TEST RESULT SUMMARY

FCC PART 90

MANUFACTURER'S NAME	ADC Inc
NAME OF EQUIPMENT	Digivance® Street Coverage Solution
TYPE OF EQUIPMENT	Transports RF between a remote antenna and a base station
MODEL NUMBER	**DGVC-901X0000100SYS**
MANUFACTURER'S ADDRESS	P. O. Box 1101 Minneapolis MN 55440-1101
TEST REPORT NUMBER	WC503385
TEST DATE	28 June 2005

According to testing performed at TÜV Product Service Inc, the above-mentioned unit is in compliance with the electromagnetic compatibility requirements defined in FCC Part 90.

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 Product Service Inc, as an independent testing laboratory, declares that the equipment tested as specified above conforms to the requirements of FCC Part 90.

Date: 03 August 2005

Location: Taylors Falls MN USA

G. S. Jakubowski
Test Engineer

J. T. Schneider
Senior Engineer

TÜV Product Service Inc is a subcontractor to TÜV Product Service, GmbH according to the principles outlined in ISO/IEC Guide 25 and EN 45001.

TÜV Product Service 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 Product Service Inc shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV Product Service Inc issued reports.

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

Not Transferable

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

Test Report File Number: WC503385

Date of Issue: 03 August 2005

D I R E C T O R Y

TÜV PRODUCT SERVICE INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 Rev.No 1.0

Effective Isotropic Radiated Power Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

*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 spectrum analyzer. The carrier output, below, was conducted using a single CW signal generator. The spectrum analyzer level was offset to compensate for attenuators and cable loss between the EUT and the analyzer.

A CW signal was used at the low, mid and high parts of the selected band. The spectrum analyzer level was offset by 50.6 dB to compensate for attenuators and cable loss between the EUT and the analyzer.

Band SMR (800 MHz)

Carrier Frequency	Carrier Output
851.0 MHz	34.93 dBm
858.5 MHz	35.60 dBm
869.0 MHz	35.43 dBm

Band SMR (900 MHz)

Carrier Frequency	Carrier Output
935.0 MHz	35.10 dBm
937.5 MHz	35.27 dBm
940.0 MHz	35.27 dBm

Output power max input rating:

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. Operation of multiple transmit channels, with 5 Watts per output, is defined in our system manual under section 2.2. All plots are taken at max input level for single carrier operation, or 3 dB below single carrier max input power, for 2 channel (intermodulation) operation.

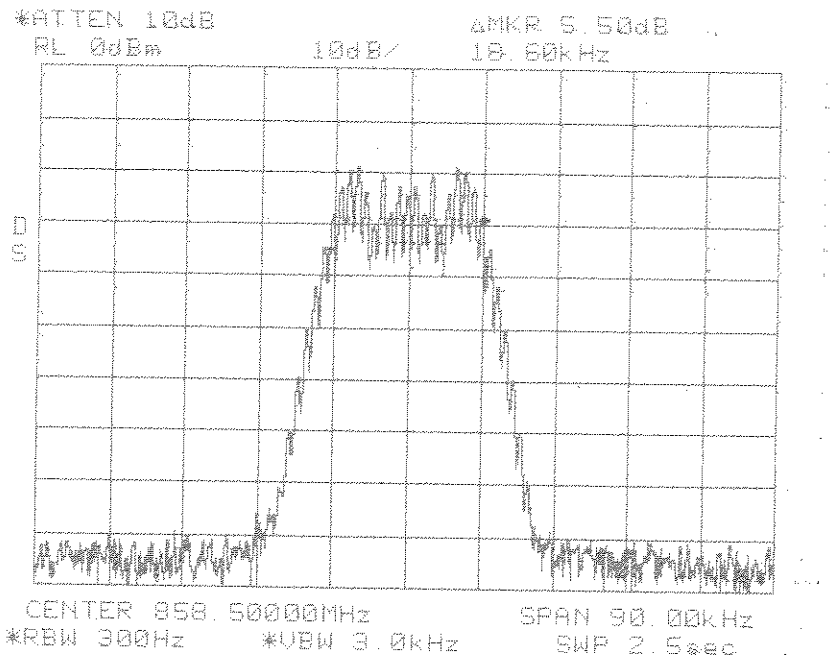
Occupied Bandwidth Modulation Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

An input/output Occupied Bandwidth test was done with modulation types: FM and 16 QAM. 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.

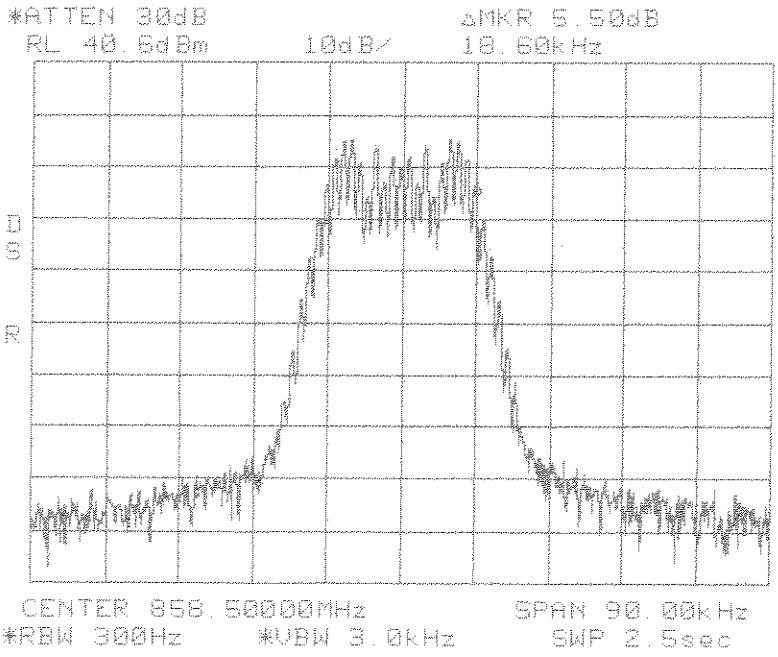
Results:

Pass (see plots)

Center: 858.5 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz



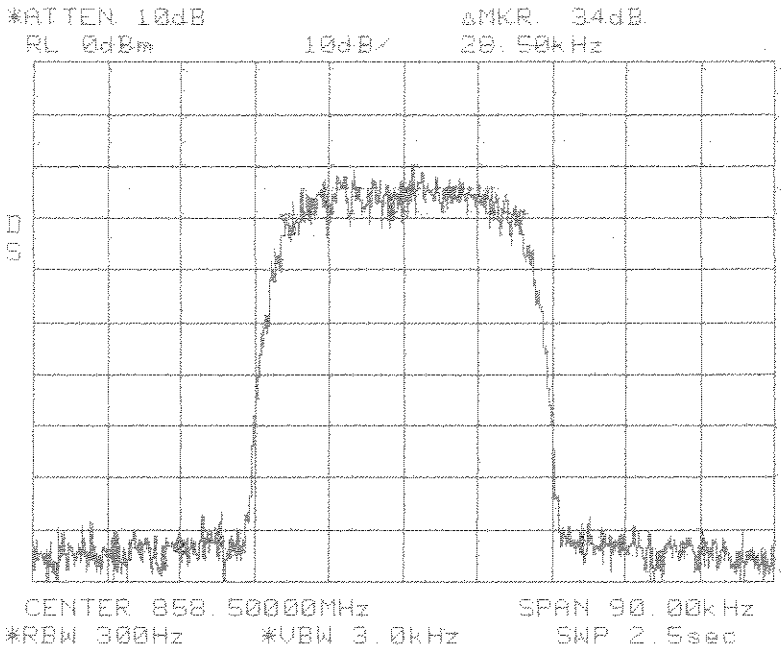
Occupied Bandwidth
FM In
SMR 800 MHz



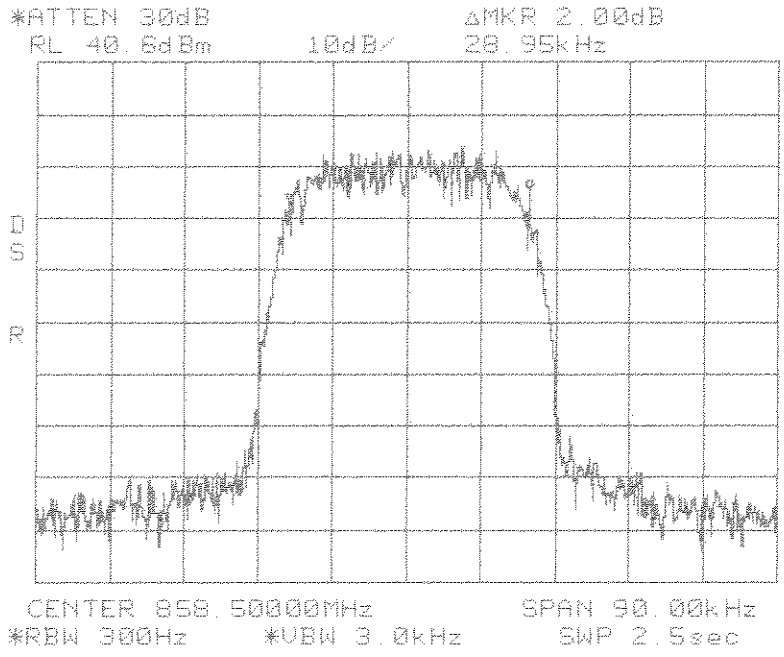
Occupied Bandwidth
FM Out
SMR 800 MHz

Center: 858.5 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz

Center: 858.5 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz



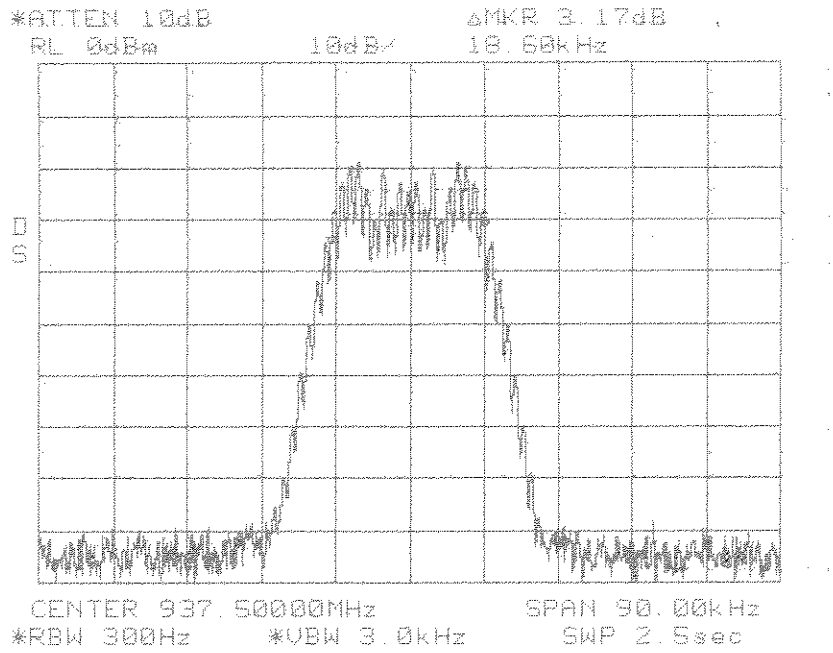
Occupied Bandwidth
16 QAM In
SMR 800 MHz



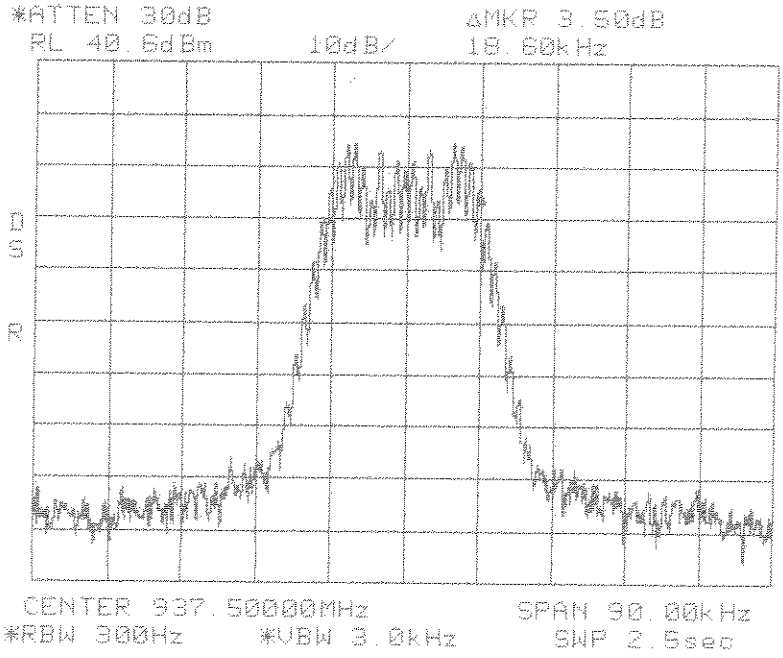
Occupied Bandwidth
16 QAM Out
SMR 800 MHz

Center: 858.5 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz

Center: 937.5 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz



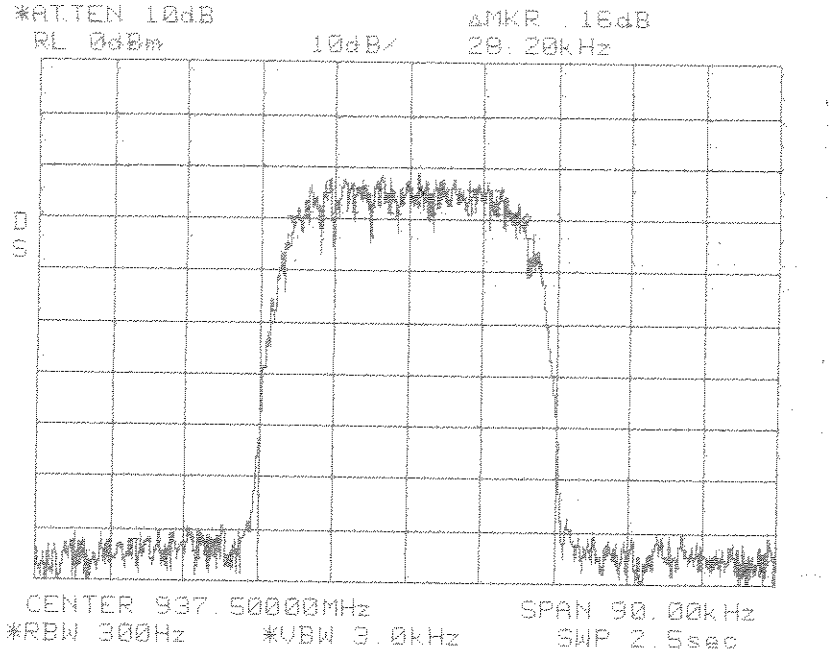
Occupied Bandwidth
FM In
SMR 900 MHz



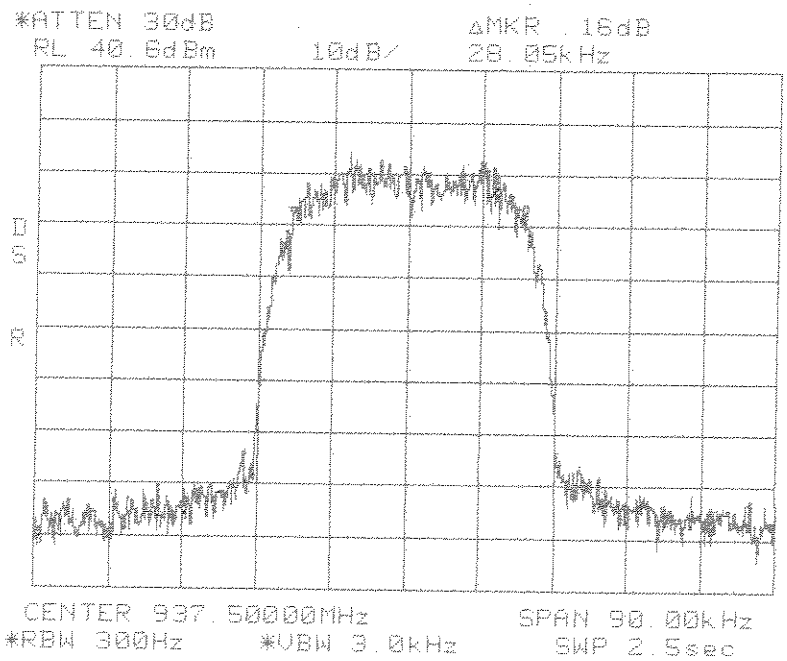
Occupied Bandwidth
FM Out
SMR 900 MHz

Center: 937.5 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz

Center: 937.5 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz



Occupied Bandwidth
16 QAM In
SMR 900 MHz



Occupied Bandwidth
16 QAM Out
SMR 900 MHz

Center: 937.5 MHz
Span: 90 KHz
RBW/VBW: 300 Hz / 3 kHz

Conducted Emission Limits Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

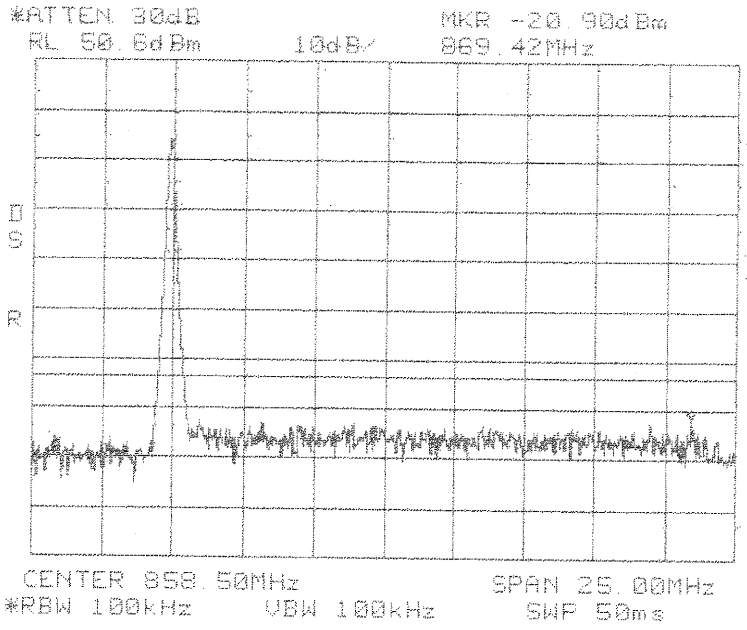
The out of band emissions were measured directly from the EUT antenna output with a spectrum analyzer from 30 MHz to the 10th harmonic of the highest carrier frequency. Test signals used are CW, FM, and 16 QAM. The different signals were input one at a time to the EUT. In all cases, the out of band emissions were less than –13dBm from the equation

$$(19\text{dBm} - [43 + 10\log(0.08\text{W})])$$

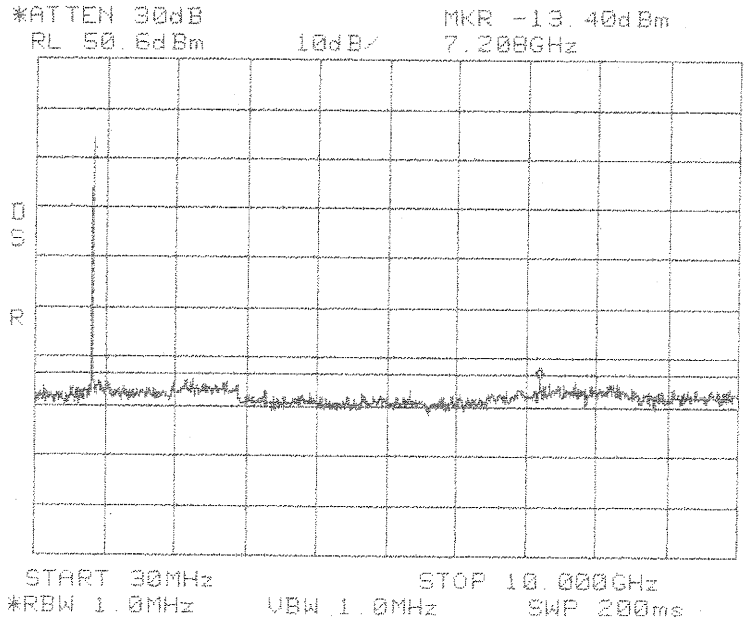
Band edge compliance is also demonstrated using a FM signal at the upper and lower limits of the band and a resolution bandwidth of 300 Hz.

