

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

4.2 Test Results

4.2.1 RF Power Output

47 CFR 2.1046

Rated RF Output Power at Antenna Terminal = +17.0 dBm each subchannel, +23 dBm Total

Test Conditions		Transmitter Power at Antenna Terminal (dBm)		
		Low Channel	Middle Channel	High Channel
T nominal +25C	V min -42VDC	17.58	16.74	17.06
	V nom -48VDC	17.71	16.91	17.08
	V max -56VDC	17.55	16.67	17.08
T min -35C	V min -42VDC	17.39	16.79	17.16
	V nom -48VDC	17.39	16.79	17.20
	V max -56VDC	17.37	16.80	17.18
T max +55C	V min -42VDC	17.27	17.22	16.43
	V nom -48VDC	17.29	17.24	16.46
	V max -56VDC	16.98	17.25	16.47

Base Radio Unit antenna gain is 16 dBi nominal.

Calculate EIRP (dBW) = Tx power (dBm) + 6 dB subchannel + antenna gain (dBi) -30 dBW/dBm.

Test Conditions		EIRP (dBW)		
		Low Channel	Middle Channel	High Channel
T nominal +25C	V min -38VDC	9.58	8.74	9.06
	V nom -48VDC	9.71	8.91	9.08
	V max -72VDC	9.55	8.67	9.08
T min -35C	V min -38VDC	9.39	8.79	9.16
	V nom -48VDC	9.39	8.79	9.20
	V max -72VDC	9.37	8.80	9.18
T max +55C	V min -38VDC	9.27	9.22	8.43
	V nom -48VDC	9.29	9.24	8.46
	V max -72VDC	8.98	9.25	8.47

Limits: 47 CFR 101.113

Maximum Mean Power – EIRP (dBW)	+55
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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

4.2.2 Modulation Characteristics (Spectrum Mask)

47 CFR 2.1047

Test Conditions		RF Spectrum Mask (Refer to Plots)		
		Low Channel	Middle Channel	High Channel
T nominal +25C	V min -38VDC	SRU 2.987-1	SRU 2.987-2	SRU 2.987-3
	V nom -48VDC	SRU 2.987-4	SRU 2.987-5	SRU 2.987-6
	V max -72VDC	SRU 2.987-7	SRU 2.987-8	SRU 2.987-9
T min -35C	V min -38VDC	SRU 2.987-10	SRU 2.987-11	SRU 2.987-12
	V nom -48VDC	SRU 2.987-13	SRU 2.987-14	SRU 2.987-15
	V max -72VDC	SRU 2.987-16	SRU 2.987-17	SRU 2.987-18
T max +55C	V min -38VDC	SRU 2.987-19	SRU 2.987-20	SRU 2.987-21
	V nom -48VDC	SRU 2.987-22	SRU 2.987-23	SRU 2.987-24
	V max -72VDC	SRU 2.987-25	SRU 2.987-26	SRU 2.987-27

Refer to plots of section 4.2.4, Spurious Emissions at the Antenna Terminals.

Limits: None

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

4.2.3 Occupied Bandwidth

47 CFR 2.1049

Test Conditions		99% Occupied Bandwidth (MHz) (Refer to Plots)		
		Low Channel	Middle Channel	High Channel
T nominal +25C	V nom -48VDC	10.88 MHz SRU 2.989-1	10.88 MHz SRU 2.989-2	10.88 MHz SRU 2.989-3

Limits: None

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

4.2.4 Spurious Emissions at Antenna Terminals

47 CFR 2.1051

Frequency $\leq$ +/-250% Removed from Band Center

Test Conditions		RF Spectrum Mask (Refer to Plots)		
		Low Channel	Middle Channel	High Channel
T nominal +25C	V min -38VDC	SRU 2.987-1	SRU 2.987-2	SRU 2.987-3
	V nom -48VDC	SRU 2.987-4	SRU 2.987-5	SRU 2.987-6
	V max -72VDC	SRU 2.987-7	SRU 2.987-8	SRU 2.987-9
T min -35C	V min -38VDC	SRU 2.987-10	SRU 2.987-11	SRU 2.987-12
	V nom -48VDC	SRU 2.987-13	SRU 2.987-14	SRU 2.987-15
	V max -72VDC	SRU 2.987-16	SRU 2.987-17	SRU 2.987-18
T max +55C	V min -38VDC	SRU 2.987-19	SRU 2.987-20	SRU 2.987-21
	V nom -48VDC	SRU 2.987-22	SRU 2.987-23	SRU 2.987-24
	V max -72VDC	SRU 2.987-25	SRU 2.987-26	SRU 2.987-27

Limits: 47 CFR 101.111(a)(2)(ii)

Spectrum Mask (P = % removed from carrier, B = Authorized Bandwidth = 50 MHz)	Attenuation = $11 + 0.4 * (P-50) + 10 * \text{LOG}_{10}(B)$ or Attenuation = $28 + 0.4*(P-50)$
---	---

Frequency $\geq$ +/-250% Removed from Band Center

Test Conditions		Spurious Emissions (Refer to Plots)		
		IF Bandwidth	Middle Channel	Pass/Fail
T nominal +25C V nom -48VDC	20-39.0875 GHz	1 MHz	SRU 2.991-1 to -5	Pass
	39.0688-39.1688 GHz	100 kHz	SRU 2.991-6	Pass
	39.15-110GHz	1 MHz	SRU 2.991-7 to -21	Pass

Limits: 47 CFR 101.111(a)(2)(iii)

Attenuation in 4 kHz band, >250% B away from carrier B= Authorized Bandwidth (MHz), P _{out} = Mean Output Power in Watts	Attenuation = $43+10*\text{LOG}_{10}(P_{\text{out}})$ or 80 dB whichever is lesser Attenuation = 33 dB in 4 kHz band = -13 dBm/4 kHz
--	--

**Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.**

4.2.5 Field Strength of Spurious Radiation

47 CFR 2.1053

Limits: 47 CFR 101.111(a)(2)(ii)

All radiated emissions testing was performed at BABT Laboratory, Santa Clara, CA, USA. The BABT test report, report number A9177F03, is included as Appendix A of this document. Refer to the BABT report for all information.

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

4.2.6 Frequency Stability

47 CFR 2.1055

Note: Frequency stability is determined by external network clock.

Test Conditions		Frequency Stability (%) (Refer to Plots)		
		Low Channel	Middle Channel	High Channel
T nominal +25C	V min -38VDC	.00001 SRU 2.995-1	.00001 SRU 2.995-2	.00001 SRU 2.995-3
	V nom -48VDC	.00001 SRU 2.995-4	.00001 SRU 2.995-5	.00001 SRU 2.995-6
	V max -72VDC	.00001 SRU 2.995-7	.00001 SRU 2.995-8	.00001 SRU 2.995-9
T min -35C	V min -38VDC	.00001 SRU 2.995-10	.00001 SRU 2.995-11	.00001 SRU 2.995-12
	V nom -48VDC	.00001 SRU 2.995-13	.00001 SRU 2.995-14	.00001 SRU 2.995-15
	V max -72VDC	.00001 SRU 2.995-16	.00001 SRU 2.995-17	.00001 SRU 2.995-18
T max +55C	V min -38VDC	.00001 SRU 2.995-19	.00001 SRU 2.995-20	.00001 SRU 2.995-21
	V nom -48VDC	.00001 SRU 2.995-22	.00001 SRU 2.995-23	.00001 SRU 2.995-24
	V max -72VDC	.00001 SRU 2.995-25	.00001 SRU 2.995-26	.00001 SRU 2.995-27

Limits: 47 CFR 101.107

Frequency Tolerance, percent	0.001
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**Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.**

Section 5. Summary of Test Results

The summary of the test results is as follows:

Transmitter Output Power – Spectrum Mask	Pass
Modulation Characteristics	N/A
Occupied Bandwidth	N/A
Spurious Emissions at Antenna Terminal	Pass
Field Strength of Spurious Emissions	Pass
Frequency Stability	Pass

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

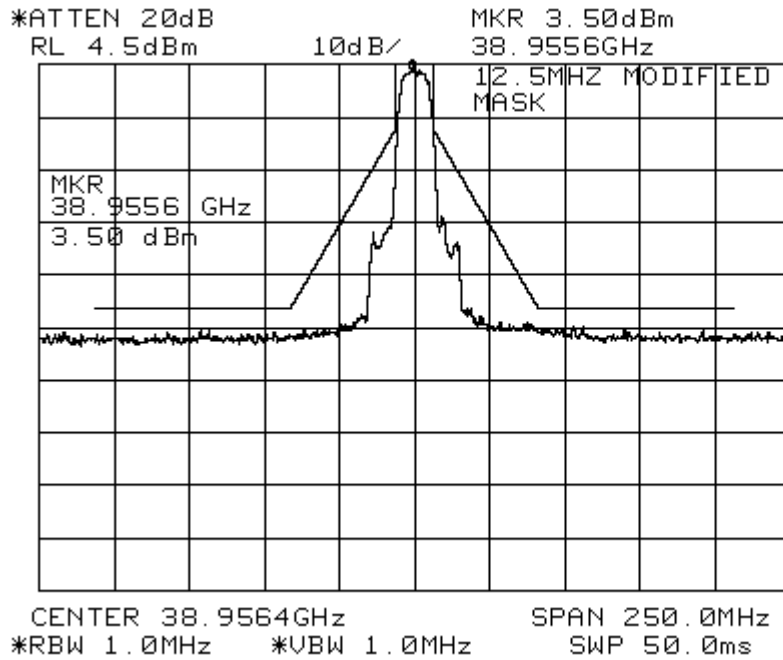
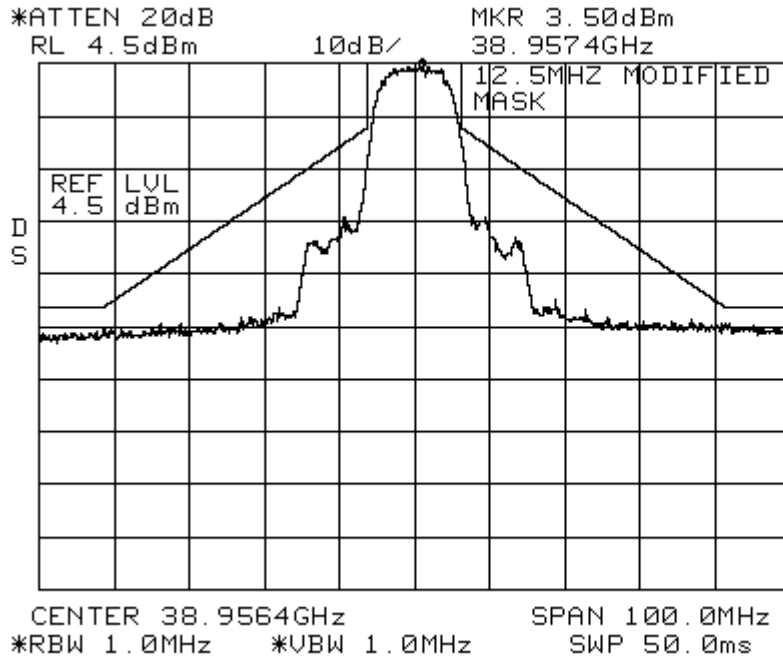


Figure SRU 2.987-4

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

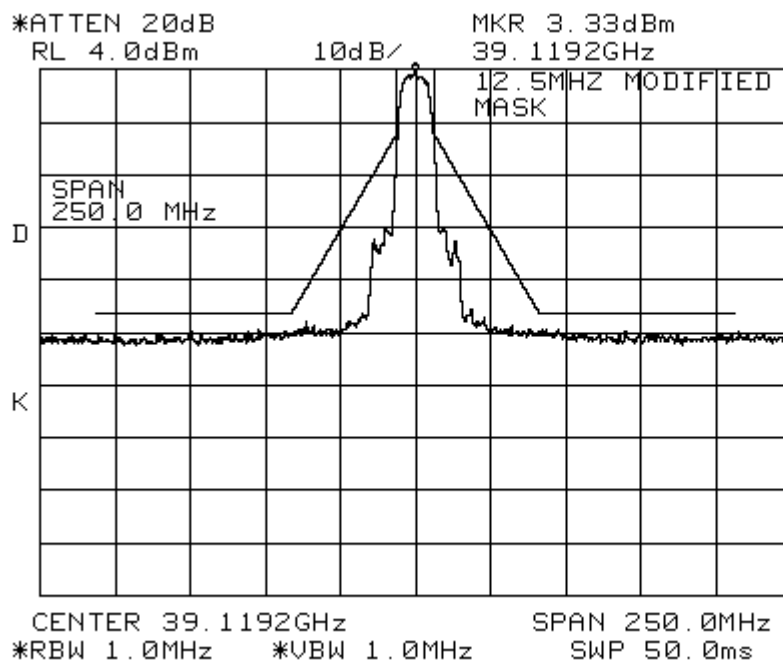
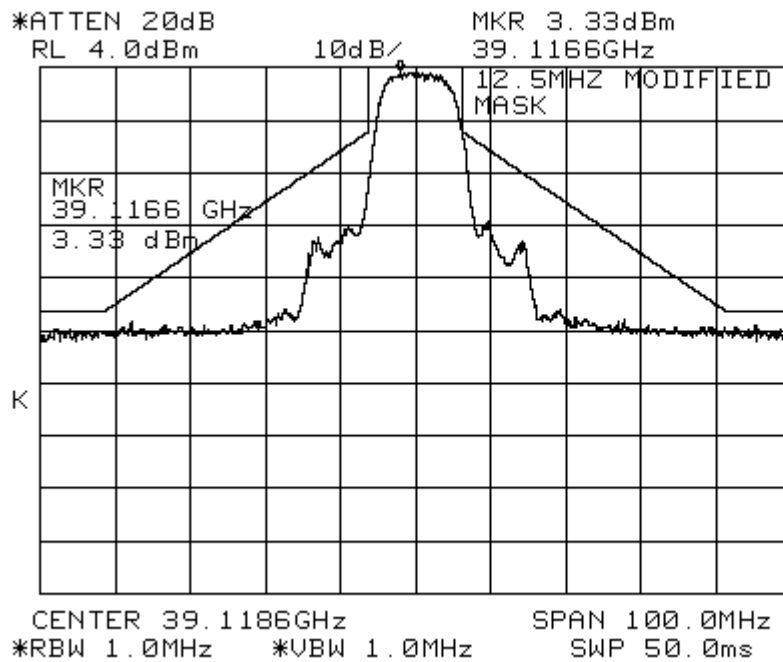


