TEST RESULT SUMMARY

FCC Part 22

MANUFACTURER	ADC Inc.
NAME OF EQUIPMENT	Digivance® Street Coverage Solution 800 MHz System
MODEL NUMBER	**DGVC-111X0000100SYS** **DGVC-121X0000100SYS**
MANUFACTURER'S ADDRESS	P.O. Box 1101 Minneapolis, MN 55440-1101
TEST REPORT NUMBER	WC505740 Rev B
TEST DATES	30 September 2005 (ADC) 7 - 8 November 2005 (TÜV)

According to testing performed at TÜV America Inc, the above-mentioned unit is in compliance with the electromagnetic compatibility (EMC) portions of the requirements defined in FCC Part 22.

It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics. Any modifications necessary for compliance made during testing on the above mentioned date(s) must be implemented in all production units for compliance to be maintained.

TÜV America Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the EMC requirements of FCC Part 22, Subpart C Section 22.355, “Frequency tolerance” and Subpart H Sections 22.913 “Effective radiated power limits” and 22.917 “Emission limitations for cellular”.

Date: 29 June 2006

Tested By

Mike Schultz & Joe Sausen

Technical Writer

Greg Jakubowski

Not Transferable

EMC Emission - T E S T R E P O R T

Test Report File No.	:	**WC505740 Rev B** Date of issue: 26 June 2006
Model Nos.	:	**DGVC-111X0000100SYS** **DGVC-121X0000100SYS**
Product Name	:	Digivance® Street Coverage Solution 800 MHz System
Product Type	:	Transports RF between a remote antenna and a base station
Applicant	:	ADC Inc.
Manufacturer	:	ADC Inc.
License Holder	:	ADC Inc.
Address	:	P.O. Box 1101 Minneapolis, MN 55440-1101
Test Result	:	■ **Positive** ☐ **Negative**
Test Project Number Reference(s)	:	**WC505740 Rev B**
Total pages including Appendices		109

TÜV America Inc reports apply only to the specific samples tested under stated test conditions. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. TÜV America Inc shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV America Inc issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval. This report shall not be used by the client to claim product endorsement by NVLAP, NIST, or any agency of the US government.

TÜV America Inc and its professional staff hold government and professional organization certifications and are members of AAMI, ACIL, AEA, ANSI, IEEE, NVLAP, and VCCI

TÜV AMERICA INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 112205

REVISION RECORD

REVISION	TOTAL NUMBER OF PAGES	DATE	REVISION DESCRIPTION
	121	24 February 2006	Initial Release
A	121	15 May 2006	▪ Pages A2, Updated EIRP Test Data
B	109	29 June 2006	▪ Page C2, reference to ANSI C63.4 corrected to EIA/TIA 603 ▪ Removed 16QAM data (Rev A pages A9, A14, A26, A31, A67-A70, and A87-A90.) Appendix A page numbers updated accordingly, including on page 6. ▪ Replaced Rev A page A32 with Rev B page A30 (updated CDMA Band Edge data).

DIRECTORY

Sign Explanations:
☐ - not applicable
■ - applicable

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EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to following regulations:

☐ - EN 50081-1 / 1991

☐ - EN 55011 / 1991 ☐ - Group 1 ☐ - Group 2
☐ - Class A ☐ - Class B

☐ - EN 55013 / 1990

☐ - EN 55014 / 1987 ☐ - Household appliances and similar
☐ - Portable tools
☐ - Semiconductor devices

☐ - EN 55014 / A2:1990

☐ - EN 55014 / 1993 ☐ - Household appliances and similar
☐ - Portable tools
☐ - Semiconductor devices

☐ - EN 55015 / 1987

☐ - EN 55015 / A1:1990

☐ - EN 55015 / 1993

☐ - EN 55022 / 1987 ☐ - Class A ☐ - Class B

☐ - EN 55022 / 1991 ☐ - Class A ☐ - Class B

☐ - BS

☐ - VCCI ☐ - Class A ☐ - Class B

☐ - FCC Part 15 Subpart B ☐ - Class A ☐ - Class B

☐ - FCC Part 15 Subpart C

■ - FCC Part 22

☐ - CISPR 11 (1990) ☐ - Group 1 ☐ - Group 2
☐ - Class A ☐ - Class B

☐ - CISPR 22 (1993) ☐ - Class A ☐ - Class B

☐ - IC RSS-Gen Issue 1

☐ - IC RSS-193 Issue 1

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22.913 Effective radiated power limits

Test summary
The requirements are: ■ - MET ☐ - NOT MET
Minimum margin of compliance is 19 dB at 891.5 MHz (TDMA, band A) and 894 MHz (CW-FM, band B)

Test location
☐ - Wild River Lab Large Test Site (Open Area Test Site)
☐ - Wild River Lab Small Test Site (Open Area Test Site)
■ - ADC facility

Test Distance
☐ - 3 meters
☐ - 10 meters
■ - Conducted measurement

Test equipment (ADC)

Model Number	Manufacturer	Description	ADC Serial Number	Cal Due
49-30-33	Aeroflex	Attenuator	n/a	CNR
HP8563E	HP	Spectrum Analyzer	MC27690	6-22-06
EPM-441A	HP	Power Meter	MC27670	9-28-06

Equipment with a Calibration Not Required (CNR) listing is verified and compensated for with NIST traceable calibrated equipment.

Test limit
500 watts or 57dBm

Test Data
See page A2

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22.355 Frequency tolerance

Test summary
The requirements are: ■- MET ☐ - NOT MET
The carrier frequency of each channel is maintained within the tolerances given in Table C–1 of this section.
Frequency measured over a temperature range of -30 to 50°C and an input voltage range of 102 to 138 VAC

Test location
☐ - Wild River Lab Large Test Site (Open Area Test Site)
☐ - Wild River Lab Small Test Site (Open Area Test Site)
■ - ADC facility

Test equipment (ADC)

Model Number	Manufacturer	Description	ADC Serial Number	Cal Due
26III	Fluke	Multimeter	MC22687	4-27-06
5347A	HP	Freq. Counter	MC27569	7-21-06
1520CT	Staco	Variable Auto Transformer	MC/44655	CNR
E4436B	Agilent	Signal Generator	963739	10-16-06

Equipment with a Calibration Not Required (CNR) listing is verified and compensated for with NIST traceable calibrated equipment.

Test limit

TABLE C–1—FREQUENCY TOLERANCE FOR TRANSMITTERS IN THE PUBLIC MOBILE SERVICES

Frequency range (MHz)	Base, fixed (ppm)	Mobile ≤3 watts (ppm)	Mobile ≤3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929	5.0	n/a	n/a
929 to 960	1.5	n/a	n/a
2110 to 2220	10.0	n/a	n/a

Test data
See pages A3 – A4

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22.917 Emission limitations for cellular

Test summary
The requirements are: ■ - MET ☐ - NOT MET
The power of any emission outside of the authorized operating frequency ranges are attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.
Outside the emission bandwidth of the carrier, all emissions are attenuated at least 26 dB below the transmitter power.

Test location
■ - Wild River Lab Large Test Site (Open Area Test Site)
☐- Wild River Lab Small Test Site (Open Area Test Site)
■ - ADC facility

Test equipment (ADC)

Model Number	Manufacturer	Description	ADC Serial Number	Cal Due
49-30-33	Aeroflex	Attenuator	n/a	CNR
HP8563E	HP	Spectrum Analyzer	MC27690	6-22-06
EPM-441A	HP	Power Meter	MC27670	9-28-06
26III	Fluke	Multimeter	MC22687	4-27-06
5347A	HP	Freq. Counter	MC27569	7-21-06
Thermotron	Thermotron	Temperature Chamber	MC18966	3-1-06
1520CT	Staco	Variable Auto Transformer	MC/44655	CNR
E4436B	Agilent	Signal Generator	963739	10-16-06
E4436B	Agilent	Signal Generator	MC50601	12-29-06

Equipment with a Calibration Not Required (CNR) listing is verified and compensated for with NIST traceable calibrated equipment.

Test equipment (TUV)

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3203	EM-6917B	Electro-Metrics	Biconicalog Periodic	106	01-Apr-06
2074	3115	Electro-Mechanics (EMCO)	Ridge Guide Antenna	2504	22-Nov-06
3961	ZHL-1042J	Mini-Circuits	Preamplifier	D120403-1	Code B
3958	SL18B4020	Phase One Microwave	Preamplifier 1 – 18 GHz	0002	Code B
2681	85650A	Hewlett-Packard	Quasi-Peak Adapter	2430A00562	03-Feb-06
8052	8566B	Hewlett-Packard	Spectrum Analyzer	2115A00853	24-Mar-06
8051	85662A	Hewlett-Packard	Analyzer Display	2112A02220	24-Mar-06
3236	UHAP-10dB	Schwarzbeck	Dipole Antenna 300-1000	164	N/A
3333	SME03	Rhode & Schwarz	Signal Generator	100003	25-Apr-06

Cal Code B = Calibration verification performed internally. Cal Code Y = Calibration not required when used with other calibrated equipment.

Test limits
Out of band emissions:
Attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.
(19dBm – [43 + 10log(0.08W)]) = -13 dBm
Outside of the carrier emission bandwidth:
26 dB below the transmitter power

Test data
Occupied Bandwidth Modulation, pages A5 – A13
Conducted Emission Limits, pages A14 – A30
Radiated emissions, pages A31 – A49
Inter-Modulation Test, pages A50 – A82

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TEST SETUP FOR EMISSIONS TESTING

WILD RIVER LAB
Large Test Site

Notes:

1. Items shown in dotted lines are located on the floor below the test area. It is 5 meters vertically from the ground floor to the test area.

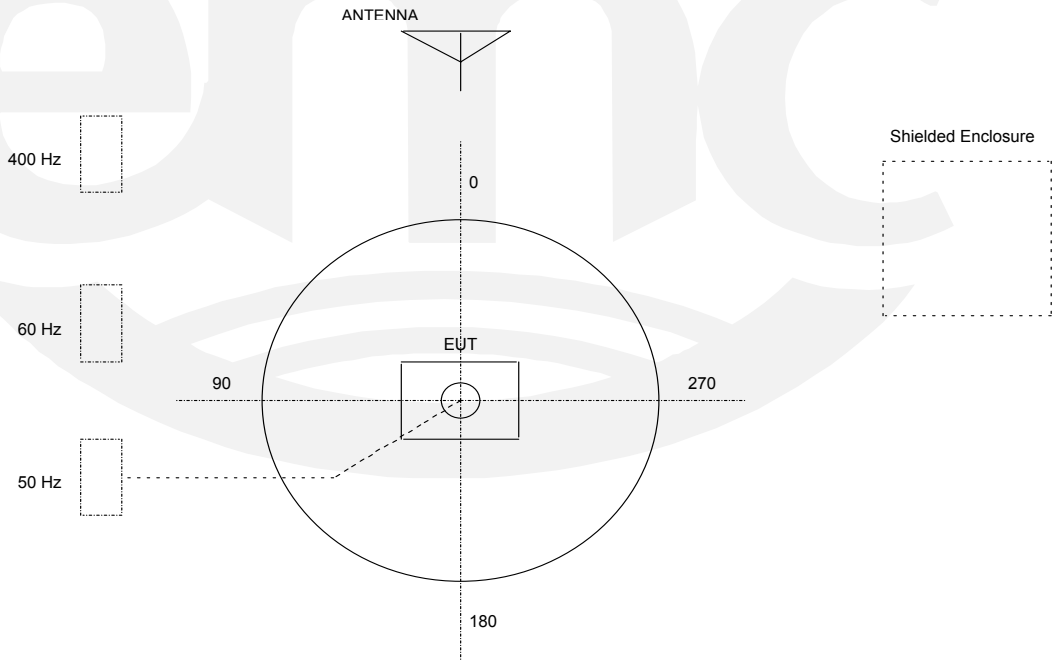
2. 50 Hz, 60 Hz, and 400 Hz are power panels for alternating current.

3. The antenna may be positioned horizontally 3, 10 or 30 meters from the center of the turntable.

4. The circle is a 6.7 meter diameter turntable.

5. A ground plane is in the plane of this sheet.

6. The test sample is shown in the azimuthal position representing zero degrees.



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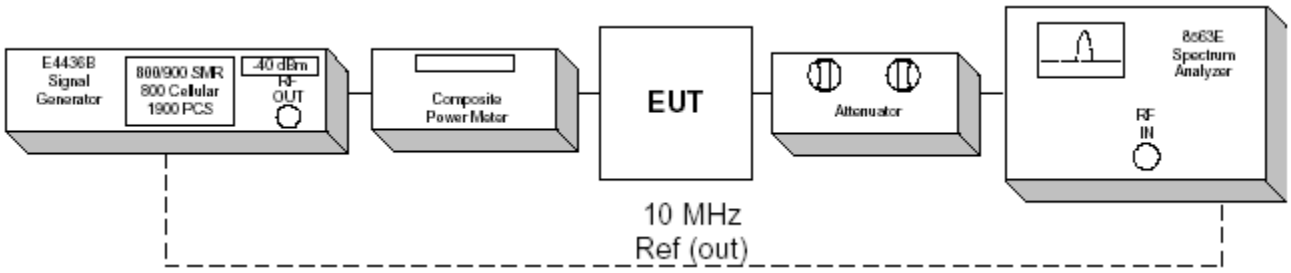
Conducted Emission Limits Test for ADC Inc.
Digivance® Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

Test Set-up



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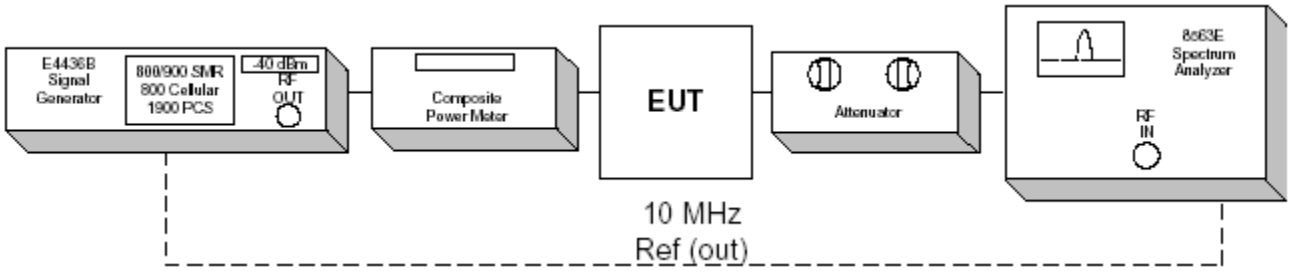
Effective Radiated Power Limit Test for ADC Inc.
Digivance® Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

Test Set-up



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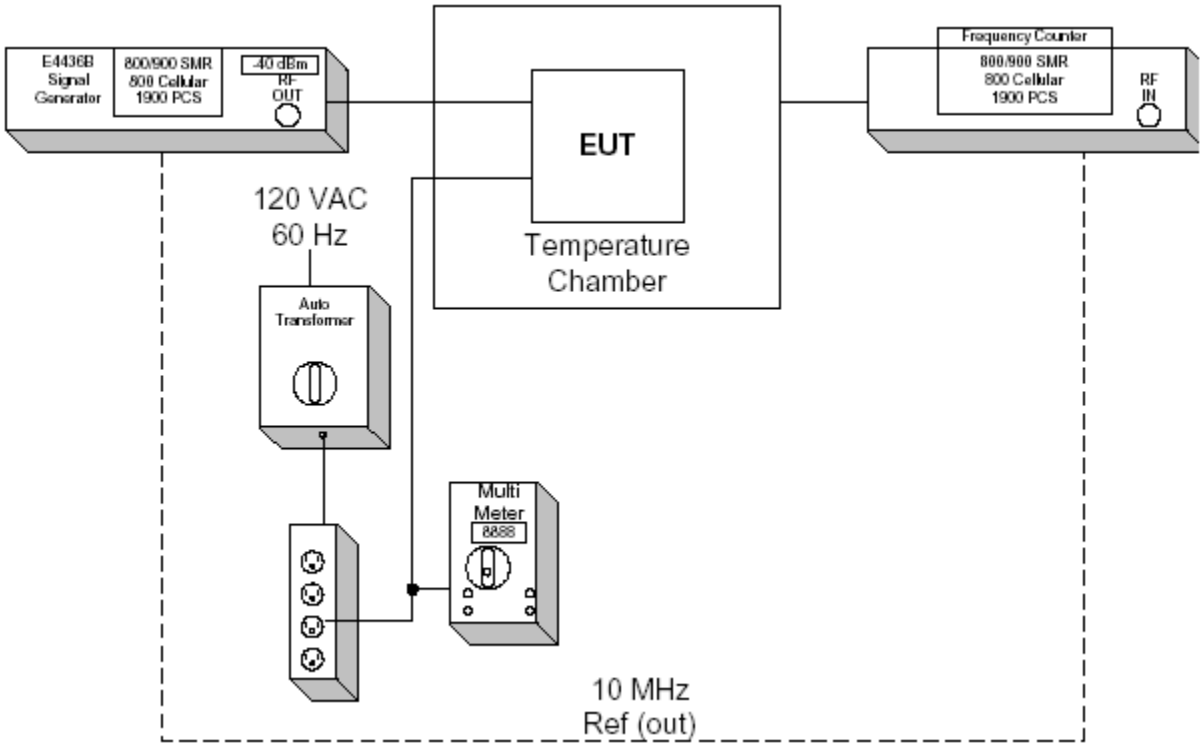
Frequency Tolerance Test for ADC Inc.
Digivance® Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

EUT Host is specified for indoor use only with temperature range of 0° to +50° C, and was tested with its range.
EUT Remote is specified with a temperature range of -30° to +50° C and was tested with its range.

Test Set-up



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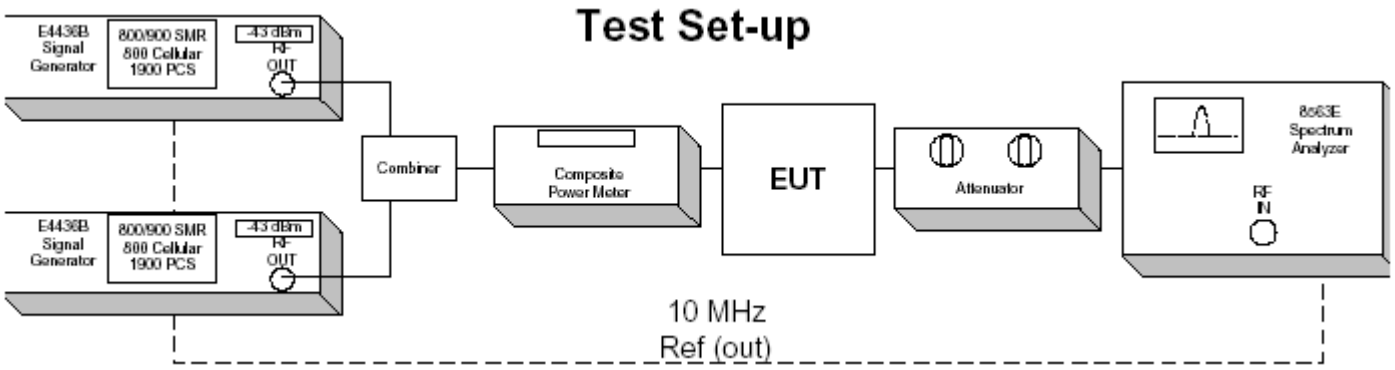
Inter-Modulation Test for ADC Inc.
Digivance® Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS



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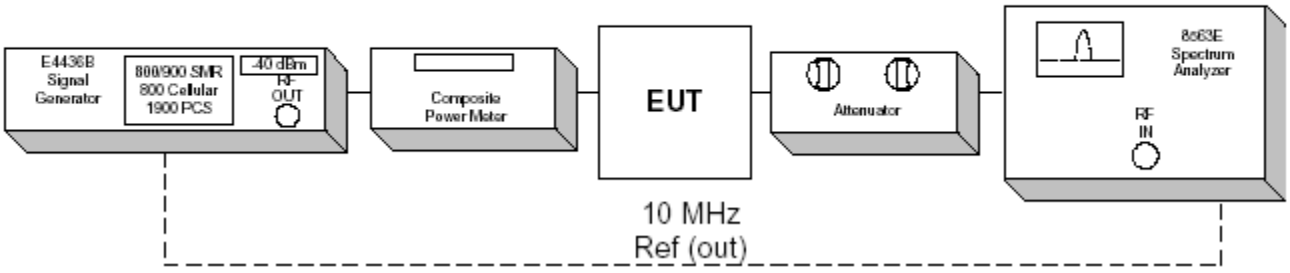
Occupied Bandwidth Modulation Test for ADC Inc.
Digivance® Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

Test Set-up



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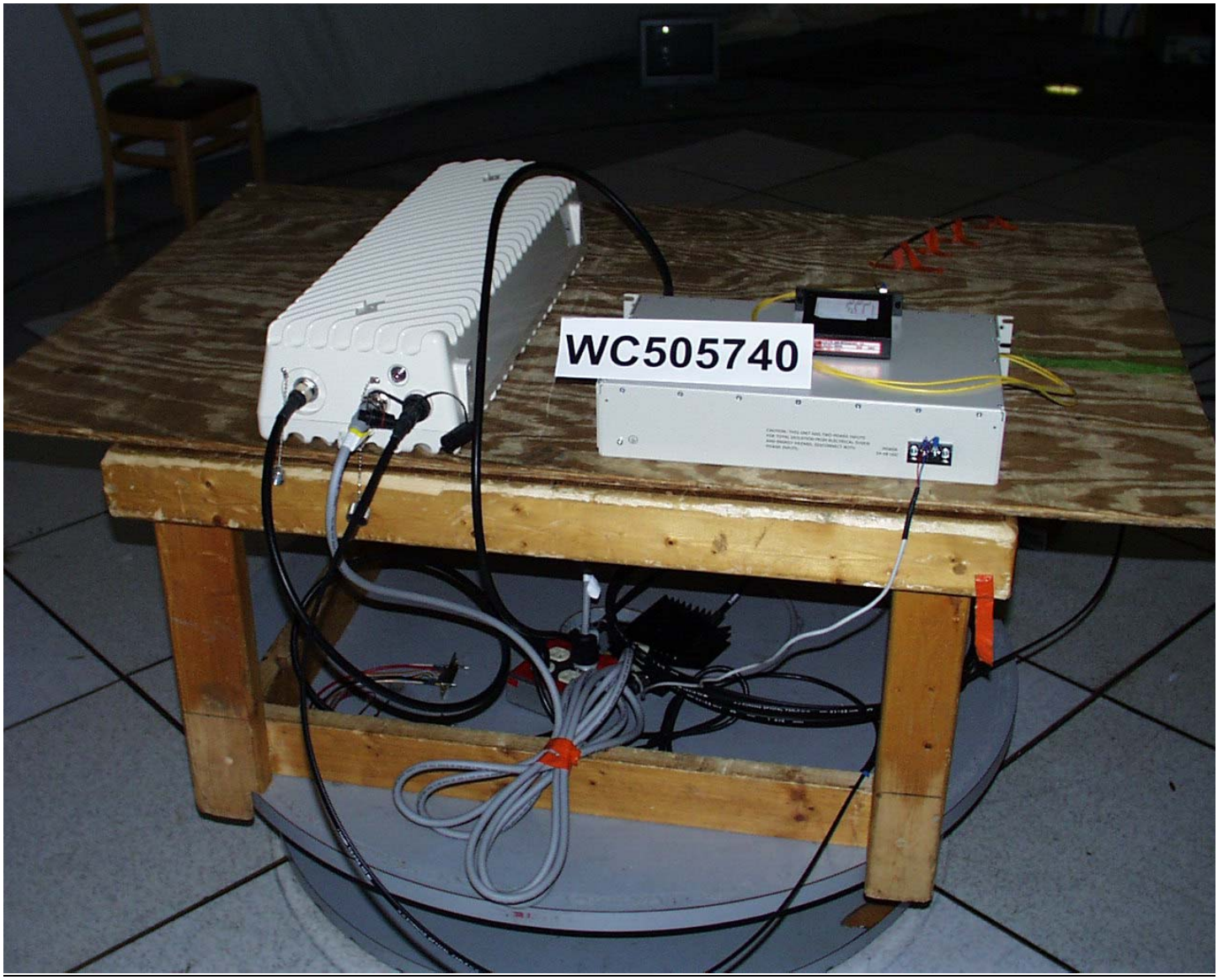
Test setup photo, radiated emissions



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Test setup photo, radiated emissions

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Test Operation Mode:

The device under test was operated under the following conditions during emissions testing:

☐ - Standby

☐ - Test program (H - Pattern)

☐ - Test program (color bar)

☐ - Test program (customer specific)

☐ - Practice operation

■ - Max composite in and out

Configuration of the device under test:

■ - See diagrams, pages 8 – 12, photos, pages 13 – 14, EUT software, page B6

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DEVIATIONS FROM STANDARD:

None.

GENERAL REMARKS:

Modifications required to pass:
■ None
☐ As indicated on the data sheet(s)

Test Specification Deviations: Additions to or Exclusions from:
■ None
☐ As indicated in the Test Plan

SUMMARY:

The requirements according to the technical regulations are

■ - met
☐ - **not** met.

The device under test does
■ - fulfill the general approval requirements mentioned on page 3.
☐ - **not** fulfill the general approval requirements mentioned on page 3.

EUT Received Date: (TÜV)	7 November 2005
Condition of EUT:	Normal
Testing Start Date: (ADC)	30 September 2005
Testing End Date: (TÜV)	8 November 2005

- TÜV AMERICA INC -

Tested By:

Michael Schultz & Joe Sausen

Reviewed By:

Greg Jakubowski

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Appendix A

Test data

TÜV AMERICA INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 112205

Effective Radiated Power Test for ADC Inc.
Digivance â Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

*Note: The EUT is a fixed repeater and not a base station.

This measurement was made as a direct conducted emission measurement. The output from the EUT antenna connector was connected to the power meter. The carrier output, below, was conducted using a single CW-FM, TDMA, GSM, and CDMA signal generator. The power meter level was offset to compensate for attenuators and cable loss between the EUT and the meter. The power meter head correction factors were calibrated and included for the measurements as well.
A signal was used at the low, mid and high parts of the selected band. The spectrum analyzer level was offset by 31.4 dB to compensate for attenuators and cable loss between the EUT and the analyzer.

CW – FM	**5.32 Watts**	**GSM**	**5.79 Watts**
Band A	(800 MHz)	Band A	(800 MHz)
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
869.0 MHz	37.33 dBm	869.0 MHz	37.63 dBm
880.0MHz	37.17 dBm	880.0 MHz	37.47 dBm
891.5 MHz	37.50 dBm	891.5 MHz	37.57 dBm

TDMA	**6.27 Watts**	**CDMA**	**6.17 Watts**
Band A	(800 MHz)	Band A	(800 MHz)
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
869.0 MHz	37.57 dBm	869.0 MHz	37.60 dBm
880.0 MHz	37.30 dBm	880.0 MHz	37.90 dBm
891.5 MHz	37.97 dBm	891.5 MHz	37.47 dBm

CW – FM	**6.27 Watts**	**GSM**	**5.79 Watts**
Band B	(800 MHz)	Band B	(800 MHz)
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
880.0 MHz	37.33 dBm	880.0 MHz	37.63 dBm
887.0 MHz	37.47 dBm	887.0 MHz	37.17 dBm
894.0 MHz	37.97 dBm	894.0 MHz	37.57 dBm

TDMA	**6.03 Watts**	**CDMA**	**6.11 Watts**
Band B	(800 MHz)	Band B	(800 MHz)
Carrier Frequency	Carrier Output	Carrier Frequency	Carrier Output
869.0 MHz	37.80 dBm	869.0 MHz	37.53 dBm
897.0 MHz	37.30 dBm	887.0 MHz	36.70 dBm
894.0 MHz	37.00 dBm	894.0 MHz	37.86 dBm

Frequency Tolerance Test for ADC Inc.
Digivance â Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

EUT A Band

Input Voltage	Carrier Frequency	Measured Frequency	Meets Requirements?
102 VAC	869.000 MHz	869.000 MHz	Yes
120 VAC	869.000 MHz	869.000 MHz	Yes
138 VAC	869.000 MHz	869.000 MHz	Yes
102 VAC	880.000 MHz	880.000 MHz	Yes
120 VAC	880.000 MHz	880.000 MHz	Yes
138 VAC	880.000 MHz	880.000 MHz	Yes
102 VAC	891.500 MHz	891.500 MHz	Yes
120 VAC	891.500 MHz	891.500 MHz	Yes
138 VAC	891.500 MHz	891.500 MHz	Yes
Temperature	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C	869.000 MHz	869.000 MHz	Yes
-20 Deg. C	869.000 MHz	869.000 MHz	Yes
-10 Deg. C	869.000 MHz	869.000 MHz	Yes
0 Deg. C	869.000 MHz	869.000 MHz	Yes
10 Deg. C	869.000 MHz	869.000 MHz	Yes
20 Deg. C	869.000 MHz	869.000 MHz	Yes
30 Deg. C	869.000 MHz	869.000 MHz	Yes
40 Deg. C	869.000 MHz	869.000 MHz	Yes
50 Deg. C	869.000 MHz	869.000 MHz	Yes
-30 Deg. C	880.000 MHz	880.000 MHz	Yes
-20 Deg. C	880.000 MHz	880.000 MHz	Yes
-10 Deg. C	880.000 MHz	880.000 MHz	Yes
0 Deg. C	880.000 MHz	880.000 MHz	Yes
10 Deg. C	880.000 MHz	880.000 MHz	Yes
20 Deg. C	880.000 MHz	880.000 MHz	Yes
30 Deg. C	880.000 MHz	880.000 MHz	Yes
40 Deg. C	880.000 MHz	880.000 MHz	Yes
50 Deg. C	880.000 MHz	880.000 MHz	Yes
-30 Deg. C	891.500 MHz	891.500 MHz	Yes
-20 Deg. C	891.500 MHz	891.500 MHz	Yes
-10 Deg. C	891.500 MHz	891.500 MHz	Yes
0 Deg. C	891.500 MHz	891.500 MHz	Yes
10 Deg. C	891.500 MHz	891.500 MHz	Yes
20 Deg. C	891.500 MHz	891.500 MHz	Yes
30 Deg. C	891.500 MHz	891.500 MHz	Yes
40 Deg. C	891.500 MHz	891.500 MHz	Yes
50 Deg. C	891.500 MHz	891.500 MHz	Yes

Frequency Tolerance Test for ADC Inc.
Digivance â Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

EUT B Band

Input Voltage	Carrier Frequency	Measured Frequency	Meets Requirements?
102 VAC	880.000 MHz	880.000 MHz	Yes
120 VAC	880.000 MHz	880.000 MHz	Yes
138 VAC	880.000 MHz	880.000 MHz	Yes
102 VAC	887.000 MHz	887.000 MHz	Yes
120 VAC	887.000 MHz	887.000 MHz	Yes
138 VAC	887.000 MHz	887.000 MHz	Yes
102 VAC	894.000 MHz	894.000 MHz	Yes
120 VAC	894.000 MHz	894.000 MHz	Yes
138 VAC	894.000 MHz	894.000 MHz	Yes
Temperature	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C	880.000 MHz	880.000 MHz	Yes
-20 Deg. C	880.000 MHz	880.000 MHz	Yes
-10 Deg. C	880.000 MHz	880.000 MHz	Yes
0 Deg. C	880.000 MHz	880.000 MHz	Yes
10 Deg. C	880.000 MHz	880.000 MHz	Yes
20 Deg. C	880.000 MHz	880.000 MHz	Yes
30 Deg. C	880.000 MHz	880.000 MHz	Yes
40 Deg. C	880.000 MHz	880.000 MHz	Yes
50 Deg. C	880.000 MHz	880.000 MHz	Yes
-30 Deg. C	887.000 MHz	887.000 MHz	Yes
-20 Deg. C	887.000 MHz	887.000 MHz	Yes
-10 Deg. C	887.000 MHz	887.000 MHz	Yes
0 Deg. C	887.000 MHz	887.000 MHz	Yes
10 Deg. C	887.000 MHz	887.000 MHz	Yes
20 Deg. C	887.000 MHz	887.000 MHz	Yes
30 Deg. C	887.000 MHz	887.000 MHz	Yes
40 Deg. C	887.000 MHz	887.000 MHz	Yes
50 Deg. C	887.000 MHz	887.000 MHz	Yes
-30 Deg. C	894.000 MHz	894.000 MHz	Yes
-20 Deg. C	894.000 MHz	894.000 MHz	Yes
-10 Deg. C	894.000 MHz	894.000 MHz	Yes
0 Deg. C	894.000 MHz	894.000 MHz	Yes
10 Deg. C	894.000 MHz	894.000 MHz	Yes
20 Deg. C	894.000 MHz	894.000 MHz	Yes
30 Deg. C	894.000 MHz	894.000 MHz	Yes
40 Deg. C	894.000 MHz	894.000 MHz	Yes
50 Deg. C	894.000 MHz	894.000 MHz	Yes

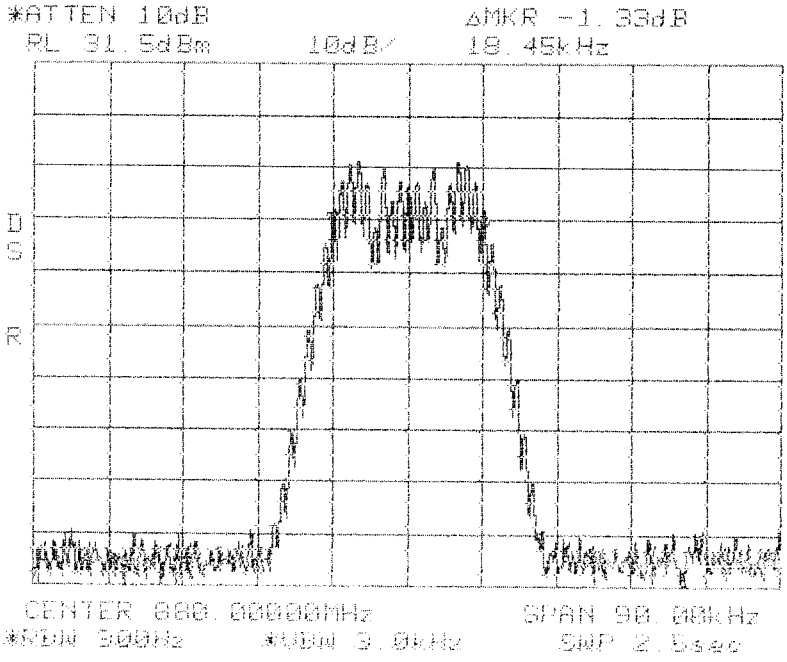
Occupied Bandwidth Modulation Test for ADC Inc.
Digivance â Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

An input/output Occupied Bandwidth test was done with modulation types: FM, TDMA, GSM, and CDMA. The purpose was to determine the amount of distortion added to different types of modulation schemes by the EUT. The following plots show input signals vs. output signals.

