

Test Report Summary

FCC CFR 47, Part 22 Subpart H Cellular Radiotelephone Service

Manufacturer: <u>ADC Telecommunications</u>

Name of Equipment: <u>Digivance® Indoor Coverage Solution</u>

Model Number(s): <u>DGVIR130000000000</u>

Manufacturer's Address: P.O. Box 1101

Minneapolis, MN 55440-1101

Test Report Number: MN061207

Test Date(s):01 December, 2006 (ETL)
28 November, 2006 (ADC)

According to testing performed at Intertek, the above-mentioned unit is in accordance with the applicable 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.

All testing was done in accordance with the Federal Communications Commission's CFR 47 Part 22 and the EUT fulfills the requirements of the Federal Communications Commission's CFR 47 Part 22.

Date: 07 December, 2006

Location: Intertek Testing Services (ETL)

7250 Hudson Blvd., Suite 100

Oakdale, MN 55128 Phone: (651) 730-1188 Fax: (651) 730-1282 **ADC Telecommunications**

5341 12th Ave E Shakopee, MN 55379 Phone: (952) 403-8340 Fax: (952) 403-8858

Testing Conducted by (ADC): And Report Written by:

Mark F. Miska

Mark F. Musha

Compliance Engineer



EMC Emission – TEST REPORT

Test Report File Number: MN061207 Date of Issue: <u>07 December</u>, <u>2006</u>

Model Number(s): <u>DGVIR130000000000</u>

Product Name: <u>Digivance® Indoor Coverage Solution</u>

Product Type: <u>Digital Remote Unit - DRU</u>

Applicant: <u>ADC Telecommunications</u>

Manufacturer: <u>ADC Telecommunications</u>

License Holder: ADC Telecommunications

Address: P.O. Box 1101

Minneapolis, MN 55440-1101

Test Result: Positive • Negative

Test Project Number: 3110938

Reference(s)

Total pages including Appendices: $\underline{103}$



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1.0 REVISION DESCRIPTION

| Rev | Total Pages | Date | Description |
|-----|-------------|-------------------|------------------|
| Α | 103 | December 07, 2006 | Original Release |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2.0 DOCUMENTATION

2.1 Test Regulations

| 22.355 | Frequency tolerance |
|--------|-----------------------------------|
| 22.913 | Effective radiated power limits |
| 22.917 | Emission limitations for cellular |

The emissions tests were performed according to the following regulations:

FCC Part 22

□ FCC Part 24

□ FCC Part 90

□ IC RSS-131 Issue 2

Environmental Conditions in the lab:

ADC ETL 23° C Temperature: 24° C Relative Humidity: 13% 17% Atmospheric Pressure: 105.0 kPa 99.1 kPa

Power Supply Utilized:

Power Supply Othized:
Power Supply System (Host) : 1 phase, 60 Hz, 120 VAC
Power Supply System (Remote) : 48 VDC

2.2 Test Operation Mode

- □ Standby
- □ Test Program
- Practice Operation

Max composite in and out

2.3 Configuration of the device under test:

Normal Operation - Cellular - 869 to 894 MHz

2.4 Product Options:

None

2.5 EUT Specifications and Requirements:

Length: 7.5" Width: 7.0" Height: 2.25"

Weight: 2.0 pounds

2.6 Cables:

| Cable Type | Length | From | То |
|------------|--------|-----------------|-------------|
| Optical | > 3M | Ancillary Equip | EUT |
| RF | < 3M | EUT | 50 Ohm Load |
| Power | < 3M | Ancillary Equip | Input Power |

2.7 Power Requirements:

Voltage: 120 VAC Amps: 1.2 A

2.8 Typical Installation and/or Operating Environment:

Host and Remote Unit are indoor only.

2.9 Other Special Requirements:

None

2.10 EUT Software:

None

2.11 EUT System Components

| Description | Model # | Serial # | FCC ID # |
|---------------------|--------------------|----------|----------|
| Digital Host Unit | DGVIH1110000000000 | None | |
| Digital Remote Unit | DGVIR1300000000000 | None | |
| | | | |

Note: Digivance® ICS System consists of the DHU and DRU.

2.12 Support Equipment

| Description | Manufacturer | Model # | FCC ID # |
|------------------|--------------|-----------|----------|
| Power Meter | HP | EPM-441A | |
| Signal Generator | Agilent | E4437B | |
| Attenuator | Huber Suhner | 6810.17.A | |
| | | | |

2.13 Deviations from standard:

Modifications required to pass:

□ As indicated on the data sheet(s)

None

2.14 Test Specification Deviations; Additions to or Exclusions from:

□ As indicated in the Test Plan

None

2.15 General Remarks:

None.

2.16 Summary:

The requirements according to the technical regulations are

■ met

□ not Met

2.17 The equipment under test does

fulfill the general approval requirements mentioned on page 4.

^o not fulfill the general approval requirements mentioned on page 4.

3.0 TEST SET-UP DRAWINGS AND PHOTOS

Back to Table of Contents:

3.1 Test set-up photo, radiated emissions

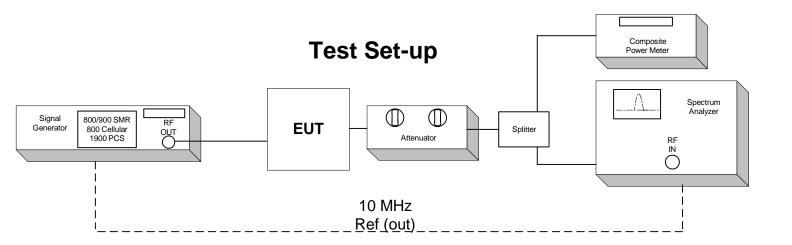


3.2 Test set-up photo, radiated emissions

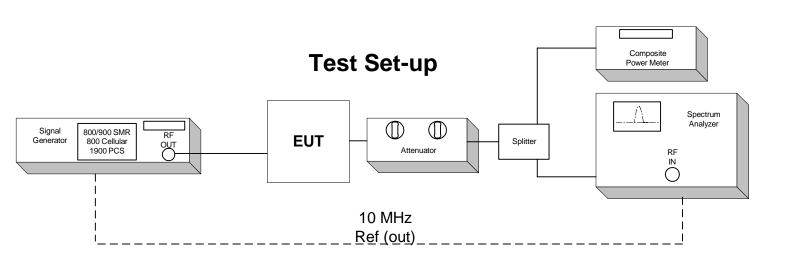


3.3 Test Set-up Drawings

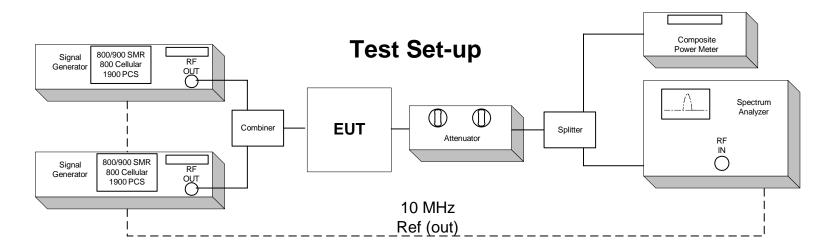
Conducted and Radiated Emission Limits Test for ADC Inc. Digivance® Indoor Coverage Solution Model Numbers DGVIH111000000000 and DGVIR130000000000



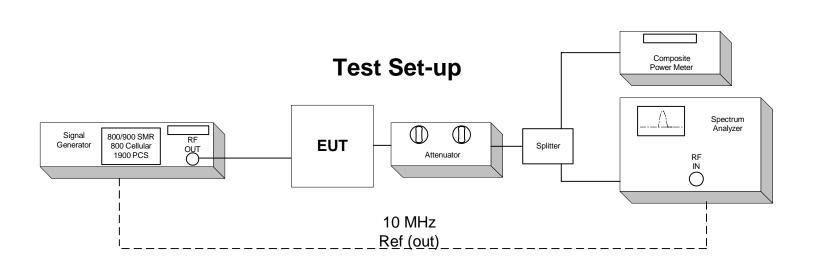
Conducted Output Power Test for ADC Inc. Digivance® Indoor Coverage Solution Model Numbers DGVIH111000000000 and DGVIR130000000000



