



WILSON ELECTRONICS TEST REPORT

FOR THE

IN-BUILDING WIRELESS CELLULAR SMARTTECH AMPLIFIER, 801106

FCC PART 22H AND RSS-131

COMPLIANCE

DATE OF ISSUE: JUNE 16, 2005

PREPARED FOR:

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

P.O. No.: IBWC801105-1
W.O. No.: 83306

PREPARED BY:

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

Date of test: May 18 - June 15, 2005

Report No.: FC05-019

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TABLE OF CONTENTS

Administrative Information	3
FCC to Canada Standard Correlation Matrix.....	4
Conditions for Compliance	4
Approvals.....	4
Equipment Under Test (EUT) Description	5
Equipment Under Test	5
Peripheral Devices	5
Temperature and Humidity During Testing.....	6
FCC 2.1033(c)(3) User's Manual	6
FCC 2.1033(c)(4) Type of Emissions	6
FCC 2.1033(c)(5) Frequency Range.....	6
FCC 2.1033(c)(6) Operating Power.....	6
FCC 2.1033(c)(7) Maximum Power Rating	6
FCC 2.1033(c)(8) DC Voltages	6
FCC 2.1033(c)(9) Tune-Up Procedure	6
FCC 2.1033(c)(10) Schematics and Circuitry Description.....	6
FCC 2.1033(c)(11) Label and Placement	6
FCC 2.1033(c)(12) Submittal Photos	6
FCC 2.1033(c)(13) Modulation Information	6
FCC 2.1033(c)(14)/2.1046/22.913 - RF Power Output	7
FCC 2.1033(c)(14)/2.1047(b) - Audio Frequency Response.....	9
FCC 2.1033(c)(14)/2.1047(b) - Modulation Limiting Response.....	9
FCC 2.1049 Occupied Bandwidth - Downlink.....	10
FCC 2.1049 Occupied Bandwidth - Uplink.....	14
FCC 22.917 Block Edge - Downlink.....	19
FCC 22.917 Block Edge - Uplink.....	28
FCC 2.1033(c)(14)/2.1051/22.917 - Spurious Emissions at Antenna Terminal.....	37
FCC 2.1033(c)(14)/2.1053/22.917 - Field Strength of Spurious Radiation	62
FCC 22.917 Intermodulation	64
FCC 22.917 Intermodulation Uplink	81
Input Downlink	89
Output Downlink	102
Input Uplink	115
Output Uplink	128
RSS-131 Downlink Passband Gain	141
RSS-131 Uplink Passband Gain	143
RSS-131 Downlink 20dB Passband Width.....	145
RSS-131 Uplink 20dB Passband Width	147

ADMINISTRATIVE INFORMATION

DATE OF TEST: May 18 - June 15, 2005

DATE OF RECEIPT: May 18, 2005

FREQUENCY RANGE TESTED: 30 MHz-10 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, ANSI/TIA/EIA-603-B (2002),
RSS-131 and RSS-212

PURPOSE OF TEST: To demonstrate the compliance of the In-Building
Wireless Cellular SmartTech Amplifier, 801106
with the requirements for FCC Part 22H and RSS-
131 devices.

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	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)
	IC 3082-D		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:



Mike Wilkinson, Lab Manager



Randy Clark, EMC Engineer



EQUIPMENT UNDER TEST (EUT) DESCRIPTION

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

EQUIPMENT UNDER TEST

In-Building Wireless Cellular SmartTech

Amplifier

Manuf: Wilson Electronics
Model: 801106
Serial: 801106012
FCC ID: PWO8011SB (pending)

PERIPHERAL DEVICES

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

DC Power Supply

Manuf: Topward
Model: TPS-2000
Serial: 920035

Signal Generator

Manuf: HP
Model: E4432B
Serial: MY41000298

TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

FCC 2.1033(c)(3) USER'S MANUAL

The necessary information is contained in a separate document.

FCC 2.1033 (c)(4) TYPE OF EMISSIONS

GXW, G7W, F9W, F1D

FCC 2.1033 (c)(5) FREQUENCY RANGE

824-849 MHz Uplink, 869-894 MHz Downlink

FCC 2.1033 (c)(6) OPERATING POWER

Downlink: CDMA 1.479 Watts, GSM 1.659 Watts, EDGE 0.933 Watts, AMPS 0.269 Watts.
Uplink: CDMA 1.584 Watts, GSM 1.071 Watts, EDGE 1.174 Watts, AMPS 0.891 Watts.

FCC 2.1033 (c)(7) MAXIMUM POWER RATING

500 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, EDGE, GSM, AMPS

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

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Cable, WL Gore 2'	149047	05/24/2005	05/24/2007	P01527
Attenuator 30dB, Bird	9724	05/18/2005	05/18/2007	P01577
25A-MFN-30				

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Operating Mode: As indicated. Frequency Range Investigated: Carrier. Temperature: 24°C, Relative Humidity: 68%.
--

EUT is a bi-directional amplifier for the 824 to 894 MHz band. Uplink frequency range 824 - 849MHz. Downlink frequency range 869 - 894MHz

RF Power Output Test Conditions:

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. Minimum RF output power of 0.00 Watts is achieved with a 0.00 Watt RF input signal. Signal input level is varied from the maximum compression point to 20dB below maximum to ensure that the maximum output power is recorded.

RF power output of the amplifier is routed to a spectrum analyzer through suitable attenuation. Average measurements were performed for all readings.

Measurement Resolution Bandwidth for CDMA was 3 MHz and for EDGE, GSM and AMPS was 300 kHz.

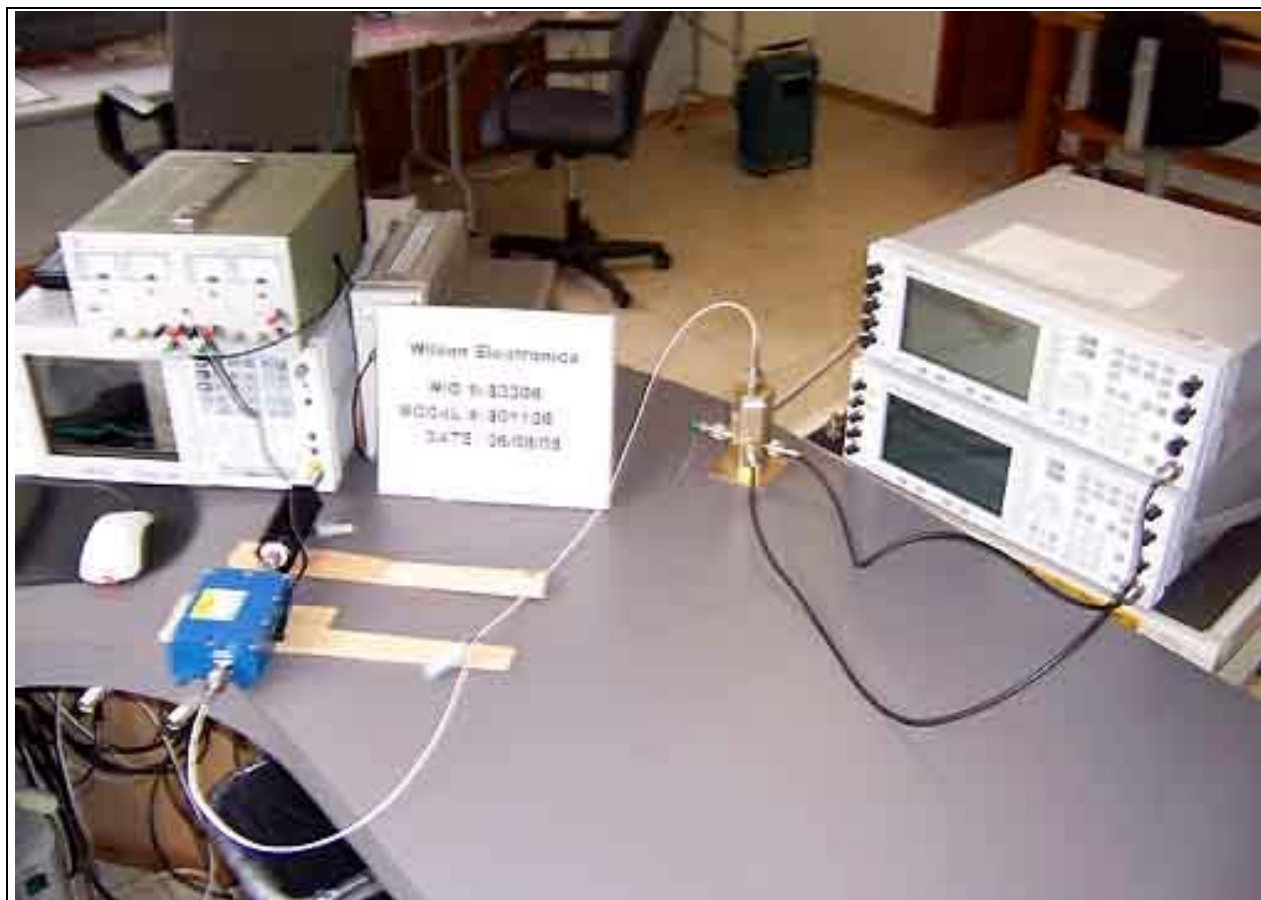
Downlink

<i>Frequency (MHz)</i>	<i>Modulation</i>	<i>Power Output (Watts)</i>
870.25	CDMA	1.122
881.5	CDMA	1.122
892.75	CDMA	1.479
869.28	GSM	1.023
881.5	GSM	1.348
893.72	GSM	1.659
869.28	EDGE	0.831
881.5	EDGE	0.933
893.72	EDGE	0.831
869.05	AMPS	0.182
881.5	AMPS	0.269
893.95	AMPS	0.257

Uplink

<i>Frequency (MHz)</i>	<i>Modulation</i>	<i>Power Output (Watts)</i>
825.25	CDMA	1.174
836.5	CDMA	1.584
847.75	CDMA	0.870
824.28	GSM	0.955
836.5	GSM	1.071
848.72	GSM	0.549
824.28	EDGE	1.174
836.5	EDGE	0.831
848.72	EDGE	0.660
824.05	AMPS	0.891
836.5	AMPS	0.692
848.95	AMPS	0.437

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP



**FCC 2.1033(c)(14)/2.1047(a) - MODULATION CHARACTERISTICS - AUDIO
FREQUENCY RESPONSE**

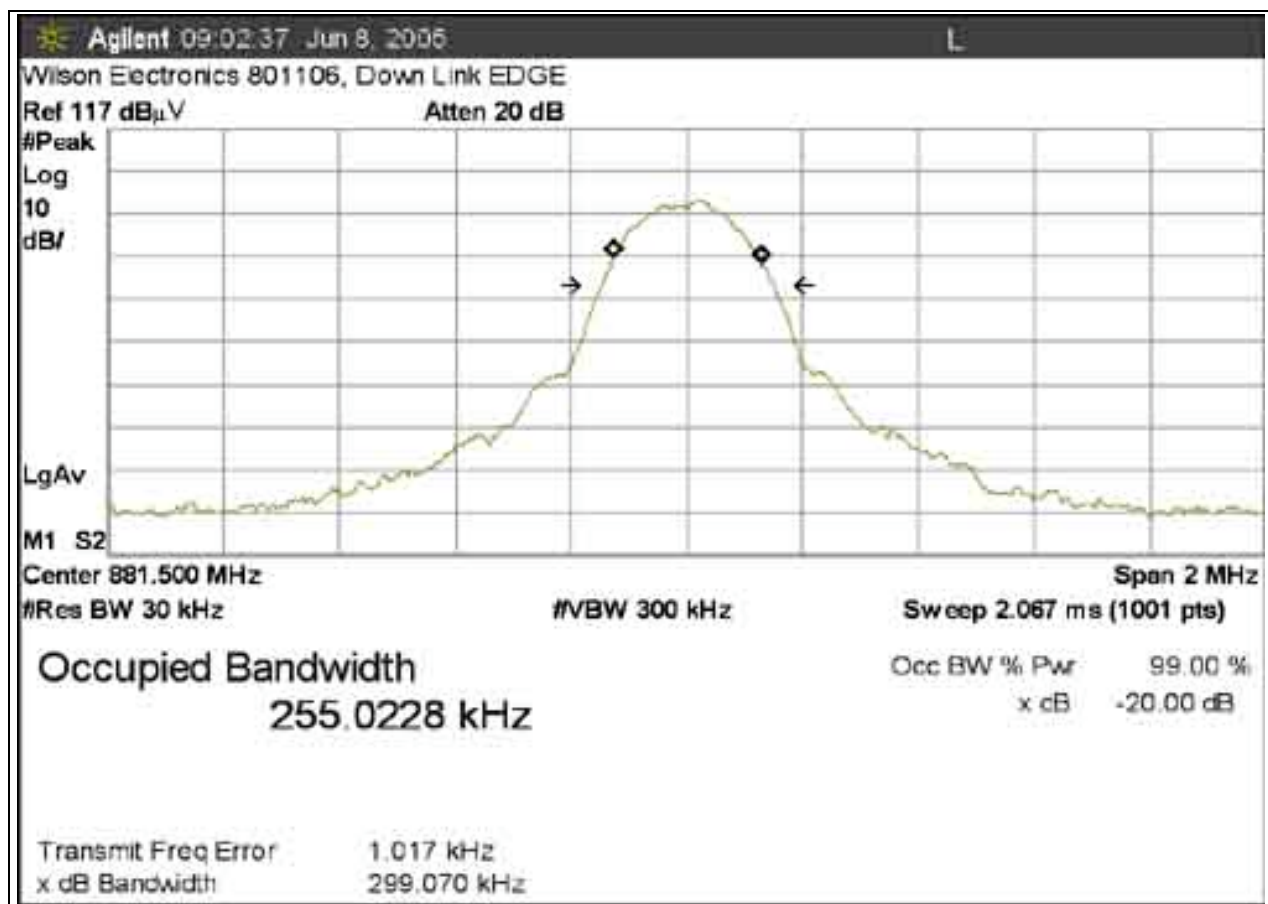
Not applicable to this unit.

**FCC 2.1033(c)(14)/2.1047(b) MODULATION CHARACTERISTICS– Modulation
Limiting Response**

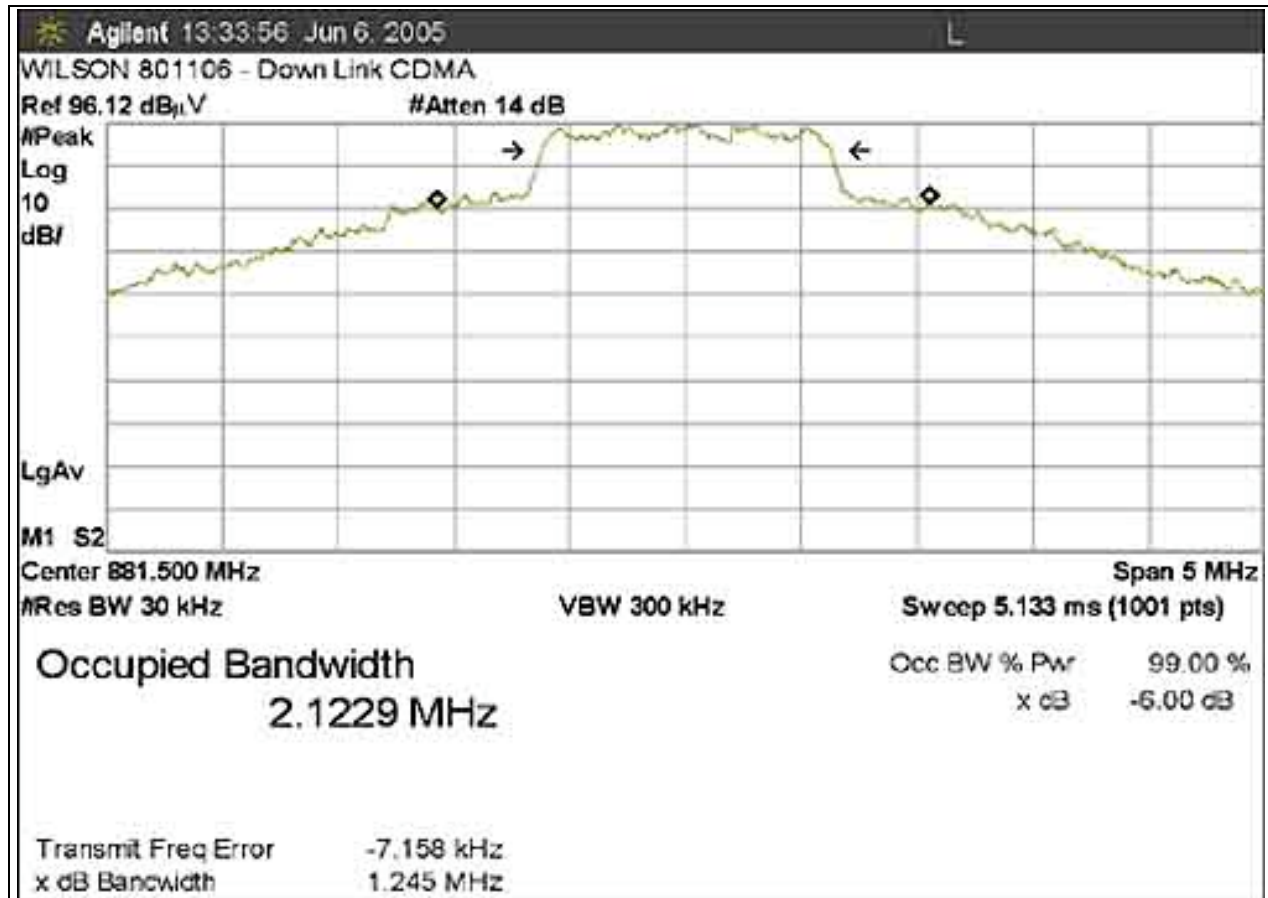
Not applicable to this unit.