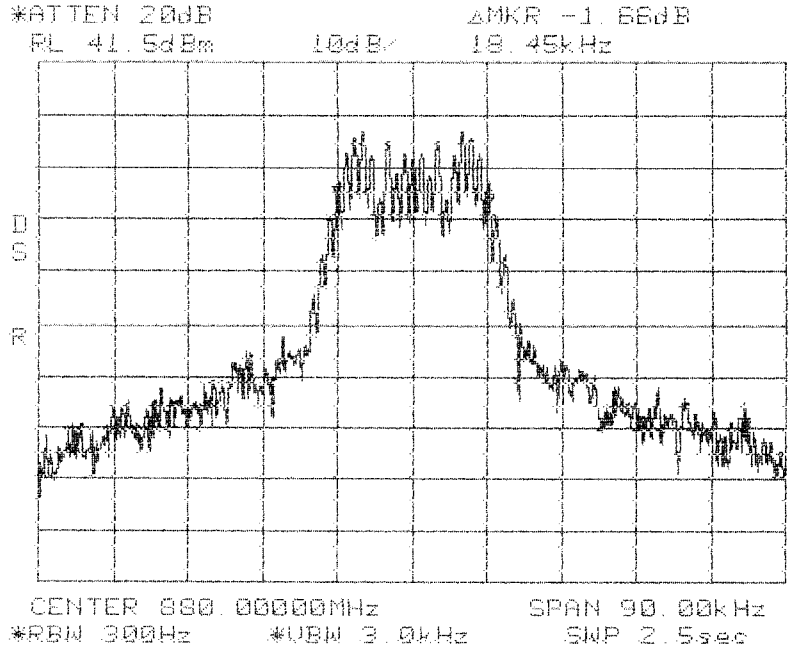
Results:

Pass (see plots)

Center: 880.0 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz



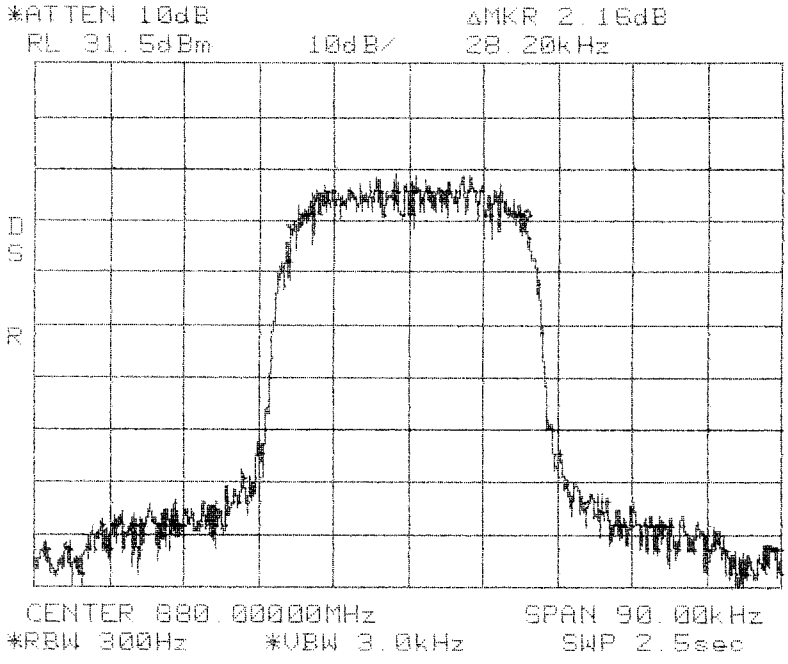
Occupied Bandwidth
FM In
Cellular 800 MHz
A Band



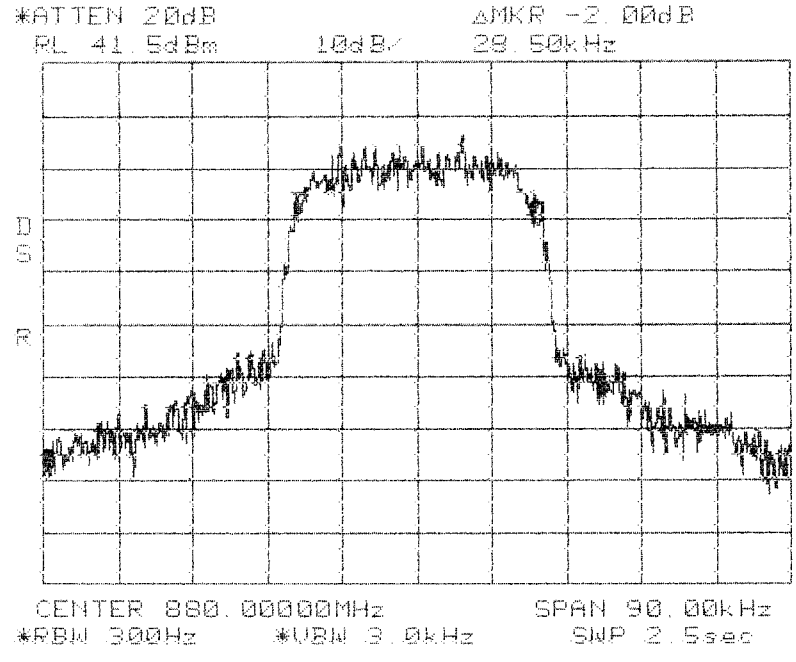
Occupied Bandwidth
FM Out
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz

Center: 880.0 MHz
Span: 90 kHz
RBW/VBW: 300 Hz / 3 kHz



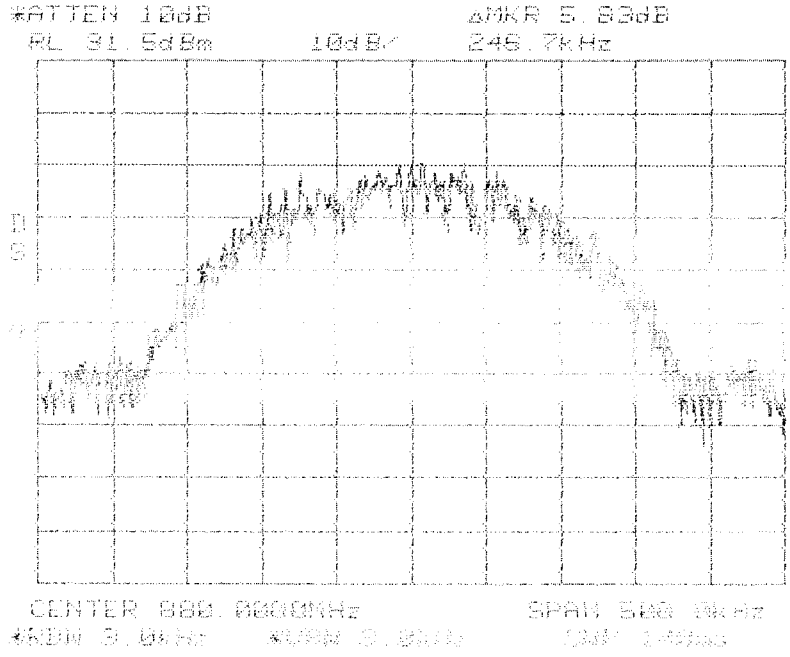
Occupied Bandwidth
TDMA In
Cellular 800 MHz
A Band



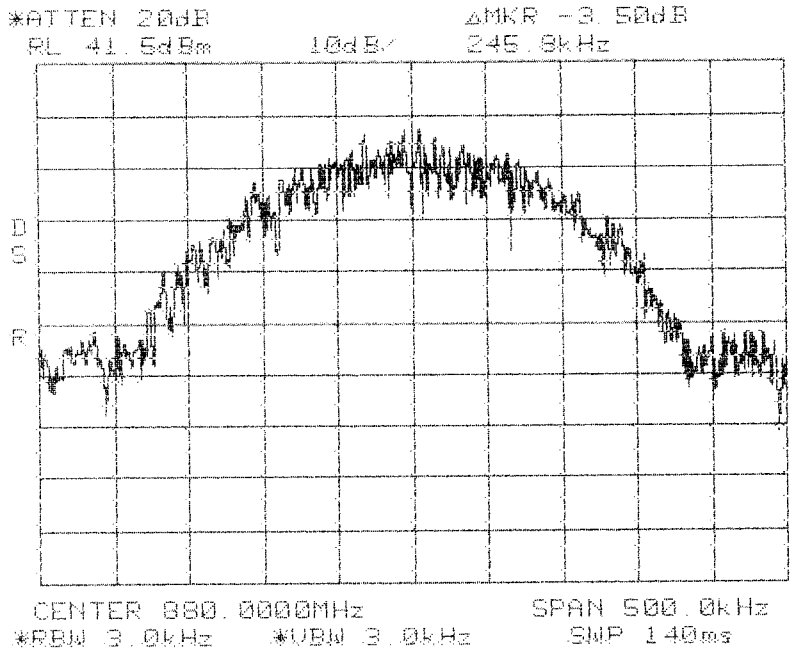
Occupied Bandwidth
TDMA Out
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 90 kHz
RBW/VBW: 300 Hz / 3 kHz

Center: 880.0 MHz
Span: 500 KHz
RBW/VBW: 3 kHz / 3 kHz



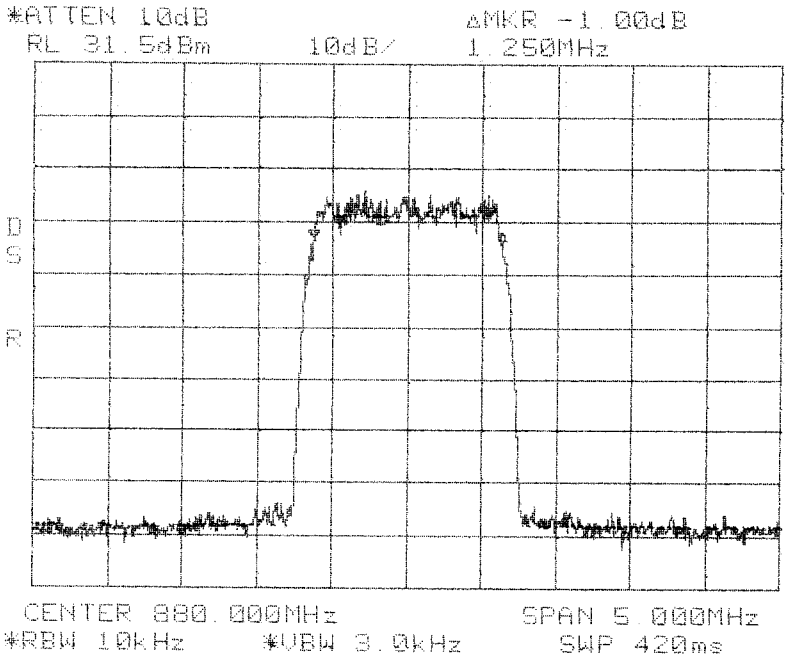
Occupied Bandwidth
GSM In
Cellular 800 MHz
A Band



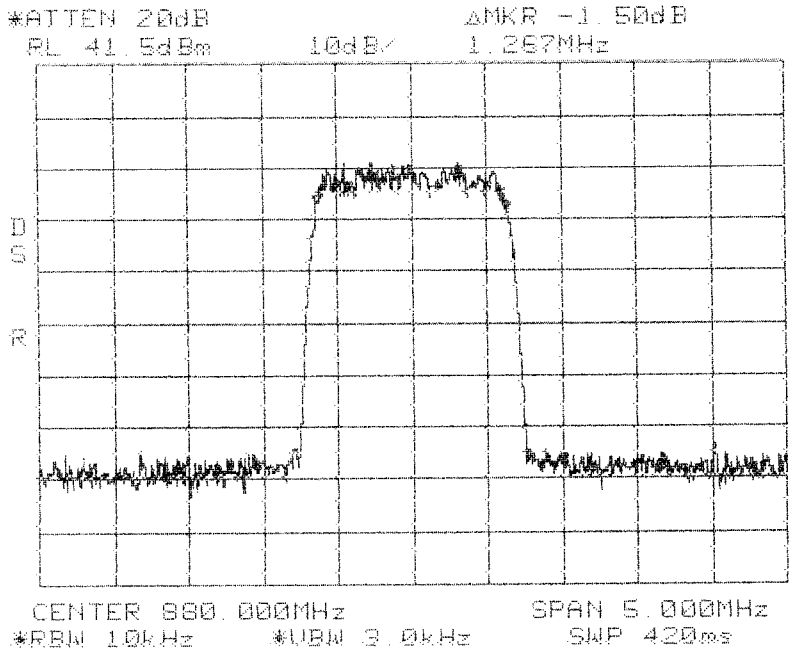
Occupied Bandwidth
GSM Out
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 500 KHz
RBW/VBW: 3 kHz / 3 kHz

Center: 880.0 MHz
Span: 5 MHz
RBW/VBW: 10 kHz / 3 kHz



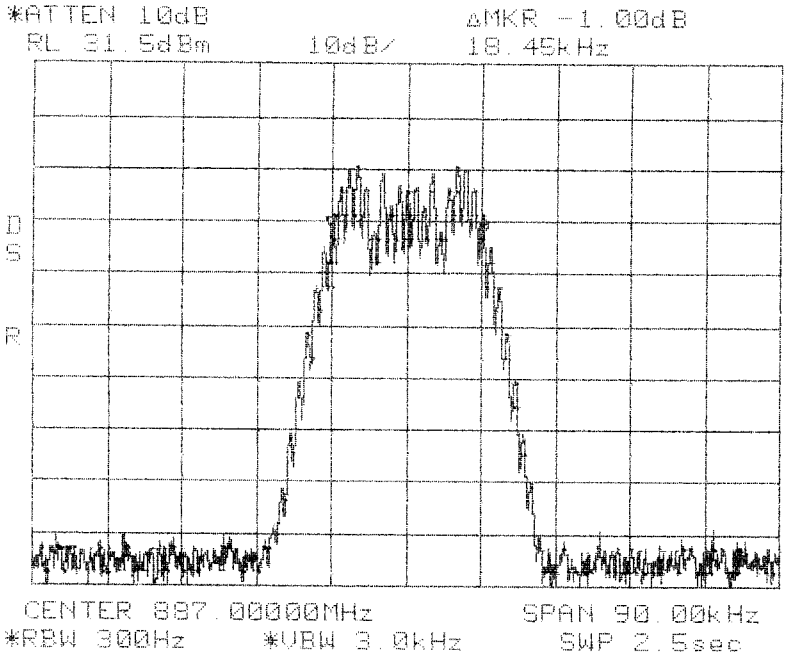
Occupied Bandwidth
CDMA In
Cellular 800 MHz
A Band



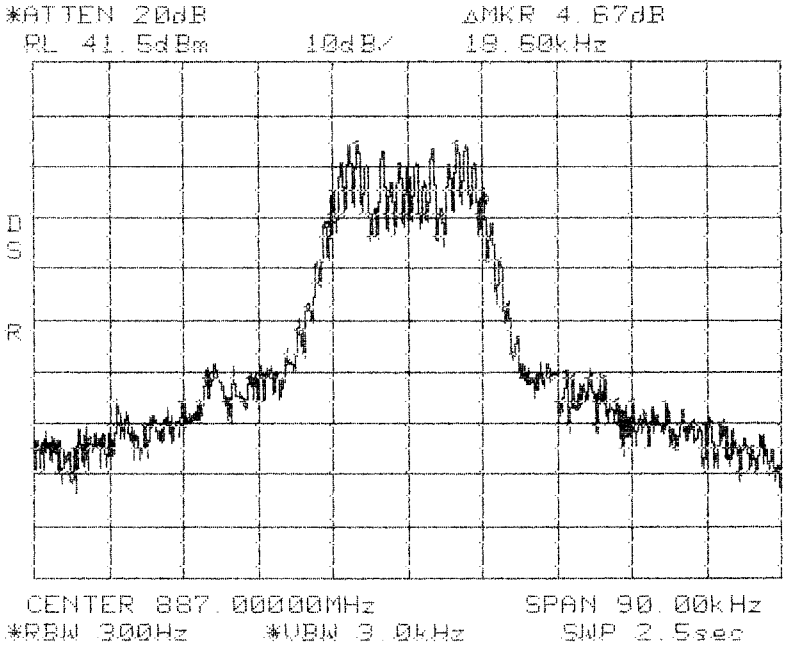
Occupied Bandwidth
CDMA Out
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 5 MHz
RBW/VBW: 10 kHz / 3 kHz

Center: 887.0 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz



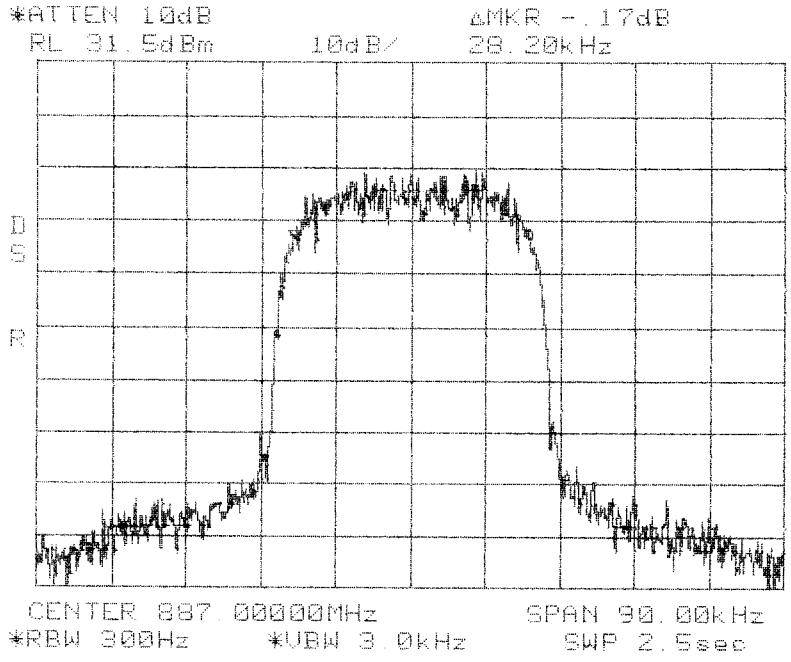
Occupied Bandwidth
FM In
Cellular 800 MHz
B Band



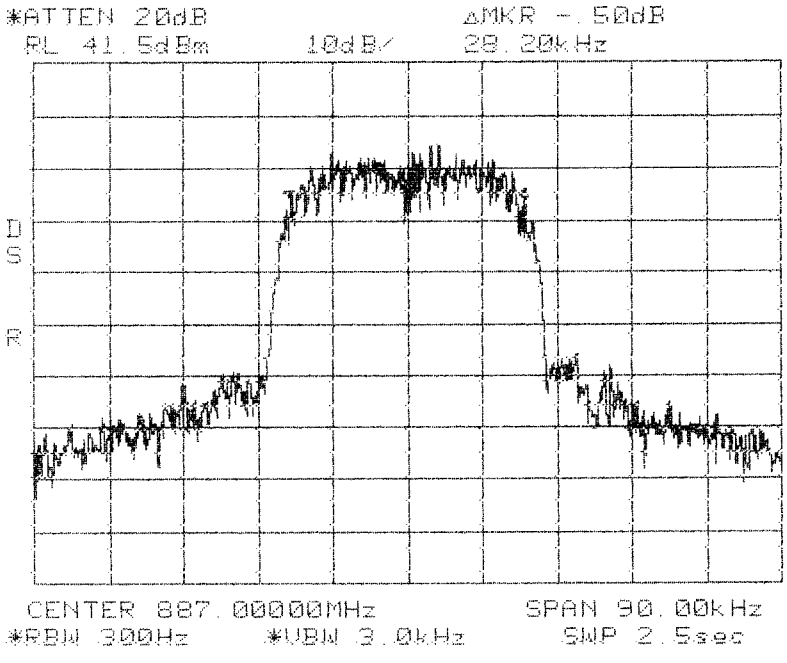
Occupied Bandwidth
FM Out
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz

Center: 887.0 MHz
Span: 90 kHz
RBW/VBW: 300 Hz / 3 kHz



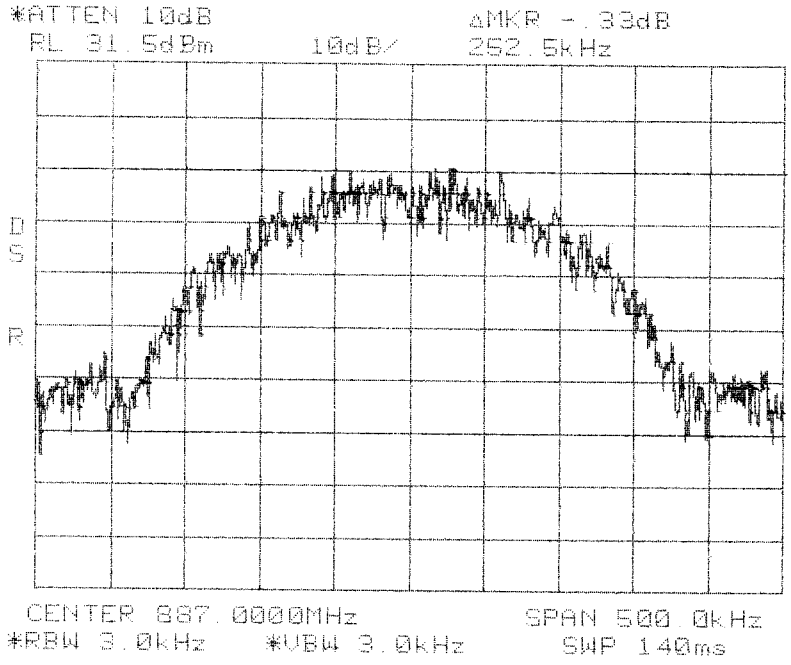
Occupied Bandwidth
TDMA In
Cellular 800 MHz
B Band



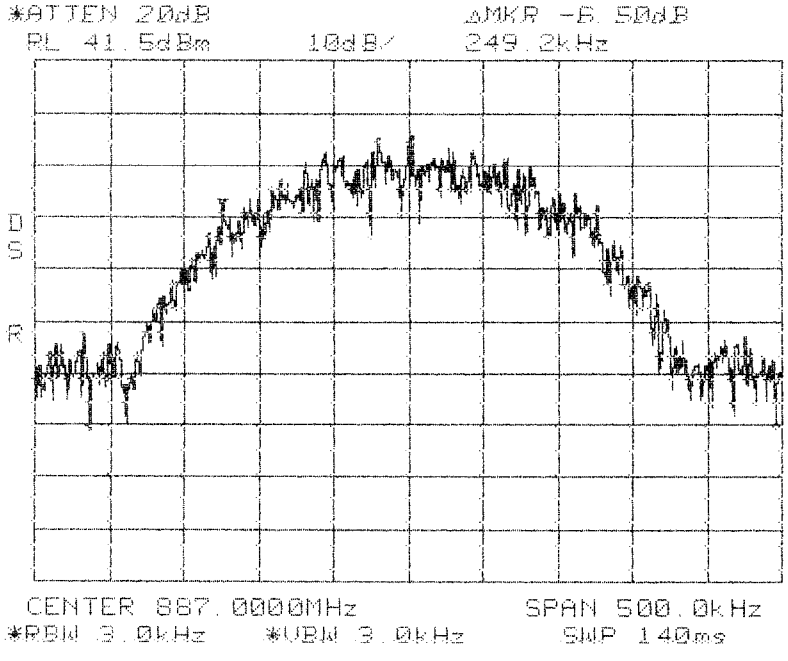
Occupied Bandwidth
TDMA Out
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 90 kHz
RBW/VBW: 300 Hz / 3 kHz

Center: 887.0 MHz
Span: 500 KHz
RBW/VBW: 3 kHz / 3 kHz



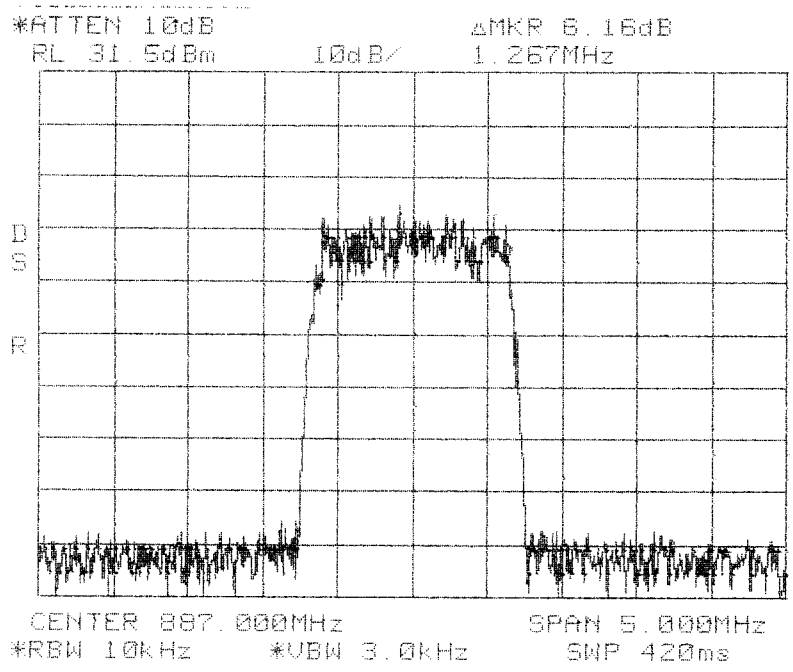
Occupied Bandwidth
GSM In
Cellular 800 MHz
B Band



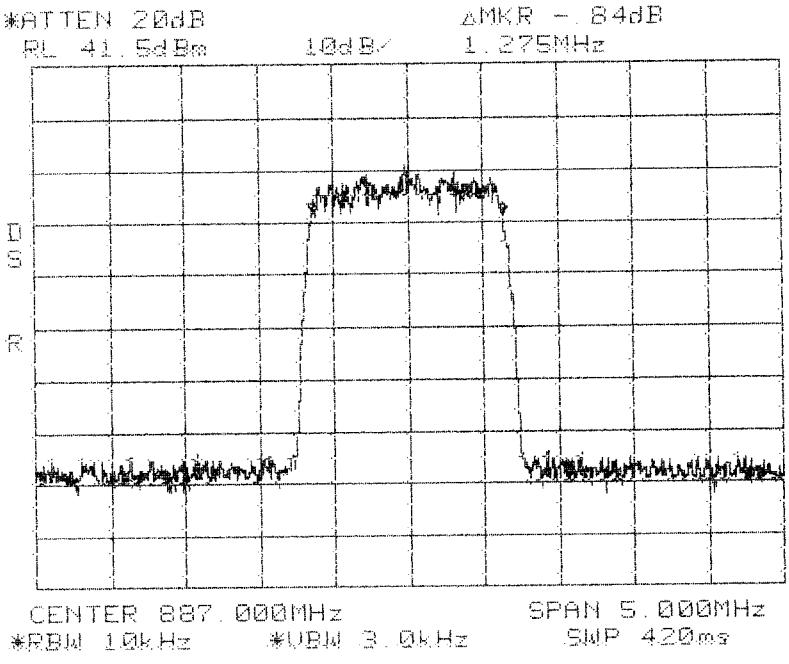
Occupied Bandwidth
GSM Out
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 500 KHz
RBW/VBW: 3 kHz / 3 kHz

Center: 887.0 MHz
Span: 5 MHz
RBW/VBW: 10 kHz / 3 kHz



Occupied Bandwidth
CDMA In
Cellular 800 MHz
B Band



Occupied Bandwidth
CDMA Out
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 5 MHz
RBW/VBW: 10 kHz / 3 kHz

Conducted Emission Limits Test for ADC Inc.
Digivance â Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

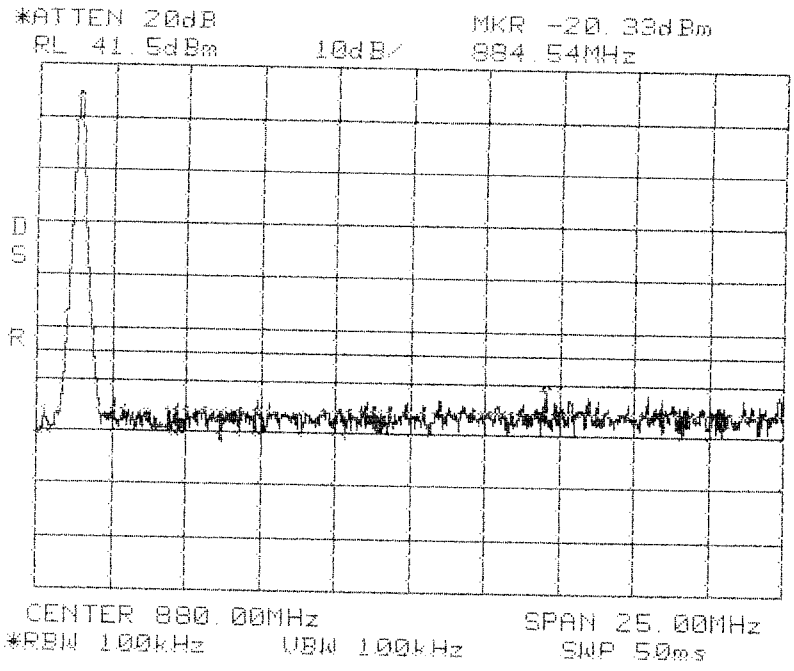
The out of band emissions were measured directly from the EUT antenna output with a spectrum analyzer from 30 MHz to the 10th harmonic of the highest carrier frequency. Test signals used are FM, TDMA, GSM, and CDMA. The different signals were input one at a time to the EUT. In all cases, the out of band emissions were less than –13dBm from the equation

(19dBm – [43 + 10log(0.08W)])

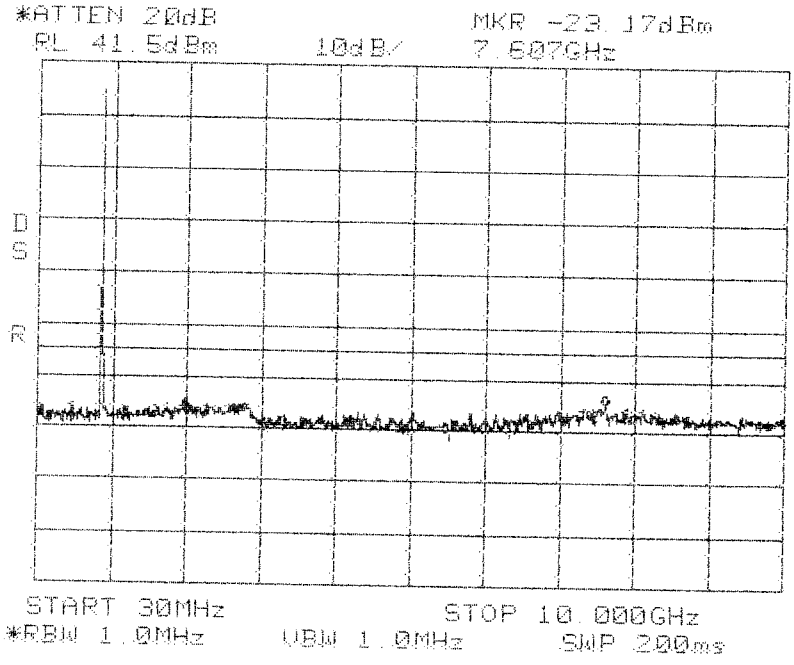
Band edge compliance is also demonstrated using a FM, TDMA, GSM, and CDMA signal at the upper and lower limits of the band and a resolution bandwidth of 300 Hz.

