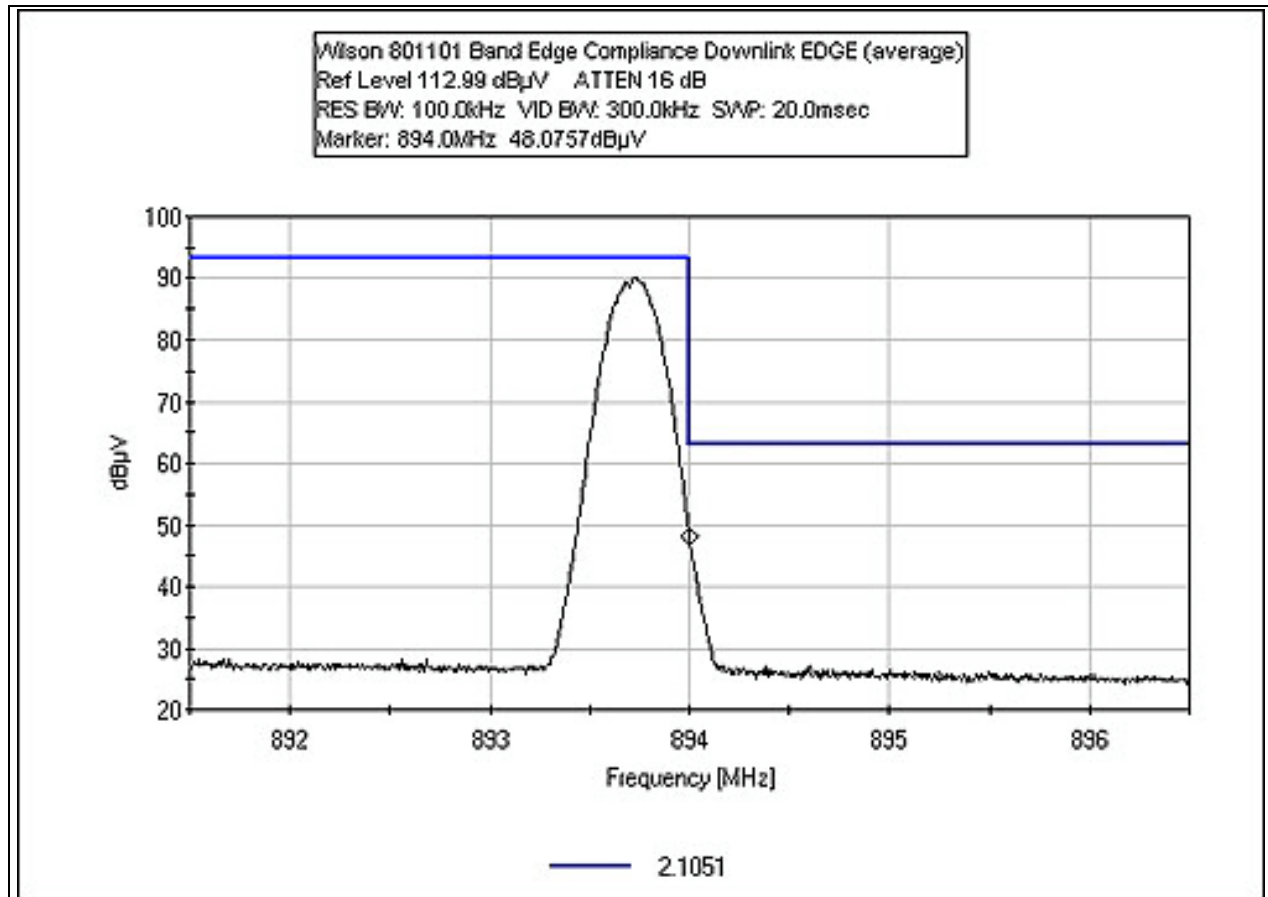
DOWNLINK BAND EDGE - CDMA HIGH AVERAGE



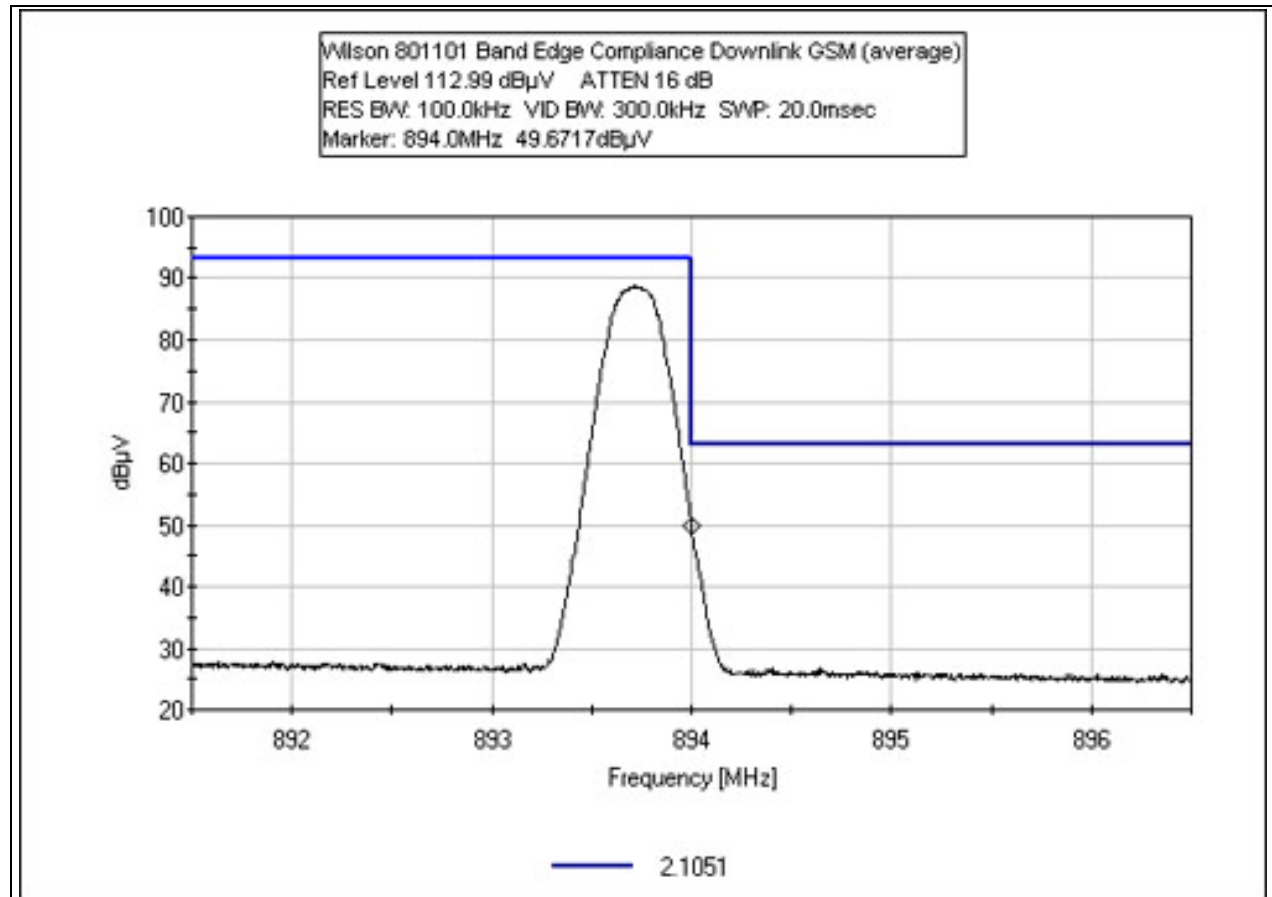
DOWNLINK BAND EDGE - EDGE LOW AVERAGE



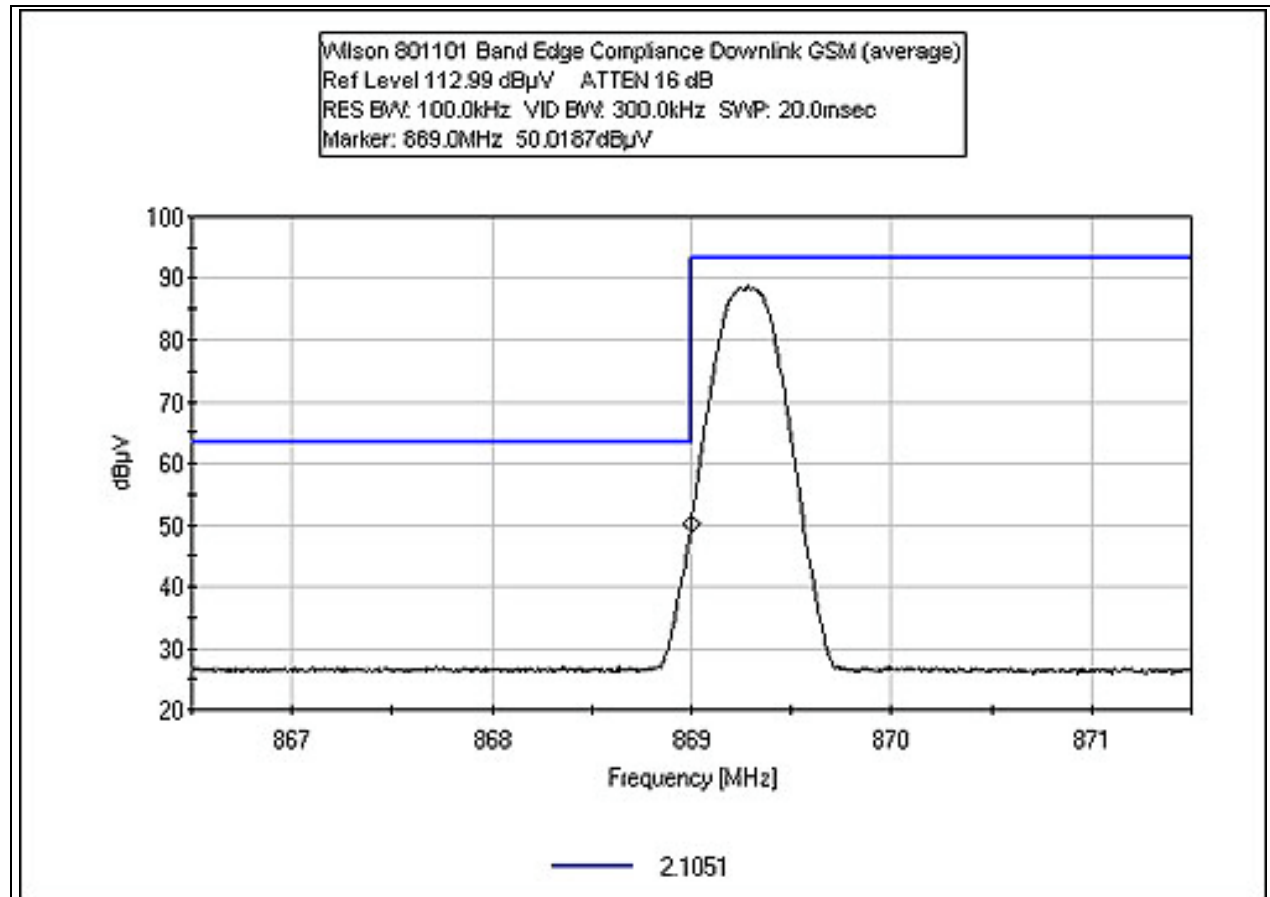
DOWNLINK BAND EDGE - EDGE HIGH AVERAGE



DOWNLINK BAND EDGE - GSM HIGH AVERAGE



DOWNLINK BAND EDGE - GSM LOW AVERAGE



UPLINK BAND EDGE

Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 2.1051**

Work Order #: **81892**

Date: 9/13/2006

Test Type: **Antenna Conducted**

Time: 14:14:54

Equipment: **Bidirectional Cellular Amplifier
Repeater**

Sequence#: 17

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

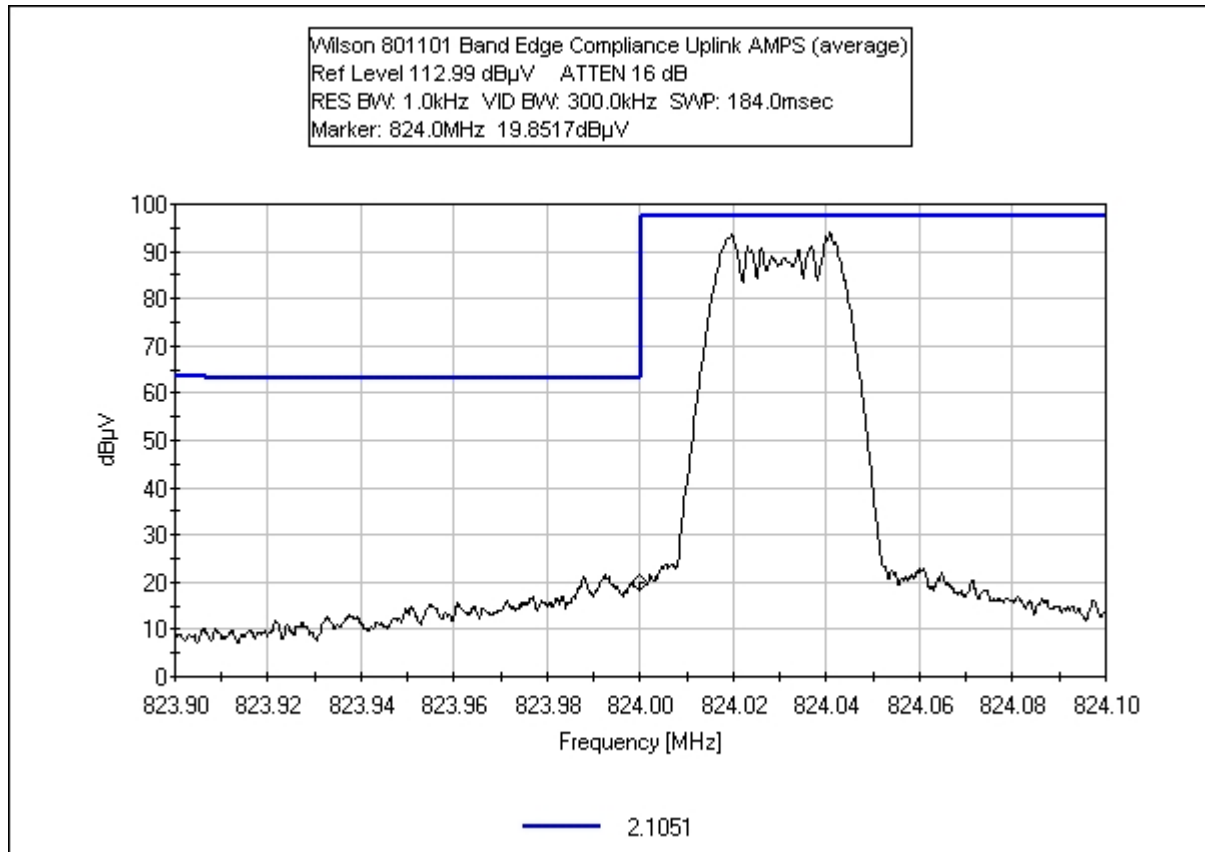
Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

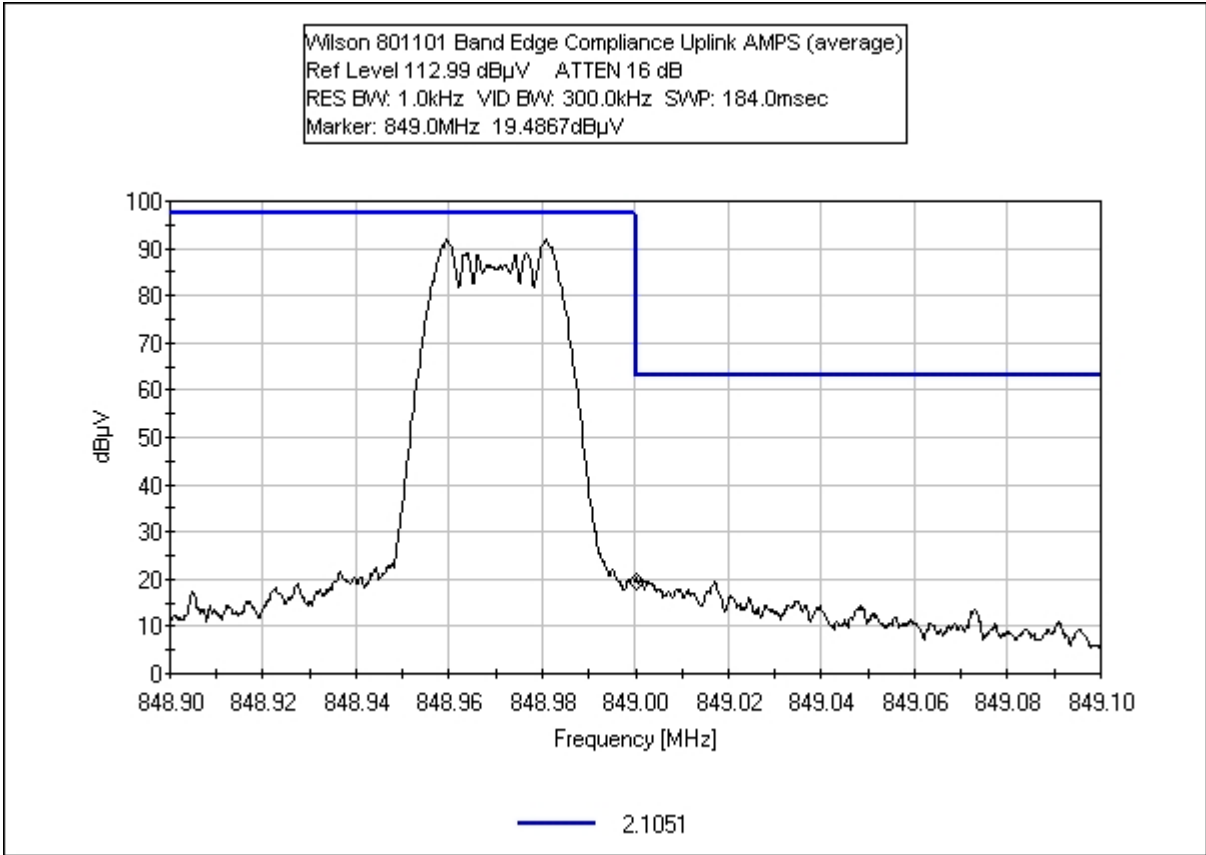
Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Band Edge. Temperature: 81°F, Relative Humidity: 36%.
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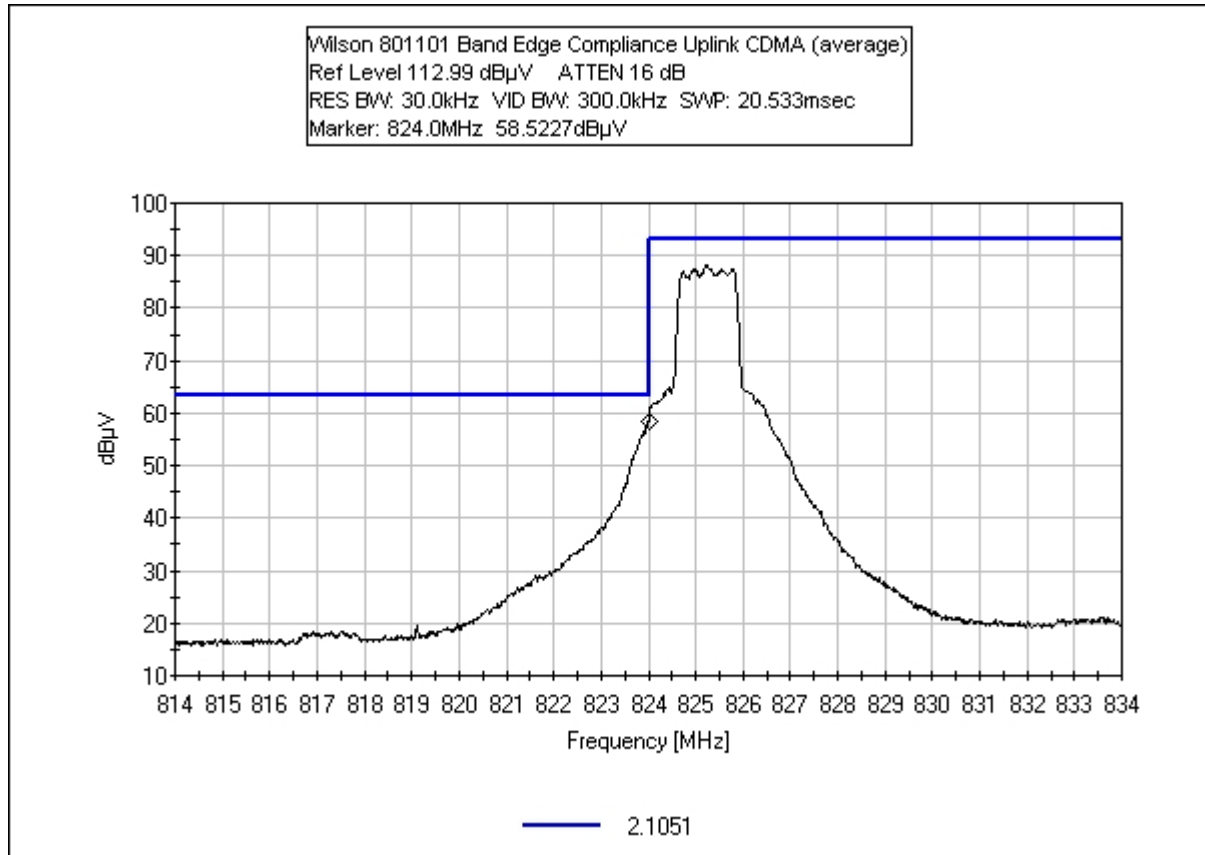
UPLINK BAND EDGE - AMPS LOW AVERAGE