Figure SRU 2.987-5

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

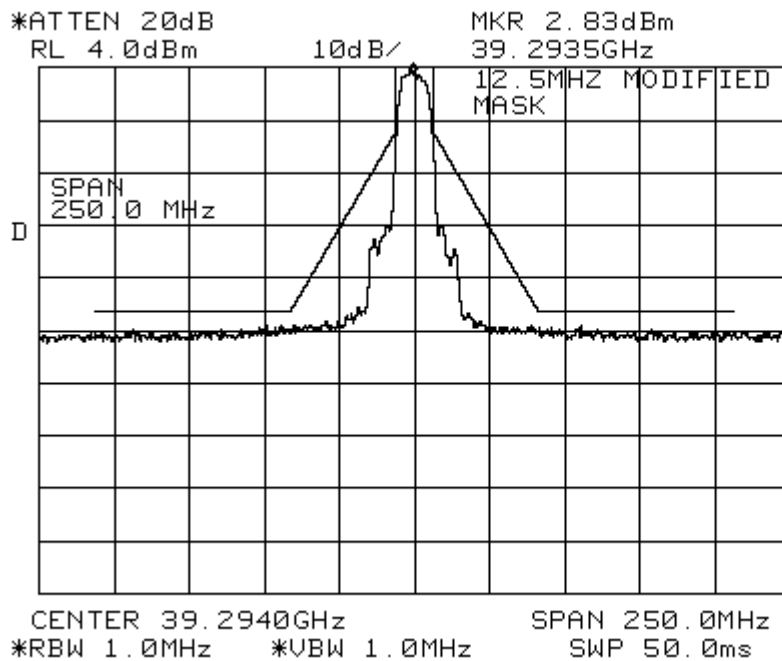
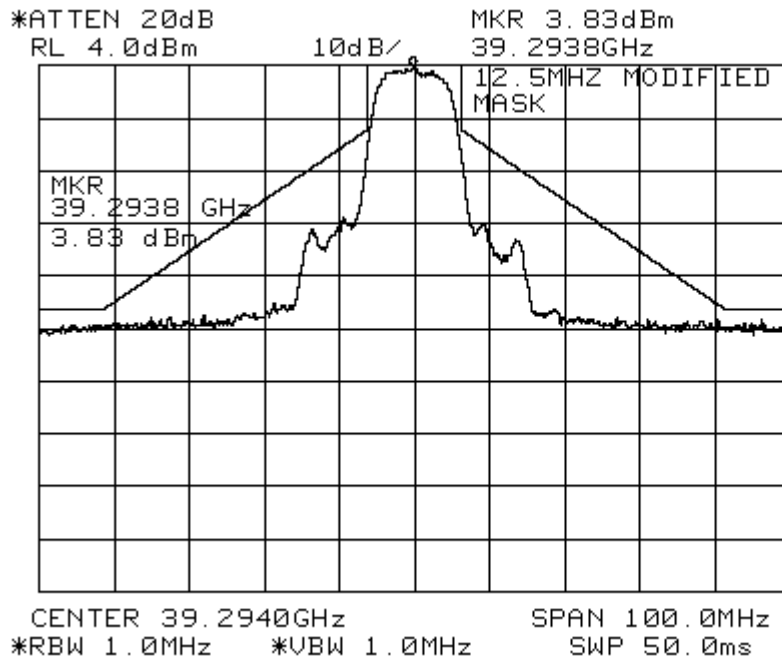


Figure SRU 2.987-6

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

9.2 Occupied Bandwidth

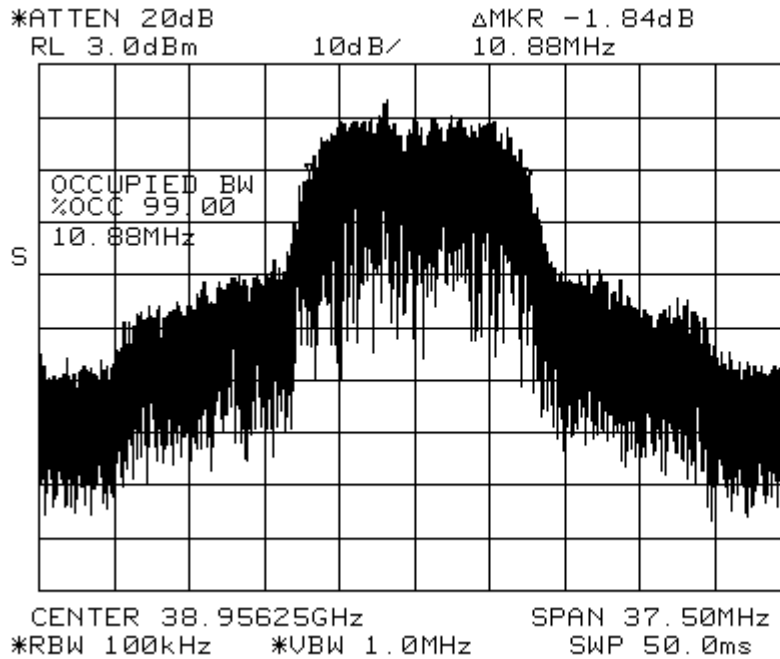


Figure SRU 2.989-1

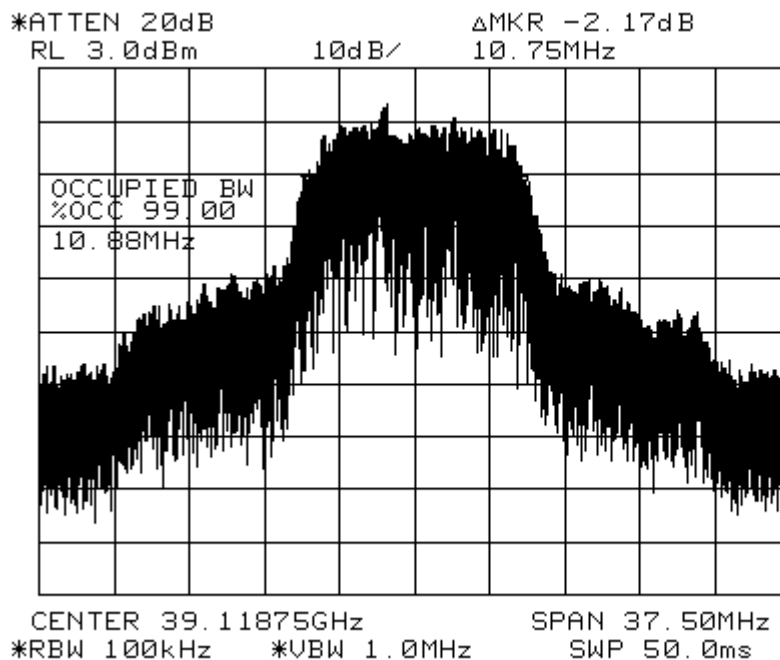


Figure SRU 2.989-2

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Appendix A – 39 GHz PMP 1 GHz – 110 GHz Radiated Emissions Test Report

Report No. A9177F03

TEST RESULT SUMMARY

UNITED STATES STANDARD 47 CFR PART 101

MANUFACTURER NAME	Netro Corporation
NAME OF EQUIPMENT	Microwave fixed link
MODEL NUMBER	AirStar PMP 39
MANUFACTURER ADDRESS	3860 N. First Street San Jose, CA 95134
TEST REPORT NUMBER	A9177F02
TEST DATE	20 April 2000

According to testing performed at BABT Product Service, the above-mentioned unit is in compliance with the electromagnetic compatibility requirements defined in United States Standard 47 CFR Part 101, section 101.111

BABT Product Service reports apply only to the specific sample tested under stated test conditions. It is the manufacturer's responsibility to assure the continued compliance of production units of this model. BABT Product Service shall have no liability for any deductions, inferences or generalizations drawn by the client or others from BABT Product Service issued reports.

As the responsible EMC Project/Division Managers, we hereby declare that the equipment tested at BABT Product Service as specified above conforms to the requirements of United States Standard 47 CFR Part 101, Fixed Microwave Services.

Date: 26 April, 2000

Location: Santa Clara, California
USA



Frank Ibrahim
Engineer In Charge



Dave Wilson
EMC Manager



Certificate No: 1212-01

Not Transferable

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03

EMC EMISSION - TEST REPORT

UNITED STATES STANDARD 47 CFR PART 15, SUBPART B

Test Report File No. : A9177F03 Date of Issue: 26 April, 2000

Model / Serial No. : AirStar PMP 39 / N/A

Product Type : Microwave fixed link

Applicant : Netro Corporation

Manufacturer : Netro Corporation

License holder : Netro Corporation

Address : 3860 N. First Street
San Jose, CA 95134

Test Result : ☒ Positive ☐ Negative

Test Project Number
Reference(s) : A9177F02

Total pages - Test Report : 13

BABT Product Service is a joint venture between TÜV Product Service, Inc. and BABT.

BABT Product Service reports apply only to the specific sample tested under stated test conditions. It is the manufacturer's responsibility to assure the continued compliance of production units of this model. BABT Product Service shall have no liability for any deductions, inferences or generalizations drawn by the client or others from BABT Product Service issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval.

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BABT PRODUCT SERVICE INC 4855 Patrick Henry Drive/ Santa Clara CA 95054 USA Tel: 408 748 3585 Fax: 408 919 0585 Rev. No 1.0
Building # 6

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03

EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to the following regulations:

- | | | |
|--|---|--|
| ☐ - EN 50081-1 : 1992 | | |
| ☐ - EN 55011 : 1991 | ☐ - Group 1 | ☐ - Group 2 |
| ☐ - EN 55013 : 1990 | ☐ - Class A | ☐ - Class B |
| ☐ - EN 55014-1 : 1993 | ☐ - Household appliances | |
| | ☐ - Electric tools | |
| | ☐ - Similar apparatus | |
| ☐ - EN 55014-1 : 1993 / Amendment A1 : 1997 | | |
| ☐ - EN 55015 : 1993 | | |
| ☐ - EN 55015 : 1996 | | |
| ☐ - EN 55015 : 1996 / Amendment A1 : 1997 | | |
| ☐ - EN 55022 / 1987 | ☐ - Class A | ☐ - Class B |
| ☐ - EN 55022 / 1994 | ☐ - Class A | ☐ - Class B |
| ☐ - Amendment A1 : 1995 to EN 55022 : 1994 | | |
| ☐ - Amendment A2 : 1997 to EN 55022 : 1994 | | |
| ☐ - EN 55022 : 1998 | ☐ - Class A | ☐ - Class B |
| ☐ - BS | | |
| ☐ - VCCI | ☐ - Class A ITE | ☐ - Class B ITE |
| ☒ - 47 CFR Part 101, section 101.111 | | |
| ☐ - AS/NZS 3548: 1995 | ☐ - Class A | ☐ - Class B |
| ☐ - CISPR 11 (1997) | ☐ - Group 1 | ☐ - Group 2 |
| | ☐ - Class A | ☐ - Class B |
| ☐ - CISPR 22 (1997) | ☐ - Class A | ☐ - Class B |

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BABT PRODUCT SERVICE INC 4855 Patrick Henry Drive/
Building # 6

Santa Clara CA 95054 USA

Tel: 408 748
3585Fax: 408 919
0585

Rev. No 1.0

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03

Emissions Test Results:

Conducted Emissions, 10/150/450 kHz - 30 MHz

☐ - PASS ☐ - FAIL ☒ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: _____

Radiated Emissions (Magnetic Field), 10 kHz - 30 MHz

☐ - PASS ☐ - FAIL ☒ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: _____

Radiated Emissions (Electric Field), 30 MHz - 1000 MHz

☐ - PASS ☐ - FAIL ☒ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: _____

This part was done previously and a separate report was issued, report number A9242F01

Interference Power at the Mains and Interface Cables, 30 MHz - 300 MHz

☐ - PASS ☐ - FAIL ☒ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: _____

Equivalent Radiated Emissions, 1 GHz - 110 GHz

☒ - PASS ☐ - FAIL ☐ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: No RF noise of significant value was noticed in this range.

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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03

GENERAL REMARKS:

No modifications were necessary in order for the EUT to meet the emissions requirements.

SUMMARY:

All tests according to the regulations cited on page 3 were

☒ - Performed

☐ - Not Performed

The Equipment Under Test

☒ - **Fulfills** the general approval requirements cited on page 3.