FCC 2.1049 OCCUPIED BANDWIDTH - DOWNLINK EDGE

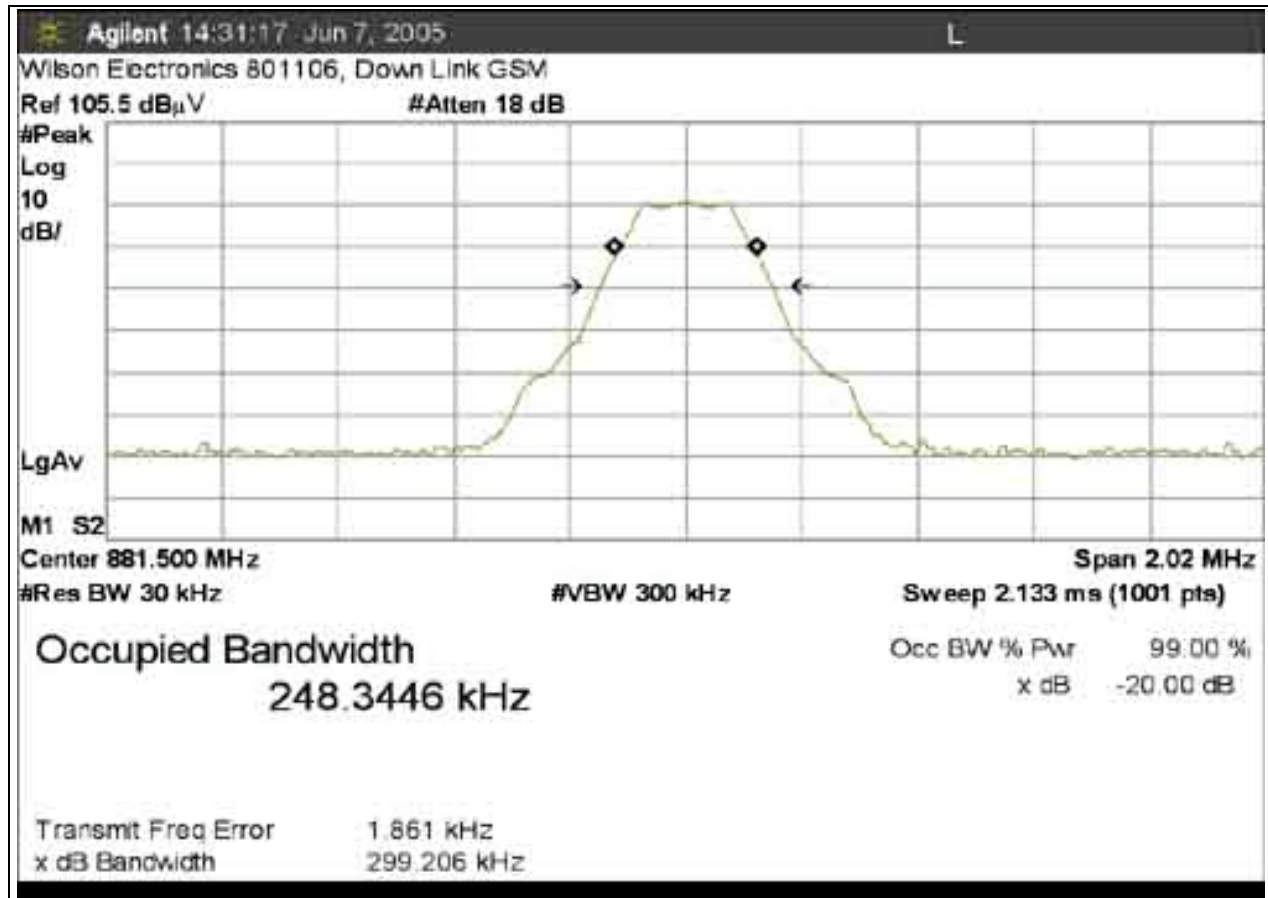
Test Conditions: EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator.



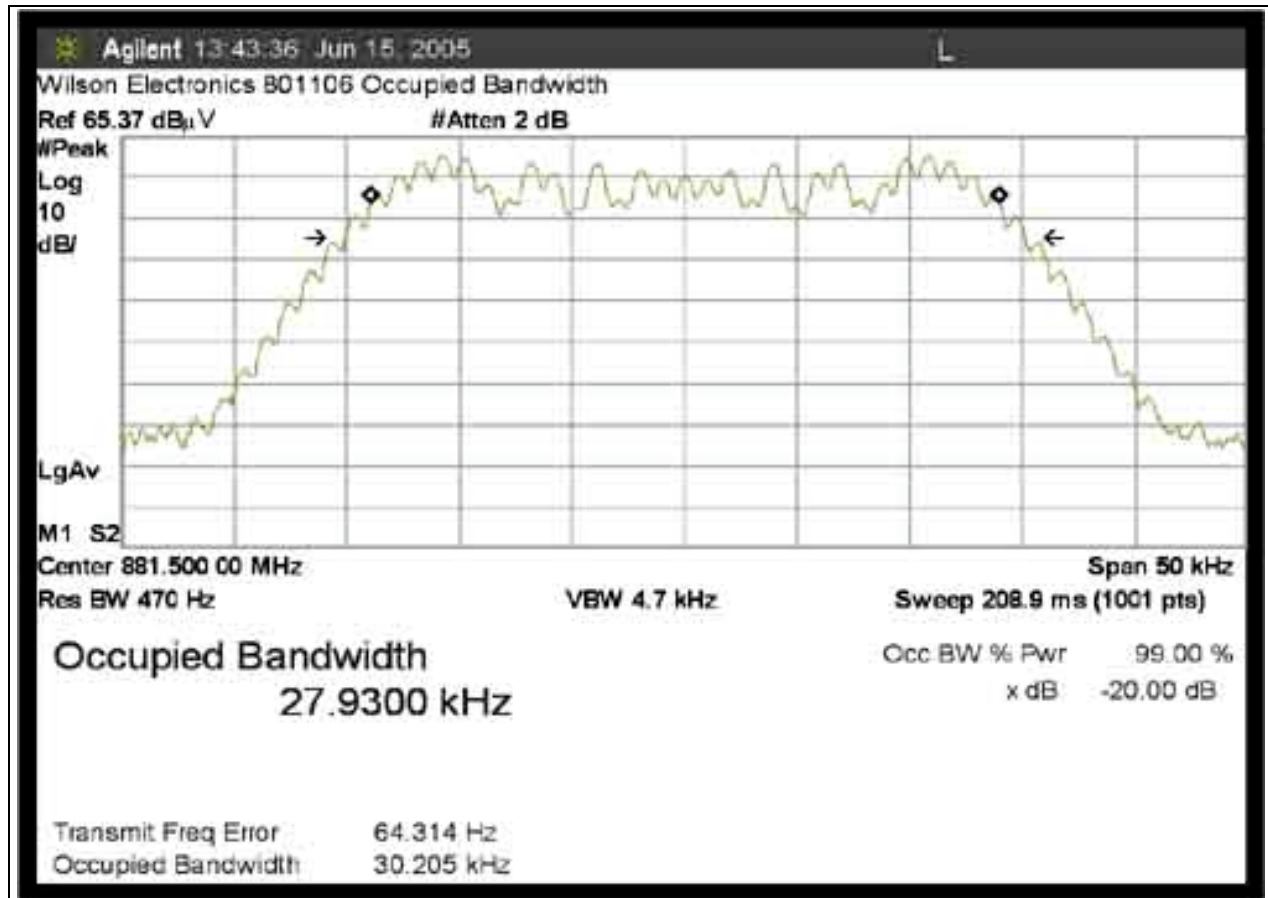
FCC 2.1049 OCCUPIED BANDWIDTH - DOWNLINK CDMA



FCC 2.1049 OCCUPIED BANDWIDTH - DOWNLINK GSM

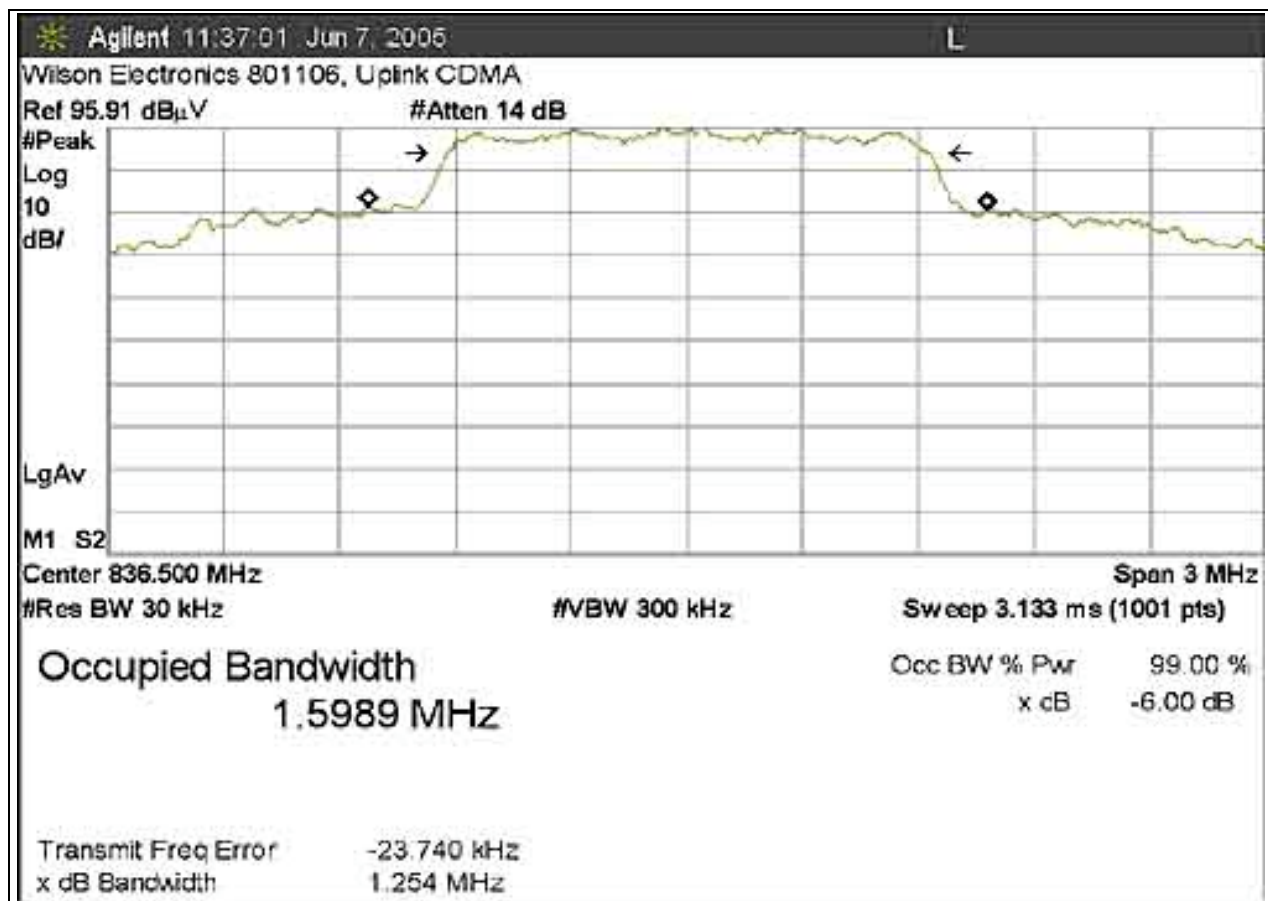


FCC 2.1049 OCCUPIED BANDWIDTH - DOWNLINK AMPS

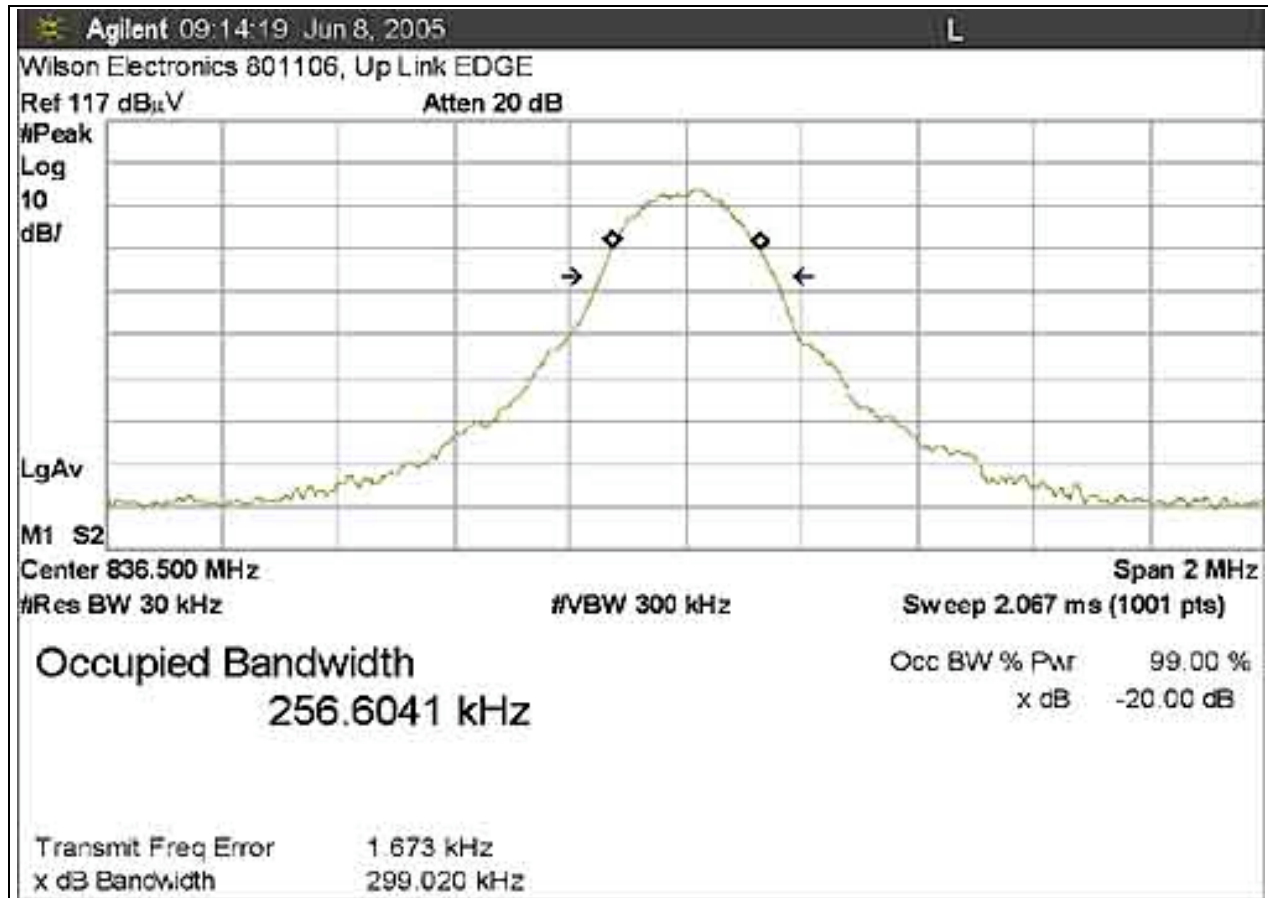


FCC 2.1049 OCCUPIED BANDWIDTH - UPLINK CDMA

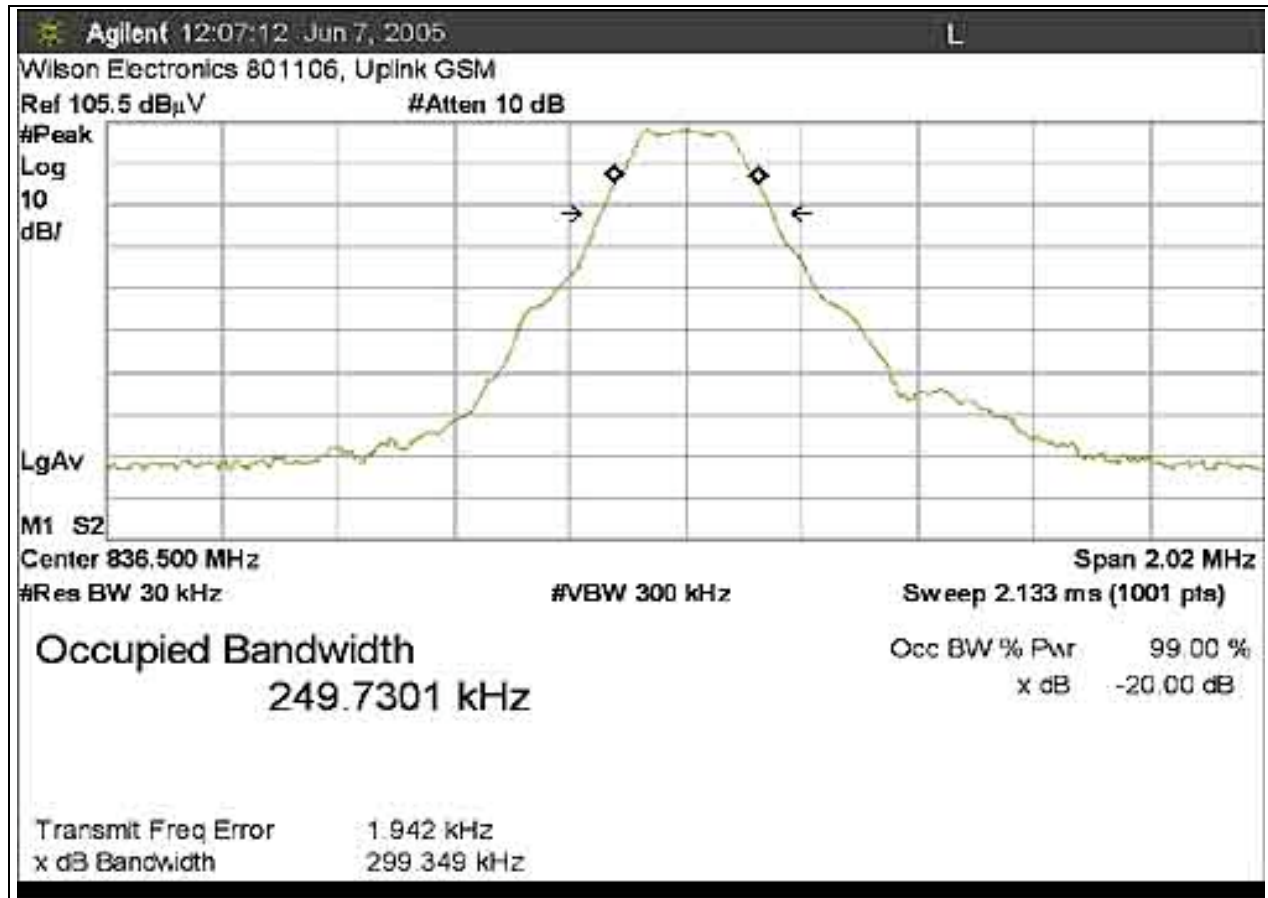
Test Conditions: EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator.