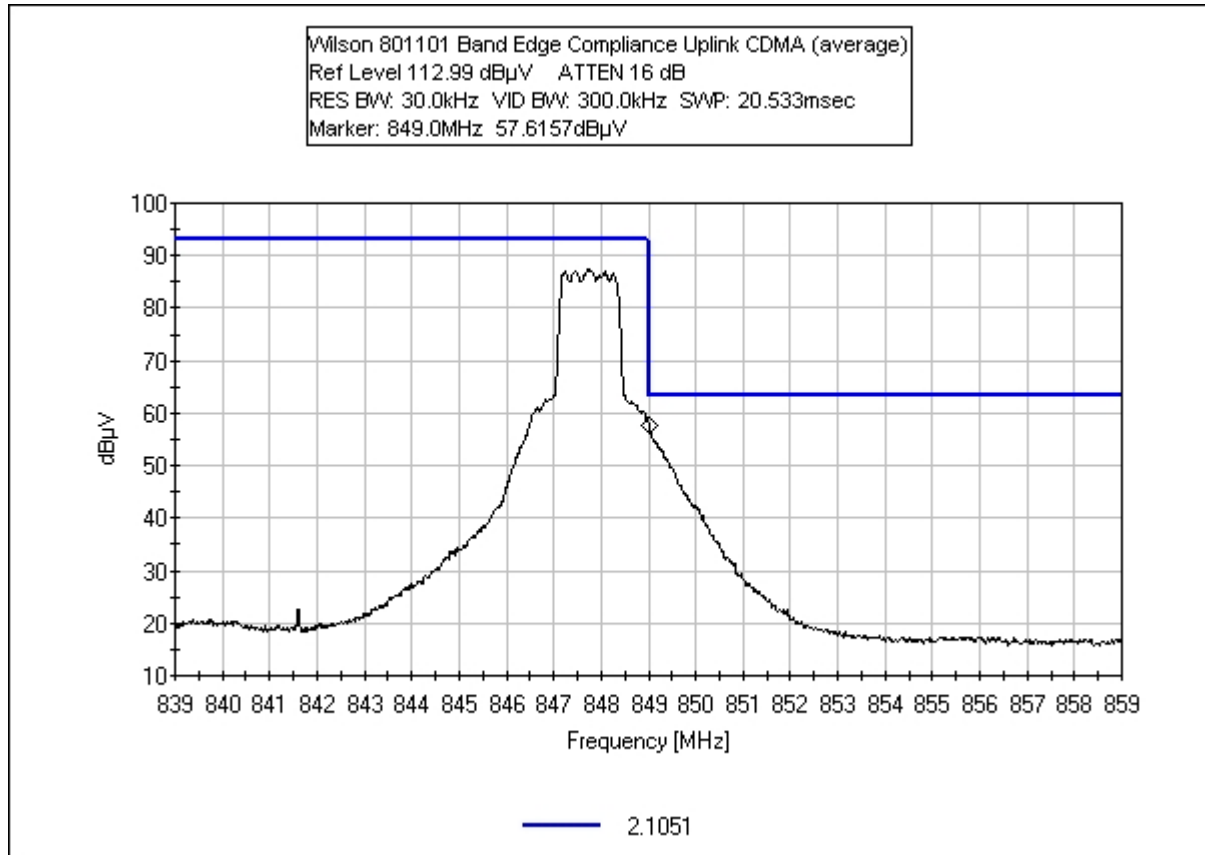
UPLINK BAND EDGE - AMPS HIGH AVERAGE



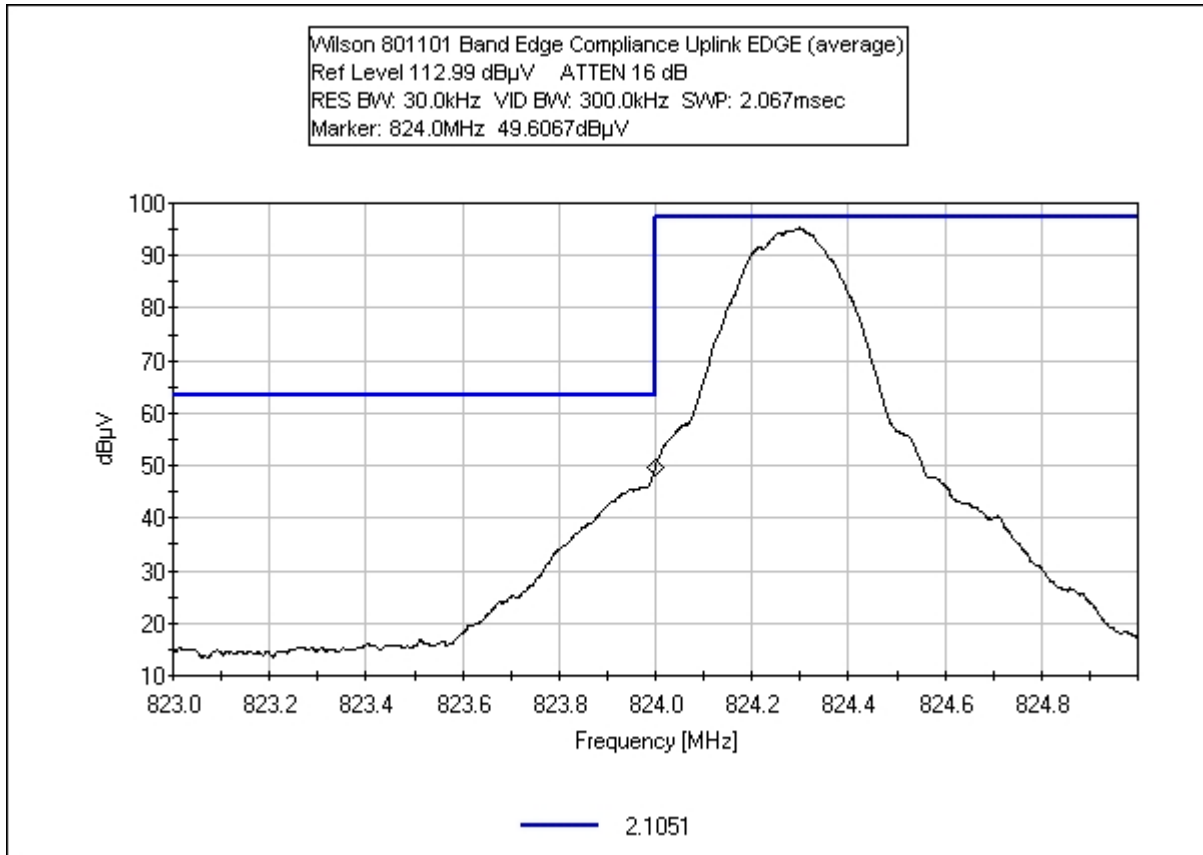
UPLINK BAND EDGE - CDMA LOW AVERAGE



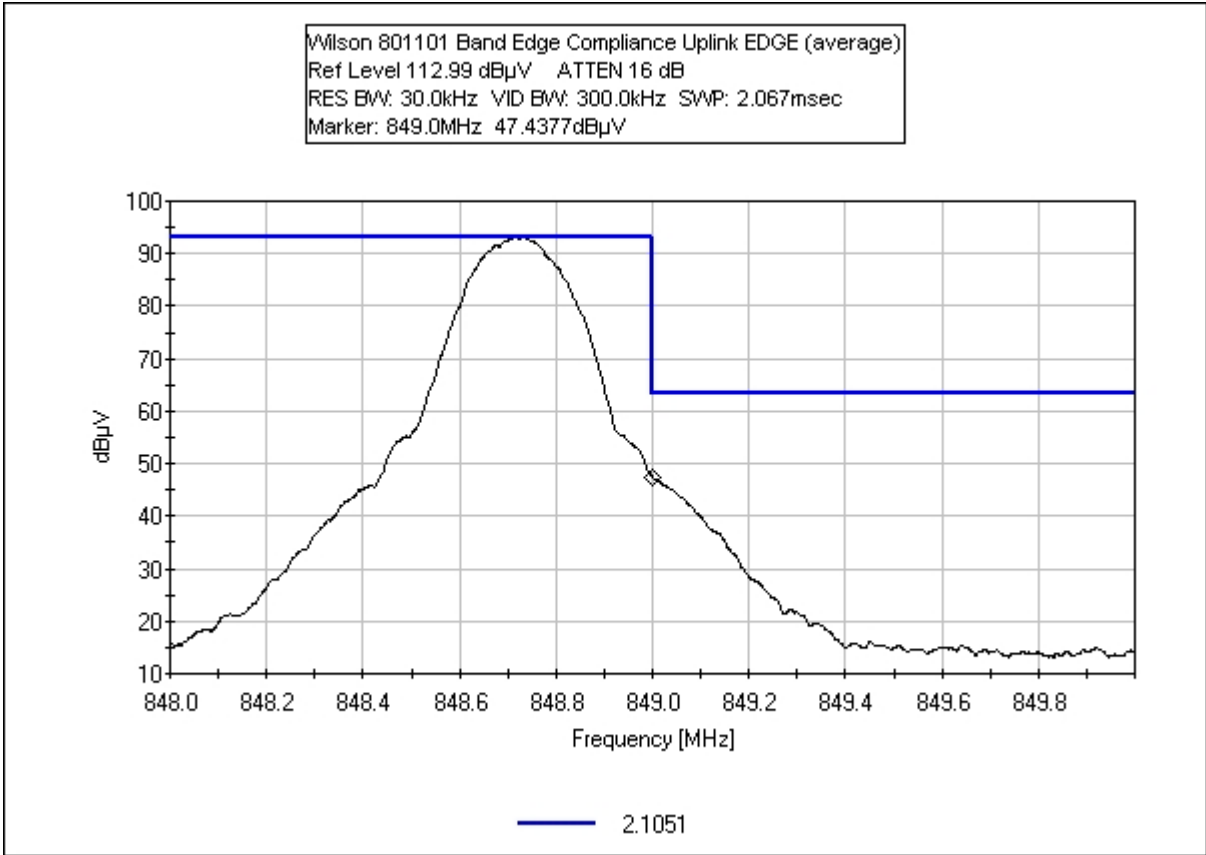
UPLINK BAND EDGE - CDMA HIGH AVERAGE



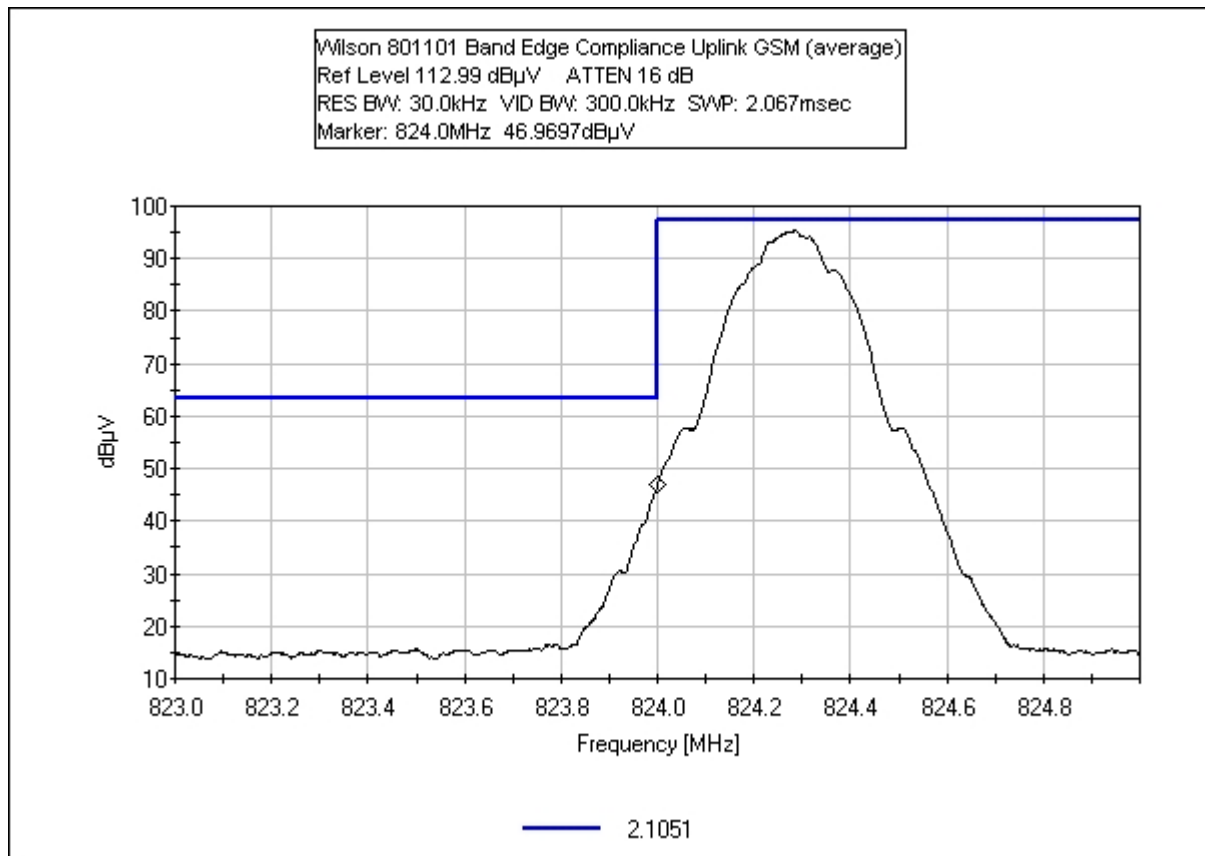
UPLINK BAND EDGE - EDGE LOW AVERAGE



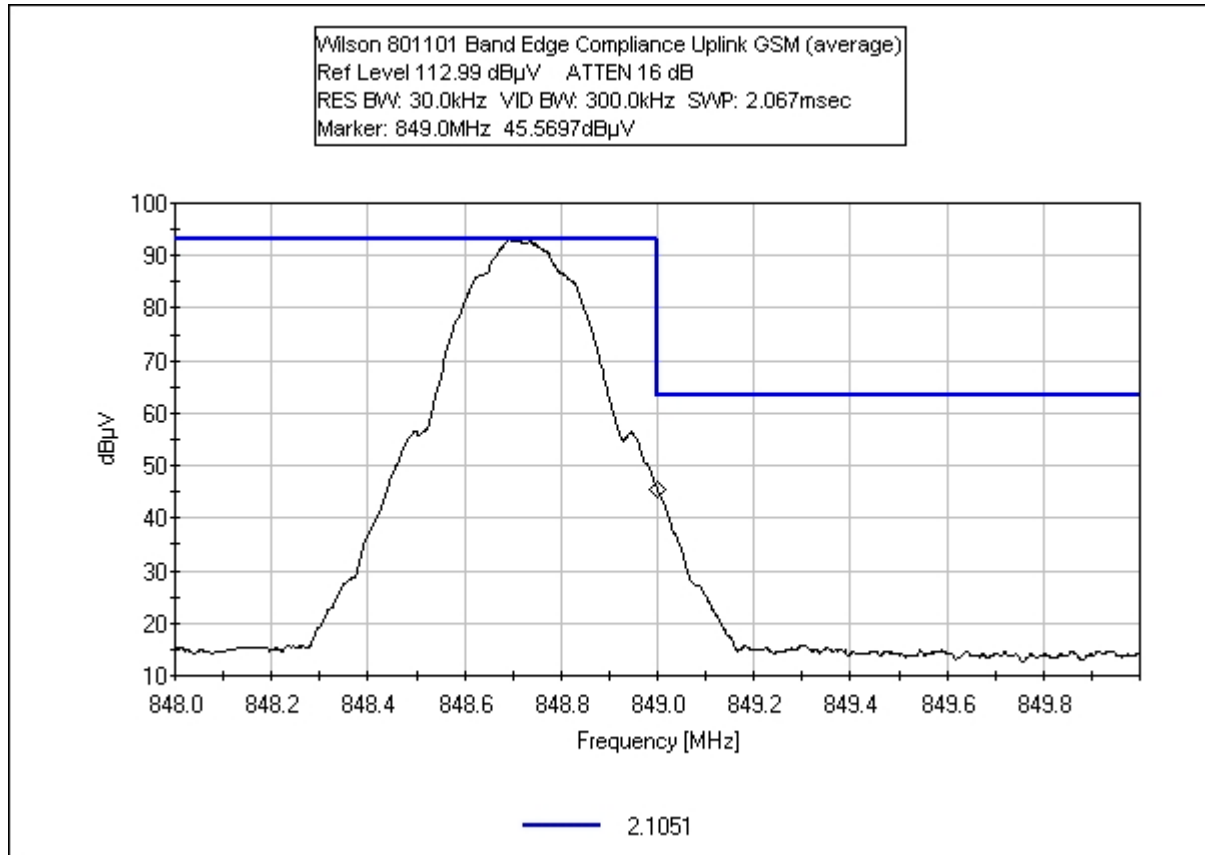
UPLINK BAND EDGE - EDGE HIGH AVERAGE



UPLINK BAND EDGE - GSM LOW AVERAGE



UPLINK BAND EDGE - GSM HIGH AVERAGE



DOWNLINK INTERMODULATION ATTENUATION

Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **2.1051**

Work Order #: **81892**

Date: 9/14/2006

Test Type: **Antenna Conducted**

Time: 11:18:01

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 30

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Downlink. Carrier Frequency: Intermodulation Test. Modulation Type: As Listed. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

T1=Cable 40 GHz 36"

Measurement Data:

Reading listed by margin.