☐ - **Does not** fulfill the general approval requirements cited on page 3.

Statement of Measurement Uncertainty

The data and results referenced in this document are true and accurate. There may be some degree or level of measurement uncertainty. As EN 45001 does not allow recommendations to be included in the test report, the reader is encouraged to request a copy of the BABT Product Service policy concerning pass or fail judgment with respect to possible measurement uncertainties.

Equipment Received Date:	On file
Testing Start Date:	20 April 2000
Testing End Date:	20 April 2000

- BABT PRODUCT SERVICE -

Engineer In Charge:



Frank Ibrahim
(EMC Engineer)

Tester:



Kim Nguyen
(EMC Technician)

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BABT PRODUCT SERVICE INC 4855 Patrick Henry Drive/
Building # 6

Santa Clara CA 95054 USA

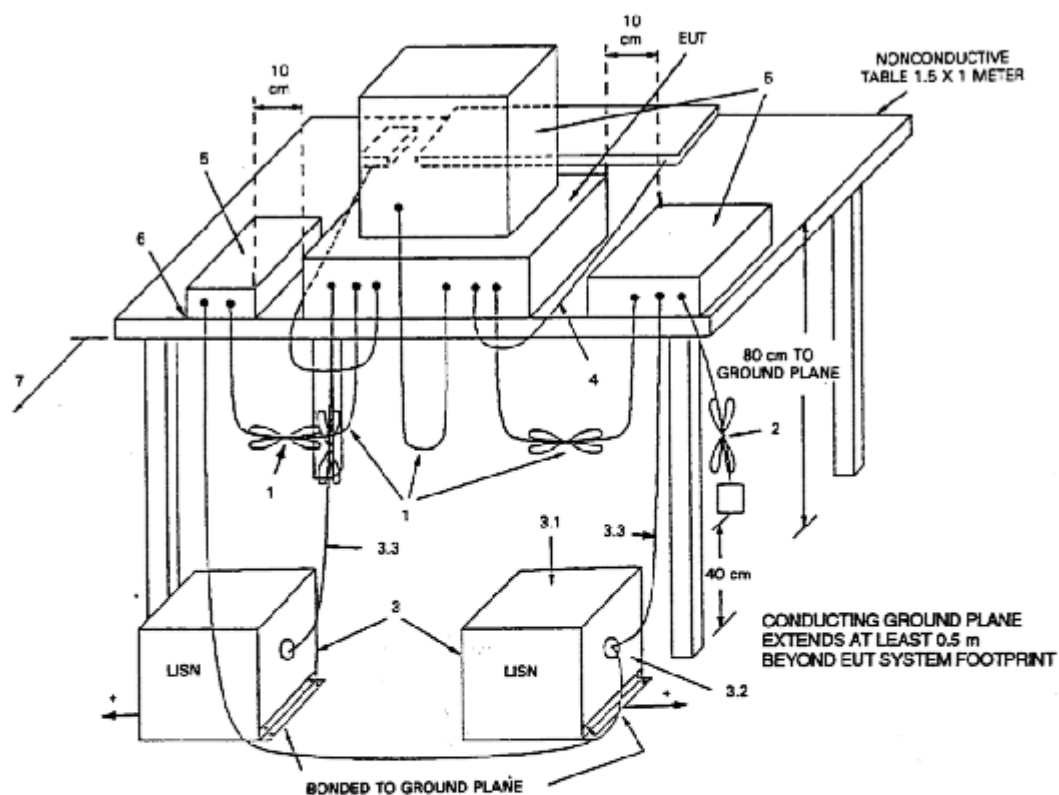
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3585

Fax: 408 919
0585

Rev. No 1.0

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03



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Rev.No 1.0

Title: **Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit to 47 CFR 2, and 47 CFR 101.**

Diagram illustrating a shielded EUT (Equipment Under Test) setup on a nonconductive table (1.5 x 1 meter). The setup includes:

- 1:** EUT (Equipment Under Test) placed on the table.
- 2:** Shielding material (likely a Faraday cage or shield) surrounding the EUT.
- 3:** Conducting ground plane extending 0.5 m beyond the EUT footprint.
- 4:** Grounding connections (cables) connecting the shield and ground plane to the ground.
- 5:** Dimensions indicating 10 cm spacing between components.
- 6:** Dimensions indicating 80 cm TO GROUND PLANE for the shielding material.
- 7:** Dimensions indicating 40 cm for the ground plane extension.
- 8:** Dimensions indicating 10 cm for the ground plane extension.

CONDUCTING GROUND PLANE EXTENDS 0.5 m BEYOND EUT SYSTEM FOOTPRINT

Title: **Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit to 47 CFR 2. and 47 CFR 101.**

EMIsoft Vasona

Emission Measurement Software

Test Reference Date: 11/01/08

Vasona by EMIsoft

Amplitude: dB/V/m

Frequency: MHz

Legend:

- Average
- - - Deviation
- ... Threshold

Plot Description: Radiant Electric Field Emission

Resale Title : 1-1/8GHz new amp
Test Laboratory : BAST Product Service Santa Cl
Engineer/User : Kim Nguyen
Equipment (EUT) : Netco Corporation
Details

Configuration	Antenna Power 350GHz	1-14GHz
1	100W	100W
2	100W	100W
3	100W	100W
4	100W	100W
5	100W	100W
6	100W	100W
7	100W	100W
8	100W	100W
9	100W	100W
10	100W	100W
11	100W	100W
12	100W	100W
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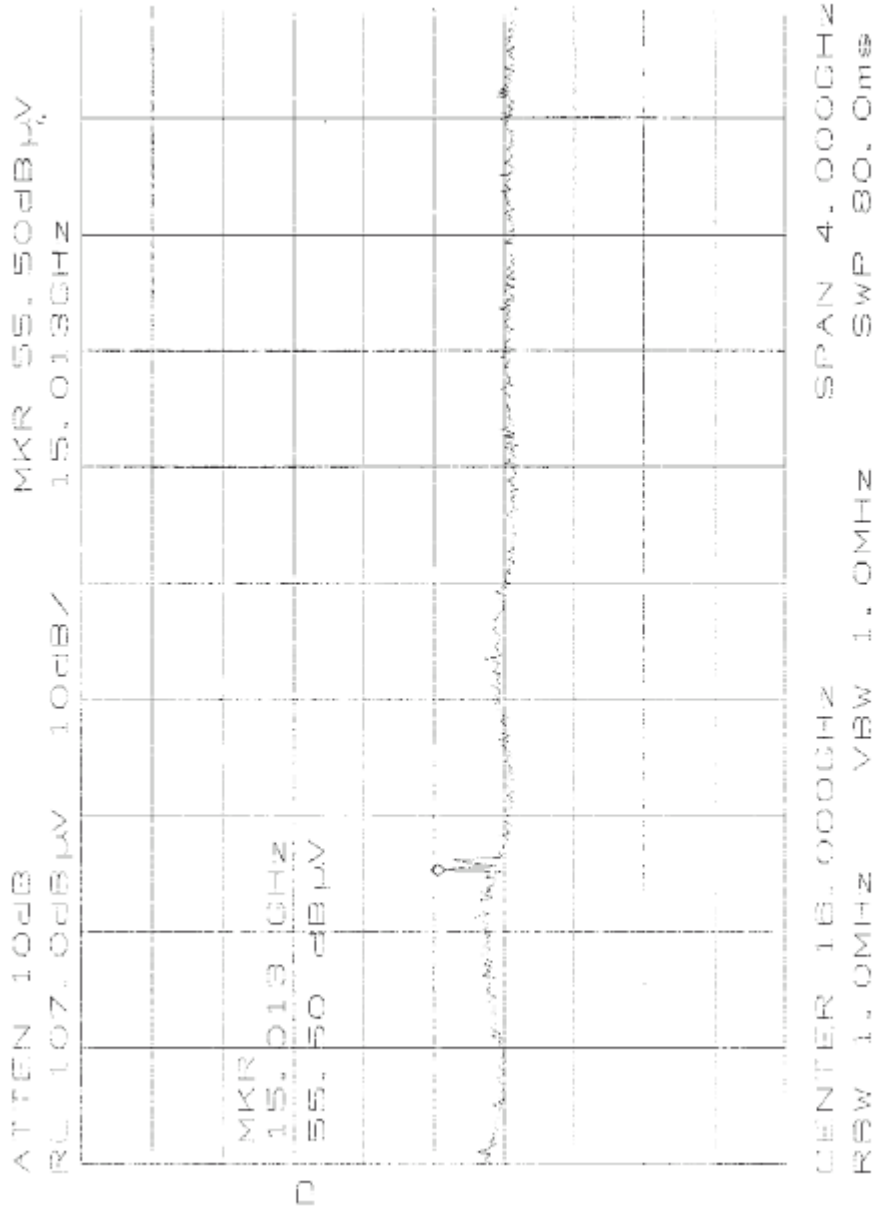
Publication : 19 Apr 00 at 11:33
Vasqua is a trademark of EMI/Soft Ltd
Another test and assessment product from EMI/Soft !

Debug Data

No	Frequency MHz	Raw dBm	Cable Loss dB	Ant dBm	Local dBm	Frequency Type	Fid	Hpl km	Ant deg	Link dBm	Margin dB	Notes
1	4001	-2	0	0	0	Private	0	0	0	0	0	0
2	12023.050	29.1	29.8	-0.8	56.3	Private	11	100	0	50.0	4.79	