Results:
Pass (See plots)

Center: 858.5 MHz
Span: 25 MHz



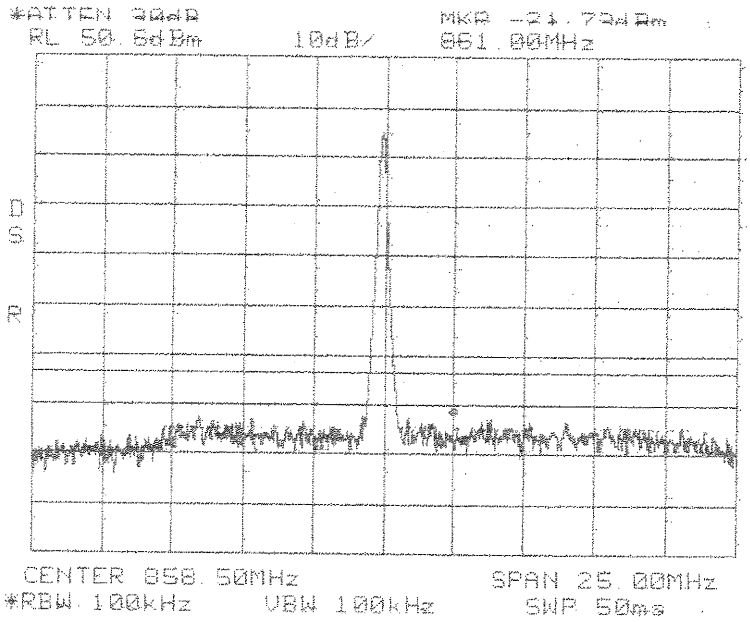
Conducted Emissions
Low
SMR 800 MHz



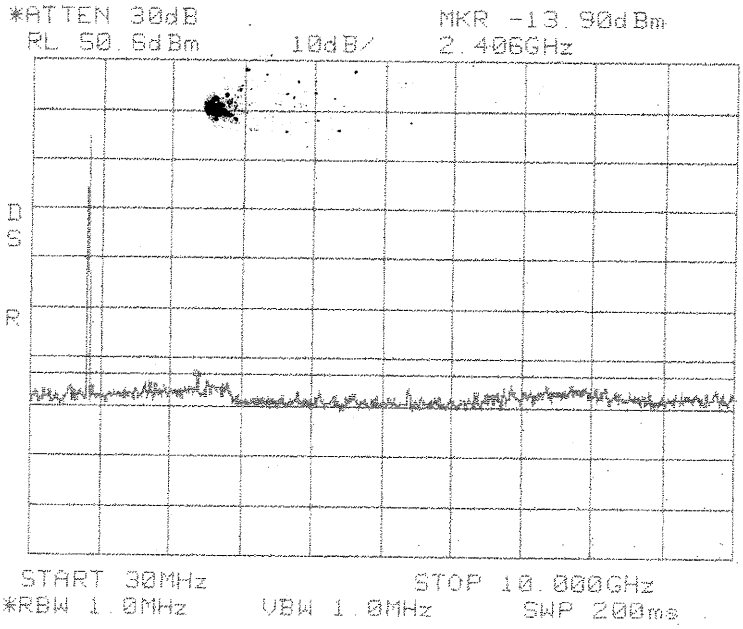
Conducted Emissions
Low
SMR 800 MHz

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

Center: 858.5 MHz
Span: 25 MHz



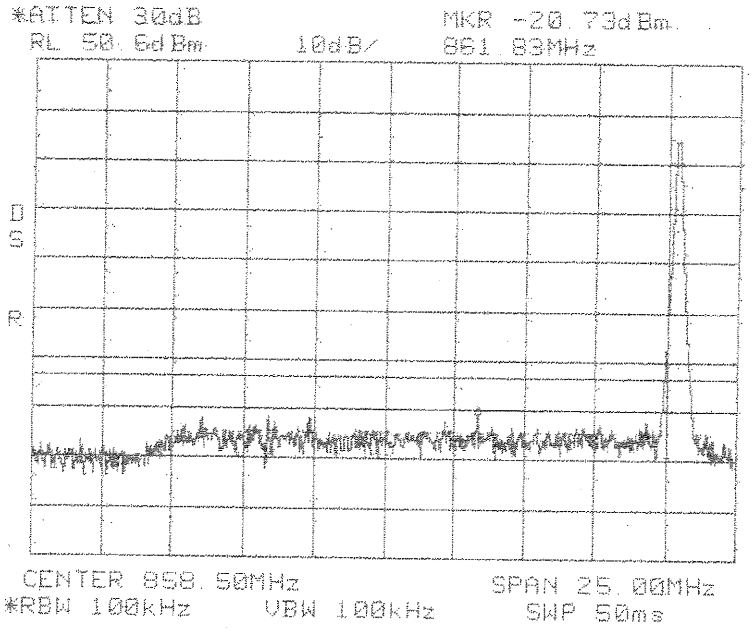
Conducted Emissions
Mid
SMR 800 MHz



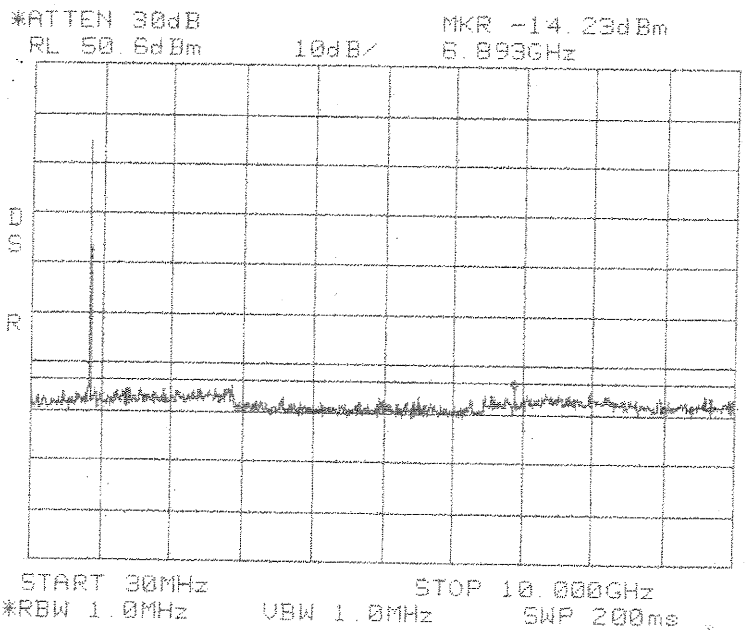
Conducted Emissions
Mid
SMR 800 MHz

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

Center: 858.5 MHz
Span: 25 MHz



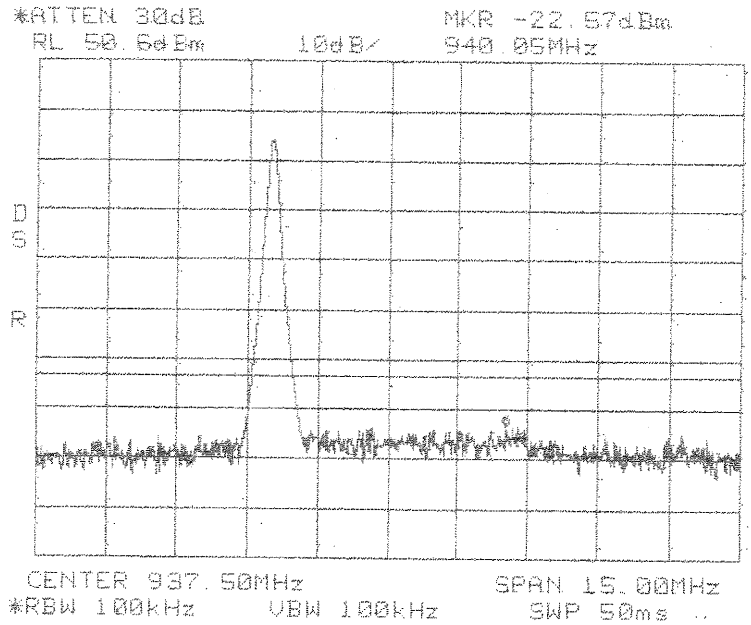
Conducted Emissions
High
SMR 800 MHz



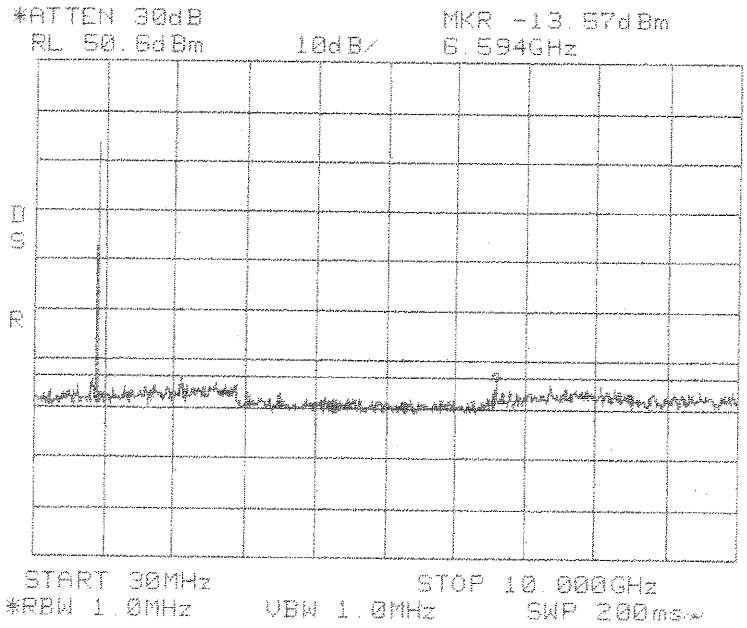
Conducted Emissions
High
SMR 800 MHz

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

Center: 937.5 MHz
Span: 15 MHz



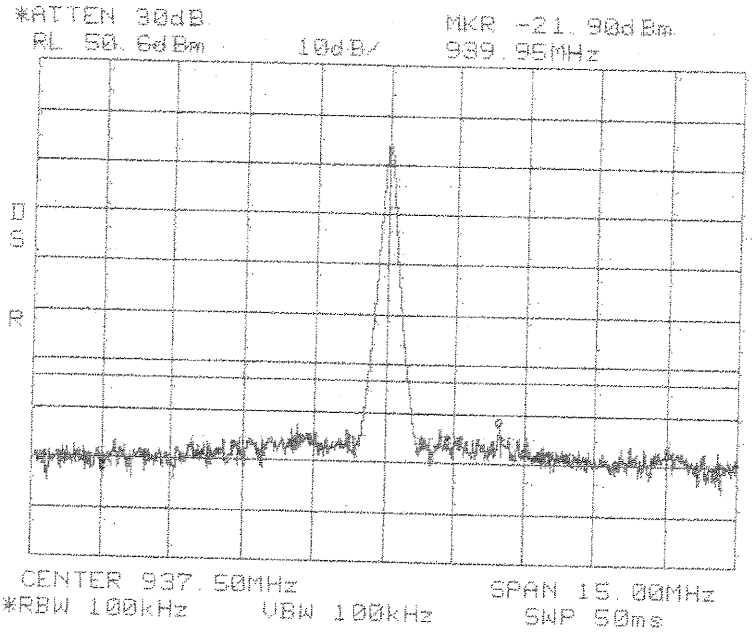
Conducted Emissions
Low
SMR 900 MHz



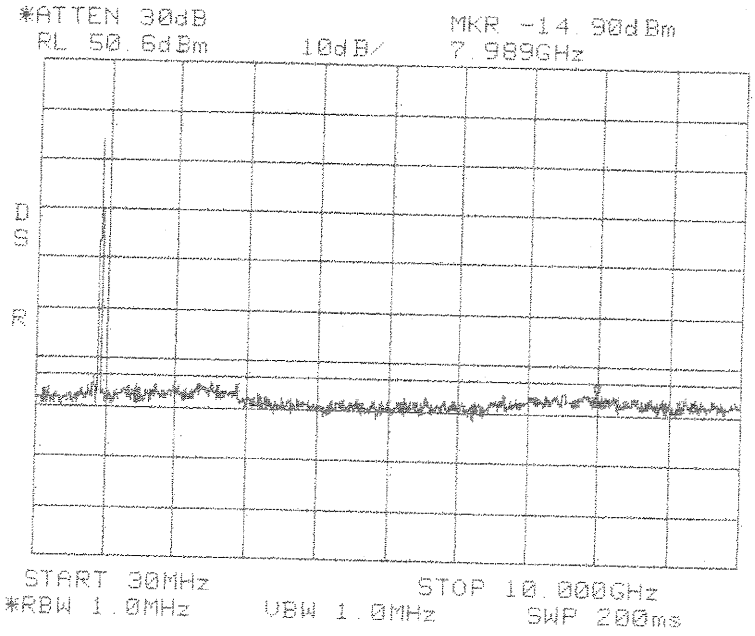
Conducted Emissions
Low
SMR 900 MHz

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

Center: 937.5 MHz
Span: 15 MHz



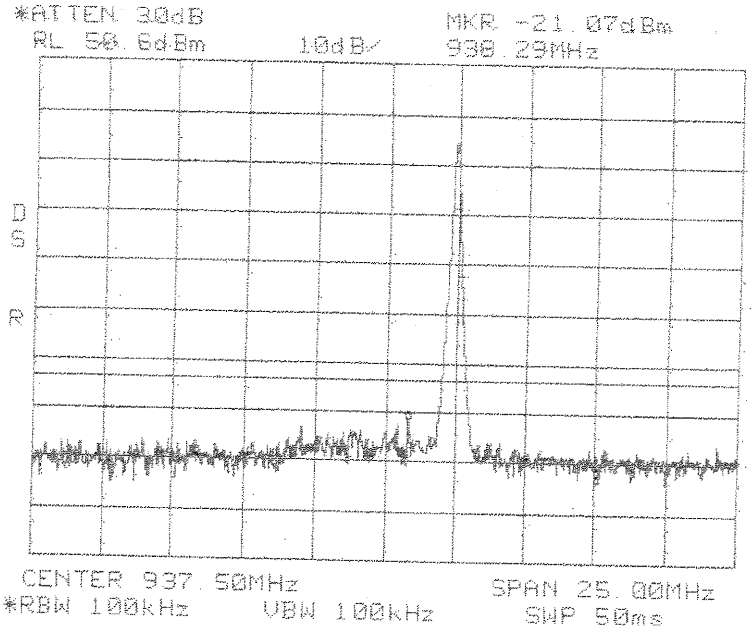
Conducted Emissions
Mid
SMR 900 MHz



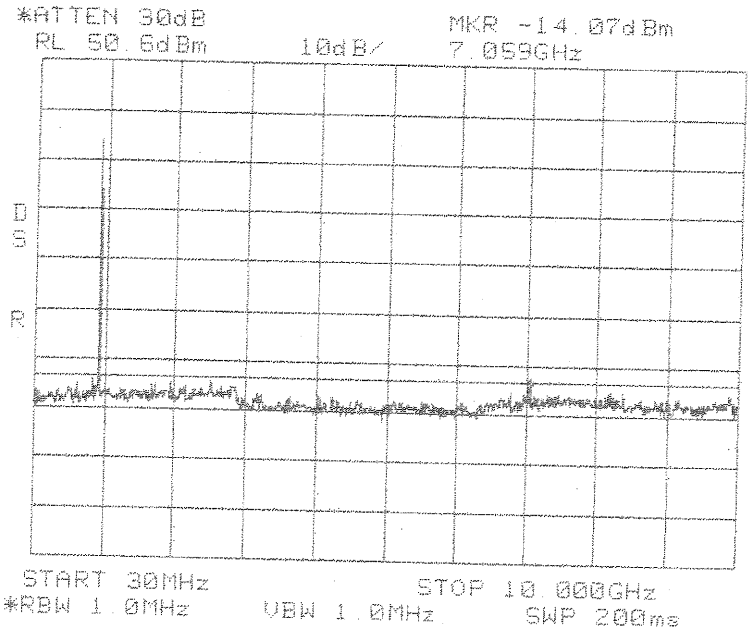
Conducted Emissions
Mid
SMR 900 MHz

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

Center: 937.5 MHz
Span: 15 MHz



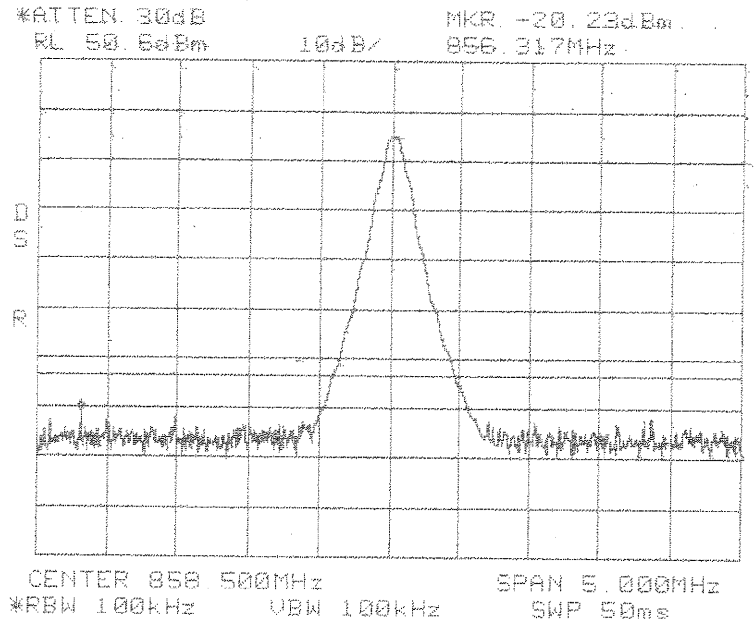
Conducted Emissions
High
SMR 900 MHz



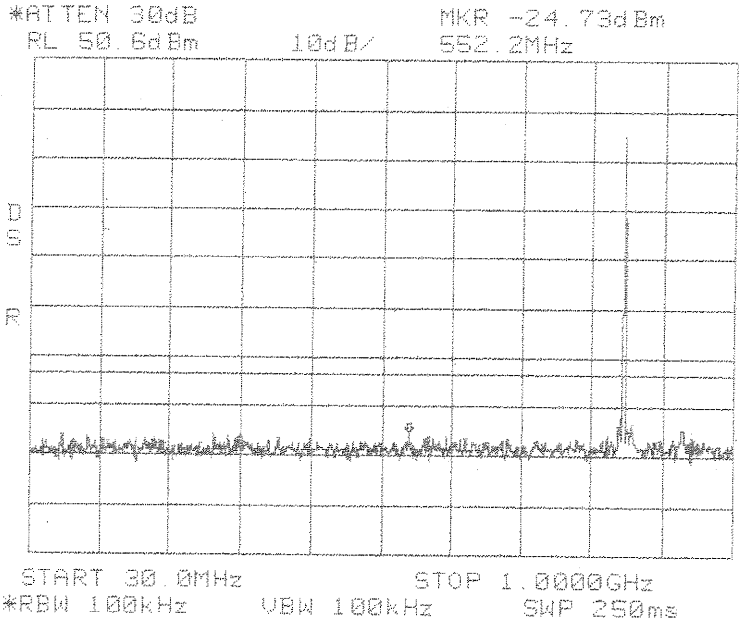
Conducted Emissions
High
SMR 900 MHz

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

Center: 858.5 MHz