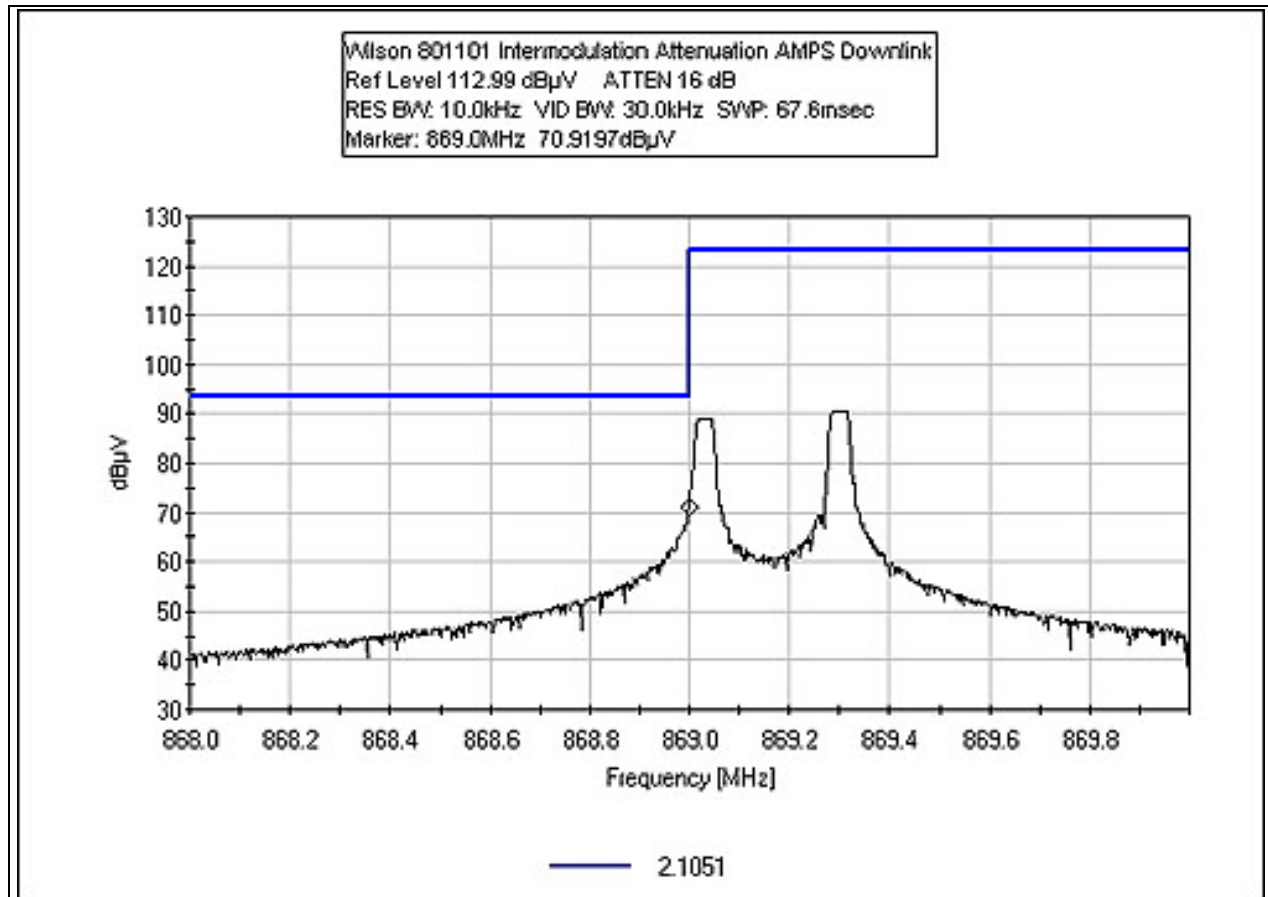
Test Lead: RF Output Downlink

#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	869.000M	70.9	+0.6				+0.0	71.5	94.0	-22.5	RF Ou
2	894.000M	67.4	+0.6				+0.0	68.0	94.0	-26.0	RF Ou
3	869.000M	43.6	+0.6				+0.0	44.2	94.0	-49.8	RF Ou
4	894.000M	37.2	+0.6				+0.0	37.8	94.0	-56.2	RF Ou

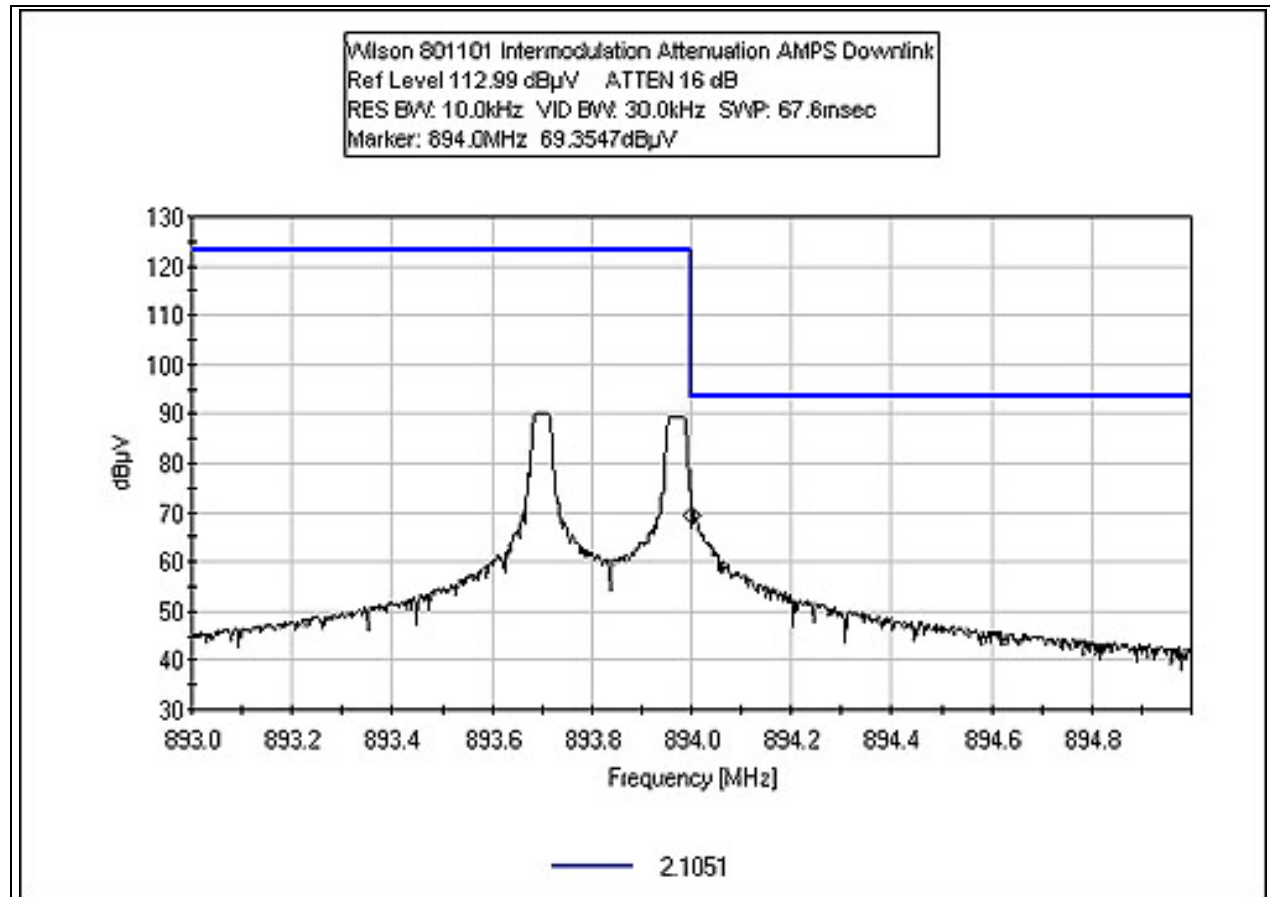
GSM
GSM

5	894.000M	36.1	+0.6	+0.0	36.7	94.0 EDGE	-57.3	RF Ou
6	869.000M	35.0	+0.6	+0.0	35.6	94.0 EDGE	-58.4	RF Ou
7	869.000M	21.9	+0.6	+0.0	22.5	94.0 CDMA	-71.5	RF Ou
8	894.000M	20.6	+0.6	+0.0	21.2	94.0 CDMA	-72.8	RF Ou

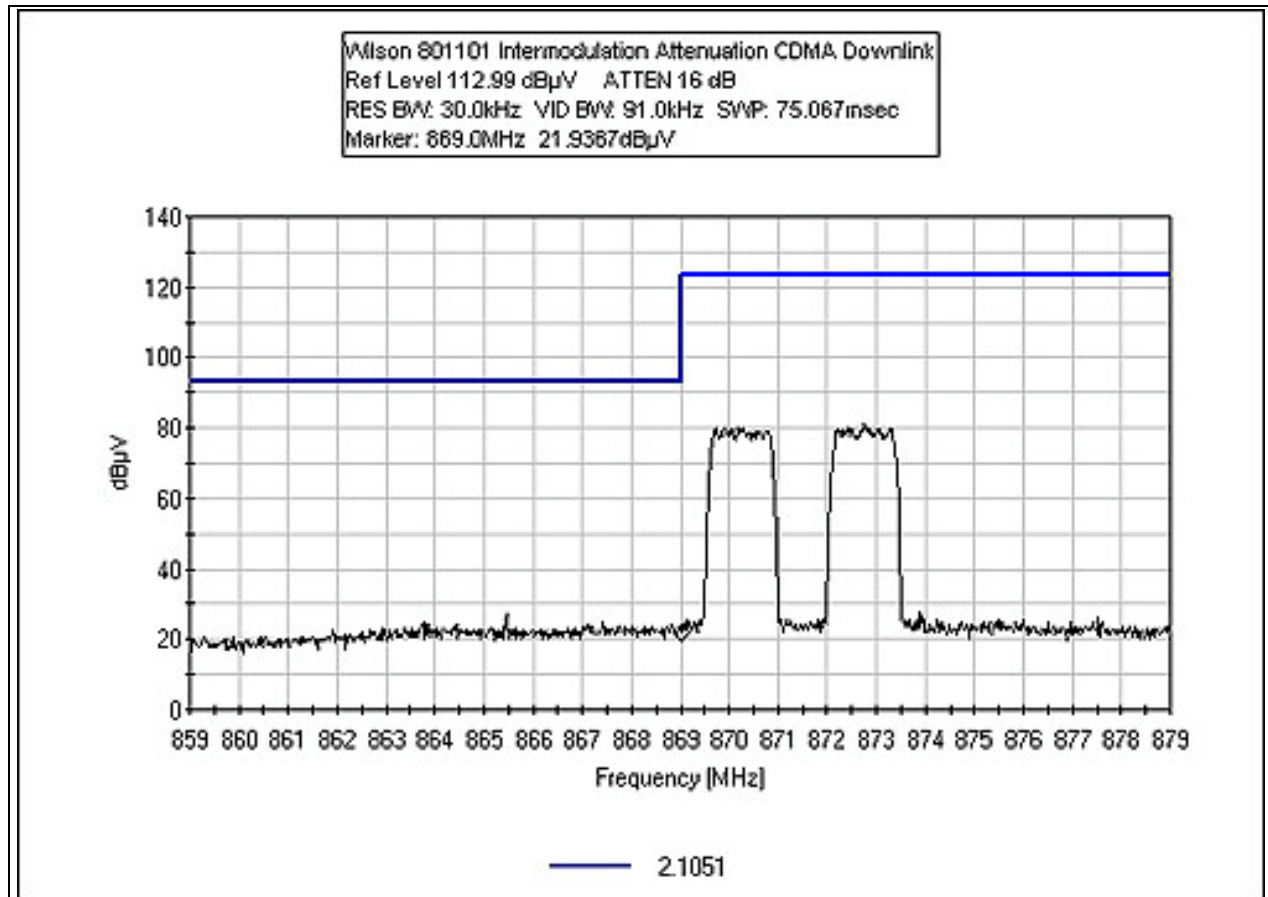
DOWNLINK INTERMODULATION ATTENUATION - AMPS LOW



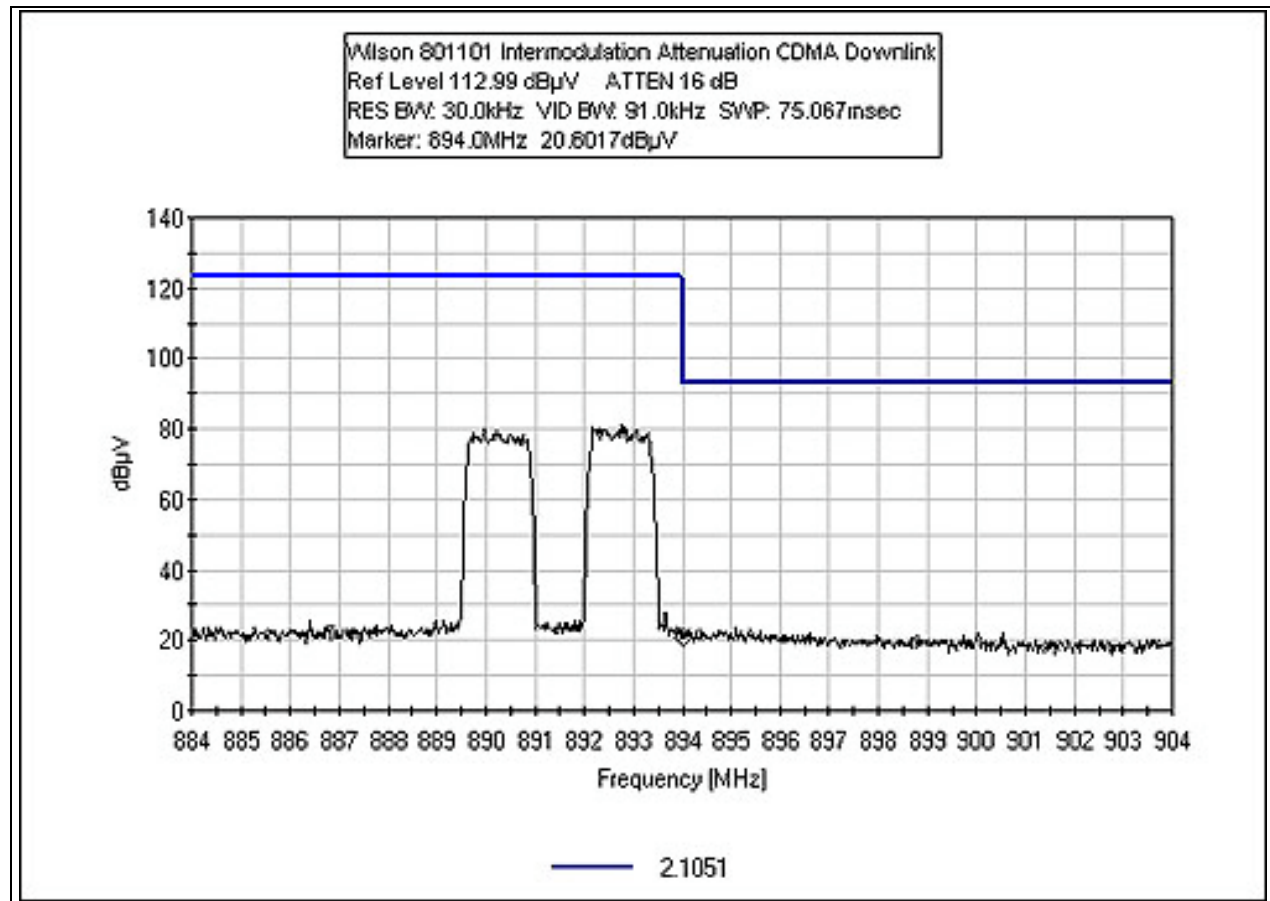
DOWNLINK INTERMODULATION ATTENUATION - AMPS HIGH



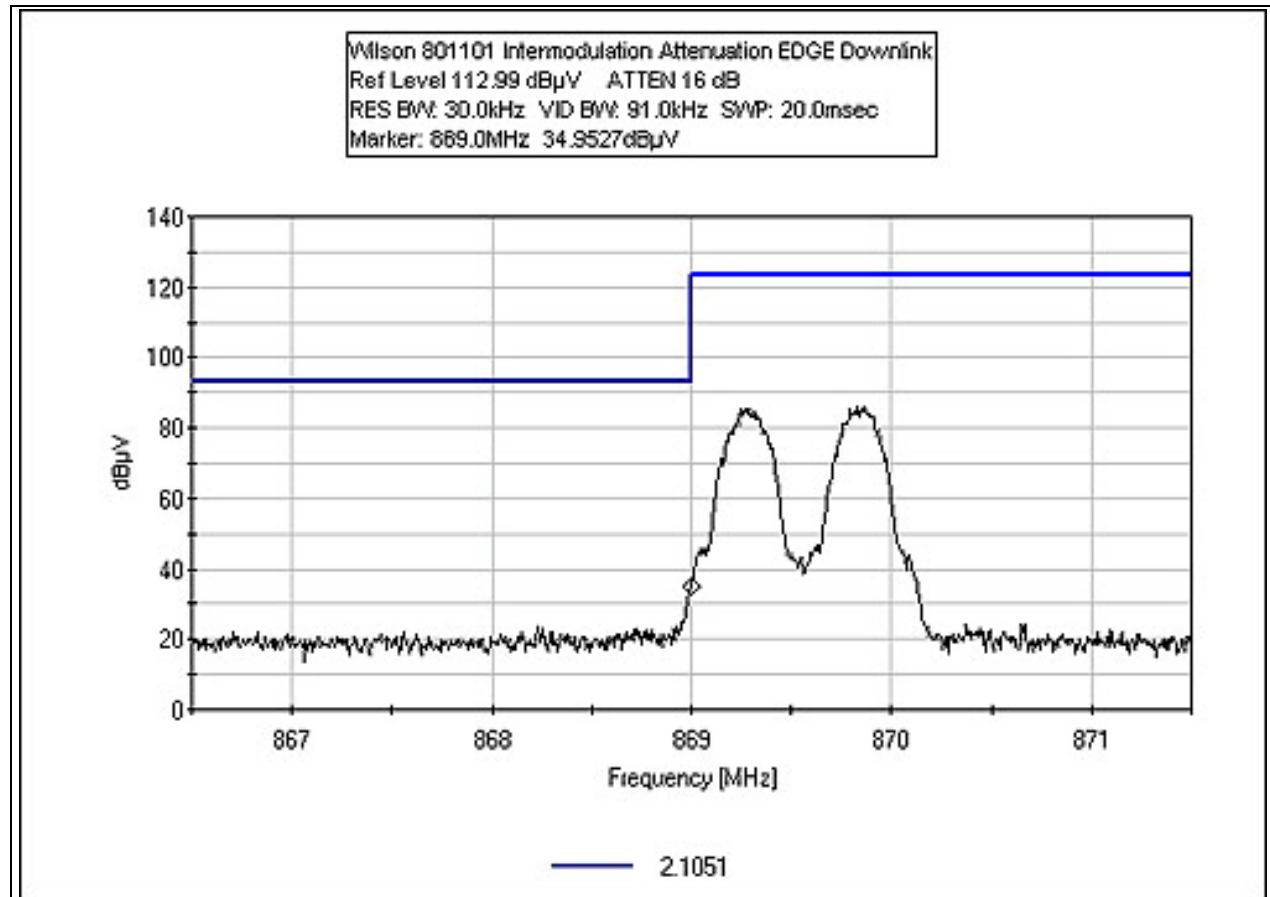
DOWNLINK INTERMODULATION ATTENUATION - CDMA LOW