Inter-Modulation Test for ADC Inc. Digivance® Indoor Coverage Solution Model Numbers DGVIH1110000000000 and DGVIR130000000000

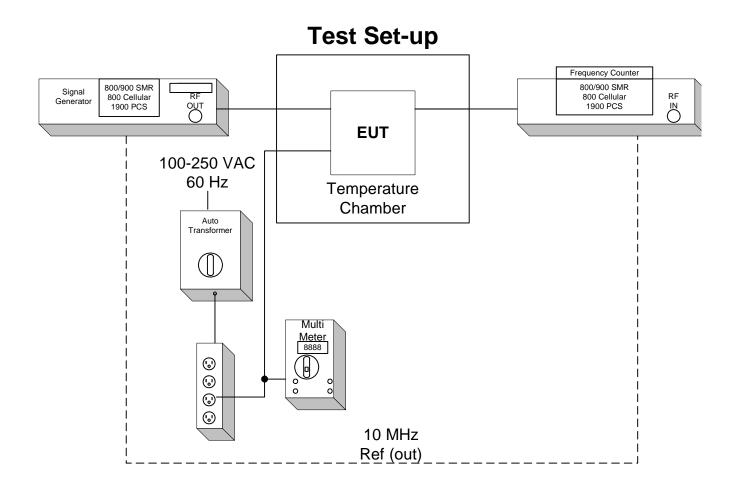


Occupied Bandwidth Modulation Test for ADC Inc. Digivance® Indoor Coverage Solution Model Numbers DGVIH111000000000 and DGVIR130000000000



Frequency Tolerance Test for ADC Inc. Digivance® Indoor Coverage Solution Model Numbers DGVIH1110000000000 and DGVIR130000000000

EUT Host and Remote are specified for indoor use only with temperature range of 0° to $+50^{\circ}$ C, and were tested with their range.



4.0 TEST RESULTS

4.1.1 22.913 Effective radiated power limits

Test Summary:

- The requirements are: □ NOT MET
- Minimum margin of compliance is 29.99 dB at 881.5 MHz (FM)

Test Location:

□ ETL (Oakdale, MN)

ADC facility (Shakopee, MN)

Test Distance:

□ 3 Meters

□ 10 Meters

Conducted measurement

Test Equipment (ADC):

| Equipment | Manufacturer | Model | ADC Serial Number | Calibration Due. |
|-------------------|--------------|-----------|-------------------|------------------|
| Attenuator | Huber Suhner | 6810.17.A | N/A | CNR |
| Spectrum Analyzer | HP | 8563E | MC27690 | 12-22-06 |
| Power Meter | HP | EPM-441A | MC27670 | 9-20-07 |
| Signal Generator | Agilent | E4437B | 83781 | 6-13-08 |

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

Test Limit:

500 Watts or 57 dBm Limit

Test Data:

Test Engineer: Mark F. Miska Date: 28 November, 2006 See page 41

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4.1.2 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 0 to 50° C and an input voltage range of 100 to 250 VAC (Host) and 34 to 48 DC (Remote).

Test Location:

□ ETL (Oakdale, MN)

ADC facility (Shakopee, MN)

Test Equipment (ADC):

| 1001 = 44.15.110.111 (7.15.07) | | | | | |
|--------------------------------|--------------|--------|-------------------|------------------|--|
| Equipment | Manufacturer | Model | ADC Serial Number | Calibration Due. | |
| Multimeter | Fluke | 87 | MC20083 | 4-26-07 | |
| Frequency Counter | HP | 5347A | MC27548 | 8-18-07 | |
| Variable Auto Transformer | Staco | 1520CT | MC44655 | CNR | |
| Signal Generator | Agilent | E4437B | 83781 | 6-13-08 | |

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 page 81

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Test Engineer: Mark F. Miska **Date:** 28 November, 2006

4.1.3 22.917 Emission limitations cellular

Test Summary:

MET □ NOT MET • The requirements are:

Out of band emissions were less than -13 dBm.

Outside the emission bandwidth of the carrier, all emissions are attenuated at least 26 dB below the transmitter power.

Test Location:

□ ETL (Oakdale, MN)

ADC facility (Shakopee, MN)

Test Equipment (ADC):

| Equipment | Manufacturer | Model | ADC Serial Number | Calibration Due. |
|---------------------|--------------|-----------|-------------------|------------------|
| Spectrum Analyzer | HP | 8563E | MC27690 | 12-22-06 |
| Power Meter | HP | EPM-441A | MC27670 | 9-20-07 |
| Multimeter | Fluke | 87 | MC20083 | 4-26-07 |
| Frequency Counter | HP | 5347A | MC27548 | 8-18-07 |
| Temperature Chamber | Ecosphere | | MC21679 | 12-27-06 |
| Variable Auto | Staco | 1520CT | MC44655 | CNR |
| Transformer | | | | |
| Signal Generator | Agilent | E4437B | 83781 | 6-13-08 |
| Signal Generator | Agilent | E4436B | 1283112C | 4-4-08 |
| Attenuator | Huber Suhner | 6810.17.A | N/A | CNR |

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

Test Equipment (Intertek):

| Equipment | Manufacturer | Model | Serial No. | Cal. Due. |
|--------------------|-----------------|---------------|------------|-----------|
| Spectrum Analyzer | Rohde & Schwarz | FSP 40 | 100024 | 07/07 |
| Spectrum Analyzer | Rohde & Schwarz | ESCI | 100358 | 04/07 |
| Instrument Control | TILE! | Ver. 3.4 K.15 | N/A | N/A |
| Antenna | Schaffner-Chase | Bicono-Log | 2468 | 01/07 |
| Antenna | EMCO | Horn 3115 | 9507-4513 | 01/07 |
| Antenna | EMCO | Horn 3115 | 6579 | 02/07 |
| Antenna | Roberts | 4 400-1000MHz | 00599 | N/A |
| Pre-Amp | MITEQ | AMF-5D | 1122951 | 02/07 |
| Generator | Rohde & Schwarz | SMT 03 | DE12157 | 02/07 |

Test Limit:

Out of band emissions:

Attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) dB, or -13 dBm.

Outside of the carrier emissions bandwidth:

26 dB below the transmitter power

Test Data:

Conducted Emissions, pages 16 – 40 Intermodulation Test, pages 42 – 72 Occupied Bandwidth, pages 73 – 80

Radiated Emissions, pages 83 – 101 (Appendix B)

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Test Engineer: Mark F. Miska

Date: 28 November, 2006

Date: 28 November, 2006

Date: 28 November, 2006

Test Data

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Test Engineer: Mark F. Miska **Date:** 28 November, 2006

Conducted Emission Limits Test for ADC Inc. Digivance® Indoor Coverage Solution Model Numbers DGVIH1110000000000 and DGVIR130000000000

Back

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, EDGE, CDMA, EVDO, and W-CDMA. The different signals were input one at a time to the EUT. In all cases, the out of band emissions were less than -13 dBm from the equation

(19dBm - [43 + 10log(0.08W)])

Band edge compliance is also demonstrated using a FM, TDMA, GSM, EDGE, CDMA, EVDO, and W-CDMA signal at the upper and lower limits of the band.

The Host unit connects directly to the BTS via coax. The Host unit does not connect to an antenna or amplifier, thus it is a Part 15 device and has been tested and is compliant as such. No FCC ID is necessary.

Industry practice has generally set the input signal power level. Test signal used was \approx -10 dBm input to DHU. Industry practice has generally set the output signal power level.