Span: 5 MHz



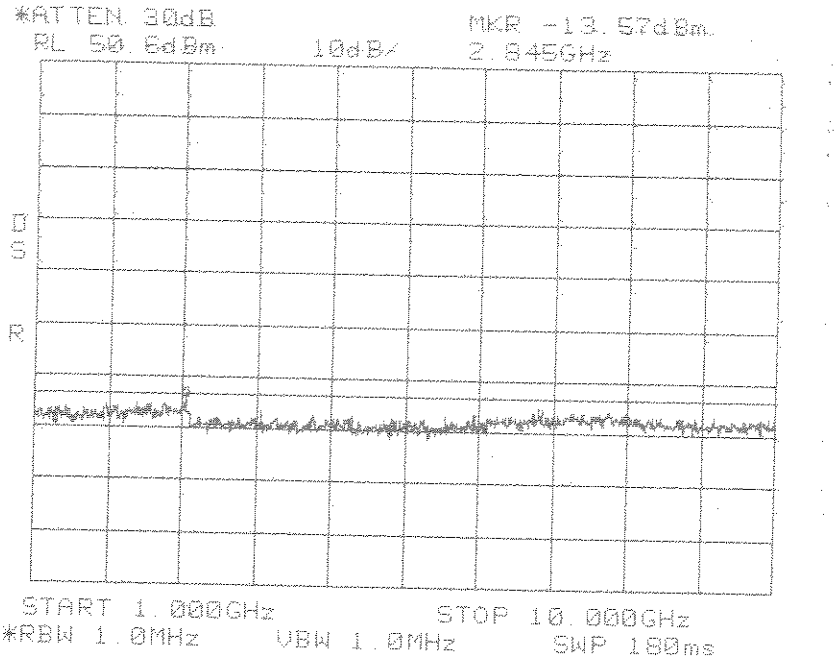
Conducted Emissions
FM
SMR 800 MHz



Conducted Emissions
FM
SMR 800 MHz

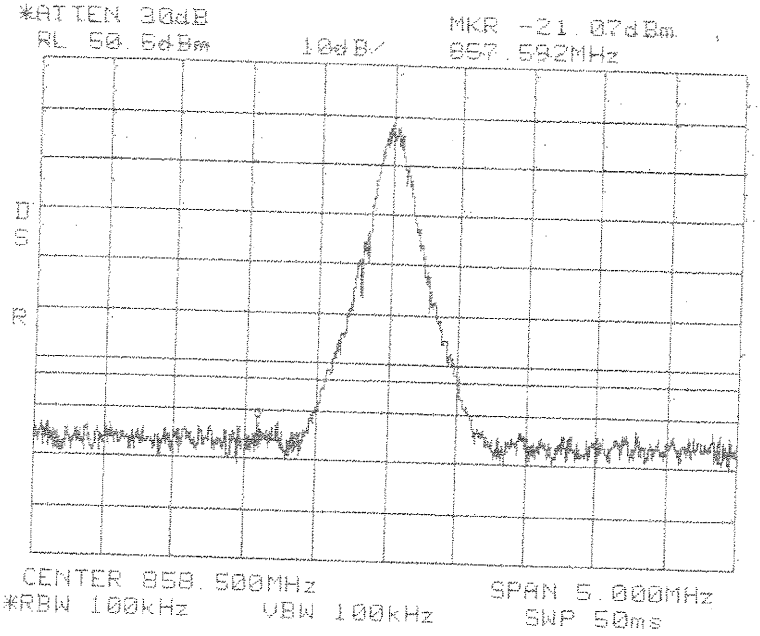
Span: 30 MHz to 1 GHz

1 GHz to 10 GHz
RBW/VBW: 1 MHz

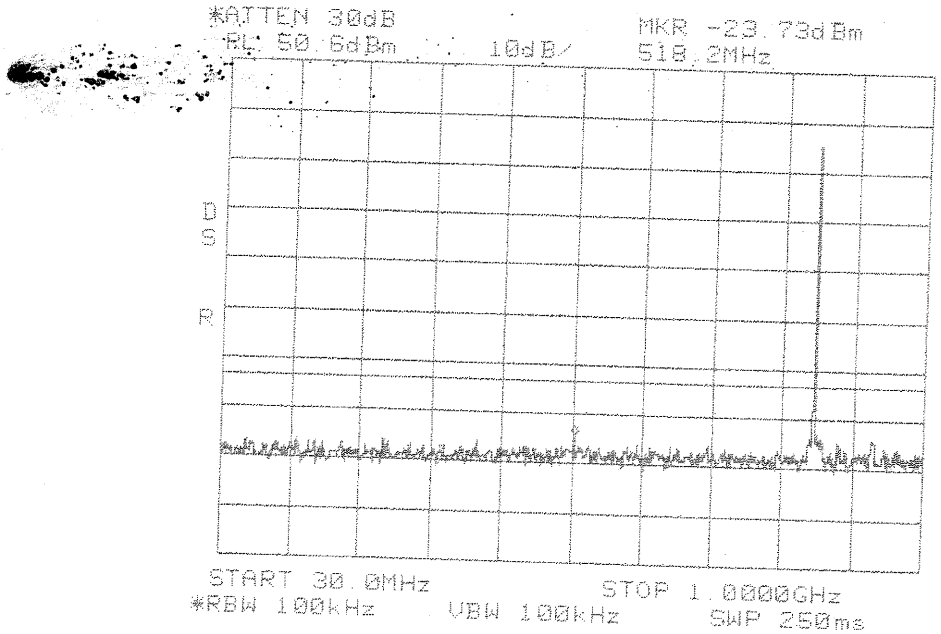


Conducted Emissions
FM
SMR 800 MHz

Center: 858.5 MHz
Span: 5 MHz



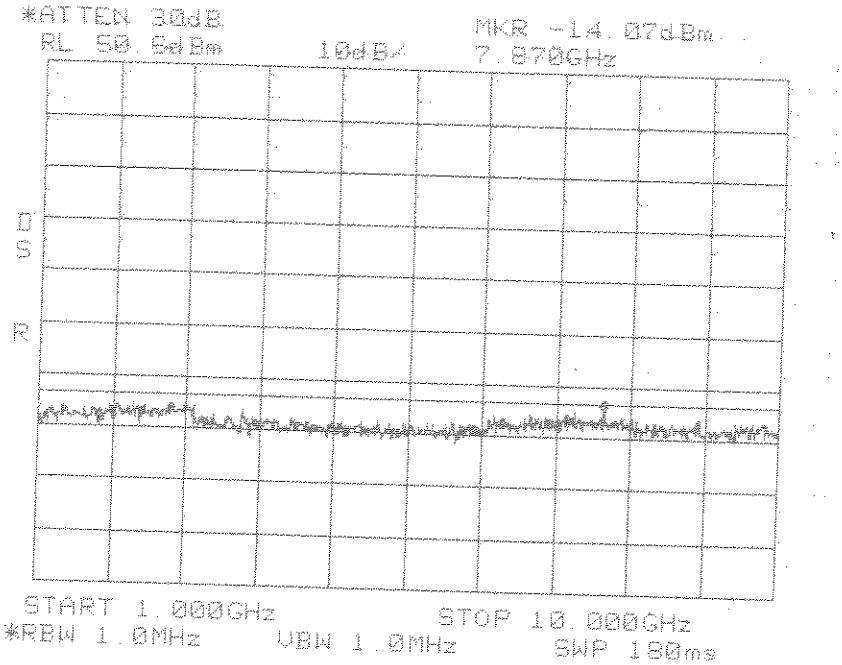
Conducted Emissions
16QAM
SMR 800 MHz



Conducted Emissions
16QAM
SMR 800 MHz

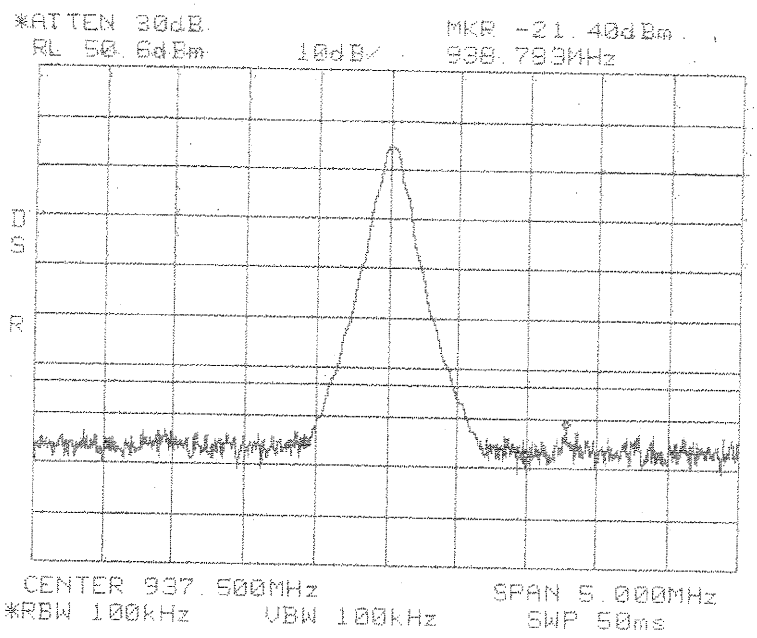
Span: 30 MHz to 1 GHz

1 GHz to 10 GHz
RBW/VBW: 1 MHz

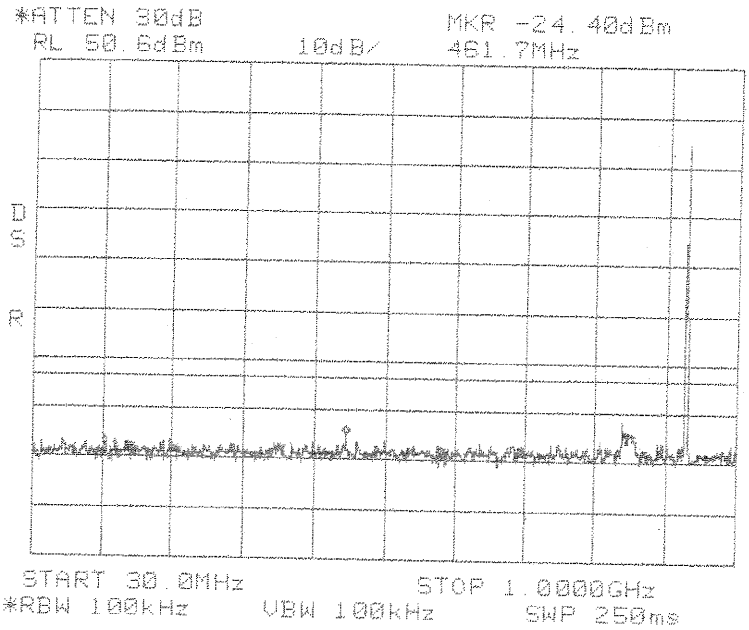


Conducted Emissions
16QAM
SMR 800 MHz

Center: 937.5 MHz
Span: 5 MHz



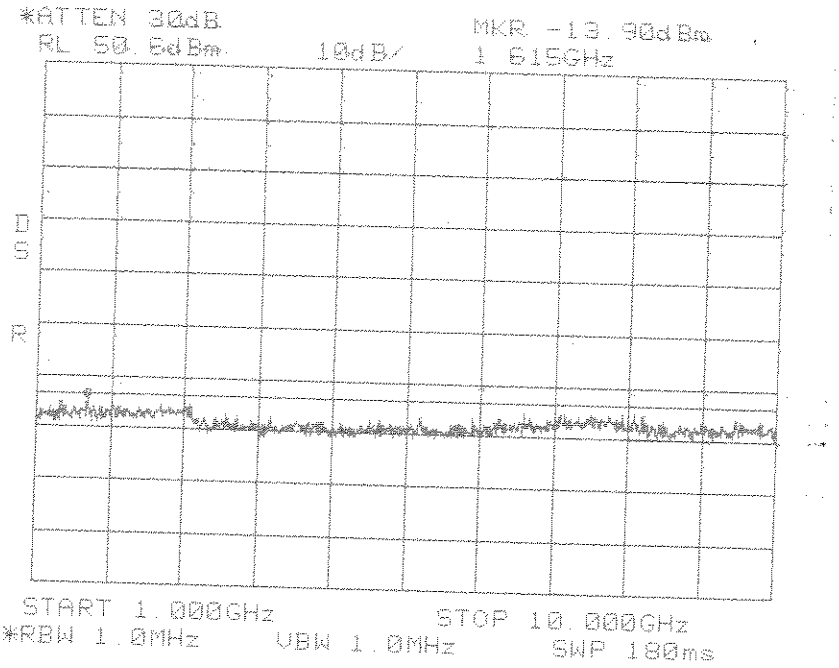
Conducted Emissions
FM
SMR 900 MHz



Conducted Emissions
FM
SMR 900 MHz

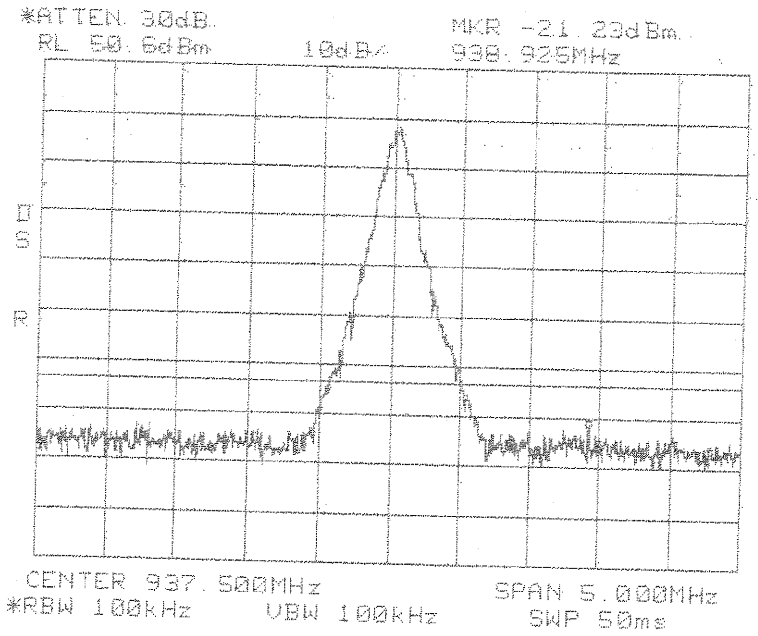
Span: 30 MHz to 1 GHz

1 GHz to 10 GHz
RBW/VBW: 1 MHz

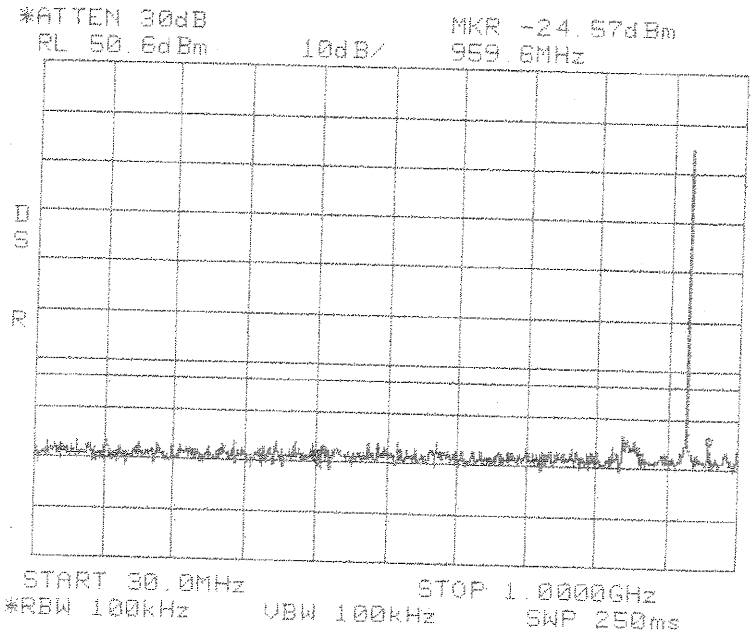


Conducted Emissions
FM
SMR 900 MHz

Center: 937.5 MHz
Span: 5 MHz



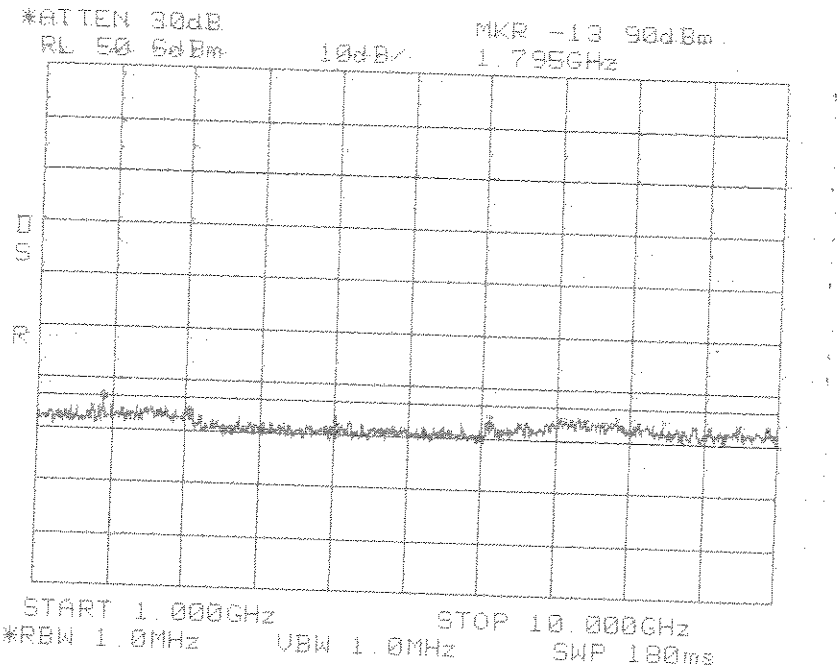
Conducted Emissions
16QAM
SMR 900 MHz



Conducted Emissions
16QAM
SMR 900 MHz

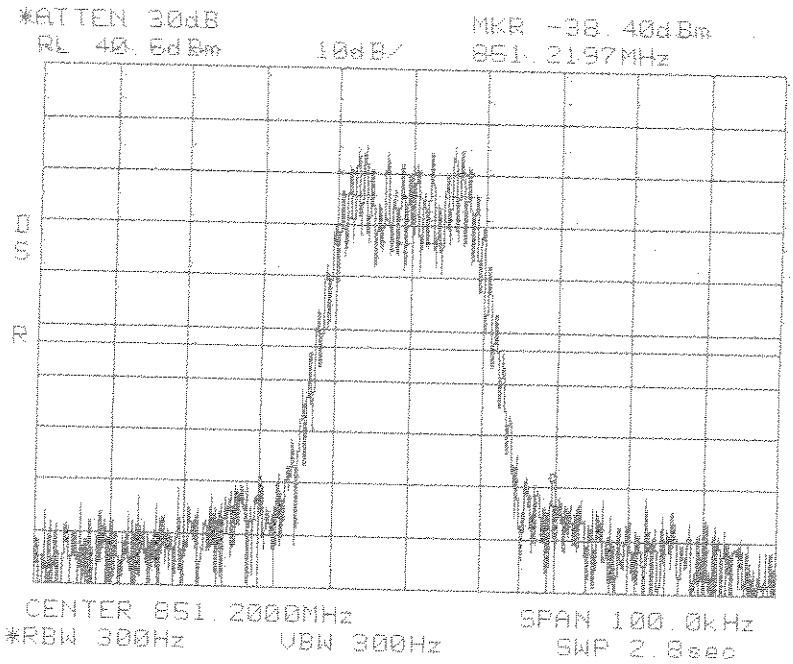
Span: 30 MHz to 1 GHz

1 GHz to 10 GHz
RBW/VBW: 1 MHz

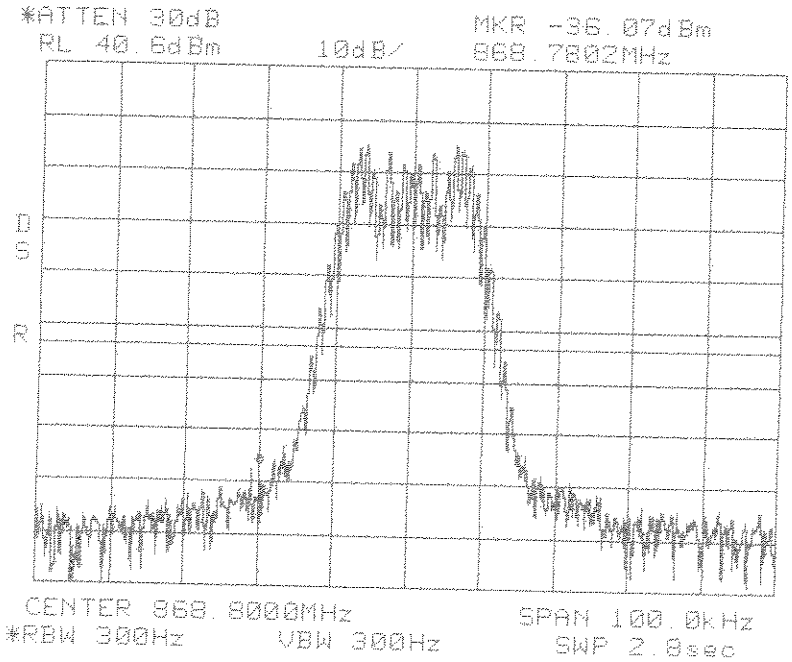


Conducted Emissions
16QAM
SMR 900 MHz

Center: 851.2 MHz
Span: 100 kHz
RBW/VBW: 300 Hz / 300 Hz



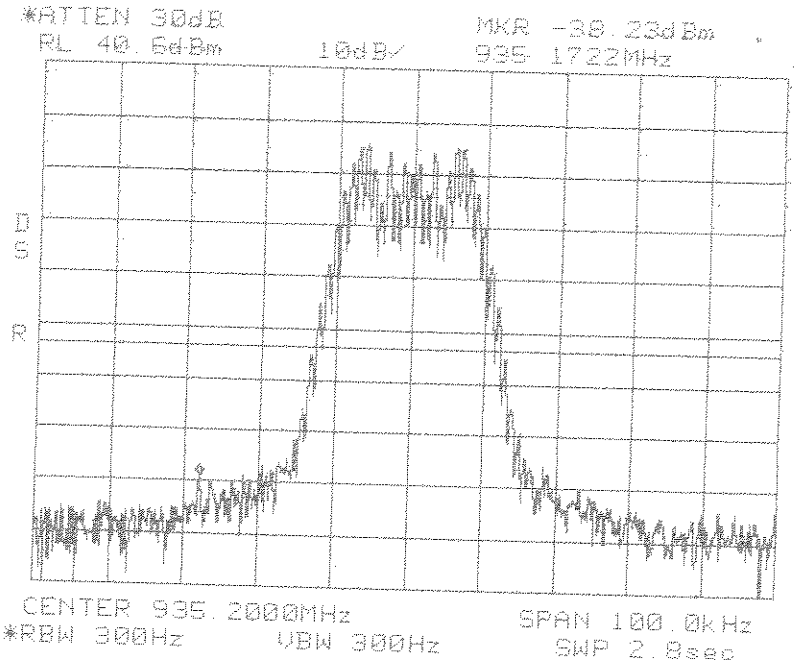
Conducted Emissions
Band Edge
FM
SMR 800 MHz



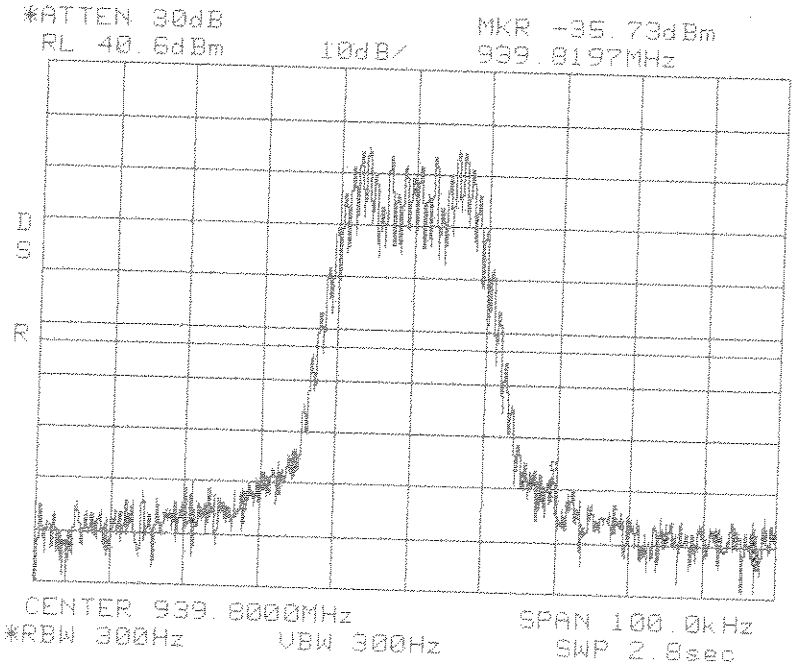
Conducted Emissions
Band Edge
FM
SMR 800 MHz