Results:
Pass (See plots)

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



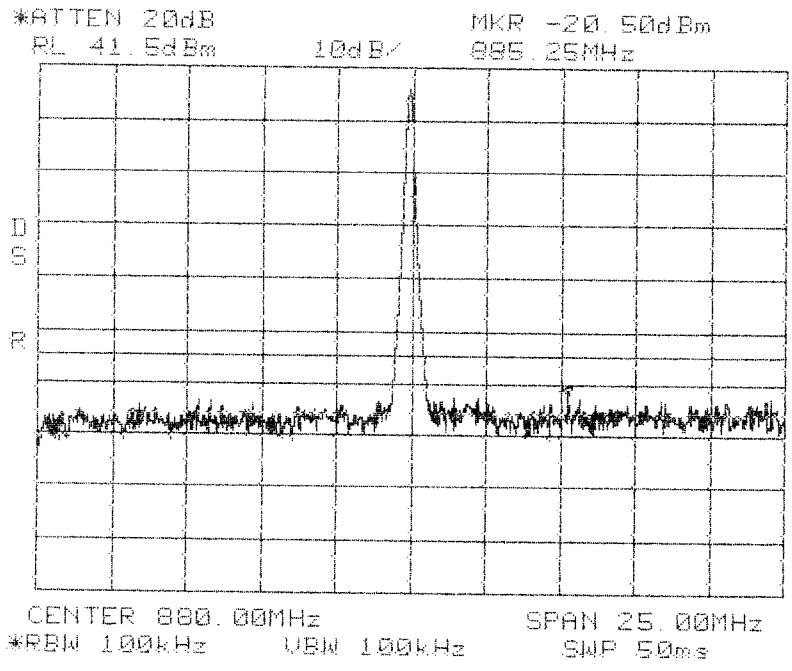
Conducted Emissions
Low
Cellular 800 MHz
A Band



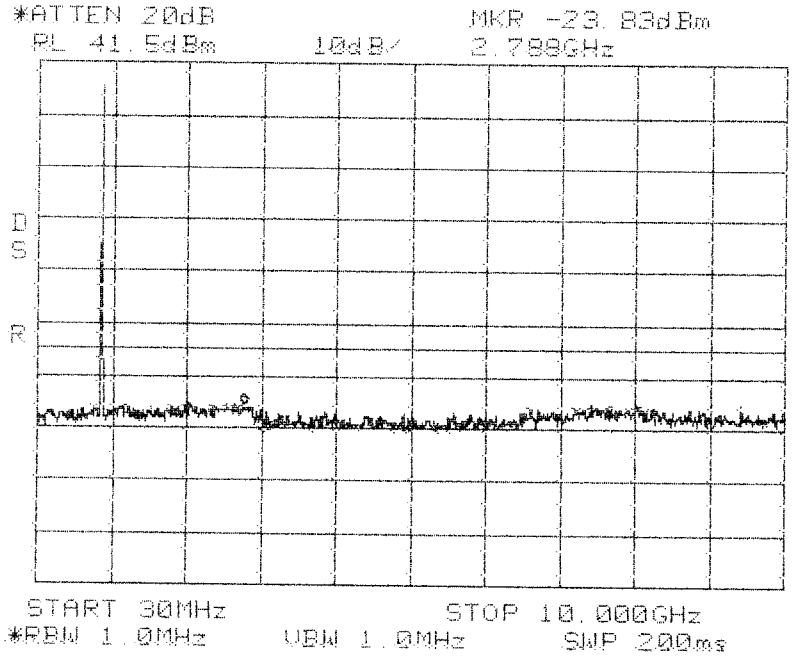
Conducted Emissions
Low
Cellular 800 MHz
A Band

Span: 30 MHz to 10 GHz
RBW/VBW: 1 MHz

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



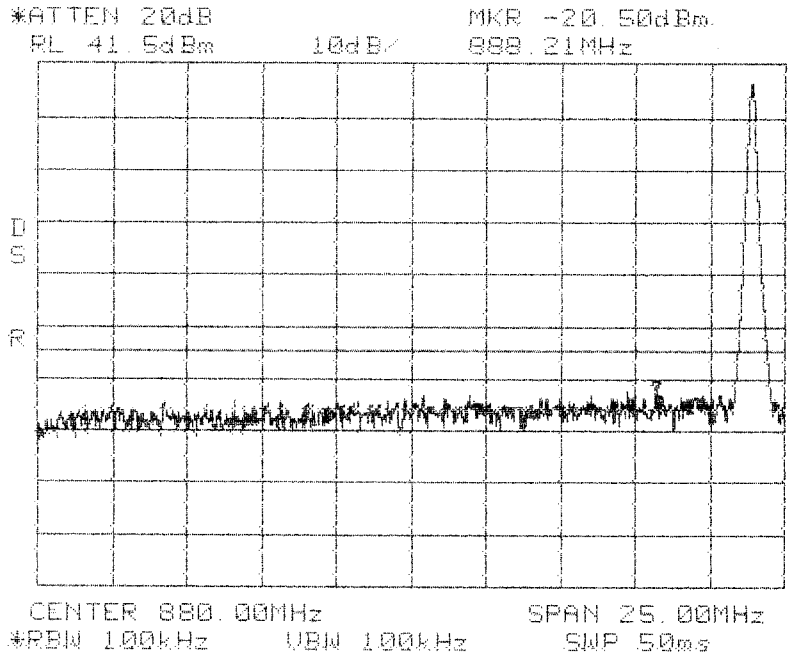
Conducted Emissions
Mid
Cellular 800 MHz
A Band



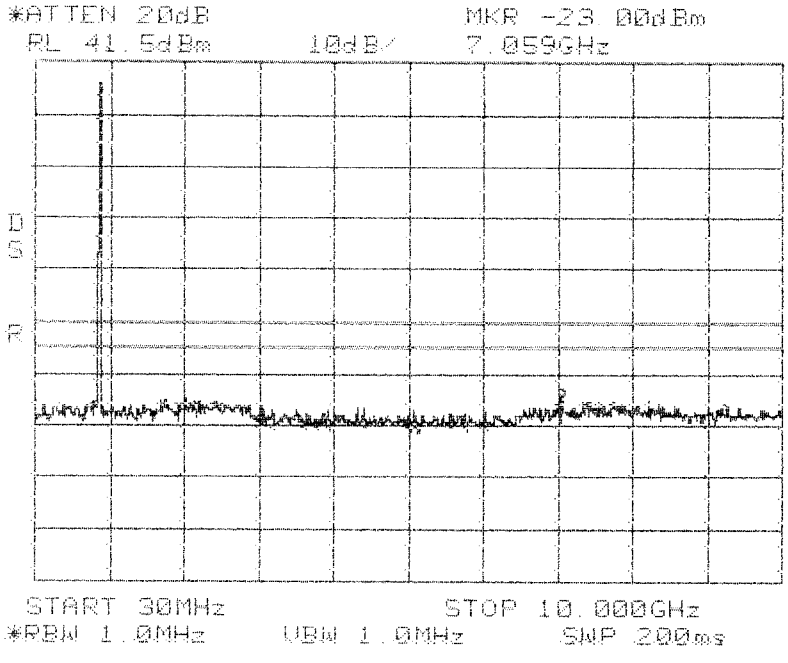
Conducted Emissions
Mid
Cellular 800 MHz
A Band

Span: 30 MHz to 10 GHz
RBW/VBW: 1 MHz

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



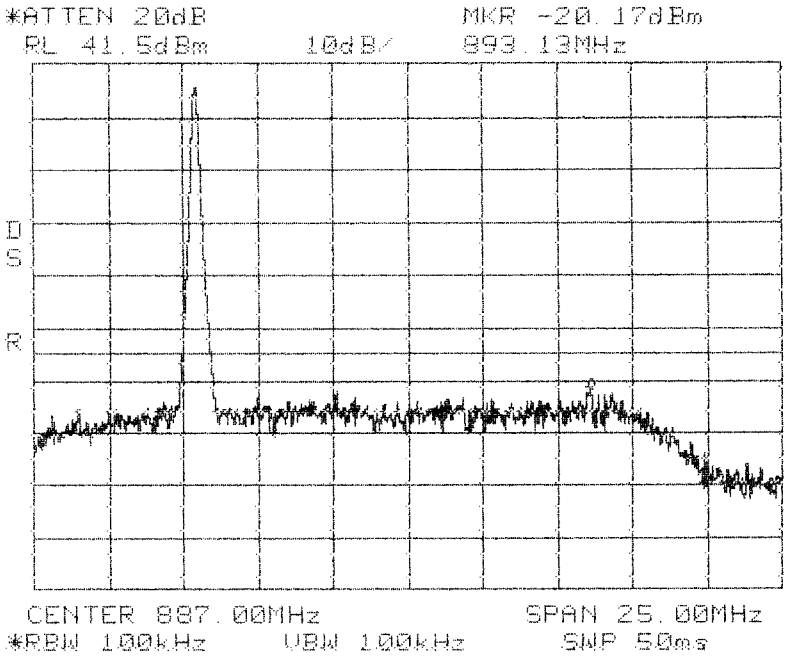
Conducted Emissions
High
Cellular 800 MHz
A Band



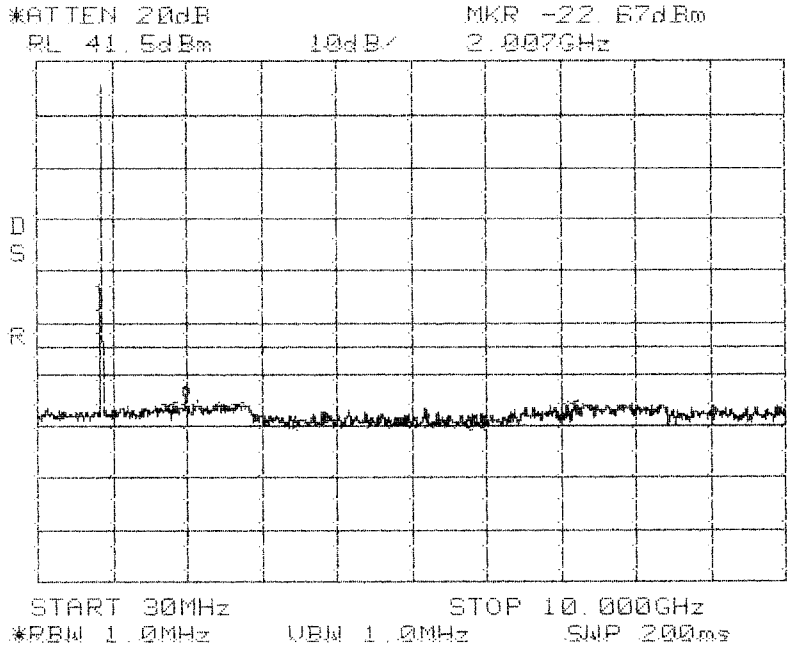
Conducted Emissions
High
Cellular 800 MHz
A Band

Span: 30 MHz to 10 GHz
RBW/VBW: 1 MHz

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



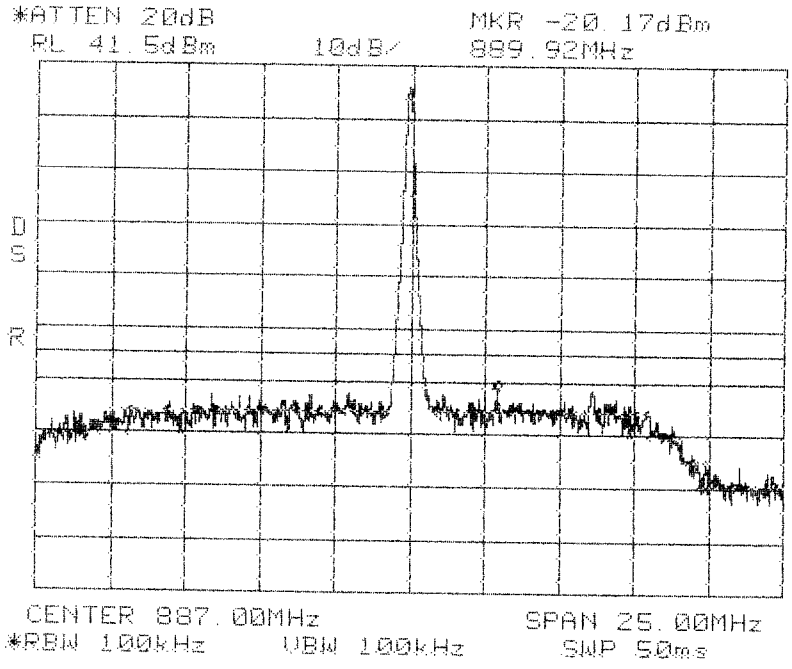
Conducted Emissions
Low
Cellular 800 MHz
B Band



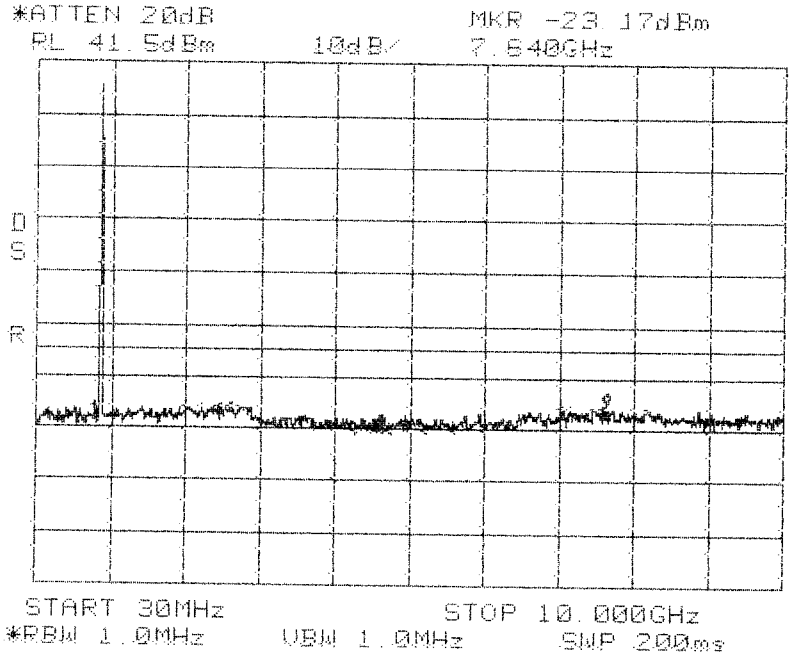
Conducted Emissions
Low
Cellular 800 MHz
B Band

Span: 30 MHz to 10 GHz
RBW/VBW: 1 MHz

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



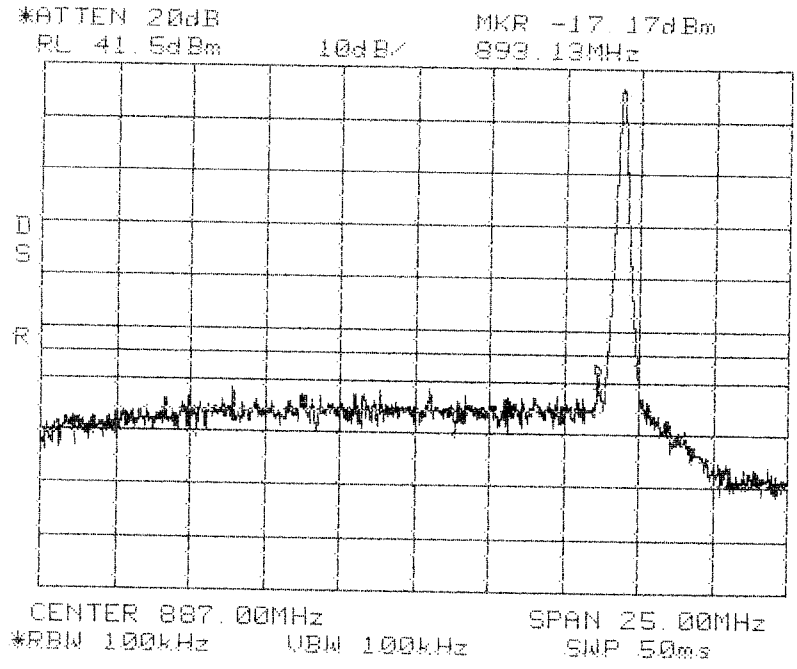
Conducted Emissions
Mid
Cellular 800 MHz
B Band



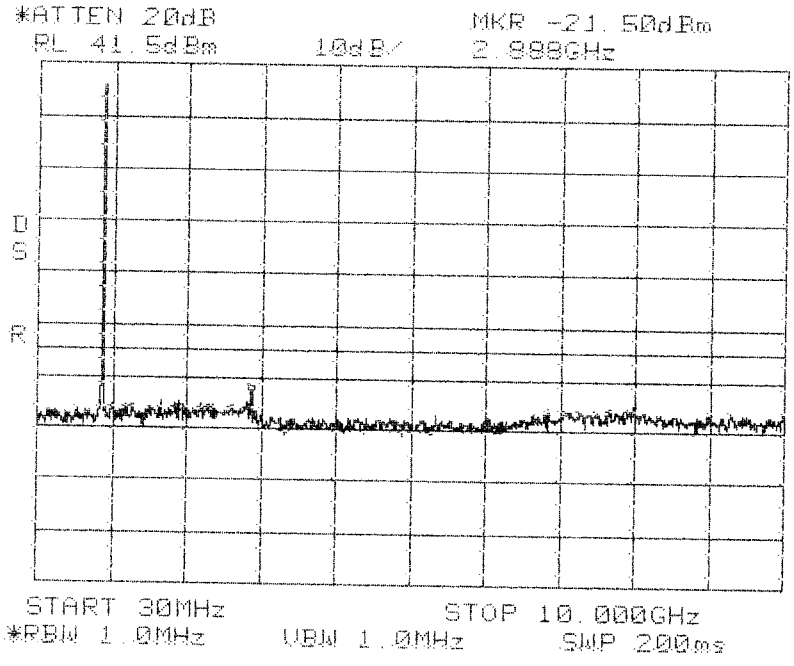
Conducted Emissions
Mid
Cellular 800 MHz
B Band

Span: 30 MHz to 10 GHz
RBW/VBW: 1 MHz

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



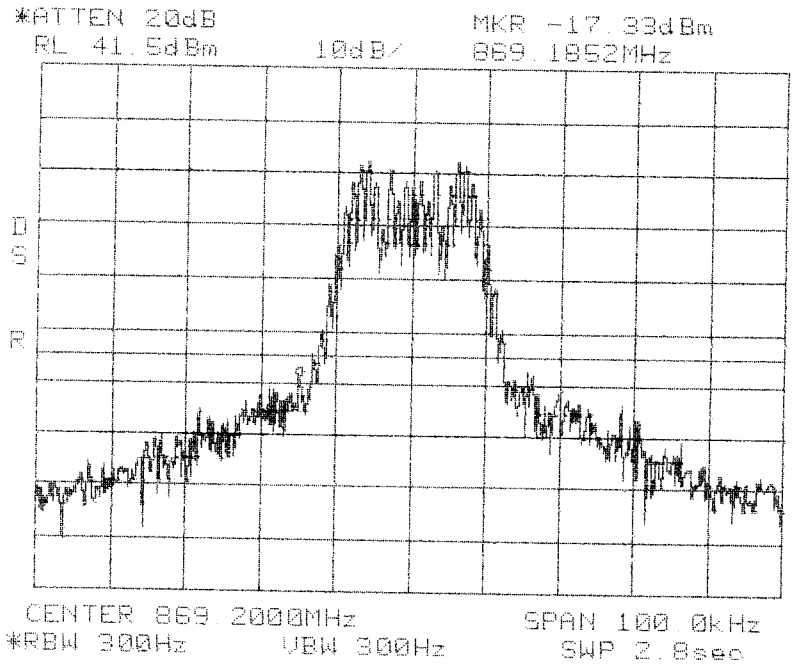
Conducted Emissions
High
Cellular 800 MHz
B Band



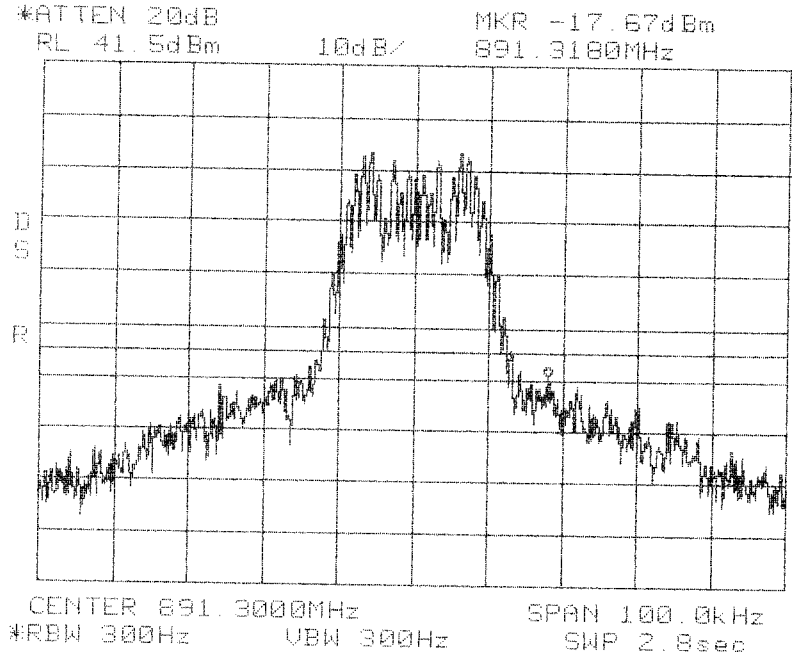
Conducted Emissions
High
Cellular 800 MHz
B Band

Span: 30 MHz to 10 GHz
RBW/VBW: 1 MHz

Center: 869.2 MHz
Span: 100 kHz
RBW/VBW: 300 Hz / 300 Hz



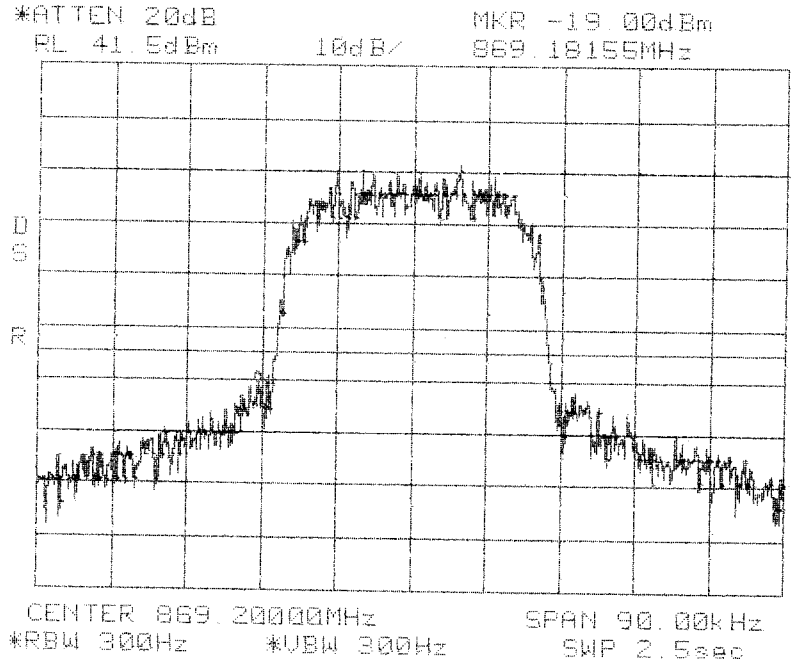
Conducted Emissions
Band Edge
FM
Cellular 800 MHz
A Band



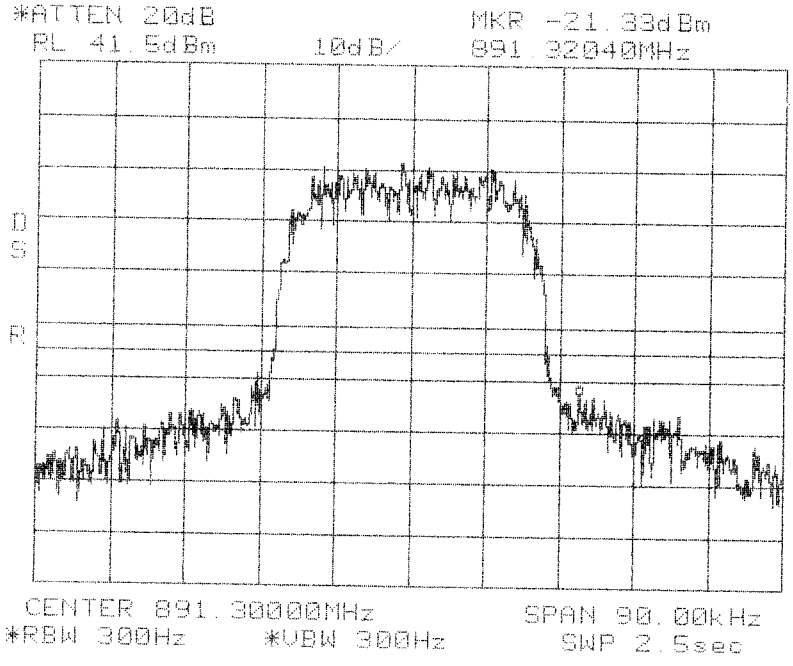
Conducted Emissions
Band Edge
FM
Cellular 800 MHz
A Band

Center: 891.3 MHz
Span: 100 kHz
RBW/VBW: 300 Hz / 300 Hz

Center: 869.2 MHz
Span: 90 kHz
RBW/VBW: 300 Hz / 300 Hz



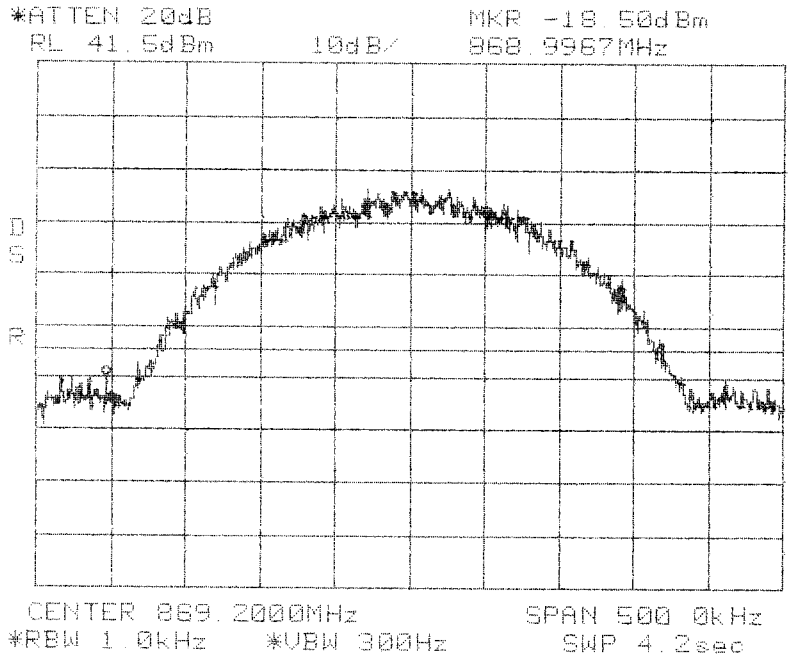
Conducted Emissions
Band Edge
TDMA
Cellular 800 MHz
A Band



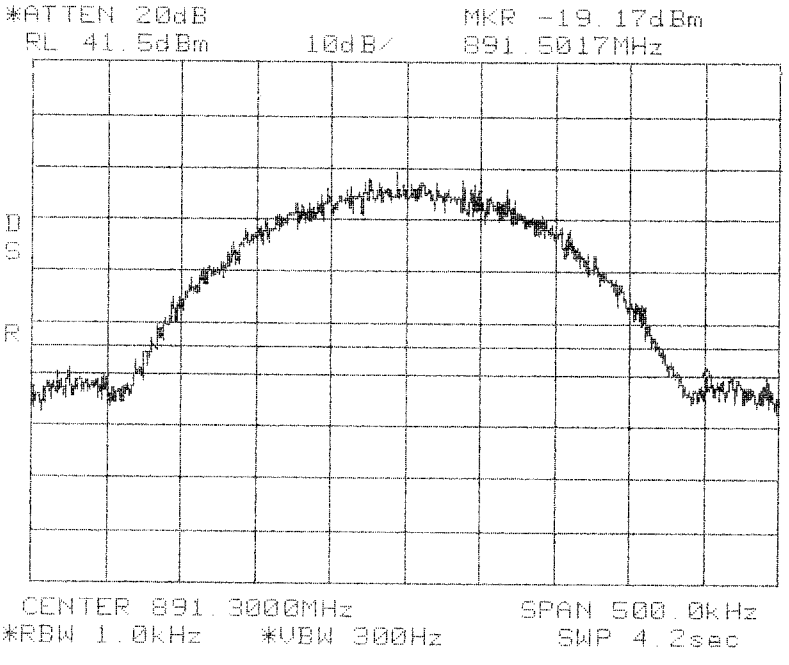
Conducted Emissions
Band Edge
TDMA
Cellular 800 MHz
A Band

Center: 891.3 MHz
Span: 90 kHz
RBW/VBW: 300 Hz / 300 Hz

Center: 869.2 MHz
Span: 500 kHz
RBW/VBW: 1 kHz / 300 Hz



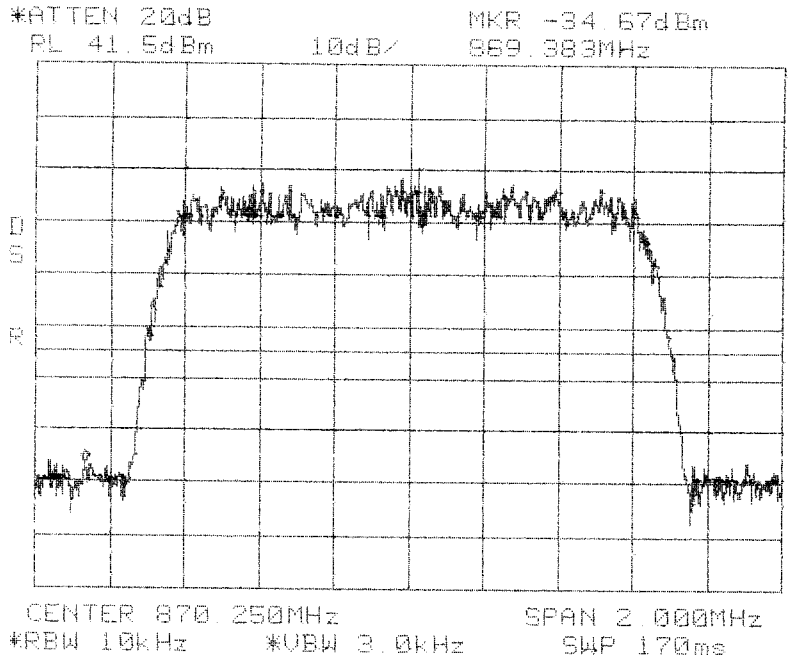
Conducted Emissions
Band Edge
GSM
Cellular 800 MHz
A Band



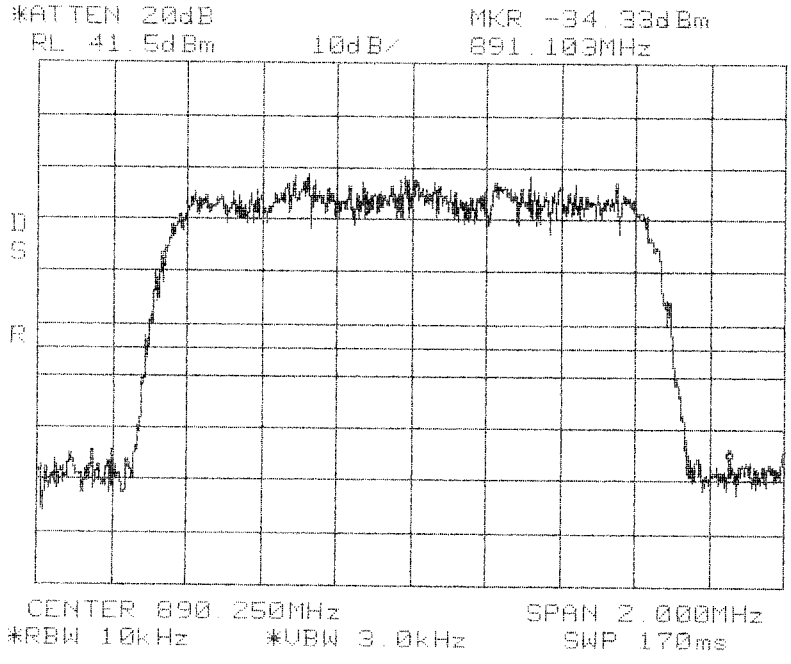
Conducted Emissions
Band Edge
GSM
Cellular 800 MHz
A Band

Center: 891.3 MHz
Span: 500 kHz
RBW/VBW: 1 kHz / 300 Hz

Center: 870.25 MHz
Span: 2 MHz
RBW/VBW: 10 kHz / 3 kHz



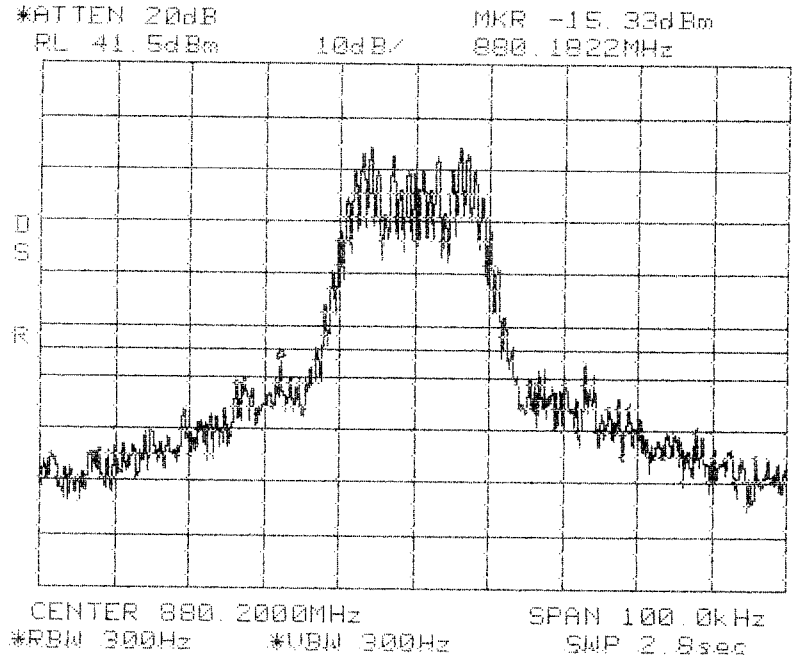
Conducted Emissions
Band Edge
CDMA
Cellular 800 MHz
A Band



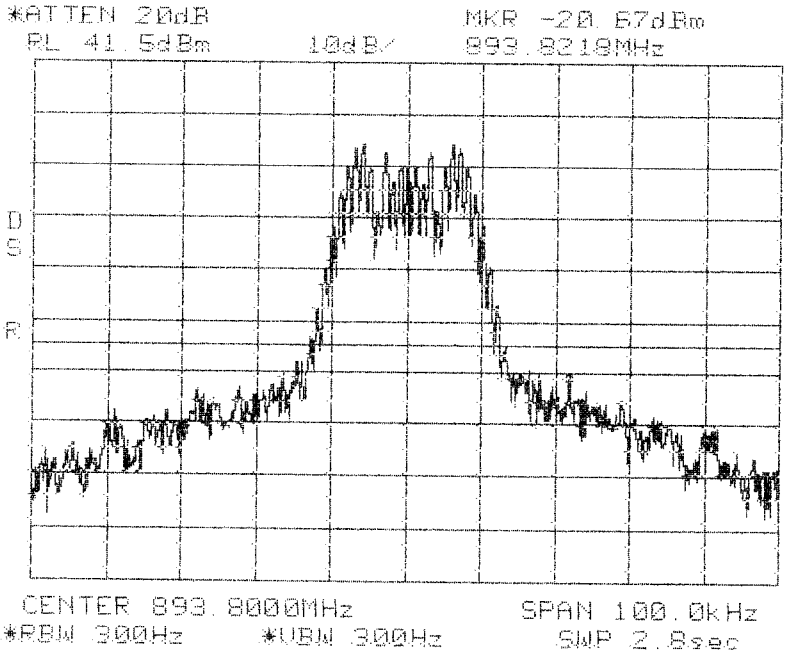
Conducted Emissions
Band Edge
CDMA
Cellular 800 MHz
A Band

Center: 890.25 MHz
Span: 2 MHz
RBW/VBW: 10 kHz / 3 kHz

Center: 880.2 MHz
Span: 100 kHz
RBW/VBW: 300 Hz / 300 Hz



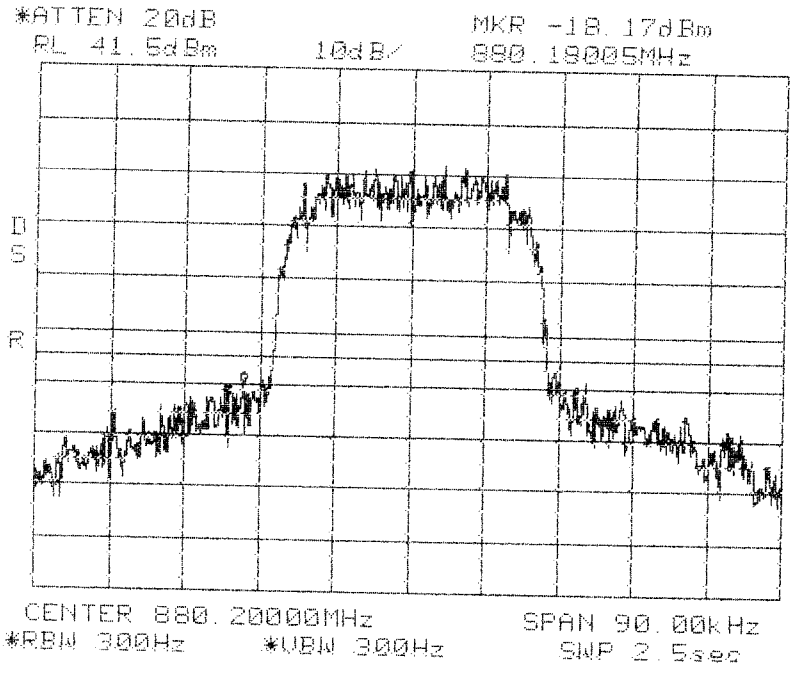
Conducted Emissions
Band Edge
FM
Cellular 800 MHz
B Band



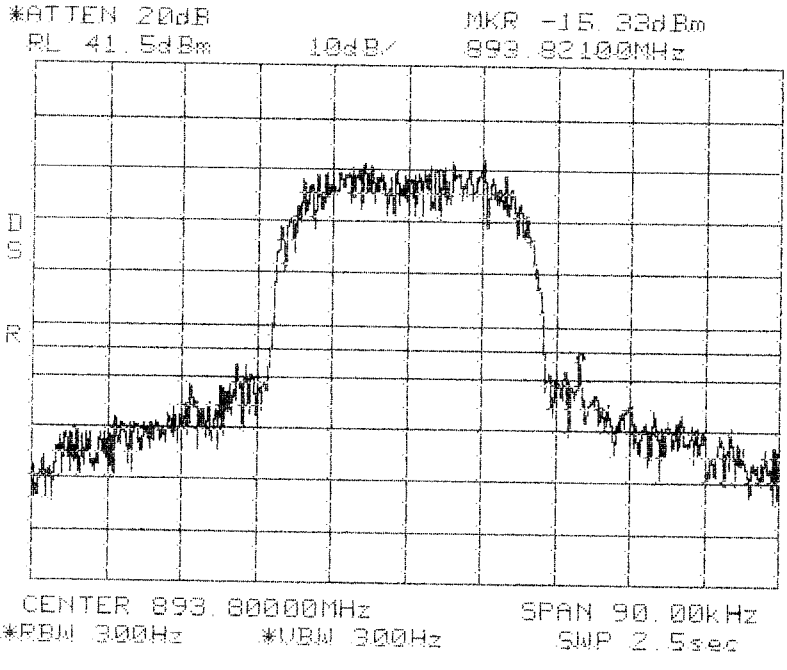
Conducted Emissions
Band Edge
FM
Cellular 800 MHz
B Band