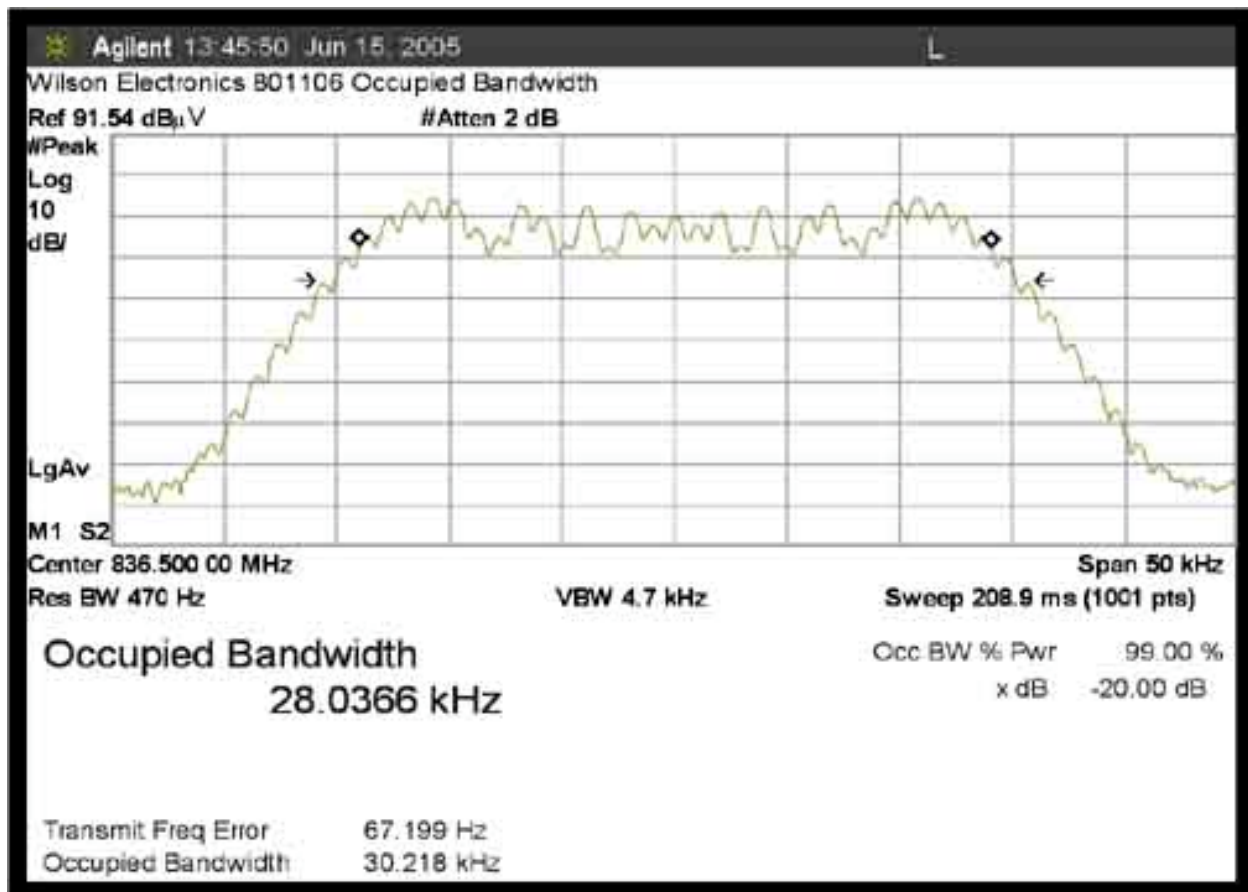
FCC 2.1049 OCCUPIED BANDWIDTH - UPLINK EDGE



FCC 2.1049 OCCUPIED BANDWIDTH - UPLINK GSM



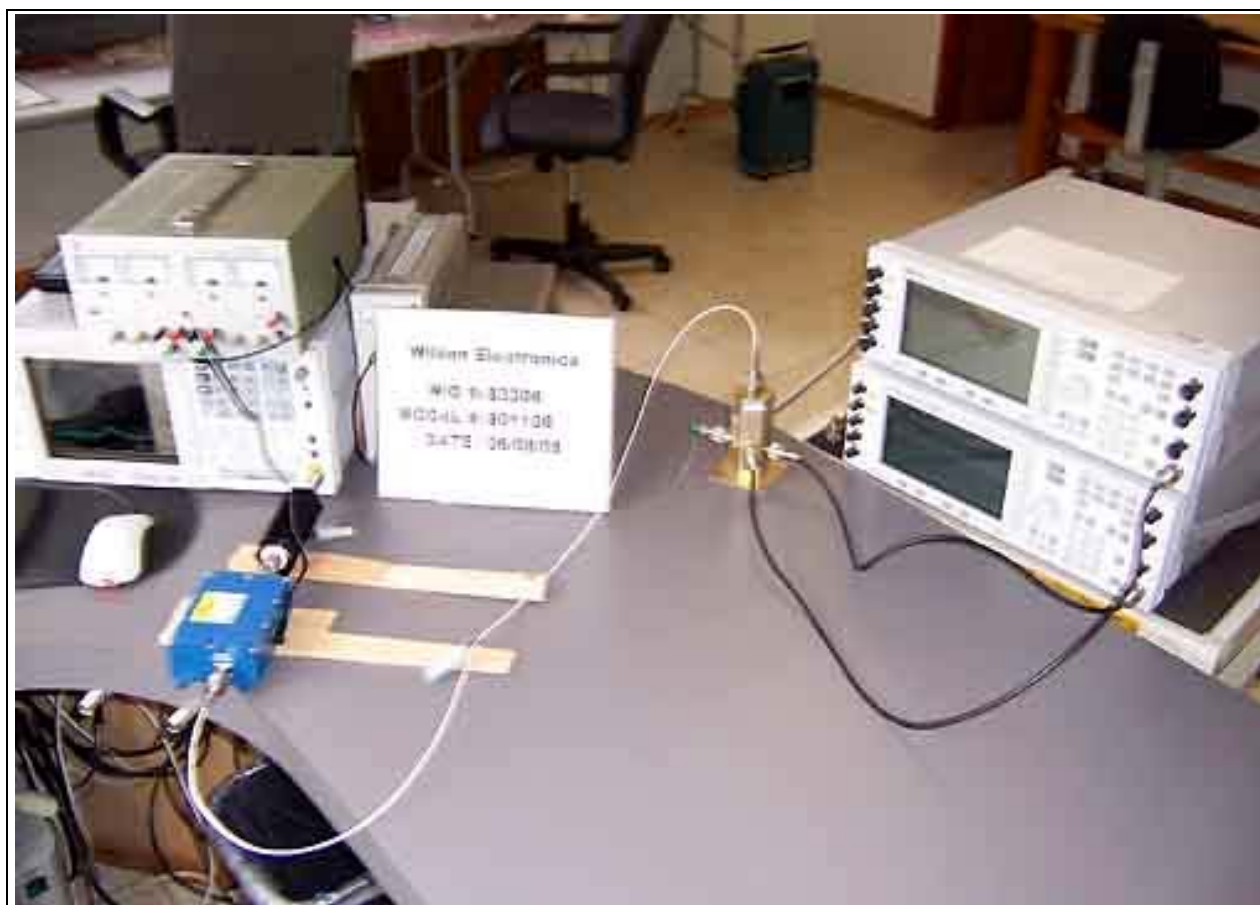
FCC 2.1049 OCCUPIED BANDWIDTH UPLINK AMPS



Test Equipment:

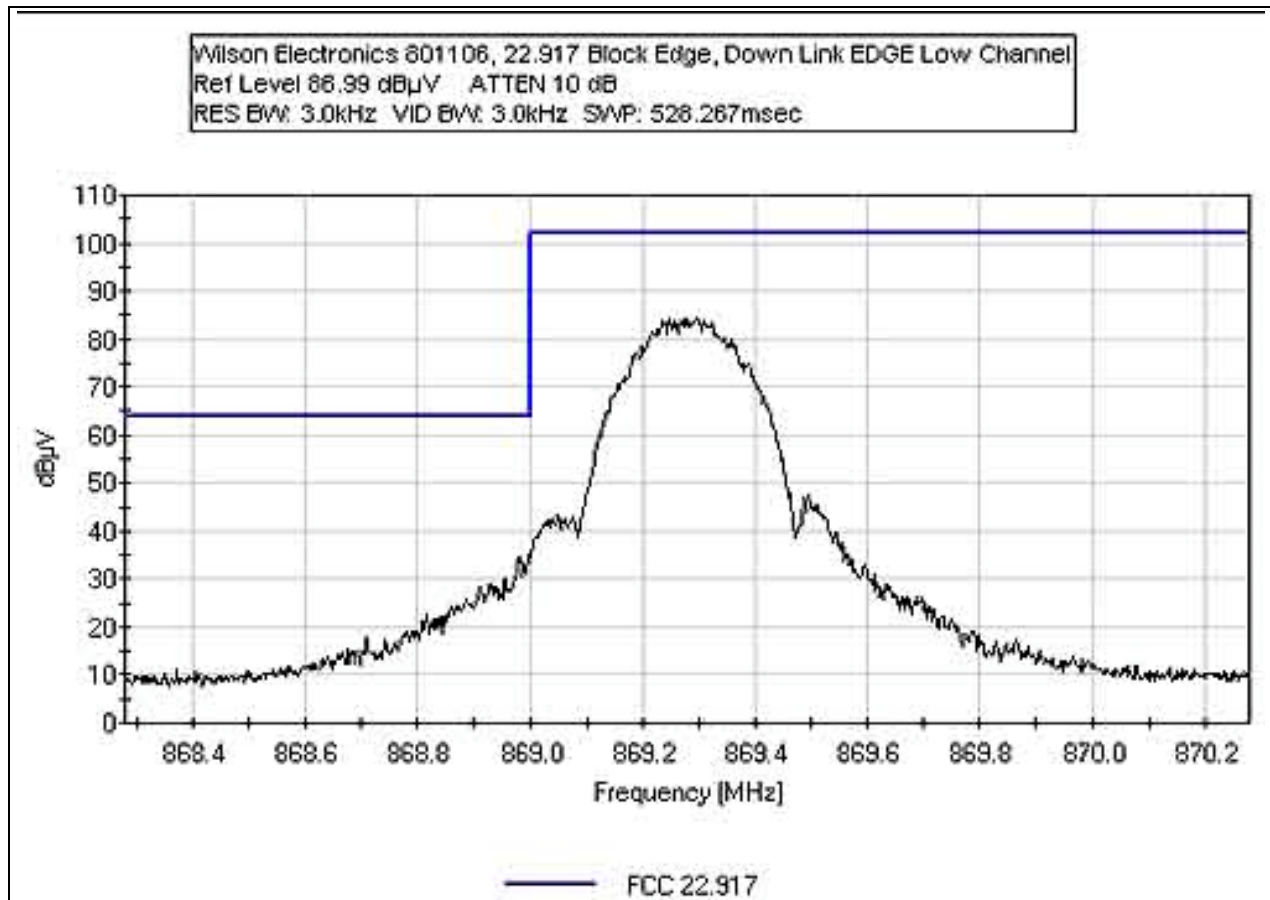
Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

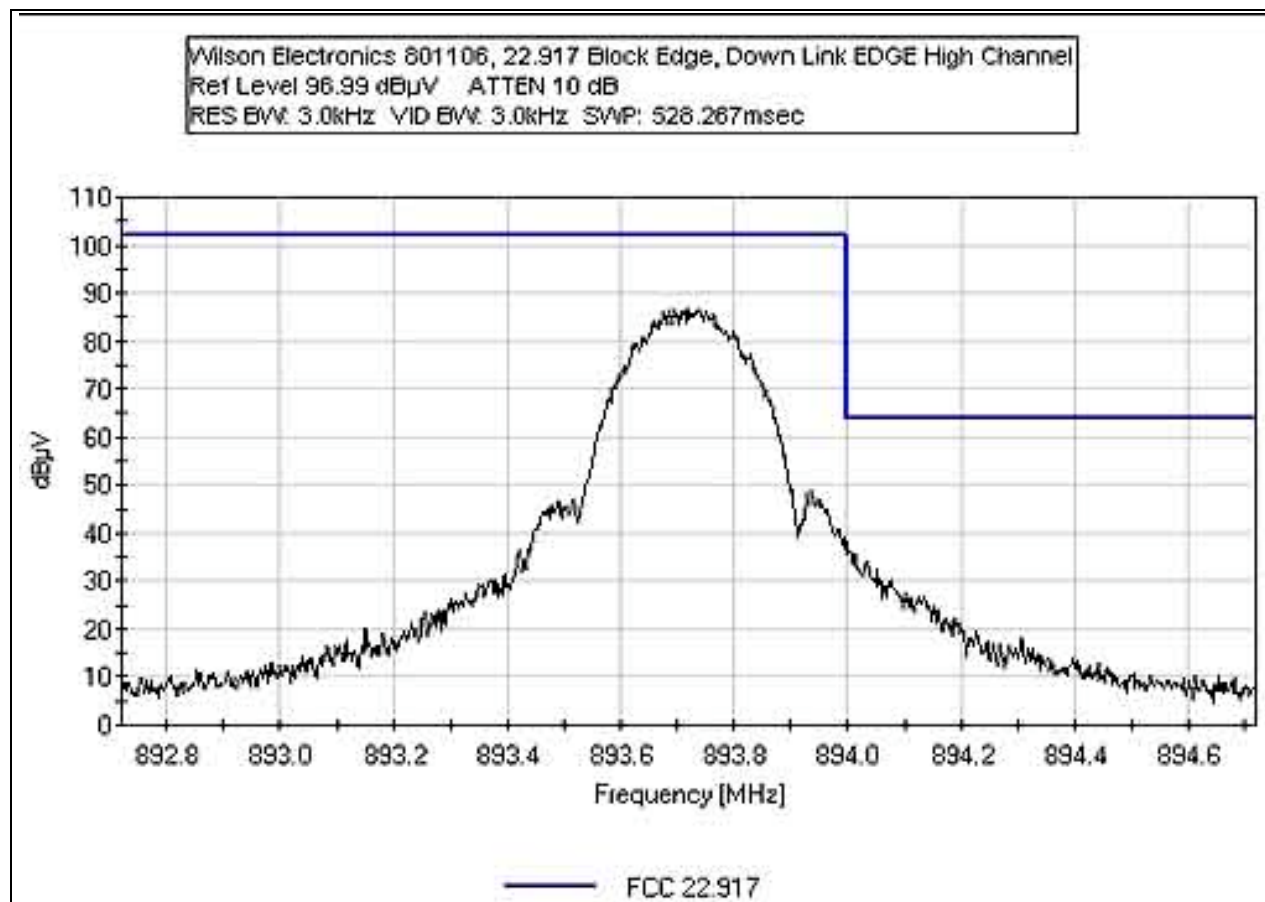


FCC 22.917 BLOCK EDGE - DOWNLINK EDGE LOW CHANNEL

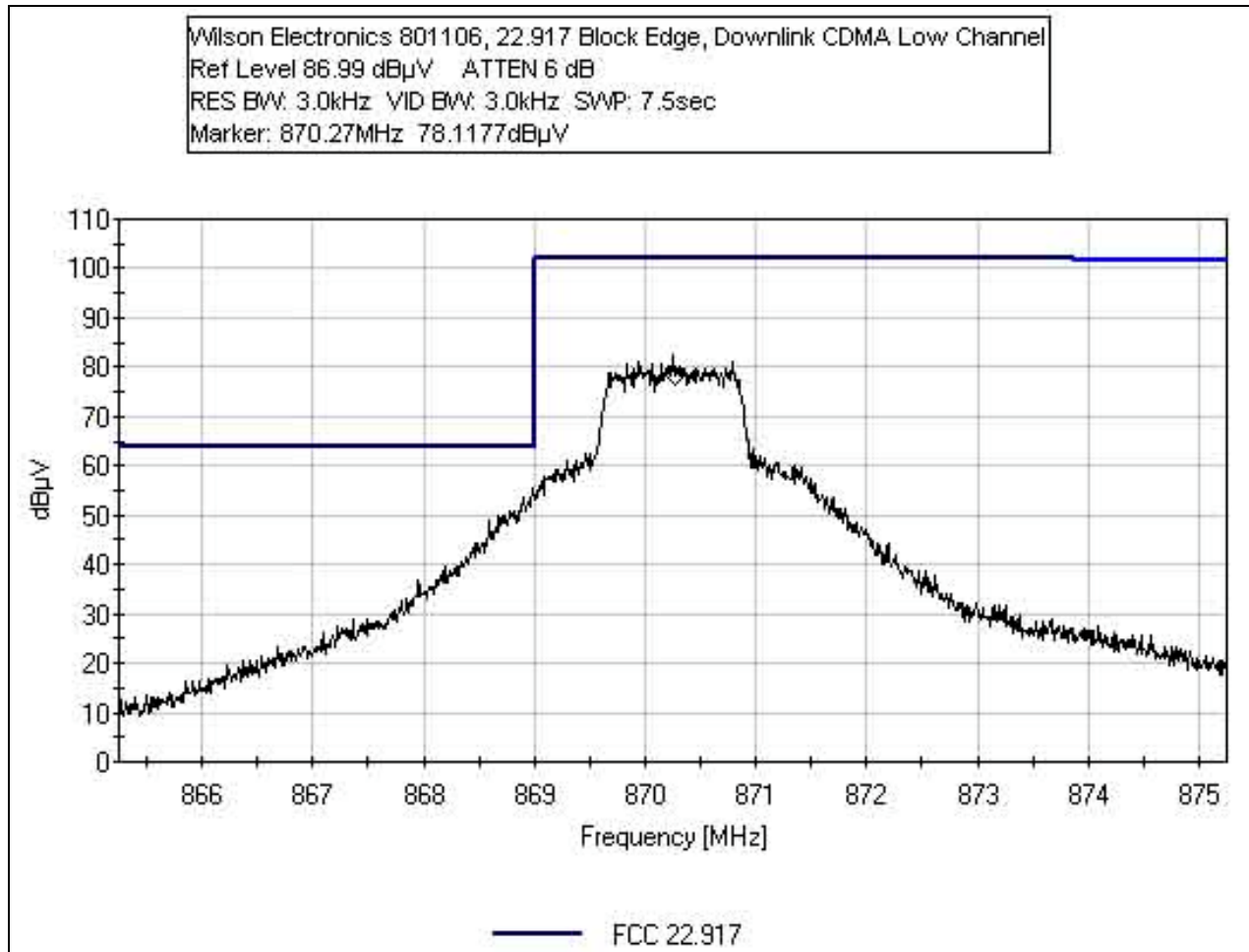
Test Conditions: EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator.