Center: 868.8 MHz
Span: 100 kHz
RBW/VBW: 300 Hz / 300 Hz

Center: 935.2 MHz
Span: 100 kHz
RBW/VBW: 300 Hz / 300 Hz



Conducted Emissions
Band Edge
FM
SMR 900 MHz



Conducted Emissions
Band Edge
FM
SMR 900 MHz

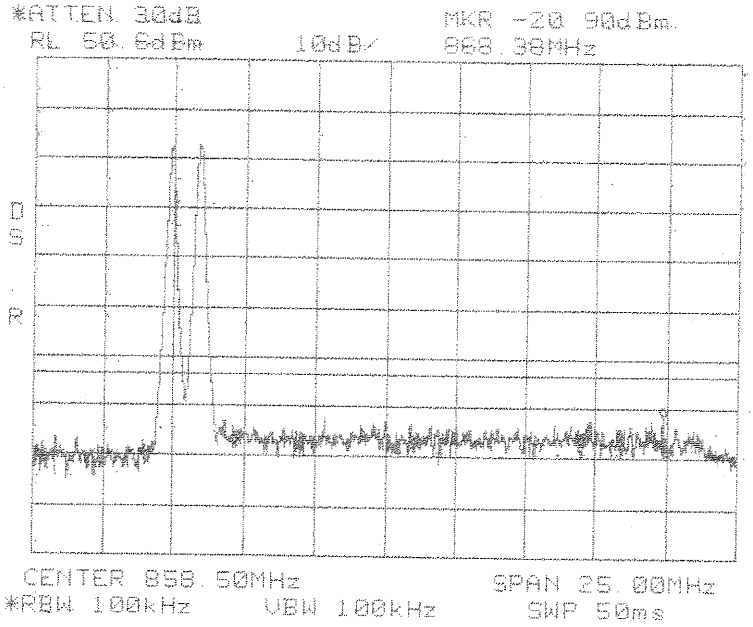
Center: 939.8 MHz
Span: 100 kHz
RBW/VBW: 300 Hz / 300 Hz

Inter-Modulation Test for ADC Inc
Digivance LRCS SMR Dual Band System
Model Number DGVC-901X0000100SYS

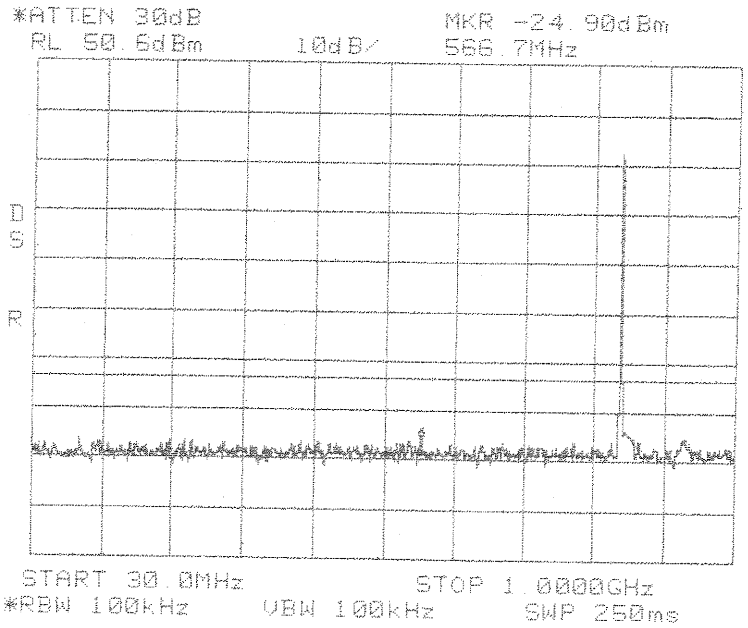
The intermodulation products test was performed for the EUT. Three tests were preformed with the modulation type. Test 1 was with 2 signals input to the EUT at lower end channels. Test 2 was with 2 signals input to the EUT at upper end channels. Test 3 was with 2 signals, one at a lower end channel and one at a higher end channel. The modulations type tested was FM and 16 QAM. An investigation was made from 30 MHz to the 10^{th} Harmonic of the highest fundamental frequency (~10 GHz). The following plots show the results.

Results:
(See Plots)

Center: 858.5 MHz
Span: 25 MHz



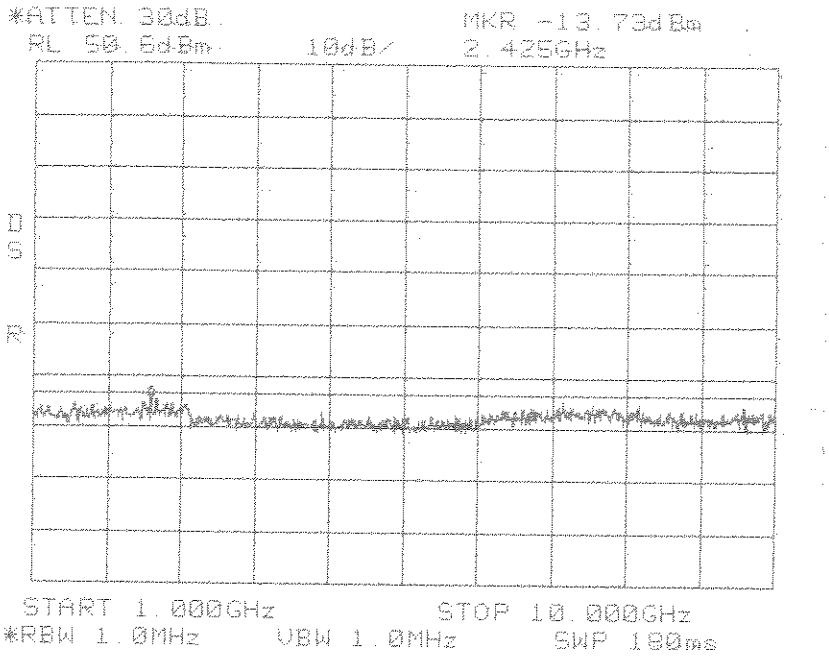
Intermodulation
Close
Lower
FM
SMR 800 MHz



Intermodulation
Close
Lower
FM
SMR 800 MHz

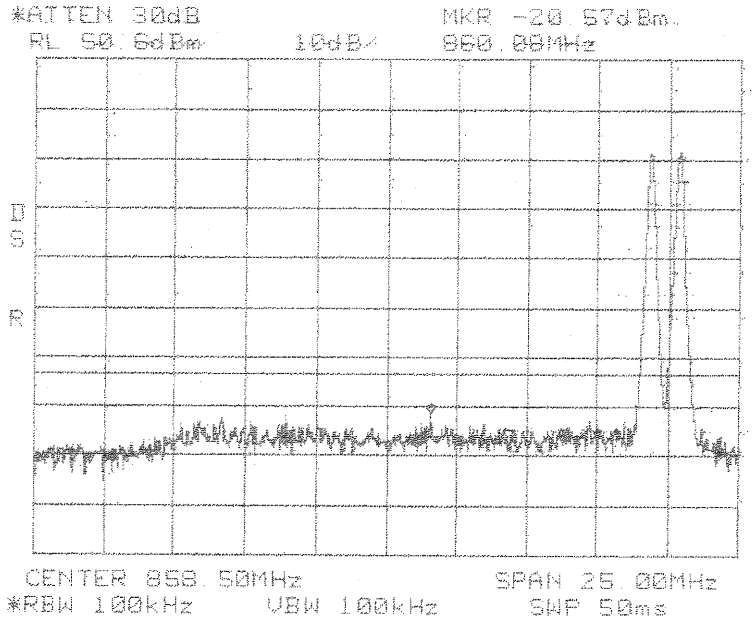
Span: 30 MHz to 1 GHz

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

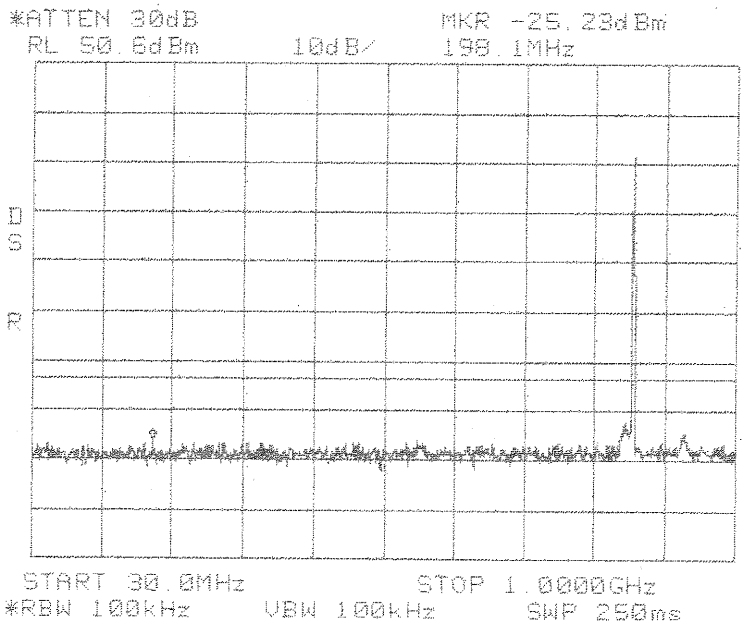


Intermodulation
Close
Lower
FM
SMR 800 MHz

Center: 858.5 MHz
Span: 25 MHz



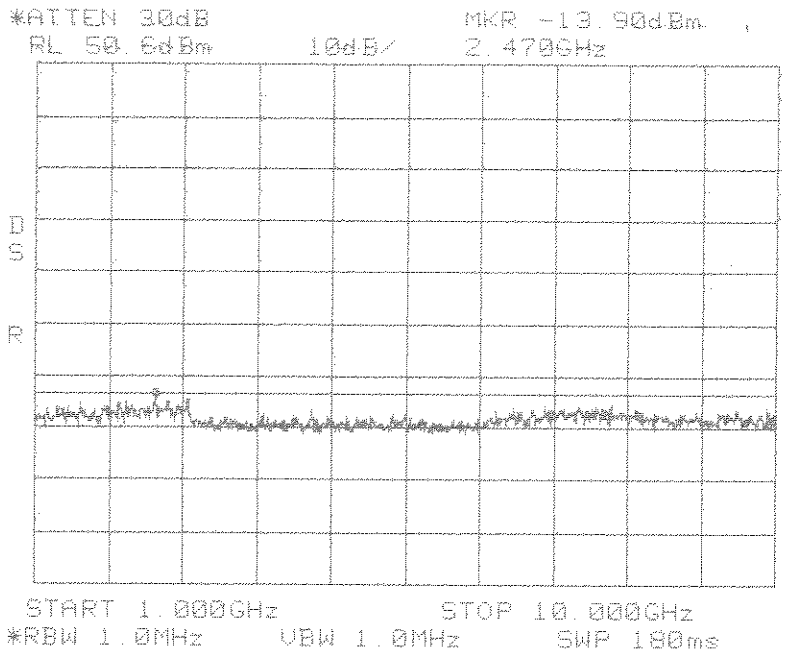
Intermodulation
Close
Upper
FM
SMR 800 MHz



Intermodulation
Close
Upper
FM
SMR 800 MHz

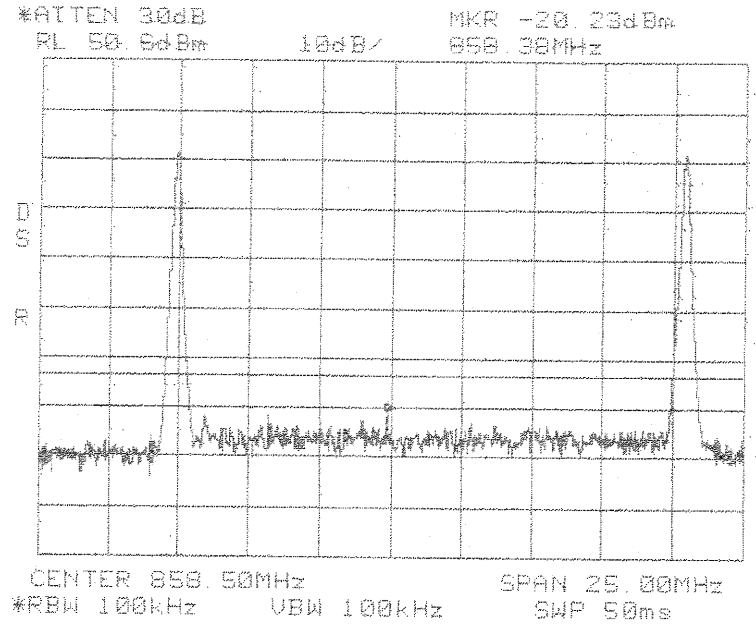
Span: 30 MHz to 1 GHz

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

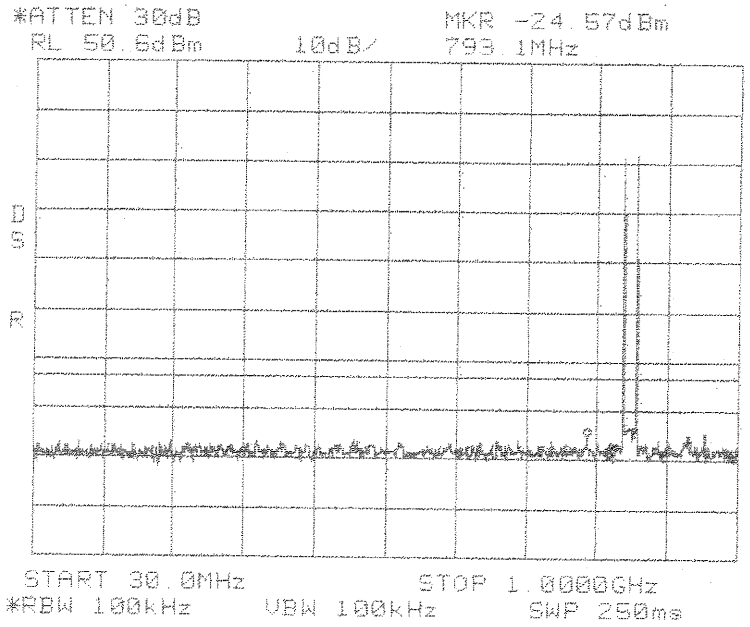


Intermodulation
Close
Upper
FM
SMR 800 MHz

Center: 858.5 MHz
Span: 25 MHz



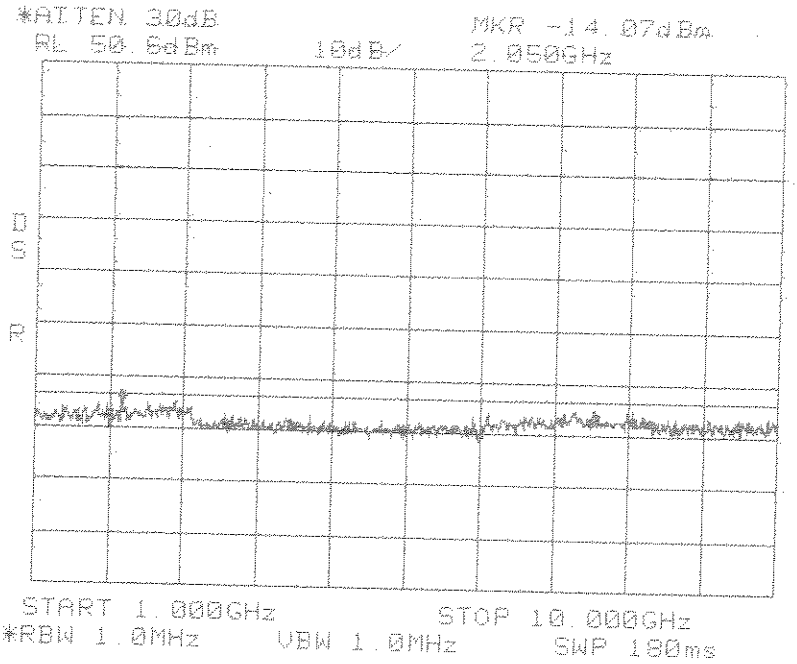
Intermodulation
Apart
FM
SMR 800 MHz



Intermodulation
Apart
FM
SMR 800 MHz

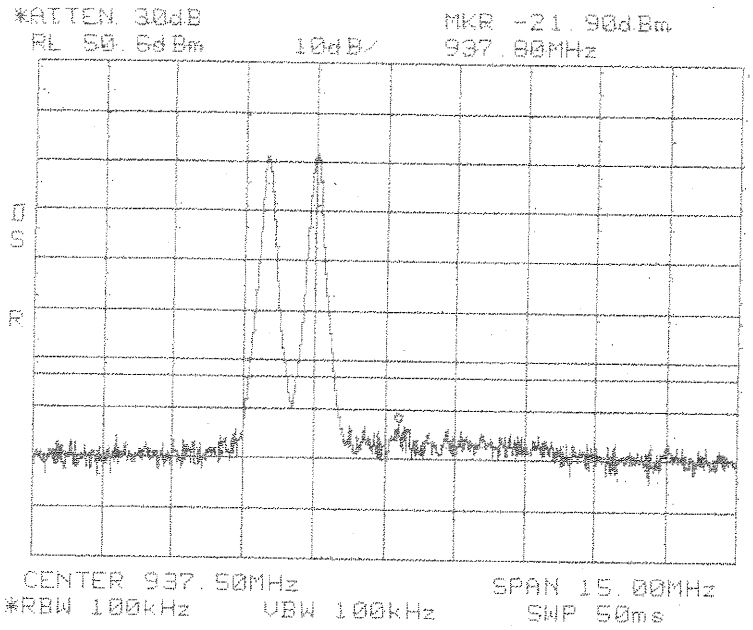
Span: 30 MHz to 1 GHz

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

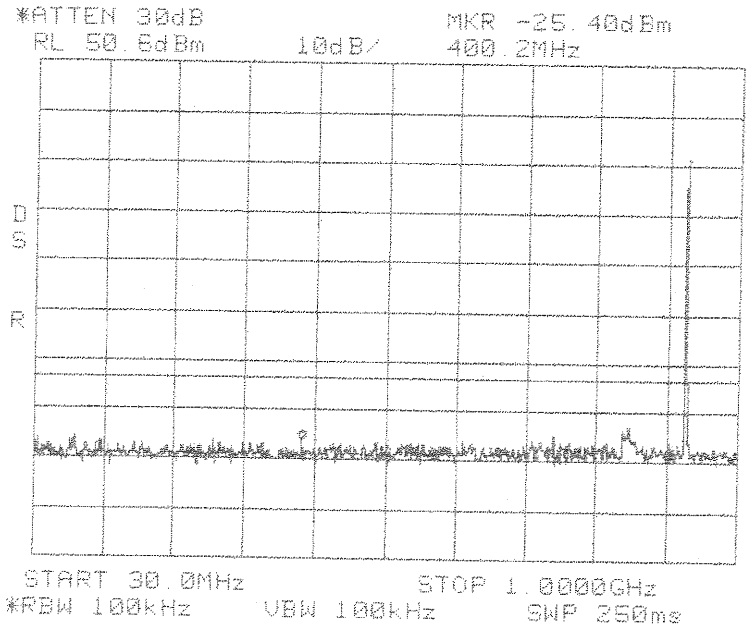


Intermodulation
Apart
FM
SMR 800 MHz

Center: 937.5 MHz
Span: 15 MHz



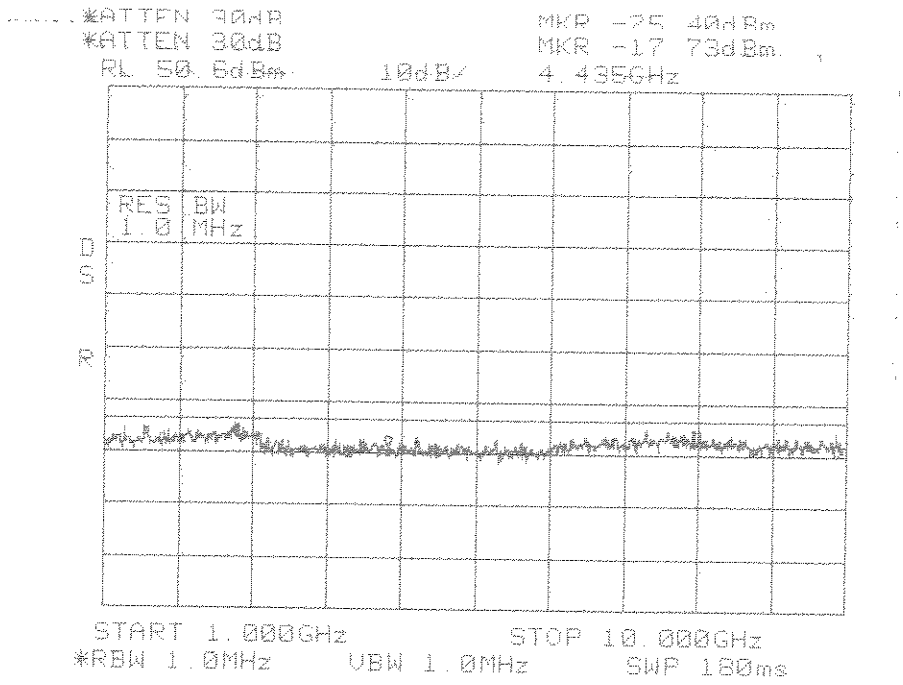
Intermodulation
Close
Lower
FM
SMR 900 MHz