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03

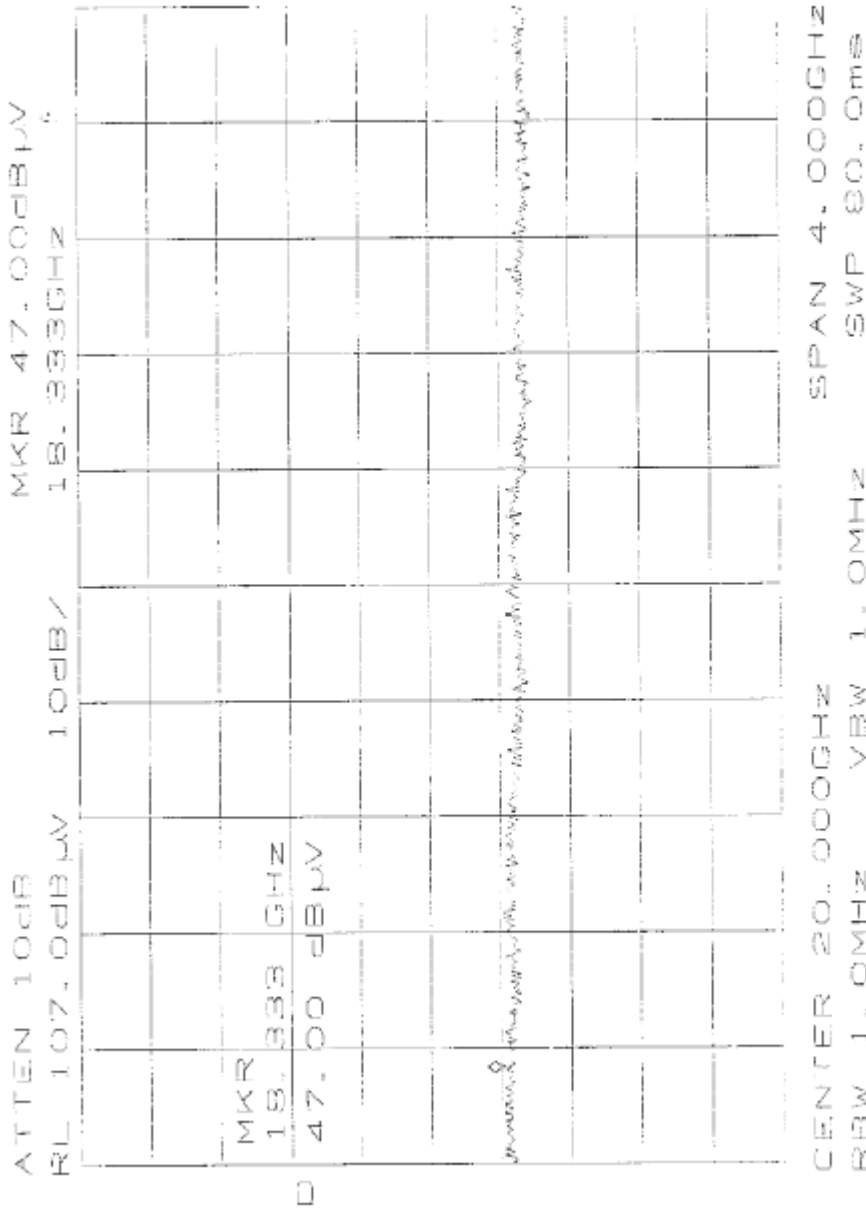


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Rev.No 1.0

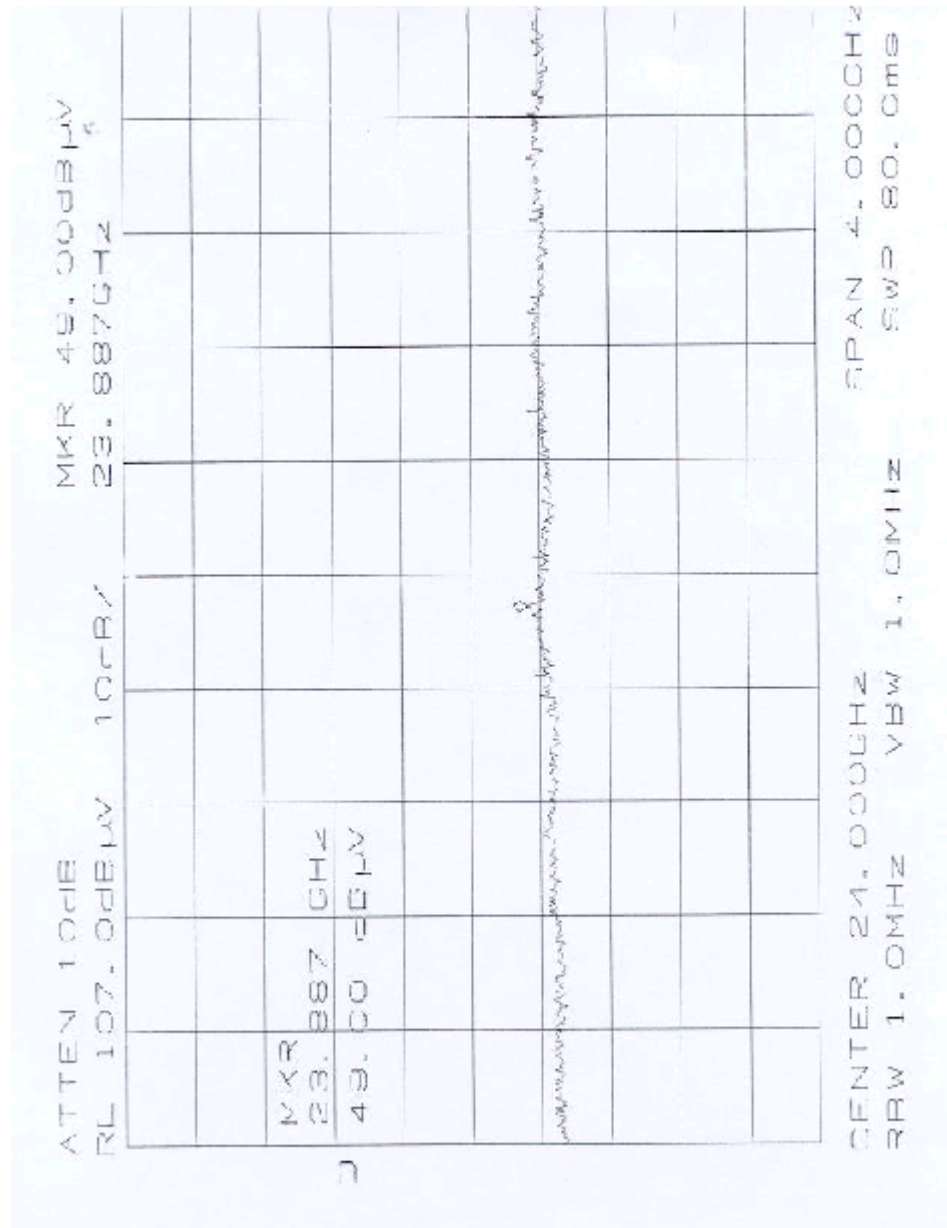
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to 47 CFR 2. and 47 CFR 101.

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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

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Rev.No 1.0

Title: **Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit to 47 CFR 2. and 47 CFR 101.**

AFTEN 10dB
RL 107.0dBµV 10dB/
MKR 48.67dBµV

MKR
26.907 GHz
48.67 dBµV

CENTER 26.000GHz
RBW 1.0MHz
VIEW 1.0MHz
SPAN 4.000GHz
SWP 80.0ms

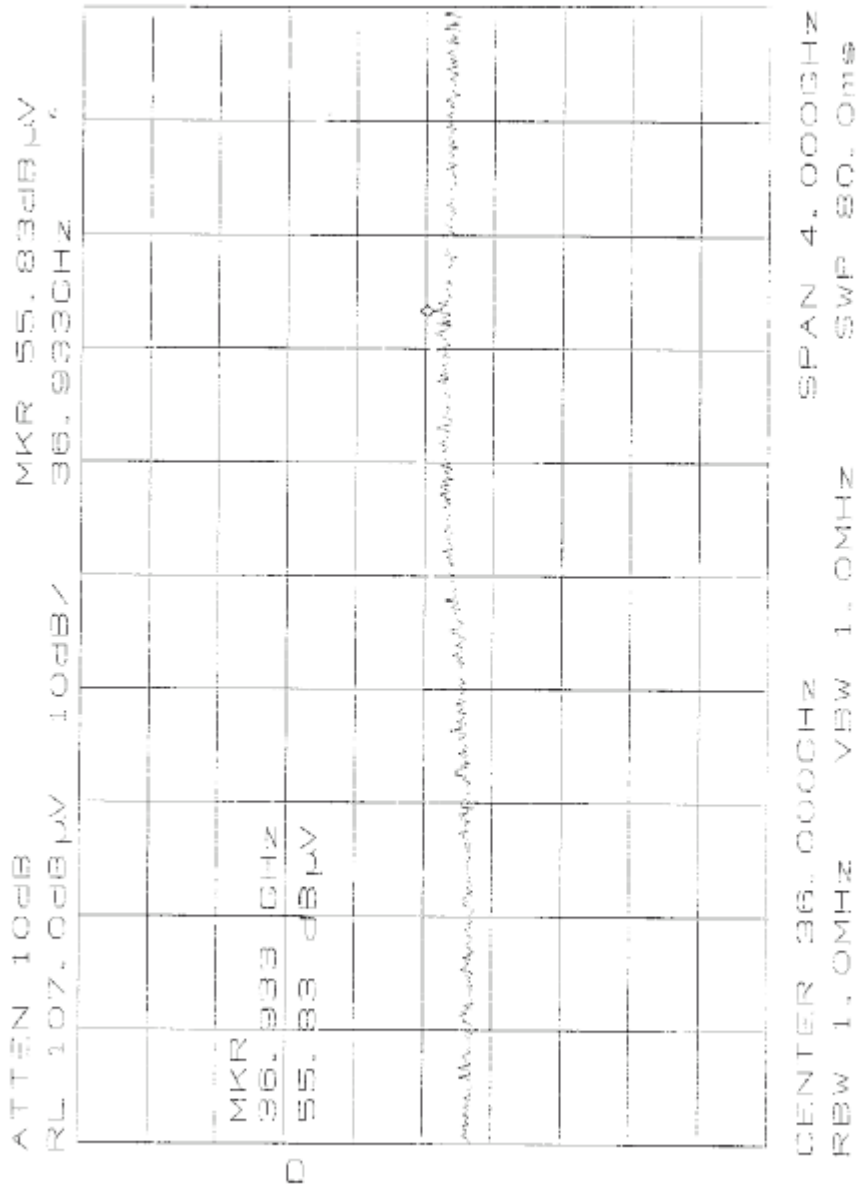
Title: **Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit to 47 CFR 2. and 47 CFR 101.**

ATTEN 10dB
 RL 107.0dBµV
 MKR 53.50dBµV
 31.713 GHz
 53.50 dBµV
 SPAN 4.000GHz
 SWP 30.0ms
 CENTER 32.000GHz
 RBW 1.0MHz
 VBW 1.0MHz
 0

Peak at 31.713 GHz

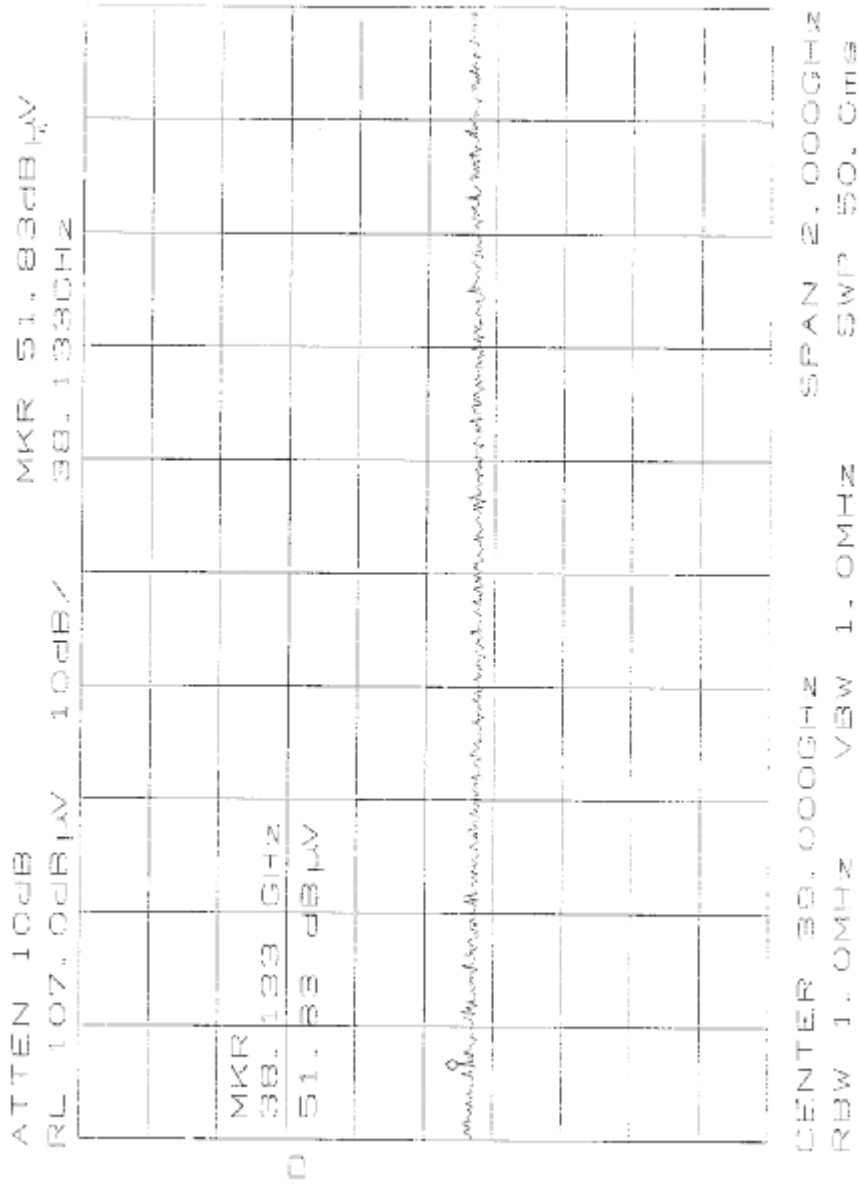
Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03