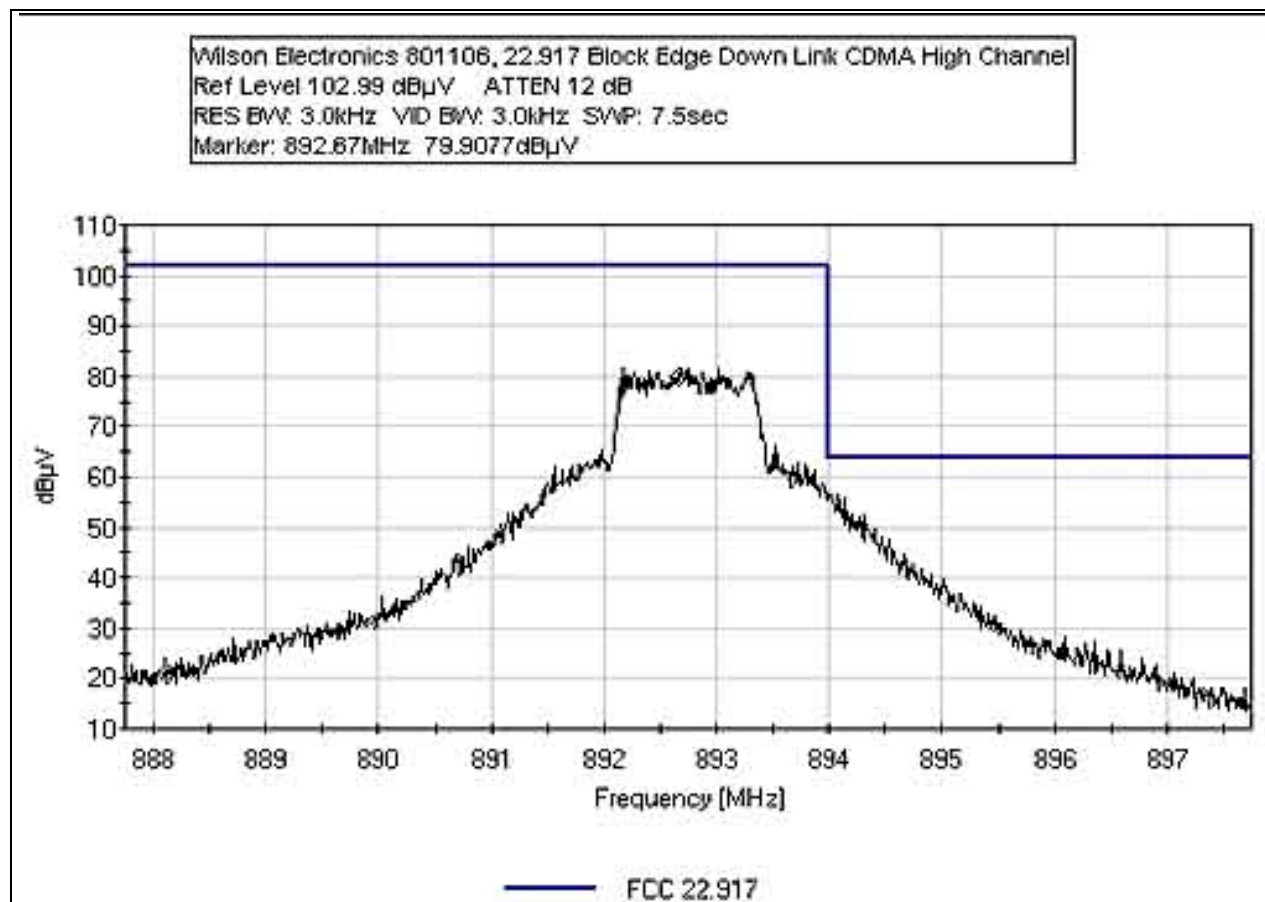
FCC 22.917 BLOCK EDGE - DOWNLINK EDGE HIGH CHANNEL



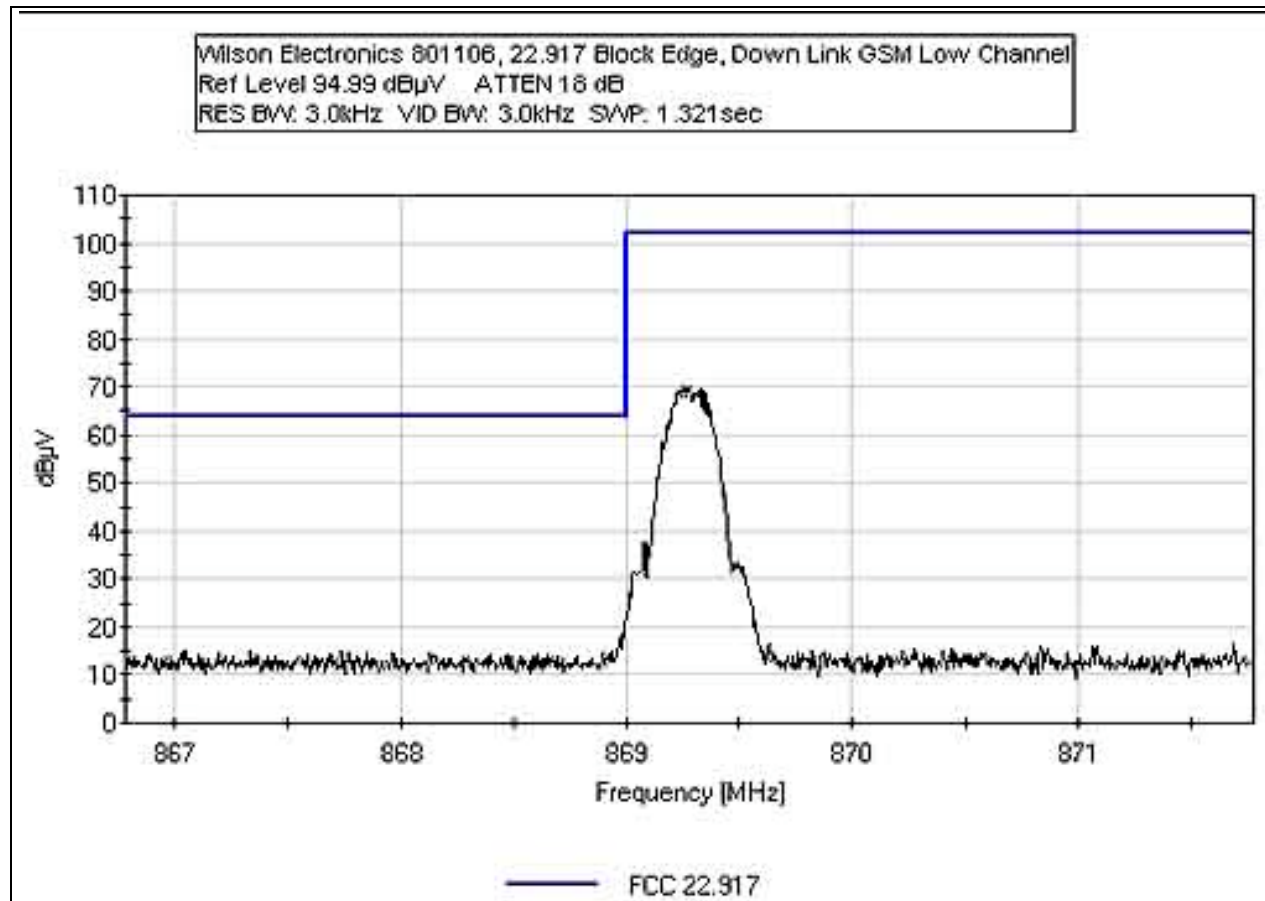
FCC 22.917 BLOCK EDGE - DOWNLINK CDMA LOW CHANNEL



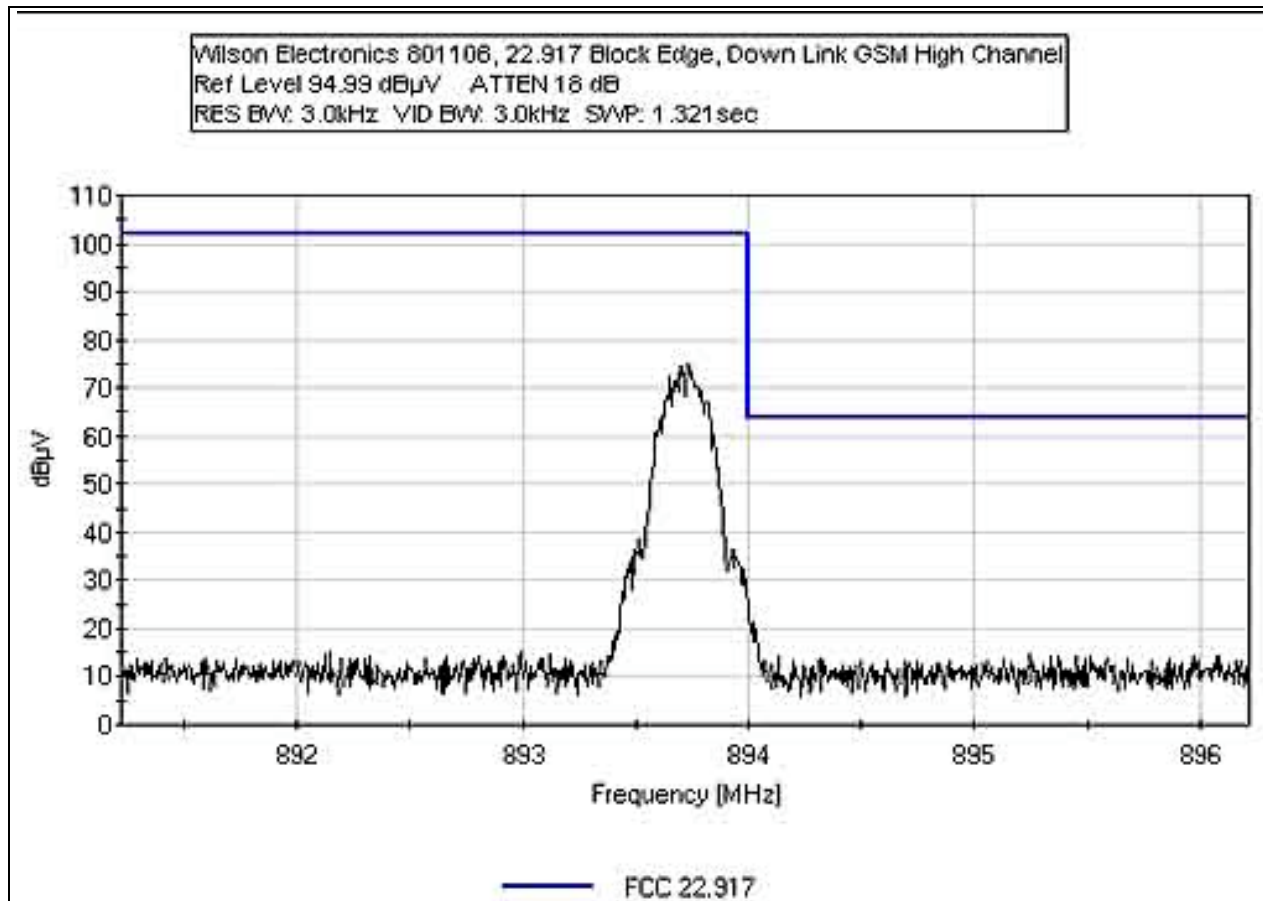
FCC 22.917 BLOCK EDGE - DOWNLINK CDMA HIGH CHANNEL



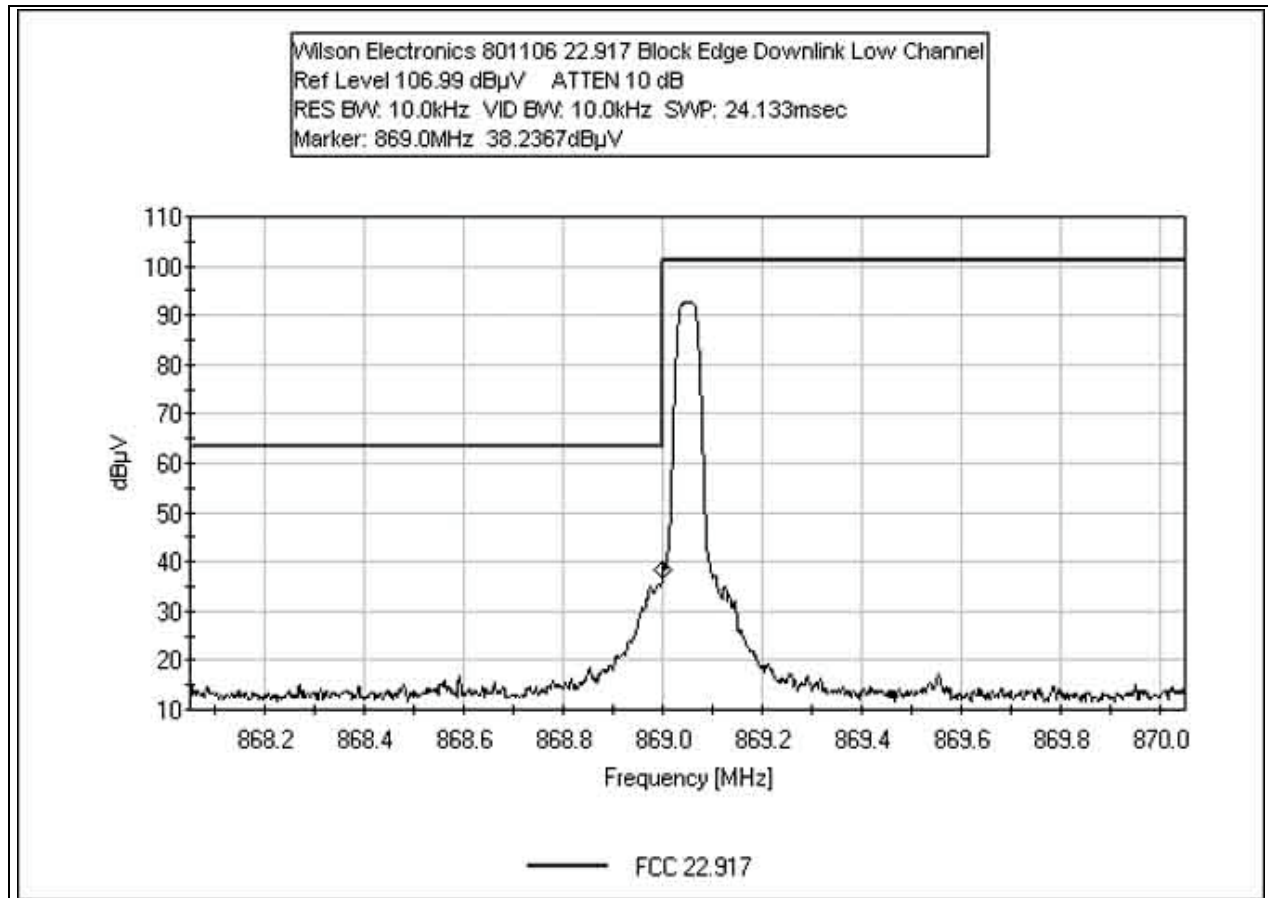
FCC 22.917 BLOCK EDGE - DOWNLINK GSM LOW CHANNEL