Digital Host Unit (DHU): Range: 100 - 250 VAC Tested @: 120 VAC Tested @: 1.2 A

Digital Remote Unit (DRU):

Range: 34-48 VDC Tested @: 48 VDC Tested @: 350 mA

Application details for 2.1033(c)(10), and 2.1033(c)(13):

The input to the host unit has a digital attenuation chip (ALC) to provide protection from overdrive with 5-10 millisecond attack time / 100 millisecond decay time and 31 dB of head room, such that single channel operation, or multi-channel operation will not exceed nominal gain of the system.

The frequency stability is derived by the BTS, base transceiver station. This product uses internal frequency stability to keep the signal inside our filter bandwidths. This means that the frequency can change, but the frequency that transmits is still at the original frequency. The remote system uses the data over the fiber optic path to phase/frequency lock to the host. The purpose is to frequency lock the up- and down-conversion local oscillators, and thereby eliminate any end-to-end frequency shift.

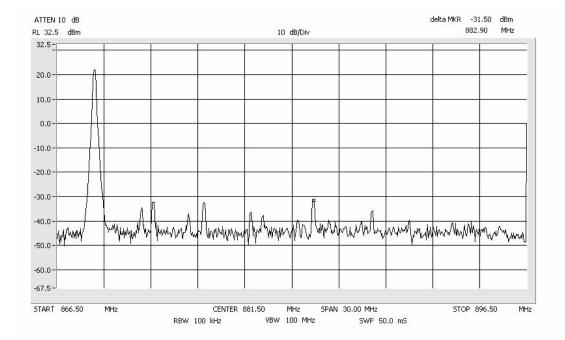
The spurious limitation is completed with the duplexer. The ALC also suppresses in-band spurious by preventing PA overdrive, while the duplexer suppresses out-of-band spurious. Internal to the electronics, the use of SAW filters provides for higher Q roll-off at band edges.

This equipment does not modulate the RF, so there is no modulation limiter. This equipment does not change the modulation of the RF or the occupied bandwidth of any channel. It transports the signal, as is, over an optical link. The RF input is not changed in the RF output.

This is a constant gain device, so the setup controls the output. There is an overdrive and overpower limit control that prevents excess power.

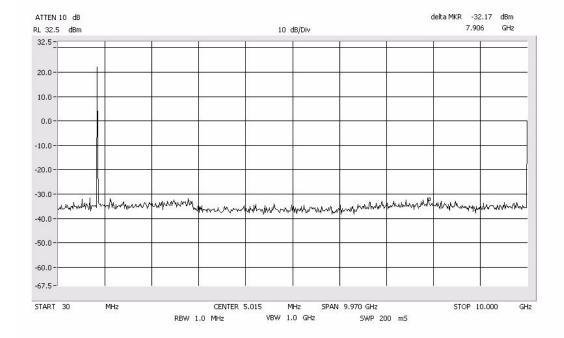
Results:

Pass (See plots)



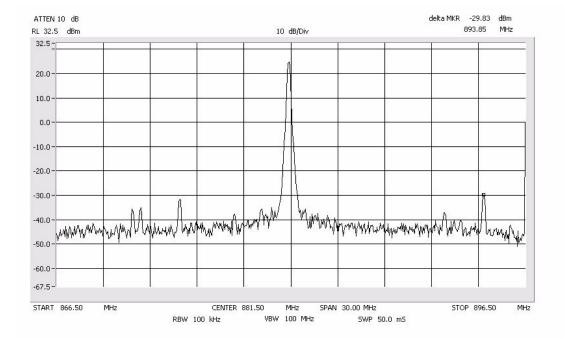
Center: 881.5 MHz Span: 30 MHz RBW/VBW: 100 kHz

Conducted Emissions Low Cellular 800 MHz



Conducted Emissions Low Cellular 800 MHz

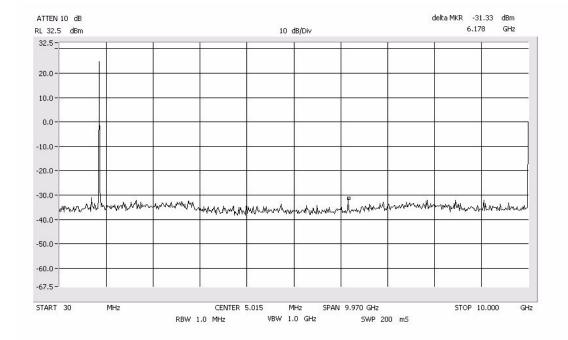
Span: 30 MHz to 10 GHz RBW/VBW: 1 MHz



Center: 881.5 MHz Span: 30 MHz RBW/VBW: 100 kHz

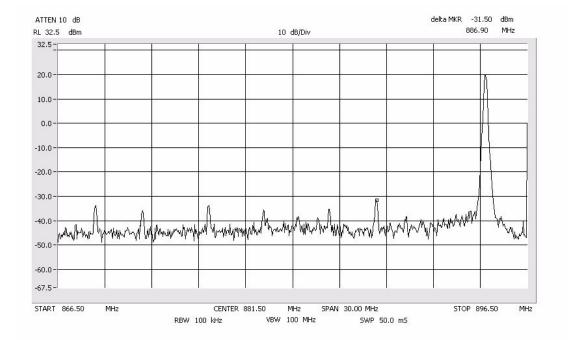
Conducted Emissions

Cellular 800 MHz



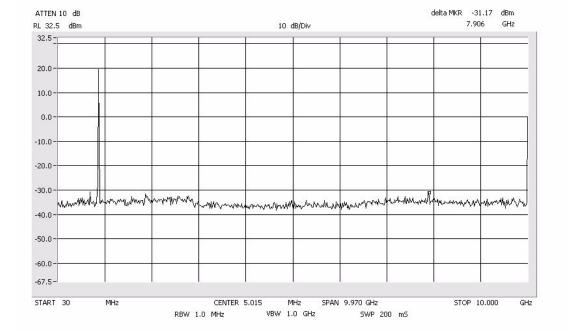
Conducted Emissions Mid Cellular 800 MHz

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



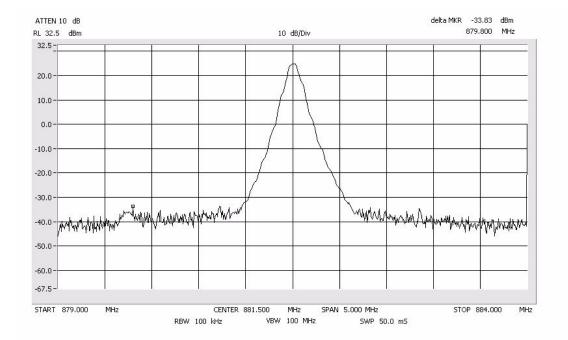
Center: 881.5 MHz Span: 30 MHz RBW/VBW: 100 kHz

Conducted Emissions High Cellular 800 MHz



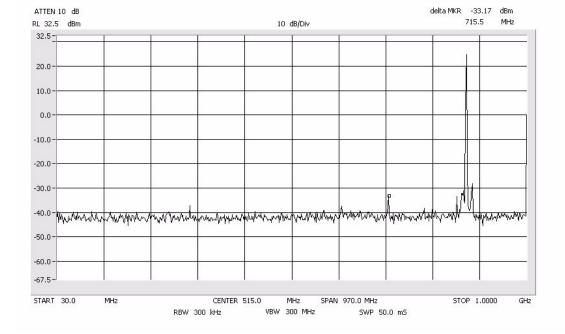
Conducted Emissions High Cellular 800 MHz