Center: 893.8 MHz
Span: 100 kHz
RBW/VBW: 300 Hz / 300 Hz

Center: 880.2 MHz
Span: 90 kHz
RBW/VBW: 300 Hz / 300 Hz



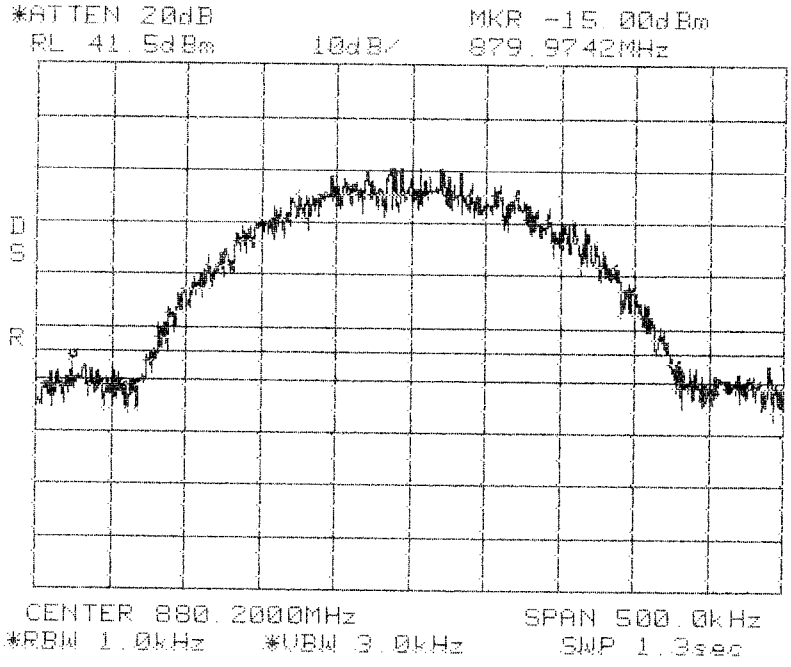
Conducted Emissions
Band Edge
TDMA
Cellular 800 MHz
B Band



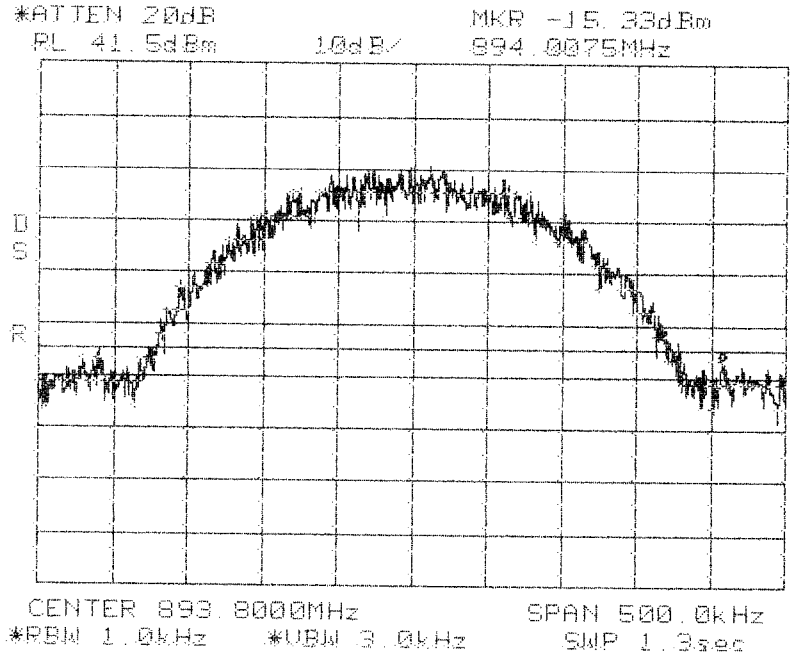
Conducted Emissions
Band Edge
TDMA
Cellular 800 MHz
B Band

Center: 893.8 MHz
Span: 90 kHz
RBW/VBW: 300 Hz / 300 Hz

Center: 880.2 MHz
Span: 500 kHz
RBW/VBW: 1 kHz / 300 Hz



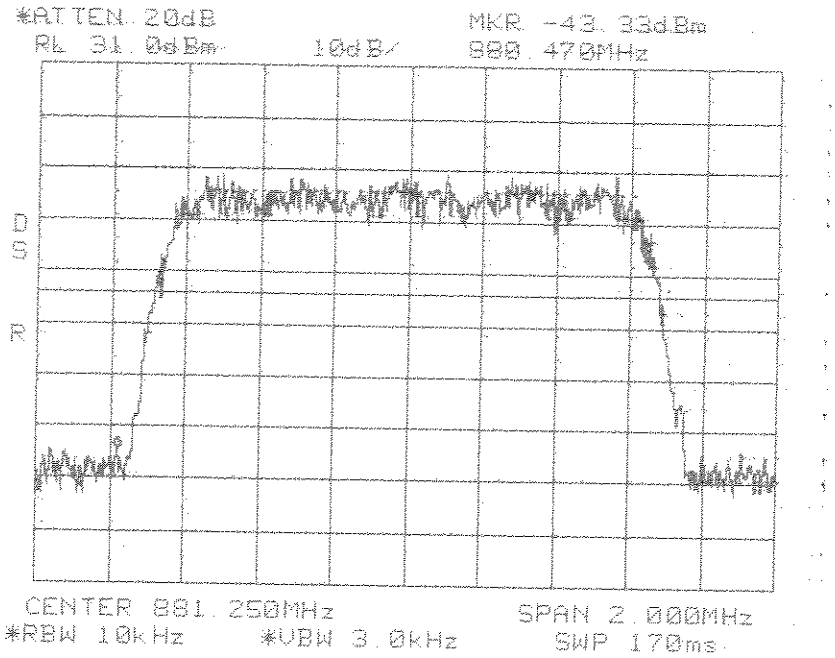
Conducted Emissions
Band Edge
GSM
Cellular 800 MHz
B Band



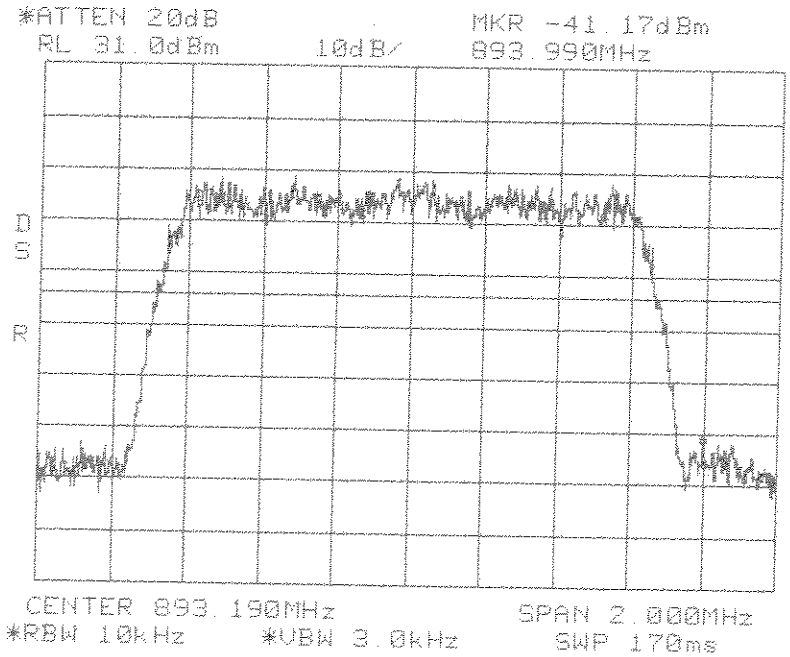
Conducted Emissions
Band Edge
GSM
Cellular 800 MHz
B Band

Center: 893.8 MHz
Span: 500 kHz
RBW/VBW: 1 kHz / 300 Hz

Center: 881.25 MHz
Span: 2 MHz
RBW/VBW: 10 kHz / 3 kHz



Conducted Emissions
Band Edge
CDMA
Cellular 800 MHz
B Band



Conducted Emissions
Band Edge
CDMA
Cellular 800 MHz
B Band

Center: 893.19 MHz
Span: 2 MHz
RBW/VBW: 10 kHz / 3 kHz

Equivalent Isotropically Radiated Power (EIRP) Substitution

Company: ADC Inc.
EUT: DGVL461110SYS
Date: 11/10/05
Tested By: Joe Sausen

SUBSTITUTION PERFORMED

Plug in freq, final dBuV/m, Matching Sig gen level, and cable loss
(if using antenna other than dipole also enter ant. Gain) - final matching dBm will automatically be calculated in column F. (Final dBm = Sig gen level (dBm) - Cable loss + Ant. Gain)
Schwarzbeck dipole antenna gain : 2.15dBi -10dB + 1.64dB = -6.21
2.15dBi theoretical gain of a dipole, 10dB internal attenuator, 1.64dB correction for 73 / 50 ohm balun

Freq. (MHz)	Final (dBuV/m)	Matches Sig Gen Level (dBm)	Cable Loss (dB)	Dipole Ant. Gain (dB)	Matches Final (dBm)
426	68.8	-31.3	1.6	-6.21	-39.11

SUBSTITUTION EXTRAPOLATED TO OTHER SPURIOUS EMISSIONS

Enter any more spurious frequencies and final dBuV/m. Corresponding final power levels will automatically be calculated.

Freq. MHz	Final dBuV/m	Correction Factor	Final dBm	Final uW
426	68.8	107.91	-39.11	0.122744
425.971	71.2	107.91	-36.71	0.213304
141.97	54.64	107.91	-53.27	0.004710
709.963	53.05	107.91	-54.86	0.003266
425.971	52.92	107.91	-54.99	0.003170

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	1 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
Note 869 MHz Tx setting						
38.248 MHz	45.4 Qp	0.49 / 16.7 / 27.17 / 0.0	35.42	H / 1.00 / 0	-72.49	-59.49
44.866 MHz	45.15 Qp	0.6 / 14.64 / 27.06 / 0.0	33.33	H / 1.00 / 0	-74.58	-61.58
57.616 MHz	35.05 Qp	0.6 / 11.32 / 27.0 / 0.0	19.97	H / 1.00 / 0	-87.94	-74.94
64.516 MHz	32.55 Qp	0.69 / 9.5 / 27.0 / 0.0	15.74	H / 1.00 / 0	-92.17	-79.17
68.176 MHz	34.25 Qp	0.7 / 8.66 / 27.0 / 0.0	16.61	H / 1.00 / 0	-91.3	-78.3
69.219 MHz	37.1 Qp	0.7 / 8.48 / 27.0 / 0.0	19.28	H / 1.00 / 0	-88.63	-75.63
77.674 MHz	46.0 Qp	0.76 / 7.13 / 26.94 / 0.0	26.95	H / 1.00 / 0	-80.96	-67.96
83.295 MHz	40.85 Qp	0.8 / 6.83 / 26.9 / 0.0	21.58	H / 1.00 / 0	-86.33	-73.33
99.754 MHz	43.3 Qp	0.88 / 8.28 / 27.0 / 0.0	25.46	H / 1.00 / 0	-82.45	-69.45
106.108 MHz	42.9 Qp	0.81 / 8.48 / 27.01 / 0.0	25.18	H / 1.00 / 0	-82.73	-69.73
121.408 MHz	32.8 Qp	0.9 / 7.82 / 27.1 / 0.0	14.42	H / 1.00 / 0	-93.49	-80.49
135.208 MHz	32.85 Qp	1.0 / 7.42 / 27.0 / 0.0	14.27	H / 1.00 / 0	-93.64	-80.64
141.97 MHz	62.05 Qp	1.0 / 8.32 / 26.97 / 0.0	44.39	H / 1.00 / 0	-63.52	-50.52
184.841 MHz	32.85 Qp	1.11 / 9.48 / 27.1 / 0.0	16.34	H / 1.00 / 0	-91.57	-78.57
187.54 MHz	35.45 Qp	1.13 / 9.6 / 27.1 / 0.0	19.08	H / 1.00 / 0	-88.83	-75.83
197.327 MHz	30.4 Qp	1.2 / 9.85 / 27.1 / 0.0	14.35	H / 1.00 / 0	-93.56	-80.56
212.968 MHz	47.3 Qp	1.21 / 10.16 / 27.11 / 0.0	31.56	H / 1.00 / 0	-76.35	-63.35
225.467 MHz	32.65 Qp	1.29 / 10.35 / 27.19 / 0.0	17.1	H / 1.00 / 0	-90.81	-77.81
283.98 MHz	43.75 Qp	1.5 / 11.92 / 27.43 / 0.0	29.74	H / 1.00 / 0	-78.17	-65.17
337.08 MHz	29.9 Qp	1.57 / 13.67 / 27.57 / 0.0	17.57	H / 1.00 / 0	-90.34	-77.34
354.978 MHz	48.2 Qp	1.6 / 14.6 / 27.6 / 0.0	36.8	H / 1.00 / 0	-71.11	-58.11
425.971 MHz	61.5 Qp	1.71 / 16.56 / 27.9 / 0.0	51.87	H / 1.00 / 0	-56.04	-43.04
496.97 MHz	52.0 Qp	1.9 / 16.95 / 27.93 / 0.0	42.91	H / 1.00 / 0	-65	-52
567.967 MHz	44.2 Qp	2.03 / 18.46 / 28.1 / 0.0	36.59	H / 1.00 / 0	-71.32	-58.32
638.969 MHz	44.1 Qp	2.1 / 19.08 / 28.2 / 0.0	37.08	H / 1.00 / 0	-70.83	-57.83
709.963 MHz	51.75 Qp	2.3 / 19.4 / 27.95 / 0.0	45.5	H / 1.00 / 0	-62.41	-49.41

Tested by: Michael Schultz and Joe Sausen — Printed — Signature

Reviewed by: Greg Jakubowski — Printed — Signature

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	2 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
780.978 MHz	35.3 Qp	2.39 / 21.11 / 27.83 / 0.0	30.97	H / 1.00 / 0	-76.94	-63.94
827.275 MHz	26.2 Qp	2.47 / 21.45 / 27.8 / 0.0	22.32	H / 1.00 / 0	-85.59	-72.59
851.983 MHz	27.15 Qp	2.51 / 21.66 / 27.78 / 0.0	23.55	H / 1.00 / 0	-84.36	-71.36
860.437 MHz	26.2 Qp	2.53 / 21.12 / 27.75 / 0.0	22.1	H / 1.00 / 0	-85.81	-72.81
868.97 MHz	35.8 Qp	2.54 / 21.46 / 27.72 / 0.0	32.08	H / 1.00 / 0	-75.83	-62.83
880.005 MHz	26.35 Qp	2.56 / 21.8 / 27.68 / 0.0	23.03	H / 1.00 / 0	-84.88	-71.88
891.468 MHz	26.2 Qp	2.58 / 21.66 / 27.64 / 0.0	22.79	H / 1.00 / 0	-85.12	-72.12
910.671 MHz	26.1 Qp	2.61 / 21.11 / 27.6 / 0.0	22.22	H / 1.00 / 0	-85.69	-72.69
922.988 MHz	38.5 Qp	2.63 / 21.63 / 27.6 / 0.0	35.16	H / 1.00 / 0	-72.75	-59.75
993.976 MHz	42.55 Qp	2.73 / 22.02 / 27.57 / 0.0	39.74	H / 1.00 / 0	-68.17	-55.17
38.248 MHz	46.0 Qp	0.49 / 16.7 / 27.17 / 0.0	36.02	H / 1.00 / 45	-71.89	-58.89
57.616 MHz	36.6 Qp	0.6 / 11.32 / 27.0 / 0.0	21.52	H / 1.00 / 45	-86.39	-73.39
83.295 MHz	43.2 Qp	0.8 / 6.83 / 26.9 / 0.0	23.93	H / 1.00 / 45	-83.98	-70.98
135.208 MHz	34.0 Qp	1.0 / 7.42 / 27.0 / 0.0	15.42	H / 1.00 / 45	-92.49	-79.49
184.841 MHz	39.0 Qp	1.11 / 9.48 / 27.1 / 0.0	22.49	H / 1.00 / 45	-85.42	-72.42
187.54 MHz	43.0 Qp	1.13 / 9.6 / 27.1 / 0.0	26.63	H / 1.00 / 45	-81.28	-68.28
197.327 MHz	36.85 Qp	1.2 / 9.85 / 27.1 / 0.0	20.8	H / 1.00 / 45	-87.11	-74.11
212.968 MHz	58.05 Qp	1.21 / 10.16 / 27.11 / 0.0	42.31	H / 1.00 / 45	-65.6	-52.6
283.98 MHz	47.6 Qp	1.5 / 11.92 / 27.43 / 0.0	33.59	H / 1.00 / 45	-74.32	-61.32
337.08 MHz	32.3 Qp	1.57 / 13.67 / 27.57 / 0.0	19.97	H / 1.00 / 45	-87.94	-74.94
354.978 MHz	51.1 Qp	1.6 / 14.6 / 27.6 / 0.0	39.7	H / 1.00 / 45	-68.21	-55.21
780.978 MHz	35.75 Qp	2.39 / 21.11 / 27.83 / 0.0	31.42	H / 1.00 / 45	-76.49	-63.49
851.983 MHz	37.3 Qp	2.51 / 21.66 / 27.78 / 0.0	33.7	H / 1.00 / 45	-74.21	-61.21
860.437 MHz	26.45 Qp	2.53 / 21.12 / 27.75 / 0.0	22.35	H / 1.00 / 45	-85.56	-72.56
910.671 MHz	26.2 Qp	2.61 / 21.11 / 27.6 / 0.0	22.32	H / 1.00 / 45	-85.59	-72.59
922.988 MHz	43.6 Qp	2.63 / 21.63 / 27.6 / 0.0	40.26	H / 1.00 / 45	-67.65	-54.65

Tested by: Michael Schultz and Joe Sausen (Printed) — Michael Schultz (Signature)

Reviewed by: Greg Jakubowski (Printed) — G Jakubowski (Signature)

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	3 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
57.616 MHz	40.15 Qp	0.6 / 11.32 / 27.0 / 0.0	25.07	H / 1.00 / 90	-82.84	-69.84
77.674 MHz	46.45 Qp	0.76 / 7.13 / 26.94 / 0.0	27.4	H / 1.00 / 90	-80.51	-67.51
121.408 MHz	36.55 Qp	0.9 / 7.82 / 27.1 / 0.0	18.17	H / 1.00 / 90	-89.74	-76.74
135.208 MHz	38.65 Qp	1.0 / 7.42 / 27.0 / 0.0	20.07	H / 1.00 / 90	-87.84	-74.84
496.97 MHz	52.35 Qp	1.9 / 16.95 / 27.93 / 0.0	43.26	H / 1.00 / 90	-64.65	-51.65
567.967 MHz	49.7 Qp	2.03 / 18.46 / 28.1 / 0.0	42.09	H / 1.00 / 90	-65.82	-52.82
638.969 MHz	50.35 Qp	2.1 / 19.08 / 28.2 / 0.0	43.33	H / 1.00 / 90	-64.58	-51.58
827.275 MHz	26.25 Qp	2.47 / 21.45 / 27.8 / 0.0	22.37	H / 1.00 / 90	-85.54	-72.54
910.671 MHz	26.5 Qp	2.61 / 21.11 / 27.6 / 0.0	22.62	H / 1.00 / 90	-85.29	-72.29
922.988 MHz	45.4 Qp	2.63 / 21.63 / 27.6 / 0.0	42.06	H / 1.00 / 90	-65.85	-52.85
68.176 MHz	36.7 Qp	0.7 / 8.66 / 27.0 / 0.0	19.06	H / 1.00 / 135	-88.85	-75.85
69.219 MHz	39.0 Qp	0.7 / 8.48 / 27.0 / 0.0	21.18	H / 1.00 / 135	-86.73	-73.73
77.674 MHz	51.1 Qp	0.76 / 7.13 / 26.94 / 0.0	32.05	H / 1.00 / 135	-75.86	-62.86
83.295 MHz	44.85 Qp	0.8 / 6.83 / 26.9 / 0.0	25.58	H / 1.00 / 135	-82.33	-69.33
99.754 MHz	43.7 Qp	0.88 / 8.28 / 27.0 / 0.0	25.86	H / 1.00 / 135	-82.05	-69.05
106.108 MHz	45.05 Qp	0.81 / 8.48 / 27.01 / 0.0	27.33	H / 1.00 / 135	-80.58	-67.58
141.97 MHz	64.15 Qp	1.0 / 8.32 / 26.97 / 0.0	46.49	H / 1.00 / 135	-61.42	-48.42
197.327 MHz	37.0 Qp	1.2 / 9.85 / 27.1 / 0.0	20.95	H / 1.00 / 135	-86.96	-73.96
225.467 MHz	32.9 Qp	1.29 / 10.35 / 27.19 / 0.0	17.35	H / 1.00 / 135	-90.56	-77.56
283.98 MHz	48.75 Qp	1.5 / 11.92 / 27.43 / 0.0	34.74	H / 1.00 / 135	-73.17	-60.17
337.08 MHz	32.65 Qp	1.57 / 13.67 / 27.57 / 0.0	20.32	H / 1.00 / 135	-87.59	-74.59
354.978 MHz	55.65 Qp	1.6 / 14.6 / 27.6 / 0.0	44.25	H / 1.00 / 135	-63.66	-50.66
638.969 MHz	50.6 Qp	2.1 / 19.08 / 28.2 / 0.0	43.58	H / 1.00 / 135	-64.33	-51.33
709.963 MHz	51.9 Qp	2.3 / 19.4 / 27.95 / 0.0	45.65	H / 1.00 / 135	-62.26	-49.26
827.275 MHz	26.6 Qp	2.47 / 21.45 / 27.8 / 0.0	22.72	H / 1.00 / 135	-85.19	-72.19

Tested by: Michael Schultz and Joe Sausen (Printed) — Michael Schultz (Signature)

Reviewed by: Greg Jakubowski (Printed) — G Jakubowski (Signature)

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	4 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
860.437 MHz	26.5 Qp	2.53 / 21.12 / 27.75 / 0.0	22.4	H / 1.00 / 135	-85.51	-72.51
880.005 MHz	26.6 Qp	2.56 / 21.8 / 27.68 / 0.0	23.28	H / 1.00 / 135	-84.63	-71.63
891.468 MHz	26.55 Qp	2.58 / 21.66 / 27.64 / 0.0	23.14	H / 1.00 / 135	-84.77	-71.77
910.671 MHz	26.65 Qp	2.61 / 21.11 / 27.6 / 0.0	22.77	H / 1.00 / 135	-85.14	-72.14
993.976 MHz	45.0 Qp	2.73 / 22.02 / 27.57 / 0.0	42.19	H / 1.00 / 135	-65.72	-52.72
38.248 MHz	46.35 Qp	0.49 / 16.7 / 27.17 / 0.0	36.37	H / 1.00 / 180	-71.54	-58.54
57.616 MHz	40.5 Qp	0.6 / 11.32 / 27.0 / 0.0	25.42	H / 1.00 / 180	-82.49	-69.49
64.516 MHz	32.85 Qp	0.69 / 9.5 / 27.0 / 0.0	16.04	H / 1.00 / 180	-91.87	-78.87
83.295 MHz	47.35 Qp	0.8 / 6.83 / 26.9 / 0.0	28.08	H / 1.00 / 180	-79.83	-66.83
99.754 MHz	44.55 Qp	0.88 / 8.28 / 27.0 / 0.0	26.71	H / 1.00 / 180	-81.2	-68.2
225.467 MHz	36.95 Qp	1.29 / 10.35 / 27.19 / 0.0	21.4	H / 1.00 / 180	-86.51	-73.51
283.98 MHz	50.4 Qp	1.5 / 11.92 / 27.43 / 0.0	36.39	H / 1.00 / 180	-71.52	-58.52
638.969 MHz	54.05 Qp	2.1 / 19.08 / 28.2 / 0.0	47.03	H / 1.00 / 180	-60.88	-47.88
709.963 MHz	56.65 Qp	2.3 / 19.4 / 27.95 / 0.0	50.4	H / 1.00 / 180	-57.51	-44.51
38.248 MHz	47.2 Qp	0.49 / 16.7 / 27.17 / 0.0	37.22	H / 1.00 / 225	-70.69	-57.69
57.616 MHz	42.5 Qp	0.6 / 11.32 / 27.0 / 0.0	27.42	H / 1.00 / 225	-80.49	-67.49
83.295 MHz	49.0 Qp	0.8 / 6.83 / 26.9 / 0.0	29.73	H / 1.00 / 225	-78.18	-65.18
212.968 MHz	59.8 Qp	1.21 / 10.16 / 27.11 / 0.0	44.06	H / 1.00 / 225	-63.85	-50.85
354.978 MHz	56.7 Qp	1.6 / 14.6 / 27.6 / 0.0	45.3	H / 1.00 / 225	-62.61	-49.61
567.967 MHz	55.9 Qp	2.03 / 18.46 / 28.1 / 0.0	48.29	H / 1.00 / 225	-59.62	-46.62
780.978 MHz	37.2 Qp	2.39 / 21.11 / 27.83 / 0.0	32.87	H / 1.00 / 225	-75.04	-62.04
880.005 MHz	26.9 Qp	2.56 / 21.8 / 27.68 / 0.0	23.58	H / 1.00 / 225	-84.33	-71.33
993.976 MHz	44.4 Qp	2.73 / 22.02 / 27.57 / 0.0	41.59	H / 1.00 / 225	-66.32	-53.32
83.295 MHz	49.45 Qp	0.8 / 6.83 / 26.9 / 0.0	30.18	H / 1.00 / 270	-77.73	-64.73

Tested by: Michael Schultz and Joe Sausen (Printed) — Michael Schultz (Signature)

Reviewed by: Greg Jakubowski (Printed) — G Jakubowski (Signature)

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	5 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
141.97 MHz	66.2 Qp	1.0 / 8.32 / 26.97 / 0.0	48.54	H / 1.00 / 270	-59.37	-46.37
225.467 MHz	38.35 Qp	1.29 / 10.35 / 27.19 / 0.0	22.8	H / 1.00 / 270	-85.11	-72.11
283.98 MHz	55.15 Qp	1.5 / 11.92 / 27.43 / 0.0	41.14	H / 1.00 / 270	-66.77	-53.77
993.976 MHz	46.15 Qp	2.73 / 22.02 / 27.57 / 0.0	43.34	H / 1.00 / 270	-64.57	-51.57
780.978 MHz	40.1 Qp	2.39 / 21.11 / 27.83 / 0.0	35.77	H / 1.00 / 315	-72.14	-59.14
Maximized Horizontal frequencies 30-1000 MHz 869 MHz Tx setting						
993.971 MHz	46.7 Qp	2.73 / 22.02 / 27.57 / 0.0	43.89	H / 1.00 / 260	-64.02	-51.02
141.97 MHz	66.9 Qp	1.0 / 8.32 / 26.97 / 0.0	49.24	H / 1.00 / 260	-58.67	-45.67
567.967 MHz	58.3 Qp	2.03 / 18.46 / 28.1 / 0.0	50.69	H / 1.25 / 240	-57.22	-44.22
709.963 MHz	59.3 Qp	2.3 / 19.4 / 27.95 / 0.0	53.05	H / 1.00 / 220	-54.86	-41.86
638.969 MHz	56.75 Qp	2.1 / 19.08 / 28.2 / 0.0	49.73	H / 1.20 / 220	-58.18	-45.18
354.978 MHz	58.9 Qp	1.6 / 14.6 / 27.6 / 0.0	47.5	H / 1.20 / 245	-60.41	-47.41
38.248 MHz	59.95 Qp	0.49 / 16.7 / 27.17 / 0.0	49.97	V / 1.00 / 0	-57.94	-44.94
44.866 MHz	57.35 Qp	0.6 / 14.64 / 27.06 / 0.0	45.53	V / 1.00 / 0	-62.38	-49.38
57.616 MHz	54.0 Qp	0.6 / 11.32 / 27.0 / 0.0	38.92	V / 1.00 / 0	-68.99	-55.99
64.516 MHz	42.7 Qp	0.69 / 9.5 / 27.0 / 0.0	25.89	V / 1.00 / 0	-82.02	-69.02
68.176 MHz	42.05 Qp	0.7 / 8.66 / 27.0 / 0.0	24.41	V / 1.00 / 0	-83.5	-70.5
69.219 MHz	44.85 Qp	0.7 / 8.48 / 27.0 / 0.0	27.03	V / 1.00 / 0	-80.88	-67.88
77.674 MHz	52.15 Qp	0.76 / 7.13 / 26.94 / 0.0	33.1	V / 1.00 / 0	-74.81	-61.81
83.295 MHz	59.45 Qp	0.8 / 6.83 / 26.9 / 0.0	40.18	V / 1.00 / 0	-67.73	-54.73
99.754 MHz	46.2 Qp	0.88 / 8.28 / 27.0 / 0.0	28.36	V / 1.00 / 0	-79.55	-66.55
106.108 MHz	48.3 Qp	0.81 / 8.48 / 27.01 / 0.0	30.58	V / 1.00 / 0	-77.33	-64.33
135.208 MHz	46.6 Qp	1.0 / 7.42 / 27.0 / 0.0	28.02	V / 1.00 / 0	-79.89	-66.89
141.97 MHz	68.95 Qp	1.0 / 8.32 / 26.97 / 0.0	51.29	V / 1.00 / 0	-56.62	-43.62

Tested by: Michael Schultz and Joe Sausen (Printed) — Michael Schultz (Signature)

Reviewed by: Greg Jakubowski (Printed) — G Jakubowski (Signature)

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	6 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
496.97 MHz	54.6 Qp	1.9 / 16.95 / 27.93 / 0.0	45.51	V / 1.00 / 0	-62.4	-49.4
567.967 MHz	58.7 Qp	2.03 / 18.46 / 28.1 / 0.0	51.09	V / 1.00 / 0	-56.82	-43.82
827.275 MHz	27.3 Qp	2.47 / 21.45 / 27.8 / 0.0	23.42	V / 1.00 / 0	-84.49	-71.49
860.437 MHz	27.3 Qp	2.53 / 21.12 / 27.75 / 0.0	23.2	V / 1.00 / 0	-84.71	-71.71
868.97 MHz	39.75 Qp	2.54 / 21.46 / 27.72 / 0.0	36.03	V / 1.00 / 0	-71.88	-58.88
880.005 MHz	27.7 Qp	2.56 / 21.8 / 27.68 / 0.0	24.38	V / 1.00 / 0	-83.53	-70.53
891.468 MHz	27.25 Qp	2.58 / 21.66 / 27.64 / 0.0	23.84	V / 1.00 / 0	-84.07	-71.07
910.671 MHz	27.3 Qp	2.61 / 21.11 / 27.6 / 0.0	23.42	V / 1.00 / 0	-84.49	-71.49
135.208 MHz	47.65 Qp	1.0 / 7.42 / 27.0 / 0.0	29.07	V / 1.00 / 45	-78.84	-65.84
141.97 MHz	72.3 Qp	1.0 / 8.32 / 26.97 / 0.0	54.64	V / 1.00 / 45	-53.27	-40.27
425.971 MHz	62.55 Qp	1.71 / 16.56 / 27.9 / 0.0	52.92	V / 1.00 / 45	-54.99	-41.99
496.97 MHz	57.05 Qp	1.9 / 16.95 / 27.93 / 0.0	47.96	V / 1.00 / 45	-59.95	-46.95
780.978 MHz	41.35 Qp	2.39 / 21.11 / 27.83 / 0.0	37.02	V / 1.00 / 45	-70.89	-57.89
827.275 MHz	27.5 Qp	2.47 / 21.45 / 27.8 / 0.0	23.62	V / 1.00 / 45	-84.29	-71.29
860.437 MHz	27.85 Qp	2.53 / 21.12 / 27.75 / 0.0	23.75	V / 1.00 / 45	-84.16	-71.16
880.005 MHz	27.8 Qp	2.56 / 21.8 / 27.68 / 0.0	24.48	V / 1.00 / 45	-83.43	-70.43
891.468 MHz	27.6 Qp	2.58 / 21.66 / 27.64 / 0.0	24.19	V / 1.00 / 45	-83.72	-70.72
910.671 MHz	27.4 Qp	2.61 / 21.11 / 27.6 / 0.0	23.52	V / 1.00 / 45	-84.39	-71.39
425.971 MHz	70.8 Qp	1.71 / 16.56 / 27.9 / 0.0	61.17	V / 1.00 / 90	-46.74	-33.74
851.983 MHz	38.35 Qp	2.51 / 21.66 / 27.78 / 0.0	34.75	V / 1.00 / 90	-73.16	-60.16
868.97 MHz	43.05 Qp	2.54 / 21.46 / 27.72 / 0.0	39.33	V / 1.00 / 90	-68.58	-55.58
880.005 MHz	28.05 Qp	2.56 / 21.8 / 27.68 / 0.0	24.73	V / 1.00 / 90	-83.18	-70.18
910.671 MHz	28.0 Qp	2.61 / 21.11 / 27.6 / 0.0	24.12	V / 1.00 / 90	-83.79	-70.79
922.988 MHz	51.45 Qp	2.63 / 21.63 / 27.6 / 0.0	48.11	V / 1.00 / 90	-59.8	-46.8

Tested by: Michael Schultz and Joe Sausen (Printed) — Michael Schultz (Signature)

Reviewed by: Greg Jakubowski (Printed) — G Jakubowski (Signature)

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	7 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
99.754 MHz	50.65 Qp	0.88 / 8.28 / 27.0 / 0.0	32.81	V / 1.00 / 135	-75.1	-62.1
106.108 MHz	57.4 Qp	0.81 / 8.48 / 27.01 / 0.0	39.68	V / 1.00 / 135	-68.23	-55.23
121.408 MHz	39.7 Qp	0.9 / 7.82 / 27.1 / 0.0	21.32	V / 1.00 / 135	-86.59	-73.59
77.674 MHz	52.75 Qp	0.76 / 7.13 / 26.94 / 0.0	33.7	V / 1.00 / 180	-74.21	-61.21
184.841 MHz	42.15 Qp	1.11 / 9.48 / 27.1 / 0.0	25.64	V / 1.00 / 180	-82.27	-69.27
197.327 MHz	40.85 Qp	1.2 / 9.85 / 27.1 / 0.0	24.8	V / 1.00 / 180	-83.11	-70.11
993.971 MHz	47.15 Qp	2.73 / 22.02 / 27.57 / 0.0	44.34	V / 1.00 / 180	-63.57	-50.57
780.978 MHz	41.55 Qp	2.39 / 21.11 / 27.83 / 0.0	37.22	V / 1.00 / 225	-70.69	-57.69
993.971 MHz	49.75 Qp	2.73 / 22.02 / 27.57 / 0.0	46.94	V / 1.00 / 225	-60.97	-47.97
57.616 MHz	54.1 Qp	0.6 / 11.32 / 27.0 / 0.0	39.02	V / 1.00 / 270	-68.89	-55.89
77.674 MHz	53.1 Qp	0.76 / 7.13 / 26.94 / 0.0	34.05	V / 1.00 / 270	-73.86	-60.86
38.248 MHz	60.05 Qp	0.49 / 16.7 / 27.17 / 0.0	50.07	V / 1.00 / 315	-57.84	-44.84
57.616 MHz	54.45 Qp	0.6 / 11.32 / 27.0 / 0.0	39.37	V / 1.00 / 315	-68.54	-55.54
77.674 MHz	53.5 Qp	0.76 / 7.13 / 26.94 / 0.0	34.45	V / 1.00 / 315	-73.46	-60.46
851.983 MHz	39.0 Qp	2.51 / 21.66 / 27.78 / 0.0	35.4	V / 1.00 / 315	-72.51	-59.51
Maximized Vertical frequencies 30-1000 MHz 869 MHz Tx setting						
38.231 MHz	61.1 Qp	0.49 / 16.71 / 27.17 / 0.0	51.13	V / 1.00 / 315	-56.78	-43.78
425.971 MHz	71.2 Qp	1.71 / 16.56 / 27.9 / 0.0	61.57	V / 1.00 / 90	-46.34	-33.34
496.97 MHz	59.7 Qp	1.9 / 16.95 / 27.93 / 0.0	50.61	V / 1.00 / 25	-57.3	-44.3
141.97 MHz	70.55 Qp	1.0 / 8.32 / 26.97 / 0.0	52.89	V / 1.00 / 25	-55.02	-42.02