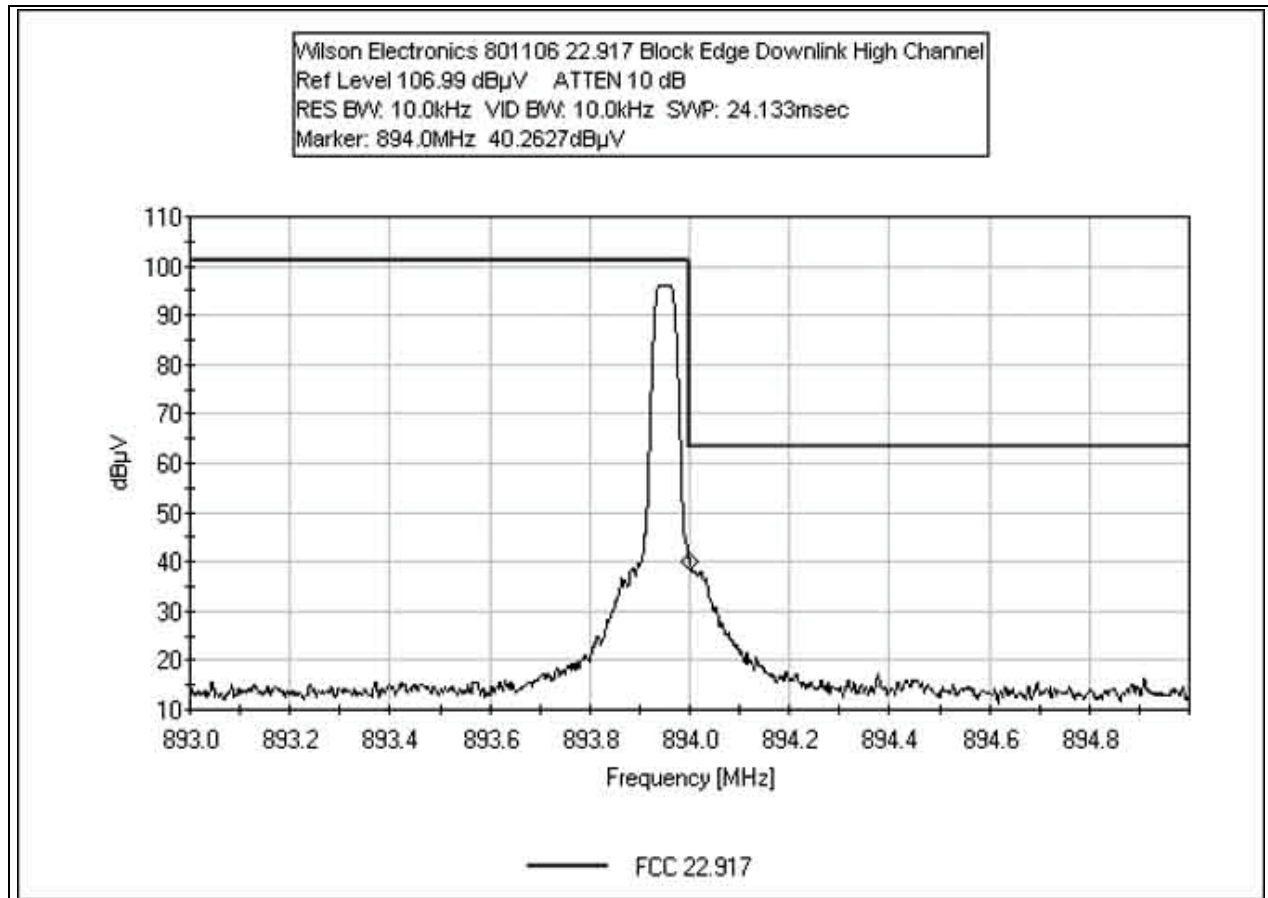
FCC 22.917 BLOCK EDGE - DOWNLINK GSM HIGH CHANNEL



FCC 22.217 BLOCK EDGE - DOWNLINK AMPS LOW CHANNEL



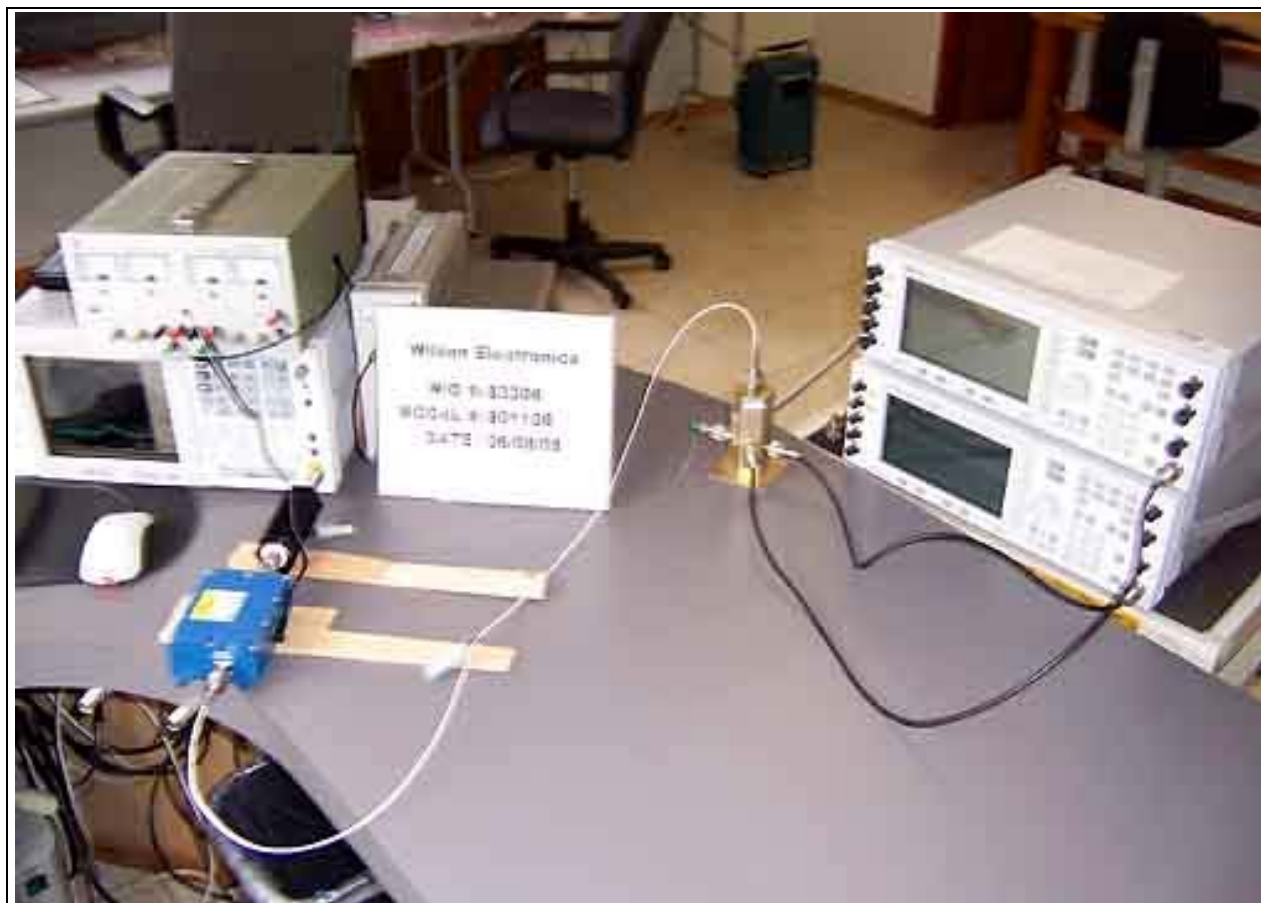
FCC 22.217 BLOCK EDGE - DOWNLINK AMPS HIGH CHANNEL



Test Equipment:

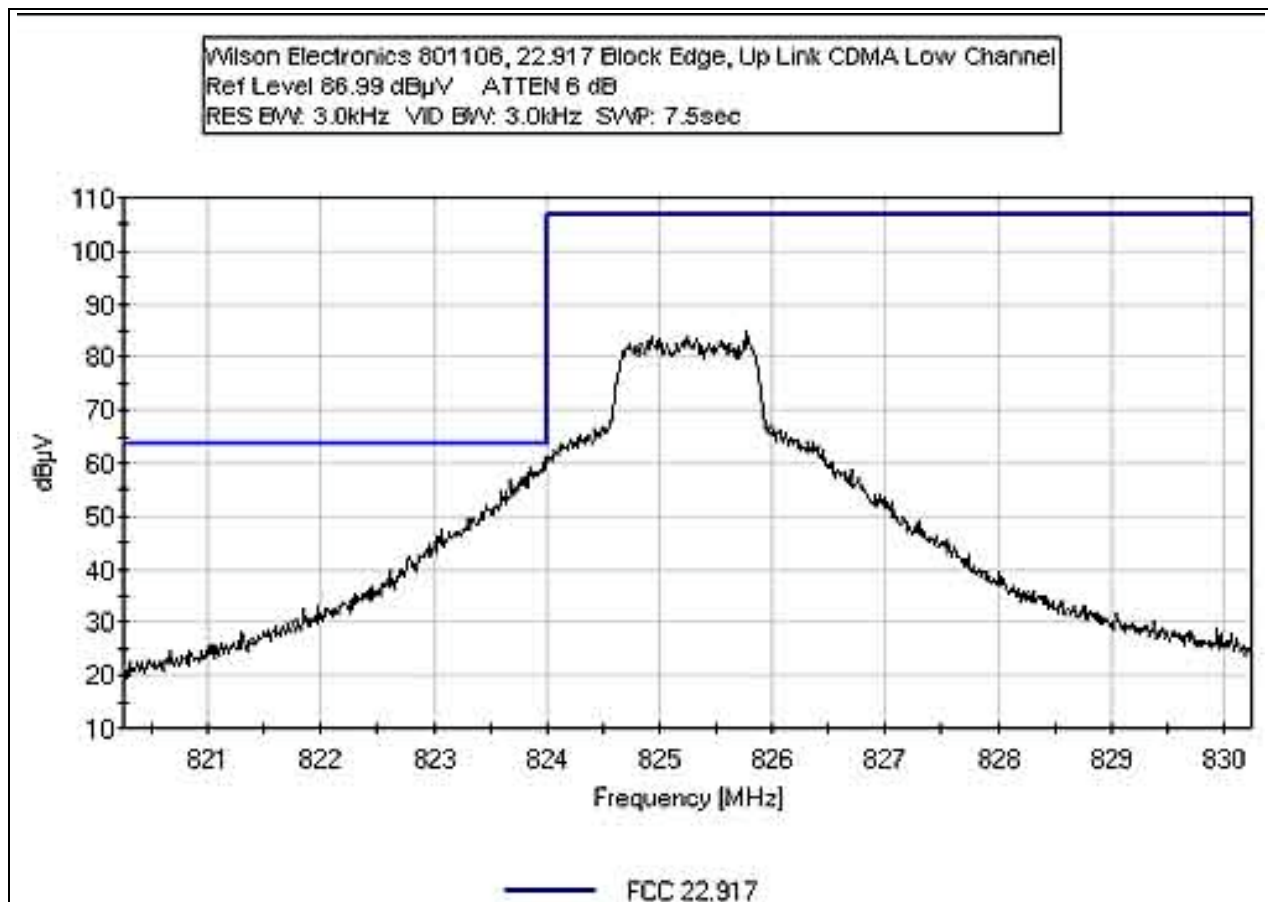
Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

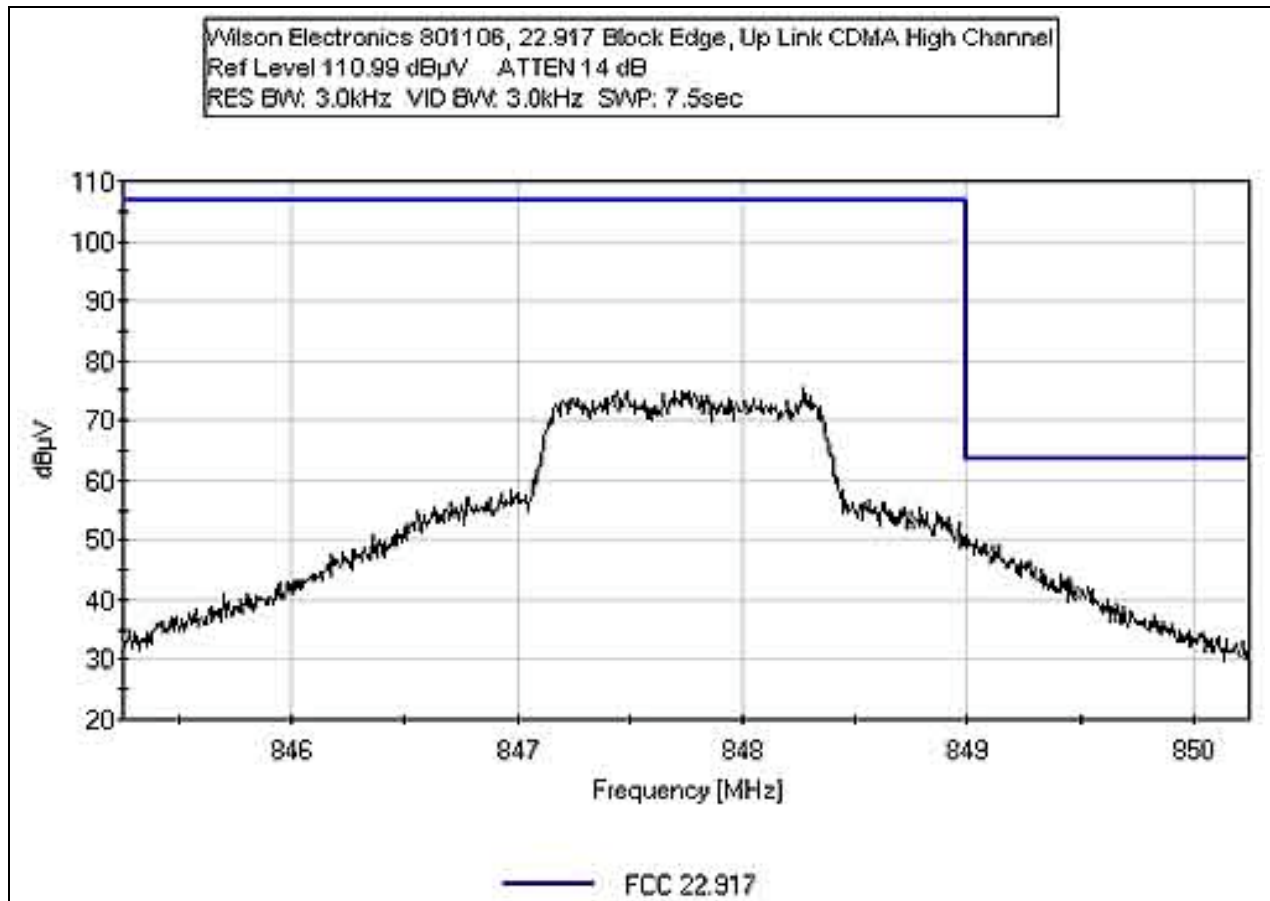


FCC 22.917 BLOCK EDGE - UPLINK CDMA LOW CHANNEL

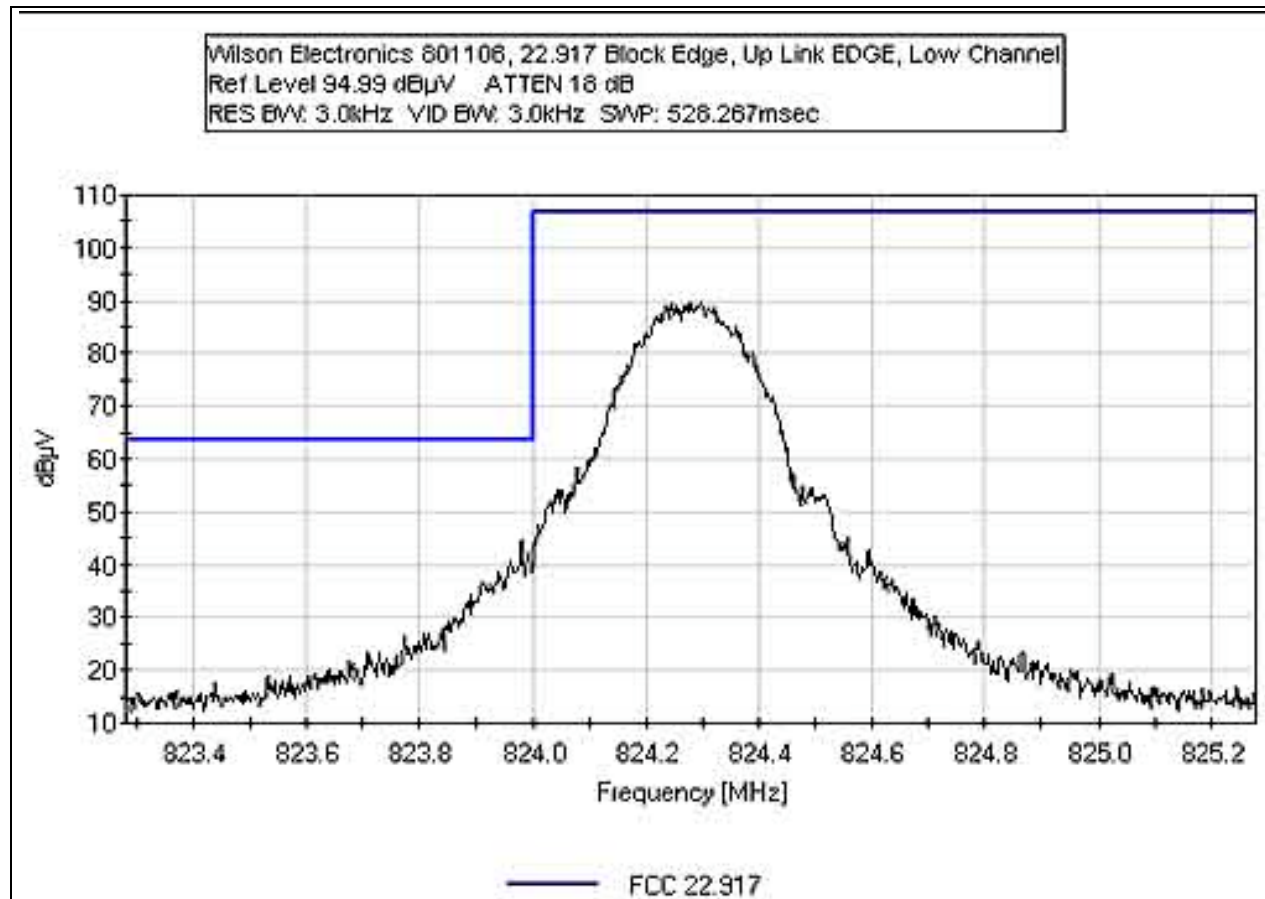
Test Conditions: EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator.