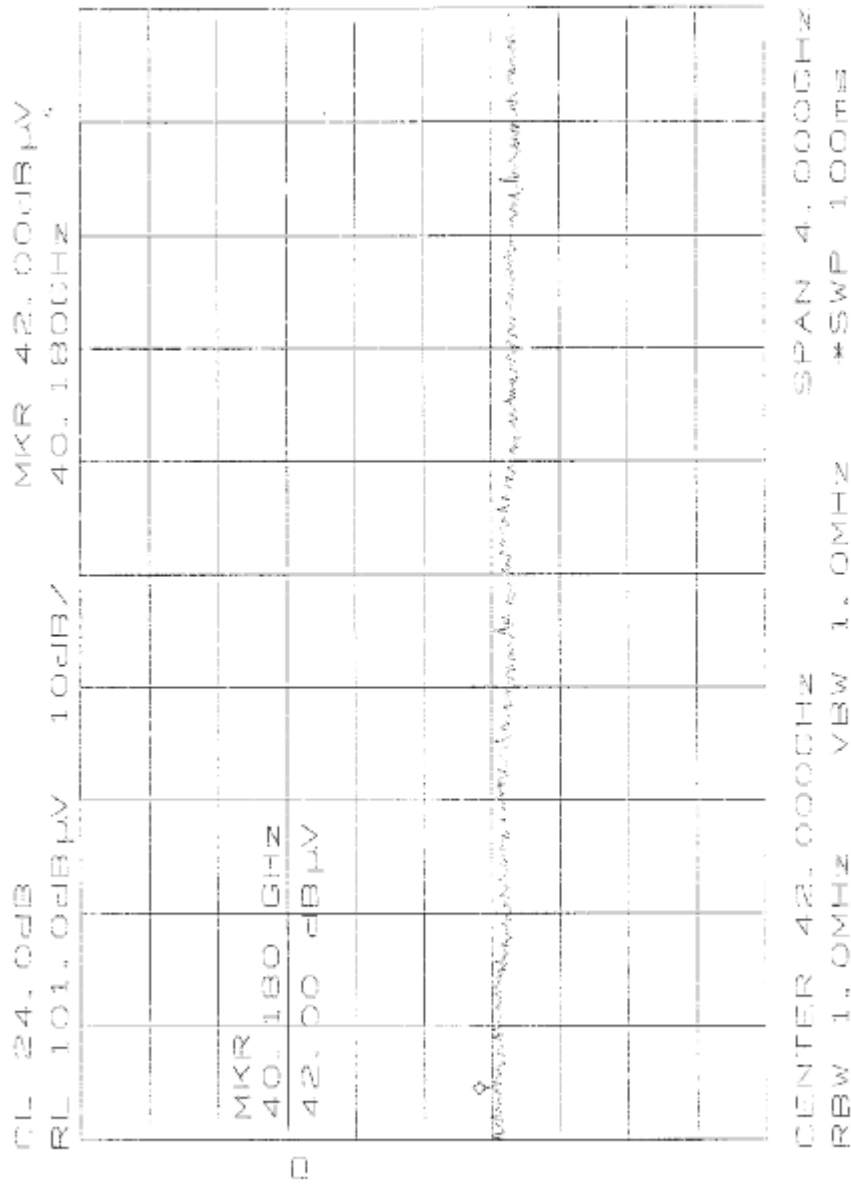
Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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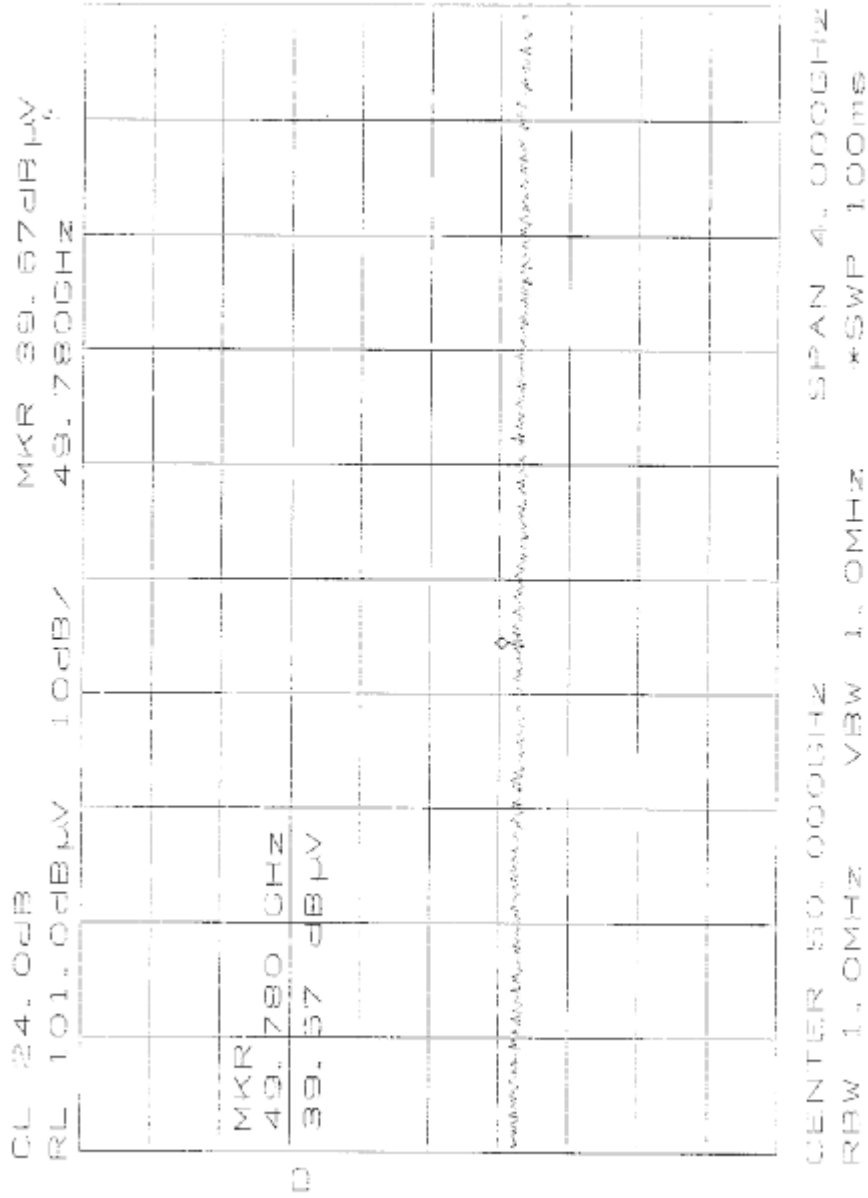
Rev.No 1.0

Title: **Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit to 47 CFR 2. and 47 CFR 101.**

CL 24.0dB MKR 39.57dB μ V
 RL 101.0dB μ V 47.440GHz
 10dB/ SPAN 4.000GHz
 RBW 1.0MHz VBW 1.0MHz *SWP 100ms

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

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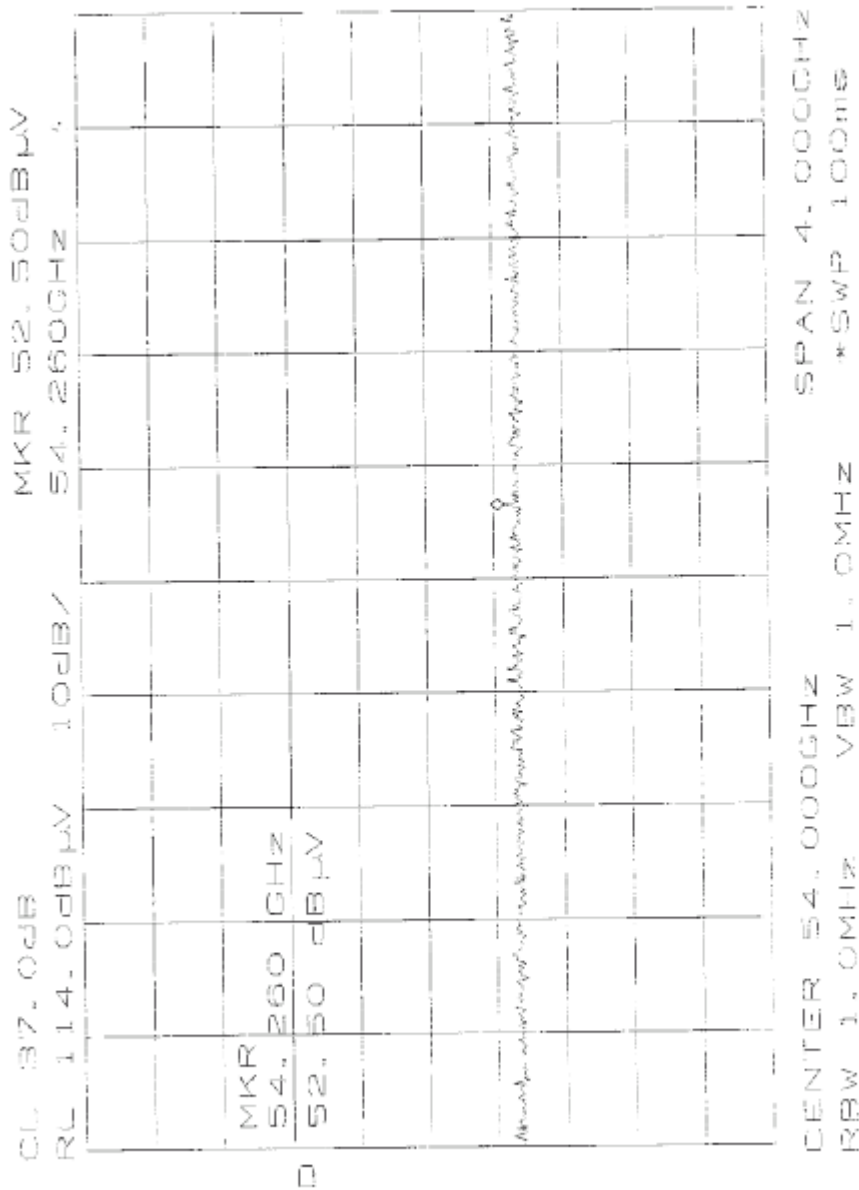


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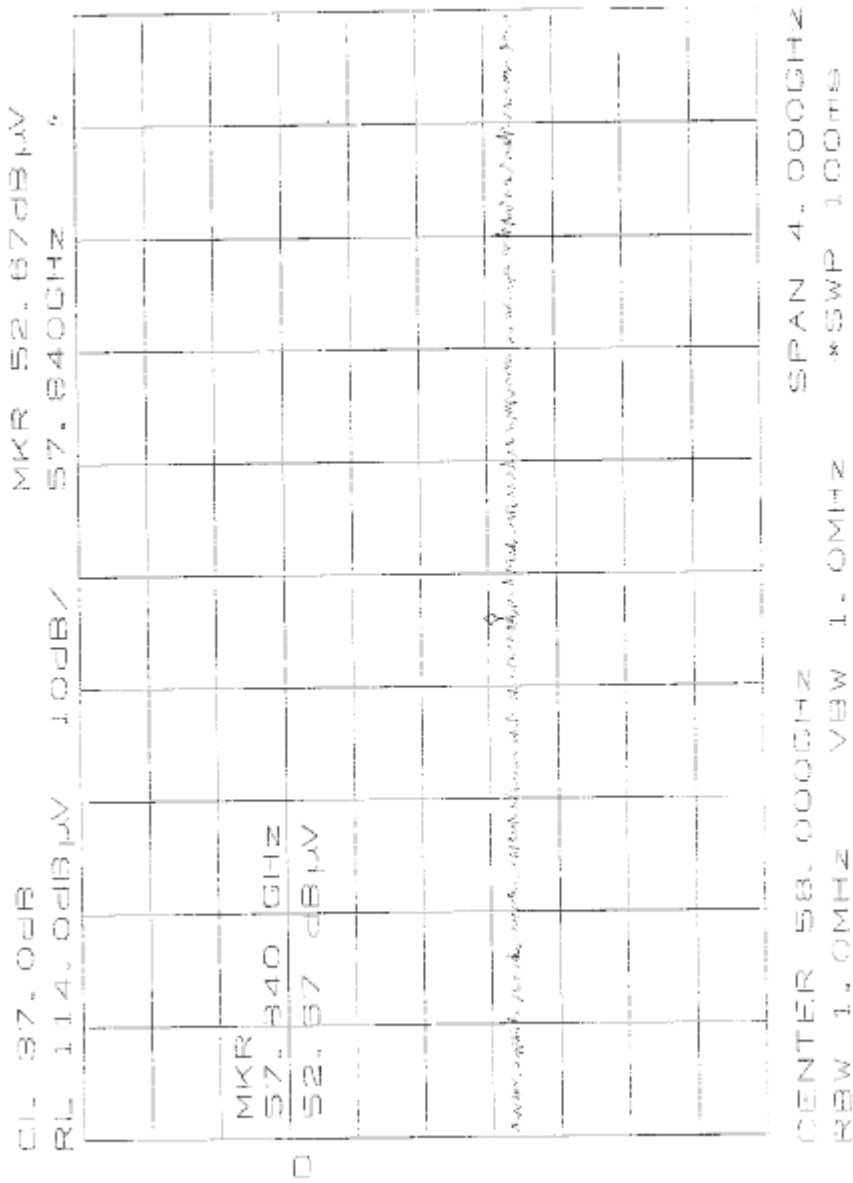
Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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Report No. A9177F03



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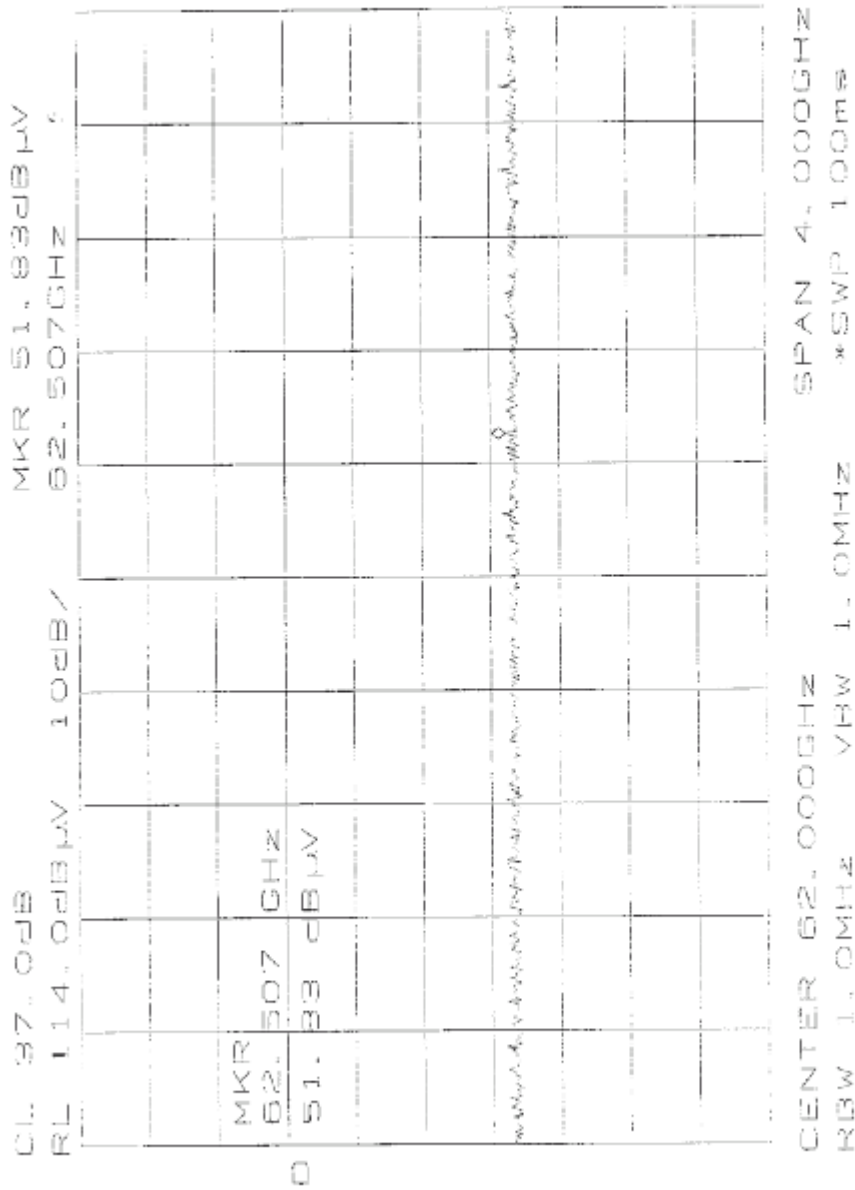