Tested by: Michael Schultz and Joe Sausen — Printed — Signature

Reviewed by: Greg Jakubowski — Printed — Signature

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	8 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
1.136 GHz	53.8 Pk	2.93 / 25.51 / 49.55 / 0.0	32.68	H / 1.00 / 0	-75.23	-62.23
1.207 GHz	53.15 Pk	3.01 / 25.43 / 49.62 / 0.0	31.97	H / 1.00 / 0	-75.94	-62.94
1.278 GHz	58.05 Pk	3.1 / 25.35 / 49.25 / 0.0	37.24	H / 1.00 / 0	-70.67	-57.67
1.349 GHz	48.6 Pk	3.18 / 25.27 / 49.37 / 0.0	27.67	H / 1.00 / 0	-80.24	-67.24
1.42 GHz	56.5 Pk	3.3 / 25.19 / 49.65 / 0.0	35.33	H / 1.00 / 0	-72.58	-59.58
1.491 GHz	52.05 Pk	3.42 / 25.11 / 49.8 / 0.0	30.78	H / 1.00 / 0	-77.13	-64.13
1.562 GHz	54.7 Pk	3.49 / 25.49 / 49.62 / 0.0	34.06	H / 1.00 / 0	-73.85	-60.85
1.633 GHz	53.3 Pk	3.55 / 25.93 / 49.58 / 0.0	33.2	H / 1.00 / 0	-74.71	-61.71
1.704 GHz	48.75 Pk	3.62 / 26.38 / 49.76 / 0.0	28.99	H / 1.00 / 0	-78.92	-65.92
1.846 GHz	51.5 Pk	3.83 / 27.27 / 49.79 / 0.0	32.81	H / 1.00 / 0	-75.1	-62.1
1.917 GHz	51.9 Pk	3.88 / 27.72 / 49.91 / 0.0	33.59	H / 1.00 / 0	-74.32	-61.32
1.988 GHz	49.5 Pk	3.9 / 28.17 / 49.65 / 0.0	31.91	H / 1.00 / 0	-76	-63
2.414 GHz	48.25 Pk	4.31 / 28.57 / 49.36 / 0.0	31.77	H / 1.00 / 0	-76.14	-63.14
2.556 GHz	48.75 Pk	4.4 / 28.8 / 48.79 / 0.0	33.16	H / 1.00 / 0	-74.75	-61.75
2.84 GHz	48.35 Pk	4.6 / 29.62 / 48.37 / 0.0	34.2	H / 1.00 / 0	-73.71	-60.71
4.544 GHz	39.95 Pk	6.15 / 32.39 / 45.32 / 0.0	33.17	H / 1.00 / 0	-74.74	-61.74
5.68 GHz	40.9 Pk	6.91 / 34.18 / 45.3 / 0.0	36.69	H / 1.00 / 0	-71.22	-58.22
1.136 GHz	55.85 Pk	2.93 / 25.51 / 49.55 / 0.0	34.73	V / 1.00 / 0	-73.18	-60.18
1.207 GHz	58.35 Pk	3.01 / 25.43 / 49.62 / 0.0	37.17	V / 1.00 / 0	-70.74	-57.74
1.349 GHz	52.75 Pk	3.18 / 25.27 / 49.37 / 0.0	31.82	V / 1.00 / 0	-76.09	-63.09
1.562 GHz	60.7 Pk	3.49 / 25.49 / 49.62 / 0.0	40.06	V / 1.00 / 0	-67.85	-54.85
1.633 GHz	62.3 Pk	3.55 / 25.93 / 49.58 / 0.0	42.2	V / 1.00 / 0	-65.71	-52.71
1.704 GHz	52.45 Pk	3.62 / 26.38 / 49.76 / 0.0	32.69	V / 1.00 / 0	-75.22	-62.22
1.775 GHz	51.1 Pk	3.74 / 26.83 / 49.67 / 0.0	32.0	V / 1.00 / 0	-75.91	-62.91
1.846 GHz	54.3 Pk	3.83 / 27.27 / 49.79 / 0.0	35.61	V / 1.00 / 0	-72.3	-59.3
2.13 GHz	52.55 Pk	3.97 / 28.34 / 49.41 / 0.0	35.46	V / 1.00 / 0	-72.45	-59.45
2.201 GHz	46.8 Pk	4.06 / 28.4 / 49.42 / 0.0	29.85	V / 1.00 / 0	-78.06	-65.06

Tested by: Michael Schultz and Joe Sausen — Printed — Signature

Reviewed by: Greg Jakubowski — Printed — Signature

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	9 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
2.272 GHz	44.75 Pk	4.15 / 28.46 / 49.07 / 0.0	28.29	V / 1.00 / 0	-79.62	-66.62
2.414 GHz	42.8 Pk	4.31 / 28.57 / 49.36 / 0.0	26.32	V / 1.00 / 0	-81.59	-68.59
2.556 GHz	47.4 Pk	4.4 / 28.8 / 48.79 / 0.0	31.81	V / 1.00 / 0	-76.1	-63.1
3.124 GHz	47.2 Pk	4.87 / 30.35 / 47.17 / 0.0	35.26	V / 1.00 / 0	-72.65	-59.65
3.266 GHz	50.15 Pk	5.0 / 30.67 / 47.55 / 0.0	38.27	V / 1.00 / 0	-69.64	-56.64
3.55 GHz	45.4 Pk	5.38 / 31.31 / 47.17 / 0.0	34.93	V / 1.00 / 0	-72.98	-59.98
3.692 GHz	46.35 Pk	5.56 / 31.67 / 46.95 / 0.0	36.62	V / 1.00 / 0	-71.29	-58.29
1.632 GHz maxed:						
1.633 GHz	68.65 Pk	3.55 / 25.93 / 49.58 / 0.0	48.55	V / 1.06 / 161	-59.36	-46.36
1.136 GHz	57.95 Pk	2.93 / 25.51 / 49.55 / 0.0	36.83	V / 1.06 / 161	-71.08	-58.08
1.207 GHz	63.6 Pk	3.01 / 25.43 / 49.62 / 0.0	42.42	V / 1.06 / 161	-65.49	-52.49
1.278 GHz	63.45 Pk	3.1 / 25.35 / 49.25 / 0.0	42.64	V / 1.06 / 161	-65.27	-52.27
1.704 GHz	55.15 Pk	3.62 / 26.38 / 49.76 / 0.0	35.39	V / 1.06 / 161	-72.52	-59.52
1.846 GHz	58.5 Pk	3.83 / 27.27 / 49.79 / 0.0	39.81	V / 1.06 / 161	-68.1	-55.1
2.13 GHz	60.55 Pk	3.97 / 28.34 / 49.41 / 0.0	43.46	V / 1.06 / 161	-64.45	-51.45
2.272 GHz	50.25 Pk	4.15 / 28.46 / 49.07 / 0.0	33.79	V / 1.06 / 161	-74.12	-61.12
2.414 GHz	57.75 Pk	4.31 / 28.57 / 49.36 / 0.0	41.27	V / 1.06 / 161	-66.64	-53.64
2.556 GHz	51.4 Pk	4.4 / 28.8 / 48.79 / 0.0	35.81	V / 1.06 / 161	-72.1	-59.1
2.698 GHz	55.75 Pk	4.48 / 29.21 / 48.26 / 0.0	41.18	V / 1.06 / 161	-66.73	-53.73
2.769 GHz	46.7 Pk	4.53 / 29.41 / 48.26 / 0.0	32.37	V / 1.06 / 161	-75.54	-62.54
2.84 GHz	54.35 Pk	4.6 / 29.62 / 48.37 / 0.0	40.2	V / 1.06 / 161	-67.71	-54.71
2.911 GHz	48.1 Pk	4.67 / 29.82 / 48.48 / 0.0	34.12	V / 1.06 / 161	-73.79	-60.79
2.982 GHz	50.75 Pk	4.74 / 30.03 / 48.19 / 0.0	37.32	V / 1.06 / 161	-70.59	-57.59
3.053 GHz	48.15 Pk	4.81 / 30.2 / 47.53 / 0.0	35.62	V / 1.06 / 161	-72.29	-59.29
3.124 GHz	48.7 Pk	4.87 / 30.35 / 47.17 / 0.0	36.76	V / 1.06 / 161	-71.15	-58.15
3.195 GHz	44.1 Pk	4.94 / 30.51 / 47.65 / 0.0	31.9	V / 1.06 / 161	-76.01	-63.01

Tested by: Michael Schultz and Joe Sausen (Printed) — (Signature)

Reviewed by: Greg Jakubowski (Printed) — (Signature)

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	10 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
3.266 GHz	44.0 Pk	5.0 / 30.67 / 47.55 / 0.0	32.12	V / 1.06 / 161	-75.79	-62.79
3.692 GHz	49.75 Pk	5.56 / 31.67 / 46.95 / 0.0	40.02	V / 1.06 / 161	-67.89	-54.89
4.544 GHz	45.1 Pk	6.15 / 32.39 / 45.32 / 0.0	38.32	V / 1.06 / 161	-69.59	-56.59
2.129 GHz maxed:						
2.13 GHz	65.5 Pk	3.97 / 28.34 / 49.41 / 0.0	48.41	V / 1.06 / 131	-59.5	-46.5
4.32 GHz	45.05 Pk	6.1 / 32.35 / 45.89 / 0.0	37.62	V / 1.06 / 131	-70.29	-57.29
3.124 GHz	51.75 Pk	4.87 / 30.35 / 47.17 / 0.0	39.81	V / 1.06 / 131	-68.1	-55.1
1.562 GHz	63.1 Pk	3.49 / 25.49 / 49.62 / 0.0	42.46	V / 1.06 / 131	-65.45	-52.45
1.491 GHz	58.9 Pk	3.42 / 25.11 / 49.8 / 0.0	37.63	V / 1.06 / 131	-70.28	-57.28
1.42 GHz	61.75 Pk	3.3 / 25.19 / 49.65 / 0.0	40.58	V / 1.06 / 131	-67.33	-54.33
1.988 GHz	53.7 Pk	3.9 / 28.17 / 49.65 / 0.0	36.11	H / 1.06 / 131	-71.8	-58.8
1.917 GHz	54.55 Pk	3.88 / 27.72 / 49.91 / 0.0	36.24	H / 1.06 / 131	-71.67	-58.67
1.277 GHz maxed:						
1.278 GHz	62.65 Pk	3.1 / 25.35 / 49.25 / 0.0	41.84	H / 1.06 / 343	-66.07	-53.07
Note! 880 Tx setting:						
2.129 GHz maxed:						
2.13 GHz	65.95 Pk	3.97 / 28.34 / 49.41 / 0.0	48.86	V / 1.80 / 249	-59.05	-46.05
1.988 GHz	55.4 Pk	3.9 / 28.17 / 49.65 / 0.0	37.81	V / 1.80 / 249	-70.1	-57.1
1.846 GHz	59.9 Pk	3.83 / 27.27 / 49.79 / 0.0	41.21	V / 1.80 / 249	-66.7	-53.7
1.775 GHz	53.35 Pk	3.74 / 26.83 / 49.67 / 0.0	34.25	V / 1.80 / 249	-73.66	-60.66
1.704 GHz	58.1 Pk	3.62 / 26.38 / 49.76 / 0.0	38.34	V / 1.80 / 249	-69.57	-56.57
1.349 GHz	59.5 Pk	3.18 / 25.27 / 49.37 / 0.0	38.57	V / 1.80 / 249	-69.34	-56.34
2.272 GHz	53.2 Pk	4.15 / 28.46 / 49.07 / 0.0	36.74	V / 1.80 / 249	-71.17	-58.17

Tested by: Michael Schultz and Joe Sausen — Printed

Michael Schultz — Signature

Reviewed by: Greg Jakubowski — Printed

G Jakubowski — Signature

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	11 of 12

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
1.277 GHz maxed:						
1.278 GHz	67.4 Pk	3.1 / 25.35 / 49.25 / 0.0	46.59	H / 1.72 / 220	-61.32	-48.32
NOTE! 891.5 MHz Tx setting:						
1.277 GHz maxed:						
1.278 GHz	67.0 Pk	3.1 / 25.35 / 49.25 / 0.0	46.19	H / 1.70 / 222	-61.72	-48.72
2.12 GHz maxed:						
2.13 GHz	65.05 Pk	3.97 / 28.34 / 49.41 / 0.0	47.96	V / 1.00 / 134	-59.95	-46.95
1.42 GHz	61.75 Pk	3.3 / 25.19 / 49.65 / 0.0	40.58	V / 1.00 / 134	-67.33	-54.33
3.55 GHz	48.85 Pk	5.38 / 31.31 / 47.17 / 0.0	38.38	V / 1.00 / 134	-69.53	-56.53
No further significant EUT emissions detected 30 MHz to 10 GHz, vert and hor ant.						

Tested by: Michael Schultz and Joe Sausen — Printed

Michael Schultz — Signature

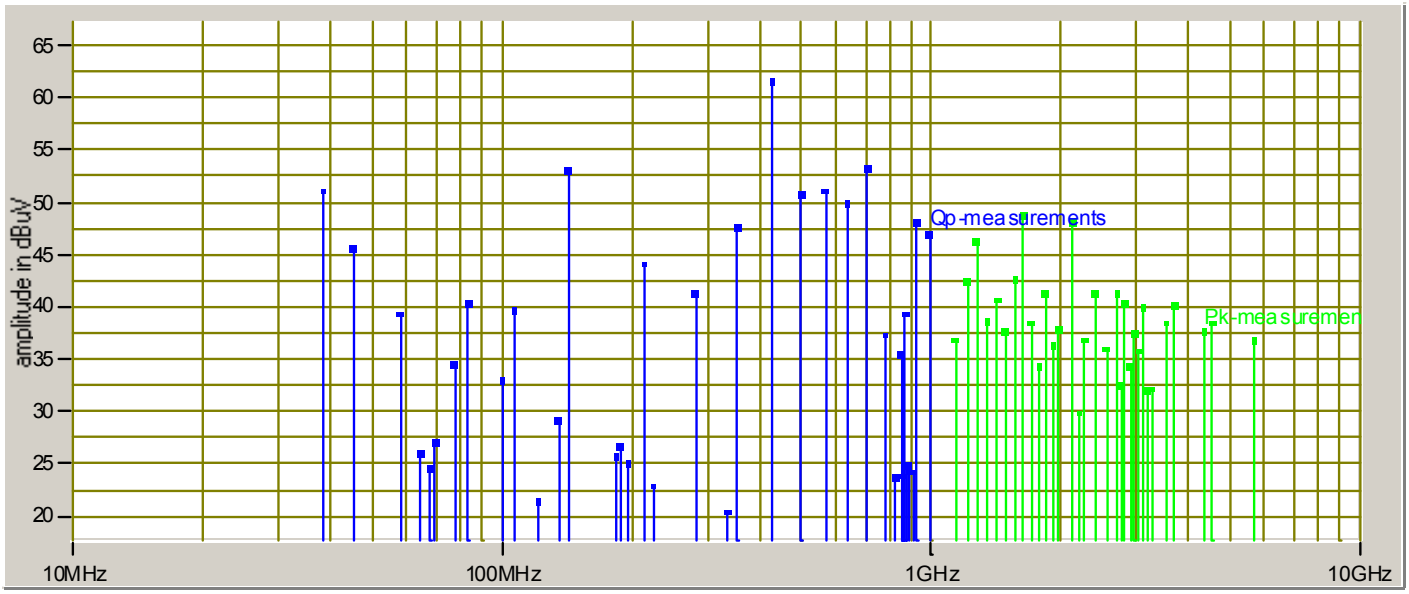
Reviewed by: Greg Jakubowski — Printed

G Jakubowski — Signature

RADIATED EMISSIONS

Test Report #:	WC505740 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/7/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22			Air Pressure:	99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" A " Band				
Data File Name:	5740-1.dat			Page:	12 of 12

Graph:



Tested by: Michael Schultz and Joe Sausen (Printed) — (Signature)

Reviewed by: Greg Jakubowski (Printed) — (Signature)

RADIATED EMISSIONS

Test Report #:	WC505740 Run 2	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/8/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22				99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" B " Band				
Data File Name:	5740-2.dat			Page:	1 of 8

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
NOTE! 880 MHz Tx setting:						
1.065 GHz	63.05 Pk	2.83 / 25.59 / 49.22 / 0.0	42.25	V / 1.00 / 0	-65.66	-52.66
1.136 GHz	59.9 Pk	2.93 / 25.51 / 49.55 / 0.0	38.78	V / 1.00 / 0	-69.13	-56.13
1.207 GHz	62.95 Pk	3.01 / 25.43 / 49.62 / 0.0	41.77	V / 1.00 / 0	-66.14	-53.14
1.278 GHz	66.1 Pk	3.1 / 25.35 / 49.25 / 0.0	45.29	V / 1.00 / 0	-62.62	-49.62
1.349 GHz	54.35 Pk	3.18 / 25.27 / 49.37 / 0.0	33.42	V / 1.00 / 0	-74.49	-61.49
1.42 GHz	54.9 Pk	3.3 / 25.19 / 49.65 / 0.0	33.73	V / 1.00 / 0	-74.18	-61.18
1.491 GHz	54.05 Pk	3.42 / 25.11 / 49.8 / 0.0	32.78	V / 1.00 / 0	-75.13	-62.13
1.562 GHz	58.25 Pk	3.49 / 25.49 / 49.62 / 0.0	37.61	V / 1.00 / 0	-70.3	-57.3
1.633 GHz	58.4 Pk	3.55 / 25.93 / 49.58 / 0.0	38.3	V / 1.00 / 0	-69.61	-56.61
1.704 GHz	55.2 Pk	3.62 / 26.38 / 49.76 / 0.0	35.44	V / 1.00 / 0	-72.47	-59.47
1.775 GHz	53.0 Pk	3.74 / 26.83 / 49.67 / 0.0	33.9	V / 1.00 / 0	-74.01	-61.01
1.846 GHz	51.4 Pk	3.83 / 27.27 / 49.79 / 0.0	32.71	V / 1.00 / 0	-75.2	-62.2
1.917 GHz	50.9 Pk	3.88 / 27.72 / 49.91 / 0.0	32.59	V / 1.00 / 0	-75.32	-62.32
1.988 GHz	44.75 Pk	3.9 / 28.17 / 49.65 / 0.0	27.16	V / 1.00 / 0	-80.75	-67.75
2.13 GHz	61.7 Pk	3.97 / 28.34 / 49.41 / 0.0	44.61	V / 1.00 / 0	-63.3	-50.3
2.272 GHz	51.15 Pk	4.15 / 28.46 / 49.07 / 0.0	34.69	V / 1.00 / 0	-73.22	-60.22
2.414 GHz	55.0 Pk	4.31 / 28.57 / 49.36 / 0.0	38.52	V / 1.00 / 0	-69.39	-56.39
2.556 GHz	47.5 Pk	4.4 / 28.8 / 48.79 / 0.0	31.91	V / 1.00 / 0	-76	-63
2.698 GHz	49.95 Pk	4.48 / 29.21 / 48.26 / 0.0	35.38	V / 1.00 / 0	-72.53	-59.53
2.84 GHz	53.9 Pk	4.6 / 29.62 / 48.37 / 0.0	39.75	V / 1.00 / 0	-68.16	-55.16
2.911 GHz	47.55 Pk	4.67 / 29.82 / 48.48 / 0.0	33.57	V / 1.00 / 0	-74.34	-61.34
2.982 GHz	47.2 Pk	4.74 / 30.03 / 48.19 / 0.0	33.77	V / 1.00 / 0	-74.14	-61.14
3.053 GHz	49.0 Pk	4.81 / 30.2 / 47.53 / 0.0	36.47	V / 1.00 / 0	-71.44	-58.44
3.124 GHz	51.95 Pk	4.87 / 30.35 / 47.17 / 0.0	40.01	V / 1.00 / 0	-67.9	-54.9

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RADIATED EMISSIONS

Test Report #:	WC505740 Run 2	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/8/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22				99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" B " Band				
Data File Name:	5740-2.dat			Page:	2 of 8

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
3.195 GHz	44.85 Pk	4.94 / 30.51 / 47.65 / 0.0	32.65	V / 1.00 / 0	-75.26	-62.26
3.266 GHz	48.9 Pk	5.0 / 30.67 / 47.55 / 0.0	37.02	V / 1.00 / 0	-70.89	-57.89
3.55 GHz	48.3 Pk	5.38 / 31.31 / 47.17 / 0.0	37.83	V / 1.00 / 0	-70.08	-57.08
3.692 GHz	46.5 Pk	5.56 / 31.67 / 46.95 / 0.0	36.77	V / 1.00 / 0	-71.14	-58.14
4.32 GHz	48.45 Pk	6.1 / 32.35 / 45.89 / 0.0	41.02	V / 1.00 / 0	-66.89	-53.89
4.544 GHz	46.15 Pk	6.15 / 32.39 / 45.32 / 0.0	39.37	V / 1.00 / 0	-68.54	-55.54
4.99 GHz	45.55 Pk	6.49 / 33.37 / 44.66 / 0.0	40.75	V / 1.00 / 0	-67.16	-54.16
5.68 GHz	42.2 Pk	6.91 / 34.18 / 45.3 / 0.0	37.99	H / 1.00 / 0	-69.92	-56.92
1.846 GHz	51.55 Pk	3.83 / 27.27 / 49.79 / 0.0	32.86	H / 1.00 / 0	-75.05	-62.05
1.349 GHz	54.95 Pk	3.18 / 25.27 / 49.37 / 0.0	34.02	H / 1.00 / 0	-73.89	-60.89
1.207 GHz	65.9 Pk	3.01 / 25.43 / 49.62 / 0.0	44.72	H / 1.00 / 0	-63.19	-50.19
1.065 GHz	64.5 Pk	2.83 / 25.59 / 49.22 / 0.0	43.7	H / 1.00 / 0	-64.21	-51.21
1.206 GHz maxed:						
1.207 GHz	71.2 Pk	3.01 / 25.43 / 49.62 / 0.0	50.02	H / 1.10 / 133	-57.89	-44.89
1.349 GHz	64.45 Pk	3.18 / 25.27 / 49.37 / 0.0	43.52	H / 1.10 / 133	-64.39	-51.39
1.775 GHz	55.5 Pk	3.74 / 26.83 / 49.67 / 0.0	36.4	H / 1.10 / 133	-71.51	-58.51
1.846 GHz	55.35 Pk	3.83 / 27.27 / 49.79 / 0.0	36.66	H / 1.10 / 133	-71.25	-58.25
1.917 GHz	56.3 Pk	3.88 / 27.72 / 49.91 / 0.0	37.99	H / 1.10 / 133	-69.92	-56.92
1.988 GHz	51.45 Pk	3.9 / 28.17 / 49.65 / 0.0	33.86	H / 1.10 / 133	-74.05	-61.05
2.698 GHz	53.45 Pk	4.48 / 29.21 / 48.26 / 0.0	38.88	H / 1.10 / 133	-69.03	-56.03
2.982 GHz	51.1 Pk	4.74 / 30.03 / 48.19 / 0.0	37.67	H / 1.10 / 133	-70.24	-57.24
1.348 GHz maxed:						

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RADIATED EMISSIONS

Test Report #:	WC505740 Run 2	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/8/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22				99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" B " Band				
Data File Name:	5740-2.dat			Page:	3 of 8

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
1.349 GHz	65.1 Pk	3.18 / 25.27 / 49.37 / 0.0	44.17	H / 1.13 / 159	-63.74	-50.74
1.42 GHz	57.25 Pk	3.3 / 25.19 / 49.65 / 0.0	36.08	H / 1.13 / 159	-71.83	-58.83
1.562 GHz	59.7 Pk	3.49 / 25.49 / 49.62 / 0.0	39.06	H / 1.13 / 159	-68.85	-55.85
4.26 GHz	46.4 Pk	6.1 / 32.37 / 46.03 / 0.0	38.84	H / 1.13 / 159	-69.07	-56.07
2.129 GHz maxed:						
2.13 GHz	61.3 Pk	3.97 / 28.34 / 49.41 / 0.0	44.21	V / 2.18 / 298	-63.7	-50.7
3.124 GHz	53.0 Pk	4.87 / 30.35 / 47.17 / 0.0	41.06	V / 2.18 / 298	-66.85	-53.85
NOTE! 887 MHz Tx setting:						
2.13 GHz	61.05 Pk	3.97 / 28.34 / 49.41 / 0.0	43.96	V / 2.18 / 298	-63.95	-50.95
1.349 GHz maxed:						
1.349 GHz	64.9 Pk	3.18 / 25.27 / 49.37 / 0.0	43.97	H / 1.24 / 164	-63.94	-50.94
1.42 GHz	58.0 Pk	3.3 / 25.19 / 49.65 / 0.0	36.83	H / 1.24 / 164	-71.08	-58.08
NOTE! 894 MHz Tx setting:						
1.349 GHz	64.65 Pk	3.18 / 25.27 / 49.37 / 0.0	43.72	H / 1.24 / 164	-64.19	-51.19
2.272 GHz	53.6 Pk	4.15 / 28.46 / 49.07 / 0.0	37.14	H / 1.24 / 164	-70.77	-57.77
2.129 GHz maxed:						
2.13 GHz	61.2 Pk	3.97 / 28.34 / 49.41 / 0.0	44.11	V / 2.16 / 298	-63.8	-50.8
4.26 GHz	48.9 Pk	6.1 / 32.37 / 46.03 / 0.0	41.34	V / 2.16 / 298	-66.57	-53.57
5.68 GHz	45.95 Pk	6.91 / 34.18 / 45.3 / 0.0	41.74	V / 2.16 / 298	-66.17	-53.17
4.259 GHz maxed:						
4.26 GHz	50.9 Pk	6.1 / 32.37 / 46.03 / 0.0	43.34	V / 1.57 / 287	-64.57	-51.57
3.266 GHz	54.7 Pk	5.0 / 30.67 / 47.55 / 0.0	42.82	V / 1.57 / 287	-65.09	-52.09

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RADIATED EMISSIONS

Test Report #:	WC505740 Run 2	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/8/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22				99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" B " Band				
Data File Name:	5740-2.dat			Page:	4 of 8

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
1.633 GHz	60.0 Pk	3.55 / 25.93 / 49.58 / 0.0	39.9	V / 1.57 / 287	-68.01	-55.01
142 MHz maxed:						
141.958 MHz	70.0 Qp	1.0 / 9.21 / 26.97 / 0.0	53.24	V / 1.00 / 0	-54.67	-41.67
38.231 MHz	56.85 Qp	0.49 / 17.51 / 27.17 / 0.0	47.68	V / 1.00 / 0	-60.23	-47.23
44.866 MHz	60.75 Qp	0.6 / 15.34 / 27.06 / 0.0	49.63	V / 1.00 / 0	-58.28	-45.28
57.616 MHz	55.0 Qp	0.6 / 12.32 / 27.0 / 0.0	40.92	V / 1.00 / 0	-66.99	-53.99
64.516 MHz	42.35 Qp	0.69 / 10.25 / 27.0 / 0.0	26.28	V / 1.00 / 0	-81.63	-68.63
68.176 MHz	45.05 Qp	0.7 / 9.25 / 27.0 / 0.0	28.0	V / 1.00 / 0	-79.91	-66.91
69.219 MHz	48.25 Qp	0.7 / 8.96 / 27.0 / 0.0	30.91	V / 1.00 / 0	-77	-64
77.674 MHz	46.35 Qp	0.76 / 7.38 / 26.94 / 0.0	27.54	V / 1.00 / 0	-80.37	-67.37
83.295 MHz	64.0 Qp	0.8 / 7.17 / 26.9 / 0.0	45.07	V / 1.00 / 0	-62.84	-49.84
99.754 MHz	43.35 Qp	0.88 / 8.98 / 27.0 / 0.0	26.21	V / 1.00 / 0	-81.7	-68.7
106.108 MHz	48.55 Qp	0.81 / 9.22 / 27.01 / 0.0	31.57	V / 1.00 / 0	-76.34	-63.34
121.408 MHz	42.8 Qp	0.9 / 8.76 / 27.1 / 0.0	25.36	V / 1.00 / 0	-82.55	-69.55
135.208 MHz	41.35 Qp	1.0 / 8.04 / 27.0 / 0.0	23.39	V / 1.00 / 0	-84.52	-71.52
184.841 MHz	32.6 Qp	1.11 / 9.78 / 27.1 / 0.0	16.39	V / 1.00 / 0	-91.52	-78.52
187.54 MHz	35.9 Qp	1.13 / 10.1 / 27.1 / 0.0	20.03	V / 1.00 / 0	-87.88	-74.88
197.327 MHz	38.75 Qp	1.2 / 10.81 / 27.1 / 0.0	23.66	V / 1.00 / 0	-84.25	-71.25
212.968 MHz	47.15 Qp	1.21 / 10.53 / 27.11 / 0.0	31.78	V / 1.00 / 0	-76.13	-63.13
225.467 MHz	34.2 Qp	1.29 / 10.82 / 27.19 / 0.0	19.12	V / 1.00 / 0	-88.79	-75.79
283.98 MHz	33.0 Qp	1.5 / 12.56 / 27.43 / 0.0	19.63	V / 1.00 / 0	-88.28	-75.28
337.08 MHz	31.0 Qp	1.57 / 14.22 / 27.57 / 0.0	19.22	V / 1.00 / 0	-88.69	-75.69
354.978 MHz	52.7 Qp	1.6 / 14.65 / 27.6 / 0.0	41.35	V / 1.00 / 0	-66.56	-53.56
425.971 MHz	51.65 Qp	1.71 / 16.18 / 27.9 / 0.0	41.64	V / 1.00 / 0	-66.27	-53.27

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RADIATED EMISSIONS

Test Report #:	WC505740 Run 2	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/8/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22				99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" B " Band				
Data File Name:	5740-2.dat			Page:	5 of 8

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
496.97 MHz	56.8 Qp	1.9 / 17.39 / 27.93 / 0.0	48.15	V / 1.00 / 0	-59.76	-46.76
567.967 MHz	45.15 Qp	2.03 / 18.42 / 28.1 / 0.0	37.5	V / 1.00 / 0	-70.41	-57.41
638.969 MHz	44.8 Qp	2.1 / 19.5 / 28.2 / 0.0	38.2	V / 1.00 / 0	-69.71	-56.71
709.963 MHz	65.8 Qp	2.3 / 20.2 / 27.95 / 0.0	60.35	V / 1.00 / 0	-47.56	-34.56
780.978 MHz	40.7 Qp	2.39 / 21.54 / 27.83 / 0.0	36.8	V / 1.00 / 0	-71.11	-58.11
827.275 MHz	27.6 Qp	2.47 / 21.67 / 27.8 / 0.0	23.94	V / 1.00 / 0	-83.97	-70.97
851.983 MHz	30.85 Qp	2.51 / 21.9 / 27.78 / 0.0	27.49	V / 1.00 / 0	-80.42	-67.42
860.437 MHz	27.7 Qp	2.53 / 21.9 / 27.75 / 0.0	24.38	V / 1.00 / 0	-83.53	-70.53
868.97 MHz	27.85 Qp	2.54 / 21.9 / 27.72 / 0.0	24.57	V / 1.00 / 0	-83.34	-70.34
880.005 MHz	28.15 Qp	2.56 / 21.9 / 27.68 / 0.0	24.93	V / 1.00 / 0	-82.98	-69.98
891.468 MHz	27.85 Qp	2.58 / 22.03 / 27.64 / 0.0	24.81	V / 1.00 / 0	-83.1	-70.1
910.671 MHz	27.65 Qp	2.61 / 22.4 / 27.6 / 0.0	25.06	V / 1.00 / 0	-82.85	-69.85
922.988 MHz	45.75 Qp	2.63 / 22.46 / 27.6 / 0.0	43.24	V / 1.00 / 0	-64.67	-51.67
993.971 MHz	47.9 Qp	2.73 / 22.66 / 27.57 / 0.0	45.73	V / 1.00 / 0	-62.18	-49.18
710 MHz maxed:						
710.04 MHz	70.2 Pk	2.3 / 20.2 / 27.95 / 0.0	64.75	V / 1.00 / 41	-43.16	-30.16
44.866 MHz	63.5 Qp	0.6 / 15.34 / 27.06 / 0.0	52.38	V / 1.00 / 41	-55.53	-42.53
141.958 MHz	69.75 Qp	1.0 / 9.21 / 26.97 / 0.0	52.99	V / 1.00 / 41	-54.92	-41.92
212.968 MHz	53.15 Qp	1.21 / 10.53 / 27.11 / 0.0	37.78	V / 1.00 / 41	-70.13	-57.13
283.98 MHz	53.5 Qp	1.5 / 12.56 / 27.43 / 0.0	40.13	V / 1.00 / 41	-67.78	-54.78
354.978 MHz	55.6 Qp	1.6 / 14.65 / 27.6 / 0.0	44.25	V / 1.00 / 41	-63.66	-50.66
425.971 MHz	66.9 Qp	1.71 / 16.18 / 27.9 / 0.0	56.89	V / 1.00 / 41	-51.02	-38.02
496.97 MHz	58.15 Qp	1.9 / 17.39 / 27.93 / 0.0	49.5	V / 1.00 / 41	-58.41	-45.41
567.967 MHz	47.3 Qp	2.03 / 18.42 / 28.1 / 0.0	39.65	V / 1.00 / 41	-68.26	-55.26

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RADIATED EMISSIONS

Test Report #:	WC505740 Run 2	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/8/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22				99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" B " Band				
Data File Name:	5740-2.dat			Page:	6 of 8

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
638.969 MHz	47.5 Qp	2.1 / 19.5 / 28.2 / 0.0	40.9	V / 1.00 / 41	-67.01	-54.01
780.978 MHz	48.6 Qp	2.39 / 21.54 / 27.83 / 0.0	44.7	V / 1.00 / 41	-63.21	-50.21
993.952 MHz	52.35 Qp	2.73 / 22.66 / 27.57 / 0.0	50.18	V / 1.00 / 41	-57.73	-44.73
426 MHz maxed:						
425.958 MHz	74.1 Qp	1.71 / 16.18 / 27.9 / 0.0	64.09	V / 1.00 / 90	-43.82	-30.82
496.97 MHz	61.75 Qp	1.9 / 17.39 / 27.93 / 0.0	53.1	V / 1.00 / 90	-54.81	-41.81
Note! 887 MHz Tx setting:						
425.958 MHz	73.2 Qp	1.71 / 16.18 / 27.9 / 0.0	63.19	V / 1.00 / 90	-44.72	-31.72
426.058 MHz	74.75 Qp	1.71 / 16.18 / 27.9 / 0.0	64.74	V / 1.13 / 95	-43.17	-30.17
638.957 MHz	51.7 Qp	2.1 / 19.5 / 28.2 / 0.0	45.1	V / 1.00 / 90	-62.81	-49.81
77.644 MHz	48.1 Qp	0.76 / 7.38 / 26.94 / 0.0	29.29	H / 1.00 / 90	-78.62	-65.62
141.958 MHz	71.05 Qp	1.0 / 9.21 / 26.97 / 0.0	54.29	H / 1.00 / 90	-53.62	-40.62
283.98 MHz	55.85 Qp	1.5 / 12.56 / 27.43 / 0.0	42.48	H / 1.00 / 90	-65.43	-52.43
354.978 MHz	58.2 Qp	1.6 / 14.65 / 27.6 / 0.0	46.85	H / 1.00 / 90	-61.06	-48.06
142 MHz maxed:						
141.958 MHz	71.95 Qp	1.0 / 9.21 / 26.97 / 0.0	55.19	H / 2.18 / 80	-52.72	-39.72
Note! 880 MHz Tx setting:						
141.958 MHz	71.6 Qp	1.0 / 9.21 / 26.97 / 0.0	54.84	H / 2.18 / 80	-53.07	-40.07
426 MHz maxed:						
425.954 MHz	74.8 Qp	1.71 / 16.18 / 27.9 / 0.0	64.79	H / 2.18 / 100	-43.12	-30.12