Intermodulation
Close
Lower
FM
SMR 900 MHz

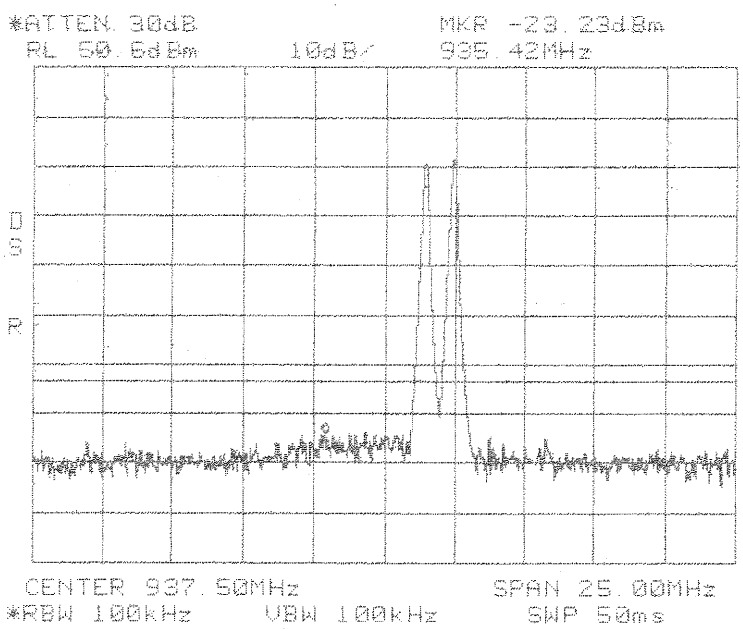
Span: 30 MHz to 1 GHz

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

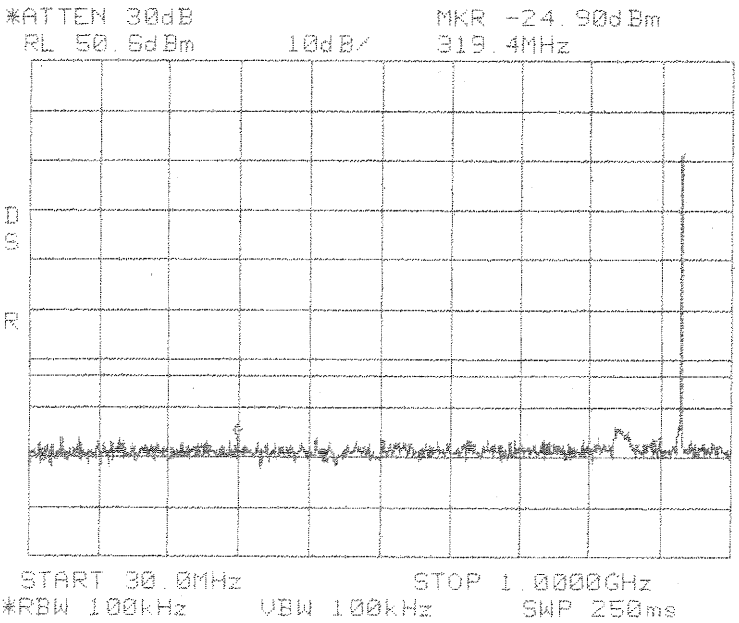


Intermodulation
Close
Lower
FM
SMR 900 MHz

Center: 937.5 MHz
Span: 15 MHz



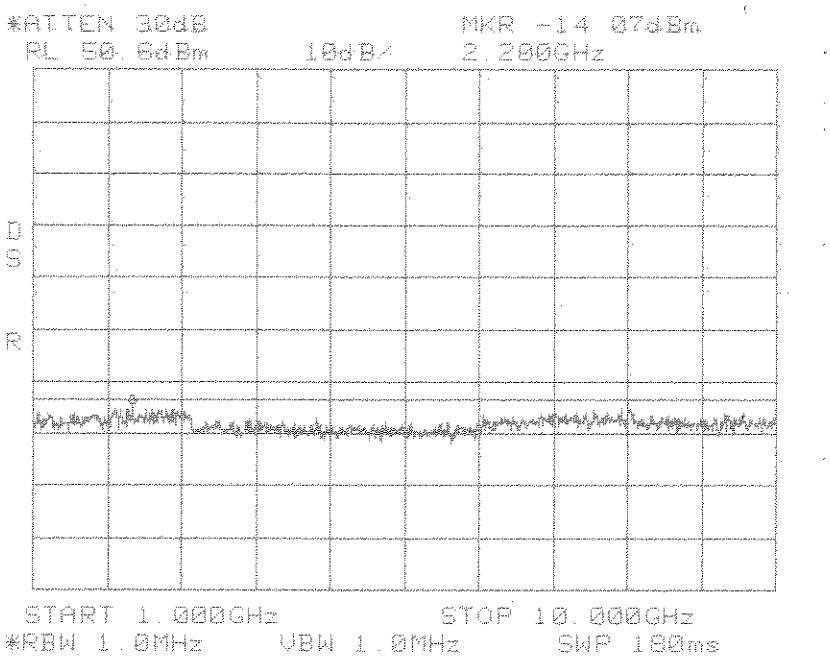
Intermodulation
Close
Upper
FM
SMR 900 MHz



Intermodulation
Close
Upper
FM
SMR 900 MHz

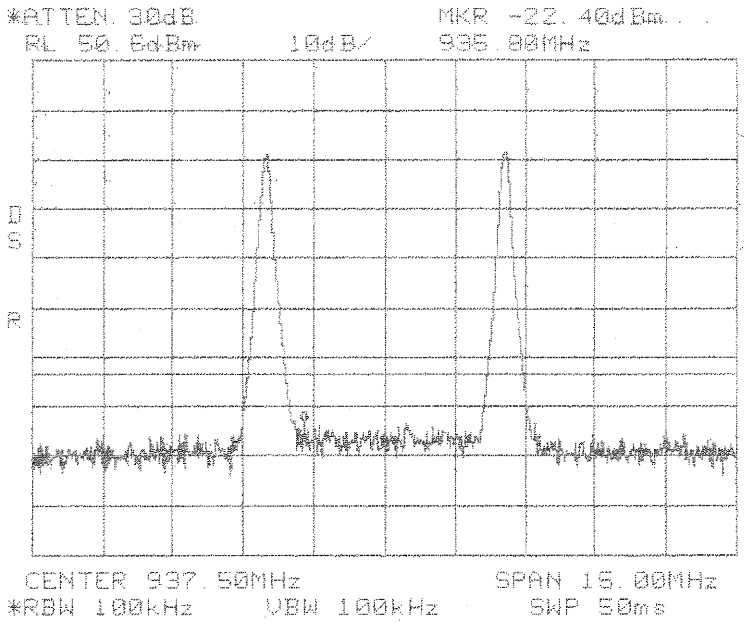
Span: 30 MHz to 1 GHz

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

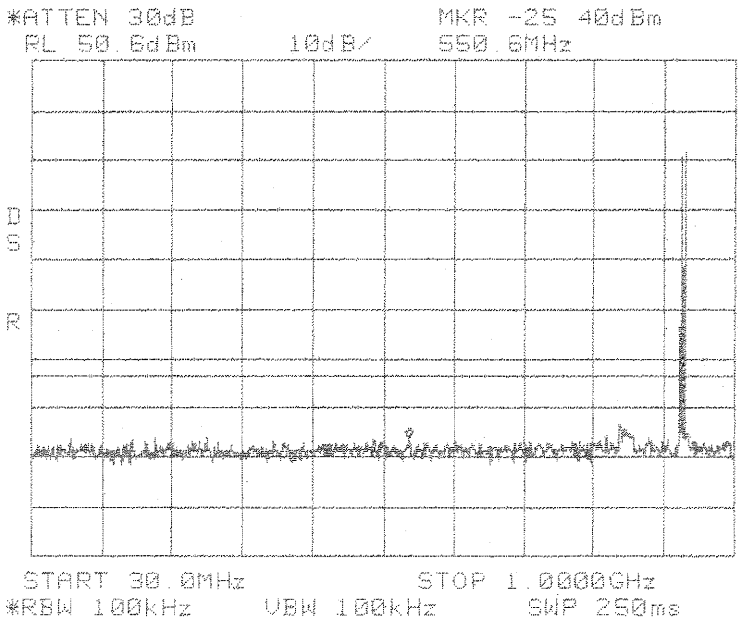


Intermodulation
Close
Upper
FM
SMR 900 MHz

Center: 937.5 MHz
Span: 15 MHz



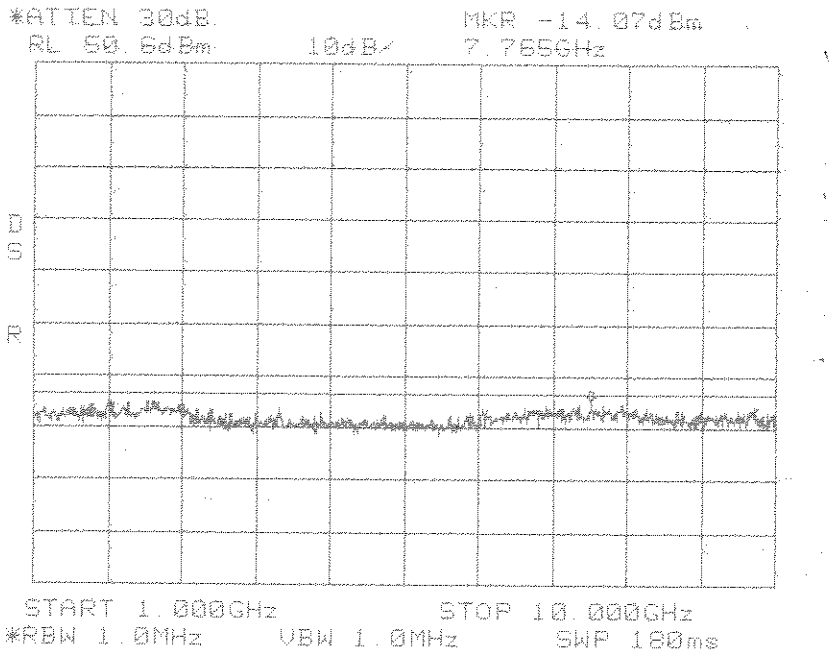
Intermodulation
Apart
FM
SMR 900 MHz



Intermodulation
Apart
FM
SMR 900 MHz

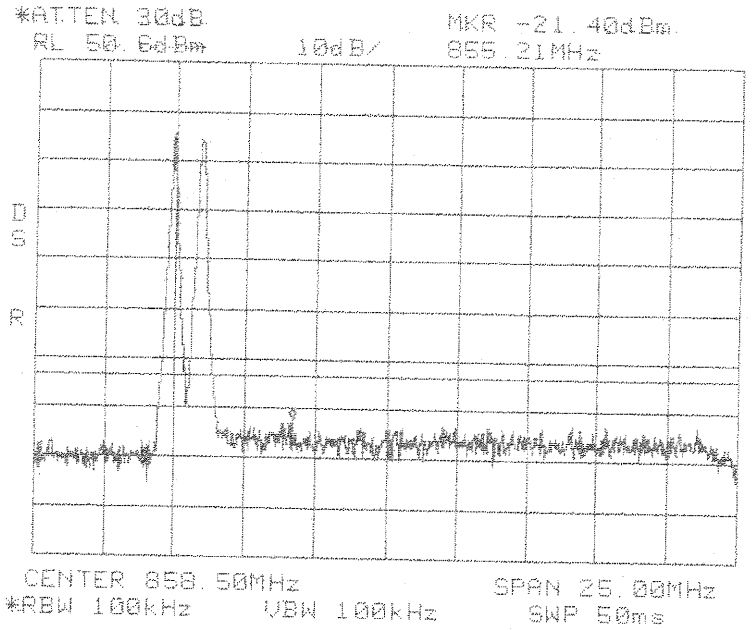
Span: 30 MHz to 1 GHz

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

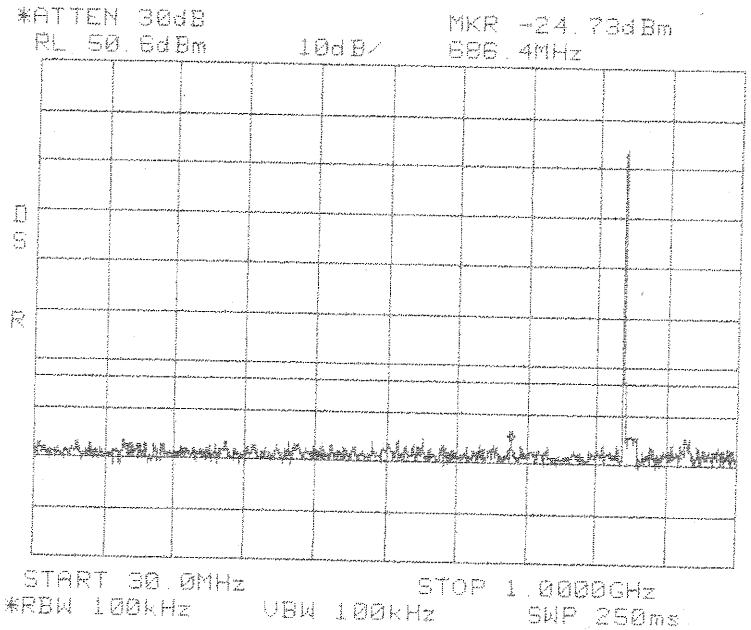


Intermodulation
Apart
FM
SMR 900 MHz

Center: 858.5 MHz
Span: 25 MHz



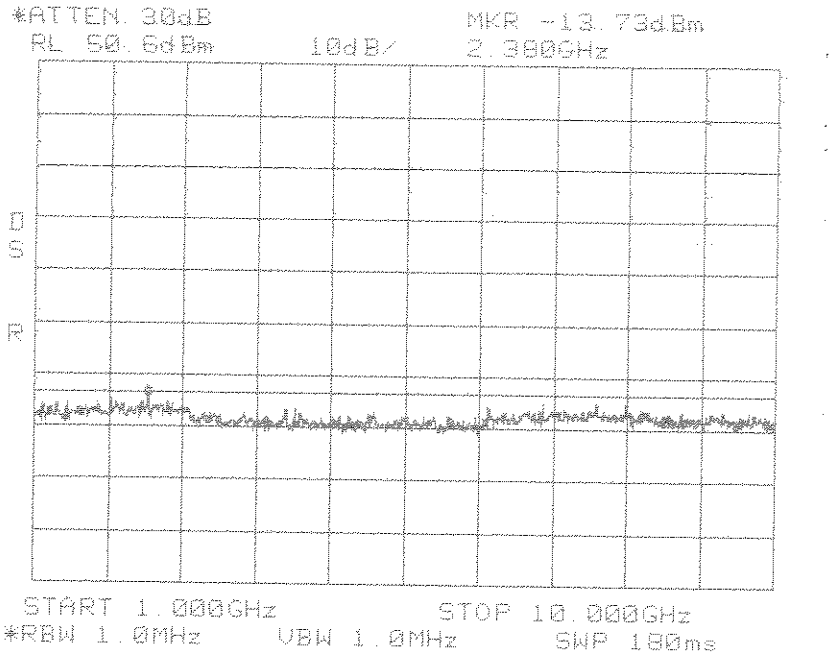
Intermodulation
Close
Lower
16QAM
SMR 800 MHz



Intermodulation
Close
Lower
16QAM
SMR 800 MHz

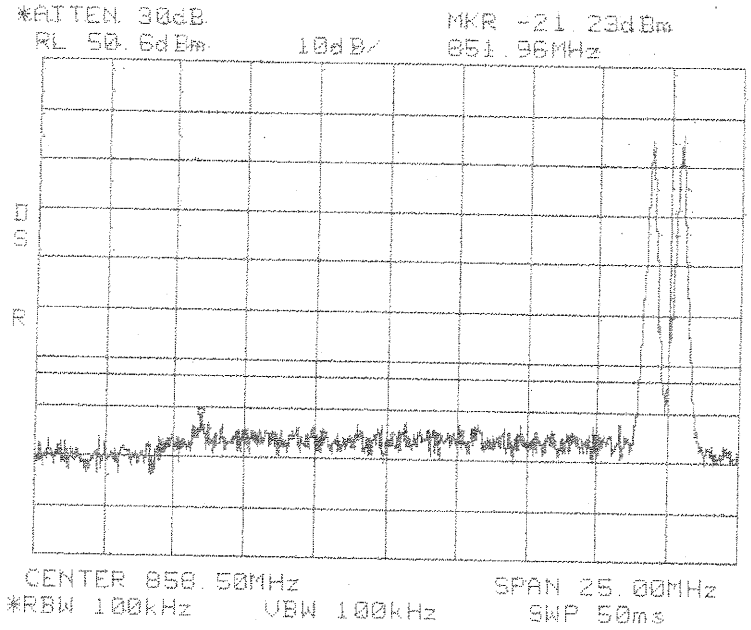
Span: 30 MHz to 1 GHz

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

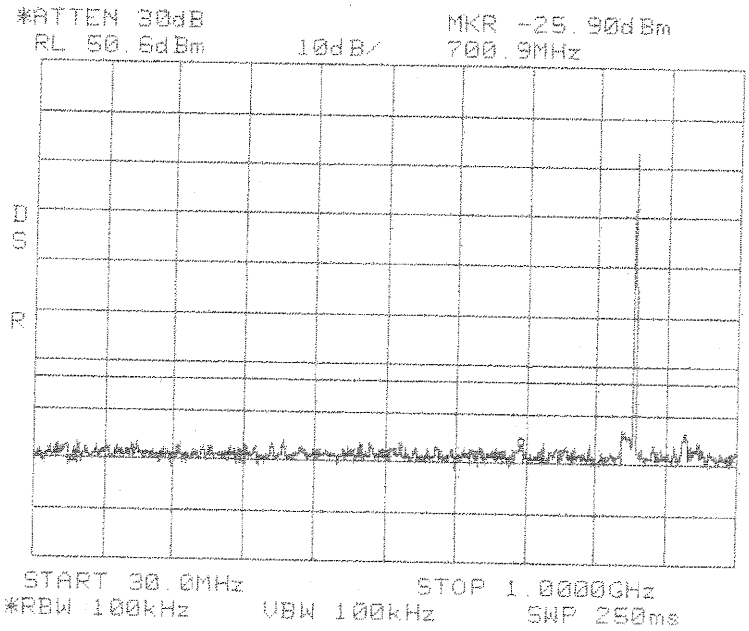


Intermodulation
Close
Lower
16QAM
SMR 800 MHz

Center: 858.5 MHz
Span: 25 MHz



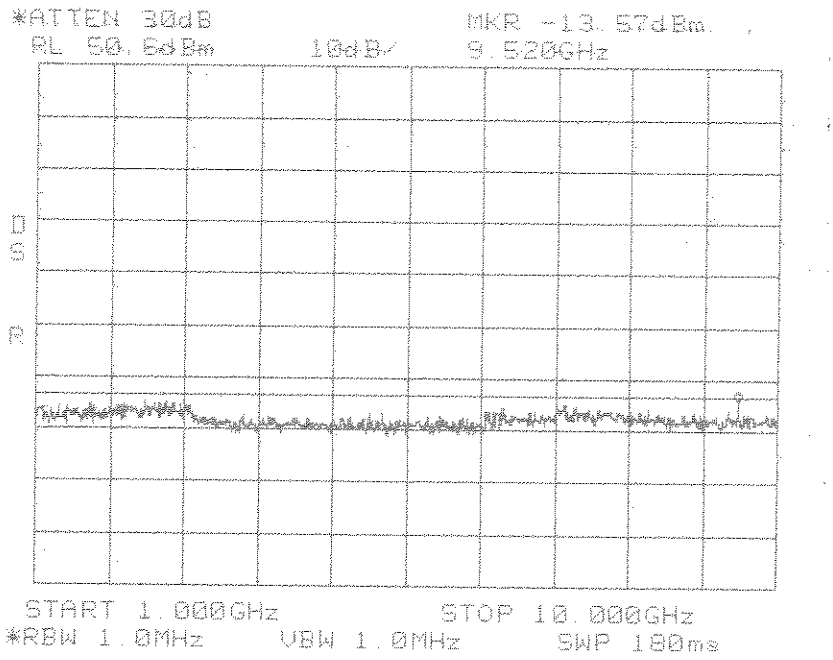
Intermodulation
Close
Upper
16QAM
SMR 800 MHz