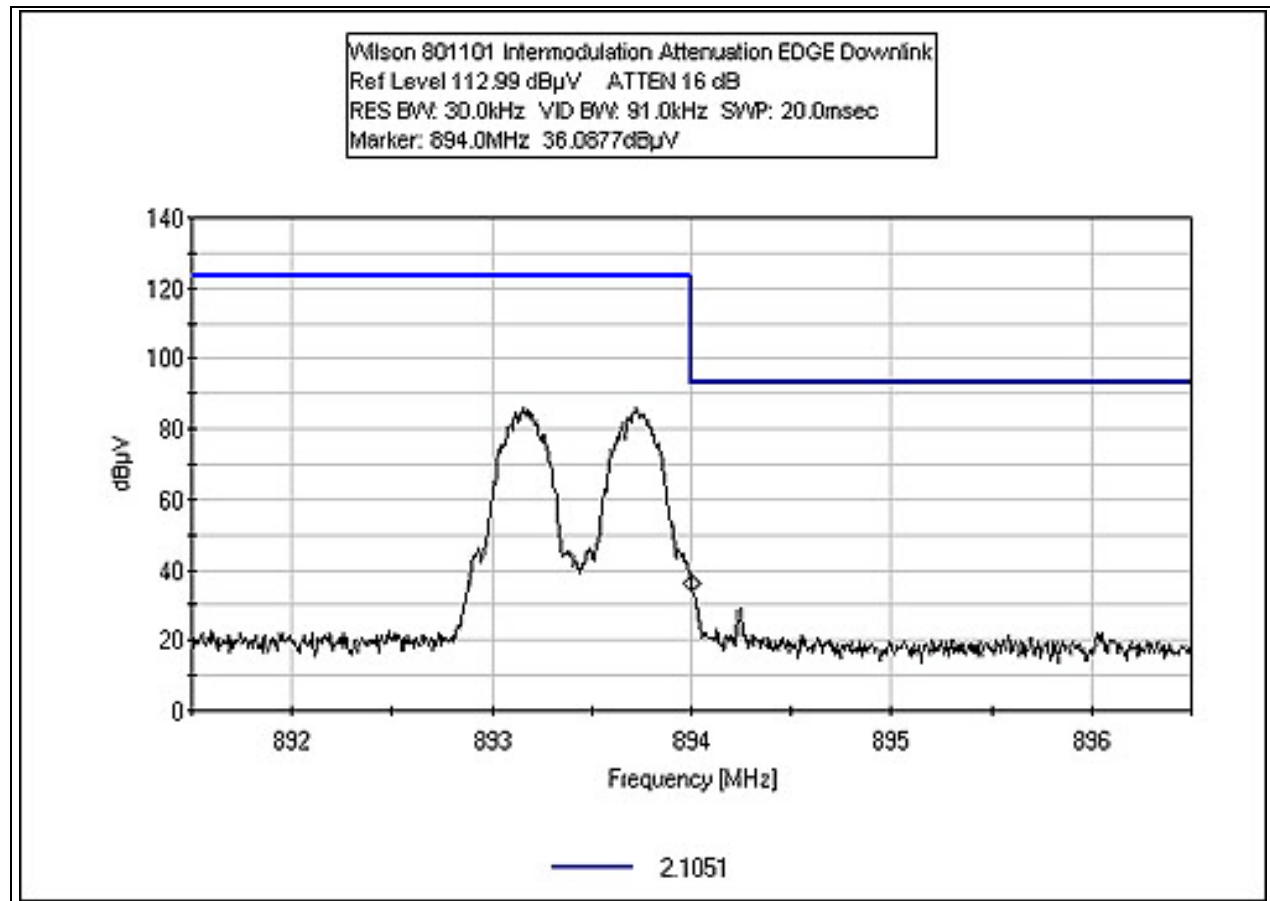
DOWNLINK INTERMODULATION ATTENUATION - CDMA HIGH



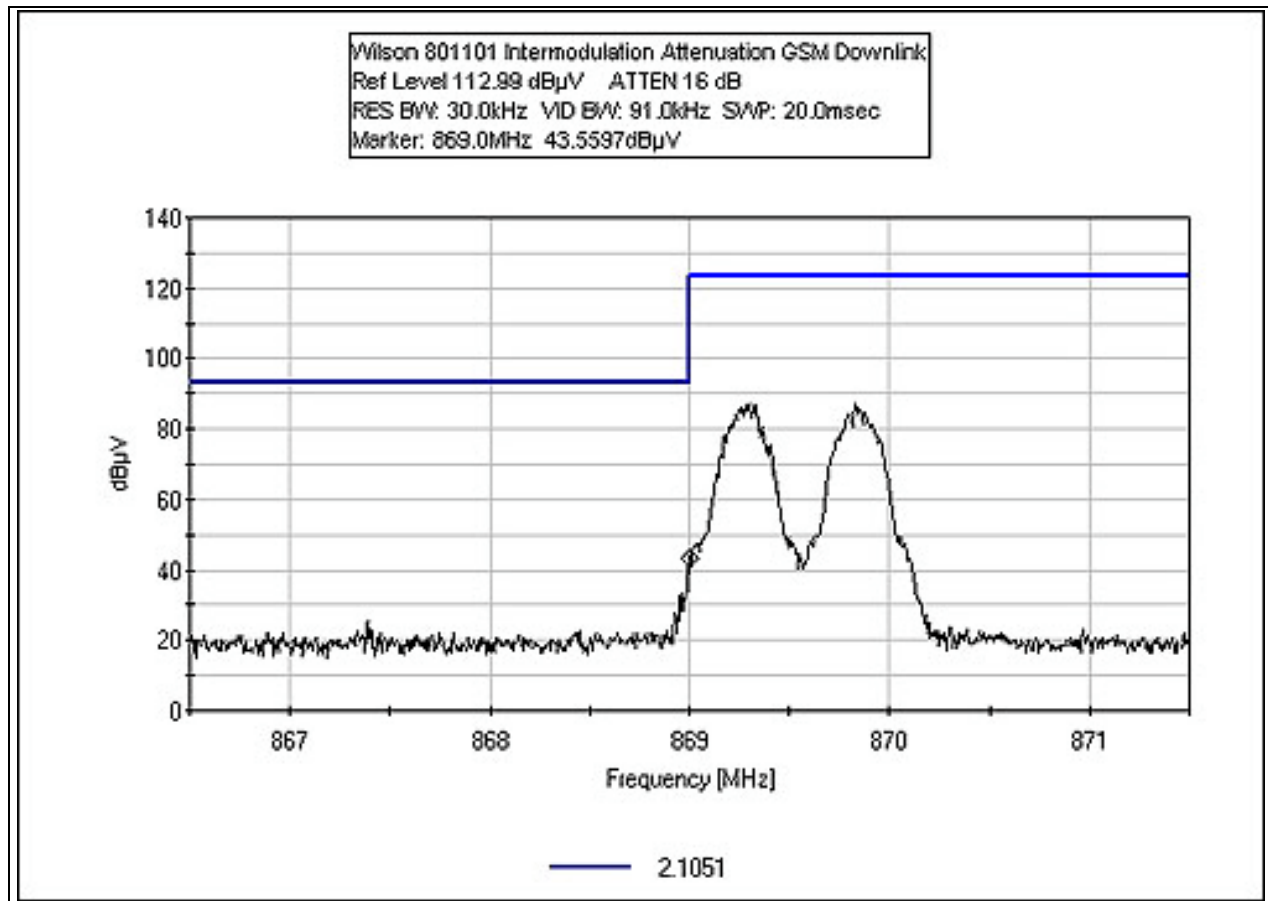
DOWNLINK INTERMODULATION ATTENUATION - EDGE LOW



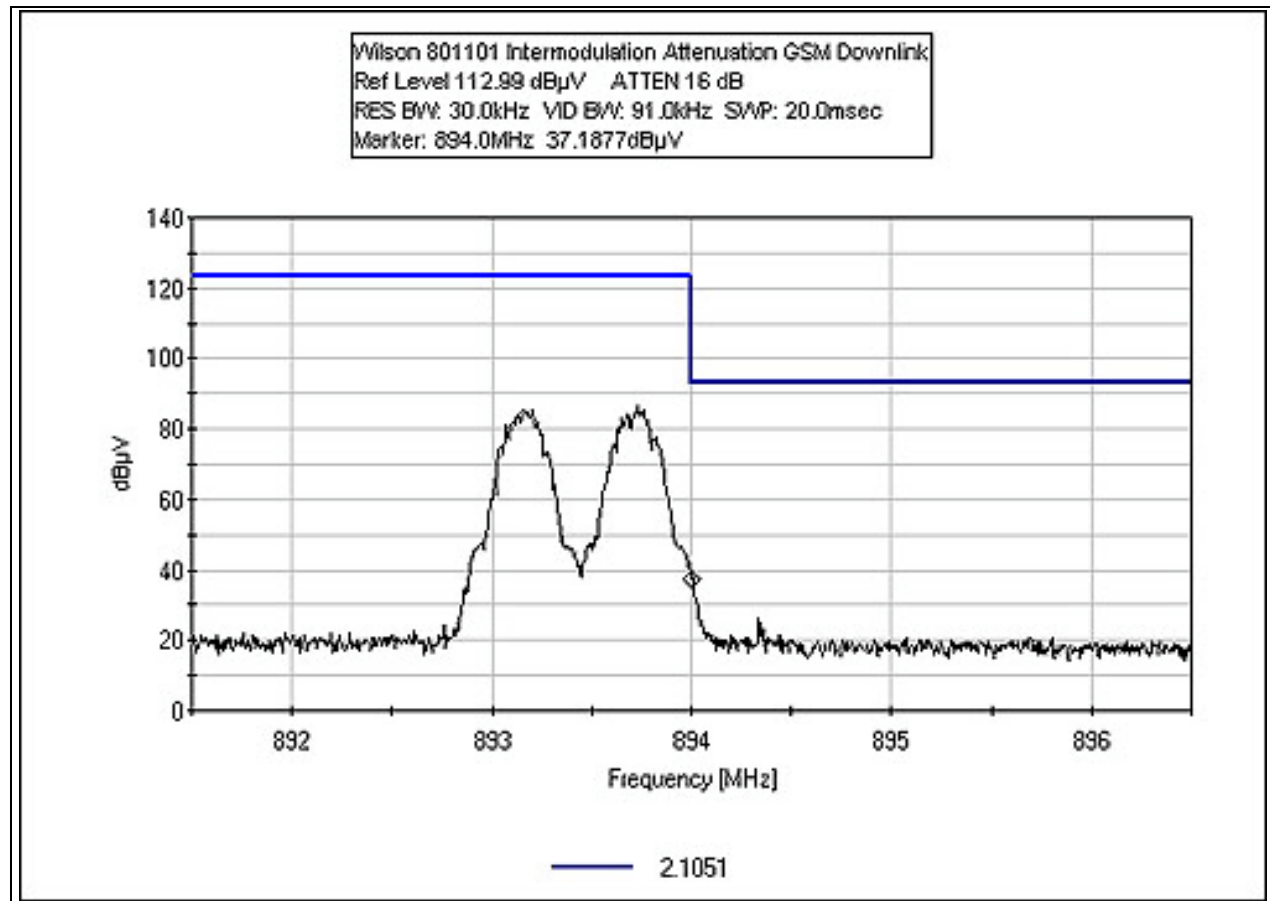
DOWNLINK INTERMODULATION ATTENUATION - EDGE HIGH



DOWNLINK INTERMODULATION ATTENUATION - GSM LOW



DOWNLINK INTERMODULATION ATTENUATION - GSM HIGH



UPLINK INTERMODULATION ATTENUATION

Test Location: CKC Laboratories •4933 Sierra Pines Dr. • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **2.1051**

Work Order #: **81892**

Date: 9/14/2006

Test Type: **Antenna Conducted**

Time: 10:45:53

Equipment: **Bidirectional Cellular Amplifier Repeater**

Sequence#: 29

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801101

12VDC

S/N: 8011018033282

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 25A-MFN-30	9724	05/18/2005	05/18/2007	P01577

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric	TPS-2000	920035
Digital Signal Generator	Instruments Co., Ltd.	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Frequency Range Investigated: 30-9000 MHz. Amplification Band: Uplink. Carrier Frequency: Intermodulation. Test Modulation Type: As Listed. Temperature: 81°F, Relative Humidity: 36%.

Transducer Legend:

T1=Cable 40 GHz 36"	T2=Pad 30dB
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Measurement Data:

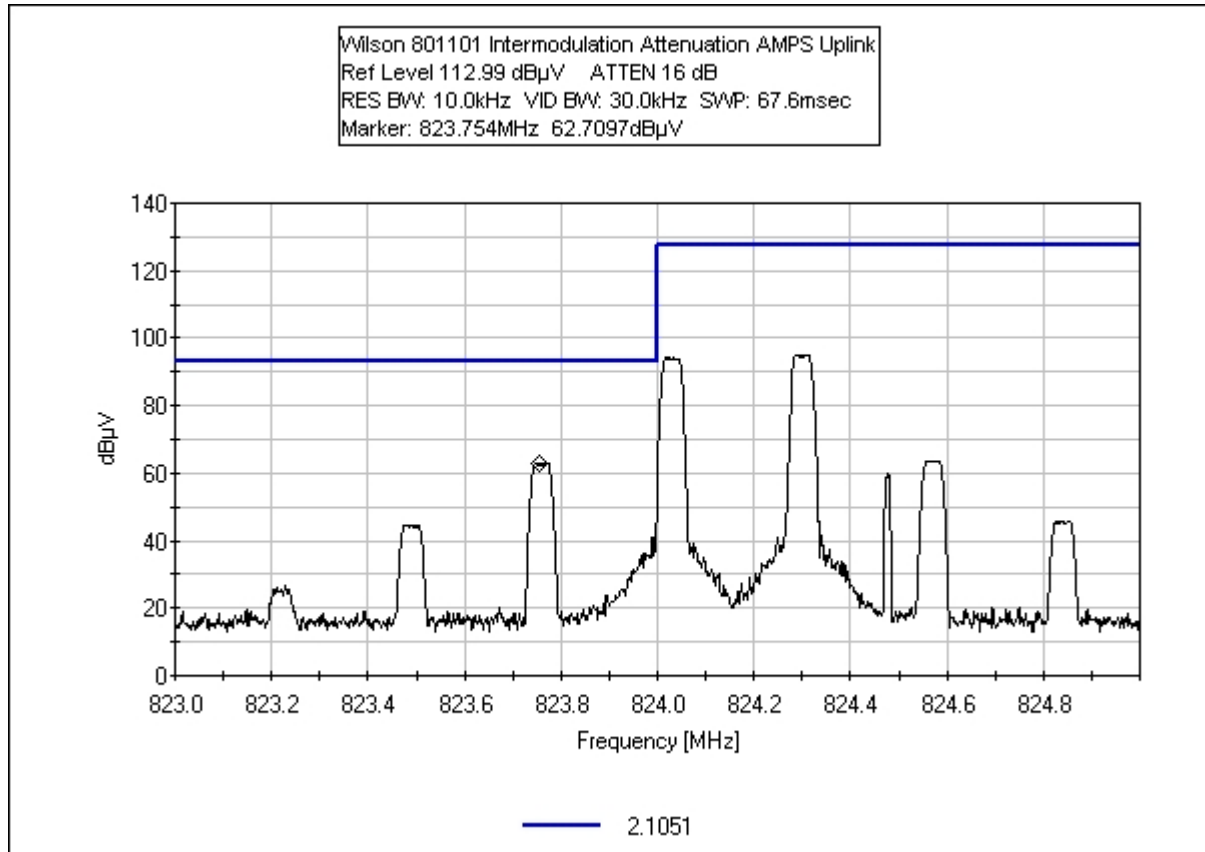
Reading listed by margin.