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RADIATED EMISSIONS

Test Report #:	WC505740 Run 2	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/8/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22				99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" B " Band				
Data File Name:	5740-2.dat			Page:	7 of 8

List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm)	DELTA -13dBm Limit
851.953 MHz	38.6 Qp	2.51 / 21.9 / 27.78 / 0.0	35.24	H / 2.18 / 100	-72.67	-59.67
879.963 MHz	40.3 Qp	2.56 / 21.9 / 27.68 / 0.0	37.08	H / 2.18 / 100	-70.83	-57.83
922.988 MHz	47.7 Qp	2.63 / 22.46 / 27.6 / 0.0	45.19	H / 2.18 / 100	-62.72	-49.72

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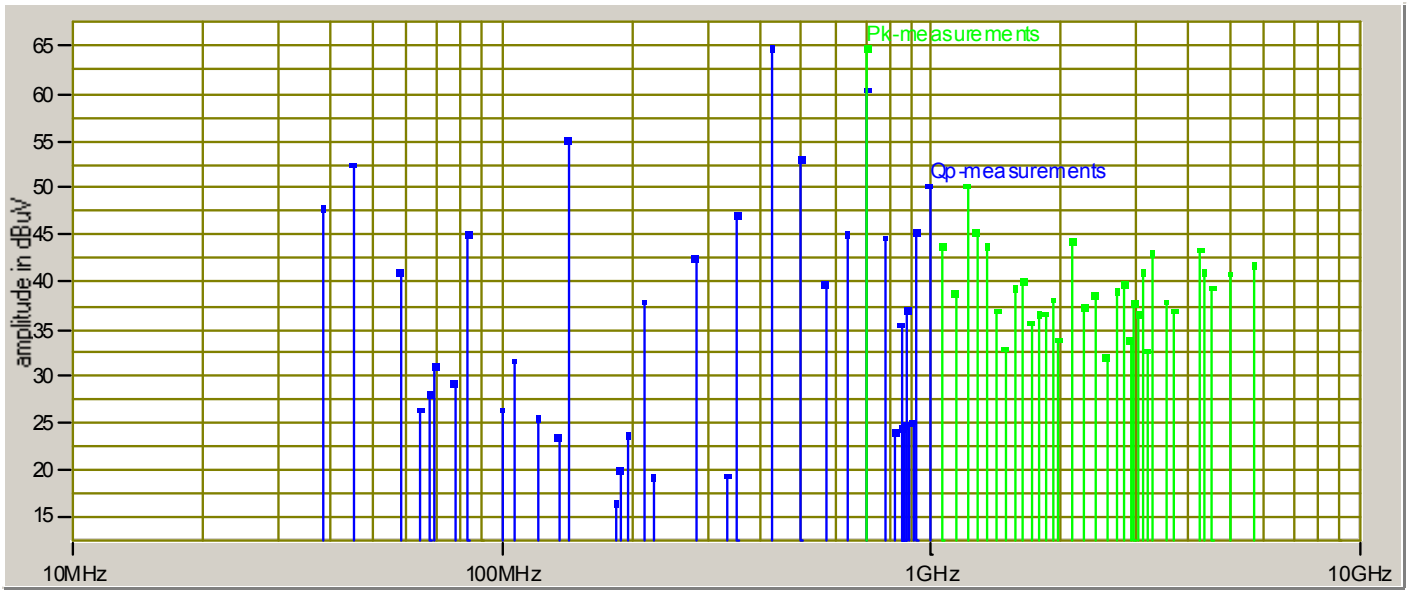
RADIATED EMISSIONS

Test Report #:	WC505740 Run 2	Test Area:	LTS		
EUT Model #:	DGVC-111X0000100SYS	Date:	11/8/2005		
EUT Serial #:	n/a	EUT Power:	60 Hz / 120 VAC	Temperature:	21.0 °C
Test Method:	FCC Part 22				99.0 kPa
Customer:	ADC Telecommunications			Rel. Humidity:	33.0 %
EUT Description:	SCS 800 MHz				
Notes:	" B " Band				
Data File Name:	5740-2.dat			Page:	8 of 8

Graph:



Tested by: J. C. Sausen

Printed | Signature

Reviewed by: Greg Jakubowski

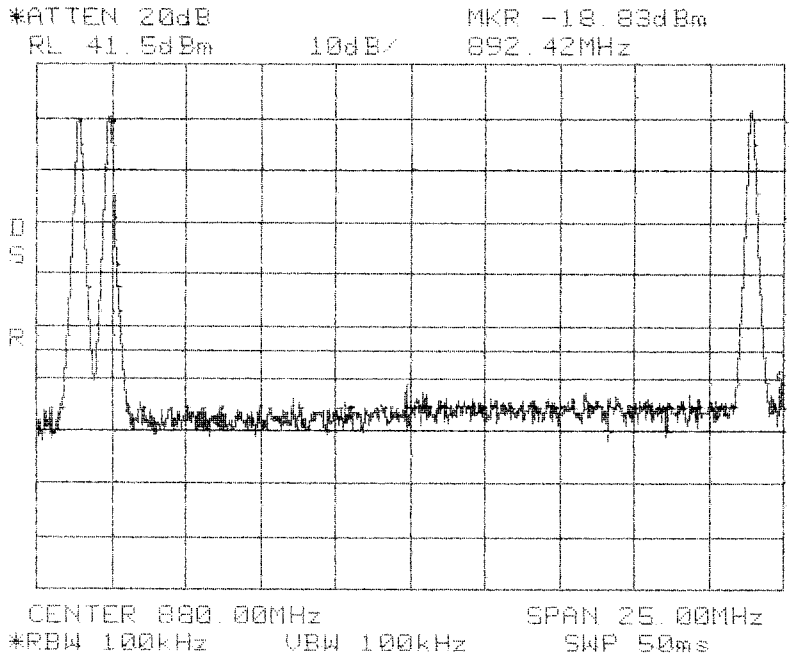
Printed | Signature

Inter-Modulation Test for ADC Inc
Digivance â Street Coverage Solution
Model Numbers DGVC-111X0000100SYS & DGVC-121X0000100SYS

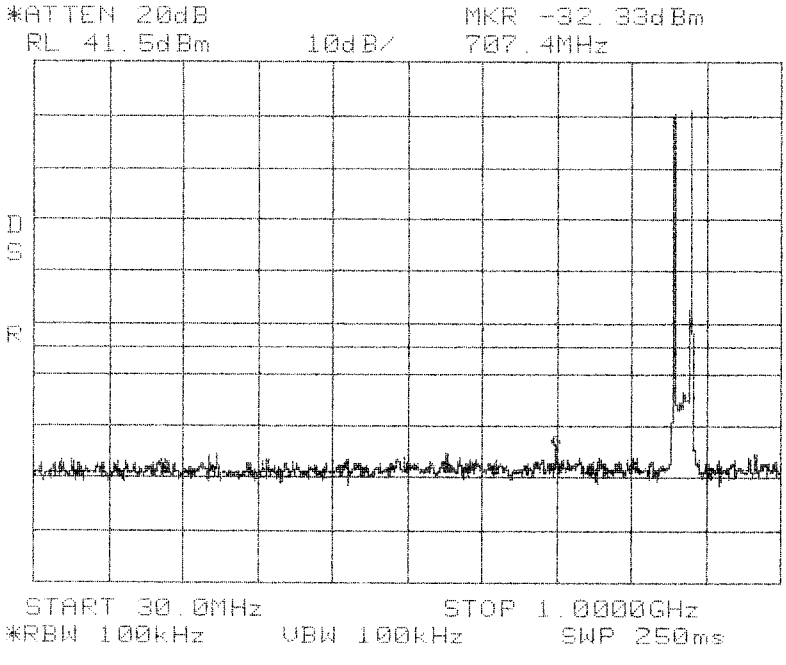
The inter-modulation products test was performed for the EUT. Two tests were preformed with the modulation type. Test 1 was with 2 signals input to the EUT at lower end channels, and 1 signal at the upper end. Test 2 was with 2 signals input to the EUT at upper end channels and 1 signal at the lower end. The modulation types tested were CW, FM, TDMA, GSM, and CDMA. An investigation was made from 30 MHz to the 10th Harmonic of the highest fundamental frequency (~10 GHz). The following plots show the results.

Results:
(See Plots)

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



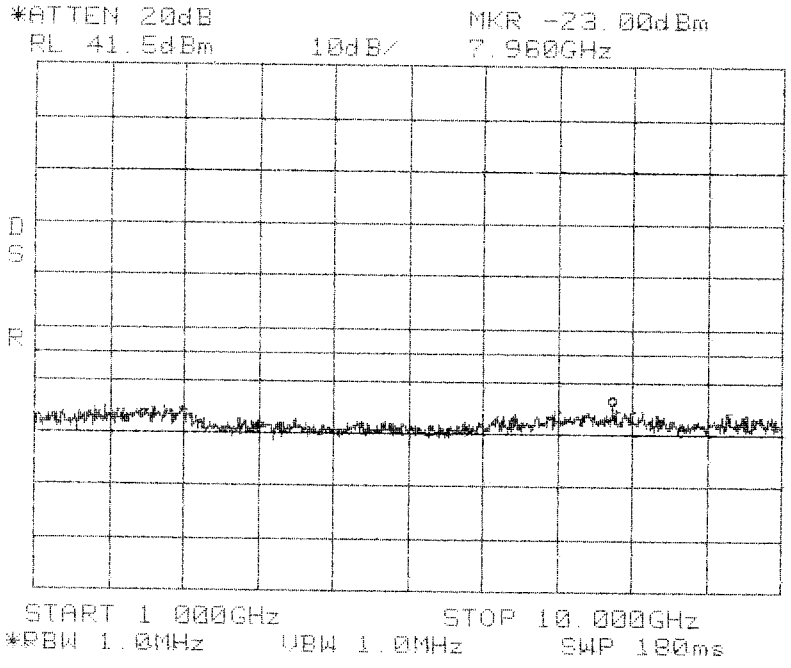
Intermodulation
Close
Lower
FM
Cellular 800 MHz
A Band



Intermodulation
Close
Lower
FM
Cellular 800 MHz
A Band

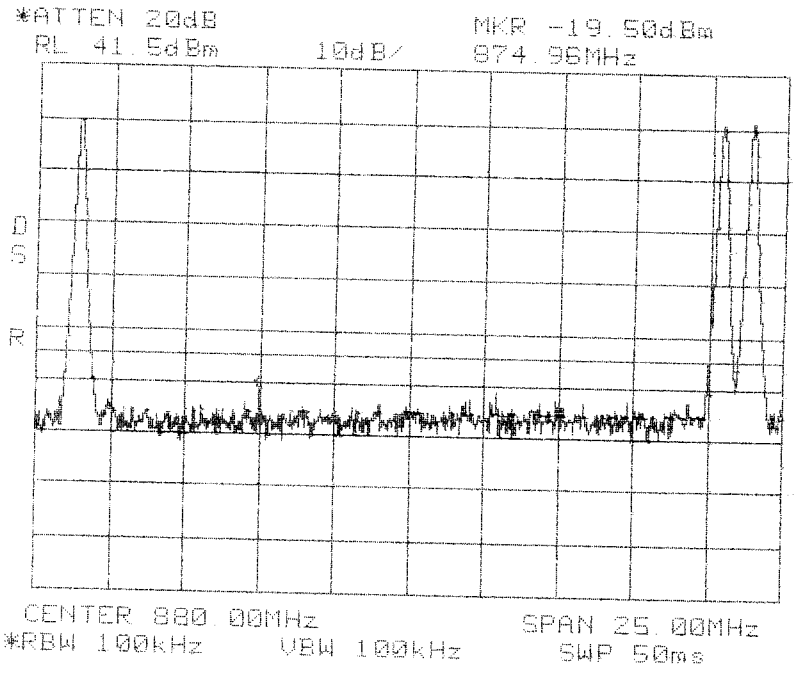
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

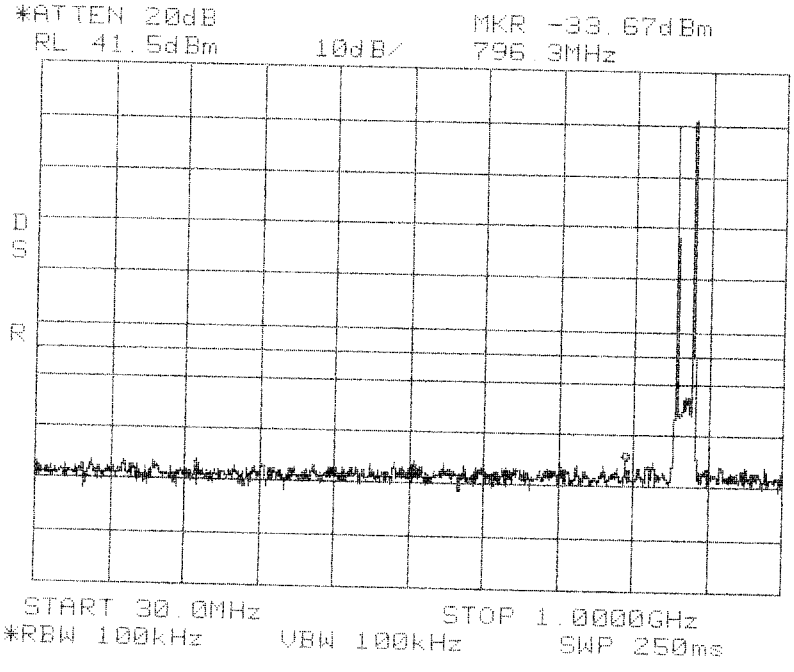


Intermodulation
Close
Lower
FM
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



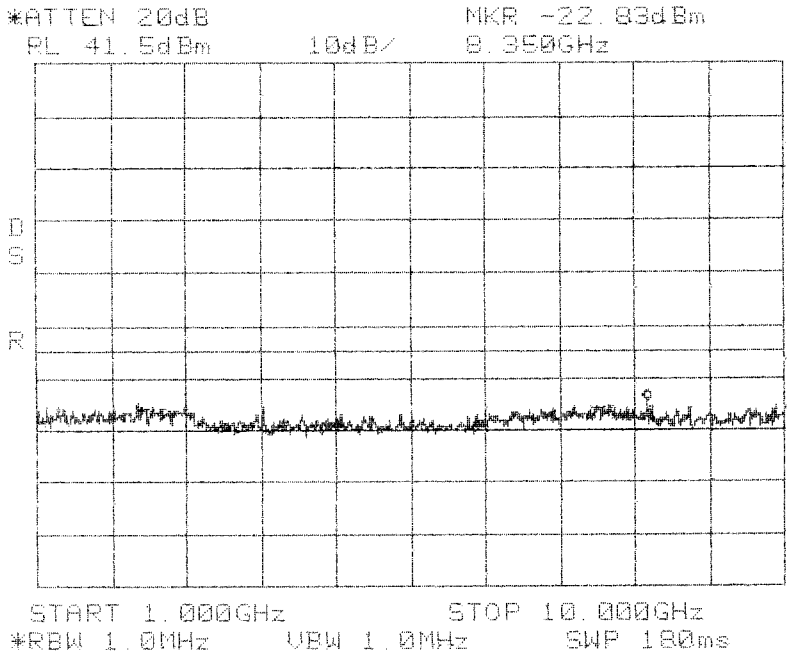
Intermodulation
Close
Upper
FM
Cellular 800 MHz
A Band



Intermodulation
Close
Upper
FM
Cellular 800 MHz
A Band

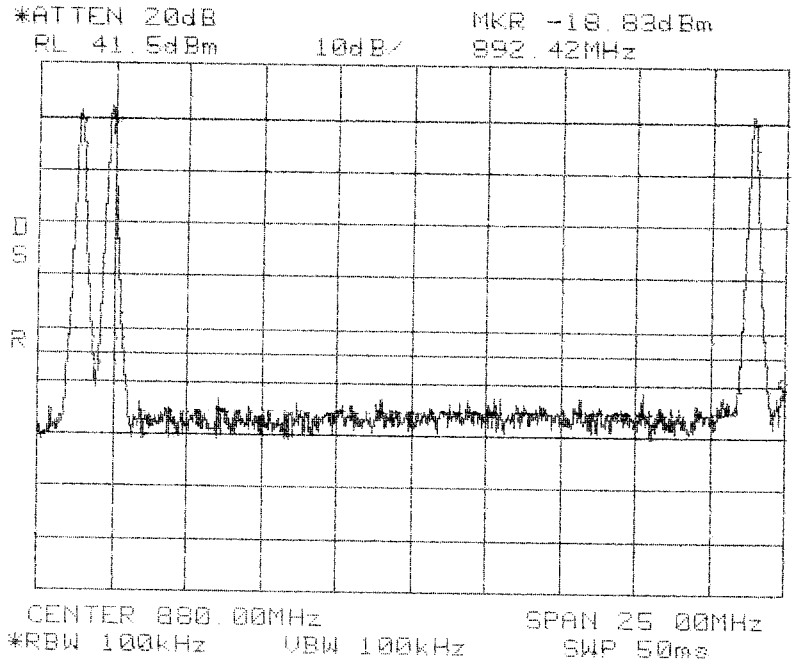
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

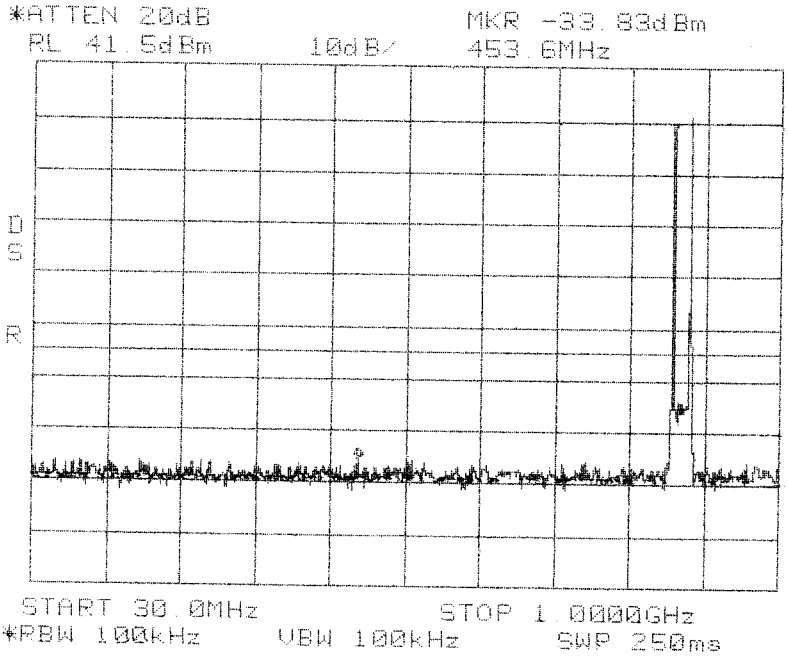


Intermodulation
Close
Upper
FM
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



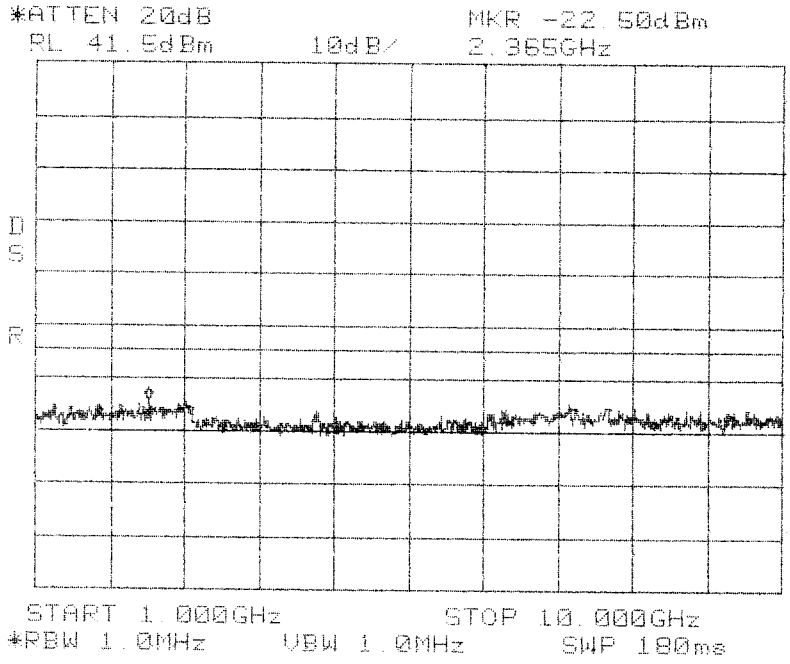
Intermodulation
Close
Lower
TDMA
Cellular 800 MHz
A Band



Intermodulation
Close
Lower
TDMA
Cellular 800 MHz
A Band

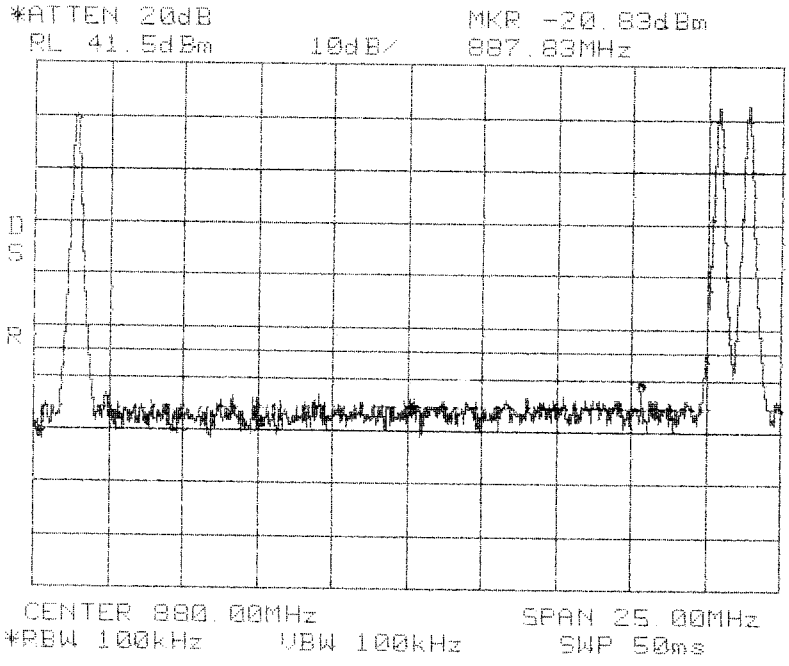
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

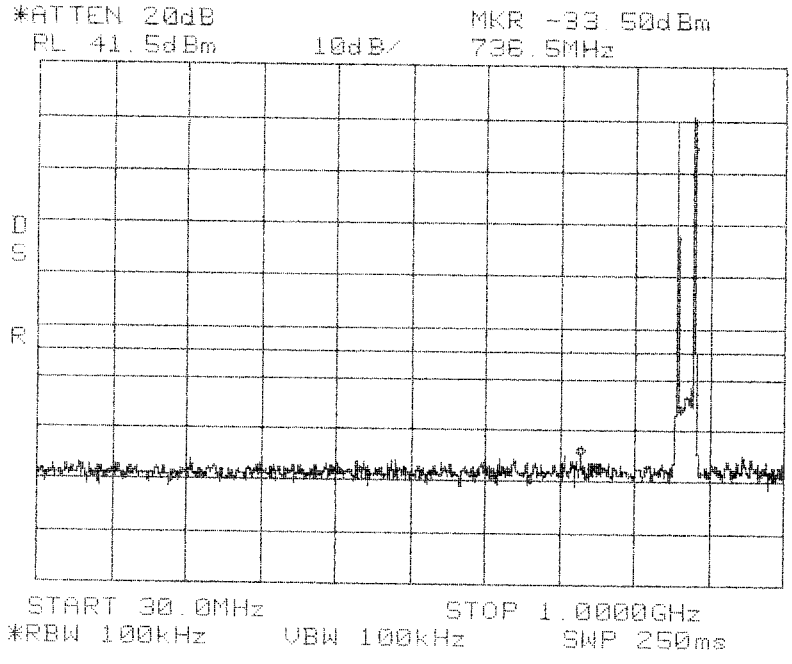


Intermodulation
Close
Lower
TDMA
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



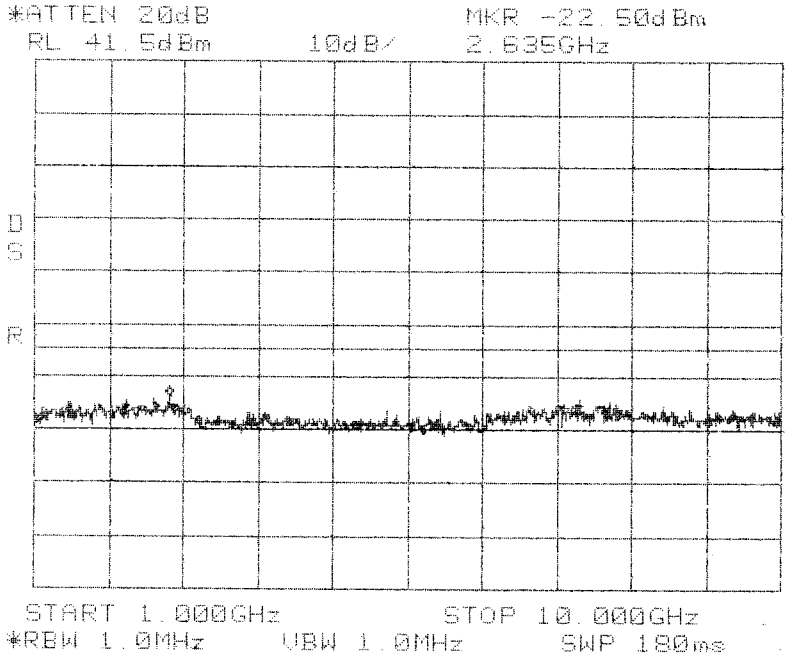
Intermodulation
Close
Upper
TDMA
Cellular 800 MHz
A Band



Intermodulation
Close
Upper
TDMA
Cellular 800 MHz
A Band

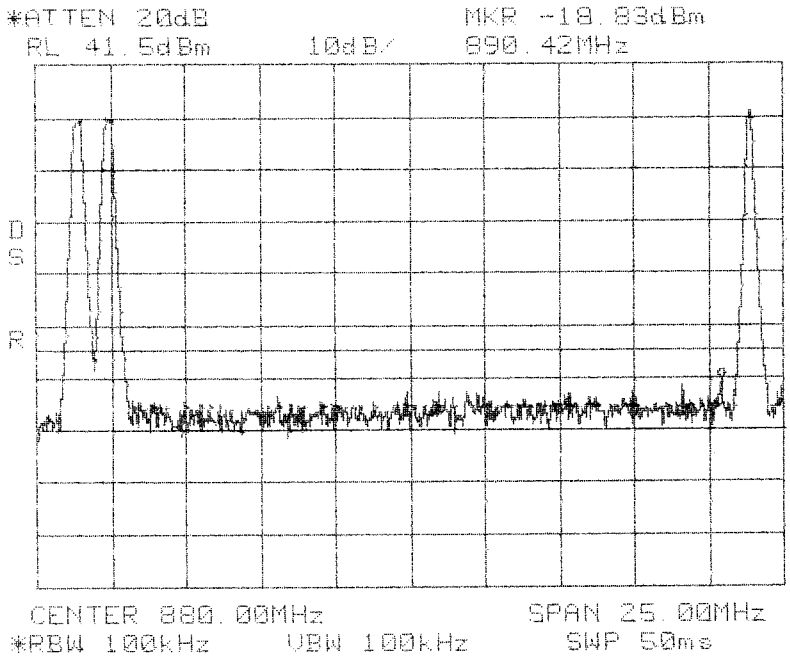
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

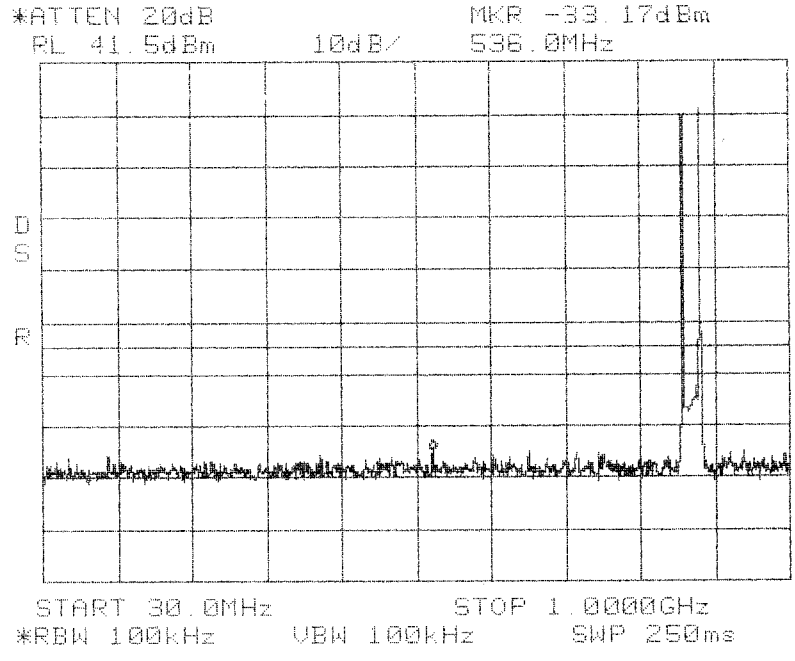


Intermodulation
Close
Upper
TDMA
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



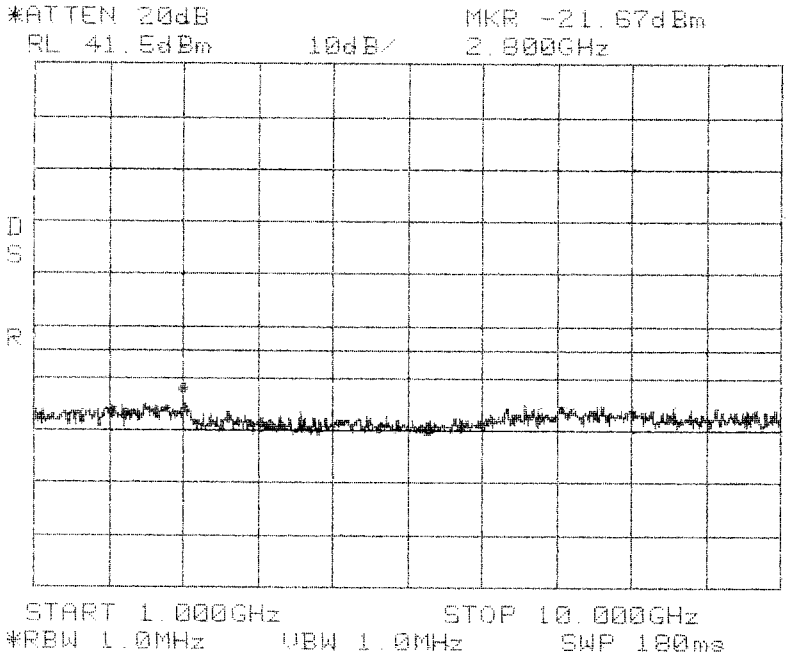
Intermodulation
Close
Lower
GSM
Cellular 800 MHz
A Band



Intermodulation
Close
Lower
GSM
Cellular 800 MHz
A Band

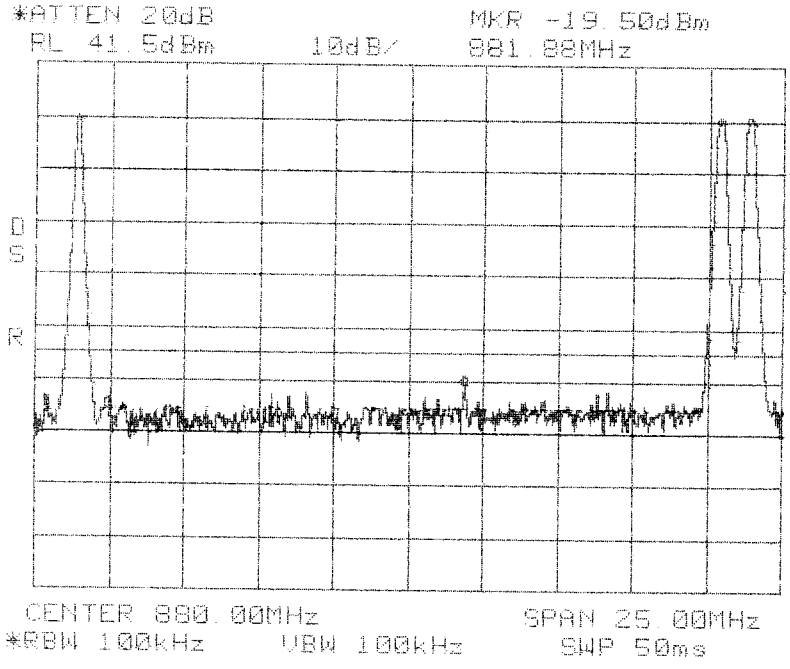
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

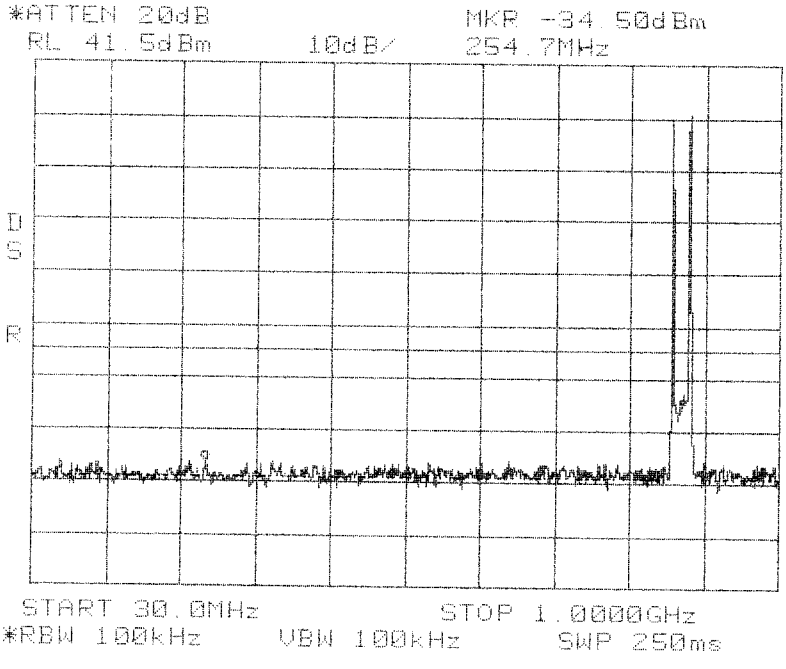


Intermodulation
Close
Lower
GSM
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