Intermodulation
Close
Upper
16QAM
SMR 800 MHz

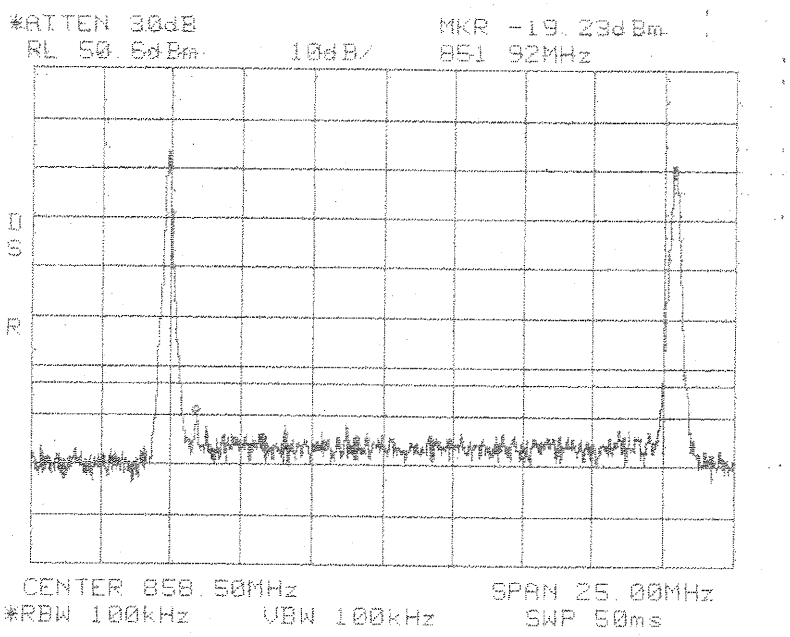
Span: 30 MHz to 1 GHz

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

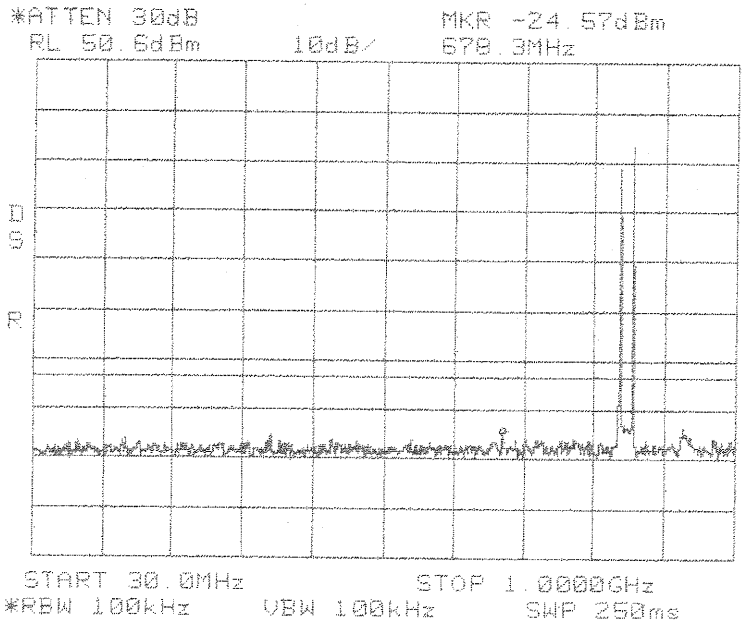


Intermodulation
Close
Upper
16QAM
SMR 800 MHz

Center: 858.5 MHz
Span: 25 MHz



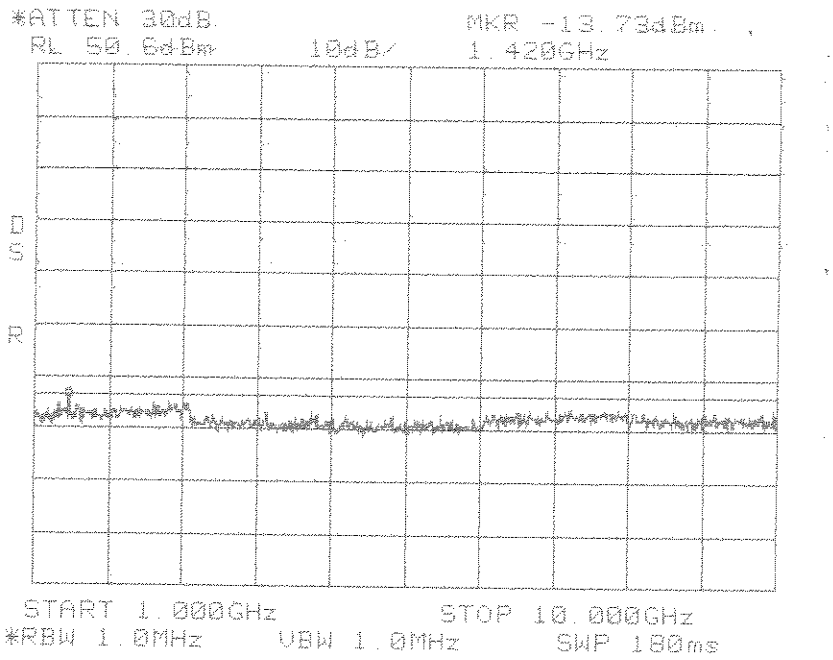
Intermodulation
Apart
16QAM
SMR 800 MHz



Intermodulation
Apart
16QAM
SMR 800 MHz

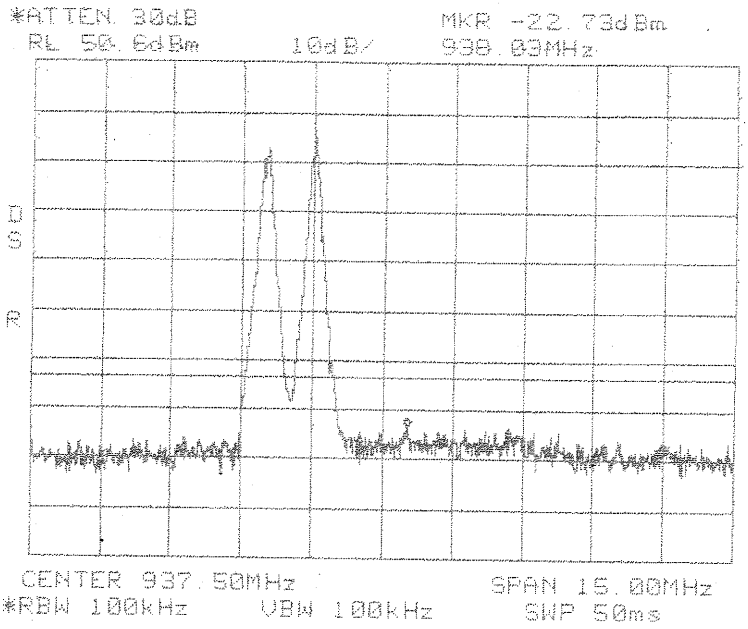
Span: 30 MHz to 1 GHz

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

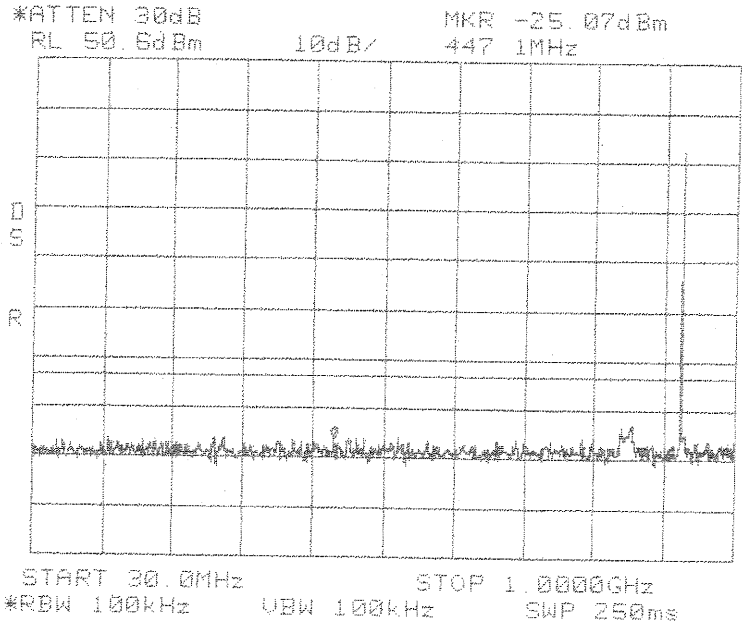


Intermodulation
Apart
16QAM
SMR 800 MHz

Center: 937.5 MHz
Span: 15 MHz



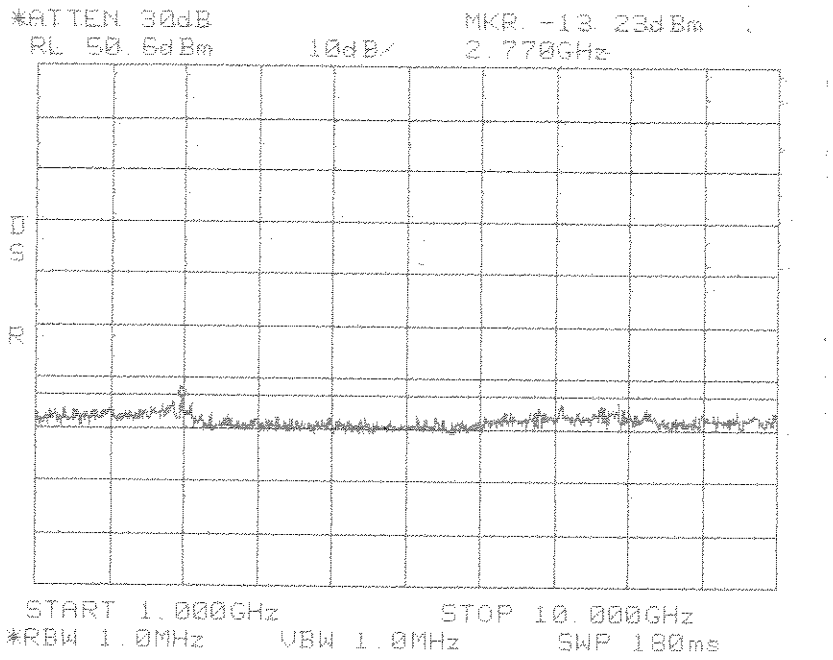
Intermodulation
Close
Lower
16QAM
SMR 900 MHz



Intermodulation
Close
Lower
16QAM
SMR 900 MHz

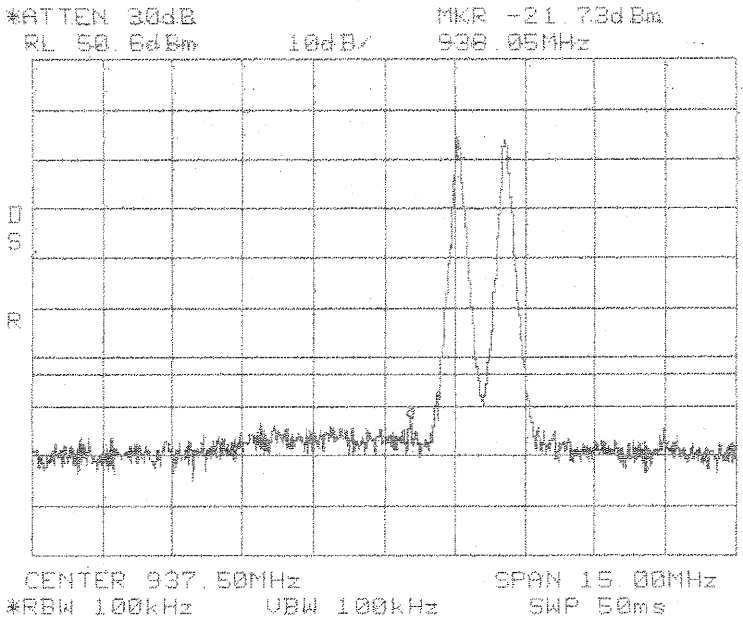
Span: 30 MHz to 1 GHz

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

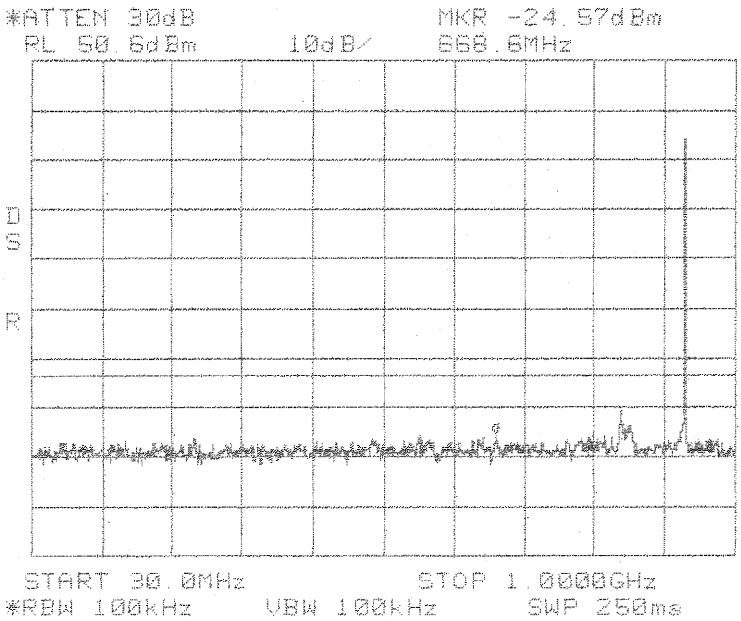


Intermodulation
Close
Lower
16QAM
SMR 900 MHz

Center: 937.5 MHz
Span: 15 MHz



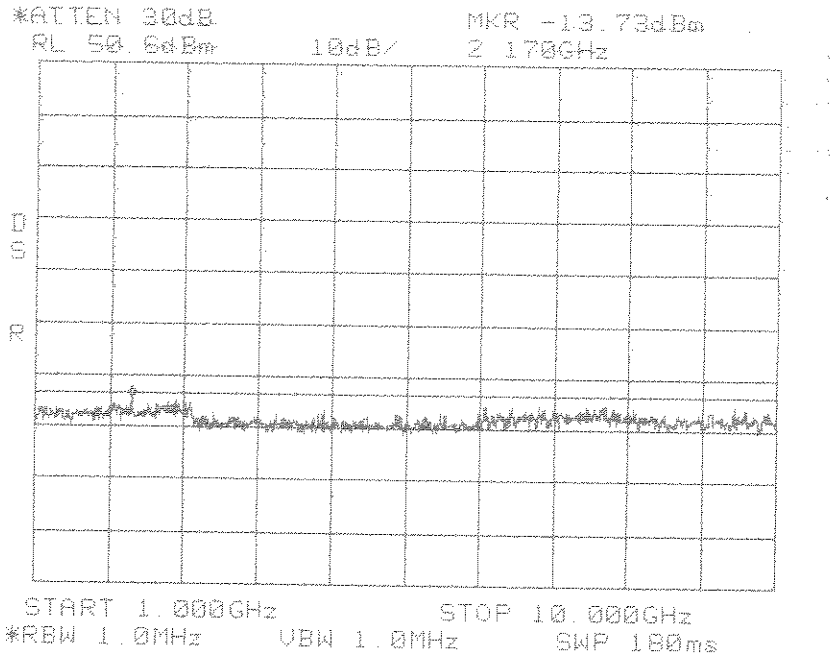
Intermodulation
Close
Upper
16QAM
SMR 900 MHz



Intermodulation
Close
Upper
16QAM
SMR 900 MHz

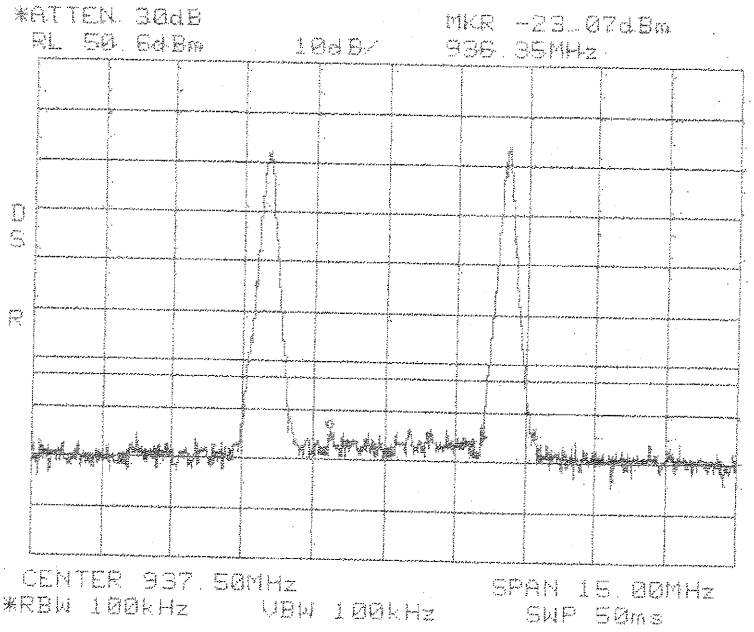
Span: 30 MHz to 1 GHz

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

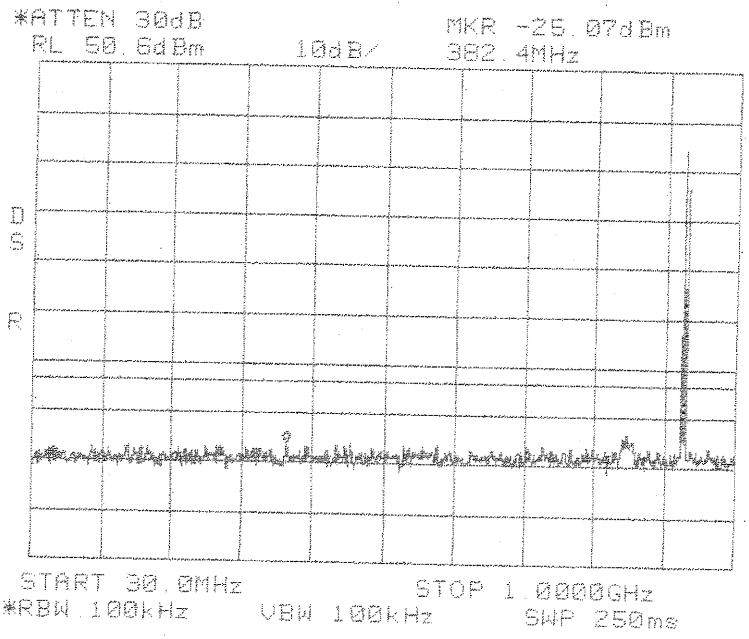


Intermodulation
Close
Upper
16QAM
SMR 900 MHz

Center: 937.5 MHz
Span: 15 MHz



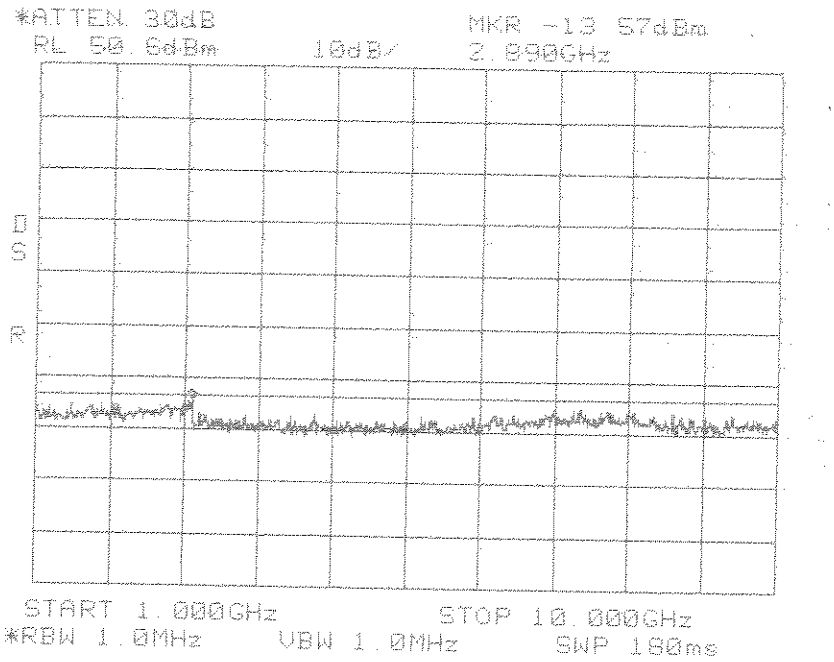
Intermodulation
Apart
16QAM
SMR 900 MHz



Intermodulation
Apart
16QAM
SMR 900 MHz

Span: 30 MHz to 1 GHz

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



Intermodulation
Apart
16QAM
SMR 900 MHz

RADIATED EMISSIONS

Test Report #:	WC503385 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-901X0000100 SYS	Date:	6/28/2005		
EUT Serial #:	System #3	EUT Power:	60 Hz / 110 VAC	Temperature:	23.0 °C
Test Method:	FCC			Air Pressure:	98.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	35.0 %
EUT Description:	Street Coverage System - SCS				
Notes:	SMR 800/900 MHz System				
Data File Name:	3385.dat			Page:	1 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
212.977 MHz	59.35 Qp	2.01 / 10.22 / 27.11 / 0.0	44.47	V / 1.00 / 0	-50	-13
70.977 MHz	44.1 Qp	1.1 / 8.78 / 27.0 / 0.0	26.98	V / 1.00 / 0	-68	-13
142.007 MHz	41.25 Qp	1.63 / 8.76 / 26.97 / 0.0	24.67	V / 1.00 / 0	-70	-13
284.007 MHz	42.3 Qp	2.43 / 12.01 / 27.43 / 0.0	29.31	V / 1.00 / 0	-65	-13
355.007 MHz	43.8 Qp	2.75 / 14.53 / 27.6 / 0.0	33.48	V / 1.00 / 0	-61	-13
426.007 MHz	32.5 Qp	3.01 / 16.44 / 27.9 / 0.0	24.05	V / 1.00 / 0	-70	-13
497.007 MHz	28.85 Qp	3.33 / 17.2 / 27.93 / 0.0	21.45	V / 1.00 / 0	-73	-13
568.007 MHz	28.75 Qp	3.55 / 18.79 / 28.1 / 0.0	23.0	V / 1.00 / 0	-72	-13
639.007 MHz	26.75 Qp	3.8 / 19.47 / 28.2 / 0.0	21.82	V / 1.00 / 0	-73	-13
994.007 MHz	24.55 Qp	4.87 / 22.88 / 27.57 / 0.0	24.73	V / 1.00 / 0	-70	-13
213 MHz maxed:						
212.977 MHz	60.19 Qp	2.01 / 10.22 / 27.11 / 0.0	45.31	V / 1.15 / 193	-49	-13
Broadband (P/S?) emissions:						
41.277 MHz	39.2 Qp	0.8 / 15.98 / 27.06 / 0.0	28.92	V / 1.15 / 193	-66	-13
48.345 MHz	37.35 Qp	0.9 / 13.77 / 27.1 / 0.0	24.92	V / 1.15 / 193	-70	-13
64.167 MHz	45.45 Qp	1.0 / 9.95 / 27.0 / 0.0	29.4	V / 1.15 / 193	-65	-13
70.047 MHz	41.25 Qp	1.1 / 9.04 / 27.0 / 0.0	24.39	V / 1.15 / 193	-70	-13