Test Lead: RF Output Uplink

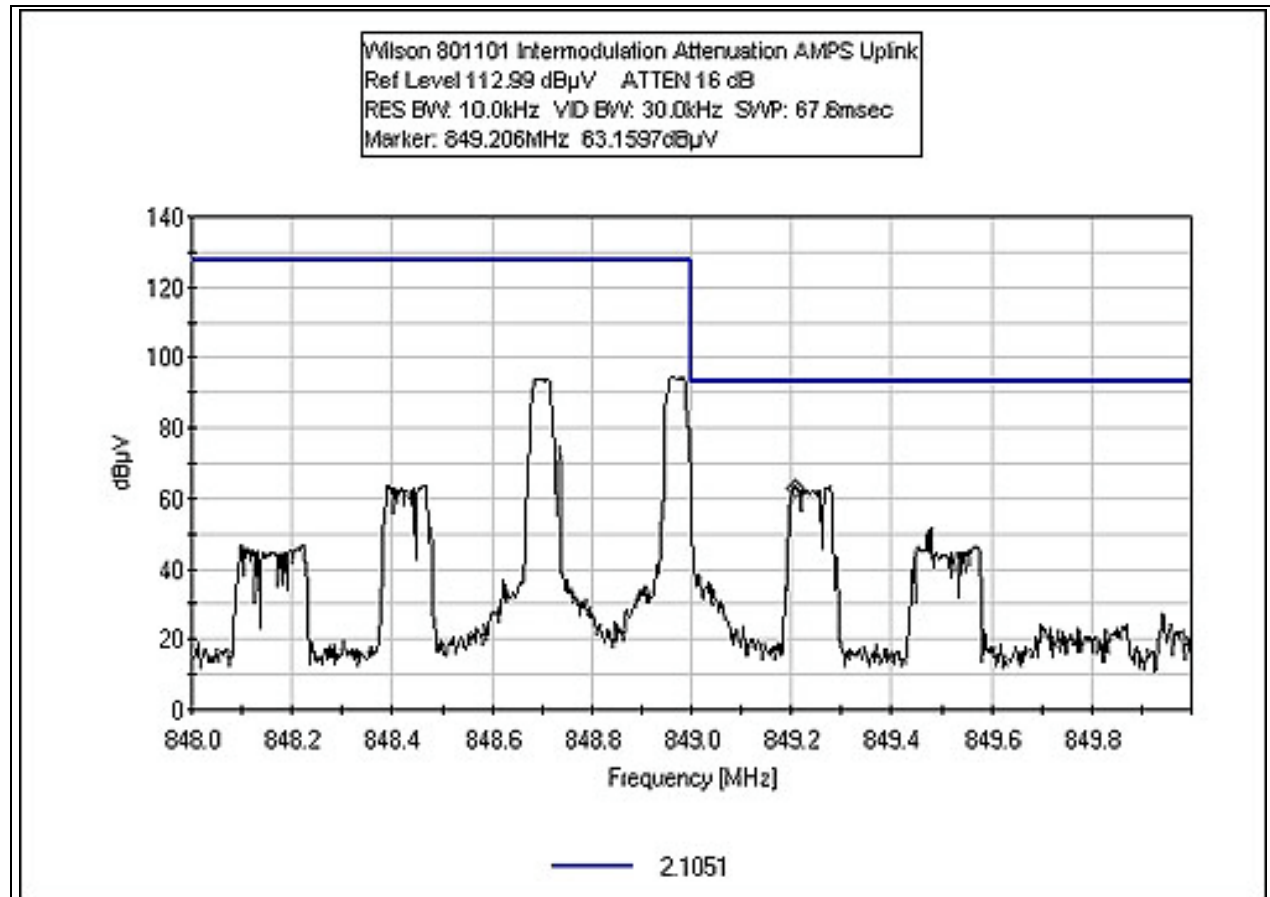
#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	849.206M	63.2	+0.6	+30.1			+0.0	93.9	94.0	-0.1	RF Ou
									AMPS		
2	823.754M	62.7	+0.6	+30.0			+0.0	93.3	94.0	-0.7	RF Ou
									AMPS		
3	823.725M	62.3	+0.6	+30.0			+0.0	92.9	94.0	-1.1	RF Ou
									EDGE		

4	823.705M	62.3	+0.6	+30.0	+0.0	92.9	94.0	-1.1	RF Ou
							GSM		
5	824.000M	61.5	+0.6	+30.1	+0.0	92.2	94.0	-1.8	RF Ou
							CDMA		
6	849.205M	60.9	+0.6	+30.1	+0.0	91.6	94.0	-2.4	RF Ou
							GSM		
7	849.325M	60.3	+0.6	+30.1	+0.0	91.0	94.0	-3.0	RF Ou
							EDGE		
8	849.000M	58.6	+0.6	+30.1	+0.0	89.3	94.0	-4.7	RF Ou
							CDMA		
9	1648.325M	33.5	+0.8	+30.2	+0.0	64.5	94.0	-29.5	RF Ou
							AMPS		
10	1697.647M	32.4	+0.8	+30.1	+0.0	63.3	94.0	-30.7	RF Ou
							AMPS		
11	1649.190M	31.3	+0.8	+30.2	+0.0	62.3	94.0	-31.7	RF Ou
							GSM		
12	1649.150M	30.1	+0.8	+30.2	+0.0	61.1	94.0	-32.9	RF Ou
							EDGE		
13	1696.850M	28.3	+0.8	+30.1	+0.0	59.2	94.0	-34.8	RF Ou
							GSM		
14	1696.820M	27.4	+0.8	+30.1	+0.0	58.3	94.0	-35.7	RF Ou
							EDGE		

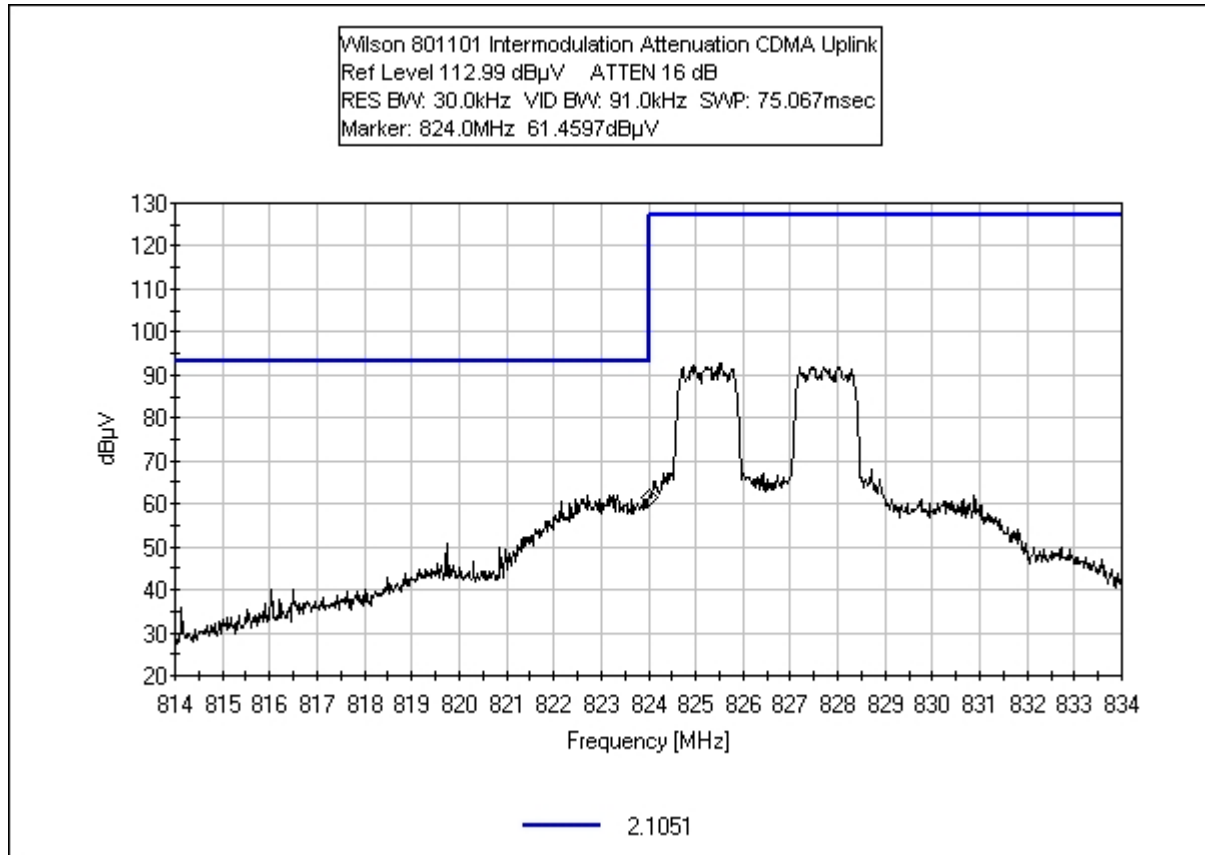
UPLINK INTERMODULATION ATTENUATION - AMPS LOW



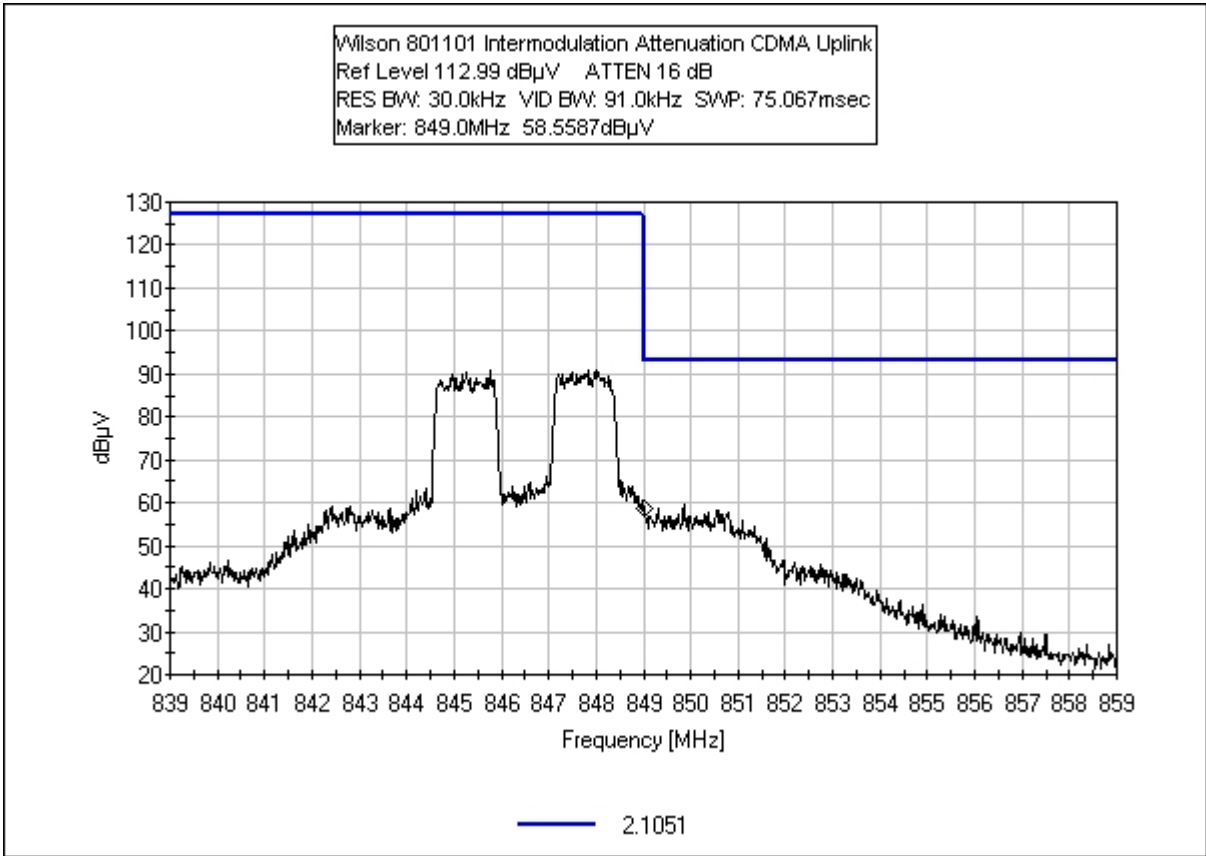
UPLINK INTERMODULATION ATTENUATION - AMPS HIGH



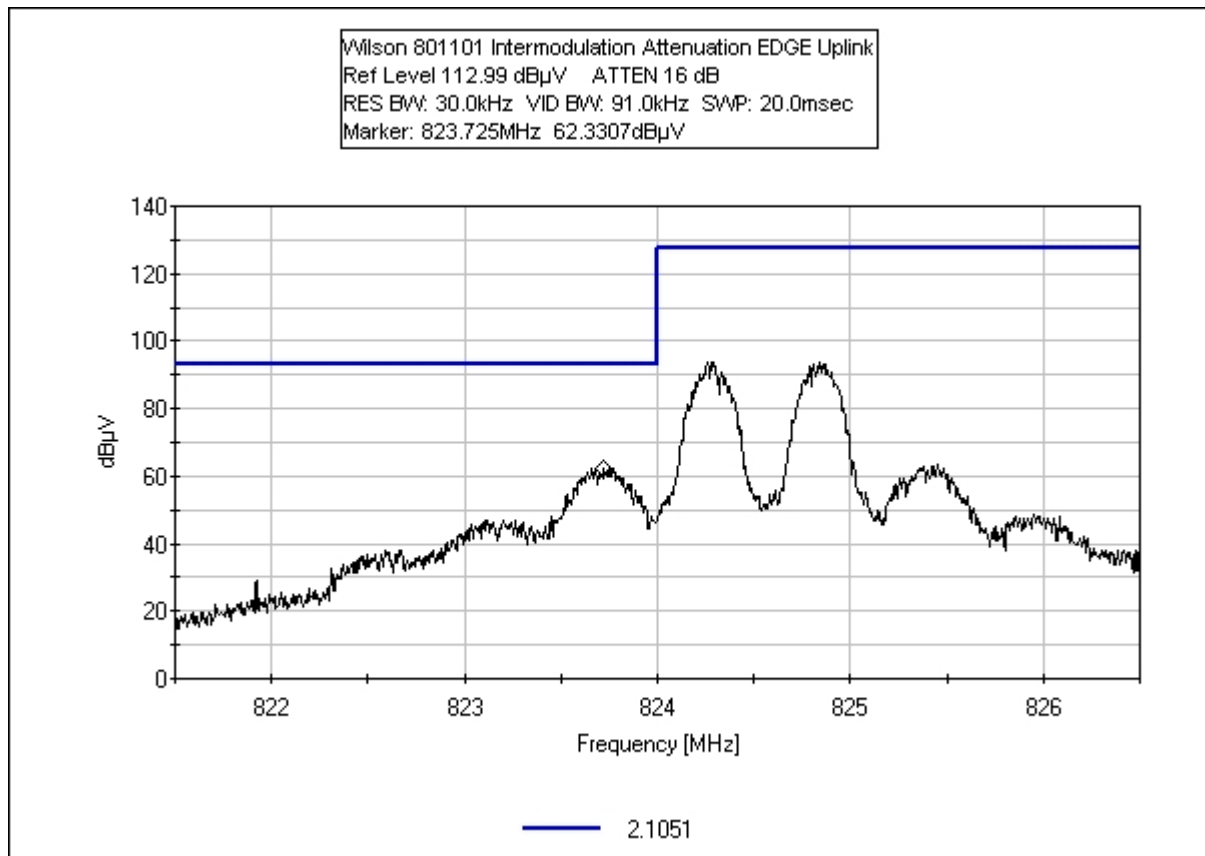
UPLINK INTERMODULATION ATTENUATION - CDMA LOW



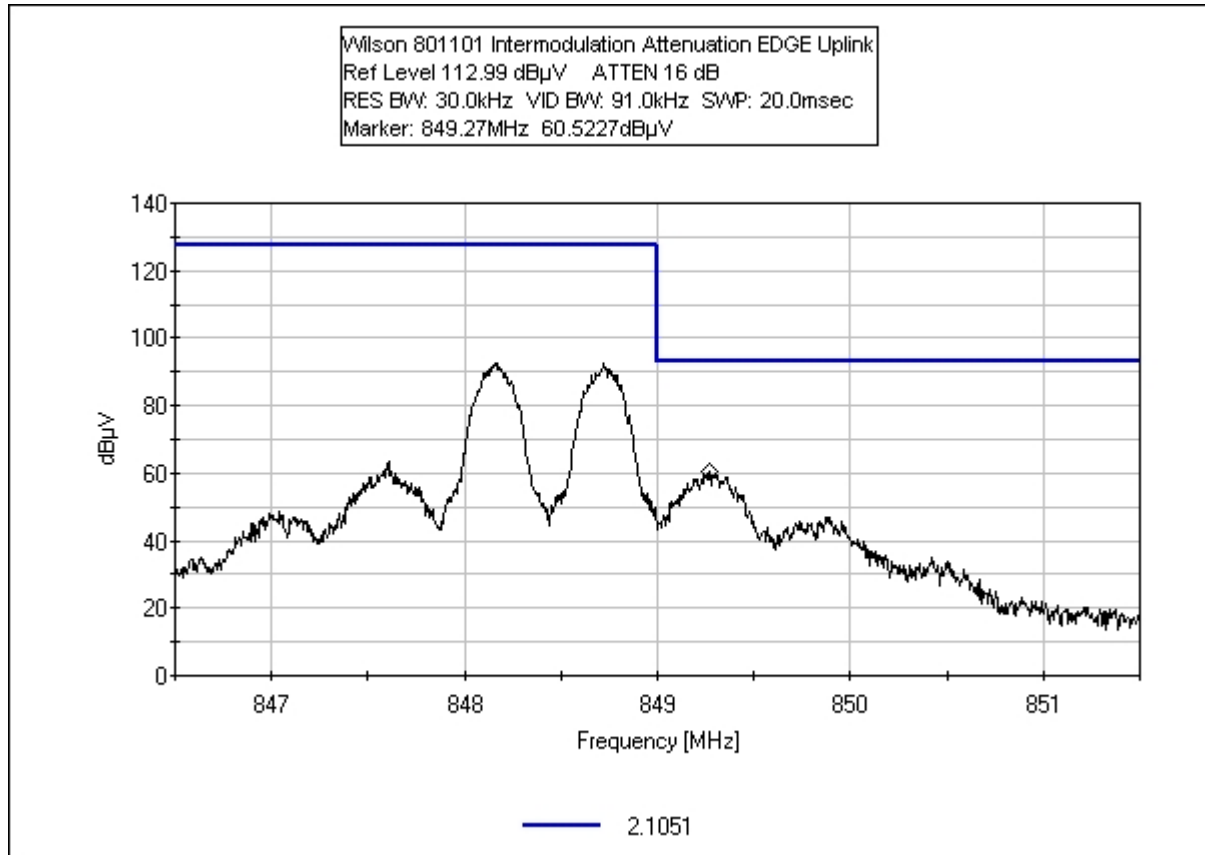
UPLINK INTERMODULATION ATTENUATION - CDMA HIGH



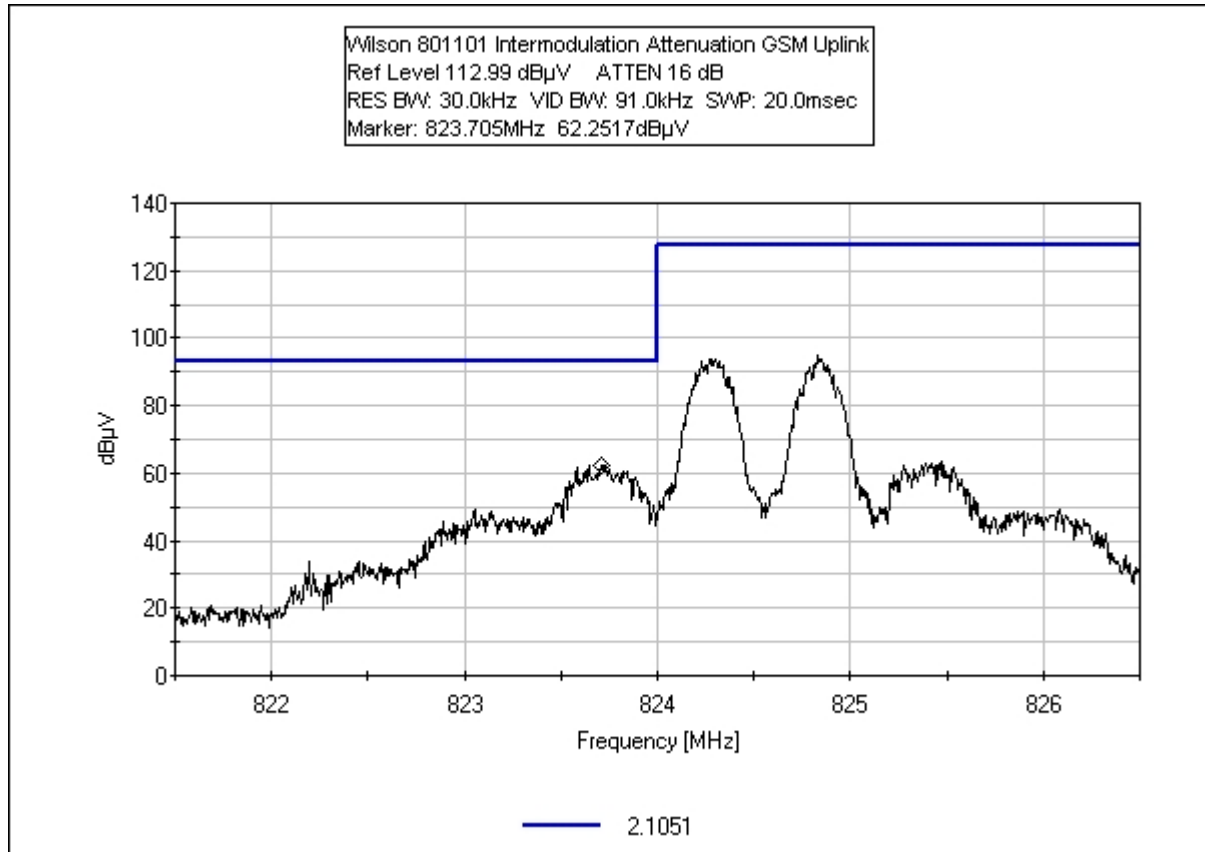
UPLINK INTERMODULATION ATTENUATION - EDGE LOW