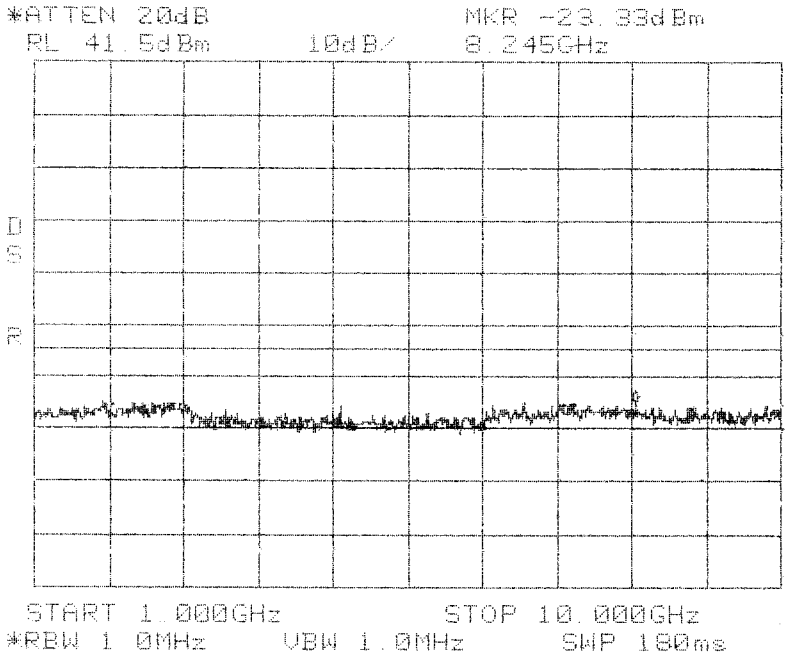
Intermodulation
Close
Upper
GSM
Cellular 800 MHz
A Band



Intermodulation
Close
Upper
GSM
Cellular 800 MHz
A Band

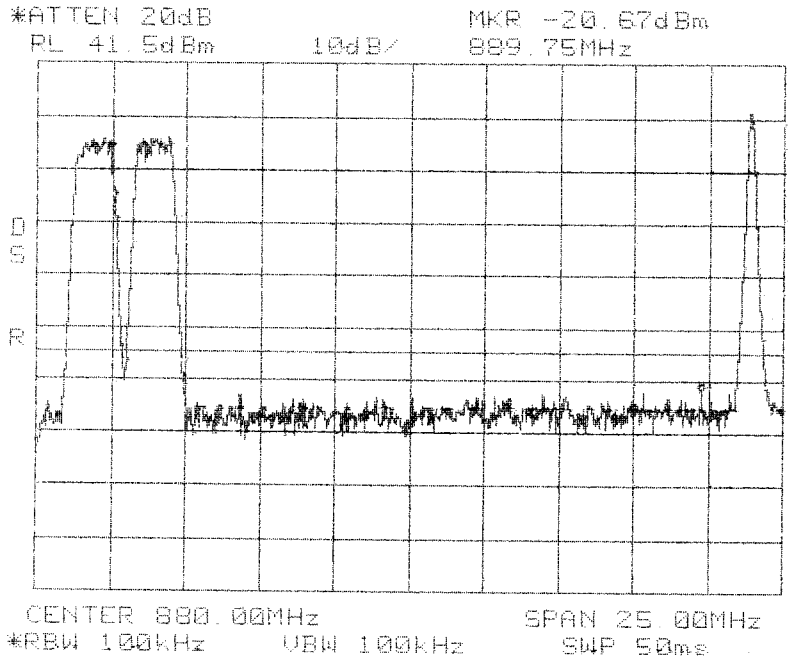
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

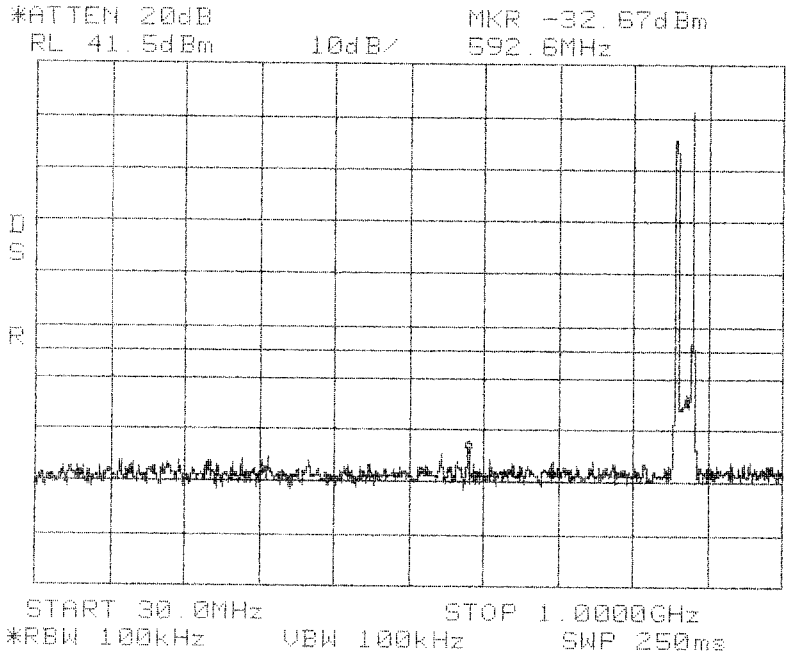


Intermodulation
Close
Upper
GSM
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



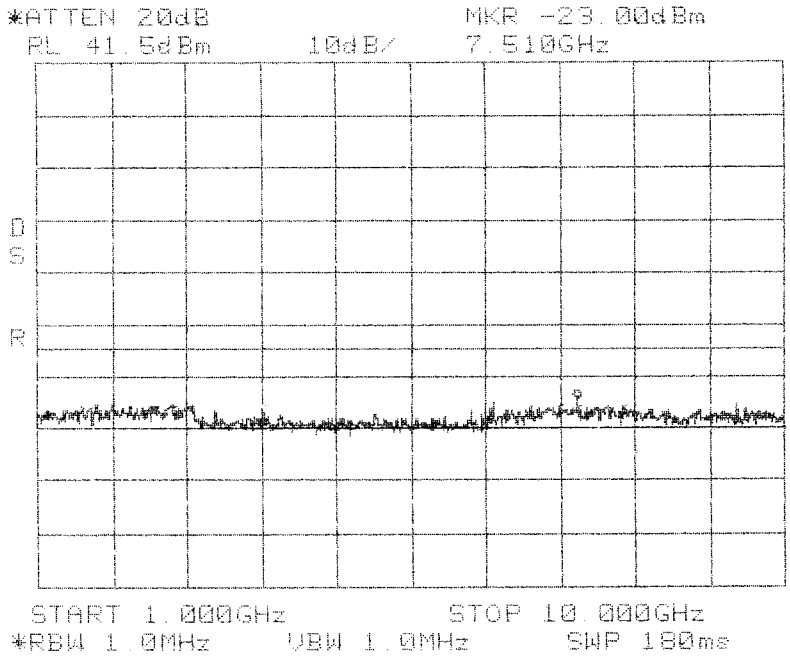
Intermodulation
Close
Lower
CDMA
Cellular 800 MHz
A Band



Intermodulation
Close
Lower
CDMA
Cellular 800 MHz
A Band

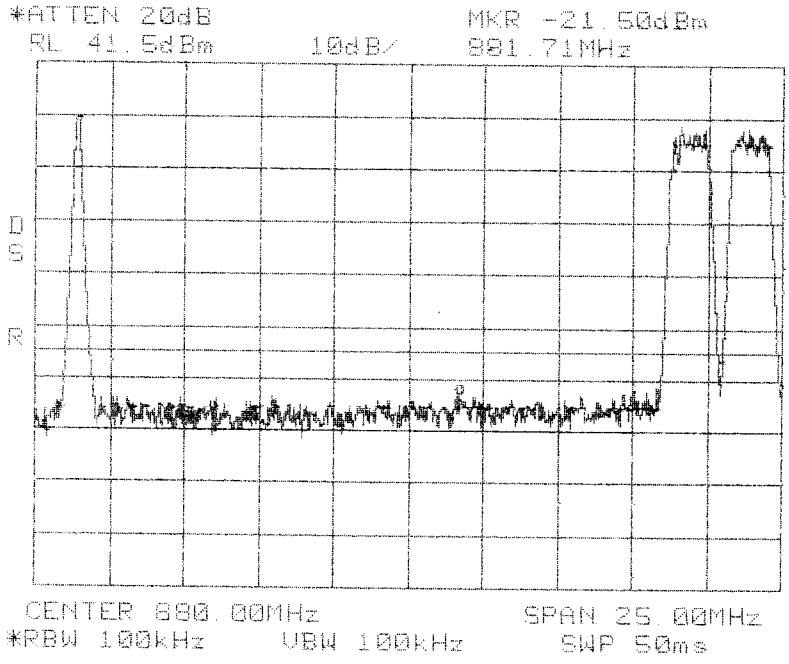
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

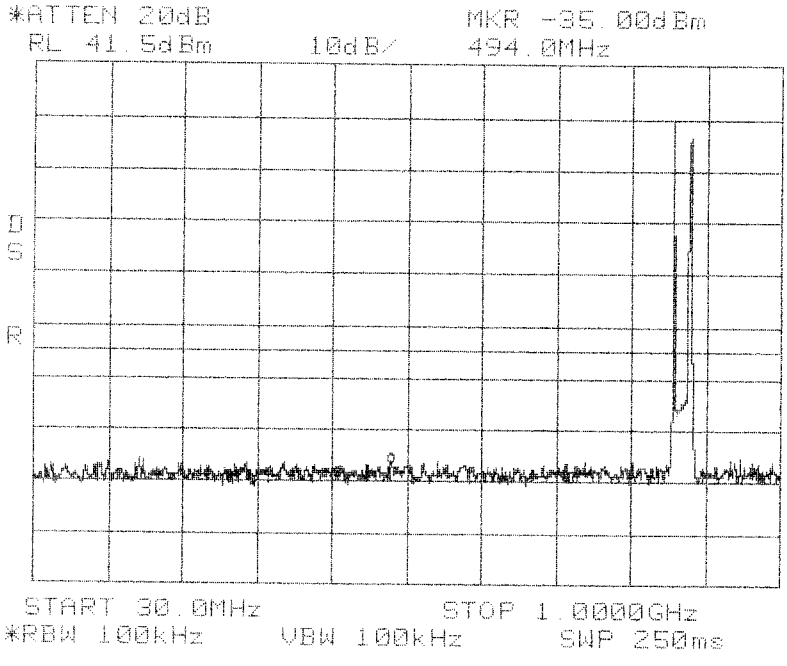


Intermodulation
Close
Lower
CDMA
Cellular 800 MHz
A Band

Center: 880.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



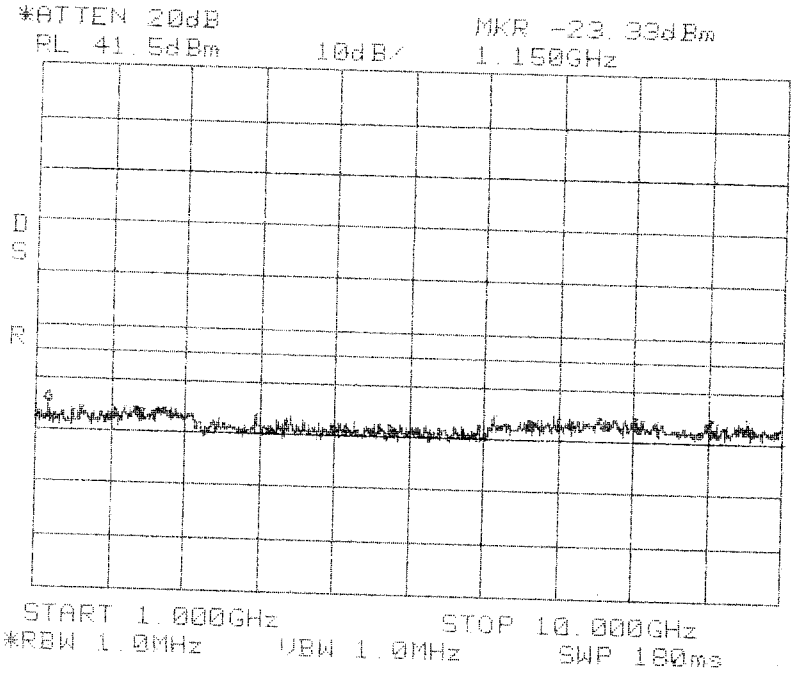
Intermodulation
Close
Upper
CDMA
Cellular 800 MHz
A Band



Intermodulation
Close
Upper
CDMA
Cellular 800 MHz
A Band

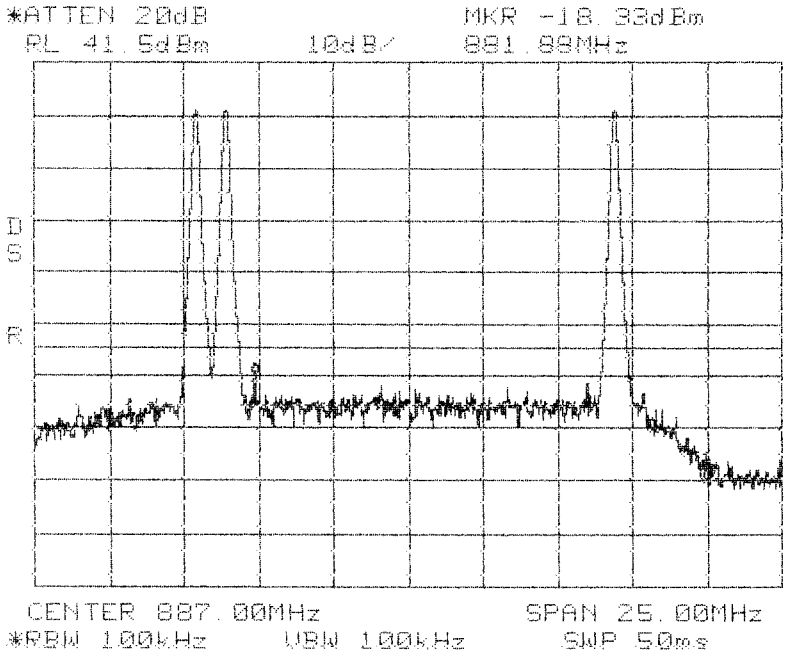
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

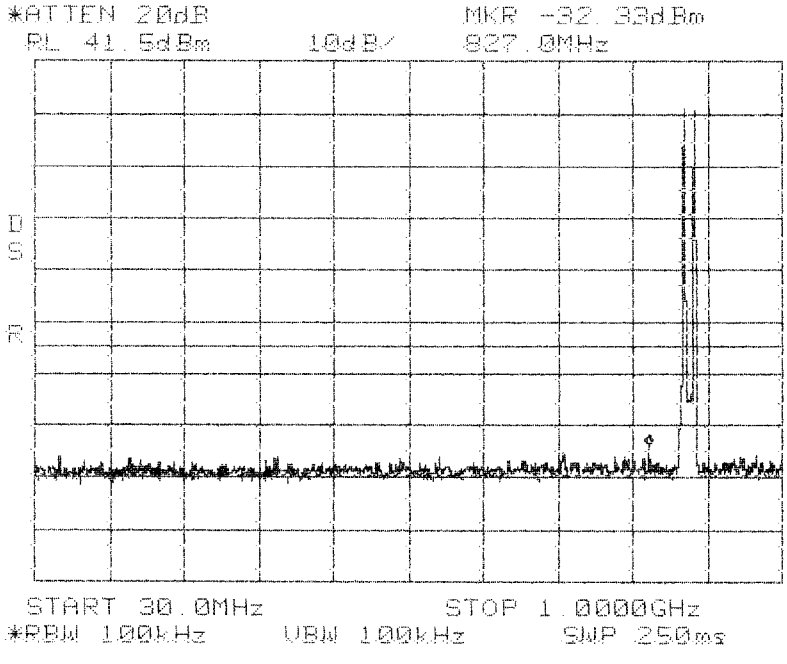


Intermodulation
Close
Upper
CDMA
Cellular 800 MHz
A Band

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



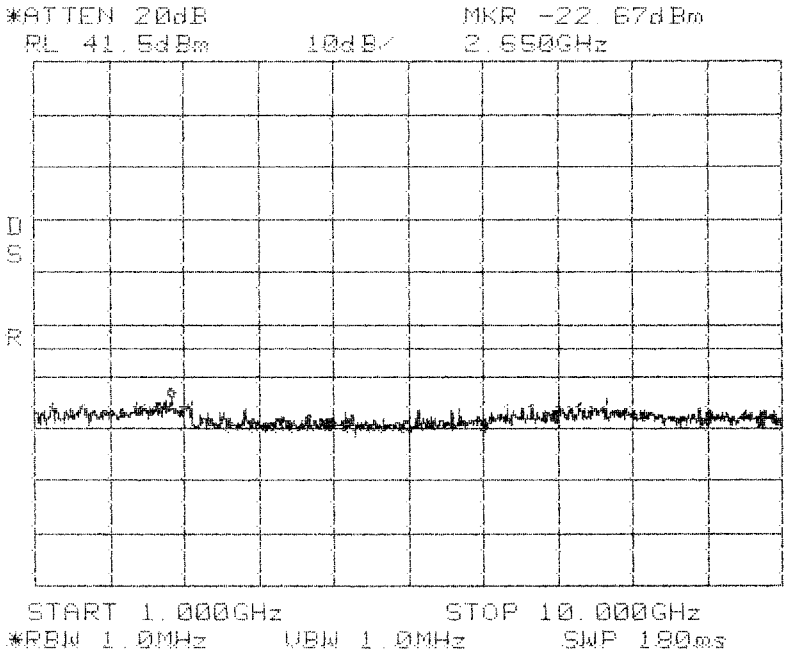
Intermodulation
Close
Lower
FM
Cellular 800 MHz
B Band



Intermodulation
Close
Lower
FM
Cellular 800 MHz
B Band

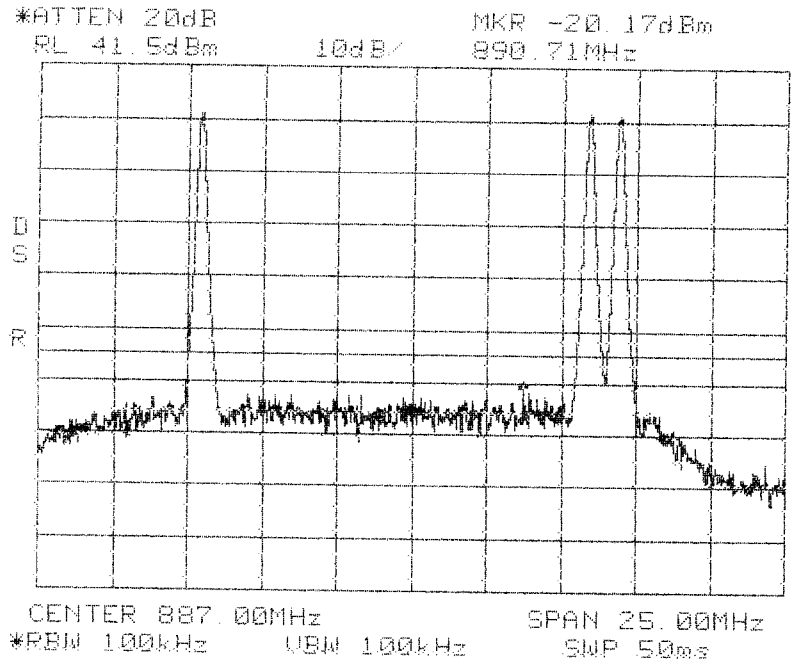
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

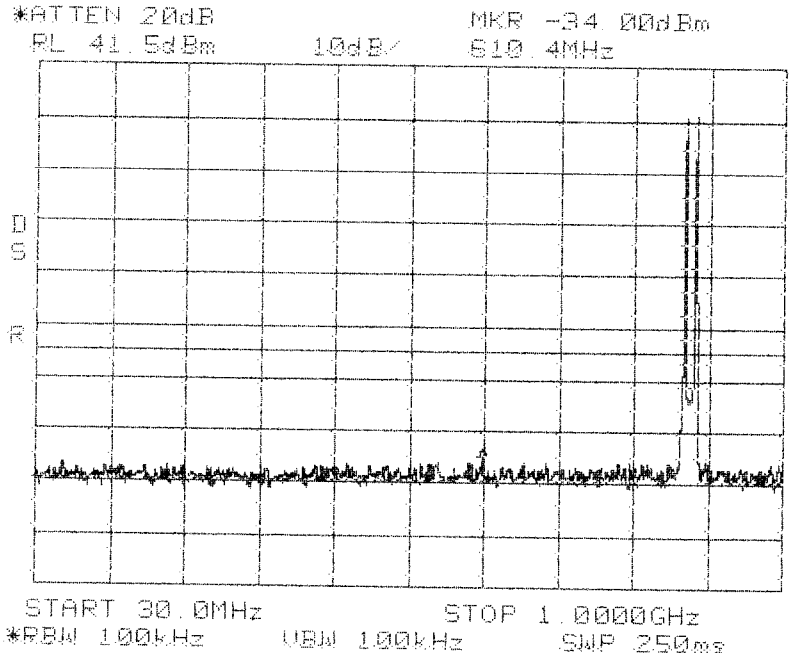


Intermodulation
Close
Lower
FM
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



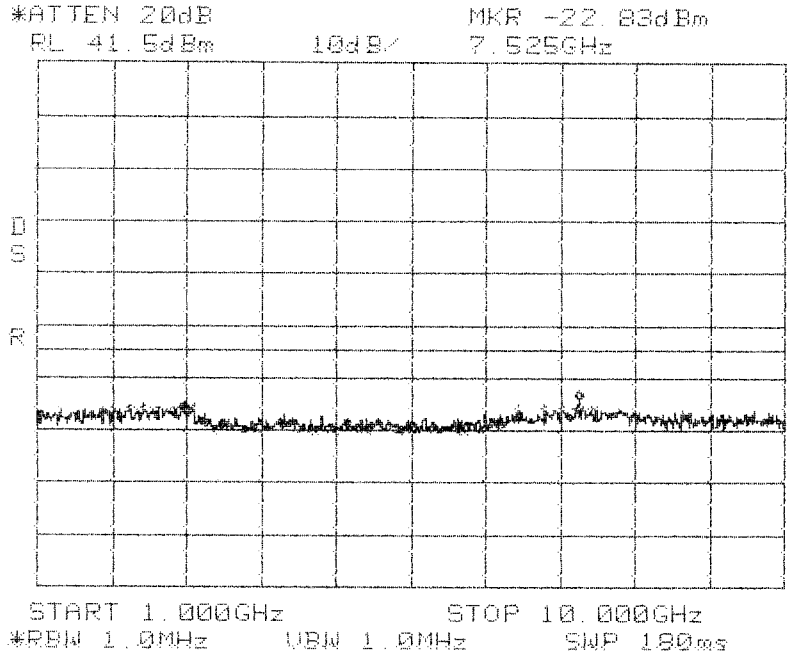
Intermodulation
Close
Upper
FM
Cellular 800 MHz
B Band



Intermodulation
Close
Upper
FM
Cellular 800 MHz
B Band

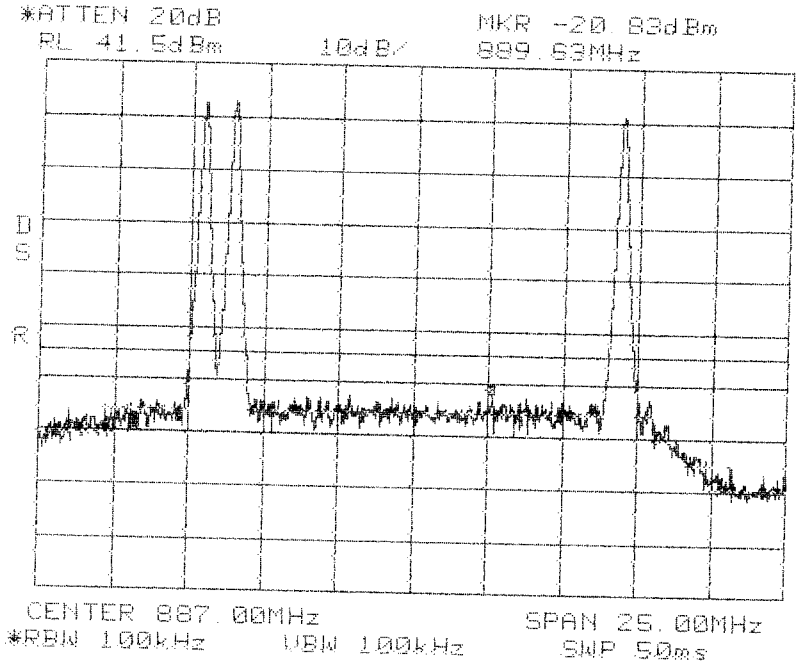
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

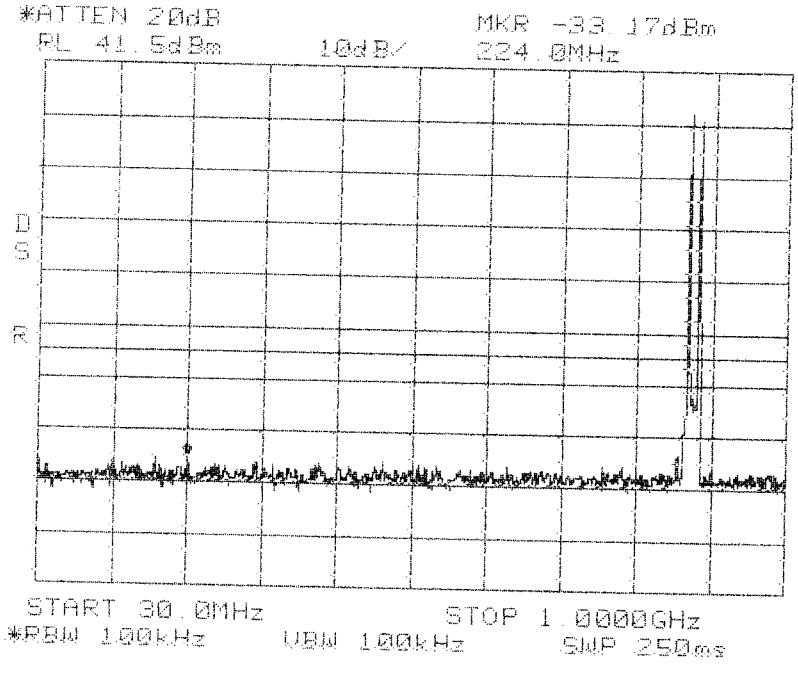


Intermodulation
Close
Upper
FM
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



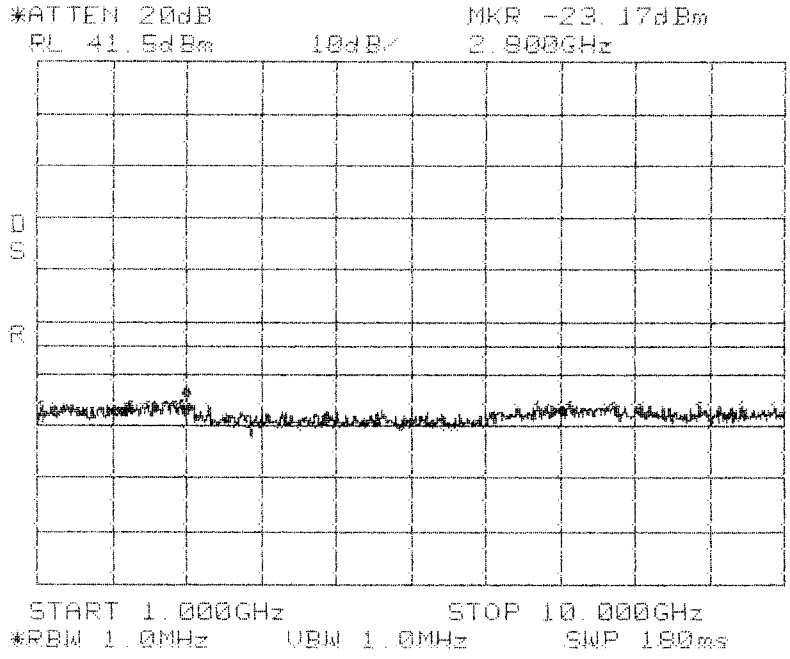
Intermodulation
Close
Lower
TDMA
Cellular 800 MHz
B Band



Intermodulation
Close
Lower
TDMA
Cellular 800 MHz
B Band

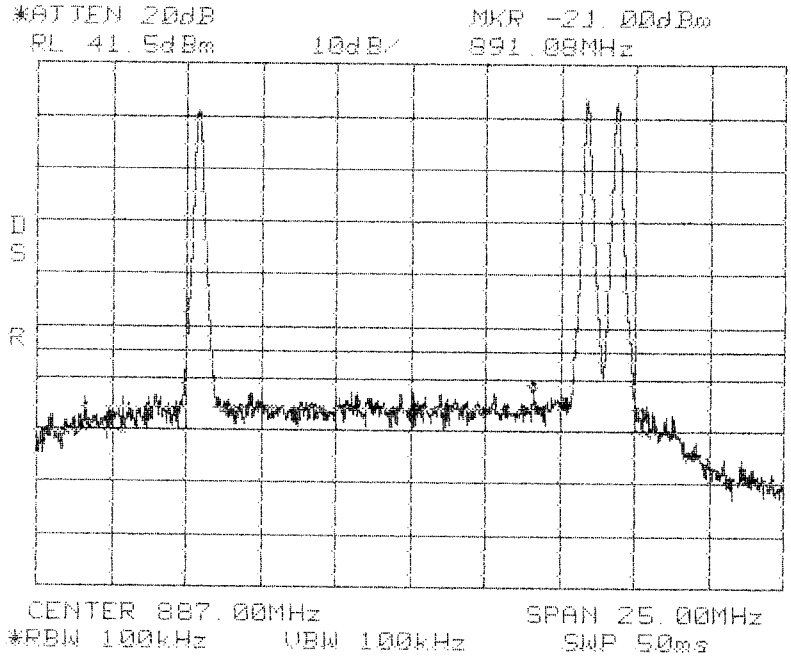
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

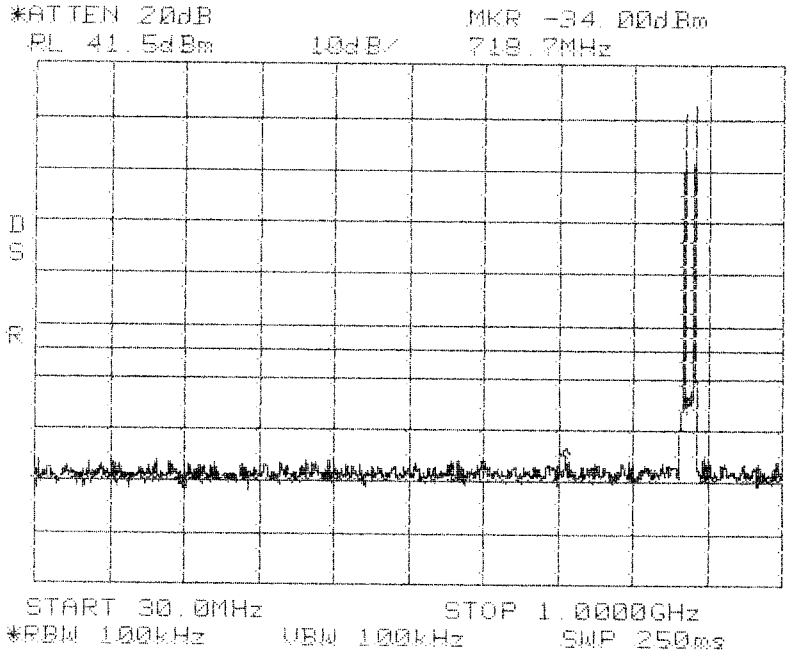


Intermodulation
Close
Lower
TDMA
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



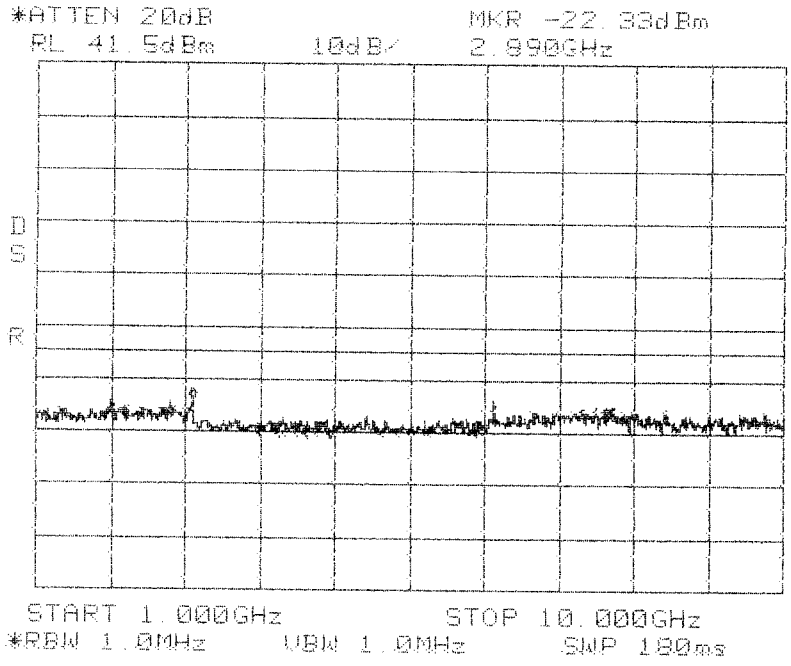
Intermodulation
Close
Upper
TDMA
Cellular 800 MHz
B Band



Intermodulation
Close
Upper
TDMA
Cellular 800 MHz
B Band

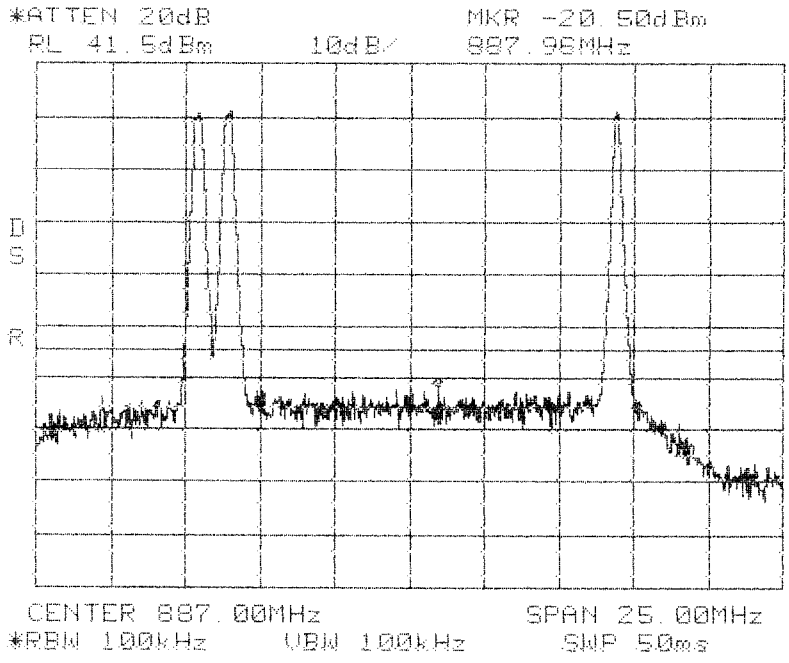
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