Tested by: J. C. Sausen

Printed | Signature

Reviewed by: Joel Schneider

Printed | Signature

RADIATED EMISSIONS

Test Report #:	WC503385 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-901X0000100 SYS	Date:	6/28/2005		
EUT Serial #:	System #3	EUT Power:	60 Hz / 110 VAC	Temperature:	23.0 °C
Test Method:	FCC			Air Pressure:	98.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	35.0 %
EUT Description:	Street Coverage System - SCS				
Notes:	SMR 800/900 MHz System				
Data File Name:	3385.dat			Page:	2 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
79.839 MHz	46.45 Qp	1.2 / 7.27 / 26.9 / 0.0	28.01	V / 1.15 / 193	-66	-13
92.139 MHz	44.1 Qp	1.3 / 7.65 / 26.9 / 0.0	26.15	V / 1.15 / 193	-68	-13
130.113 MHz	34.8 Qp	1.6 / 7.75 / 27.0 / 0.0	17.15	V / 1.15 / 193	-77	-13
197.871 MHz	44.7 Qp	2.0 / 10.0 / 27.1 / 0.0	29.6	V / 1.15 / 193	-65	-13
327.093 MHz	37.95 Qp	2.63 / 13.04 / 27.53 / 0.0	26.09	V / 1.15 / 193	-68	-13
NB emissions:						
44.04 MHz	43.35 Qp	0.84 / 15.32 / 27.04 / 0.0	32.47	V / 1.15 / 193	-62	-13
44.688 MHz	43.5 Qp	0.86 / 15.13 / 27.06 / 0.0	32.43	V / 1.15 / 193	-62	-13
63.588 MHz	44.6 Qp	1.0 / 10.02 / 27.0 / 0.0	28.62	V / 1.15 / 193	-66	-13
83.028 MHz	37.45 Qp	1.25 / 6.98 / 26.9 / 0.0	18.78	V / 1.15 / 193	-76	-13
141.995 MHz	42.95 Qp	1.63 / 8.76 / 26.97 / 0.0	26.37	V / 1.15 / 193	-68	-13
325.859 MHz	41.25 Qp	2.63 / 13.01 / 27.53 / 0.0	29.36	V / 1.15 / 193	-65	-13
341.052 MHz	33.1 Qp	2.69 / 14.05 / 27.59 / 0.0	22.25	V / 1.15 / 193	-72	-13
850.975 MHz	41.45 Qp	4.51 / 21.51 / 27.78 / 0.0	39.69	V / 1.10 / 66	-55	-13
860.563 MHz	39.55 Qp	4.53 / 21.09 / 27.75 / 0.0	37.42	V / 1.10 / 66	-57	-13
863.054 MHz	38.8 Qp	4.53 / 21.06 / 27.74 / 0.0	36.65	V / 1.10 / 66	-58	-13
tucked excess power cord below ground screen:						

Tested by: J. C. Sausen — Printed — Signature

Reviewed by: Joel Schneider — Printed — Signature

RADIATED EMISSIONS

Test Report #:	WC503385 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-901X0000100 SYS	Date:	6/28/2005		
EUT Serial #:	System #3	EUT Power:	60 Hz / 110 VAC	Temperature:	23.0 °C
Test Method:	FCC			Air Pressure:	98.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	35.0 %
EUT Description:	Street Coverage System - SCS				
Notes:	SMR 800/900 MHz System				
Data File Name:	3385.dat			Page:	3 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
maxed:						
212.977 MHz	56.82 Qp	2.01 / 10.22 / 27.11 / 0.0	41.94	V / 1.05 / 122	-53	-13
44.688 MHz	45.45 Qp	0.86 / 15.13 / 27.06 / 0.0	34.38	V / 1.05 / 122	-60	-13
79.839 MHz	50.8 Qp	1.2 / 7.27 / 26.9 / 0.0	32.36	V / 1.05 / 122	-62	-13
83.028 MHz	42.75 Qp	1.25 / 6.98 / 26.9 / 0.0	24.08	V / 1.05 / 122	-70	-13
354.983 MHz	48.45 Qp	2.75 / 14.53 / 27.6 / 0.0	38.13	V / 1.05 / 122	-56	-13
850.975 MHz	40.35 Qp	4.51 / 21.51 / 27.78 / 0.0	38.59	V / 1.05 / 122	-56	-13
863.054 MHz	37.7 Qp	4.53 / 21.06 / 27.74 / 0.0	35.55	V / 1.05 / 122	-59	-13
83.028 MHz	43.25 Qp	1.25 / 6.98 / 26.9 / 0.0	24.58	V / 1.05 / 180	-70	-13
44.04 MHz	45.0 Qp	0.84 / 15.32 / 27.04 / 0.0	34.12	V / 1.05 / 90	-60	-13
44.688 MHz	45.6 Qp	0.86 / 15.13 / 27.06 / 0.0	34.53	V / 1.05 / 90	-60	-13
83.028 MHz	43.55 Qp	1.25 / 6.98 / 26.9 / 0.0	24.88	V / 1.05 / 90	-70	-13
354.983 MHz	49.55 Qp	2.75 / 14.53 / 27.6 / 0.0	39.23	V / 1.05 / 90	-55	-13
850.975 MHz	43.8 Qp	4.51 / 21.51 / 27.78 / 0.0	42.04	V / 1.05 / 90	-52	-13
860.563 MHz	41.3 Qp	4.53 / 21.09 / 27.75 / 0.0	39.17	V / 1.05 / 90	-55	-13
850 MHz maxed:						
850.975 MHz	44.99 Qp	4.51 / 21.51 / 27.78 / 0.0	43.23	V / 1.00 / 70	-51	-13
41.277 MHz	39.85 Qp	0.8 / 15.98 / 27.06 / 0.0	29.57	V / 1.00 / 70	-65	-13

Tested by: J. C. Sausen

Printed | Signature

Reviewed by: Joel Schneider

Printed | Signature

RADIATED EMISSIONS

Test Report #:	WC503385 Run 1	Test Area:	LTS			
EUT Model #:	DGVC-901X0000100 SYS	Date:	6/28/2005			
EUT Serial #:	System #3	EUT Power:	60 Hz / 110 VAC	Temperature:	23.0	°C
Test Method:	FCC			Air Pressure:	98.0	kPa
Customer:	ADC Telecom			Rel. Humidity:	35.0	%
EUT Description:	Street Coverage System - SCS					
Notes:	SMR 800/900 MHz System					
Data File Name:	3385.dat			Page:	4 of 8	

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
44.04 MHz	45.2 Qp	0.84 / 15.32 / 27.04 / 0.0	34.32	V / 1.00 / 70	-60	-13
212.977 MHz	57.05 Qp	2.01 / 10.22 / 27.11 / 0.0	42.17	V / 1.10 / 122	-52	-13
851 MHz maxed:						
850.963 MHz	61.46 Qp	4.51 / 21.51 / 27.78 / 0.0	59.7	H / 1.00 / 314	-35	-13
354.983 MHz	47.75 Qp	2.75 / 14.53 / 27.6 / 0.0	37.43	H / 1.00 / 314	-57	-13
497.007 MHz	30.5 Qp	3.33 / 17.2 / 27.93 / 0.0	23.1	H / 1.00 / 314	-71	-13
994.007 MHz	28.35 Qp	4.87 / 22.88 / 27.57 / 0.0	28.53	H / 1.10 / 270	-66	-13
354.983 MHz	52.0 Qp	2.75 / 14.53 / 27.6 / 0.0	41.68	H / 3.00 / 270	-53	-13
994.007 MHz	31.5 Qp	4.87 / 22.88 / 27.57 / 0.0	31.68	H / 3.00 / 270	-63	-13
639.007 MHz	29.55 Qp	3.8 / 19.47 / 28.2 / 0.0	24.62	H / 1.00 / 180	-70	-13
354.983 MHz	54.73 Qp	2.75 / 14.53 / 27.6 / 0.0	44.41	H / 2.57 / 83	-50	-13
TRX setting = 851 MHz:						
TRX setting = 858.5 MHz:						
141.995 MHz	40.1 Qp	1.63 / 8.76 / 26.97 / 0.0	23.52	H / 3.00 / 0	-71	-13
212.977 MHz	49.65 Qp	2.01 / 10.22 / 27.11 / 0.0	34.77	H / 3.00 / 0	-60	-13

Tested by: J. C. Sausen

Printed | Signature

Reviewed by: Joel Schneider

Printed | Signature

RADIATED EMISSIONS

Test Report #:	WC503385 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-901X0000100 SYS	Date:	6/28/2005		
EUT Serial #:	System #3	EUT Power:	60 Hz / 110 VAC	Temperature:	23.0 °C
Test Method:	FCC			Air Pressure:	98.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	35.0 %
EUT Description:	Street Coverage System - SCS				
Notes:	SMR 800/900 MHz System				
Data File Name:	3385.dat			Page:	5 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
858.488 MHz	60.35 Qp	4.52 / 21.14 / 27.75 / 0.0	58.26	H / 1.00 / 0	-36	-13
497.007 MHz	33.55 Qp	3.33 / 17.2 / 27.93 / 0.0	26.15	H / 1.00 / 0	-68	-13
354 MHz maxed:						
354.983 MHz	54.47 Qp	2.75 / 14.53 / 27.6 / 0.0	44.15	H / 2.66 / 70	-50	-13
213 MHz maxed;						
212.977 MHz	56.37 Qp	2.01 / 10.22 / 27.11 / 0.0	41.49	V / 1.10 / 133	-53	-13
TRX setting = 869 MHz:						
212.977 MHz	56.68 Qp	2.01 / 10.22 / 27.11 / 0.0	41.8	V / 1.10 / 133	-53	-13
869 MHz maxed:						
868.966 MHz	59.47 Qp	4.54 / 21.0 / 27.72 / 0.0	57.29	H / 2.50 / 323	-378	-13
354 MHz maxed:						
354.983 MHz	54.75 Qp	2.75 / 14.53 / 27.6 / 0.0	44.43	H / 2.50 / 70	-50	-13
868.966 MHz	53.65 Qp	4.54 / 21.0 / 27.72 / 0.0	51.47	H / 2.50 / 70	-43	-13
TRX setting = 935 MHz:						

Tested by: J. C. Sausen

Printed | Signature

Reviewed by: Joel Schneider

Printed | Signature

RADIATED EMISSIONS

Test Report #:	WC503385 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-901X0000100 SYS	Date:	6/28/2005		
EUT Serial #:	System #3	EUT Power:	60 Hz / 110 VAC	Temperature:	23.0 °C
Test Method:	FCC			Air Pressure:	98.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	35.0 %
EUT Description:	Street Coverage System - SCS				
Notes:	SMR 800/900 MHz System				
Data File Name:	3385.dat			Page:	6 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
934.988 MHz	56.83 Qp	4.69 / 22.51 / 27.6 / 0.0	56.44	H / 3.67 / 174	-38	-13
934.958 MHz	57.63 Qp	4.69 / 22.51 / 27.6 / 0.0	57.23	H / 3.67 / 174	-37	-13
212.977 MHz	56.22 Qp	2.01 / 10.22 / 27.11 / 0.0	41.34	H / 3.67 / 174	-53	-13
212.977 MHz	56.51 Qp	2.01 / 10.22 / 27.11 / 0.0	41.63	H / 3.40 / 155	-53	-13
863.054 MHz	42.0 Qp	4.53 / 21.06 / 27.74 / 0.0	39.85	V / 1.00 / 148	-55	-13
354.983 MHz	48.92 Qp	2.75 / 14.53 / 27.6 / 0.0	38.6	V / 1.00 / 145	-56	-13
TRX setting = 937.5 MHz						
212.977 MHz	58.16 Qp	2.01 / 10.22 / 27.11 / 0.0	43.28	V / 1.00 / 149	-51	-13
354.983 MHz	44.95 Qp	2.75 / 14.53 / 27.6 / 0.0	34.63	V / 1.00 / 149	-60	-13
937.47 MHz	57.85 Qp	4.7 / 22.61 / 27.6 / 0.0	57.56	H / 3.28 / 191	-37	-13
212.977 MHz	55.96 Qp	2.01 / 10.22 / 27.11 / 0.0	41.08	H / 4.00 / 191	-53	-13
TRX setting = 940 MHz:						
939.982 MHz	61.25 Qp	4.71 / 22.7 / 27.6 / 0.0	61.06	H / 1.00 / 209	-33	-13
212.977 MHz	55.65 Qp	2.01 / 10.22 / 27.11 / 0.0	40.77	H / 4.00 / 154	-54	-13
212.977 MHz	57.86 Qp	2.01 / 10.22 / 27.11 / 0.0	42.98	V / 1.00 / 134	-52	-13
3.124 GHz	30.33 Av	4.87 / 30.35 / 27.56 / 0.0	38.0	V / 1.00 / 215	-57	-13
3.124 GHz	27.65 Av	4.87 / 30.35 / 27.56 / 0.0	35.32	H / 1.15 / 0	-59	-13

Tested by: J. C. Sausen

Printed | Signature

Reviewed by: Joel Schneider

Printed | Signature

RADIATED EMISSIONS

Test Report #:	WC503385 Run 1	Test Area:	LTS			
EUT Model #:	DGVC-901X0000100 SYS	Date:	6/28/2005			
EUT Serial #:	System #3	EUT Power:	60 Hz / 110 VAC	Temperature:	23.0	°C
Test Method:	FCC			Air Pressure:	98.0	kPa
Customer:	ADC Telecom			Rel. Humidity:	35.0	%
EUT Description:	Street Coverage System - SCS					
Notes:	SMR 800/900 MHz System					
Data File Name:	3385.dat			Page:	7 of 8	

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	ERP dBm	LIMIT dBm
2.556 GHz	27.67 Av	4.4 / 28.8 / 27.71 / 0.0	33.16	H / 1.15 / 216	-61	-13
2.84 GHz	28.3 Av	4.6 / 29.62 / 27.4 / 0.0	35.11	H / 1.15 / 216	-59	-13
Note! Monitored 2.84 GHz during all base TRX frequency changes. No level change noted.						
TRX setting = 851 MHz:						
5.874 GHz	43.97 Av	7.02 / 34.29 / 45.34 / 0.0	39.95	H / 1.15 / 216	-55	-13
No changes noted during different TRX frequency setting, nor when RF was off.						
TRX setting = 940 MHz:						
5.874 GHz	43.76 Av	7.02 / 34.29 / 45.34 / 0.0	39.74	H / 1.15 / 216	-55	-13
Noise floor:						
9.921 GHz	40.25 Av	9.67 / 38.0 / 44.86 / 0.0	43.07	H / 1.15 / 216	-51	-13
No other EUT emissions detected 5 GHz to 10 GHz above noise floor.						

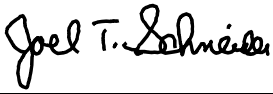
Tested by: J. C. Sausen

Printed

Signature

Reviewed by: Joel Schneider

Printed

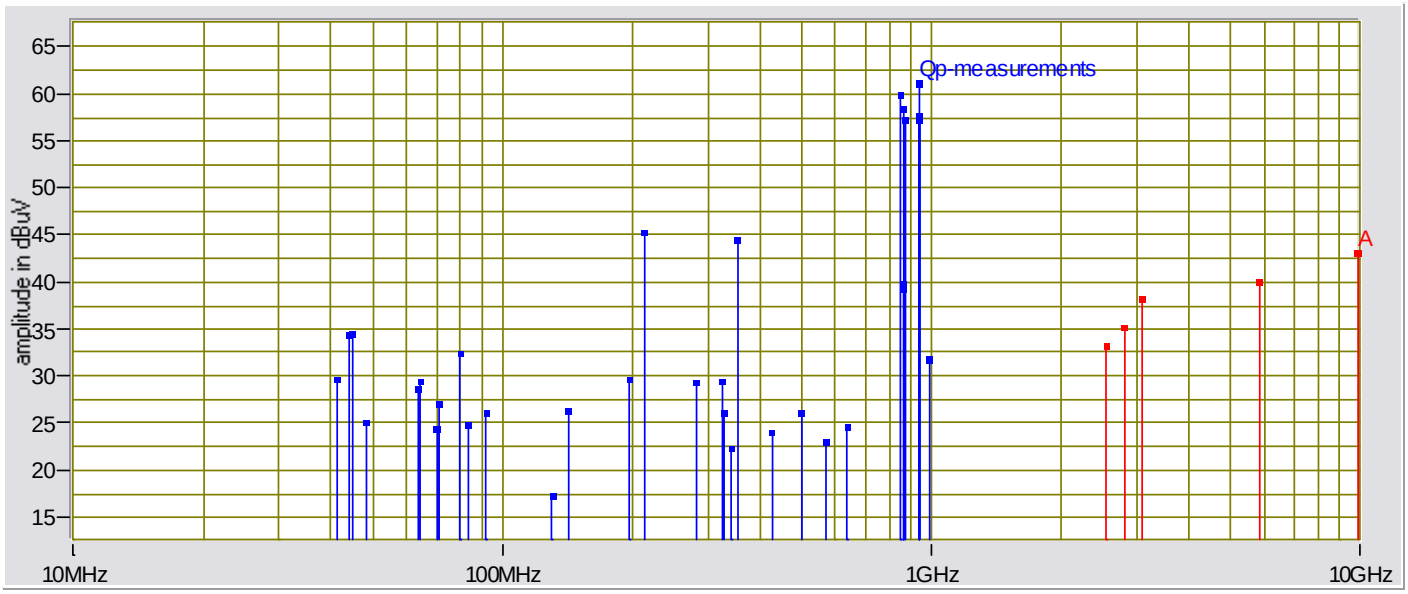


Signature

RADIATED EMISSIONS

Test Report #:	WC503385 Run 1	Test Area:	LTS		
EUT Model #:	DGVC-901X0000100 SYS	Date:	6/28/2005		
EUT Serial #:	System #3	EUT Power:	60 Hz / 110 VAC	Temperature:	23.0 °C
Test Method:	FCC			Air Pressure:	98.0 kPa
Customer:	ADC Telecom			Rel. Humidity:	35.0 %
EUT Description:	Street Coverage System - SCS				
Notes:	SMR 800/900 MHz System				
Data File Name:	3385.dat			Page:	8 of 8

Graph:



Tested by: J. C. Sausen

Printed | Signature

Reviewed by: Joel Schneider

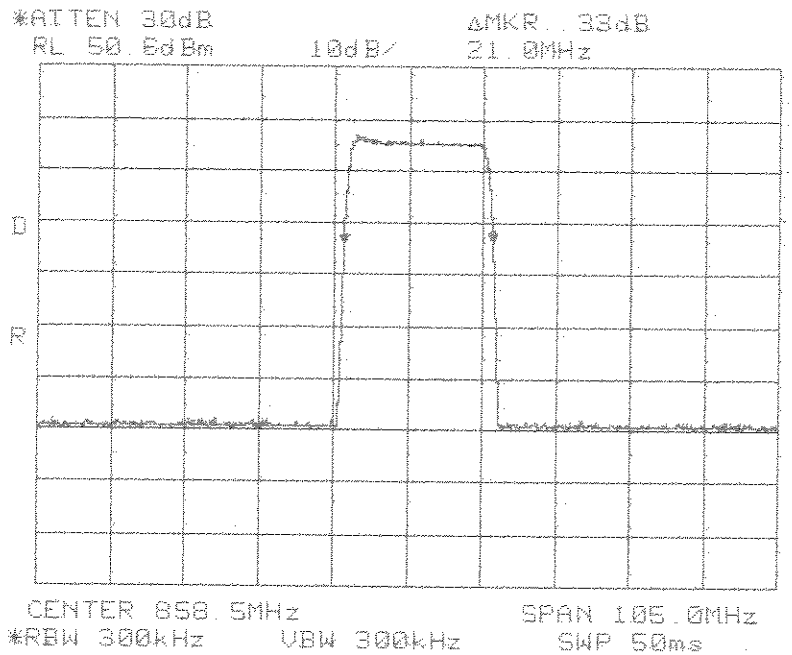
Printed | Signature

Industry Canada
Section 4.2 - 20 dB Passband Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

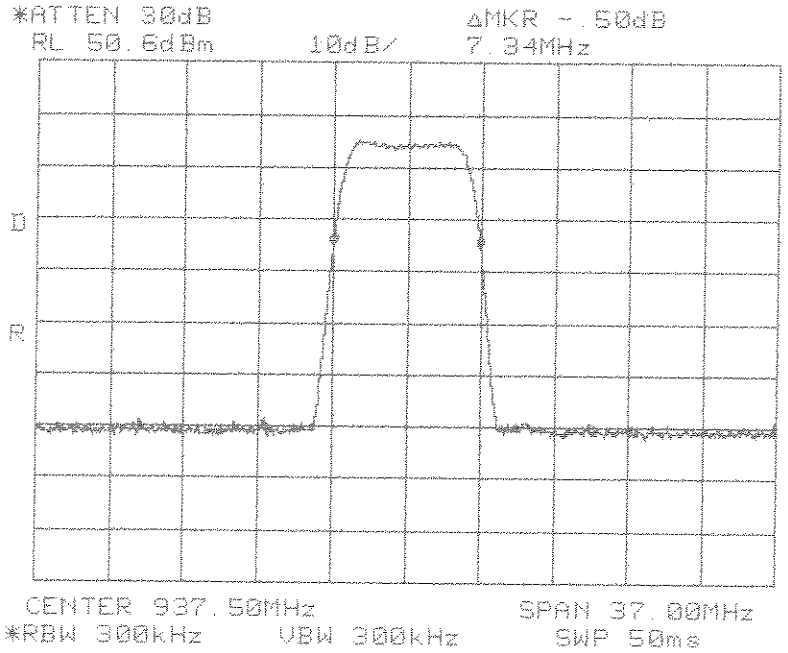
A plot of the 20 dB bandwidth was taken at the points when the gain had fallen by 20 dB. A measurement was taken to show the gain versus frequency response of the system from the midband frequency of the passband to the midband frequency +/- 250% of the 20 dB bandwidth.