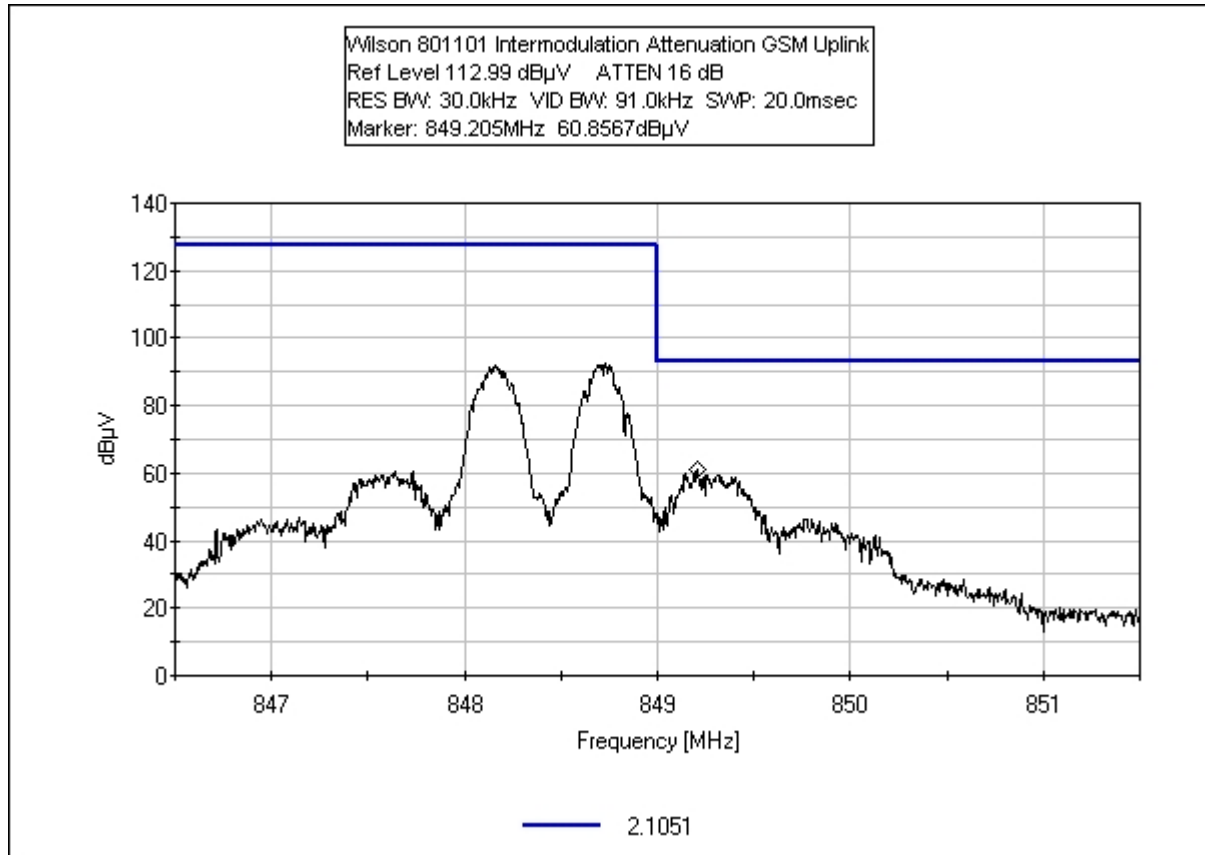
UPLINK INTERMODULATION ATTENUATION - EDGE HIGH



UPLINK INTERMODULATION ATTENUATION - GSM LOW



UPLINK INTERMODULATION ATTENUATION - GSM HIGH



DOWNLINK INPUT AND OUTPUT

Customer: **Wilson Electronics**
 Specification: **FCC 2.1046**
 Work Order #: **81892**
 Test Type: **Antenna Conducted**
 Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
 Model: 801101
 S/N: 8011018033282

Tested By: Randal Clark
 12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36" NA		02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

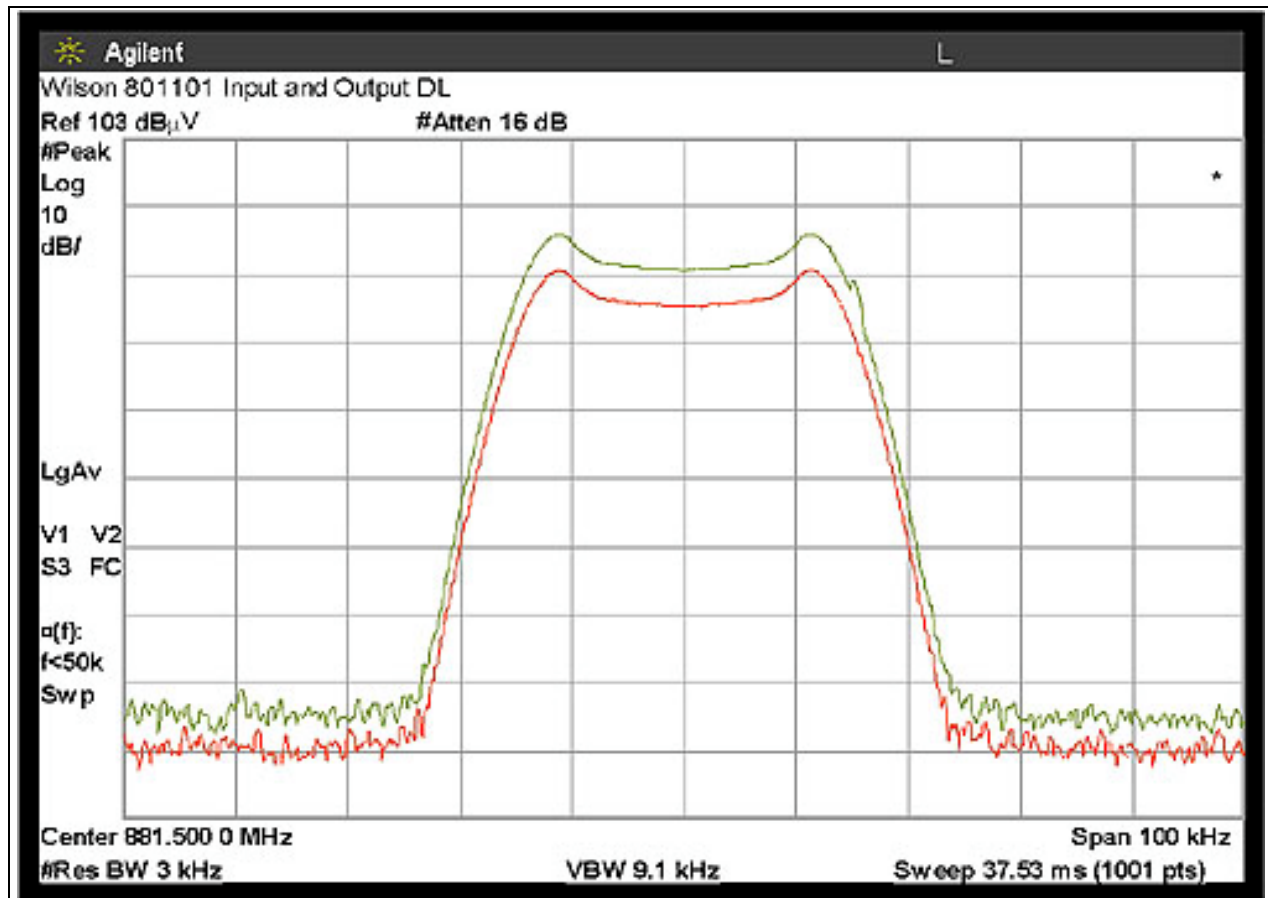
Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation. Plots represent relative comparisons of spectral characteristics. Signal generator levels are adjusted to show close comparison of modulation waveforms - plots do not represent amplifier gain.

Frequency Range Investigated: Carrier
 Temperature: 81°F
 Relative Humidity: 36%

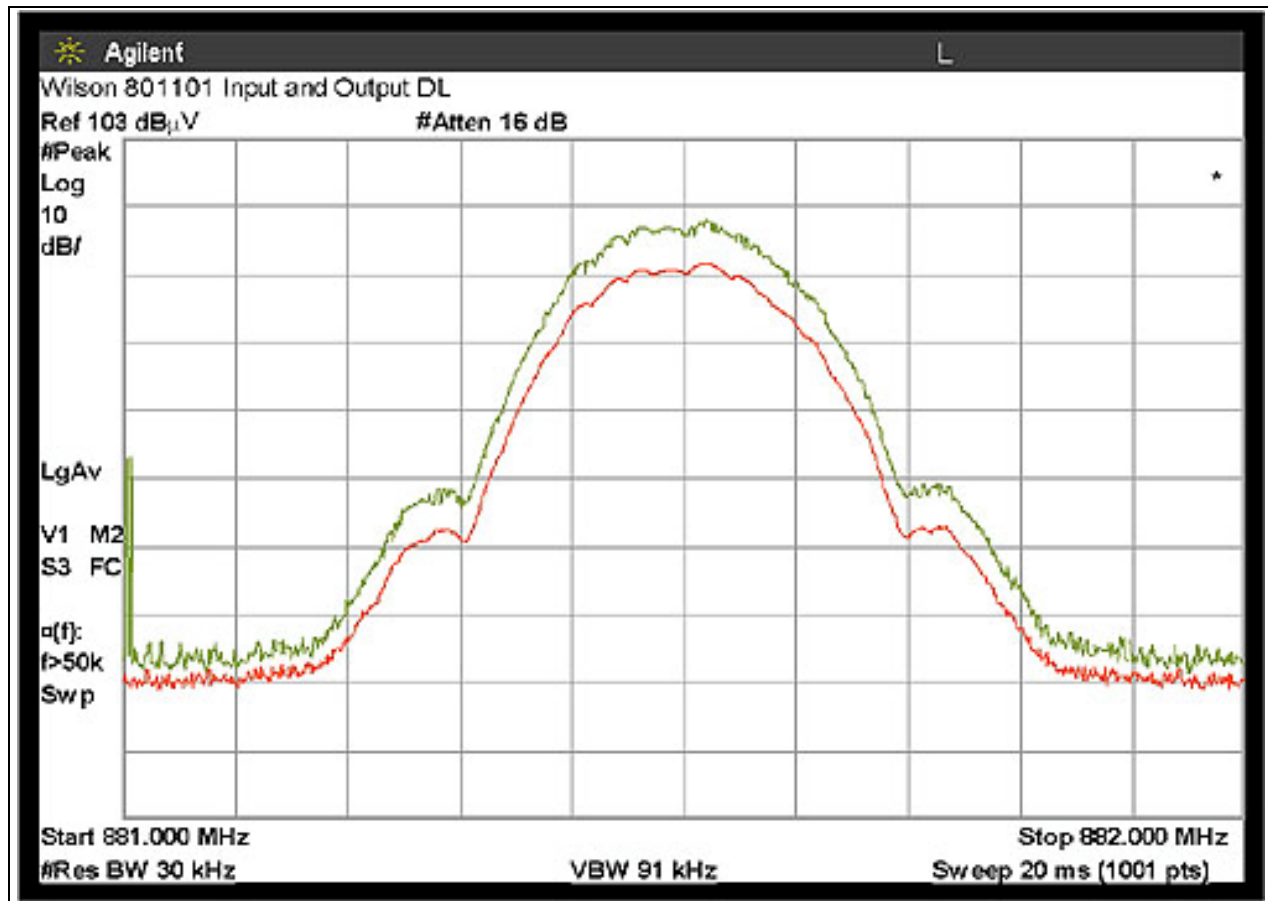
DOWNLINK INPUT AND OUTPUT - AMPS



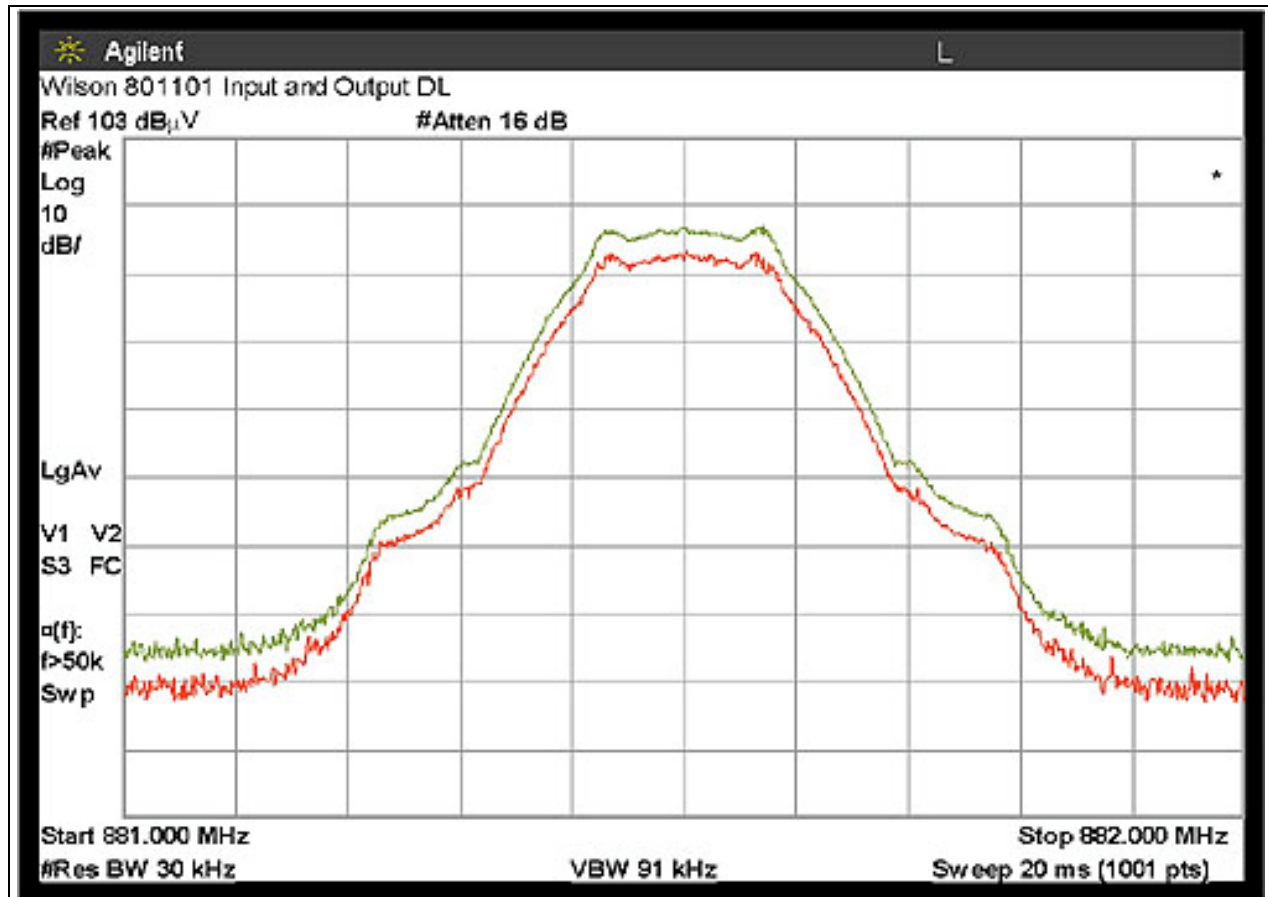
DOWNLINK INPUT AND OUTPUT - CDMA



DOWNLINK INPUT AND OUTPUT - EDGE



DOWNLINK INPUT AND OUTPUT - GSM



UPLINK INPUT AND OUTPUT

Customer: **Wilson Electronics**
Specification: **FCC 2.1046**
Work Order #: **81892**
Test Type: **Antenna Conducted**
Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
Model: 801101
S/N: 8011018033282

Tested By: Randal Clark
12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

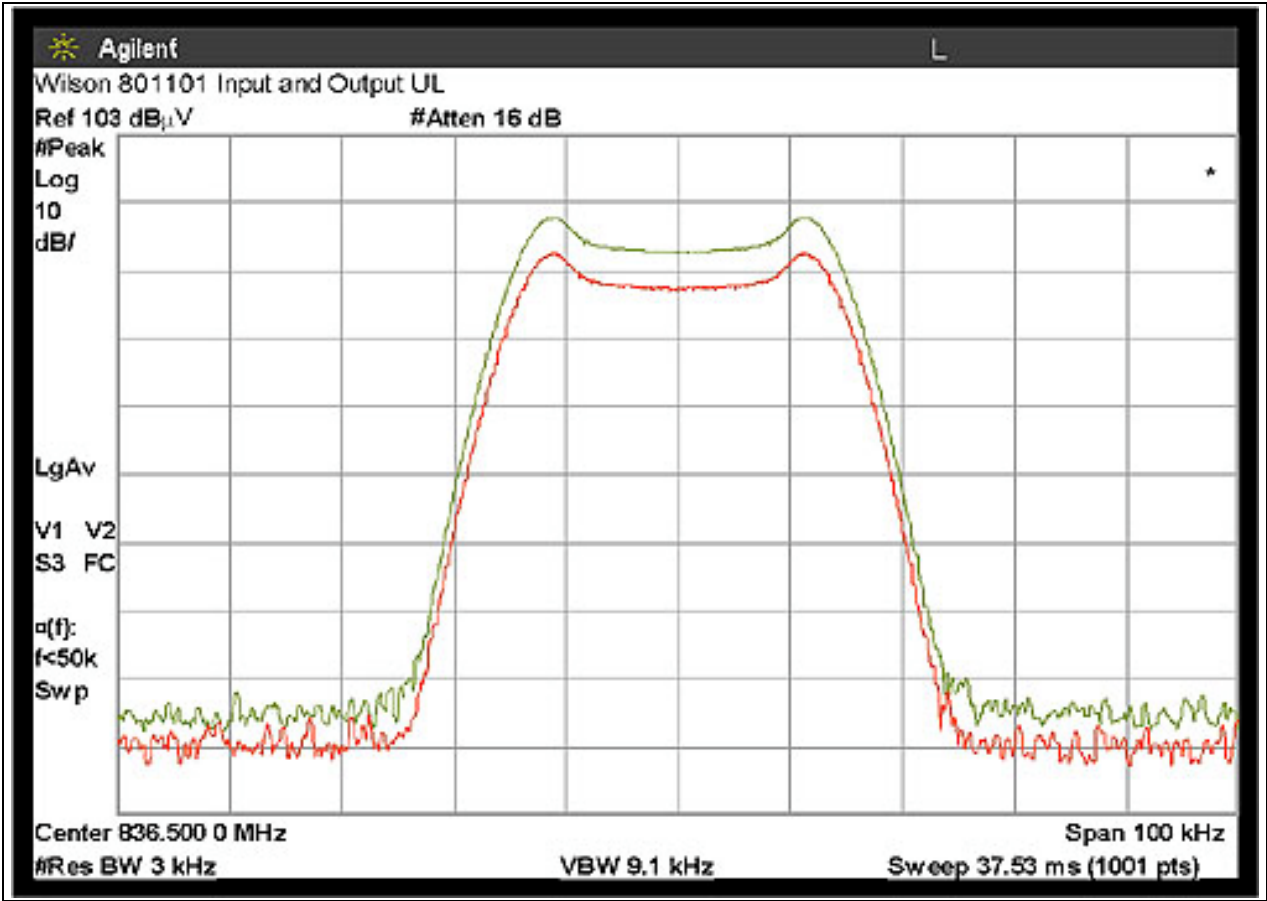
Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