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



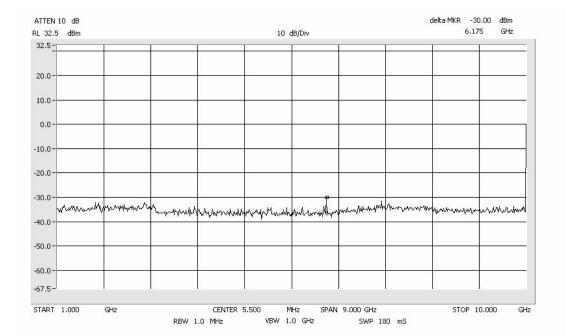
Mid Band Span: 5 MHz RBW/VBW: 100 kHz

Conducted Emissions FM 800 MHz



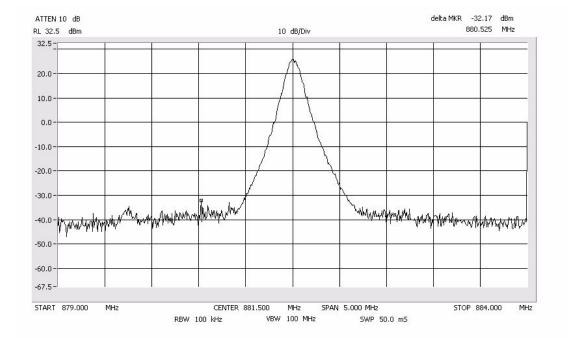
Conducted Emissions FM 800 MHz

Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



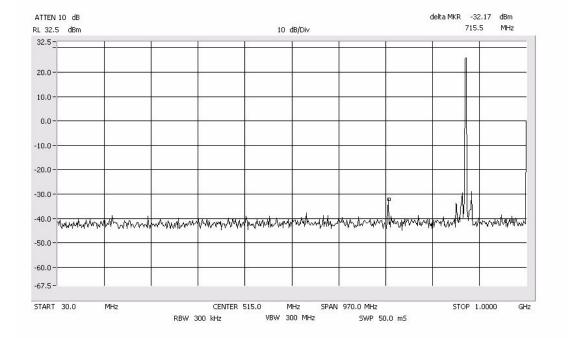
1 GHz to 10 GHz RBW/VBW: 1 MHz

Conducted Emissions FM 800 MHz



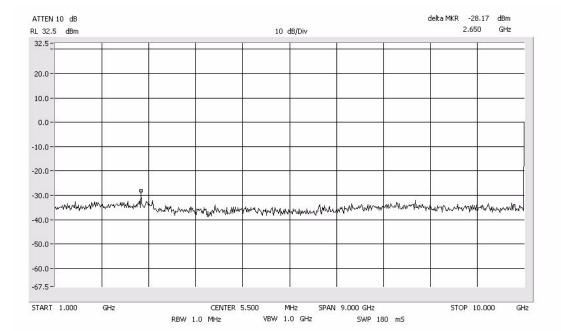
Mid Band Span: 5 MHz RBW/VBW: 100 kHz

Conducted Emissions TDMA 800 MHz



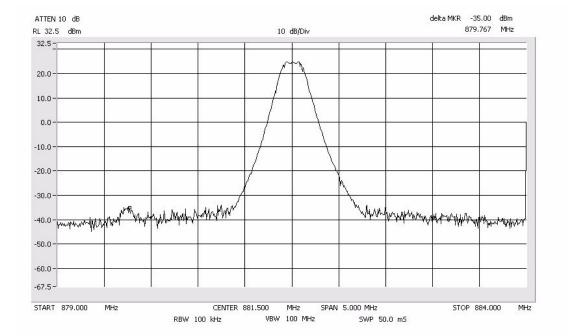
Conducted Emissions TDMA 800 MHz

Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



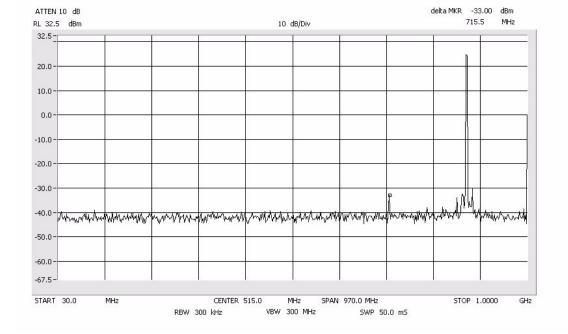
1 GHz to 10 GHz RBW/VBW: 1 MHz

Conducted Emissions TDMA 800 MHz



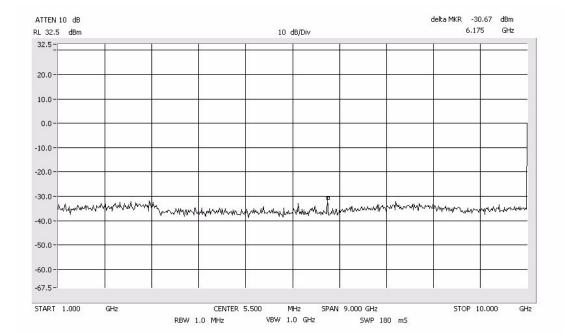
Mid Band Span: 5 MHz RBW/VBW: 100 kHz

Conducted Emissions GSM 800 MHz



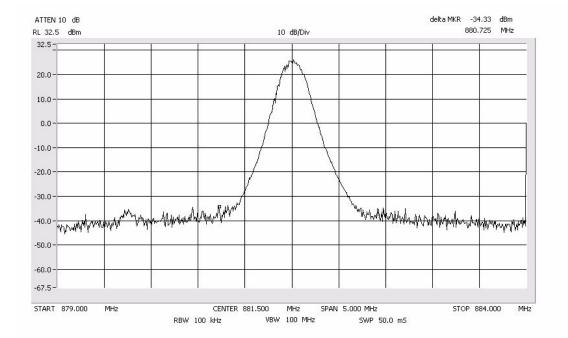
Conducted Emissions GSM 800 MHz

Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



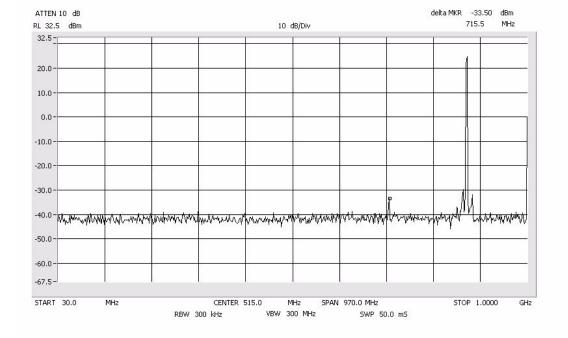
1 GHz to 10 GHz RBW/VBW: 1 MHz

Conducted Emissions GSM 800 MHz



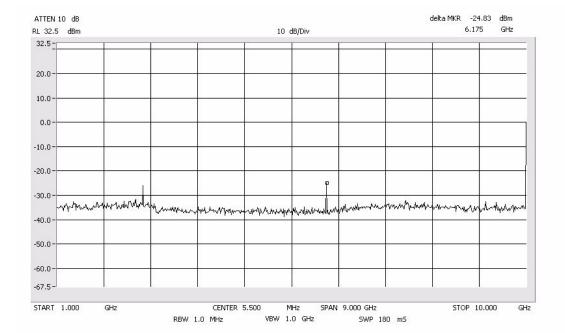
Mid Band Span: 5 MHz RBW/VBW: 100 kHz

Conducted Emissions EDGE 800 MHz



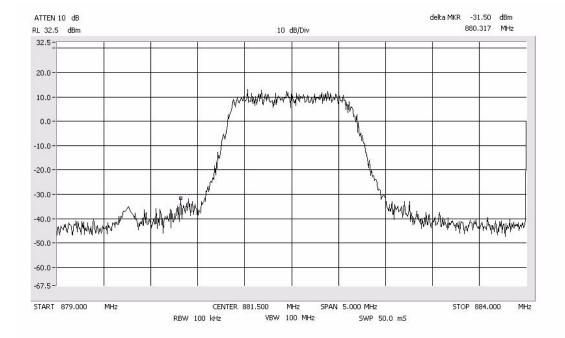
Conducted Emissions EDGE 800 MHz

Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



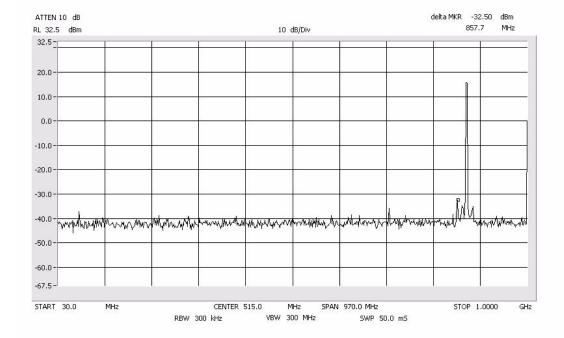
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz

Conducted Emissions EDGE 800 MHz



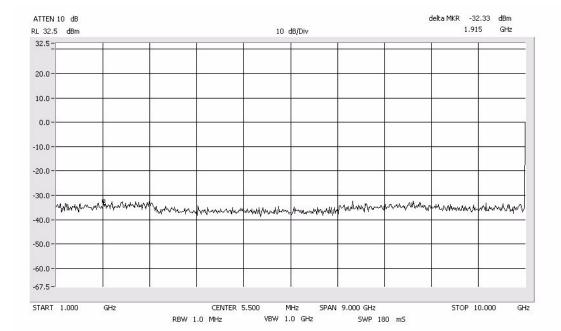
Mid Band Span: 5 MHz RBW/VBW: 100 kHz

Conducted Emissions CDMA 800 MHz



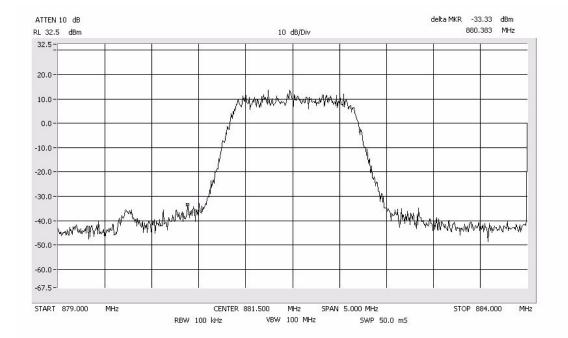
Conducted Emissions CDMA 800 MHz

Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



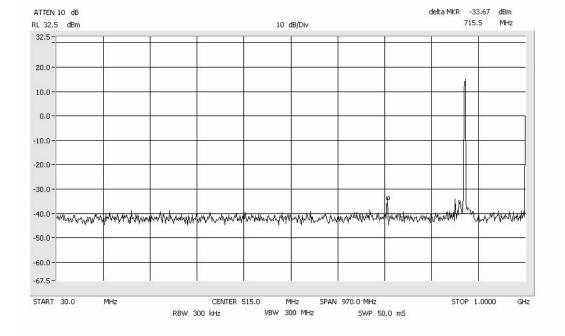
1 GHz to 10 GHz RBW/VBW: 1 MHz

Conducted Emissions CDMA 800 MHz



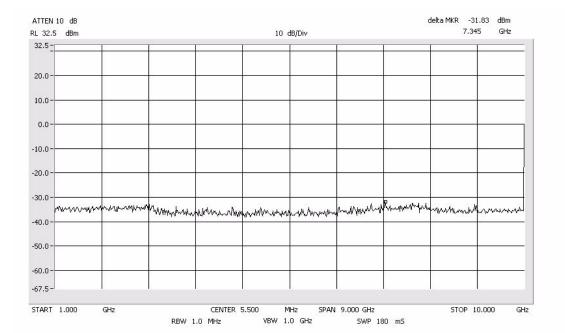
Mid Band Span: 5 MHz RBW/VBW: 100 kHz

Conducted Emissions EVDO 800 MHz



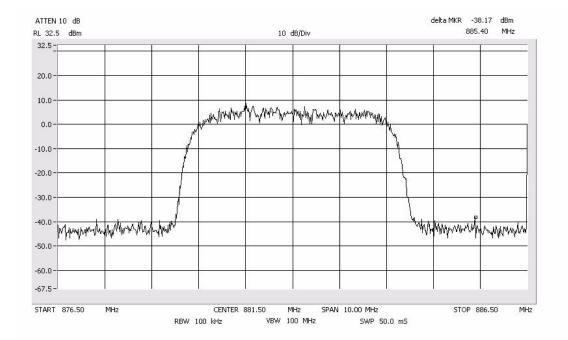
Conducted Emissions EVDO 800 MHz

Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



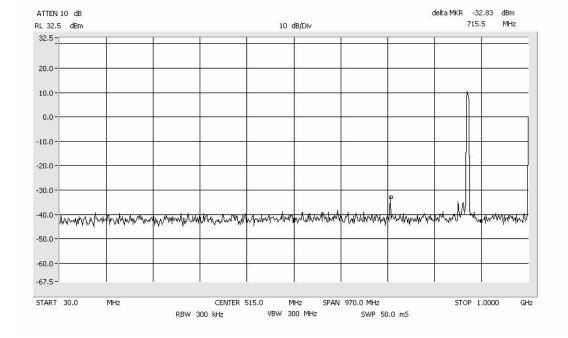
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz

Conducted Emissions EVDO 800 MHz



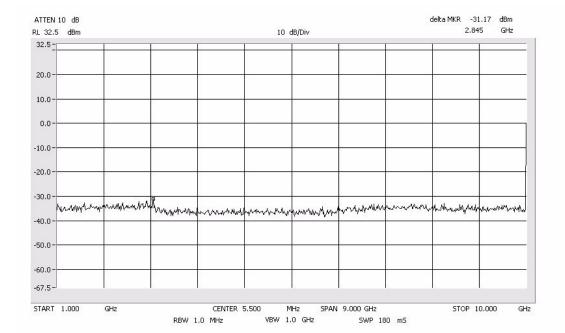
Mid Band Span: 10 MHz RBW/VBW: 100 kHz

Conducted Emissions W-CDMA 800 MHz



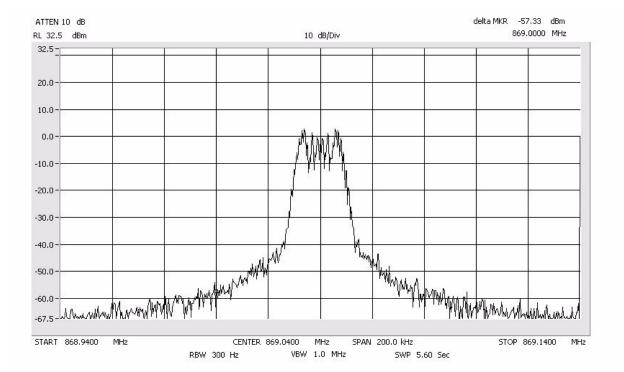
Conducted Emissions W-CDMA 800 MHz

Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



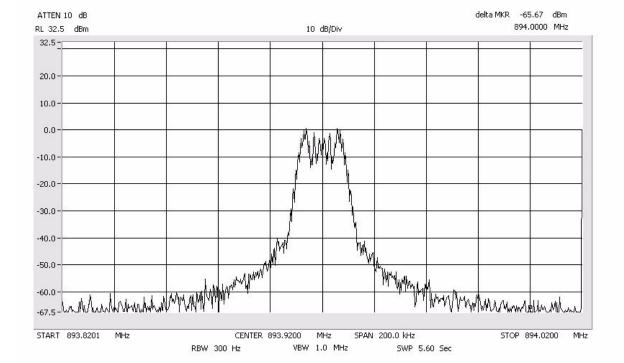
Span: 1 GHz to 10 GHz RBW/VBW: 1 MHz

Conducted Emissions W-CDMA 800 MHz



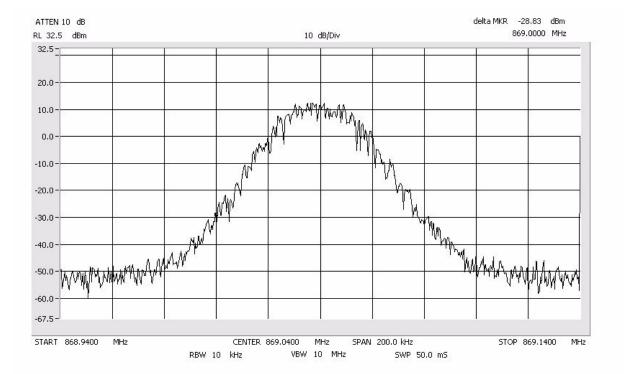
Center: 869.04 MHz Span: 200 kHz RBW: 300 Hz VBW: 1 kHz