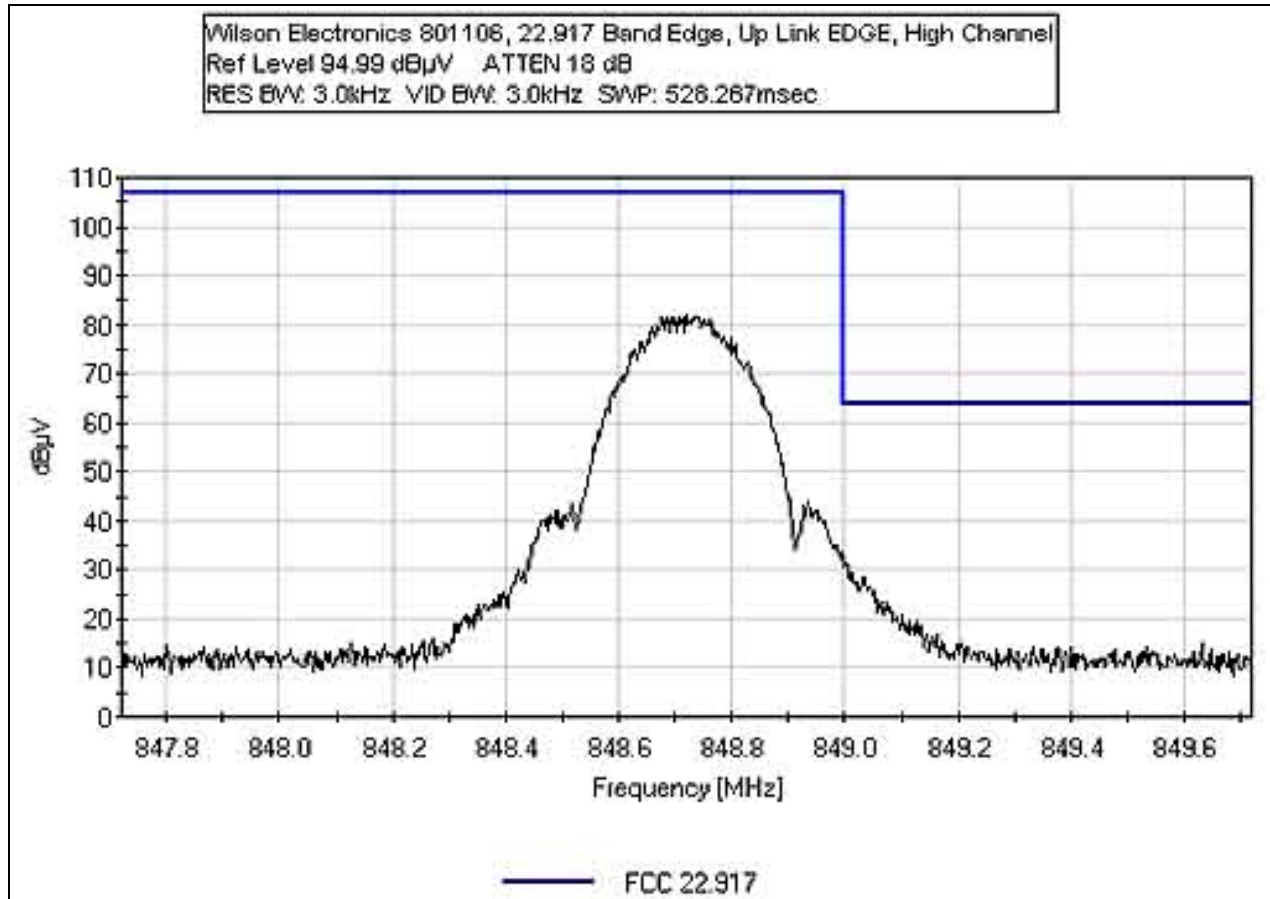
FCC 22.917 BLOCK EDGE - UPLINK CDMA HIGH CHANNEL



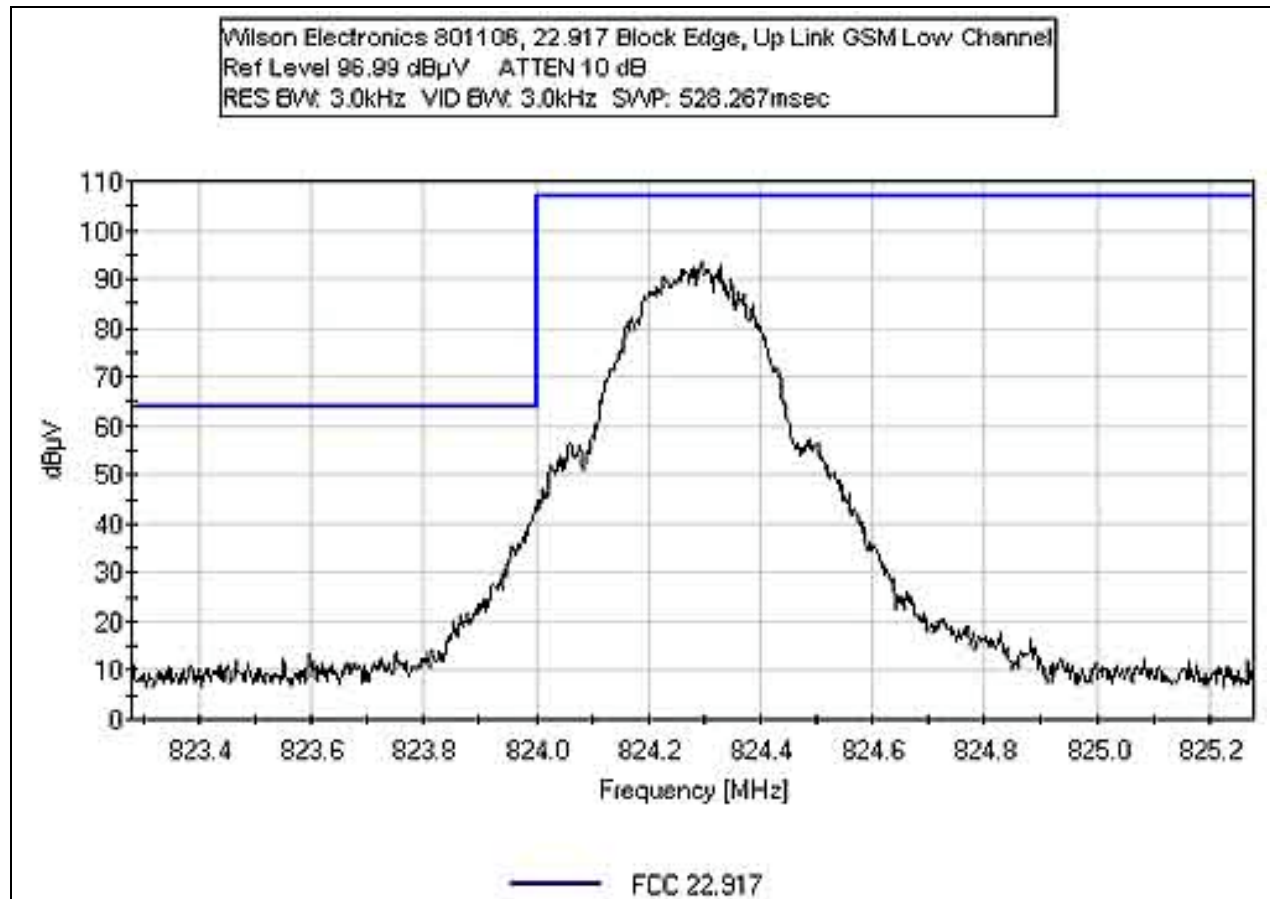
FCC 22.917 BLOCK EDGE - UPLINK EDGE LOW CHANNEL



FCC 22.917 BLOCK EDGE - UPLINK EDGE HIGH CHANNEL

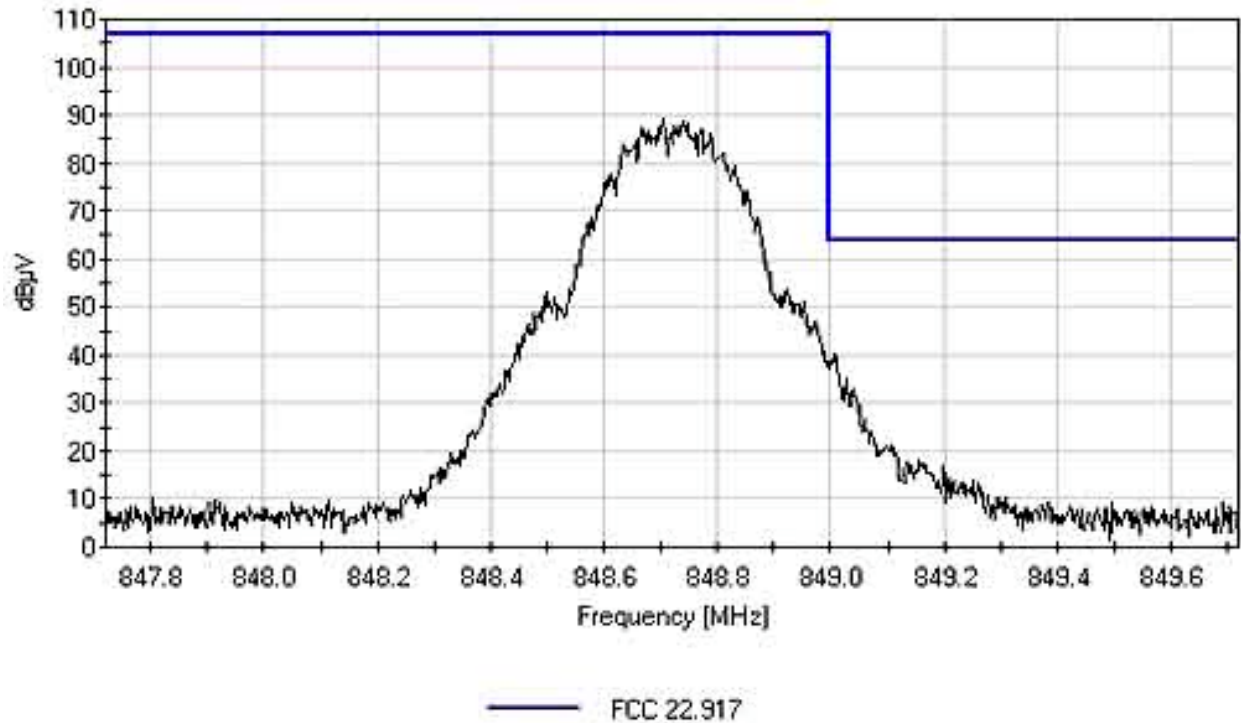


FCC 22.917 BLOCK EDGE - UPLINK GSM LOW CHANNEL

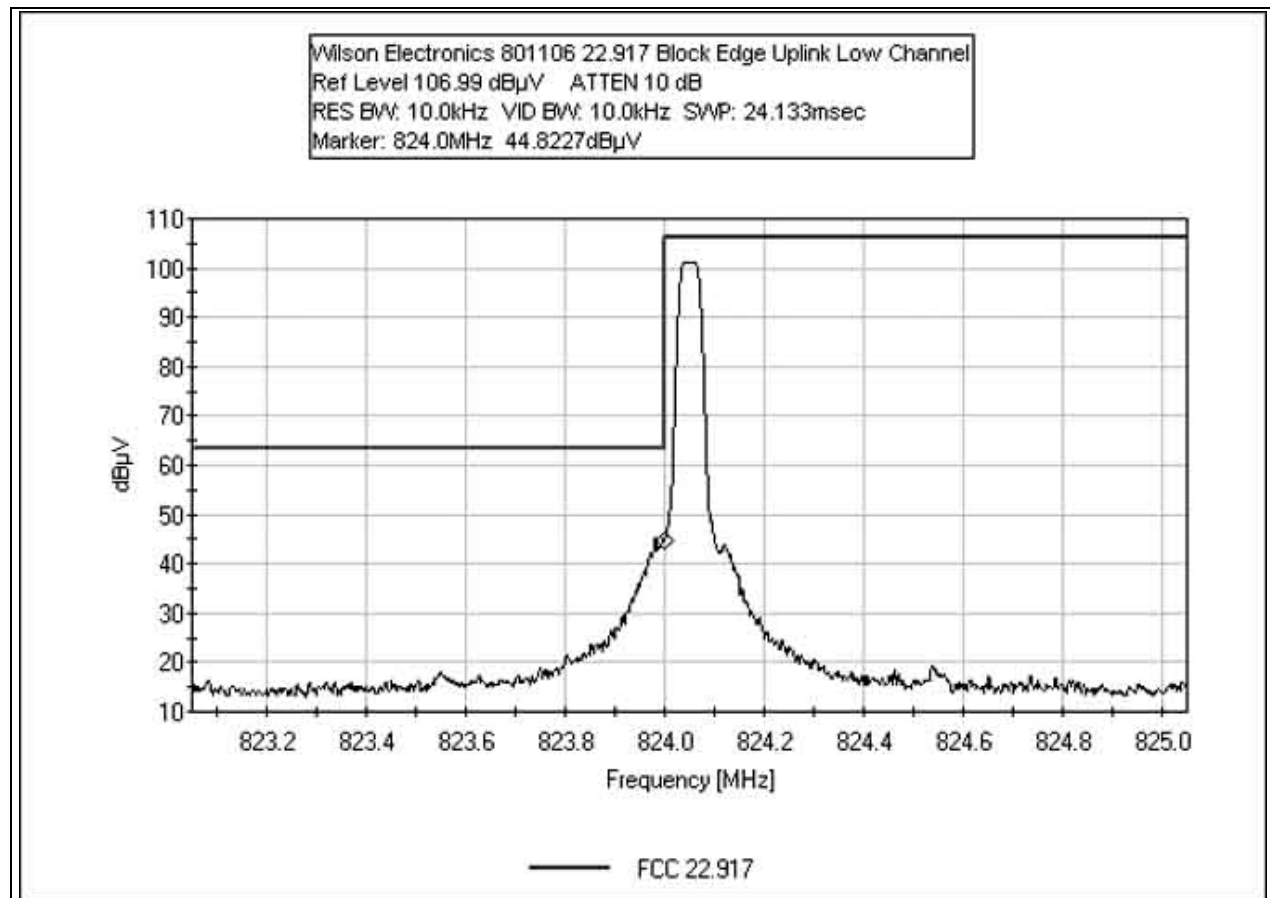


FCC 22.917 BLOCK EDGE - UPLINK GSM HIGH CHANNEL

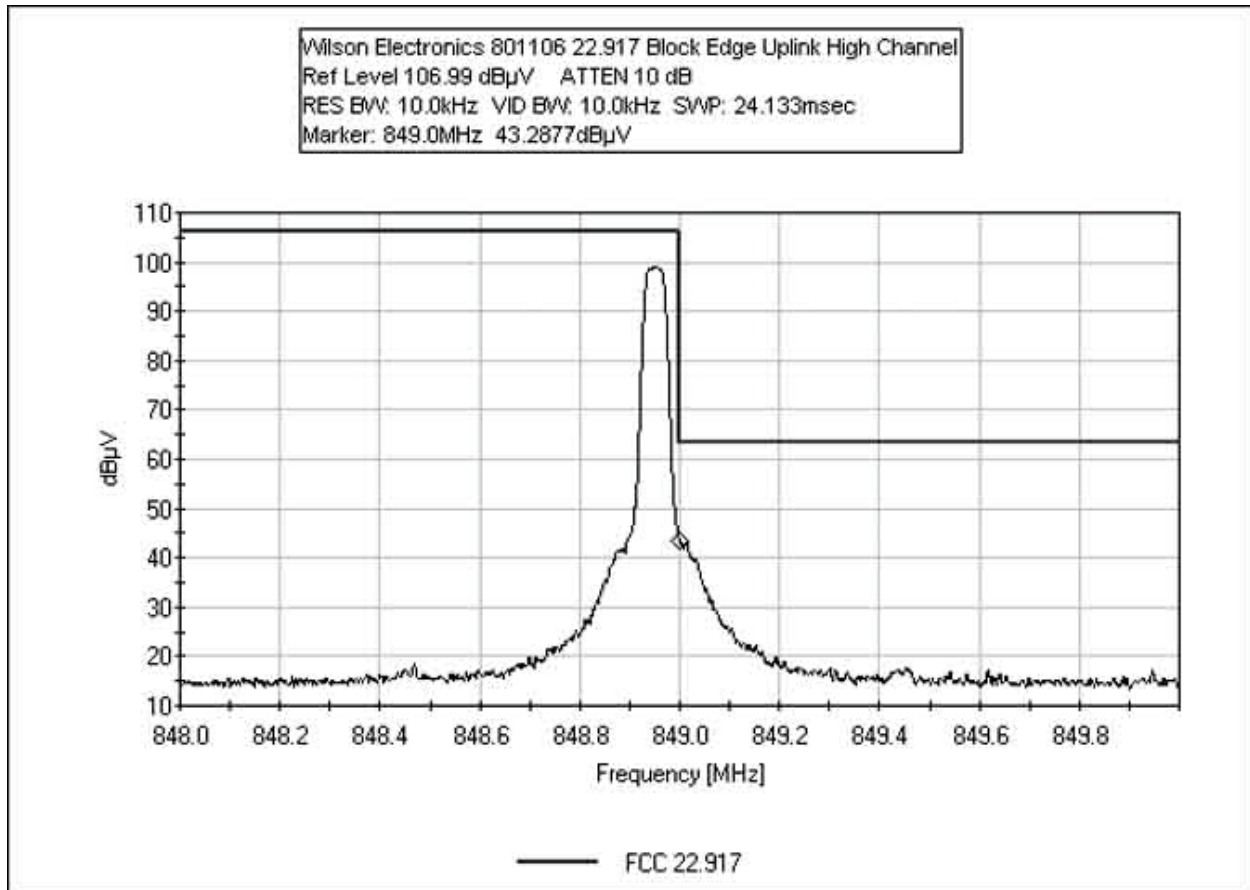
Wilson Electronics 801106, 22.917 Block Edge, Up Link GSM High Channel
Ref Level 96.99 dB μ V ATTN 10 dB
RES BW: 3.0kHz VID BW: 3.0kHz SWP: 526.267msec