Results:
Pass (See plots)

Center: 858.5 MHz
Span: 105 MHz
RBW/VBW: 300 kHz



Section 4.2
20 dB Passband
SMR 800 MHz



Section 4.2
20 dB Passband
SMR 900 MHz

Center: 937.5 MHz
Span: 37 MHz
RBW/VBW: 300 kHz

Frequency Tolerance Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

EUT SMR (800 MHz)

Input Voltage	Carrier Frequency	Measured Frequency	Meets Requirements?
102 VAC	851.000 MHz	851.000 MHz	Yes
120 VAC	851.000 MHz	851.000 MHz	Yes
138 VAC	851.000 MHz	851.000 MHz	Yes
102 VAC	858.500 MHz	858.500 MHz	Yes
120 VAC	858.500 MHz	858.500 MHz	Yes
138 VAC	858.500 MHz	858.500 MHz	Yes
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
Temperature	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C	851.000 MHz	851.000 MHz	Yes
-20 Deg. C	851.000 MHz	851.000 MHz	Yes
-10 Deg. C	851.000 MHz	851.000 MHz	Yes
0 Deg. C	851.000 MHz	851.000 MHz	Yes
10 Deg. C	851.000 MHz	851.000 MHz	Yes
20 Deg. C	851.000 MHz	851.000 MHz	Yes
30 Deg. C	851.000 MHz	851.000 MHz	Yes
40 Deg. C	851.000 MHz	851.000 MHz	Yes
50 Deg. C	851.000 MHz	851.000 MHz	Yes
-30 Deg. C	858.500 MHz	858.500 MHz	Yes
-20 Deg. C	858.500 MHz	858.500 MHz	Yes
-10 Deg. C	858.500 MHz	858.500 MHz	Yes
0 Deg. C	858.500 MHz	858.500 MHz	Yes
10 Deg. C	858.500 MHz	858.500 MHz	Yes
20 Deg. C	858.500 MHz	858.500 MHz	Yes
30 Deg. C	858.500 MHz	858.500 MHz	Yes
40 Deg. C	858.500 MHz	858.500 MHz	Yes
50 Deg. C	858.500 MHz	858.500 MHz	Yes
-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

Frequency Tolerance Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

EUT SMR (900 MHz)

Input Voltage	Carrier Frequency	Measured Frequency	Meets Requirements?
102 VAC	935.000 MHz	935.000 MHz	Yes
120 VAC	935.000 MHz	935.000 MHz	Yes
138 VAC	935.000 MHz	935.000 MHz	Yes
102 VAC	937.500 MHz	937.500 MHz	Yes
120 VAC	937.500 MHz	937.500 MHz	Yes
138 VAC	937.500 MHz	937.500 MHz	Yes
102 VAC	940.000 MHz	940.000 MHz	Yes
120 VAC	940.000 MHz	940.000 MHz	Yes
138 VAC	940.000 MHz	940.000 MHz	Yes
Temperature	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C	935.000 MHz	935.000 MHz	Yes
-20 Deg. C	935.000 MHz	935.000 MHz	Yes
-10 Deg. C	935.000 MHz	935.000 MHz	Yes
0 Deg. C	935.000 MHz	935.000 MHz	Yes
10 Deg. C	935.000 MHz	935.000 MHz	Yes
20 Deg. C	935.000 MHz	935.000 MHz	Yes
30 Deg. C	935.000 MHz	935.000 MHz	Yes
40 Deg. C	935.000 MHz	935.000 MHz	Yes
50 Deg. C	935.000 MHz	935.000 MHz	Yes
-30 Deg. C	937.500 MHz	937.500 MHz	Yes
-20 Deg. C	937.500 MHz	937.500 MHz	Yes
-10 Deg. C	937.500 MHz	937.500 MHz	Yes
0 Deg. C	937.500 MHz	937.500 MHz	Yes
10 Deg. C	937.500 MHz	937.500 MHz	Yes
20 Deg. C	937.500 MHz	937.500 MHz	Yes
30 Deg. C	937.500 MHz	937.500 MHz	Yes
40 Deg. C	937.500 MHz	937.500 MHz	Yes
50 Deg. C	937.500 MHz	937.500 MHz	Yes
-30 Deg. C	940.000 MHz	940.000 MHz	Yes
-20 Deg. C	940.000 MHz	940.000 MHz	Yes
-10 Deg. C	940.000 MHz	940.000 MHz	Yes
0 Deg. C	940.000 MHz	940.000 MHz	Yes
10 Deg. C	940.000 MHz	940.000 MHz	Yes
20 Deg. C	940.000 MHz	940.000 MHz	Yes
30 Deg. C	940.000 MHz	940.000 MHz	Yes
40 Deg. C	940.000 MHz	940.000 MHz	Yes
50 Deg. C	940.000 MHz	940.000 MHz	Yes

Test Equipment List

Table 1 Test Equipment

Equipment	MFG/Model	ADC Serial Number	Calibration Due. (NIST)
Attenuator	Aeroflex / 49-30-33	N/A	CNR
Spectrum Analyzer	HP/HP8563E	MC27690	6-22-06
Power Meter	HP / EPM-441A	MC27670	8-5-05
Multimeter	Fluke 26III	MC22687	4-27-06
Freq. Counter	HP/5347A	MC27569	7-20-05
Temperature Chamber	Tenney Environmental	MC24315	10-18-05
Variable Auto Transformer	Staco/1520CT	MC/44655	CNR
Signal Generator	Agilent / E4436B	963739	10-16-06
Signal Generator	Agilent / E4430B	MC34690	5-11-07
DC Power Supply	Xantrex / HPD 60-5	MC27764	CNR

Note: Any equipment used in testing that has a Calibration Not Required (CNR) listing is verified and compensated for with NIST traceable calibrated equipment.

Transducers:					
ID	**TYPE**	**DESCRIPTION**	**SERIAL**	**CALIBRATION**	**CALDATE**
LTS Bilog 3M SN102	BILOG	Electro Metrics EM-6917B ID 3204 - cal. distance: 3m 30MHz - 2GHz	102	Liberty Labs	10/21/2004
EMCO 3115 ID 2075	HORN	EMCO 3115 Horn Antenna ID# 2075 - 3 M Cal Distance 1GHz - 18GHz	9001-3275	Liberty Labs	11/24/2004
Schwarzbeck UHAP-E ID 2075	DIPOLE	Schwarzbeck UHAP-E Dipole Antenna	164	Mfr.	N/a

Preamplifiers:				
ID	**DESCRIPTION**	**SERIAL**	**CALIBRATION**	**CALDATE**
ZHL-1042J ID3961	Mini-Circuits ID 3961 30 Mhz - 5000 MHz	D120403-1	TUV	02/08/2005
Phase 1 Microwave ID 3958	Phase 1 Microwave ID 3958 1 GHz - 18 GHz	0002	TUV	05/17/2005

Cables / Sites:					
ID	**TYPE**	**DESCRIPTION**	**SERIAL**	**CALIBRATION**	**CALDATE**
LTS 3m	SITE	LTS 3 m Cable System ID 3248 10MHz - 18MHz	n/a	TUV	12/23/2004

analyzers:				
ID	**DESCRIPTION**	**SERIAL**	**CALIBRATION**	**CALDATE**
HP 8566B ID 8052	HP 8566B Spectrum Analyzer ID 8052 with Display ID 8051	2115A00853	World Cal	03/24/2005

Signal generators:				
ID	**DESCRIPTION**	**SERIAL**	**CALIBRATION**	**CALDATE**
R&S SME03 ID 3333	R&S SME 03 Signal Generator	100003	World Cal	04/25/2005

TÜV PRODUCT SERVICE INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 Rev.No 1.0

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 Inc.

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

Model No.: DGVC-901X0000100SYS Serial No.: None

Product Options: None

Configurations to be tested: SMR 800/900 MHz 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 15

☐ VCCI: Class ☐ A ☐ B

☐ BCIQ: Class ☐ A ☐ B

☐ Canada: Class ☐ A ☐ B

☐ Australia: Class ☐ A ☐ B

☒ Other: FCC Part 90

TÜV Product Service Certification Requested

☐ Attestation of Conformity (AoC)
☐ Certificate of Conformity (CoC)
Protection Class (N/A for vehicles)

☐ International EMC Mark (IEM)
☐ Compliance Document
☐ Class I ☐ Class II ☐ Class III

Form

EMC Test Plan and Constructional Data Form

(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: 36" Width: 10" Height: 8" Weight: 83 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)): 9.0 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.

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	☒	☐	5	☒	☐	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	☐	☒	2	☐	☒	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	☐ ☐
	☐	☐		☐	☐						☐ ☐
	☐	☐		☐	☐						☐ ☐

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-901000HU	None	
Digivance SCS SMR Dual Band System Model DGVC-901X0000100SYS consist of the HU, STM PCB, and LPA.			

EMC Test Plan and Constructional Data Form

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		

EMC Test Plan and Constructional Data Form

TÜV PRODUCT SERVICE

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

Mark D. Mauch — 6-27-05

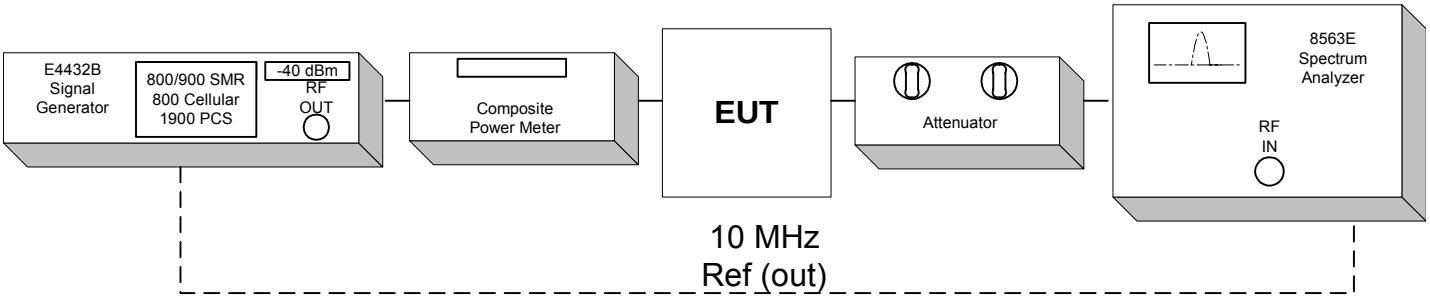
Customer authorization to perform tests according to this test plan. — Date

Test Plan/CDF Prepared By (please print) — Date

Reviewed by TÜV Product Service Associate — Date

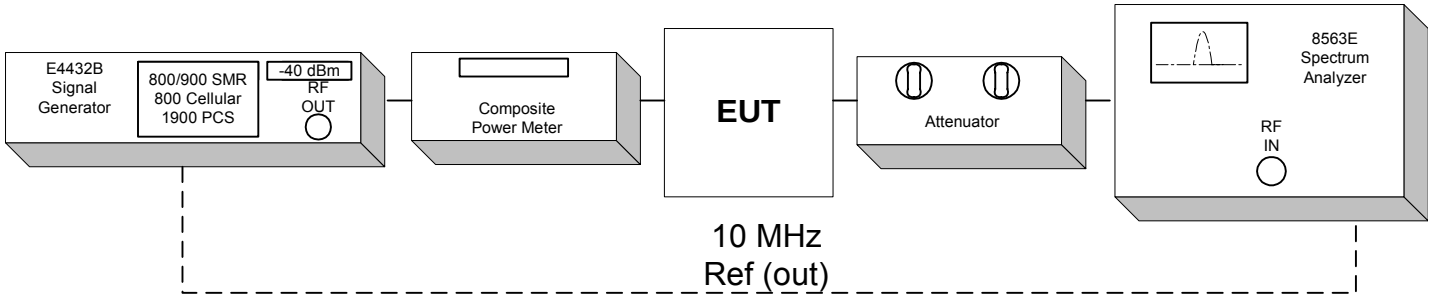
Conducted Emission Limits Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

Test Set-up



Effective Isotropic Radiated Power Limit Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

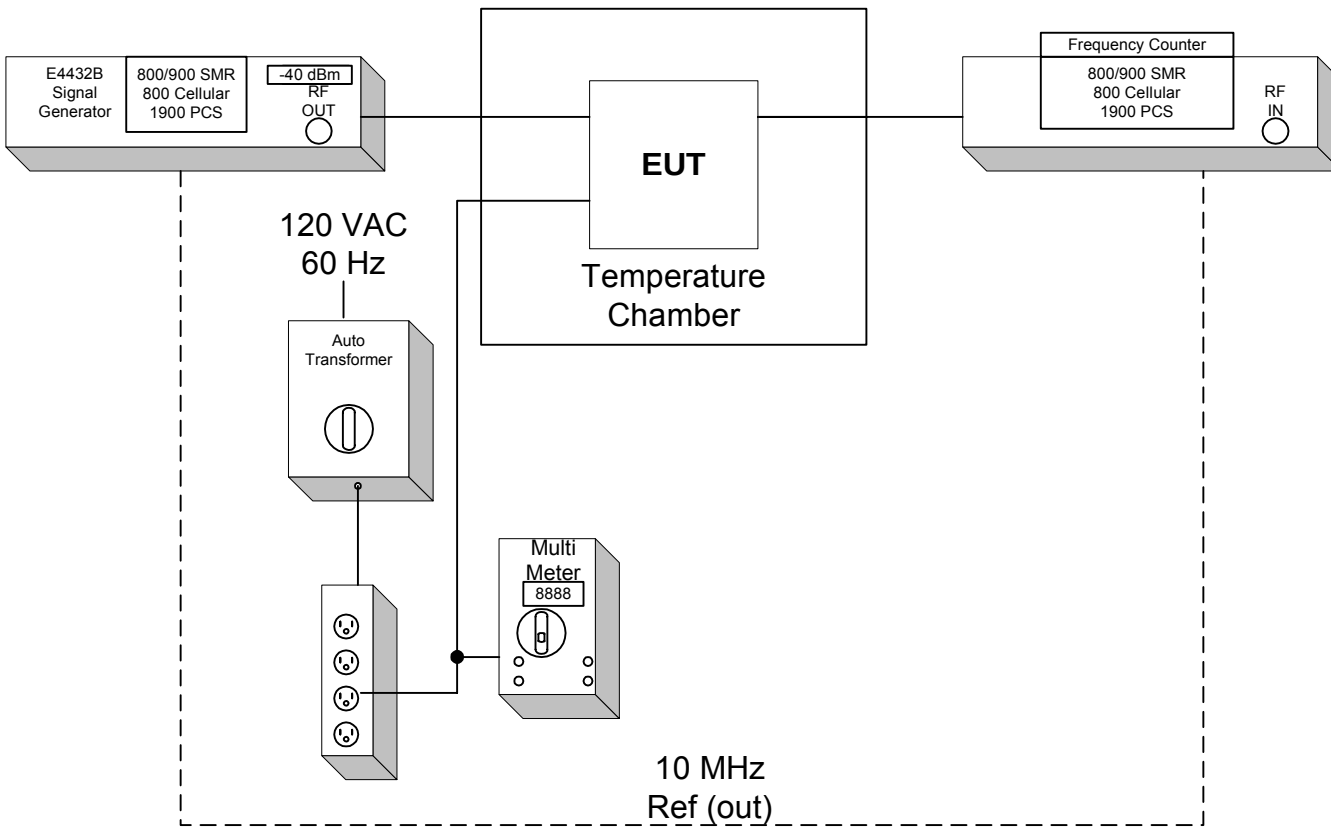
Test Set-up



Frequency Tolerance Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

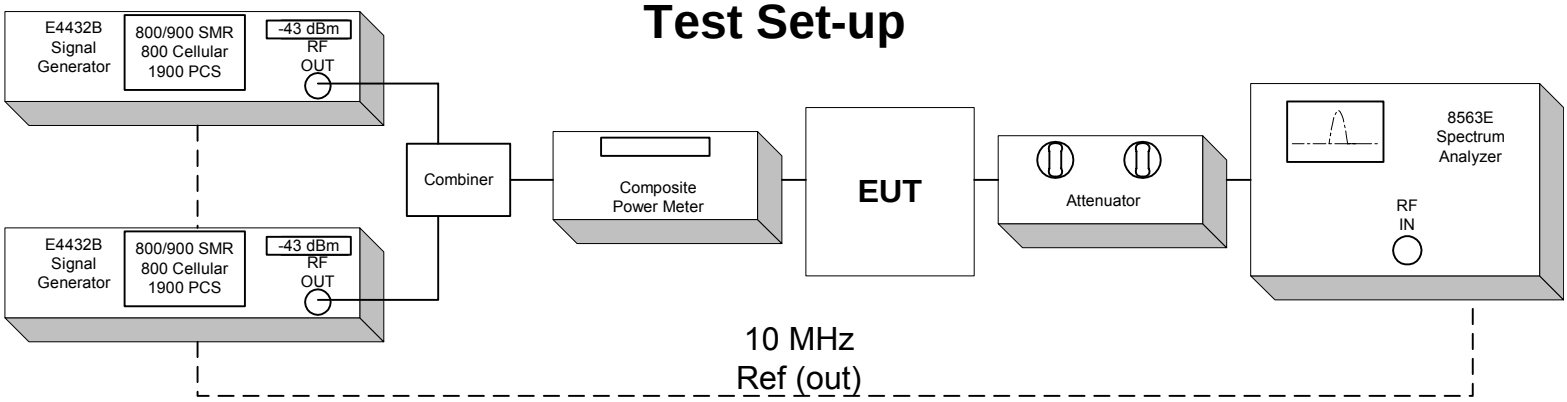
EUT Host is specified for indoor use only with temperature range of 0° to +50° C, and was tested with its range.
EUT Remote is specified with a temperature range of -30° to +50° C and was tested with its range.

Test Set-up



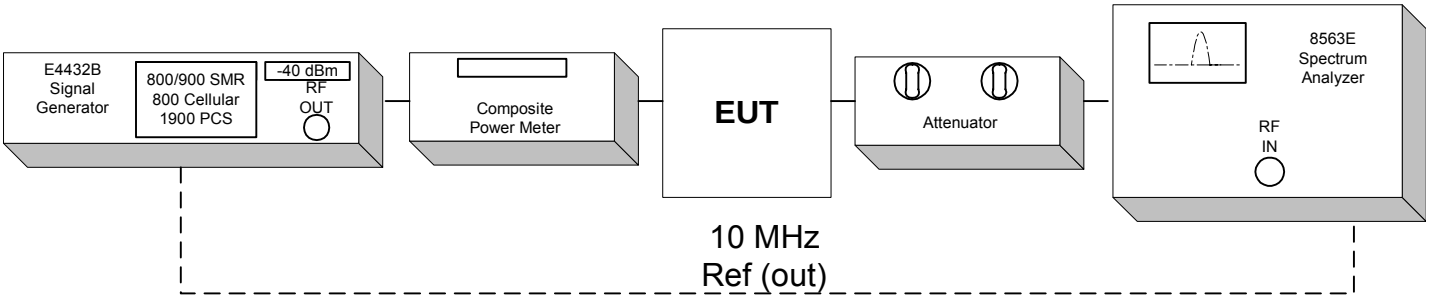
Inter-Modulation Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

Test Set-up



Occupied Bandwidth Modulation Test for ADC Inc.
Digivance Street Coverage Solution
Model Number DGVC-901X0000100SYS

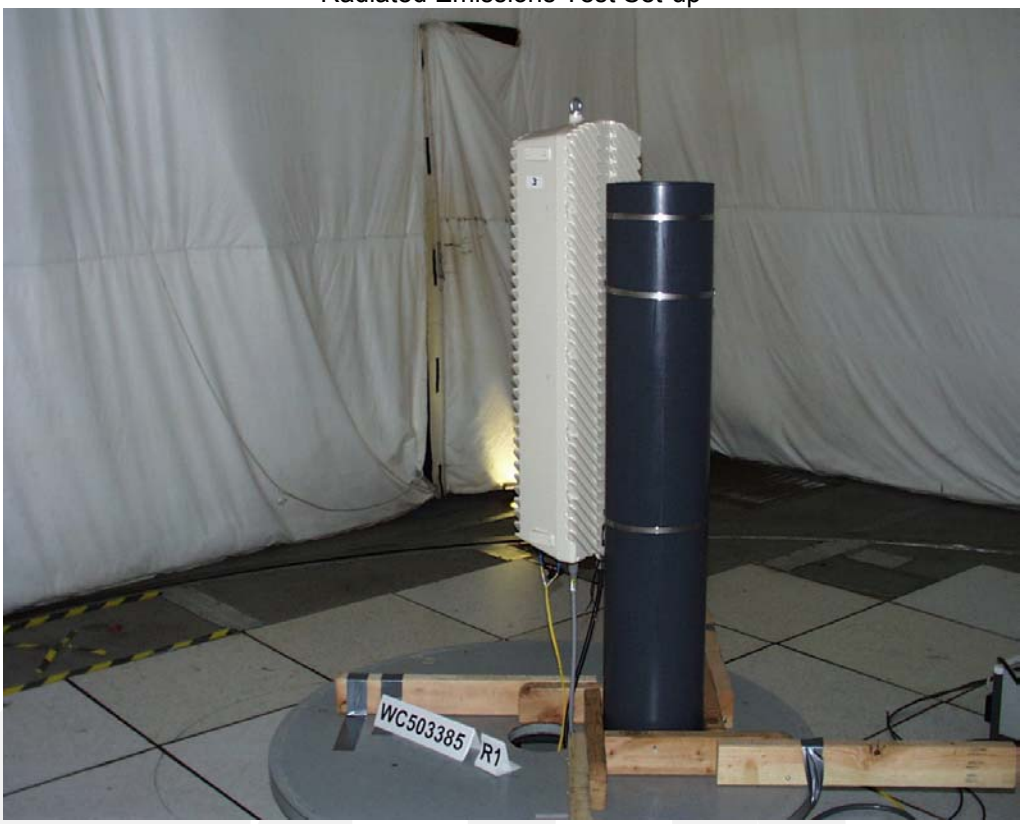
Test Set-up



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 ANSI C63.4. 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.

TÜV PRODUCT SERVICE INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 Rev.No 1.0

Radiated Emissions Test Set-up



TÜV PRODUCT SERVICE INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 Rev.No 1.0