Band Edge FM



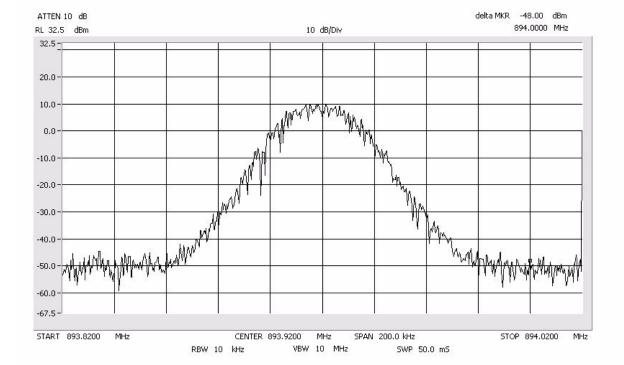
Band Edge FM

Center: 893.92 MHz Span: 200 kHz RBW: 300 Hz _{34 of 10} BW: 1 kHz MN061207



Center: 869.04 MHz Span: 200 kHz RBW: 10 kHz VBW: 10 kHz

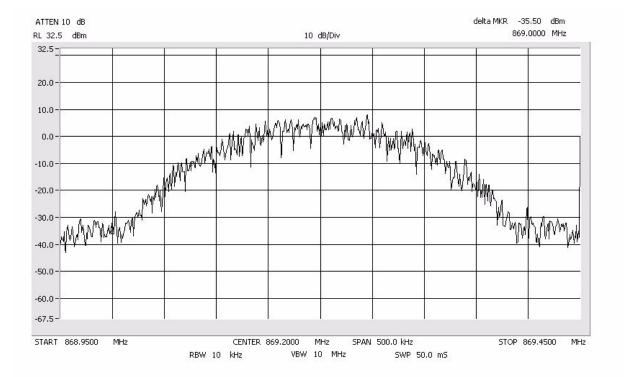
Band Edge TDMA



Band Edge TDMA

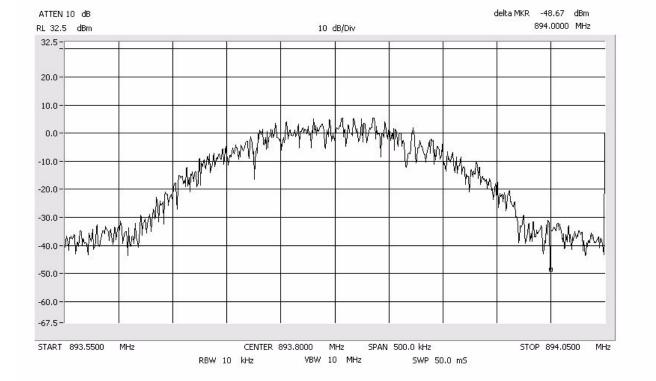
Center: 893.92 MHz Span: 200 kHz RBW: 10 kHz _{35 of 1}03W: 10 kHz

MN061207



Center: 869.2 MHz Span: 500 kHz RBW: 10 kHz VBW: 10 kHz

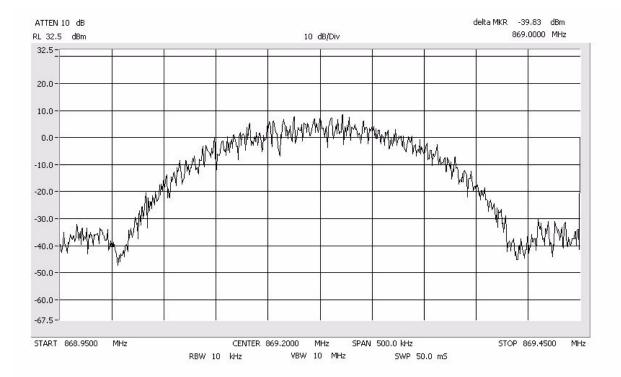
Band Edge GSM



Band Edge GSM

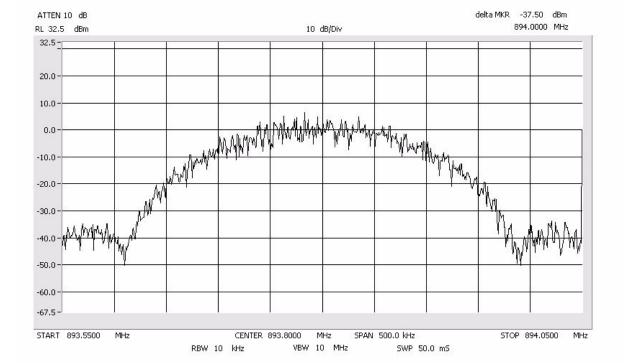
Center: 893.8 MHz Span: 500 kHz RBW: 10 kHz 36 of 1938W: 10 kHz

MN061207



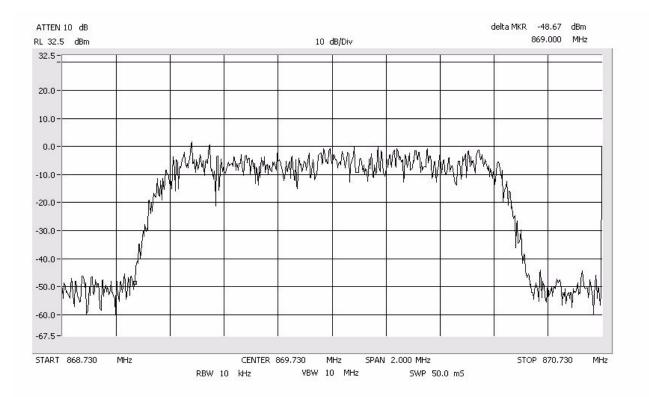
Center: 869.2 MHz Span: 500 kHz RBW: 10 kHz VBW: 10 kHz

Band Edge EDGE



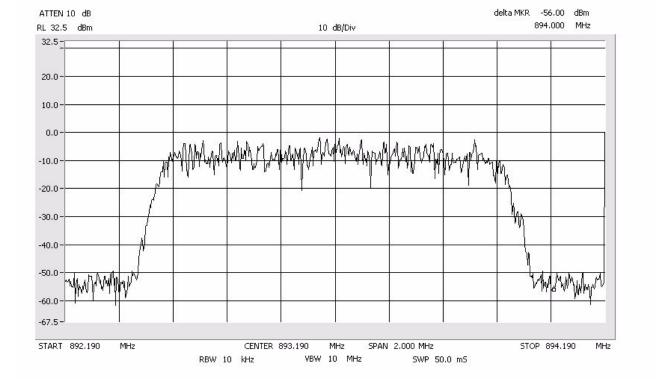
Band Edge EDGE

Center: 893.8 MHz Span: 500 kHz RBW: 10 kHz 37 of 103 W: 10 kHz



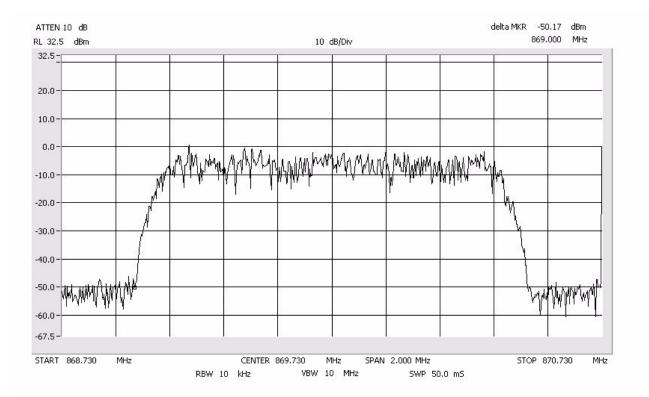
Center: 869.73 Span: 2 MHz RBW: 10 kHz VBW: 10 kHz