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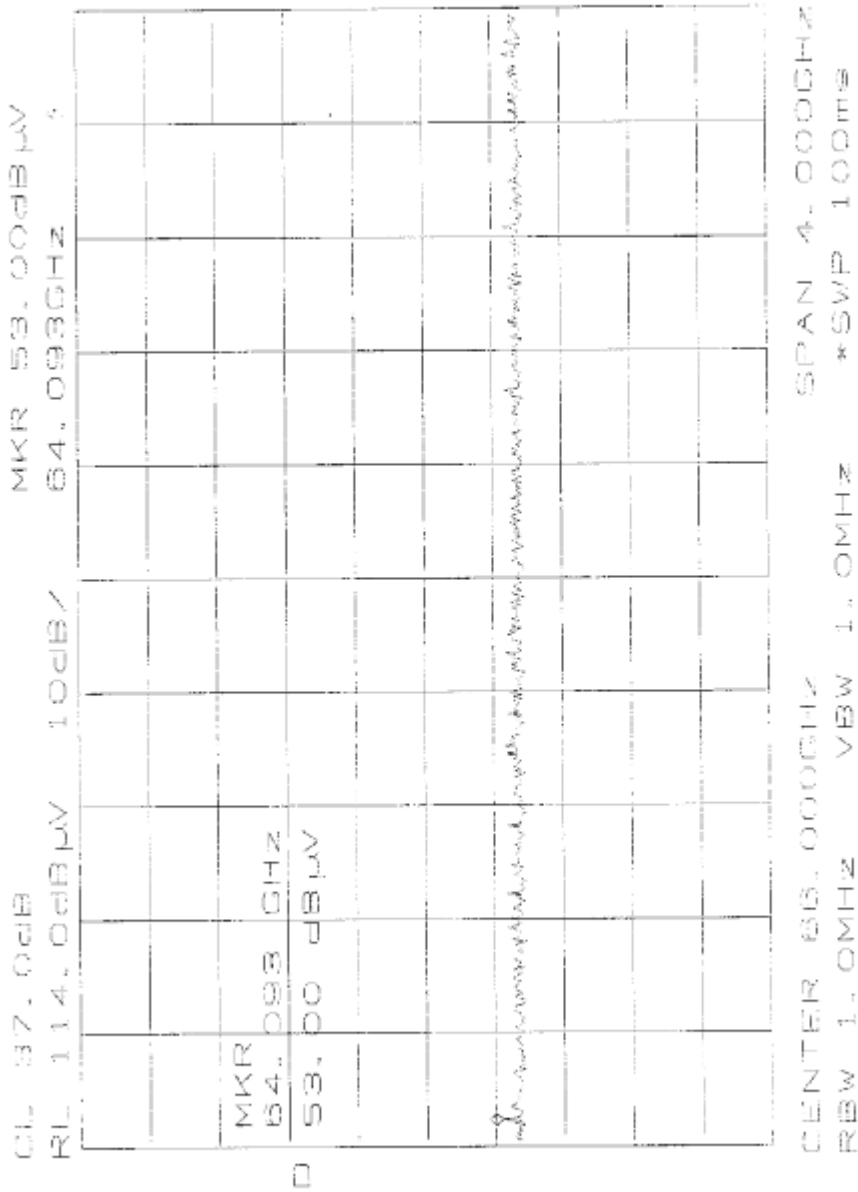
Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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Report No. A9177F03



Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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Report No. A9177F03

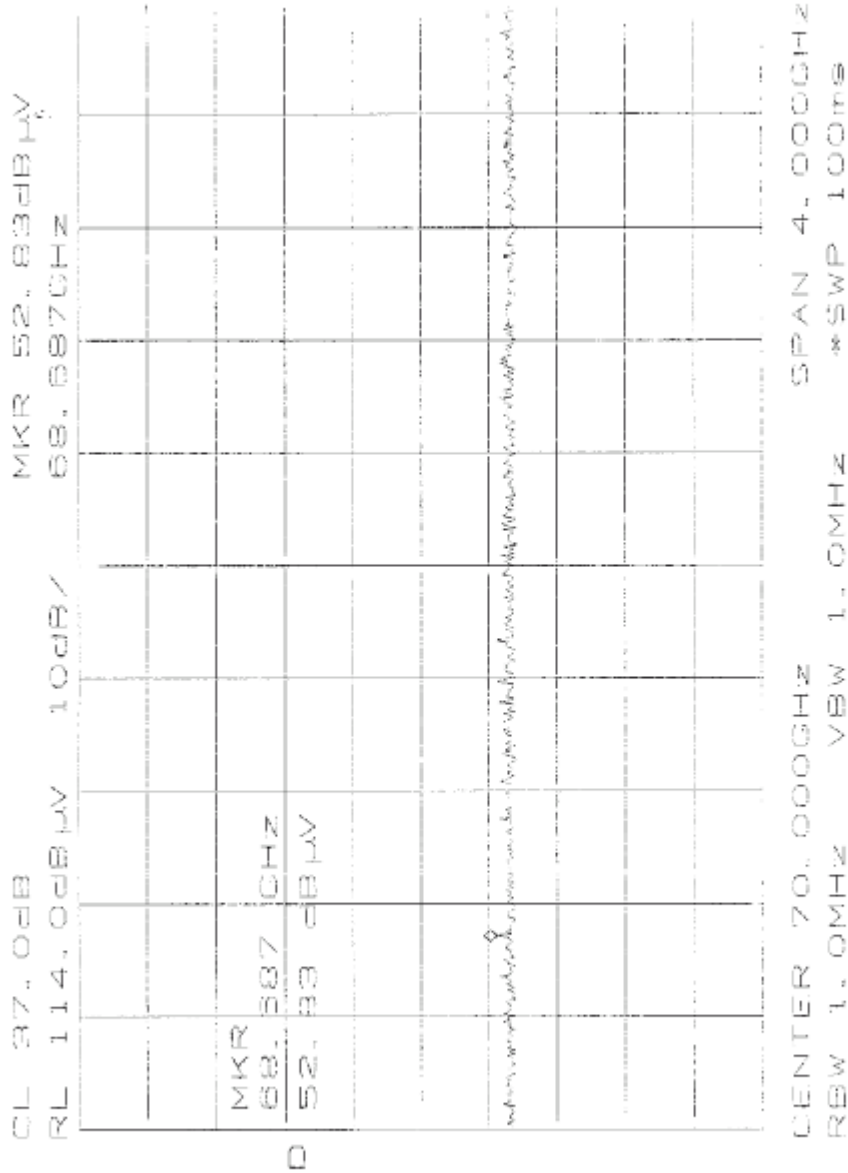


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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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Title: **Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit to 47 CFR 2. and 47 CFR 101.**

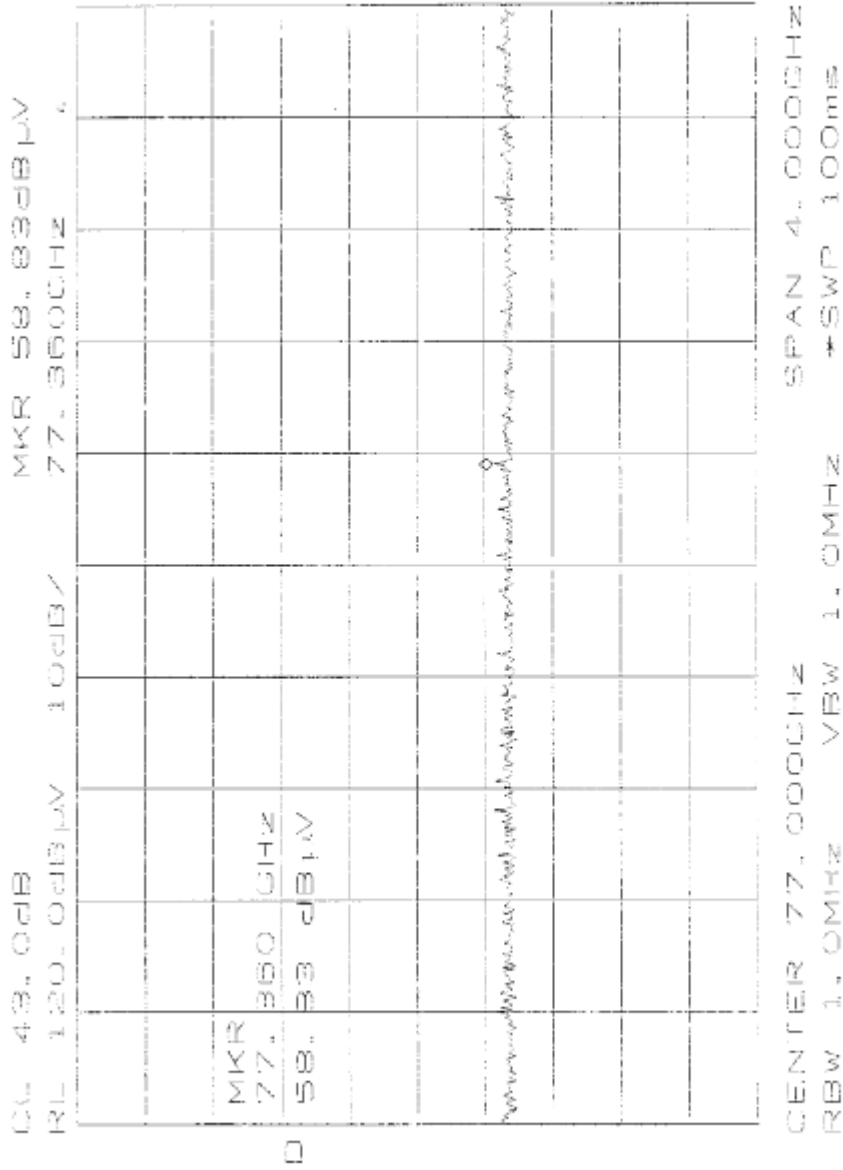
CL 37.0dB
RL 114.0dB MKR 52.17dB
BW 71.353GHz

71.353 MHz
52.17 dB

CENTER 73.000GHz
RBW 1.0MHz VBW 1.0MHz
SPAN 4.000GHz
*SWP 100ms

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03

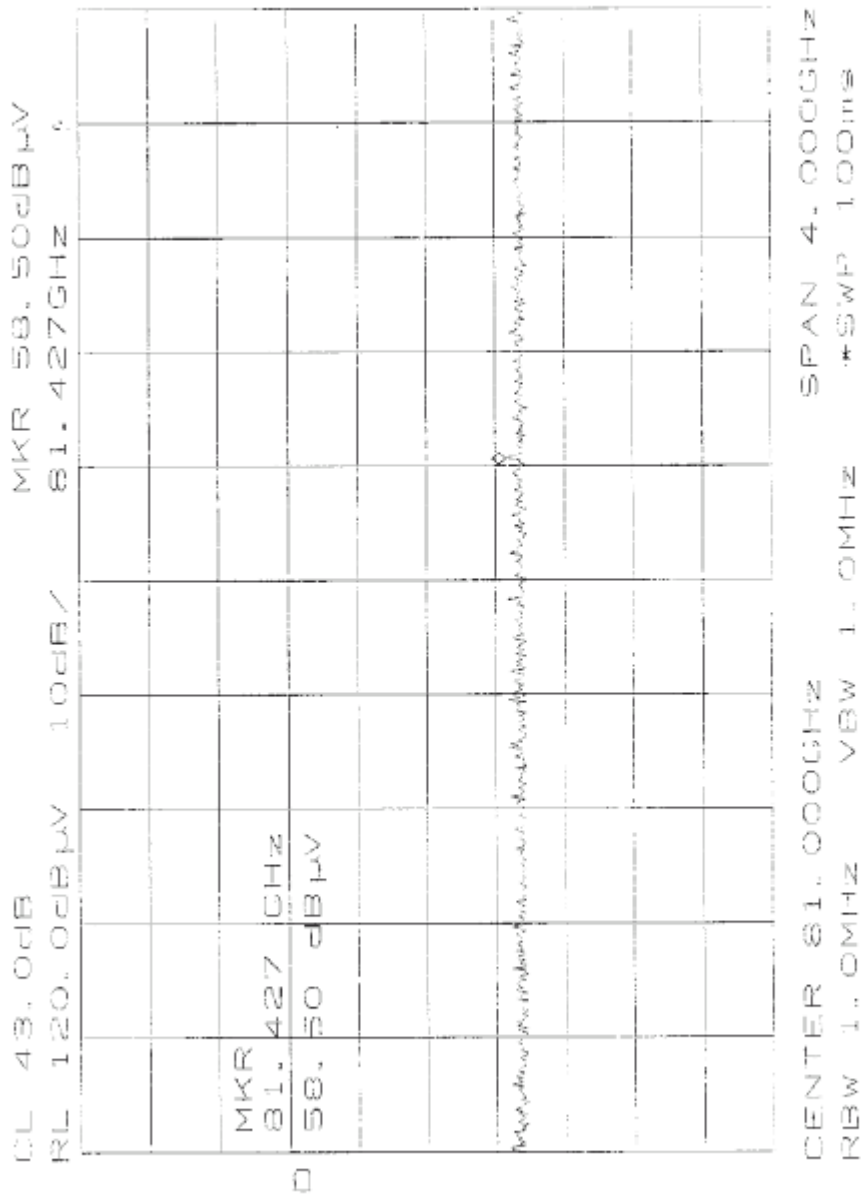


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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