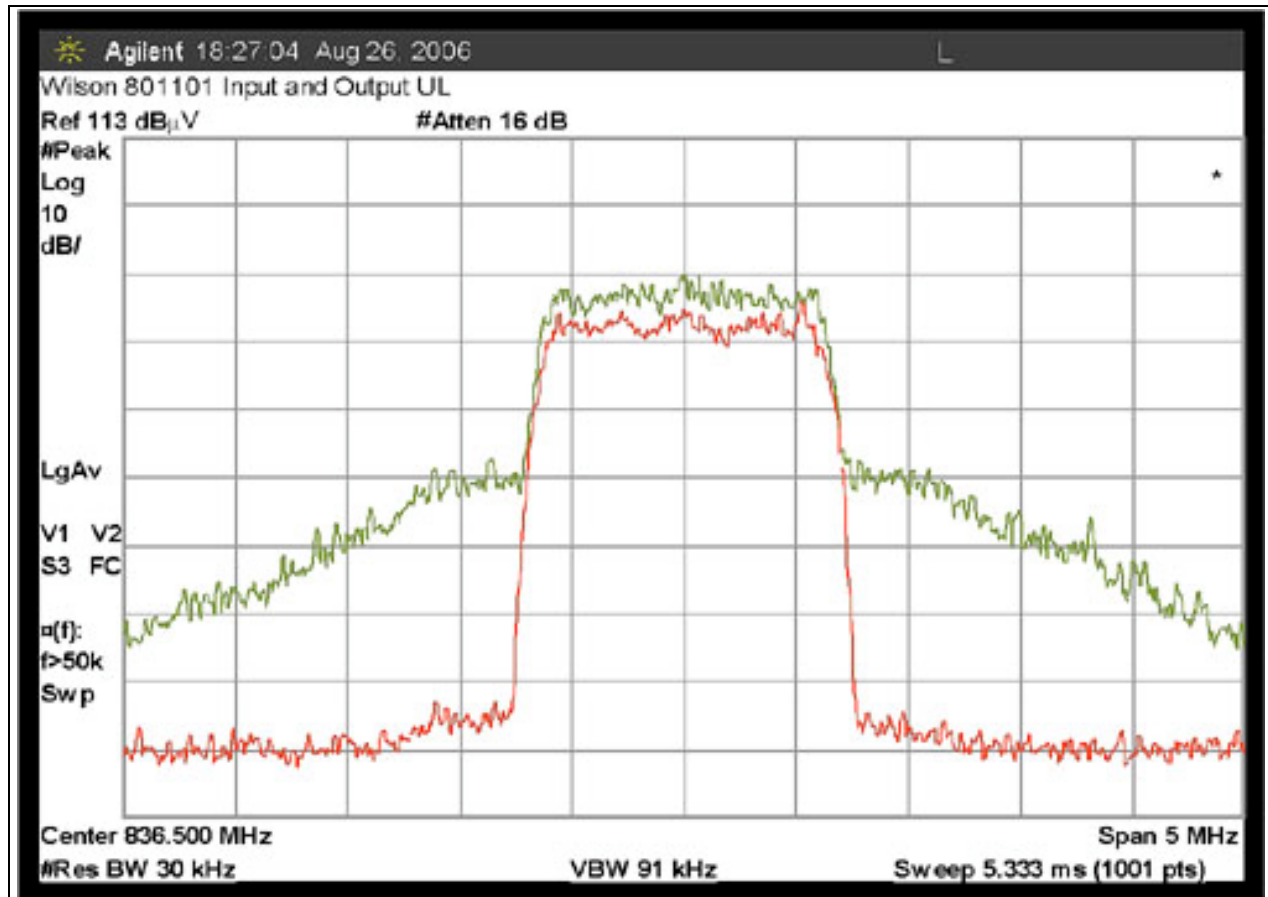
Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation. Plots represent relative comparisons of spectral characteristics. Signal generator levels are adjusted to show close comparison of modulation waveforms - plots do not represent amplifier gain.

Frequency Range Investigated: Carrier
Temperature: 81°F
Relative Humidity: 36%

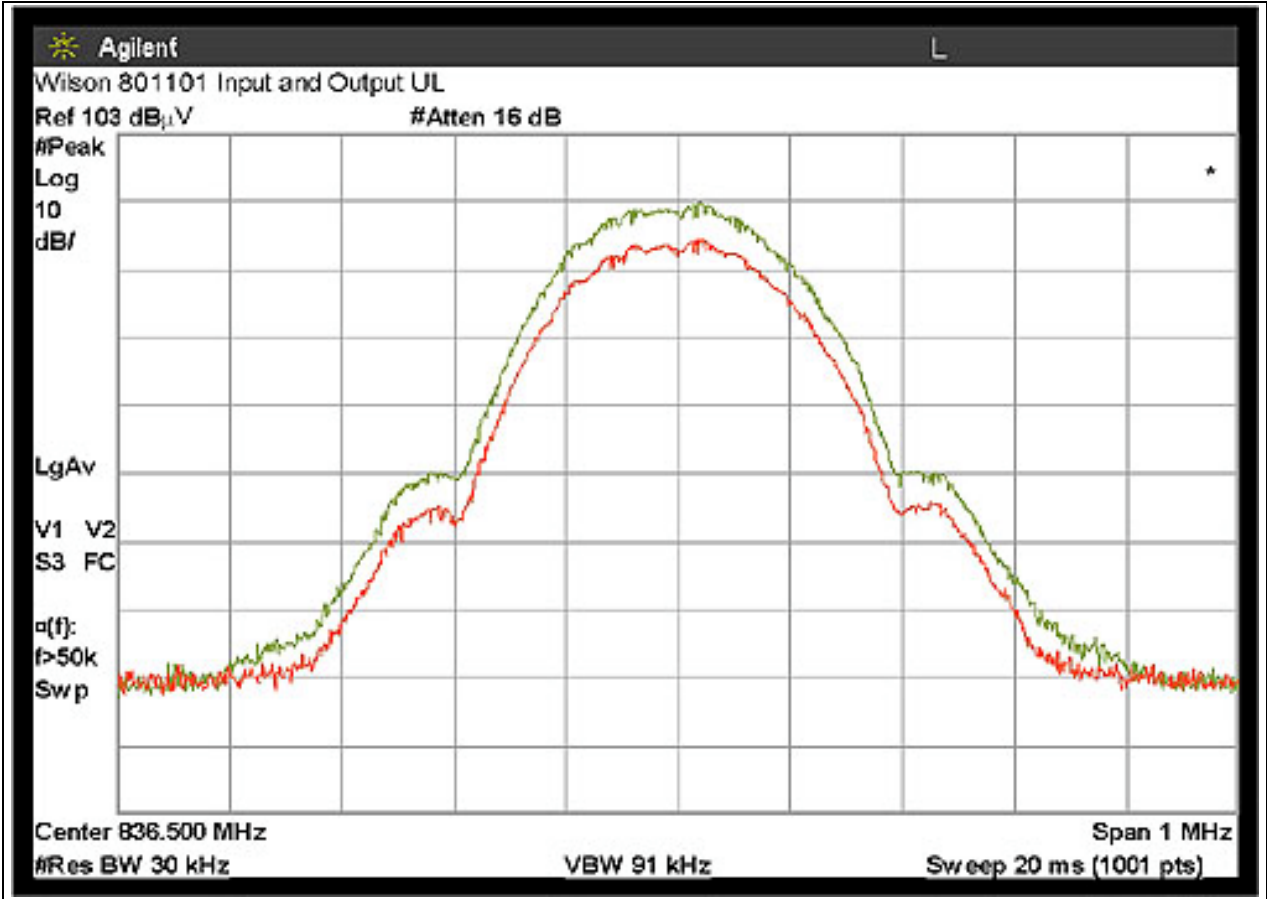
UPLINK INPUT AND OUTPUT - AMPS



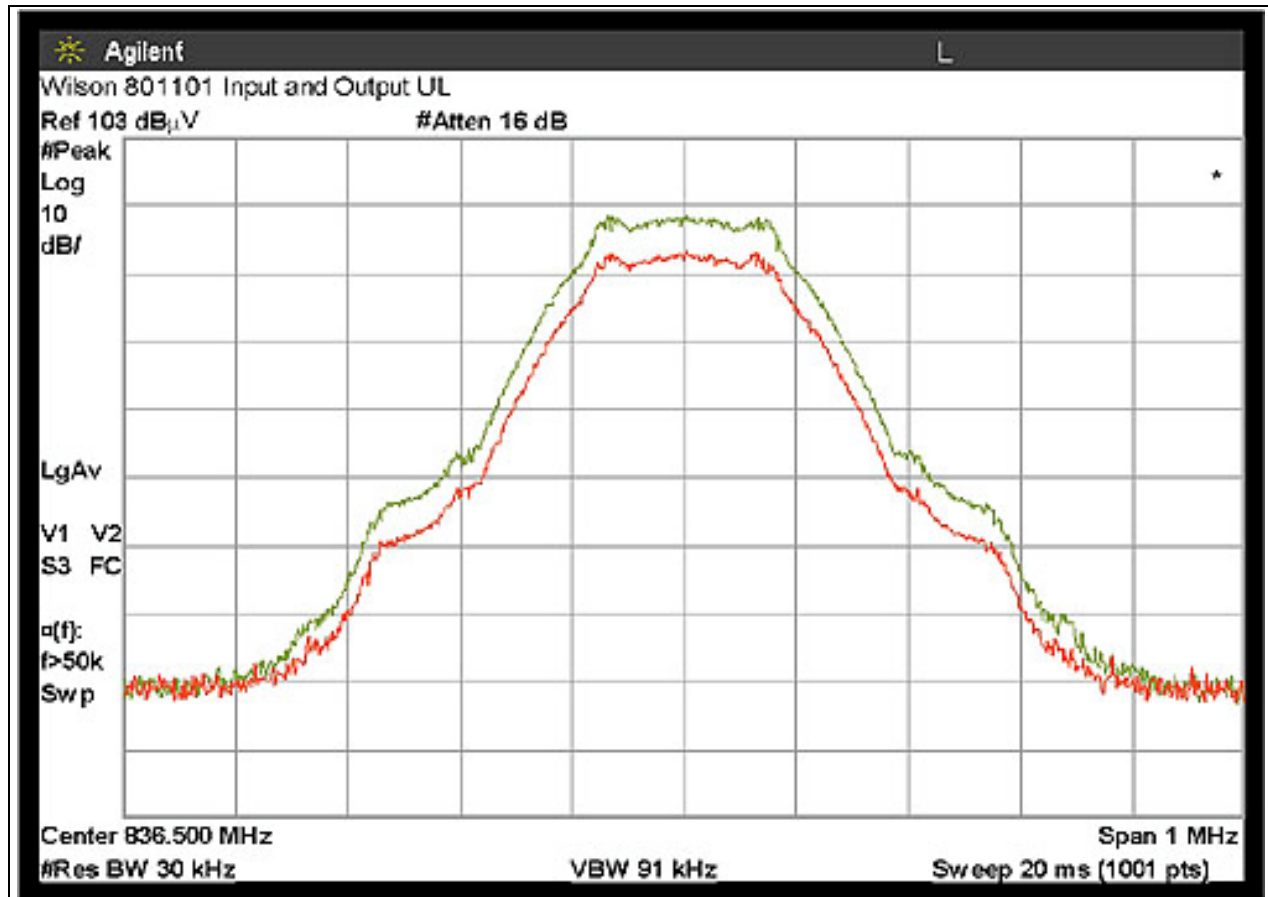
UPLINK INPUT AND OUTPUT - CDMA



UPLINK INPUT AND OUTPUT - EDGE



UPLINK INPUT AND OUTPUT - GSM



DOWNLINK OUT OF BAND REJECTION

Customer: **Wilson Electronics**
Specification: **2.1051**
Work Order #: **81892**
Test Type: **Antenna Conducted**
Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
Model: 801101
S/N: 8011018033282

Tested By: Randal Clark
12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

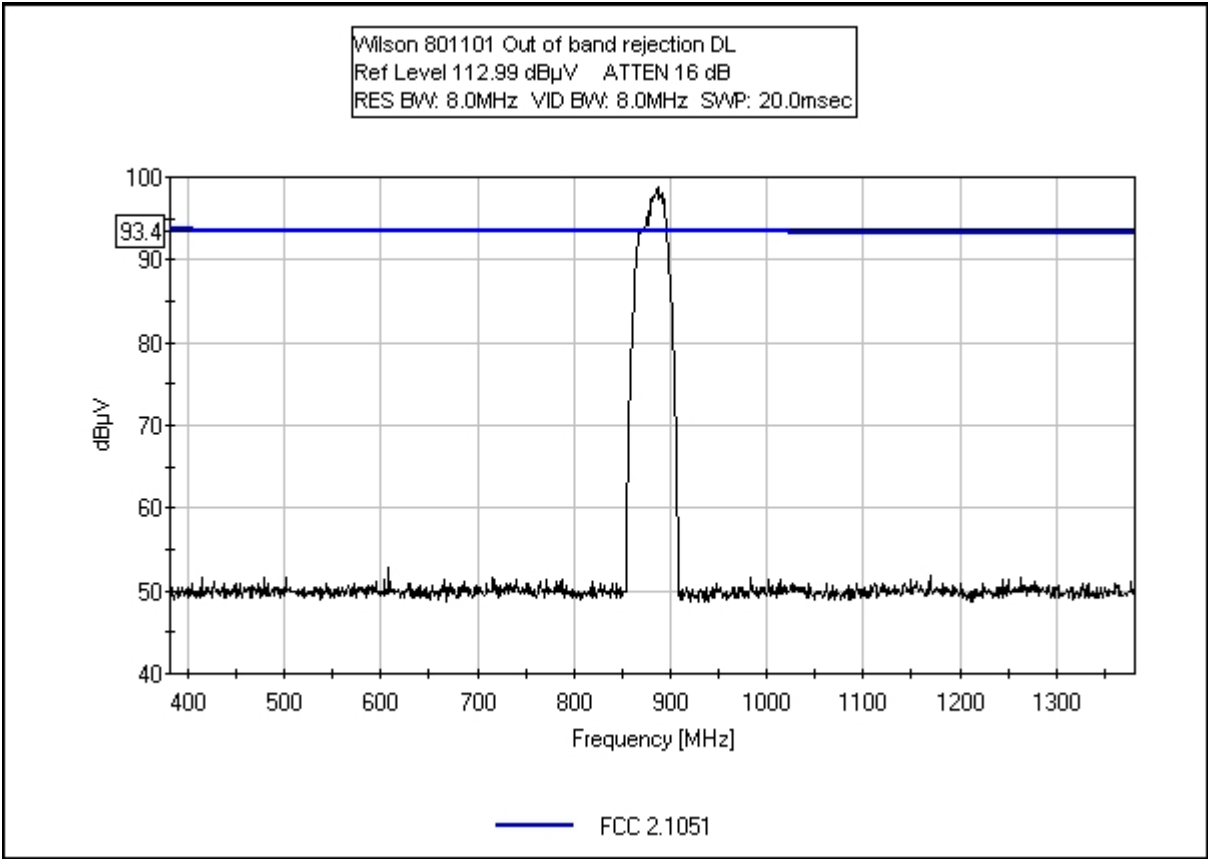
Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation. Input to amplifier is set at the 1 dB compression point of the amplifier's operating output range. The signal generator input is swept across a 1 GHz frequency range while a spectrum analyzer monitors the amplifier output.

Frequency Range Investigated: Carrier
Temperature: 81°F
Relative Humidity: 36%

DOWNLINK OUT OF BAND REJECTION



UPLINK OUT OF BAND REJECTION

Customer: **Wilson Electronics**
 Specification: **2.1051**
 Work Order #: **81892**
 Test Type: **Antenna Conducted**
 Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
 Model: 801101
 S/N: 8011018033282

Tested By: Randal Clark
 12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

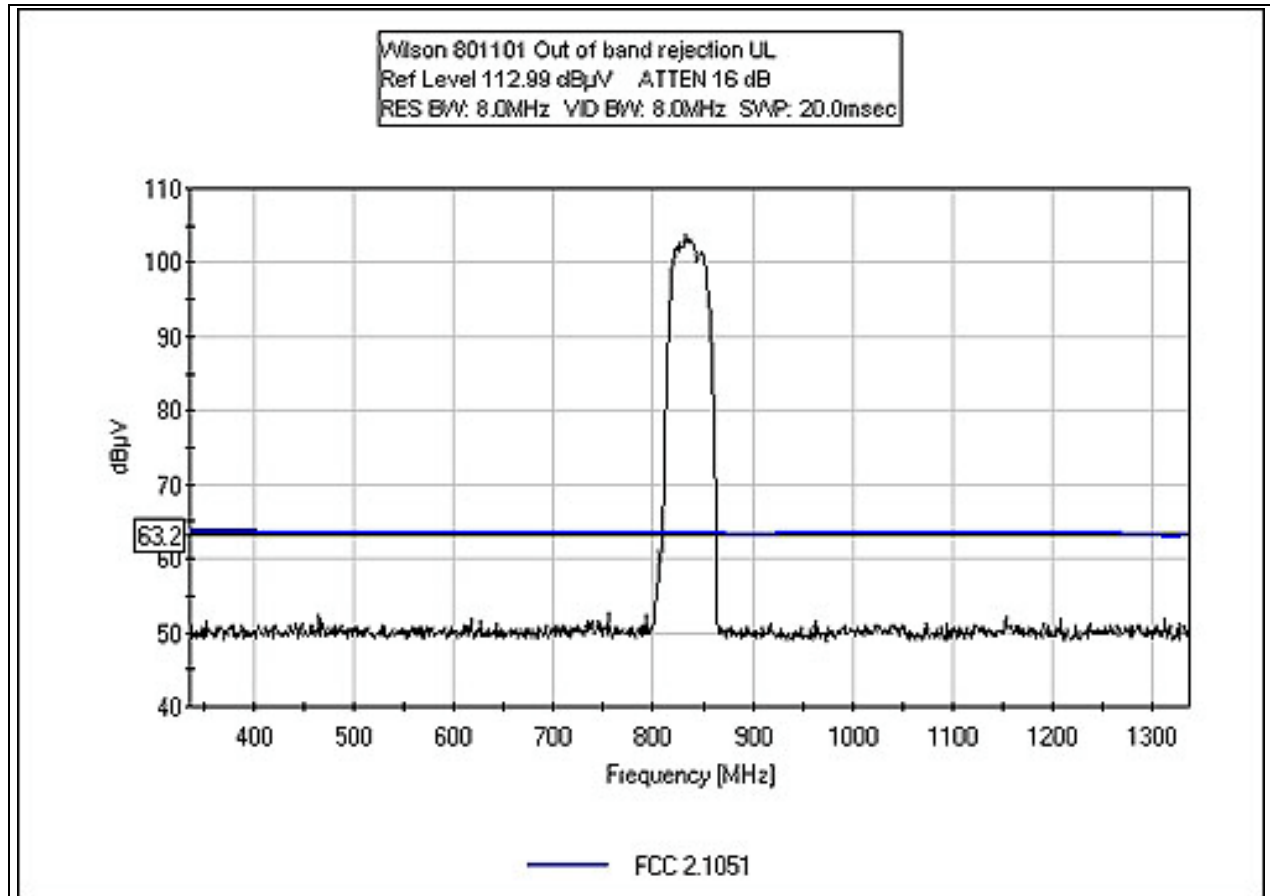
Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation. Input to amplifier is set at the 1 dB compression point of the amplifier's operating output range. The signal generator input is swept across a 1 GHz frequency range while a spectrum analyzer monitors the amplifier output.