Band Edge CDMA



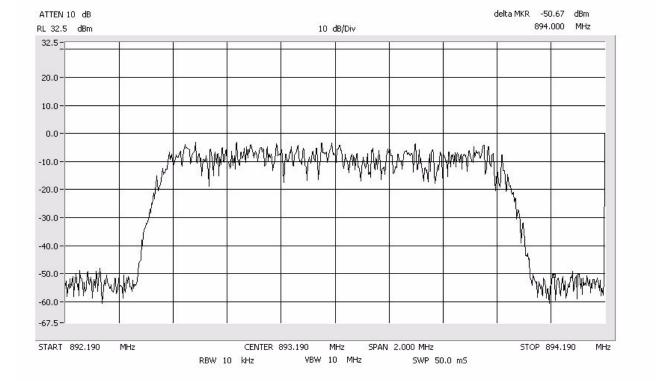
Band Edge CDMA

Center: 893.19 MHz Span: 2 MHz RBW: 10 kHz _{38 of 1}VBW: 10 kHz



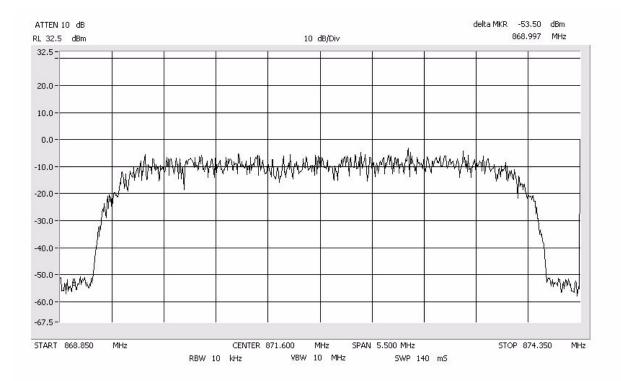
Center: 869.73 Span: 2 MHz RBW: 10 kHz VBW: 10 kHz

Band Edge EVDO



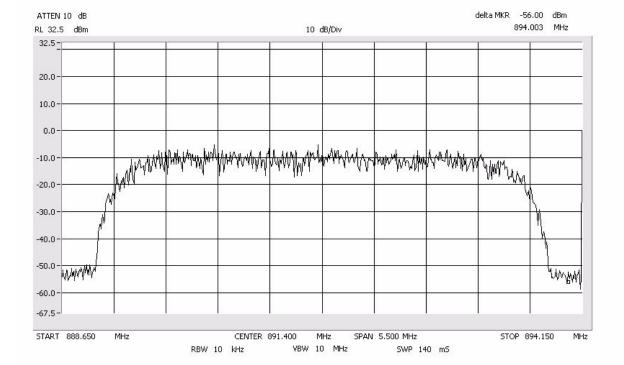
Band Edge EVDO

Center: 893.19 MHz Span: 2 MHz RBW: 10 kHz 39 of 103BW: 10 kHz



Center: 871.60 MHz Span: 5.5 MHz RBW: 10 kHz VBW: 10 kHz

Band Edge W-CDMA



Band Edge W-CDMA

Center: 891.40 MHz Span: 5.5 MHz RBW: 10 kHz 40 of 103 W: 10 kHz

Conducted Output Power Test for ADC Inc. Digivance® Indoor Coverage Solution Model Numbers DGVIH1110000000000 and DGVIR130000000000

Back

*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 FM, TDMA, GSM, EDGE, CDMA, EVDO, and W-CDMA signal generator. The power meter level was offset to compensate for attenuators and cable loss between the EUT and the power meter.

A signal was used at the low, mid and high parts of the selected band. The power meter level was offset by 33.44 dB to compensate for attenuators and cable loss between the EUT and the power meter.

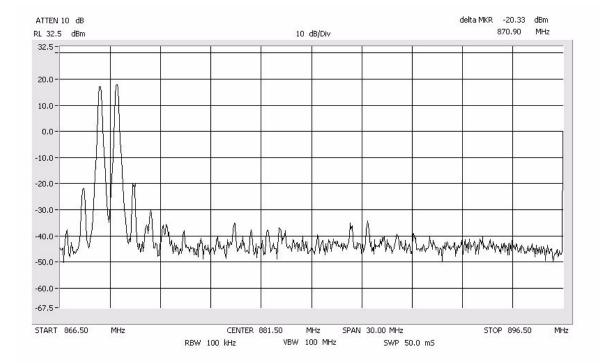
| FM | 502.34 mWatts | GSM | 501.18 mWatts |
|-------------------|------------------|-------------------|------------------|
| Carrier Frequency | Carrier Output | Carrier Frequency | Carrier Output |
| 869.2 MHz | <u>24.92</u> dBm | 869.5 MHz | 24.94 dBm |
| 881.5 MHz | <u>27.01</u> dBm | 881.5 MHz | 27.00 dBm |
| 893.8 MHz | <u>26.37</u> dBm | 893.5 MHz | 22.85 dBm |
| | | | |
| TDMA | 295.80 mWatts | EDGE | 286.41 mWatts |
| Carrier Frequency | Carrier Output | Carrier Frequency | Carrier Output |
| 869.2 MHz | 23.25 dBm | 869.5 MHz | 22.47 dBm |
| 881.5 MHz | <u>24.71</u> dBm | 881.5 MHz | 24.57 dBm |
| 893.8 MHz | 23.61 dBm | 893.5 MHz | 21.89 dBm |
| | | | |
| CDMA | 63.97 mWatts | EVDO | 79.07 mWatts |
| Carrier Frequency | Carrier Output | Carrier Frequency | Carrier Output |
| 869.8 MHz | <u>15.89</u> dBm | 869.8 MHz | <u>16.89</u> dBm |
| 881.5 MHz | <u>18.06</u> dBm | 881.5 MHz | 18.98 dBm |
| 893.2 MHz | <u>15.58</u> dBm | 893.2 MHz | <u>16.57</u> dBm |
| | | | |
| W-CDMA | 188.36 mWatts | | |
| Carrier Frequency | Carrier Output | | |
| 871.6 MHz | <u>20.94</u> dBm | | |
| 881.5 MHz | <u>22.75</u> dBm | | |
| 891.4 MHz | <u>19.39</u> dBm | | |

Intermodulation Test for ADC Inc Digivance® Indoor Coverage Solution Model Numbers DGVIH1110000000000 and DGVIR130000000000

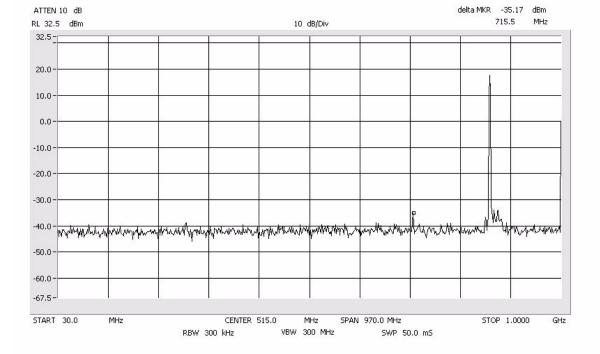
Back

The inter-modulation products test was performed for the EUT. Three tests were preformed with the modulation type. Test 1 was with 2 signals input to the EUT at lower end channels. Test 2 was with 2 signals input to the EUT at upper end channels. Test 3 was with 2 signals input to the EUT at upper and lower end channels. The modulation types tested were FM, TDMA, GSM, EDGE, CDMA, EVDO, and W-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. Modulation types EVDO and CDMA have the same mask and intermodulation properties. Modulation types GSM and EDGE have the same mask and intermodulation properties.