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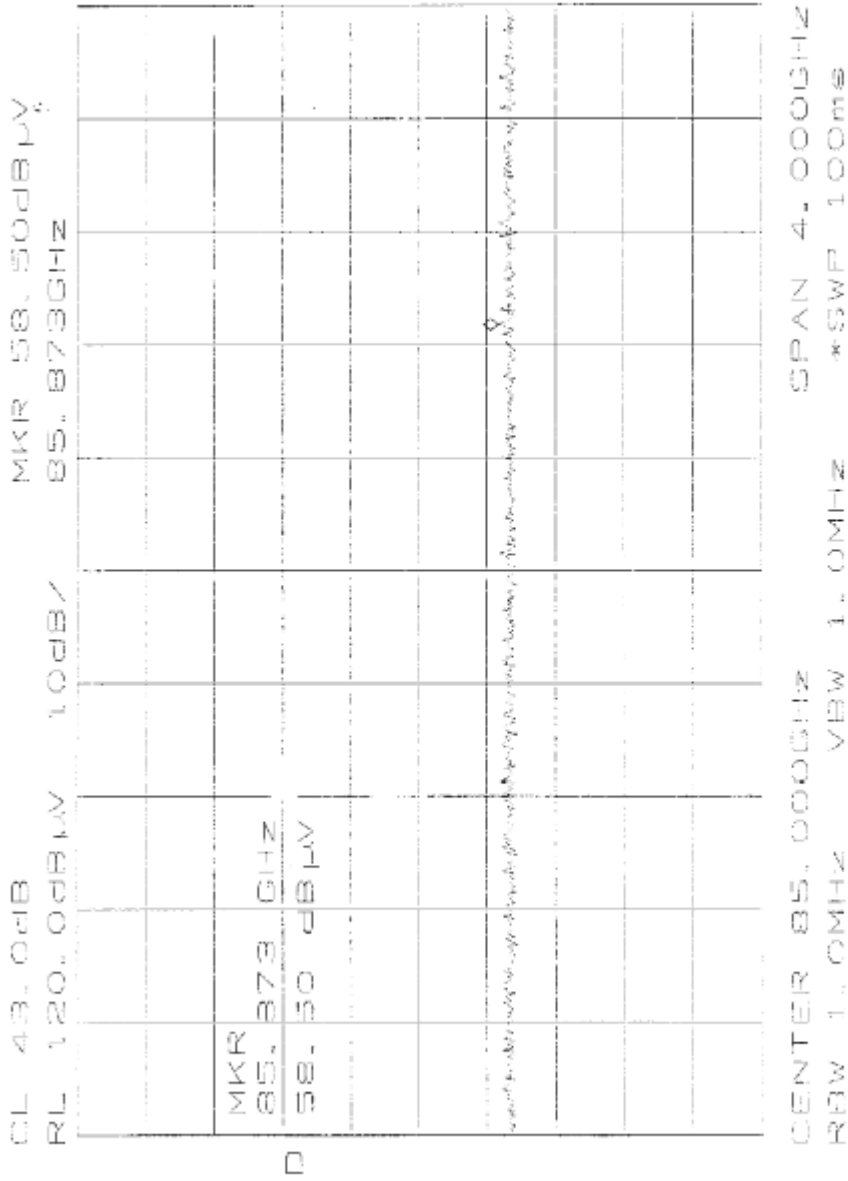


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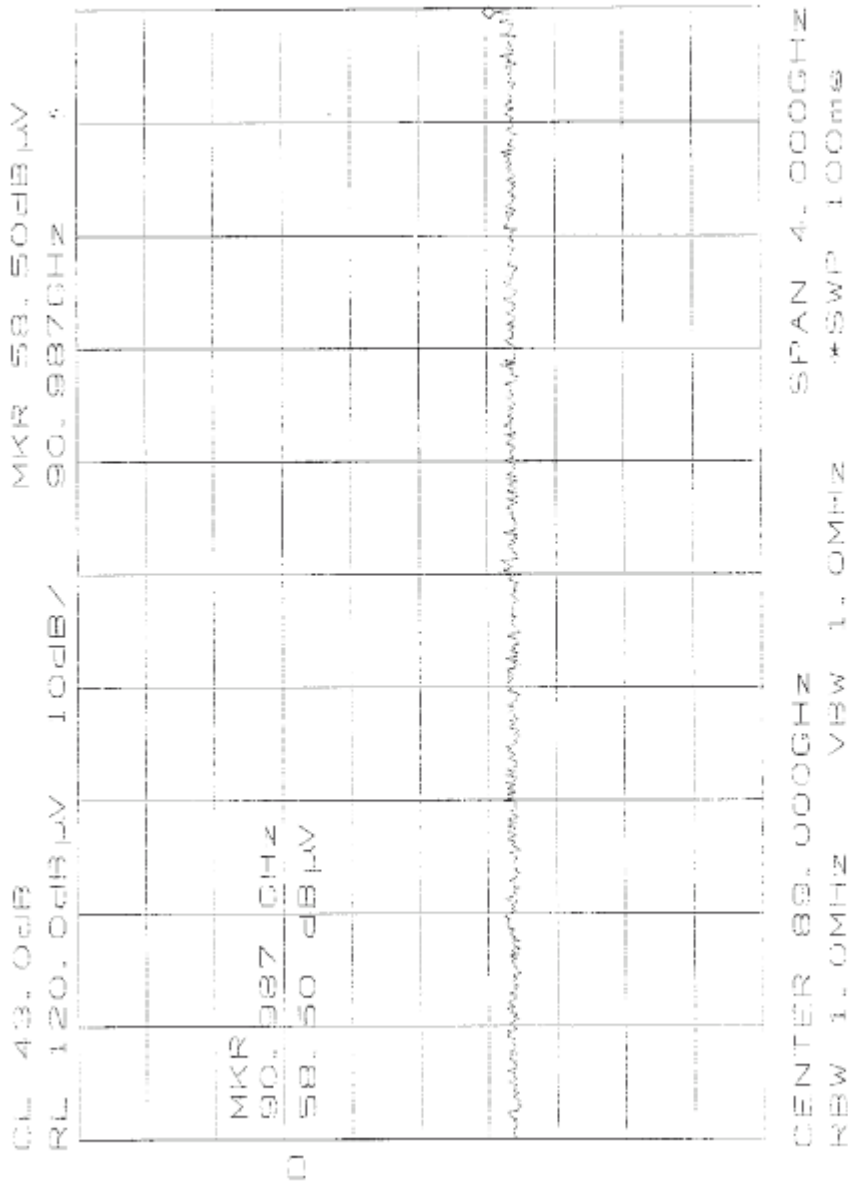
Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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Report No. A9177F03



Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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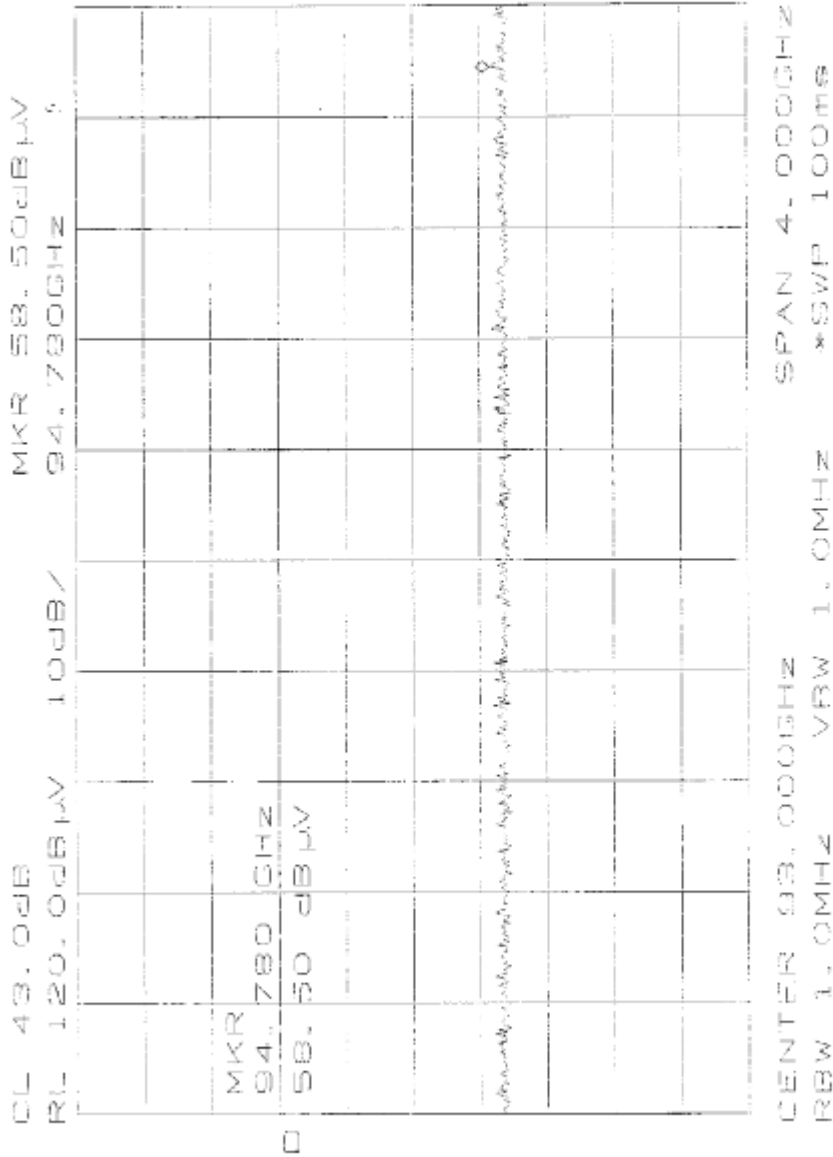


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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

Report No. A9177F03

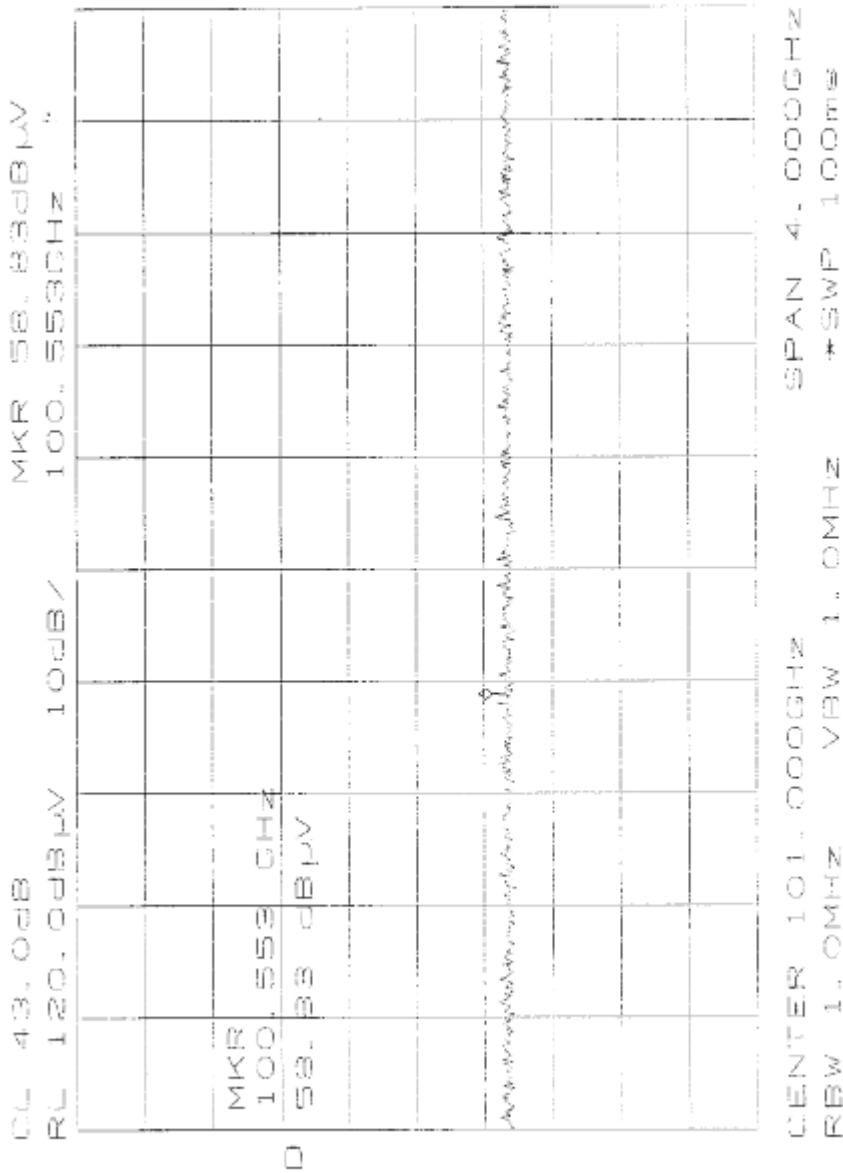


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[illegible]