FCC 22.917 BLOCK EDGE - UPLINK AMPS LOW CHANNEL



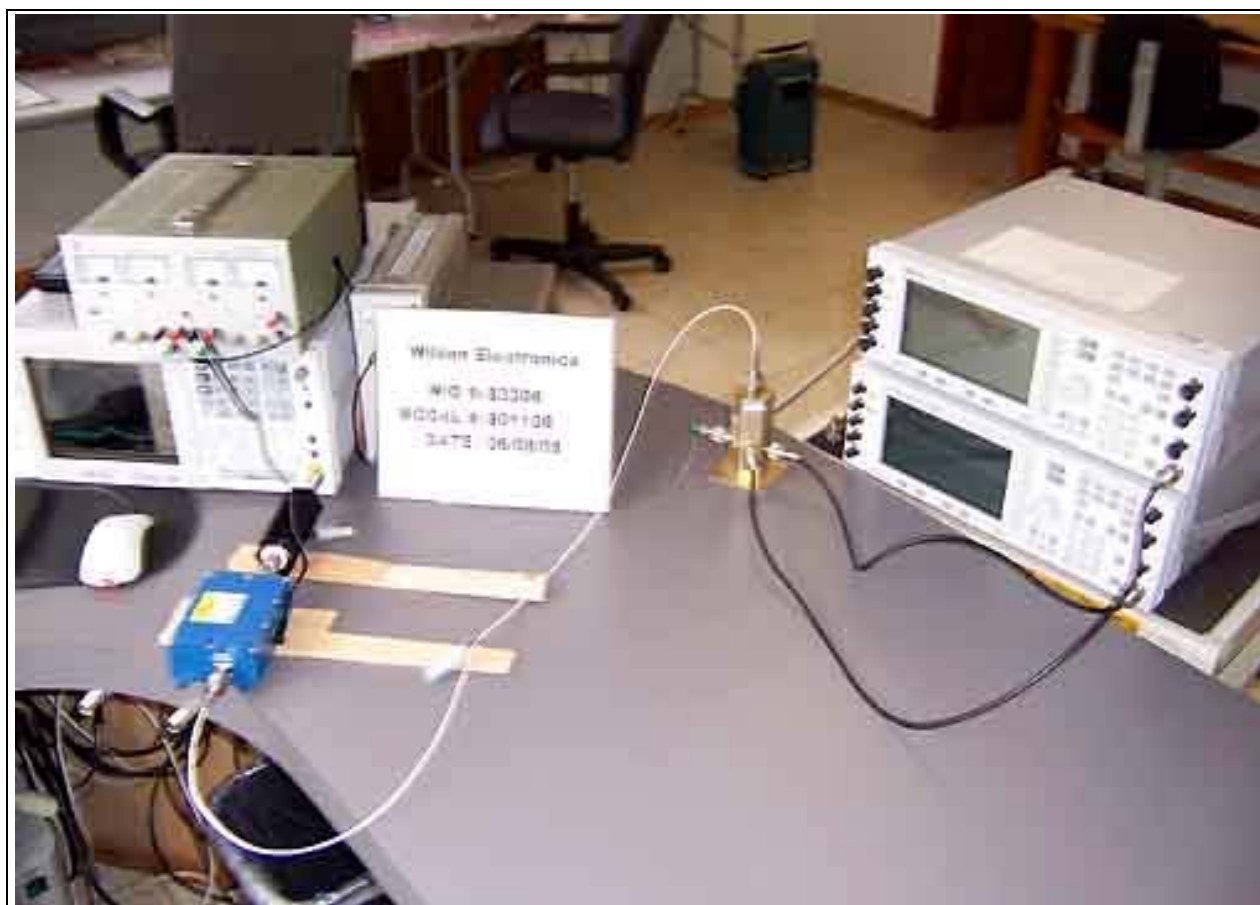
FCC 22.917 BLOCK EDGE - UPLINK AMPS HIGH CHANNEL



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

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP





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

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/06/2005
 Test Type: **Maximized Emissions** Time: 15:10:46
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 4
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 870.25 MHz. Operating Mode: CDMA. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:		Reading listed by margin.					Test Distance: None				
#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1740.490M	40.2	+30.0				+0.0	70.2	94.0	-23.8	None
2	3481.020M	25.9	+29.5				+0.0	55.4	94.0	-38.6	None
3	4349.710M	22.6	+29.2				+0.0	51.8	94.0	-42.2	None
4	2610.760M	20.3	+29.8				+0.0	50.1	94.0	-43.9	None
5	5221.670M	19.5	+28.5				+0.0	48.0	94.0	-46.0	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/06/2005

Test Type: **Maximized Emissions**

Time: 13:15:03

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 2

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 881.5. Operating Mode: CDMA. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1762.600M	41.9	+30.0				+0.0	71.9	94.0	-22.1	None
2	3525.200M	17.9	+29.4				+0.0	47.3	94.0	-46.7	None
3	2643.900M	17.1	+29.8				+0.0	46.9	94.0	-47.1	None
4	4406.500M	16.9	+29.1				+0.0	46.0	94.0	-48.0	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/06/2005

Test Type: **Maximized Emissions**

Time: 15:25:58

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 5

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 892.75 MHz. Operating Mode: CDMA. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1785.180M	36.8	+30.1				+0.0	66.9	94.0	-27.1	None
2	3570.520M	27.5	+29.3				+0.0	56.8	94.0	-37.2	None
3	4463.190M	27.4	+29.1				+0.0	56.5	94.0	-37.5	None
4	2677.850M	26.0	+29.8				+0.0	55.8	94.0	-38.2	None



Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/08/2005
 Test Type: **Maximized Emissions** Time: 09:45:31
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 24
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 869.28 MHz. Operating Mode: EDGE. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1738.558M	35.0	+30.0				+0.0	65.0	94.0	-29.0	None
2	3477.106M	22.4	+29.5				+0.0	51.9	94.0	-42.1	None
3	2607.832M	20.4	+29.8				+0.0	50.2	94.0	-43.8	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/08/2005
 Test Type: **Maximized Emissions** Time: 09:43:27
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 23
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier Frequencies: 881.5 MHz. Operating Mode: EDGE. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1762.988M	39.8	+30.0				+0.0	69.8	94.0	-24.2	None
2	2644.500M	21.0	+29.8				+0.0	50.8	94.0	-43.2	None
3	3526.012M	20.8	+29.4				+0.0	50.2	94.0	-43.8	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/08/2005

Test Type: **Maximized Emissions**

Time: 09:41:14

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 22

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier Frequencies: 893.72 MHz. Operating Mode: EDGE. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dB μ V	T1 dB	dB	dB	dB	Dist Table	Corr dB μ V	Spec dB μ V	Margin dB	Polar Ant
1	1787.454M	41.4	+30.1				+0.0	71.5	94.0	-22.5	None
2	2681.176M	23.2	+29.8				+0.0	53.0	94.0	-41.0	None
3	3574.898M	21.9	+29.3				+0.0	51.2	94.0	-42.8	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/07/2005

Test Type: **Maximized Emissions**

Time: 15:07:29

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 16

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 869.28 MHz. Operating Mode: GSM. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1738.696M	45.3	+30.0				+0.0	75.3	94.0	-18.7	None
2	3477.268M	30.6	+29.5				+0.0	60.1	94.0	-33.9	None
3	2607.982M	29.9	+29.8				+0.0	59.7	94.0	-34.3	None
4	4346.554M	29.1	+29.2				+0.0	58.3	94.0	-35.7	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/07/2005

Test Type: **Maximized Emissions**

Time: 14:58:56

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 15

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 881.5 MHz. Operating Mode: GSM. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1763.132M	46.0	+30.0				+0.0	76.0	94.0	-18.0	None
2	3526.140M	30.5	+29.4				+0.0	59.9	94.0	-34.1	None
3	2644.636M	29.1	+29.8				+0.0	58.9	94.0	-35.1	None
4	4407.644M	28.4	+29.1				+0.0	57.5	94.0	-36.5	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/07/2005

Test Type: **Maximized Emissions**

Time: 14:53:46

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 14

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 893.72 MHz. Operating Mode: GSM. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1787.306M	44.0	+30.1				+0.0	74.1	94.0	-19.9	None
2	2680.932M	33.6	+29.8				+0.0	63.4	94.0	-30.6	None
3	3574.792M	34.0	+29.3				+0.0	63.3	94.0	-30.7	None
4	4468.512M	28.6	+29.1				+0.0	57.7	94.0	-36.3	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/06/2005

Test Type: **Maximized Emissions**

Time: 16:10:49

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 6

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 825.25 MHz. Operating Mode: CDMA. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dB μ V	T1 dB	dB	dB	dB	Dist Table	Corr dB μ V	Spec dB μ V	Margin dB	Polar Ant
1	2475.834M	52.0	+30.0				+0.0	82.0	94.0	-12.0	None
2	3301.124M	51.8	+29.7				+0.0	81.5	94.0	-12.5	None
3	1650.544M	50.5	+30.2				+0.0	80.7	94.0	-13.3	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/07/2005

Test Type: **Maximized Emissions**

Time: 09:09:13

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 8

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 836.5 MHz. Operating Mode: CDMA. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1673.010M	46.3	+30.1				+0.0	76.4	94.0	-17.6	None
2	3346.020M	36.3	+29.7				+0.0	66.0	94.0	-28.0	None
3	2509.510M	34.6	+30.0				+0.0	64.6	94.0	-29.4	None



Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/06/2005
 Test Type: **Maximized Emissions** Time: 16:29:09
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 7
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 847.75 MHz. Operating Mode: CDMA. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1695.245M	37.1	+30.1				+0.0	67.2	94.0	-26.8	None
2	2543.195M	33.5	+29.9				+0.0	63.4	94.0	-30.6	None
3	3390.965M	25.9	+29.7				+0.0	55.6	94.0	-38.4	None
4	4238.735M	25.5	+29.3				+0.0	54.8	94.0	-39.2	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/07/2005
 Test Type: **Maximized Emissions** Time: 16:39:38
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 20
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 824.28 MHz. Operating Mode: EDGE. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1648.530M	42.2	+30.2				+0.0	72.4	94.0	-21.6	None
2	3297.070M	30.5	+29.7				+0.0	60.2	94.0	-33.8	None
3	2472.800M	28.2	+30.0				+0.0	58.2	94.0	-35.8	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/07/2005

Test Type: **Maximized Emissions**

Time: 16:36:15

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 19

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 836.5 MHz. Operating Mode: EDGE. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1673.024M	40.1	+30.1				+0.0	70.2	94.0	-23.8	None
2	3346.056M	29.7	+29.7				+0.0	59.4	94.0	-34.6	None
3	2509.540M	29.0	+30.0				+0.0	59.0	94.0	-35.0	None
4	4182.572M	29.6	+29.3				+0.0	58.9	94.0	-35.1	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/07/2005

Test Type: **Maximized Emissions**

Time: 16:33:24

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 18

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 848.72MHz. Operating Mode: EDGE. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1697.482M	36.1	+30.1				+0.0	66.2	94.0	-27.8	None
2	3394.858M	30.7	+29.7				+0.0	60.4	94.0	-33.6	None
3	2546.170M	30.0	+29.9				+0.0	59.9	94.0	-34.1	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/07/2005

Test Type: **Maximized Emissions**

Time: 12:43:11

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 11

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 824.28 MHz. Operating Mode: GSM. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1648.700M	45.8	+30.2				+0.0	76.0	94.0	-18.0	None
2	2472.980M	26.0	+30.0				+0.0	56.0	94.0	-38.0	None
3	3297.260M	24.2	+29.7				+0.0	53.9	94.0	-40.1	None
4	4121.540M	22.1	+29.4				+0.0	51.5	94.0	-42.5	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/07/2005

Test Type: **Maximized Emissions**

Time: 12:15:28

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 10

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 836.5 MHz. Operating Mode: GSM. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1673.000M	45.3	+30.1				+0.0	75.4	94.0	-18.6	None
2	3346.286M	29.4	+29.7				+0.0	59.1	94.0	-34.9	None
3	2509.448M	25.8	+30.0				+0.0	55.8	94.0	-38.2	None
4	4182.786M	22.3	+29.3				+0.0	51.6	94.0	-42.4	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/07/2005
 Test Type: **Maximized Emissions** Time: 12:48:00
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 12
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Carrier. Frequencies: 848.72 MHz. Operating Mode: GSM. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1697.582M	38.3	+30.1				+0.0	68.4	94.0	-25.6	None
2	2546.204M	25.9	+29.9				+0.0	55.8	94.0	-38.2	None
3	3394.916M	21.5	+29.7				+0.0	51.2	94.0	-42.8	None
4	4243.628M	20.9	+29.3				+0.0	50.2	94.0	-43.8	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/15/2005

Test Type: **Maximized Emissions**

Time: 14:54:33

Equipment: **In-Building Wireless Cellular SmartTech Amplifier**

Sequence#: 21

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 7VDC. Signal input to the EUT is supplied via support signal generator. Operating Mode: Low Channel Downlink AMPS. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%.

Transducer Legend:

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

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1738.109M	46.8	+30.0	+0.9			+0.0	77.7	94.0	-16.3	None
2	869.000M	38.2	+30.1	+0.6			+0.0	68.9	94.0	-25.1	None
3	3476.215M	32.9	+29.5	+1.2			+0.0	63.6	94.0	-30.4	None
4	2607.162M	31.0	+29.8	+1.1			+0.0	61.9	94.0	-32.1	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/15/2005

Test Type: **Maximized Emissions**

Time: 14:57:28

Equipment: **In-Building Wireless Cellular SmartTech Amplifier**

Sequence#: 23

Manufacturer: Wilson Electronics

Tested By: Randal Clark

Model: 801106

S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 7VDC. Signal input to the EUT is supplied via support signal generator. Operating Mode: Mid Channel Downlink AMPS. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%.

Transducer Legend:

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

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1763.040M	46.5	+30.0	+0.9			+0.0	77.4	94.0	-16.6	None
2	3526.044M	32.5	+29.4	+1.2			+0.0	63.1	94.0	-30.9	None
3	4407.546M	32.2	+29.1	+1.4			+0.0	62.7	94.0	-31.3	None
4	2644.542M	31.1	+29.8	+1.1			+0.0	62.0	94.0	-32.0	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/15/2005
 Test Type: **Maximized Emissions** Time: 14:56:36
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 22
 Manufacturer: Wilson Electronics Tested By: Randal Clark
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 7VDC. Signal input to the EUT is supplied via support signal generator. Operating Mode: High Channel Downlink AMPS. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%.

Transducer Legend:

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

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1787.842M	43.6	+30.1	+0.9			+0.0	74.6	94.0	-19.4	None
2	894.000M	40.3	+30.2	+0.6			+0.0	71.1	94.0	-22.9	None
3	3575.746M	33.2	+29.3	+1.3			+0.0	63.8	94.0	-30.2	None
4	2681.794M	30.5	+29.8	+1.1			+0.0	61.4	94.0	-32.6	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/15/2005
 Test Type: **Maximized Emissions** Time: 15:13:04
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 26
 Manufacturer: Wilson Electronics Tested By: Randal Clark
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 7VDC. Signal input to the EUT is supplied via support signal generator. Operating Mode: Low Channel Uplink AMPS. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%.

Transducer Legend:

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

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1648.078M	49.0	+30.2	+0.8			+0.0	80.0	94.0	-14.0	None
2	824.000M	44.8	+30.1	+0.6			+0.0	75.5	94.0	-18.5	None
3	2472.138M	31.8	+30.0	+1.0			+0.0	62.8	94.0	-31.2	None
4	4120.258M	29.9	+29.4	+1.4			+0.0	60.7	94.0	-33.3	None
5	3296.198M	28.3	+29.7	+1.2			+0.0	59.2	94.0	-34.8	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/15/2005
 Test Type: **Maximized Emissions** Time: 14:59:01
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 24
 Manufacturer: Wilson Electronics Tested By: Randal Clark
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 7VDC. Signal input to the EUT is supplied via support signal generator. Operating Mode: Mid Channel Uplink AMPS. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%.

Transducer Legend:

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

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1673.008M	47.8	+30.1	+0.8			+0.0	78.7	94.0	-15.3	None
2	3346.016M	30.3	+29.7	+1.2			+0.0	61.2	94.0	-32.8	None
3	2509.512M	28.8	+30.0	+1.0			+0.0	59.8	94.0	-34.2	None
4	4182.520M	28.7	+29.3	+1.4			+0.0	59.4	94.0	-34.6	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/15/2005
 Test Type: **Maximized Emissions** Time: 15:00:54
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 25
 Manufacturer: Wilson Electronics Tested By: Randal Clark
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 7VDC. Signal input to the EUT is supplied via support signal generator. Operating Mode: High Channel Uplink AMPS. Frequency Range Investigated: 30-10000 MHz Temperature: 24°C, Relative Humidity: 68%.