Results: (See Plots)

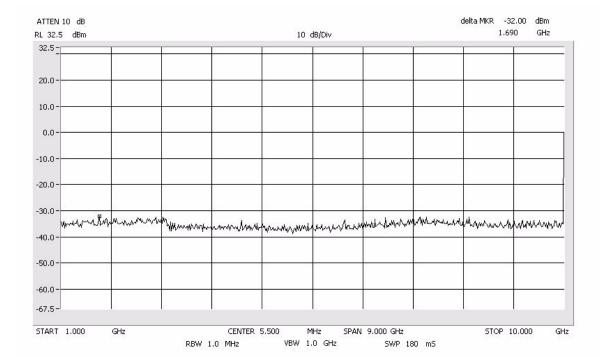


Intermodulation
Close
Lower
FM
Cellular 800 MHz

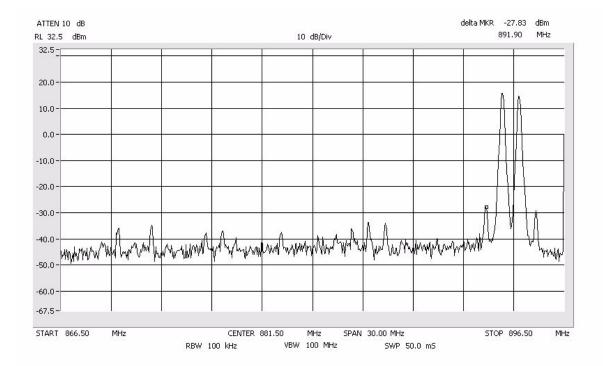


Intermodulation Close Lower FM Cellular 800 MHz

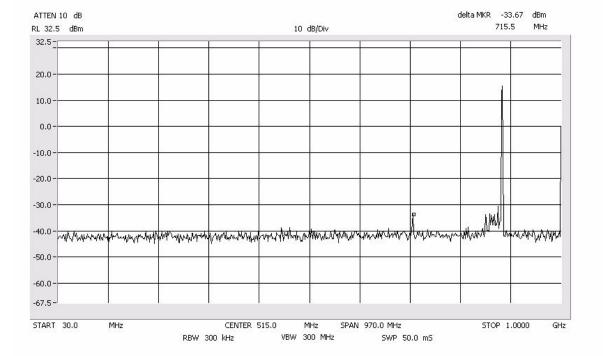
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



Intermodulation Close Lower FM Cellular 800 MHz

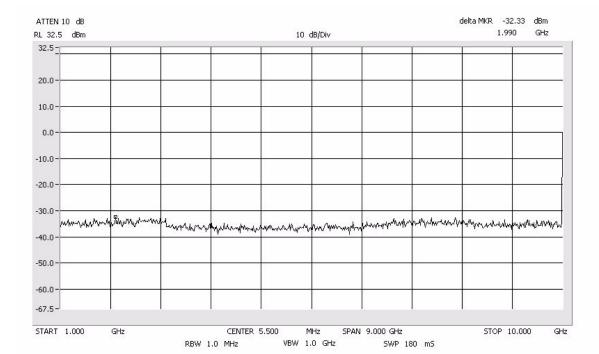


Intermodulation Close Upper FM Cellular 800 MHz

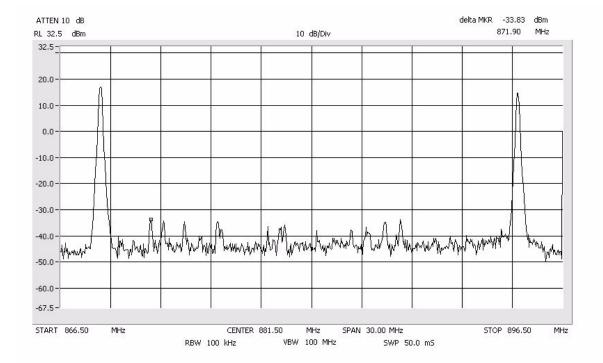


Intermodulation Close Upper FM Cellular 800 MHz

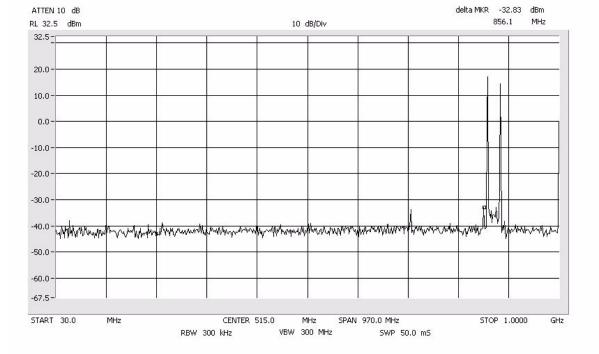
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



Intermodulation Close Upper FM Cellular 800 MHz

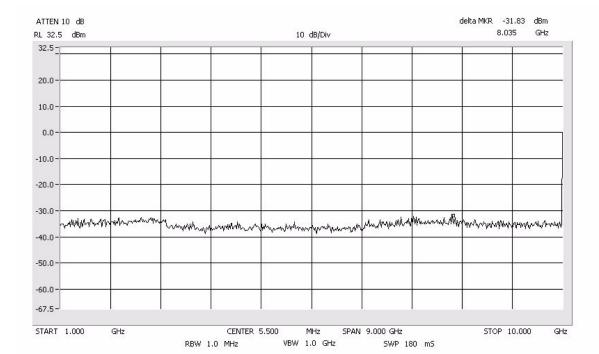


Intermodulation Apart FM Cellular 800 MHz

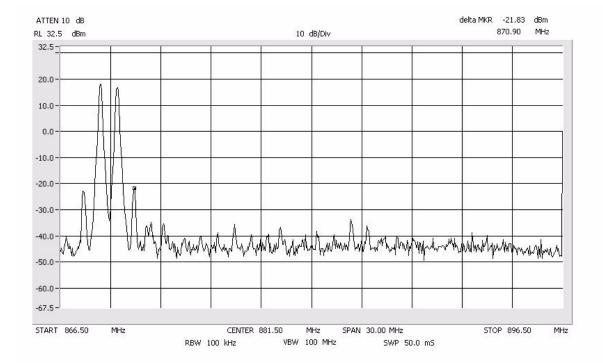


Intermodulation Apart FM Cellular 800 MHz

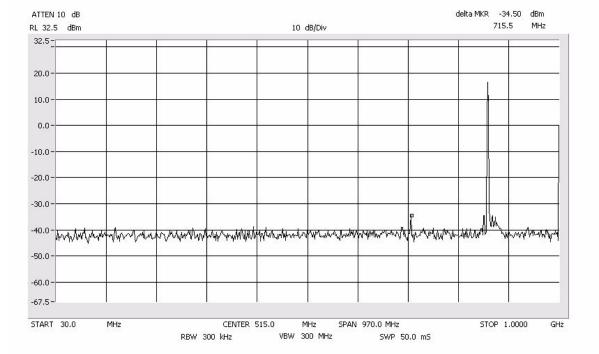
Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



Intermodulation Apart FM Cellular 800 MHz

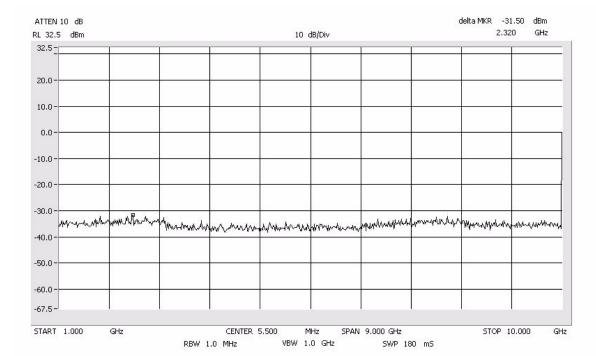


Intermodulation
Close
Lower
TDMA
Cellular 800 MHz



Intermodulation Close Lower TDMA Cellular 800 MHz

Span: 30 MHz to 1 GHz RBW/VBW: 300 kHz



Intermodulation Close Lower TDMA Cellular 800 MHz