Frequency Range Investigated: Carrier
 Temperature: 81°F
 Relative Humidity: 36%

UPLINK OUT OF BAND REJECTION



DOWNLINK RSS-131 PASSBAND GAIN

Customer: **Wilson Electronics**
Specification: **RSS 131**
Work Order #: **81892**
Test Type: **Antenna Conducted**
Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
Model: 801101
S/N: 8011018033282

Tested By: Randal Clark
12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

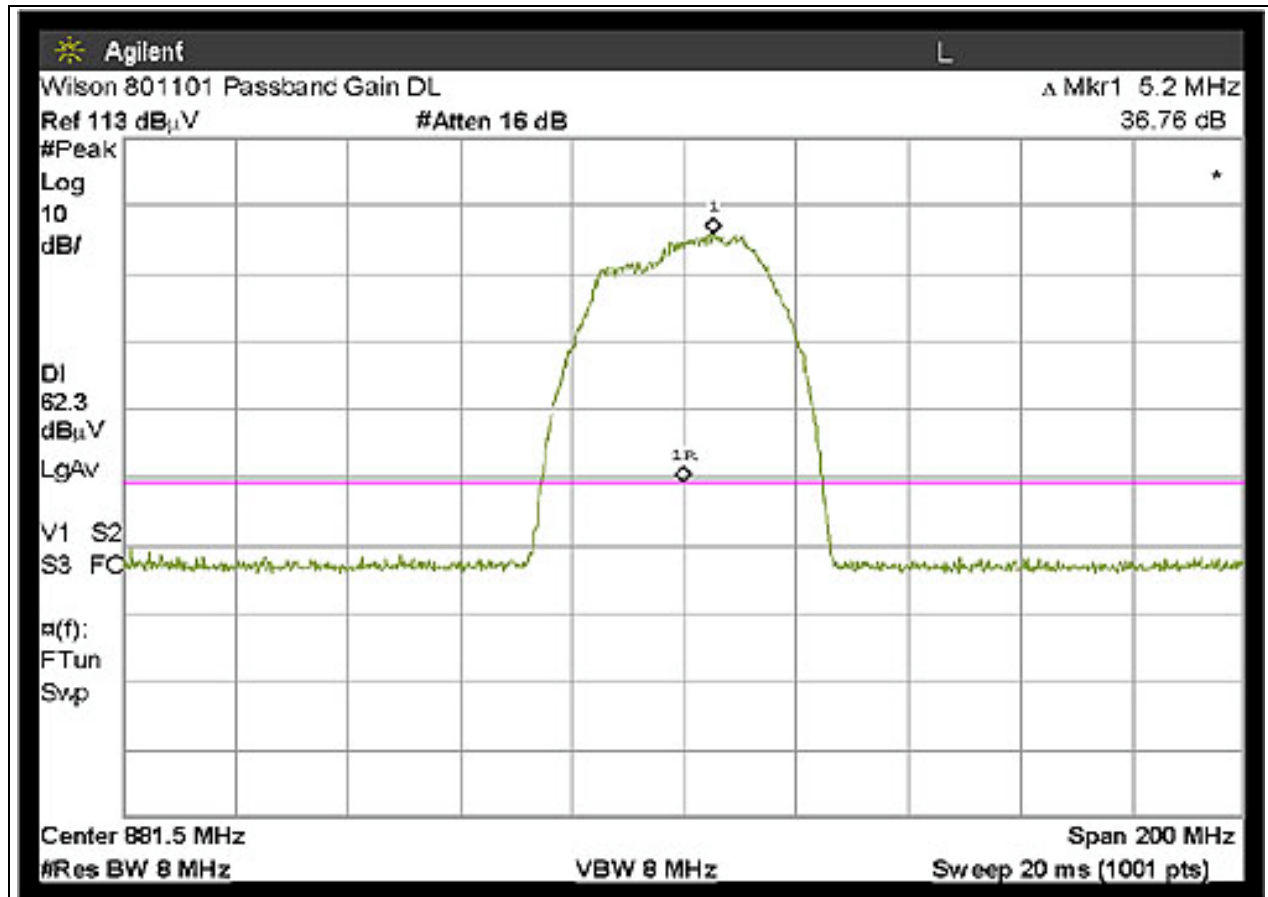
Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation. Input to amplifier is set such that the output is within the linear range of the amplifier's operating range.

Frequency Range Investigated: Carrier
Temperature: 81°F
Relative Humidity: 36%

DOWNLINK RSS-131 PASSBAND GAIN



UPLINK RSS-131 PASSBAND GAIN

Customer: **Wilson Electronics**
Specification: **RSS 131**
Work Order #: **81892**
Test Type: **Antenna Conducted**
Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
Model: 801101
S/N: 8011018033282

Tested By: Randal Clark
12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

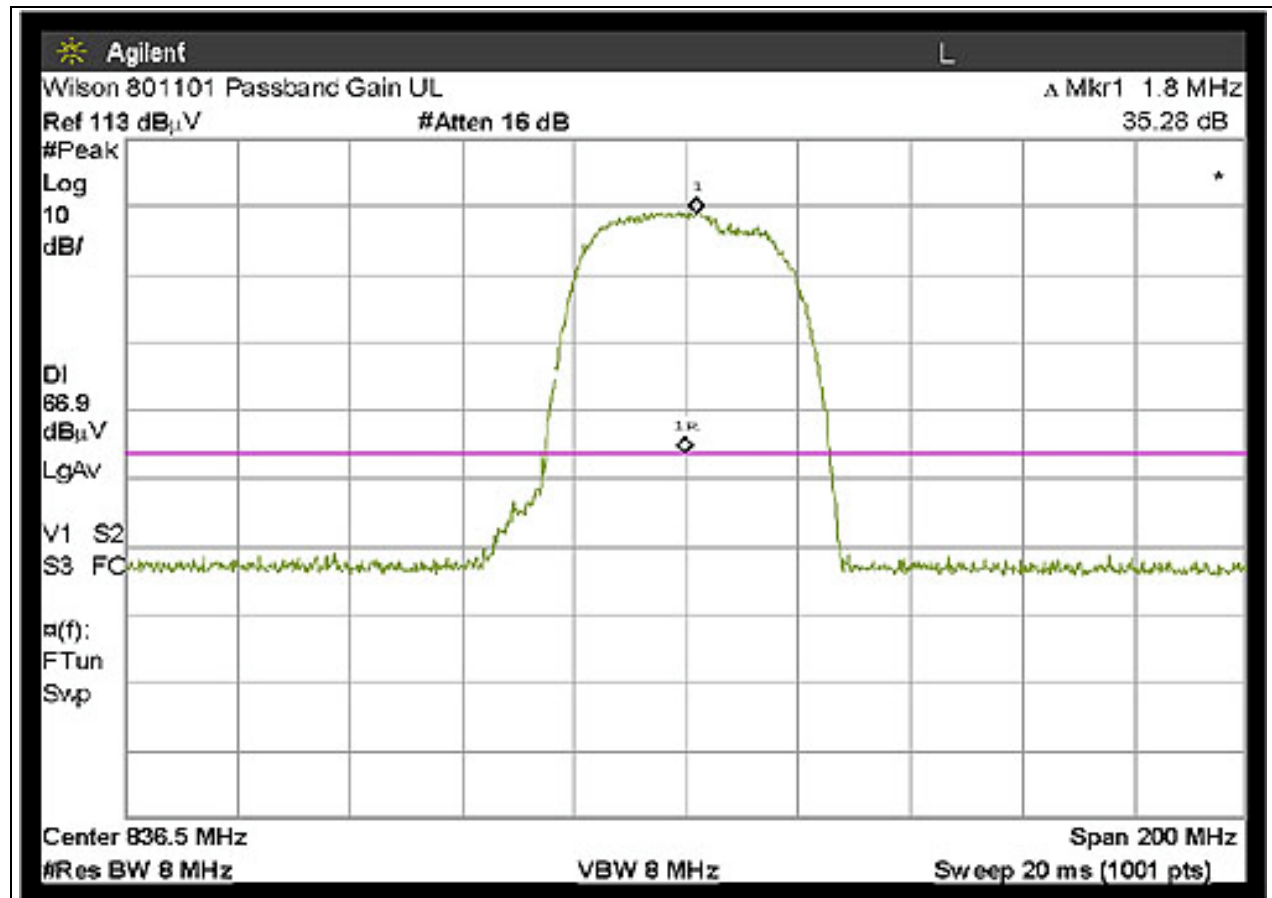
Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation. Input to amplifier is set such that the output is within the linear range of the amplifier's operating range.

Frequency Range Investigated: Carrier
Temperature: 81°F
Relative Humidity: 36%

UPLINK RSS-131 PASSBAND GAIN



DOWNLINK RSS-131 PASSBAND WIDTH

Customer: **Wilson Electronics**
Specification: **RSS 131**
Work Order #: **81892**
Test Type: **Antenna Conducted**
Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
Model: 801101
S/N: 8011018033282

Tested By: Randal Clark
12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

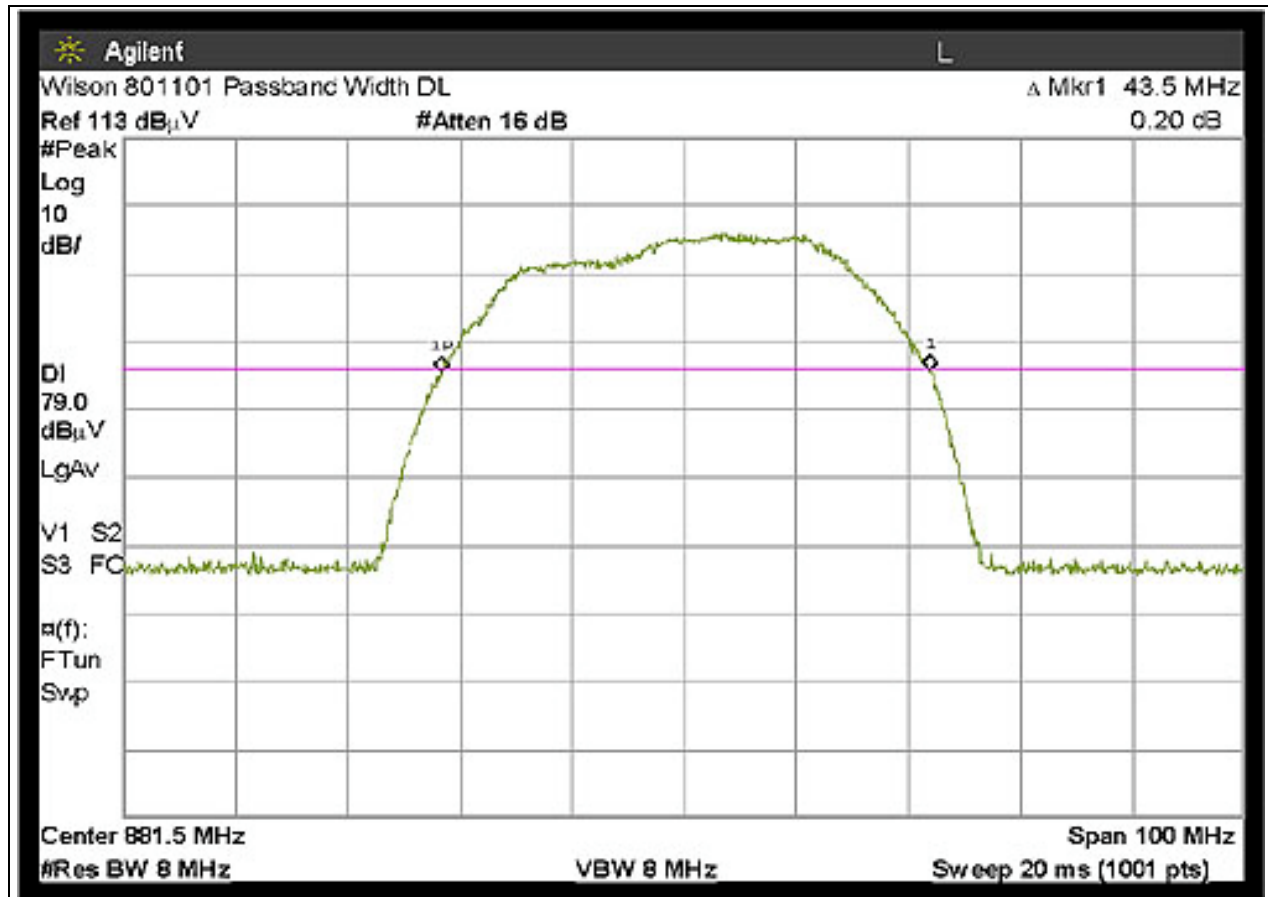
Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation. Input to amplifier is set such that the output is within the linear range of the amplifier's operating range.

Frequency Range Investigated: Carrier
Temperature: 81°F
Relative Humidity: 36%

DOWNLINK RSS-131 PASSBAND WIDTH



UPLINK RSS-131 PASSBAND WIDTH

Customer: **Wilson Electronics**
Specification: **RSS 131**
Work Order #: **81892**
Test Type: **Antenna Conducted**
Equipment: **Bidirectional Cellular Amplifier Repeater**

Manufacturer: Wilson Electronics
Model: 801101
S/N: 8011018033282

Tested By: Randal Clark
12VDC

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Attenuator 30dB, Bird 9724		05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Bidirectional Cellular Amplifier Repeater*	Wilson Electronics	801101	8011018033282

Support Devices:

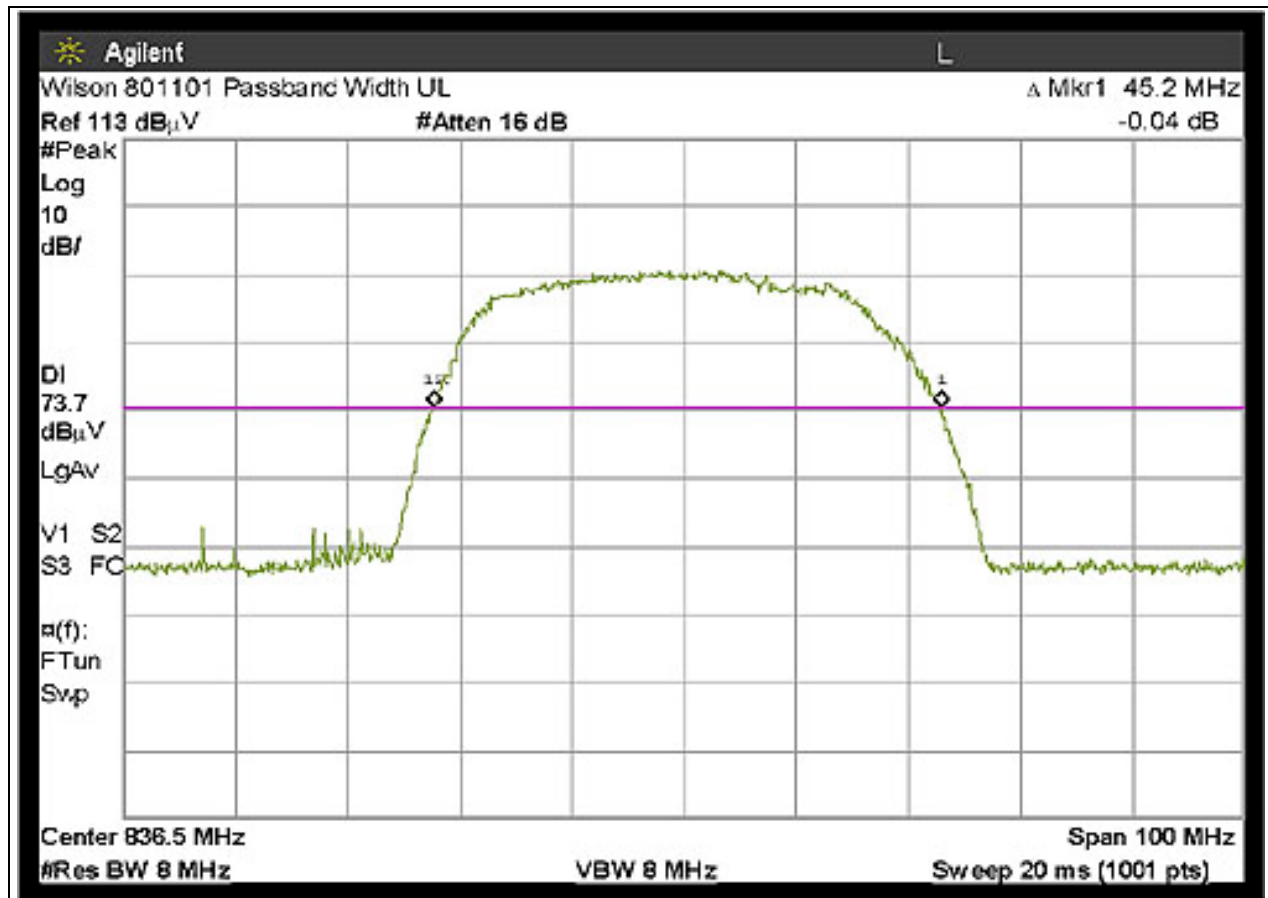
Function	Manufacturer	Model #	S/N
DC Power Supply	Topward Electric Instruments Co., Ltd.	TPS-2000	920035
Digital Signal Generator	Agilent	E4432B	MY41000108

Test Conditions / Notes:

Equipment is a bidirectional cellular amplifier repeater operating on frequency range of 824 to 894 MHz band. Uplink frequency range 824 - 849 MHz. Downlink frequency range 869 - 894 MHz. Equipment is powered via 12VDC support power supply. Antenna output port directly connected to spectrum analyzer via suitable attenuation. Input to amplifier is set such that the output is within the linear range of the amplifier's operating range.

Frequency Range Investigated: Carrier
Temperature: 81°F
Relative Humidity: 36%

UPLINK RSS-131 PASSBAND WIDTH



PHOTOGRAPHS

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP



PHOTOGRAPH SHOWING RADIATED EMISSIONS



RSS-131 RF POWER AND INTERMODULATION ATTENUATION