Transducer Legend:

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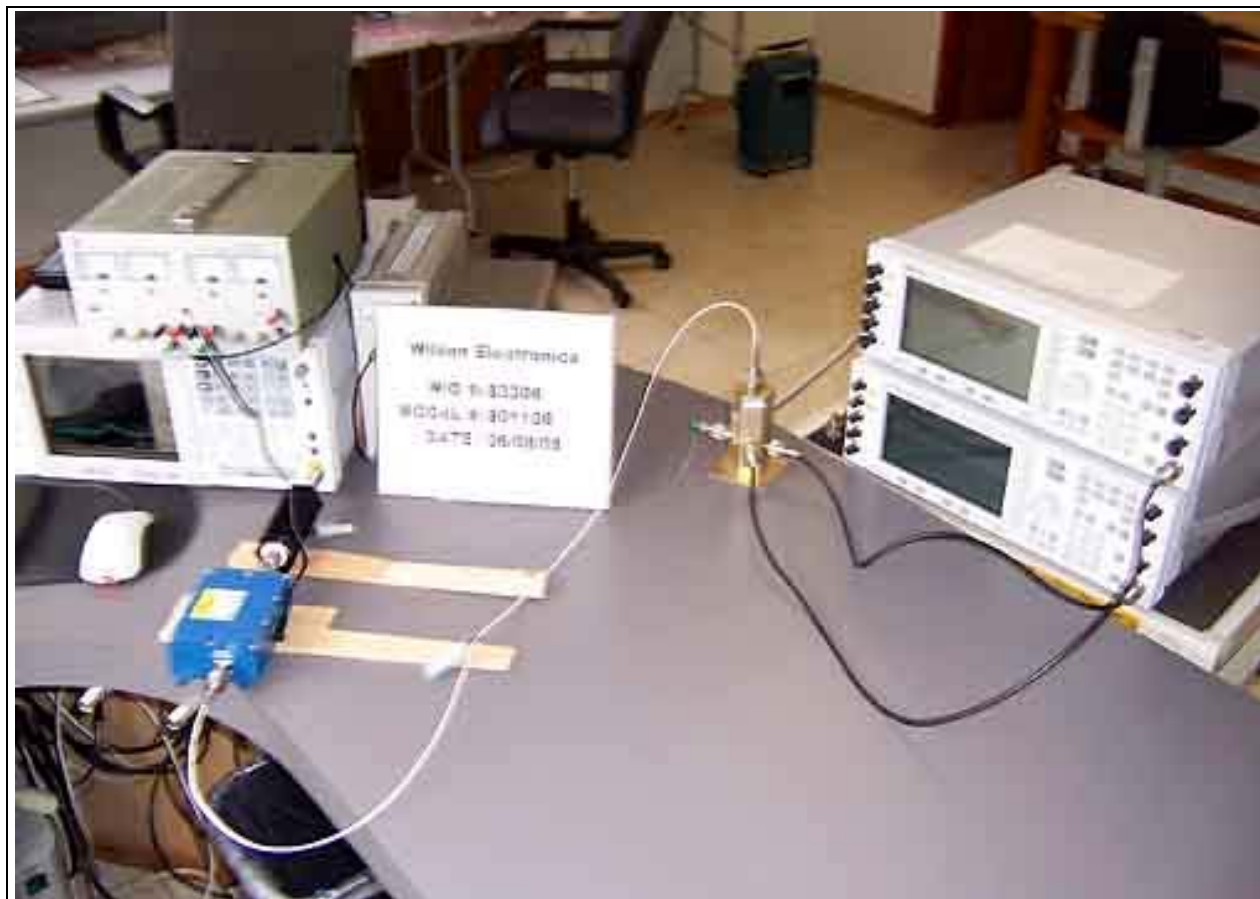
Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	1697.900M	44.0	+30.1	+0.8			+0.0	74.9	94.0	-19.1	None
2	849.000M	40.9	+30.1	+0.6			+0.0	71.6	94.0	-22.4	None
3	2546.850M	33.4	+29.9	+1.0			+0.0	64.3	94.0	-29.7	None
4	4244.750M	31.0	+29.3	+1.4			+0.0	61.7	94.0	-32.3	None
5	3395.800M	29.2	+29.7	+1.2			+0.0	60.1	94.0	-33.9	None

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP





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

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**

Specification: **FCC 22.917**

Work Order #: **83306**

Date: 06/08/2005

Test Type: **Maximized Emissions**

Time: 12:16:29

Equipment: **In-Building Wireless Cellular
SmartTech Amplifier**

Sequence#: 26

Manufacturer: Wilson Electronics

Tested By: Mike Wilkinson

Model: 801106

S/N: 801106012

Test Equipment:

Function	S/N	Calibration Date	Cal Due Date	Asset #
Agilent E4446A SA	US44300407	01/12/2005	01/12/2007	02660
Chase CBL6111C Bilog	2456	06/07/2005	06/07/2007	01991
Cable, Pasternack 36"	NA	02/08/2005	02/08/2007	P05202
Cable, Andrews Hardline HF-005-20	NA	05/27/2005	05/27/2007	P04275
EMCO 3115 Horn Antenna	9307-4085	04/29/2005	04/29/2007	00656
HP 8447D Preamp	1937A02604	03/11/2005	03/11/2007	00099
HP 8449B Preamp	3008A00301	12/14/2004	12/14/2006	2010

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator. Operating Mode: Uplink and Downlink CDMA middle channel This operational mode represents the worst case for radiated emissions based on laboratory prescan. Frequency Range Investigated: 30 MHz to 10 GHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz. **No EUT emissions detected within 20dB 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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PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Front View

FCC 22.917 INTERMODULATION

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/15/2005
 Test Type: **Maximized Emissions** Time: 12:06:56
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 19
 Manufacturer: Wilson Electronics Tested By: Randal Clark
 Model: 801106 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 7VDC. Signal input to the EUT is supplied through a combiner via support signal generators. Two signal generator method used in accordance with TIA-603. Three signal method unavailable for this modulation. Carrier Frequencies: Two at lower edge, Two at upper edge. Operating Mode: Downlink AMPS. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%.

Transducer Legend:

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

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	894.035M	55.3	+30.2	+0.6			+0.0	86.1	94.0	-7.9	None
2	868.980M	53.5	+30.1	+0.6			+0.0	84.2	94.0	-9.8	None
3	894.135M	42.2	+30.2	+0.6			+0.0	73.0	94.0	-21.0	None
4	868.890M	39.1	+30.1	+0.6			+0.0	69.8	94.0	-24.2	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/15/2005
 Test Type: **Maximized Emissions** Time: 12:06:56
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 20
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 7VDC. Signal input to the EUT is supplied through a combiner via support signal generators. Two signal generator method used in accordance with TIA-603. Three signal method unavailable for this modulation. Carrier Frequencies: Two at lower edge, Two at upper edge. Operating Mode: Downlink AMPS. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%.

Transducer Legend:

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

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB		Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	823.945M	55.9	+30.1	+0.6		+0.0	86.6	94.0	-7.4	None
2	849.020M	52.9	+30.1	+0.6		+0.0	83.6	94.0	-10.4	None
3	823.725M	38.6	+30.0	+0.6		+0.0	69.2	94.0	-24.8	None
4	823.805M	36.9	+30.0	+0.6		+0.0	67.5	94.0	-26.5	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/06/2005
 Test Type: **Maximized Emissions** Time: 14:26:47
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 3
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106 None
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied through a combiner via support signal generators. Three signal method used in accordance with TIA-603. Carrier Frequencies: Three Signal Method. Operating Mode: CDMA. Frequencies Tested: Downlink 870.25 MHz, 872.75 MHz, 892.75 MHz. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:		Reading listed by margin.					Test Distance: None				
#	Freq MHz	Rdng dBμV	T1 dB		dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	894.800M	47.9	+30.2				+0.0	78.1	94.0	-15.9	None
2	867.800M	43.5	+30.1				+0.0	73.6	94.0	-20.4	None
3	1774.500M	30.5	+30.0				+0.0	60.5	94.0	-33.5	None
4	1743.200M	30.2	+30.0				+0.0	60.2	94.0	-33.8	None
5	2614.800M	28.8	+29.8				+0.0	58.6	94.0	-35.4	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/08/2005
 Test Type: **Maximized Emissions** Time: 10:11:42
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 25
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied through a combiner via support signal generators. Two signal generator method used in accordance with TIA-603. Three signal method unavailable for this modulation. Carrier Frequencies: Two at lower edge, Two at upper edge. Operating Mode: EDGE Frequencies Tested: Down Link 869.28 MHz 869.84 MHz 893.16 MHz 893.72 MHz Frequency Range Investigated: 30-10000 MHz Temperature: 24°C Rel Humidity: 68%

Transducer Legend:

T1=Pad 30dB

Measurement Data:

Reading listed by margin.

Test Distance: None

#	Freq MHz	Rdng dBμV	T1 dB	dB	dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	894.280M	59.3	+30.2				+0.0	89.5	94.0	-4.5	None
	Ave										
2	1739.120M	45.5	+30.0				+0.0	75.5	94.0	-18.5	None
3	869.000M	40.0	+30.1				+0.0	70.1	94.0	-23.9	None
	Ave										
4	1786.880M	37.0	+30.1				+0.0	67.1	94.0	-26.9	None

5	3477.670M	27.9	+29.5	+0.0	57.4	94.0	-36.6	None
6	2680.320M	23.2	+29.8	+0.0	53.0	94.0	-41.0	None
7	4347.360M	21.8	+29.2	+0.0	51.0	94.0	-43.0	None
8	2608.800M	21.1	+29.8	+0.0	50.9	94.0	-43.1	None



Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/07/2005
 Test Type: **Maximized Emissions** Time: 15:30:08
 Equipment: **In-Building Wireless Cellular** Sequence#: 17
 SmartTech Amplifier
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied through a combiner via support signal generators. Two signal generator method used in accordance with TIA-603. Three signal method unavailable for this modulation. Carrier Frequencies: Two at lower edge, Two at upper edge. Operating Mode: GSM. Frequencies Tested: Down Link 869.28 MHz, 869.84 MHz, 893.16 MHz, 893.72 MHz. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:				Reading listed by margin.			Test Distance: None				
#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	894.220M	61.7	+30.2				+0.0	91.9	94.0	-2.1	None
2	868.640M	59.2	+30.1				+0.0	89.3	94.0	-4.7	None
3	1739.100M	27.8	+30.0				+0.0	57.8	94.0	-36.2	None
4	1786.180M	26.5	+30.1				+0.0	56.6	94.0	-37.4	None
5	2608.680M	15.8	+29.8				+0.0	45.6	94.0	-48.4	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/07/2005
 Test Type: **Maximized Emissions** Time: 10:39:19
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 9
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied through a combiner via support signal generators. Three signal method used in accordance with TIA-603. Carrier Frequencies: Three Signal Method. Operating Mode: CDMA. Frequencies Tested: Up Link 825.5 MHz, 827.75 MHz, 847.75 MHz. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:		Reading listed by margin.					Test Distance: None				
#	Freq MHz	Rdng dBμV	T1 dB		dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	823.000M	53.1	+30.0				+0.0	83.1	94.0	-10.9	None
	Ave										
2	808.450M	45.0	+30.0				+0.0	75.0	94.0	-19.0	None
3	1656.000M	32.4	+30.1				+0.0	62.5	94.0	-31.5	None
4	1675.500M	29.8	+30.1				+0.0	59.9	94.0	-34.1	None
5	1695.500M	26.3	+30.1				+0.0	56.4	94.0	-37.6	None



Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/08/2005
 Test Type: **Maximized Emissions** Time: 08:43:27
 Equipment: **In-Building Wireless Cellular** Sequence#: 21
 SmartTech Amplifier
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied through a combiner via support signal generators. Two signal generator method used in accordance with TIA-603. Three signal method unavailable for this modulation. Carrier Frequencies: Two at lower edge, Two at upper edge. Operating Mode: EDGE. Frequencies Tested: Up Link 824.28 MHz, 824.84 MHz, 848.16 MHz, 848.72 MHz. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

Transducer Legend:

T1=Pad 30dB

Measurement Data:		Reading listed by margin.					Test Distance: None				
#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	823.701M	54.6	+30.0				+0.0	84.6	94.0	-9.4	None
	Ave										
2	849.360M	48.8	+30.1				+0.0	78.9	94.0	-15.1	None
	Ave										
3	1649.160M	36.7	+30.2				+0.0	66.9	94.0	-27.1	None
4	1696.860M	30.5	+30.1				+0.0	60.6	94.0	-33.4	None
5	2473.740M	21.0	+30.0				+0.0	51.0	94.0	-43.0	None

Test Location: CKC Laboratories • 5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)
 Customer: **Wilson Electronics**
 Specification: **FCC 22.917**
 Work Order #: **83306** Date: 06/07/2005
 Test Type: **Maximized Emissions** Time: 15:34:55
 Equipment: **In-Building Wireless Cellular SmartTech Amplifier** Sequence#: 13
 Manufacturer: Wilson Electronics Tested By: Mike Wilkinson
 Model: 801106
 S/N: 801106012

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
In-Building Wireless Cellular SmartTech Amplifier*	Wilson Electronics	801106	801106012

Support Devices:

Function	Manufacturer	Model #	S/N
DC Power Supply	Topward	TPS-2000	920035
Signal Generator	HP	E4432B	MY41000298
Signal Generator	HP	E4433B	US38440697

Test Conditions / Notes:

EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied through a combiner via support signal generators. Two signal generator method used in accordance with TIA-603. Three signal method unavailable for this modulation. Carrier Frequencies: Two at lower edge, Two at upper edge. Operating Mode: GSM. Frequencies Tested: Up Link 824.28 MHz, 824.84 MHz, 848.16 MHz, 848.72 MHz. Frequency Range Investigated: 30-10000 MHz. Temperature: 24°C, Relative Humidity: 68%. Bandwidth settings: RBW=VBW=100kHz; 30MHz to 10GHz.

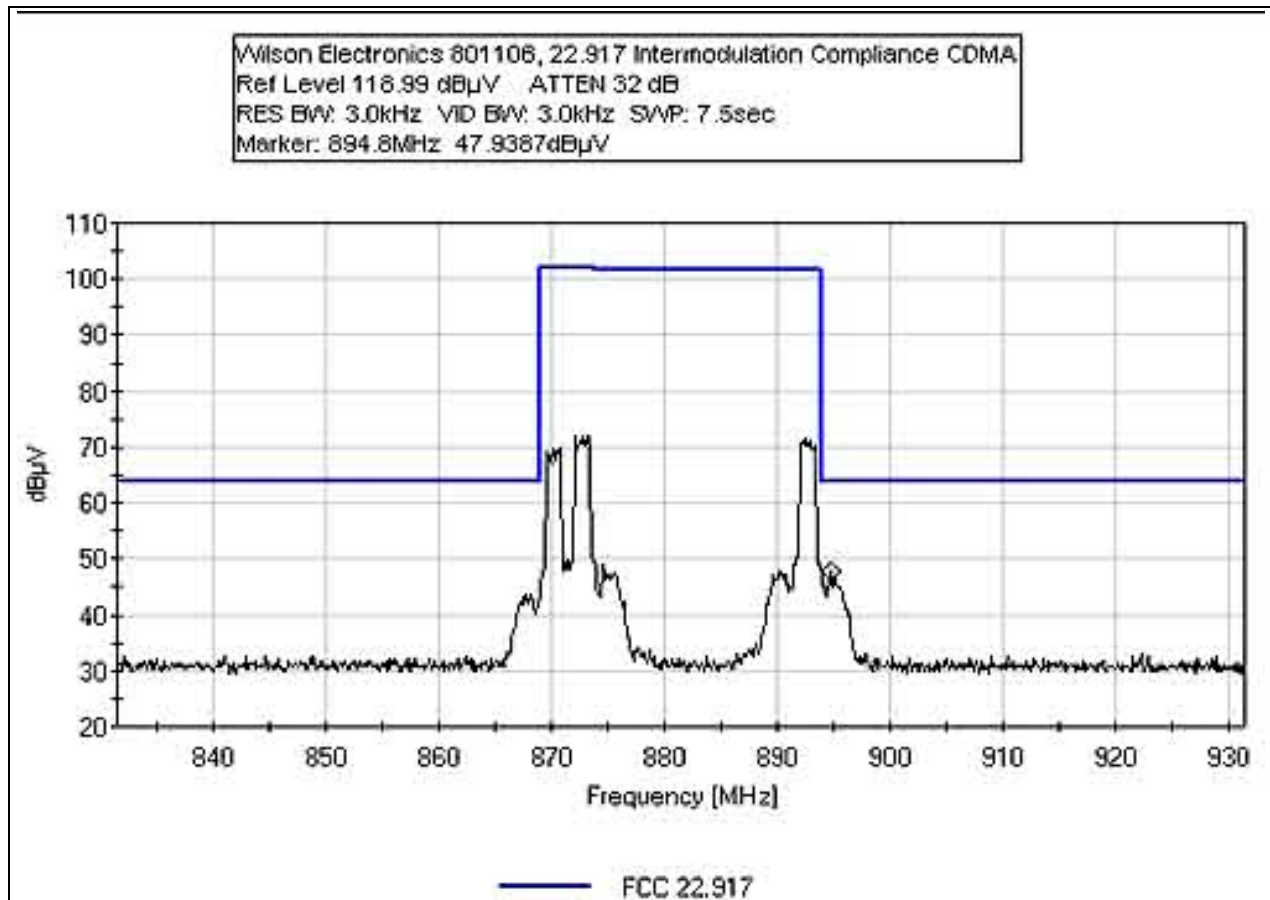
Transducer Legend:

T1=Pad 30dB

Measurement Data:			Reading listed by margin.				Test Distance: None				
#	Freq MHz	Rdng dBμV	T1 dB				Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	823.760M	61.6	+30.0				+0.0	91.6	94.0	-2.4	None
2	849.240M	59.4	+30.1				+0.0	89.5	94.0	-4.5	None
3	1696.920M	25.1	+30.1				+0.0	55.2	94.0	-38.8	None
4	1649.140M	19.0	+30.2				+0.0	49.2	94.0	-44.8	None
5	816.720M	12.2	+30.0				+0.0	42.2	94.0	-51.8	None

FCC 22.917 INTERMODULATION DOWNLINK CDMA

Test Conditions: EUT is an in-Building Wireless Bi-Directional amplifier for uplink and downlink PCS signals from a cell phone within the operating band of 824-849 MHz for uplink and 869-894 MHz for downlink. EUT is powered via external DC power supply at 5.8VDC. Signal input to the EUT is supplied via support signal generator.



FCC 22.917 INTERMODULATION DOWNLINK EDGE LOW CHANNEL