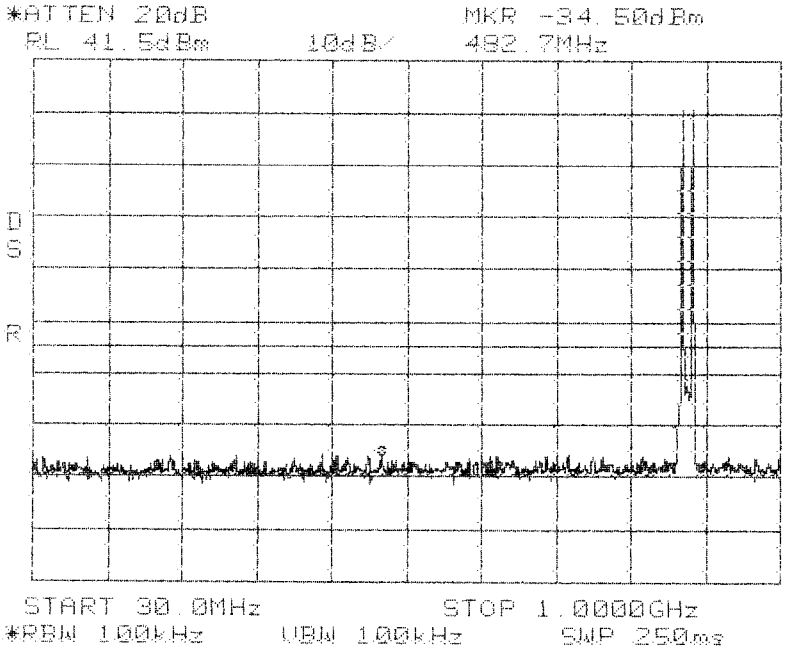


Intermodulation
Close
Upper
TDMA
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



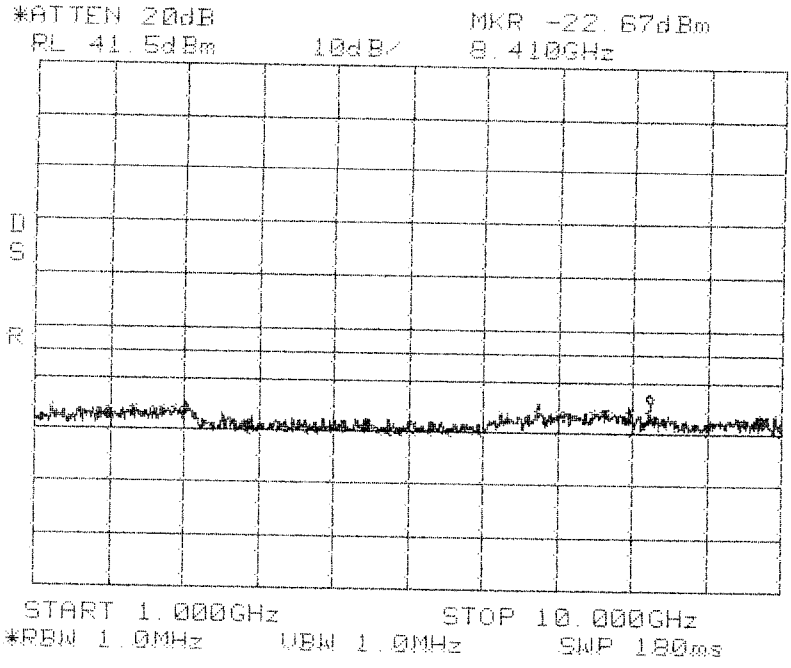
Intermodulation
Close
Lower
GSM
Cellular 800 MHz
B Band



Intermodulation
Close
Lower
GSM
Cellular 800 MHz
B Band

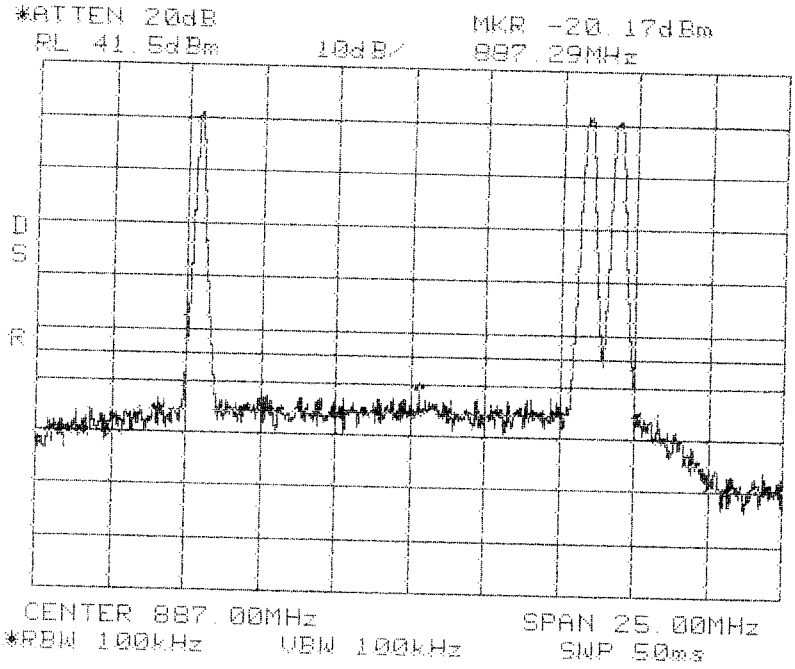
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

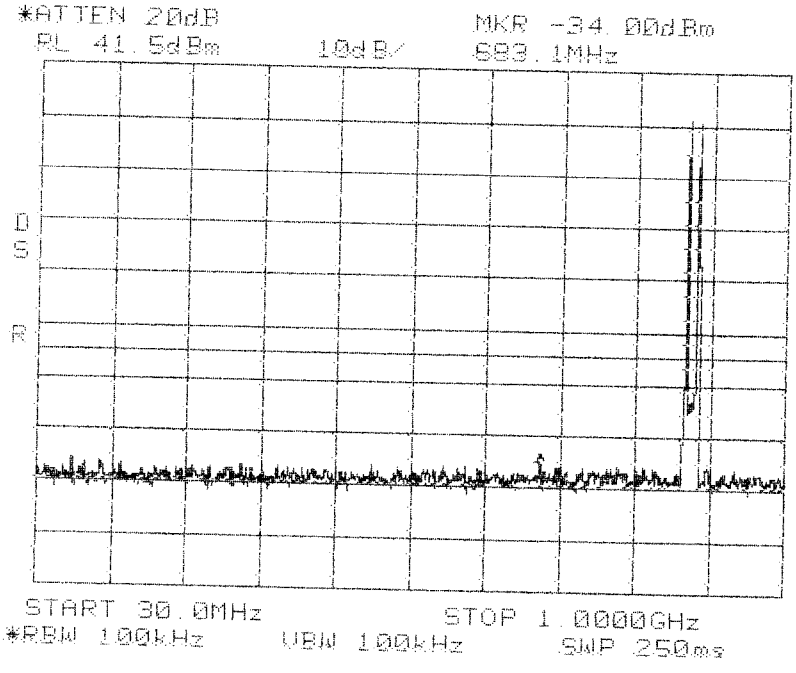


Intermodulation
Close
Lower
GSM
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



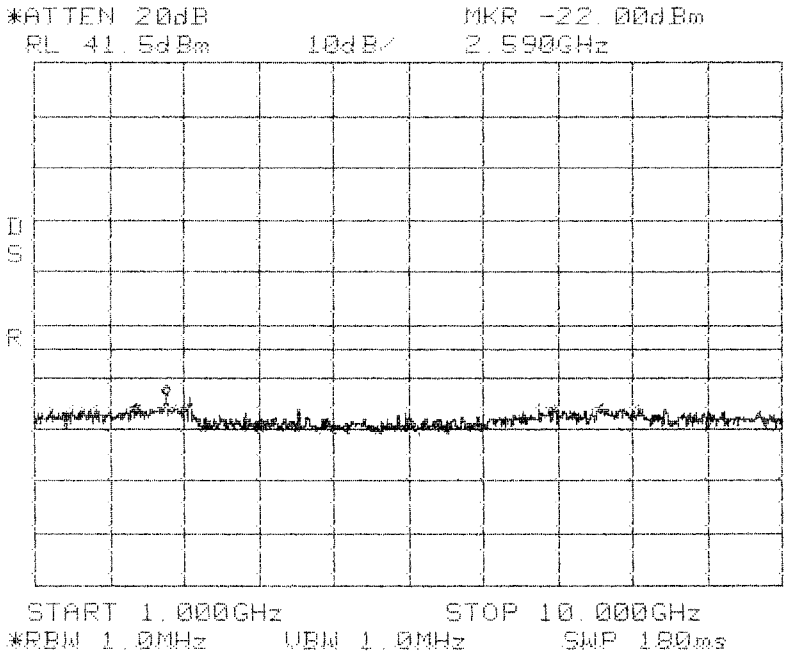
Intermodulation
Close
Upper
GSM
Cellular 800 MHz
B Band



Intermodulation
Close
Upper
GSM
Cellular 800 MHz
B Band

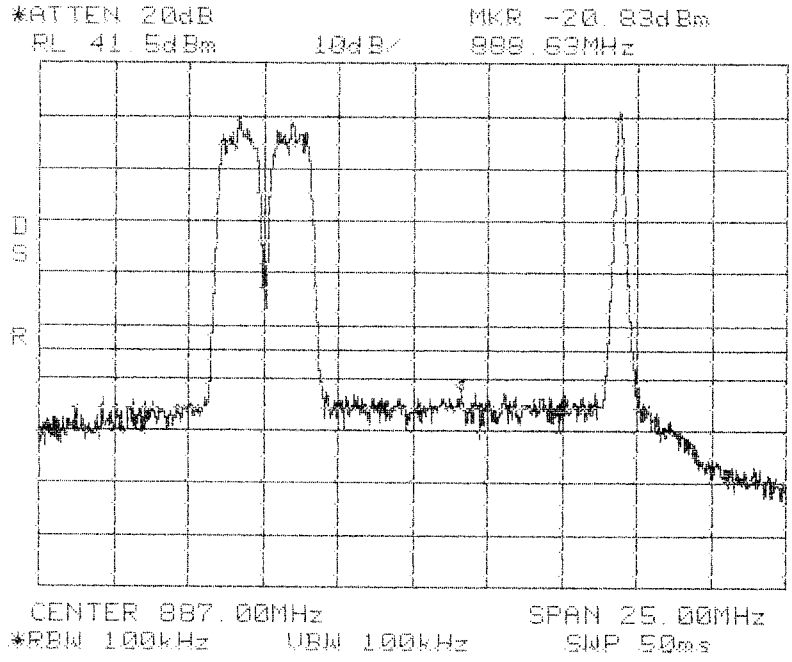
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

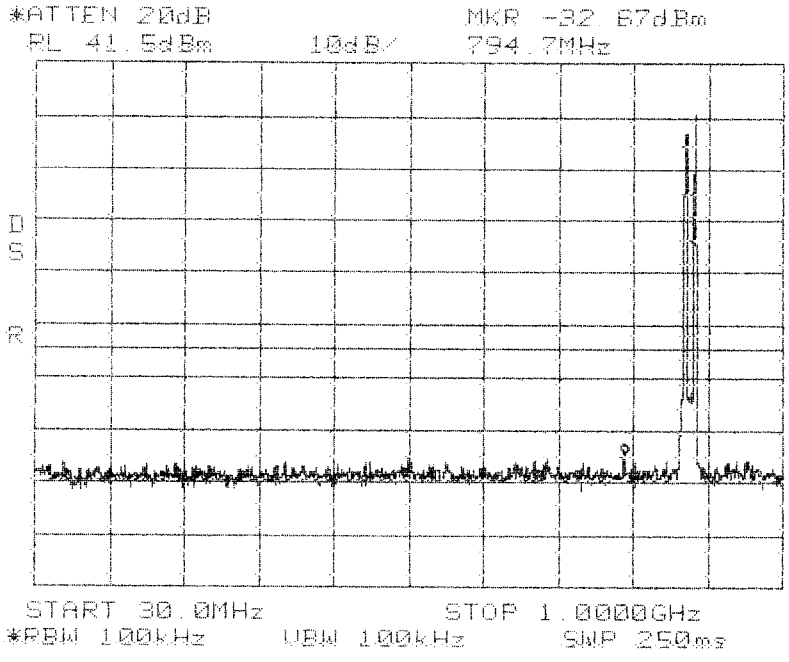


Intermodulation
Close
Upper
GSM
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



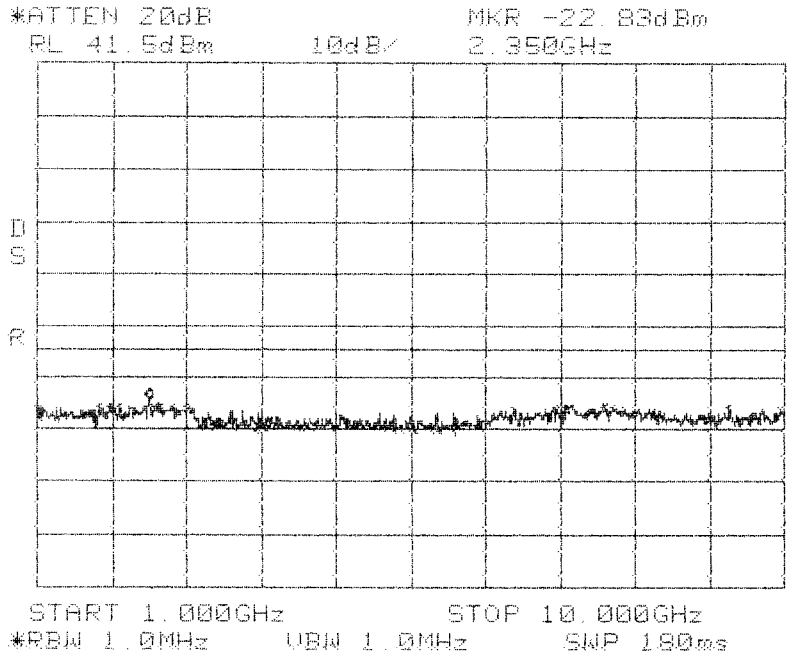
Intermodulation
Close
Lower
CDMA
Cellular 800 MHz
B Band



Intermodulation
Close
Lower
CDMA
Cellular 800 MHz
B Band

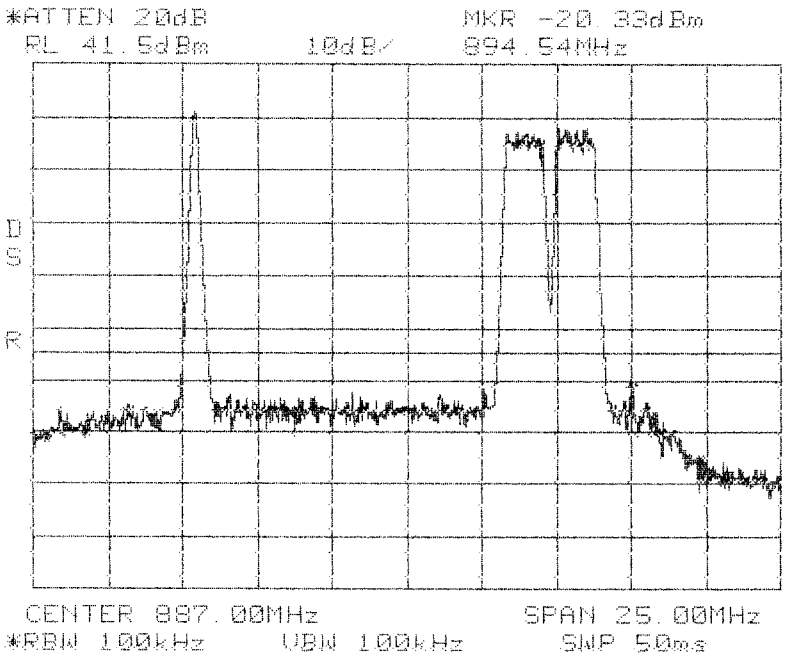
Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

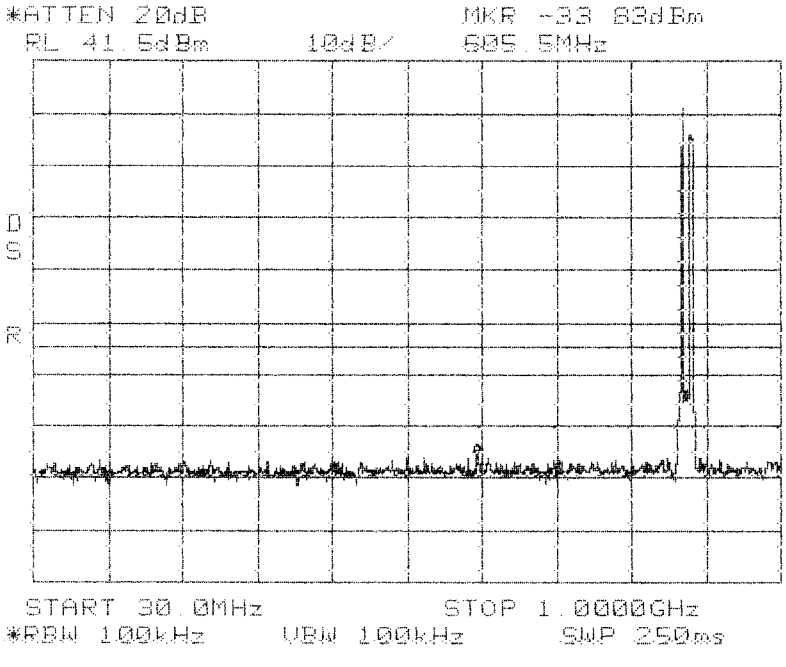


Intermodulation
Close
Lower
CDMA
Cellular 800 MHz
B Band

Center: 887.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



Intermodulation
Close
Upper
CDMA
Cellular 800 MHz
B Band

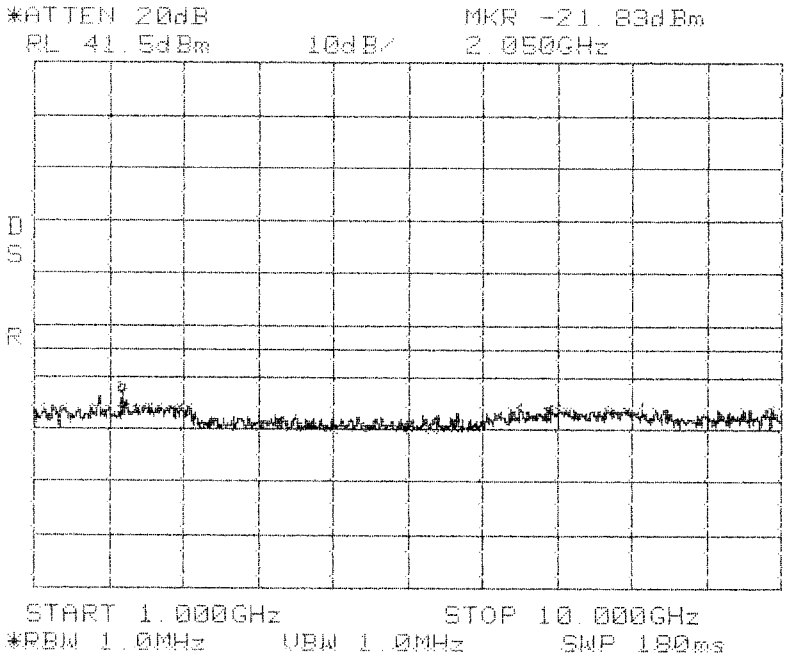


Intermodulation
Close
Upper
CDMA
Cellular 800 MHz
B Band

Span: 30 MHz to 1 GHz
RBW/VBW: 100 kHz

Span: 1 GHz to 10 GHz
RBW/VBW: 1 MHz

Intermodulation
Close
Upper
CDMA
Cellular 800 MHz
B Band



Appendix B

Constructional Data Form

and

Block Diagram

TÜV AMERICA INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 112205

Form

EMC Test Plan and Constructional Data Form

PRODUCT SERVICE

PLEASE COMPLETE THIS DOCUMENT IN FULL, ENTERING N/A IF THE FIELD IS NOT APPLICABLE.

Applicant -- ***NOTE: This information will be input into your test report as shown below.***
Press the F1 key at any time to get HELP for the current field selected.

Company: ADC

Address: P.O. Box 1101
Minneapolis, MN 55440-1101

Contact: Mark F. Miska Position: Compliance Engineer

Phone: 952-403-8340 Fax: 952-403-8858

E-mail Address: mark.miska@adc.com

General Equipment Description -- ***NOTE: This information will be input into your test report as shown below.***

EUT Description: Transports RF between a remote antenna and base station.

EUT Name: Digivance® Street Coverage Solution 800 MHz System

Model No.: DGVC-111X0000100SYS and DGVC-121X0000100SYS Serial No.: None

Product Options: None

Configurations to be tested: Cellular 800 MHz A & B Band System

Test Objective

☐ EMC Directive 89/336/EEC (EMC)
Std:

☐ Machinery Directive 89/392/EEC (EMC
Std:

☐ Medical Device Directive 93/42/EEC (EMC)
Std:

☐ Vehicle Directive 72/245/EEC (EMC)
Std:

☐ FDA Reviewers Guidance for Premarket Notification Submissions (EMC)

☐ FCC: Class ☐ A ☐ B Part

☐ VCCI: Class ☐ A ☐ B

☐ BCIQ: Class ☐ A ☐ B

☐ Canada: Class ☐ A ☐ B

☐ Australia: Class ☐ A ☐ B

☒ Other: FCC Part 22

Form

EMC Test Plan and Constructional Data Form

TÜV PRODUCT SERVICE

TÜV Product Service Certification Requested

☐ Attestation of Conformity (AoC) ☐ International EMC Mark (IEM)

☐ Certificate of Conformity (CoC) ☐ Compliance Document

Protection Class (N/A for vehicles) ☐ Class I ☐ Class II ☐ Class III

(Press **F1** when field is selected to show additional information on Protection Class.)

Attendance

Test will be: ☒ Attended by the customer ☐ Unattended by the customer

Failure - *Complete this section if testing will not be attended by the customer.*

If a failure occurs, TUV Product Service should:

☐ Call contact listed above, if not available then stop testing. (After hrs phone): _____

☐ Continue testing to complete test series.

☐ Continue testing to define corrective action.

☐ Stop testing.

EUT Specifications and Requirements

Length: 29" Width: 10" Height: 6" Weight: 62 LBS

Power Requirements

Regulations require testing to be performed at typical power ratings in the countries of intended use. (i.e., European power is typically 230 VAC 50 Hz or 400 VAC 50 Hz, single and three phase, respectively)

Voltage: 115 VAC (If battery powered, make sure battery life is sufficient to complete testing.)

# of Phases: 1

Current (Amps/phase(max)): 6.8 Current (Amps/phase(nominal)): 4.2

Other _____

Other Special Requirements

none

Typical Installation and/or Operating Environment

(ie. Hospital, Small Business, Industrial/Factory, etc.)

Host indoor only with Remote Unit indoor or outdoor. System is typically employed as a Microcell.

EMC Test Plan and Constructional Data Form

EUT Power Cable				
☐ Permanent	OR	☒ Removable	Length (in meters):	1
☐ Shielded	OR	☒ Unshielded		
☐ Not Applicable				

EMC Test Plan and Constructional Data Form

TÜV PRODUCT SERVICE

EUT Interface Ports and Cables

Interface			Shielding								
Type	Analog	Digital	Qty	Yes	No	Type	Termination	Connector Type	Port Termination	Length (in meters)	Removable / Permanent
EXAMPLE: *RS232*	☐	☒	*2*	☒	☐	*Foil over braid*	*Coaxial*	*Metallized 9-pin D-Sub*	*Characteristic Impedance*	*6*	☒ Removable ☐ Permanent
RF "N" type	☒	☐	3	☒	☐	Braid	Coaxial	N	50 Ohms	>3	☒ ☐
Alarm	☒	☐	1	☐	☒	Not Specified	Coaxial	6 Pin Standoff		>3	☒ ☐
Fiber	☒	☐	2	☐	☒	N/A	N/A	S/C	N/A	>3	☒ ☐
Fiber	☐	☒	1	☐	☒	N/A	N/A	Opti-Tap	N/A	>3	☒ ☐
9 Pin Din	☐	☒	4	☒	☐	Not Specified	AC Coupled	Din		3	☒ ☐
AC Power	☒	☐	1	☐	☒	N/A				>3	☒ ☐
	☒	☐	1	☐	☒					1	☒ ☐
DC Power	☒	☐	1	☐	☒	Varied		Terminal		1	☒ ☐
Net In	☒	☐	1	☐	☒	Not Specified	CAT 5	RJ-45		3	☐ ☐
Net Out	☒	☐	1	☐	☒	Not Specified	CAT 5	RJ-45		3	☐ ☐
	☐	☐		☐	☐						☐ ☐
	☐	☐		☐	☐						☐ ☐

Form

EMC Test Plan and Constructional Data Form

TÜV PRODUCT SERVICE

EUT Software.

Revision Level: Version 3.01.04

Description: Digivance Element Management System (DEMS). System Management and Interface Matching Software.

EUT Operating Modes to be Tested -- list the operating modes to be used during test. It is recommended the equipment be tested while operating in a typical operation mode. FCC testing of personal computers and/or peripherals requires that a simple program generate a complete line of upper case H's. Provide a general description of all software, firmware, and PLD algorithms used in the equipment. List all code modules as described above, with the revision level used during testing.
Consult with your TÜV Product Service Representative if additional assistance is required.

1. Max composite in and out

2.

3.

EUT System Components -- List and describe all components which are part of the EUT. For FCC testing a minimum configuration is required. (ie. Mouse, Printer, Monitor, External Disk Drive, Motherboard, etc.)

Description	Model #	Serial #	FCC ID #
Host Unit	DGVL-101000HU	None	
Digivance SCS 800 MHz System Models DGVC-111X0000100SYS & DGVC-121X0000100SYS consist of the HU, STM PCB, and LPA.			

Form

EMC Test Plan and Constructional Data Form

TÜV PRODUCT SERVICE

Support Equipment -- List and describe all support equipment which is not part of the EUT. (i.e. peripherals, simulators, etc)

Description	*Model #*	*Serial #*	*FCC ID #*
Signal Generator	Agilent E4436B	963739	
Power Supply	Xantrex HPD 60-5	MC 27764	

Oscillator Frequencies

Frequency	*Derived Frequency*	*Component # / Location*	*Description of Use*

Power Supply

Manufacturer	*Model #*	*Serial #*	*Type*
			☐ Switched-mode: (Frequency) _____ ☐ Linear ☐ Other: _____
			☐ Switched-mode: (Frequency) _____ ☐ Linear ☐ Other: _____

Power Line Filters

Manufacturer	*Model #*	*Location in EUT*
None		

Form

EMC Test Plan and Constructional Data Form

Critical EMI Components (Capacitors, ferrites, etc.)

Description	*Manufacturer*	*Part # or Value*	*Qty*	*Component # / Location*
None				

EMC Critical Detail -- Describe other EMC Design details used to reduce high frequency noise.

None

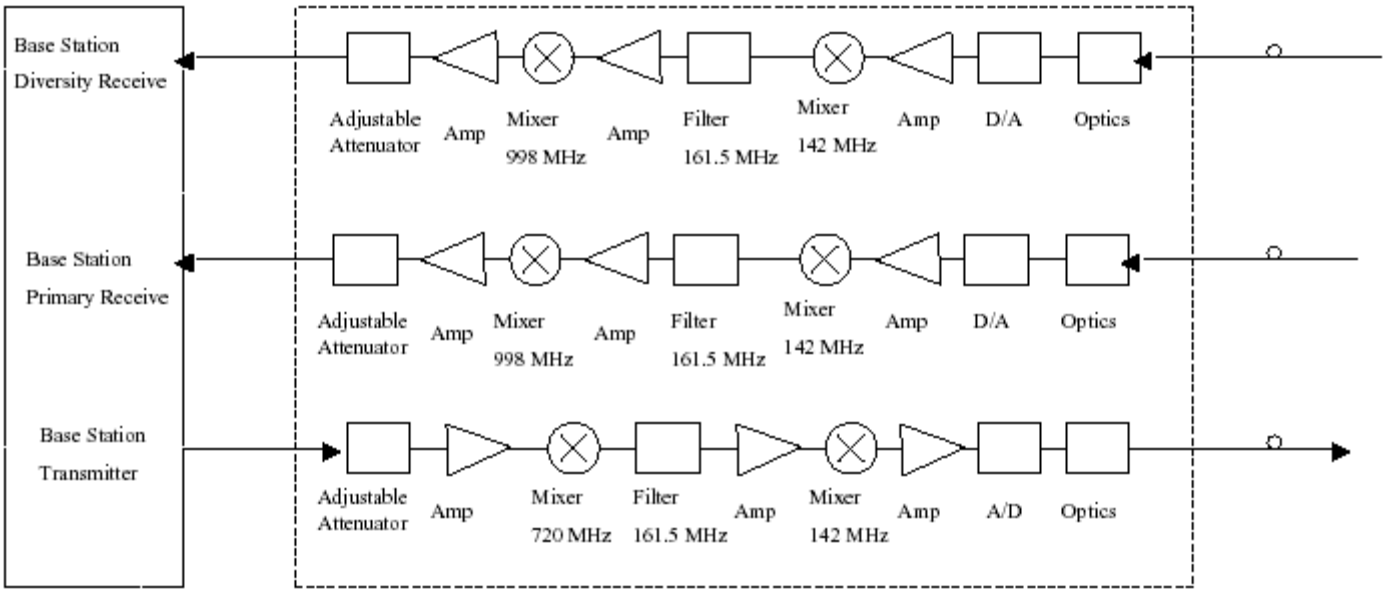
(PLEASE INSERT "**ELECTRONIC SIGNATURE**" BELOW IF POSSIBLE)

Authorization Signatures

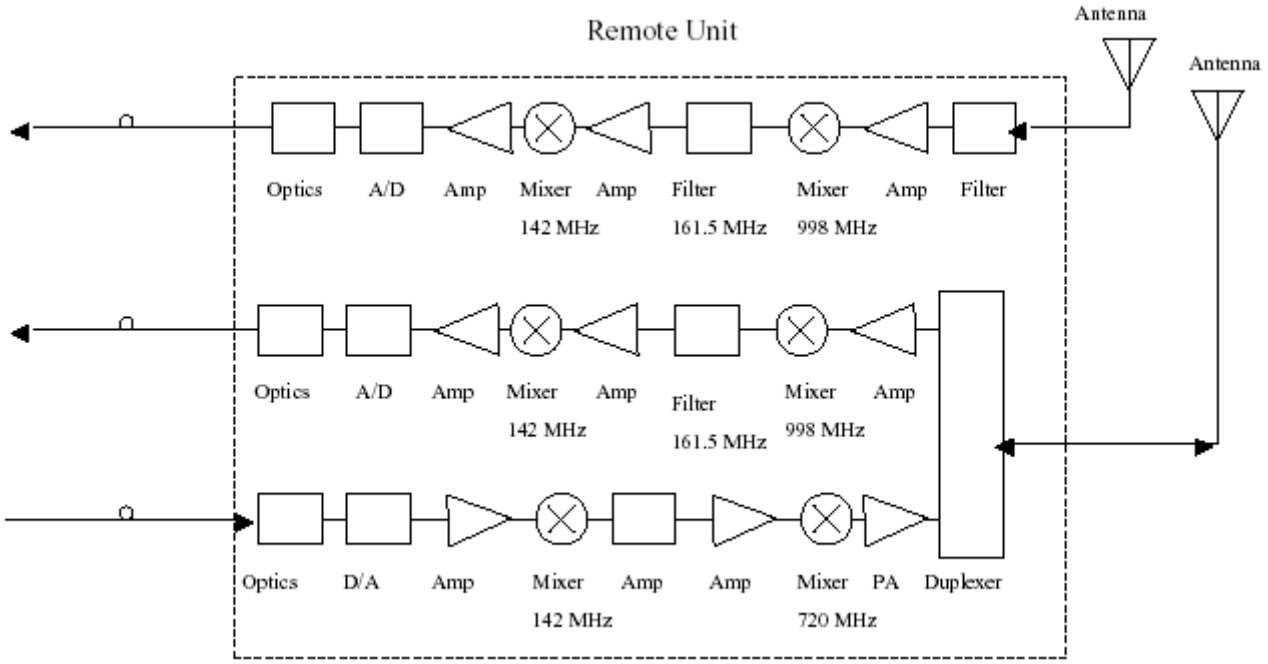
Customer authorization to perform tests according to this test plan.	Date
Test Plan/CDF Prepared By (please print)	Date
Reviewed by TÜV Product Service Associate	Date

Digivance 800 MHz SCS

Host Unit



Digivance SCS



Appendix C

Measurement Protocol

TÜV AMERICA INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 112205

MEASUREMENT PROTOCOL

Environmental conditions in the lab, (TUV)
Temperature: 21 °C
Relative Humidity: 33 %
Atmospheric pressure: 99.0 kPa

Test Methodology
Emissions testing is performed according to the procedures in EIA/TIA 603

Measurement Uncertainty
The test system for conducted emissions is defined as the LISN, tuned receiver or spectrum analyzer, and coaxial cable. The test system has a measurement uncertainty of ±1.8 dB. The test system for radiated emissions is defined as the antenna, the pre-amplifier, the spectrum analyzer and the coaxial cable. The test system has a measurement uncertainty of ±4.8 dB. The equipment comprising the test systems is calibrated on an annual basis.

Justification
The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral into its characteristic impedance or left unterminated. When appropriate, the cables are manually manipulated with respect to each other to obtain maximum emissions from the unit.

Radiated Emissions
The final level, in dBμV/m, equals the reading from the spectrum analyzer (Level dBμV), adding the antenna correction factor and cable loss factor (Factor dB) to it, and subtracting the preamp gain (and duty cycle correction factor, if applicable). This result then has the limit subtracted from it to provide the Delta, which gives the tabular data as shown in the data sheets in Attachment A.
Example:

FREQ	LEVEL		CABLE/ANT/PREAMP			FINAL	POL/HGT/AZ		DELTA1
(MHz)	(dBuV)		(dB)	(dB/m)	(dB)	(dBuV/m)		(m) (deg)	
60.80	42.5Qp	+	1.2	+ 10.9	- 25.5 =	29.1	V	1.0 0.0	-10.9

Substitution Method
A radiated emission scan was also made, at TUV America's Wild River Lab Large Test Site, with the EUT's antenna replaced with a termination to demonstrate case radiation compliance to the –13 dBm requirement. Radiated emissions from the EUT are measured in the frequency range of 30 to 10000 MHz using a spectrum analyzer and appropriate broadband linearly polarized antennas. Table top equipment is placed on a 1.0 X 1.5 meter non-conducting table 80 centimeters above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. Interface cables that are closer than 40 centimeters to the ground plane are bundled in the center in a serpentine fashion so they are at least 40 centimeters from the ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screen room located outside the test area. The antenna is positioned 3 meters horizontally from the EUT. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 meters, measurement scans are made with both horizontal and vertical antenna polarizations and the EUT are rotated 360 degrees. The field strength levels were measured per EIA/TIA 603. The EUT is then replaced with a tuned dipole antenna (below 1 GHz) or horn antenna (above 1 GHz). The substitute antenna was placed in the same polarization as the test antenna. A signal generator was used to generate a signal level that matched the highest level measured from the EUT. The signal generator level minus the cable loss from the signal generator to the substitute antenna plus the substitute antenna gain equals the spurious power level.

Test Equipment
All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated according to internal procedure.

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