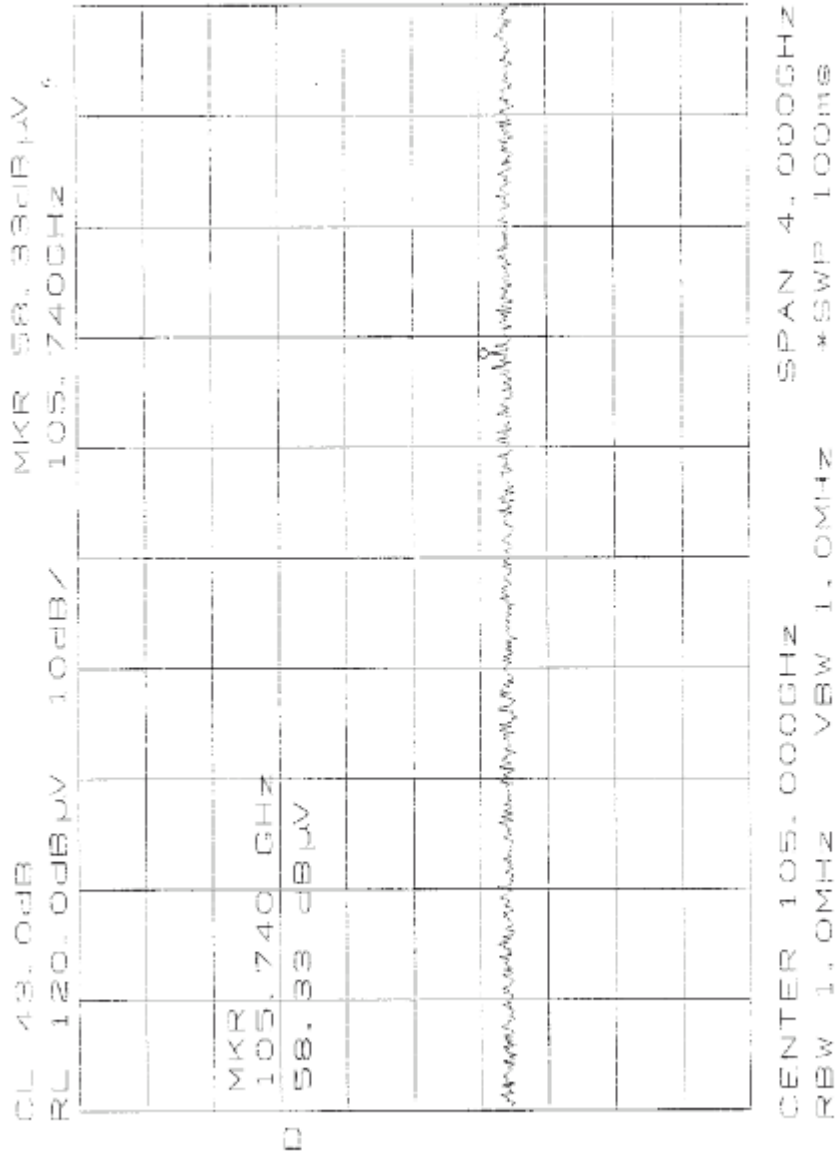
Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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Report No. A9177F03



Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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Report No. A9177F03

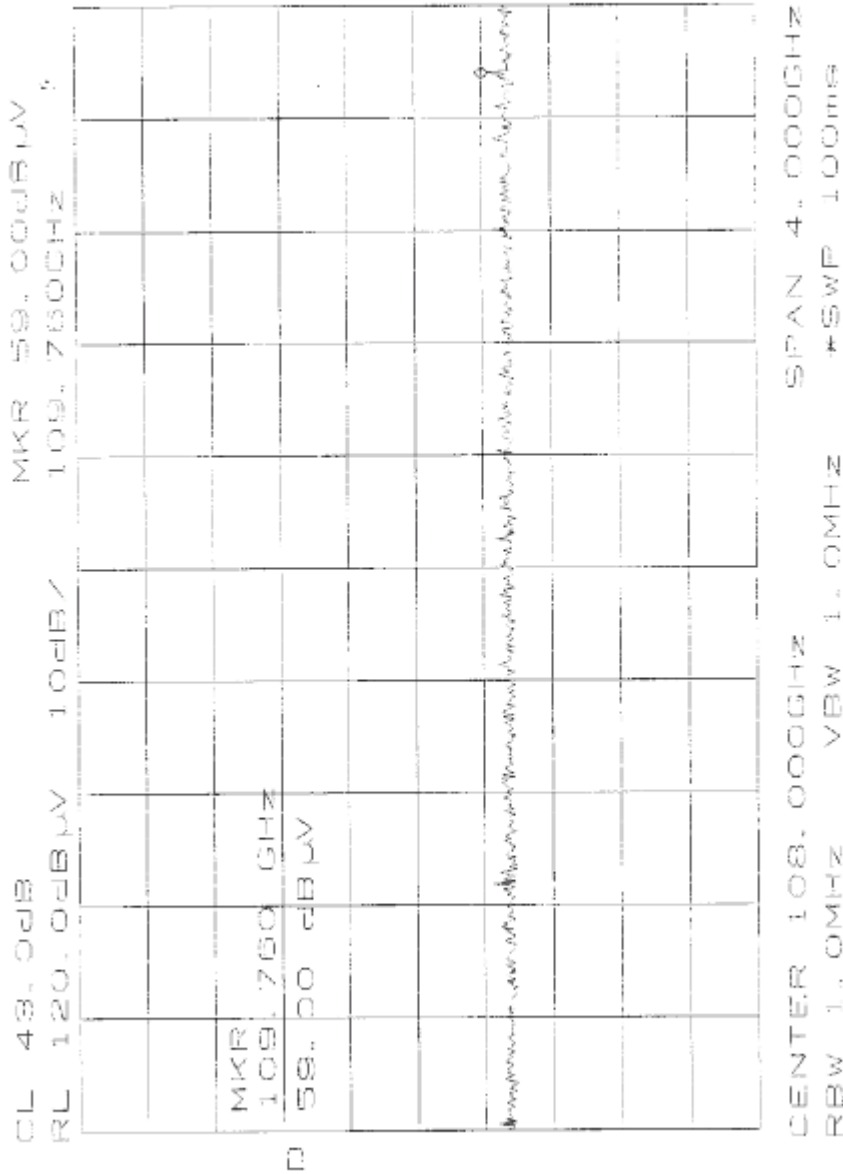


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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
to 47 CFR 2. and 47 CFR 101.

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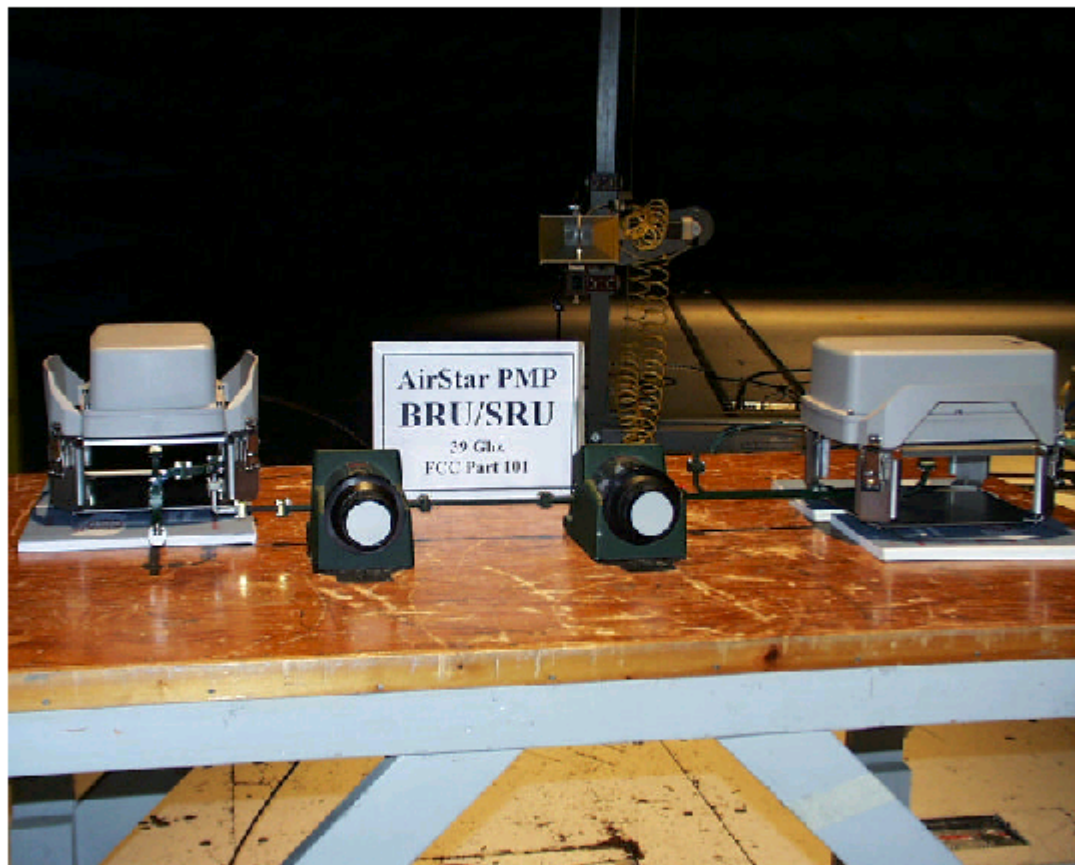
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Photograph of Test Setup:
Radiated Emissions 30 MHz - 1000 MHz



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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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CUSTOMER INFORMATION			
COMPANY NAME:		Netro Corporation	
COMPANY ADDRESS:		3860 N. First Street	
		San Jose, CA 95134	
PHONE NUMBER:		(408) 216-1562	
FAX NUMBER/E-MAIL ADDRESS:		(408) 216-1555	
CUSTOMER CONTACT:		Jas Dhaliwal	
PRODUCT DESCRIPTION			
NAME, MODEL, SERIAL # OF EUT:		PMP microwave fixed link , AirStar 39 GHz	
DESCRIPTION OF EUT:		AirStar is a wireless point-to-multipoint telecommunication system that provides broadband local loop access. AirStar is a complete product family that is built on advanced ATM and digital microwave technology. Based on a sectorized cellular topology an AirStar Network is composed of one or more cells which may overlap. Each AirStar cell provides a point-to-multipoint wireless communications network consisting of a Base Station and a number of Subscriber Terminals. Each cell can be split into sectors to allow efficient reuse of the allocated spectrum and to increase the capacity available to Subscriber Terminals. The AirStar system design is based on Asynchronous Transport Mode (ATM) switching technology which provides a generic transport vehicle for carrying voice, data and video with quality of services. AirStar provides local access for all types of traffic, such as analog voice, digital voice, TDM, Frame Relay, ATM, and IP.	
Components of EUT (N/A)			
Description	Model Number	Serial Number	FCC ID Number
OPERATING MODE(S):		Continuous	
I/O CABLES (N/A)			
CONNECTION	75 ohm Co-Axial		
SHIELD	Yes		
CONNECTORS	TNC		
TERMINATION TYPE	BRU		
LENGTH	5m		
REMOVABLE	Yes		
CONNECTION	75 ohm Co-Axial		
SHIELD	Yes		
CONNECTORS	TNC		
TERMINATION TYPE	BRU		
LENGTH	5m		
REMOVABLE	Yes		
CONNECTION	-48 VDC		
SHIELD	No		
CONNECTORS	Screw Lug		

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Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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TERMINATION TYPE	BSS			
LENGTH	2m			
REMOVABLE	Yes			
CONNECTION	RS232 (LAN)			
SHIELD	No			
CONNECTORS	RS232			
TERMINATION TYPE	BSC			
LENGTH	10m			
REMOVABLE	Yes			
POWER CORDS				
UNIT:	None, -48 VDC supplied by the lab	UNIT:		
MANUFACTURER:	Beldon	MANUFACTURER:		
SHIELDED:	Unshielded	SHIELDED:		
LENGTH:	6'	LENGTH:		
POWER INTERFACE				
VOLTAGE / FREQUENCY	-48 VDC			
PHASES/CURRENT:	10 Amp			
OSCILLATOR FREQUENCIES (N/A)				
FREQUENCY	EUT LOCATION		DESCRIPTION OF USE	
POWER SUPPLY (N/A)				
DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	SWITCHING/LINEAR FREQ.
POWER LINE FILTERS (N/A)				
MANUFACTURER	MODEL NO.	QTY.	LOCATION ON EUT	
CRITICAL EMI COMPONENTS (N/A)				
DESCRIPTION	MANUFACTURER	PART # OR VALUE	QTY.	LOCATION ON EUT
DESCRIPTION OF ENCLOSURE:	BSS Shelf steel, BRU Enclosure (Aluminum casting) , SRU Enclosure (Aluminum casting)			
INTERFACING AND/OR SIMULATORS PERIPHERAL EQUIPMENT:				
DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	FCC ID
BER Tester	HP	HP 3784A (BERT)	3117U01255	-----
BLOCK DIAGRAM:	See photo in Appendix A			

Title: Test of Netro Corporation AirStar 39 GHz PMP 12.5 MHz Base Radio Unit
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Compliance Information

Labeling

Equipment subject to Declaration of Conformity procedures shall be labeled in accordance with Part 2 of the Regulations.

Compliance Statement

Equipment subject to Declaration of Conformity authorization procedures must be accompanied by a compliance information statement when placed on the market, which must contain the following information:-

- 1) Equipment identification
- 2) Statement of compliance with Part 15:-

"This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."
- 3) Identification and contact details of the responsible party located in the United States.

This statement can either be printed in the user guide or alternatively as an addendum.

The following warning statement must also be included in the equipment manual:-

"Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment."