

STANDARD TEST CONDITIONS
and
ENGINEERING PRACTICES

Except as noted herein, the following conditions and procedures were observed during the testing:

ROOM TEMPERATURE	= $25 \pm 5^{\circ}\text{C}$
ROOM HUMIDITY	= 20-50%
D.C. SUPPLY VOLTAGE, Vdc	= 13.8
A.C. SUPPLY VOLTAGE, Vac	= N/A
A.C. SUPPLY FREQUENCY, Hz	= N/A

Prior to testing, the E.U.T. was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst case measurements.

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NAME OF TEST: R. F. POWER OUTPUT
PARAGRAPH: 47 CFR 2.985 (a)
GUIDE: TIA/EIA STANDARD 603
TEST CONDITIONS: STANDARD TEMPERATURE & HUMIDITY
TEST EQUIPMENT: AS PER ATTACHED PAGE

MEASUREMENT PROCEDURE

1. The E.U.T. was connected to a resistive coaxial attenuator of normal load impedance, and the unmodulated output power was measured by means of an R. F. Power Meter.
2. Measurement accuracy is $\pm 3\%$.

MEASUREMENT RESULTS

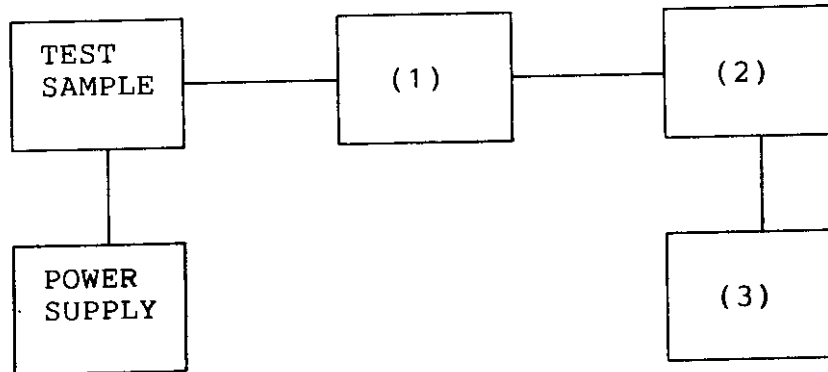
<u>NOMINAL, MHz</u>	<u>R.F. POWER OUTPUT, WATTS</u>
216	50
218	50
220	50

SUPERVISED BY:


MORTON FLOM, P. Eng.

R.F. POWER OUTPUT (A.M. OR F.M.)

TEST 1: R. F. POWER OUTPUT
 TEST 2: FREQUENCY STABILITY

(1) COAXIAL ATTENUATOR

NARDA 766-10
 SIERRA 661A-30
 BIRD 8329 (30 dB)

—
 x
 —
 —

(2) POWER METERS

HP 435A
 HP 436A
 HP 8901A

—
 x
 x
 —

(3) FREQUENCY COUNTER

HP 5383A
 HP 5334B
 HP 8901A FREQUENCY MODE

—
 x
 x
 —

NAME OF TEST: MODULATION CHARACTERISTICS -
FREQUENCY RESPONSE OF AUDIO MODULATING CIRCUIT

PARAGRAPH: 47 CFR 2.987 (a)

GUIDE: TIA/EIA STANDARD 603

TEST CONDITIONS: S. T. & H.

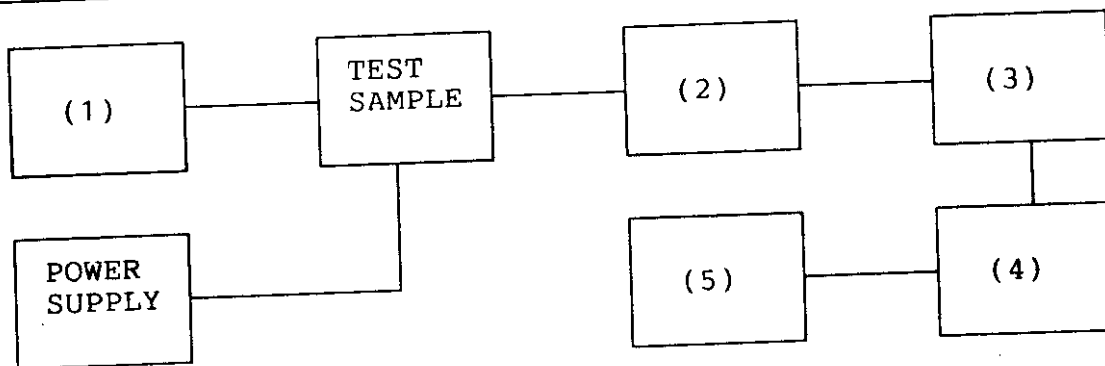
TEST EQUIPMENT: AS PER ATTACHED PAGE

MEASUREMENT PROCEDURE

1. The E.U.T. and test equipment were set up as shown on the following page.
2. The audio signal generator was connected to the audio input circuit/microphone of the E.U.T.
3. The audio signal input was adjusted to obtain 50% modulation at 1 kHz, and this point was taken as the 0 dB reference level.
4. With input levels held constant and below limiting at all frequencies, the audio signal generator was varied from 100 Hz to 50 kHz.
5. The response in dB relative to 1 kHz was then measured, using the HP 8901A Modulation Analyzer.
6. MEASUREMENT RESULTS: ATTACHED

TRANSMITTER TEST SET-UP

TEST A. MODULATION CAPABILITY/DISTORTION
 TEST B. AUDIO FREQUENCY RESPONSE
 TEST C. HUM AND NOISE LEVEL
 TEST D. RESPONSE OF LOW PASS FILTER
 TEST E. MODULATION LIMITING

(1) AUDIO OSCILLATOR/GENERATOR

HP 204D
 HP 8903A
 HP 3312A

—
 x
 —
 —

(2) COAXIAL ATTENUATOR

NARDA 766-10
 SIERRA 661A-30
 BIRD 8329 (30 dB)

—
 x
 —
 —

(3) MODULATION ANALYZER

HP 8901A

—
 x
 —

(4) AUDIO ANALYZER

HP 8903A

—
 x
 —

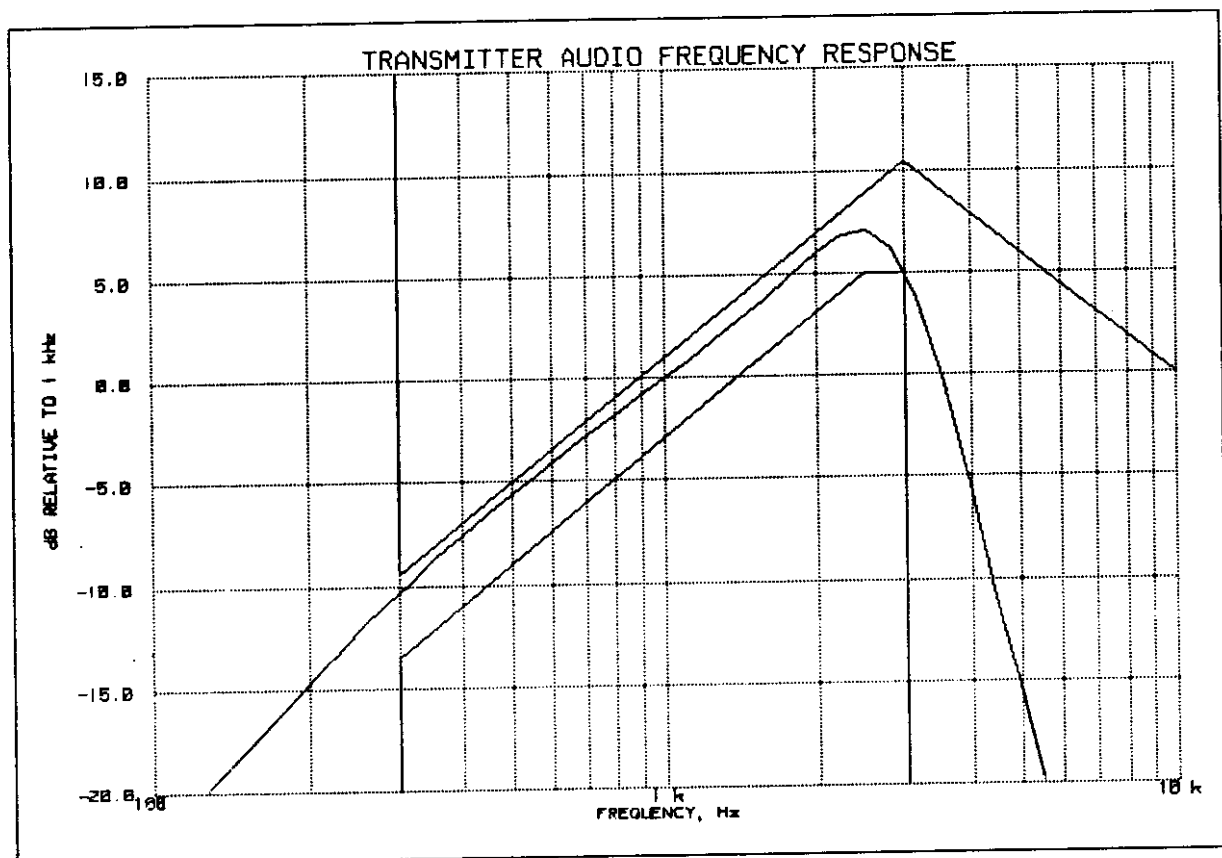
(5) SCOPE

HP 1741A
 HP 181T
 TEK 935

—
 —
 —
 —

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TRANSMITTER AUDIO FREQUENCY RESPONSE
 REGIONET WIRELESS INC, MX 800
 3 APR 1998, 15:25



PEAK AUDIO FREQUENCY, Hz: 2510

TABLE VALUES:

FREQUENCY, Hz	LEVEL, dB	FREQUENCY, Hz	LEVEL, dB	FREQUENCY, Hz	LEVEL, dB
300	-10.2	30000	-23.9		
20000	-23.8	50000	-23.9		

M. Flom P. Eng.

SUPERVISED BY:

MORTON FLOM, P. Eng.

NAME OF TEST: MODULATION CHARACTERISTICS -
FREQUENCY RESPONSE OF AUDIO LOW PASS FILTER

PARAGRAPH: 47 CFR 2.987 (a)

GUIDE: TIA/EIA STANDARD 603

TEST CONDITIONS: S. T. & H.

TEST EQUIPMENT: AS PER PREVIOUS PAGE

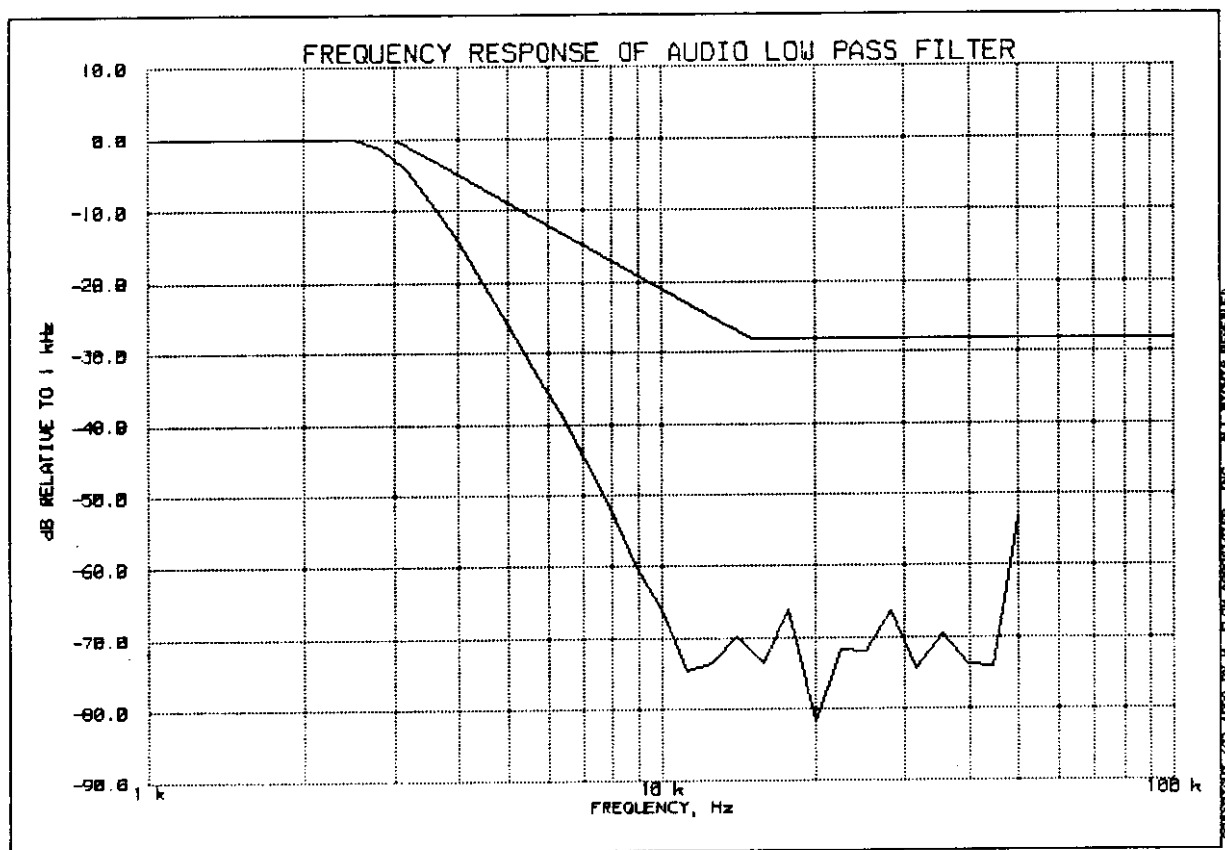
MEASUREMENT PROCEDURE

1. The E.U.T. and test equipment were set up such that the audio input was connected at the input to the modulation limiter, and the modulated stage.
2. The audio output was connected at the output to the modulated stage.
3. MEASUREMENT RESULTS: ATTACHED

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FREQUENCY RESPONSE OF AUDIO LOW PASS FILTER
REGIONET WIRELESS INC, MX 800
3 APR 1998, 15:28



PEAK AUDIO FREQUENCY, Hz: 2510

SUPERVISED BY:

M. Flom P. Eng.

MORTON FLOM, P. Eng.

NAME OF TEST: MODULATION CHARACTERISTICS -
MODULATION LIMITING

PARAGRAPH: 47 CFR 2.987 (b), 80.211, 80.213

GUIDE: TIA/EIA STANDARD 603

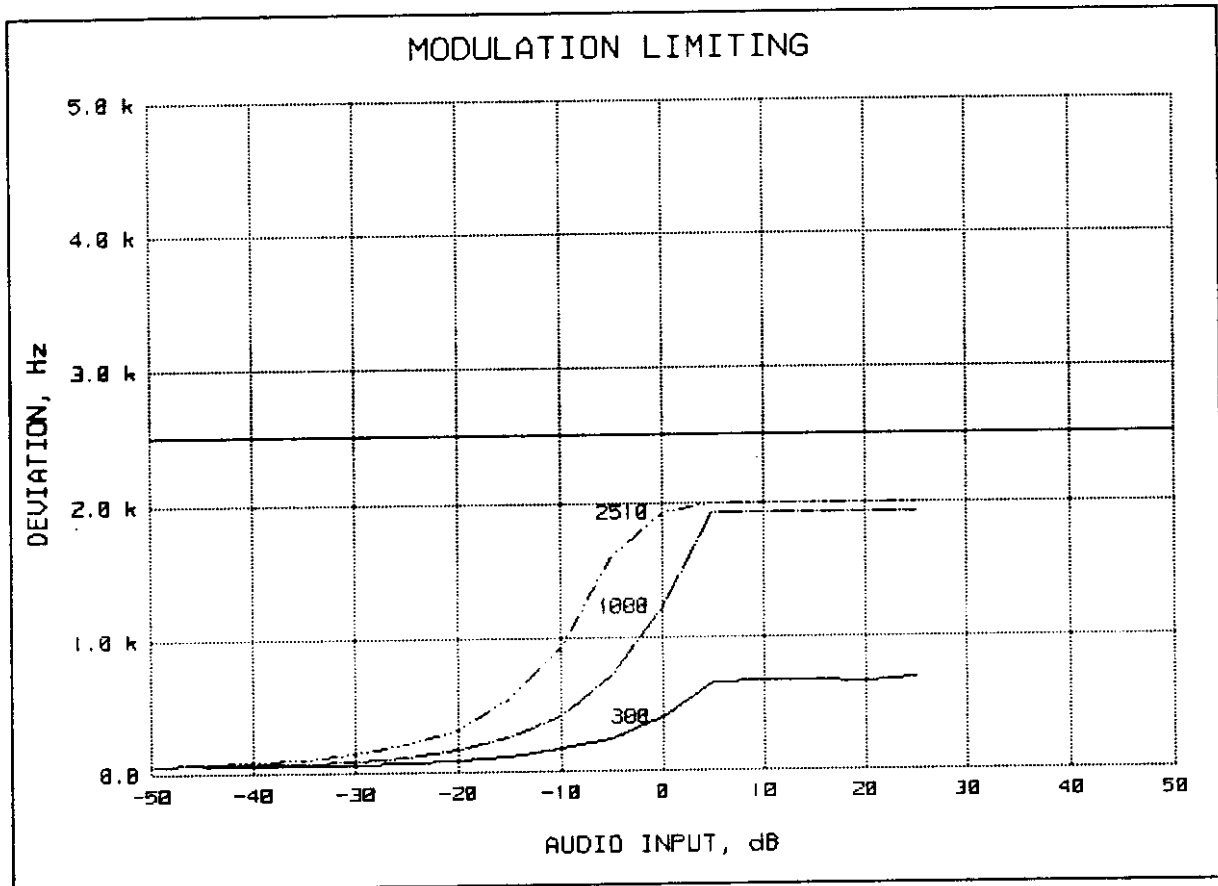
TEST CONDITIONS: S. T. & H.

TEST EQUIPMENT: AS PER PREVIOUS PAGE

MEASUREMENT PROCEDURE

1. The audio signal generator was connected to the audio input circuit/microphone of the E.U.T. as for "Frequency Response of the Audio Modulating Circuit."
2. The modulation response was measured for each of three tones (one of which was the frequency of maximum response), and the input voltage was varied and was observed on an HP 8901A Modulation Analyzer.
3. The audio input level was varied from 30% modulation (± 1.5 kHz deviation) to at least 20 dB higher than the saturation point.
4. Measurements were performed for both negative and positive modulation and the respective results were recorded.
5. MEASUREMENT RESULTS: ATTACHED

PAGE 14.1.
 MODULATION LIMITING
 REGIONET WIRELESS INC, MX 800
 1998-APR-03, 15:33



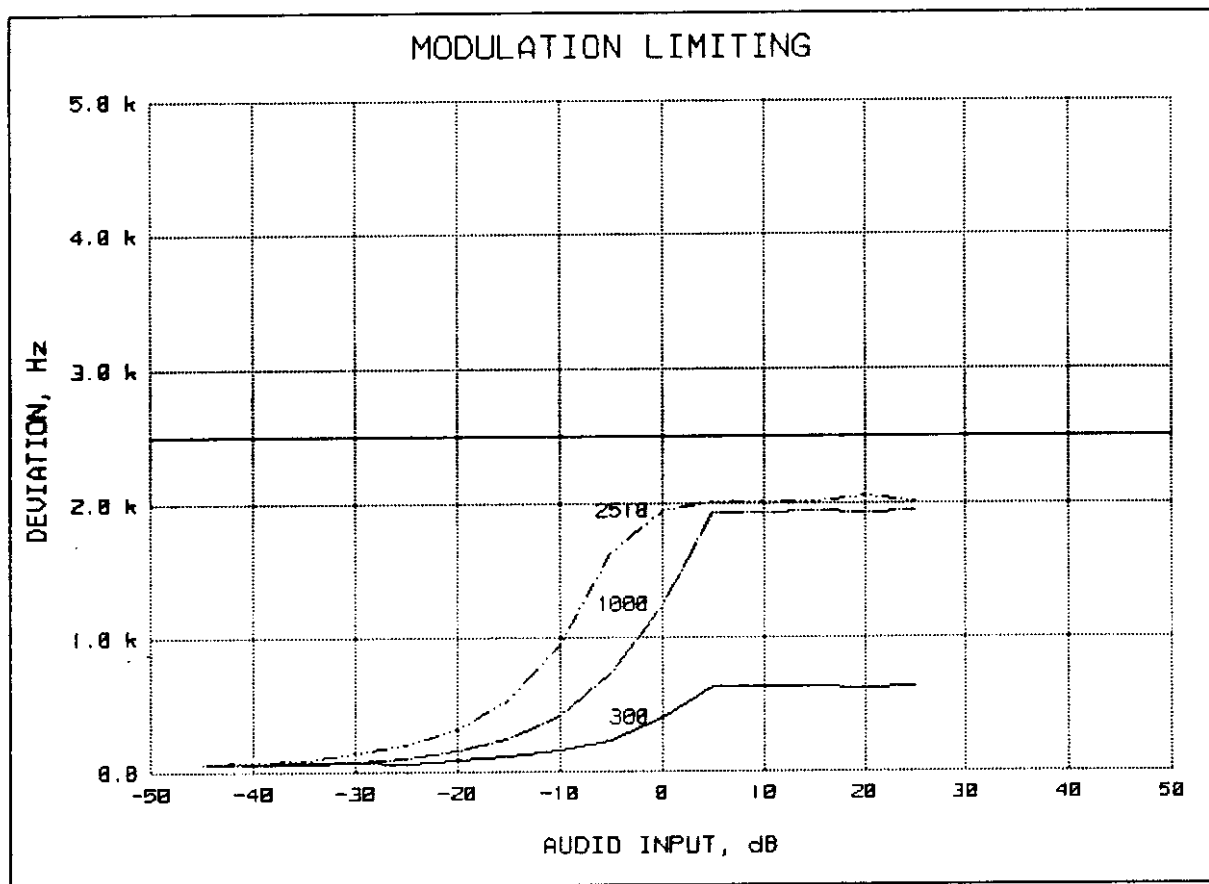
REFERENCE DEVIATION, kHz	= 1.25
REFERENCE MODULATION, Hz	= 1000
PEAKS	= POSITIVE
AUDIO AMPLITUDE, mV	= 304.84

M. F. Eng.

SUPERVISED BY:

MORTON FLOM, P. Eng.

MODULATION LIMITING
 REGIONET WIRELESS INC, MX 800
 1998-APR-03, 15:33



REFERENCE DEVIATION, kHz	= 1.25
REFERENCE MODULATION, Hz	= 1000
PEAKS	= NEGATIVE
AUDIO AMPLITUDE, mV	= 311.94

SUPERVISED BY:

M. F. Eng.

MORTON FLOM, P. Eng.

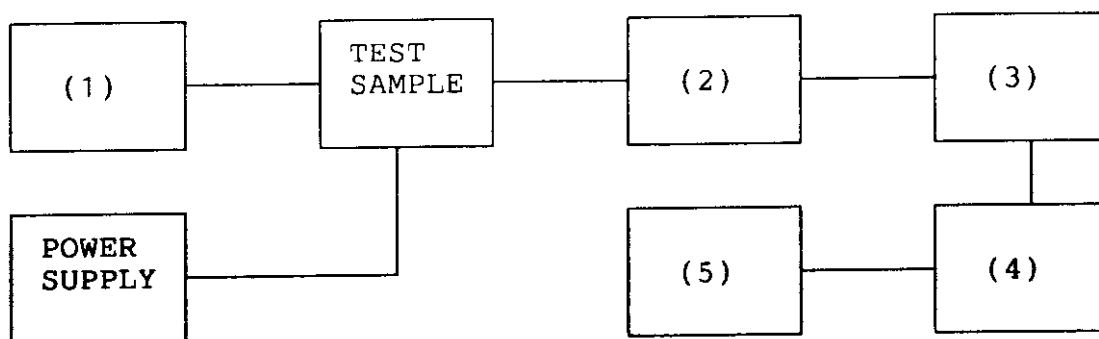
NAME OF TEST: OCCUPIED BANDWIDTH
PARAGRAPH: 47 CFR 2.989 (c)(1), 80.205
GUIDE: TIA/EIA STANDARD 603
TEST CONDITIONS: S. T. & H.
TEST EQUIPMENT: AS PER ATTACHED PAGE

MEASUREMENT PROCEDURE

1. The E.U.T. and test equipment were set up as shown on the following page, with the Spectrum Analyzer connected.
2. The audio signal generator was adjusted to the frequency of maximum response and with output level set for ± 2.5 kHz deviation (or 50% modulation).
3. With level constant, the frequency was set at 2.5 kHz, then the signal level was increased 16 dB.
4. The Occupied Bandwidth was measured with the Spectrum Analyzer controls set as shown on the test results.
5. MEASUREMENT RESULTS: ATTACHED

TRANSMITTER SPURIOUS EMISSION

TEST A. OCCUPIED BANDWIDTH (IN-BAND SPURIOUS)
 TEST B. OUT-OF-BAND SPURIOUS

(1) AUDIO OSCILLATOR/GENERATOR

HP 204D
 HP 8903A
 HP 3312A

 x

(2) COAXIAL ATTENUATOR

NARDA 766-10
 SIERRA 661A-30
 BIRD 8329 (30 dB)

 x
 x

(3) FILTERS; NOTCH, HP, LP, BP

CIRQTEL FHT
 EAGLE TNF-1
 PHELPS DODGE PD-495-8

 x

(4) SPECTRUM ANALYZER

HP 8566B
 HP 8563E

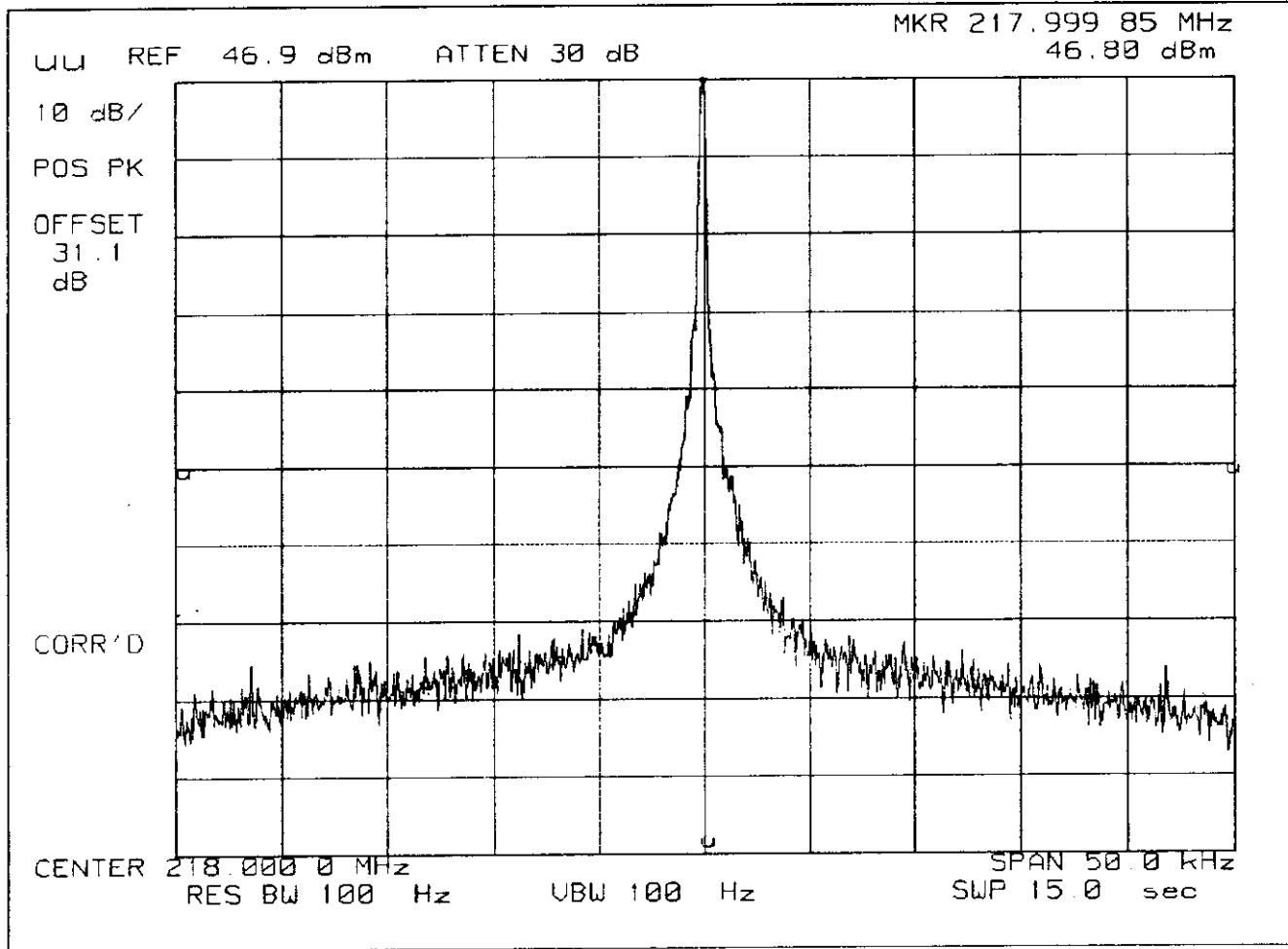
 x

(5) SCOPE

HP 1741A
 HP 181T
 TEK 935

PAGE 17.1.
SPECTRUM ANALYZER PRESENTATION
REGIONET WIRELESS INC, MX 800
1998-APR-03, 15:04, FRI

POWER: HIGH
MODULATION: NONE



PAGE 17.2.

SPECTRUM ANALYZER PRESENTATION

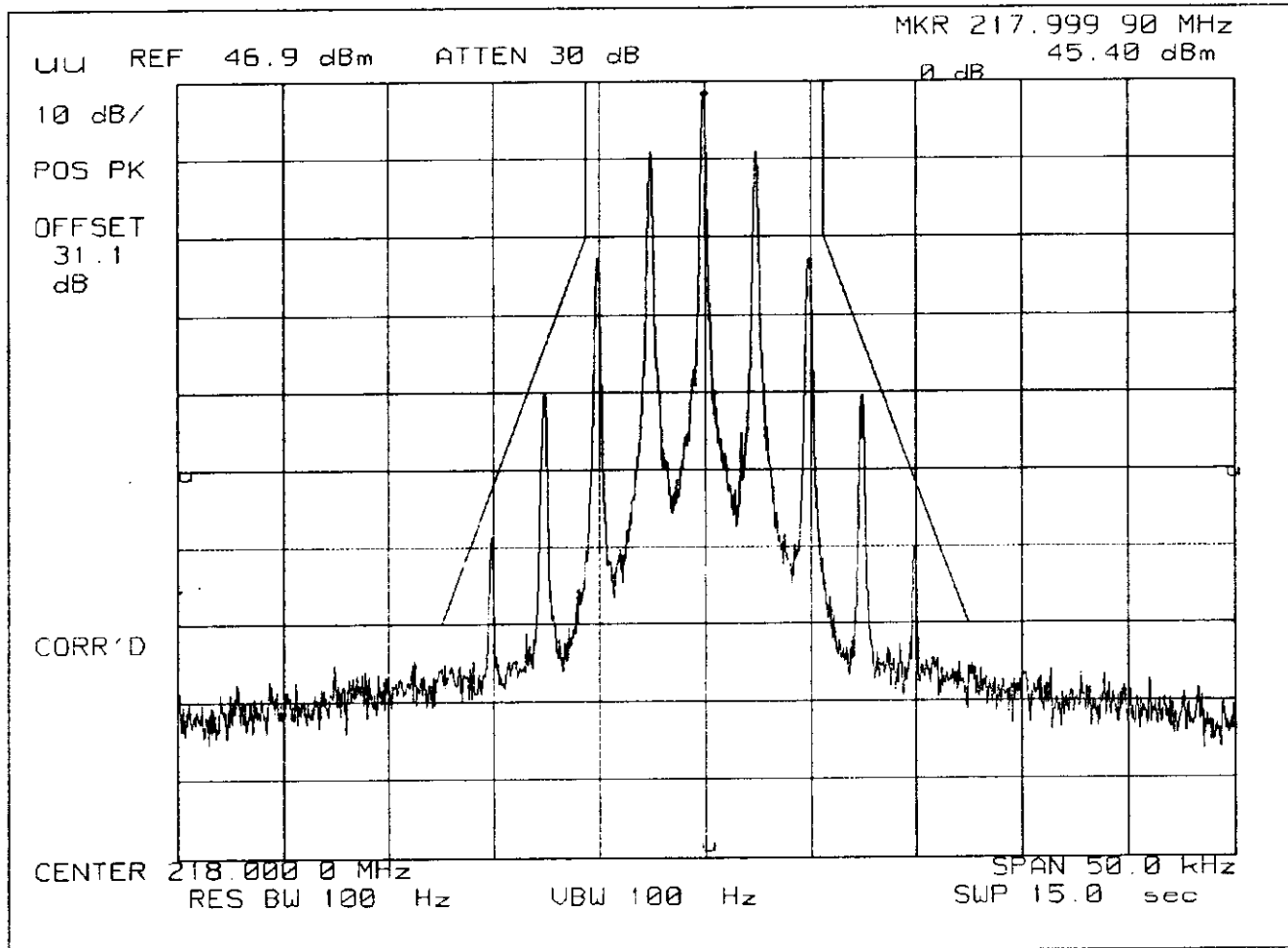
REGIONET WIRELESS INC, MX 800

1998-APR-03, 15:08, FRI

POWER: HIGH

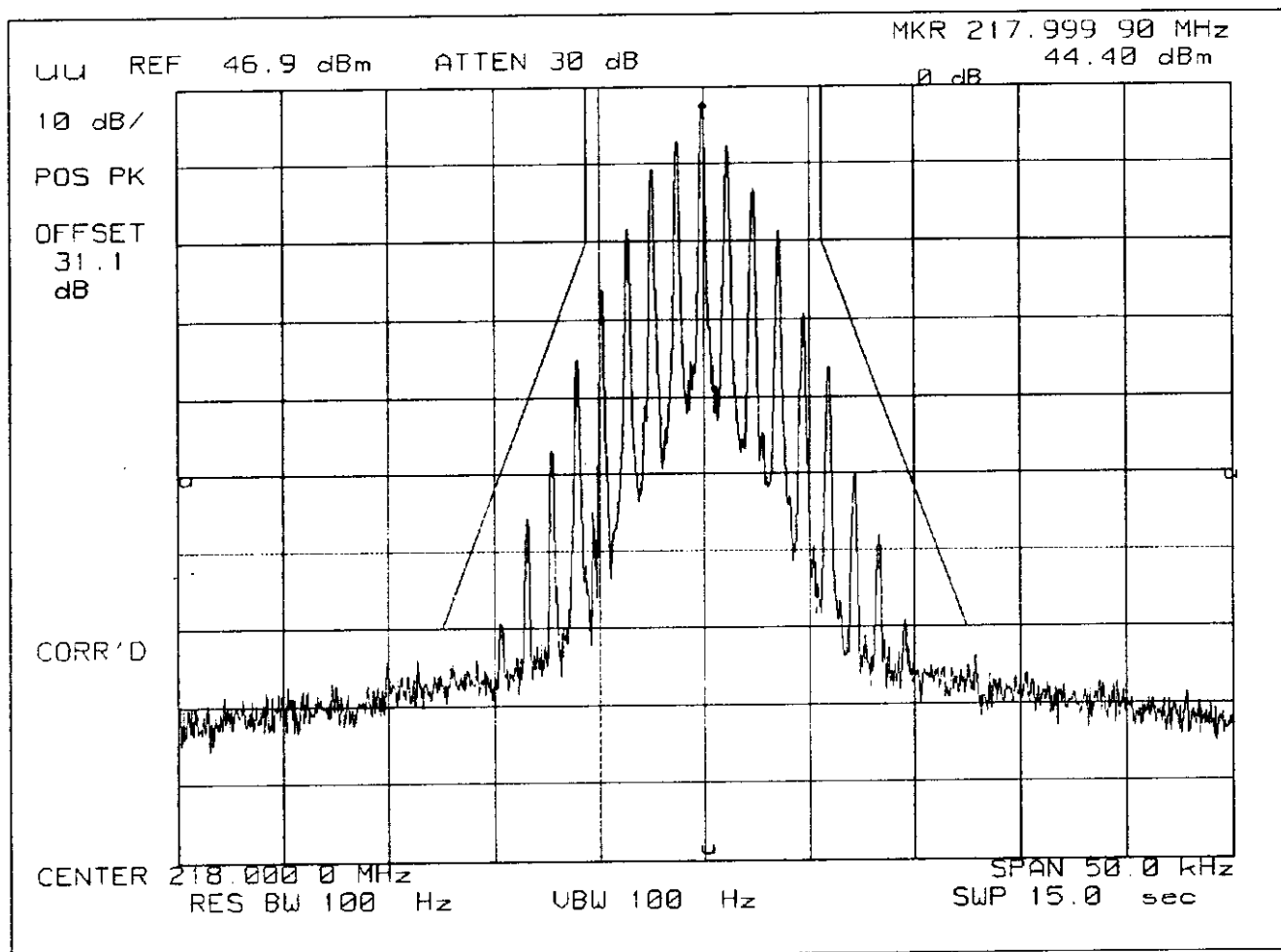
MODULATION: VOICE: 2500 Hz SINE WAVE

MASK: D, VHF/UHF 12.5kHz BW



SPECTRUM ANALYZER PRESENTATION
REGIONET WIRELESS INC, MX 800
1998-APR-07, 13:06, TUE

POWER: HIGH
MODULATION: 1200 HZ + 2200 HZ
MASK: D, VHF/UHF 12.5kHz BW



NAME OF TEST: SPURIOUS EMISSIONS AT ANTENNA TERMINALS
PARAGRAPH: 47 CFR 2.991
GUIDE: TIA/EIA STANDARD 603
TEST CONDITIONS: S. T. & H.
TEST EQUIPMENT: AS PER ATTACHED PAGE

MEASUREMENT PROCEDURE

1. The emissions were measured for the worst case as follows:
 - (a): within a band of frequencies defined by the carrier frequency plus and minus one channel.
 - (b): from the lowest frequency generated in the E.U.T. and to at least the 10th harmonic of the carrier frequency, or 40 GHz, whichever is lower.
2. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.
3. MEASUREMENT RESULTS: ATTACHED

FREQUENCY OF CARRIER, MHz = 218
SPECTRUM SEARCHED, GHz = 0 to $10 \times F_C$
MAXIMUM RESPONSE, Hz = 2510
ALL OTHER EMISSIONS = ≥ 20 dB BELOW LIMIT
LIMIT, dBc: $-(43 + 10 \text{ LOG } P_0) = -60.0$ (50 Watts)

SUPERVISED BY:


MORTON FLOM, P. Eng.

PAGE NO.

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NSTMX800-217

G843001

TRANSMITTER SPURIOUS EMISSIONS (CONDUCTED)

POWER: HIGH

FREQUENCY TUNED, MHz	FREQUENCY EMISSION, MHz	LEVEL, dBm	LEVEL, dBc	LEVEL, μ W
218.000	435.570	-34.0	-80.9	0
218.000	654.007	-26.8	-73.7	2
218.000	871.874	-33.7	-80.6	0
218.000	1089.596	-32.8	-79.7	1
218.000	1308.489	-33.3	-80.2	0
218.000	1525.914	-33.5	-80.4	0
218.000	1744.148	-32.8	-79.7	1
218.000	1962.398	-32.7	-79.6	1
218.000	2179.639	-32.7	-79.6	1
218.000	2398.354	-31.3	-78.2	1
218.000	2615.630	-34.4	-81.3	0
218.000	2833.962	-33.5	-80.4	0
218.000	3051.725	-34.0	-80.9	0
218.000	3270.363	-34.1	-81.0	0

NAME OF TEST: FIELD STRENGTH OF SPURIOUS RADIATION
PARAGRAPH: 47 CFR 2.993 (a)
GUIDE: SEE MEASUREMENT PROCEDURE BELOW
TEST CONDITIONS: S. T. & H.
TEST EQUIPMENT: AS PER ATTACHED PAGE

MEASUREMENT PROCEDURE

1. A description of the measurement facilities was filed with the FCC and was found to be in compliance with the requirements of Section 15.38, by letter from the FCC dated March 3, 1997, FILE 31040/SIT. All pertinent changes will be reported to the Commission by up-date prior to March 2000.
2. At first, in order to locate all spurious frequencies and approximate amplitudes, and to determine proper equipment functioning, the test sample was set up at a distance of three meters from the test instrument. Valid spurious signals were determined by switching the power on and off.
3. In the field, the test sample was placed on a wooden turntable above ground at three (or thirty) meters away from the search antenna. The test sample was connected to an R.F. Wattmeter and a 50 ohm dummy load, and adjusted to its rated output.

In order to obtain the maximum response at each spurious frequency, the turntable was rotated. Also, the Search Antennas were raised and lowered vertically, and all cables were oriented. Excess power lead was coiled near the power supply.
4. A signal generator, connected with a non-radiating cable to a vertically polarized half-wave antenna (for each frequency involved) was substituted for the transmitter. The Search Antenna was raised and lowered to obtain maximum indicated.
5. The signal generator output was adjusted until a signal level indication equal to that from the transmitter was obtained.
6. Steps 4 and 5 were repeated, using a horizontally polarized half-wave antenna. The higher of the two observations was noted.

NAME OF TEST: FIELD STRENGTH OF SPURIOUS RADIATION

PARAGRAPH: 47 CFR 2.993 (a)

MEASUREMENT PROCEDURE (CONT.)

7. Power into the half-wave antenna was calculated from the characteristic impedance of the line, and the voltage output from the signal generator.

8. The level of each spurious radiation with reference to the transmitter power in dB, was calculated from:

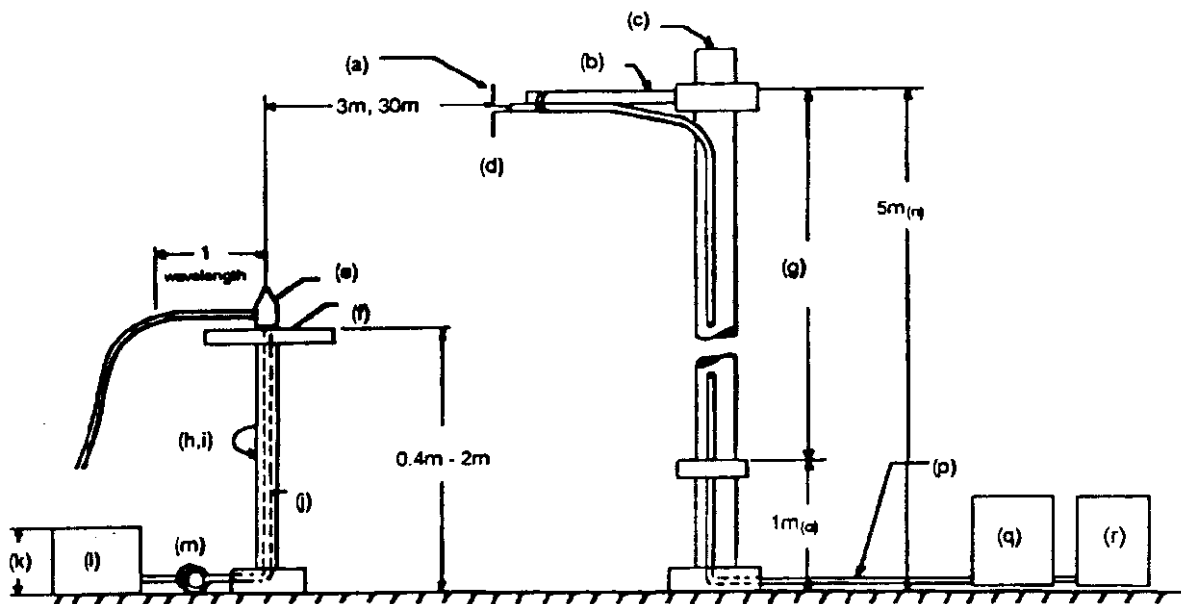
$$\text{SPURIOUS LEVEL, dB} = 10 \text{ LOG } \left(\frac{\text{Calculated Spurious Power}}{\text{Tx Power (Wattmeter)}} \right) \quad \text{[from para. 7].}$$

9. The worst case for all channels is shown.

10. Measurement summary:

FREQUENCY OF CARRIER, MHz	= 218
SPECTRUM SEARCHED, GHz	= 0 to $10 \times F_C$
ALL OTHER EMISSIONS	= ≥ 20 dB BELOW LIMIT
LIMIT, dBc	= -60 (50 Watts)

10. Measurement results: ATTACHED

RADIATED TEST SETUP

NOTES:

- (a) Search Antenna - Rotatable on boom.
- (b) Non-metallic boom.
- (c) Non-metallic mast.
- (d) Adjustable horizontally.
- (e) Equipment Under Test.
- (f) Turntable.
- (g) Boom adjustable in height.
- (h) External control cables routed horizontally at least one wavelength.
- (i) Rotatable.
- (j) Cables routed through hollow turntable center.
- (k) 30 cm or less.
- (l) External power source.
- (m) 10 cm diameter coil of excess cable.
- (n) 25 cm (V), 1 m-7 m (V, H).
- (o) 25 cm from bottom end of 'V', 1 m normally.
- (p) Calibrated Cable at least 10 m in length.
- (q) Amplifier (optional).
- (r) Spectrum Analyzer.

TRANSMITTER SPURIOUS EMISSIONS (RADIATED FIELD STRENGTH)

ALL OTHER EMISSIONS = $\geq$ 20 dB BELOW LIMIT

EMISSION,
MHz/HARMONIC

SPURIOUS LEVEL BELOW
CARRIER, dBc Hi

2nd to 10th

<-70

SUPERVISED BY:


MORTON FLOM, P. Eng.

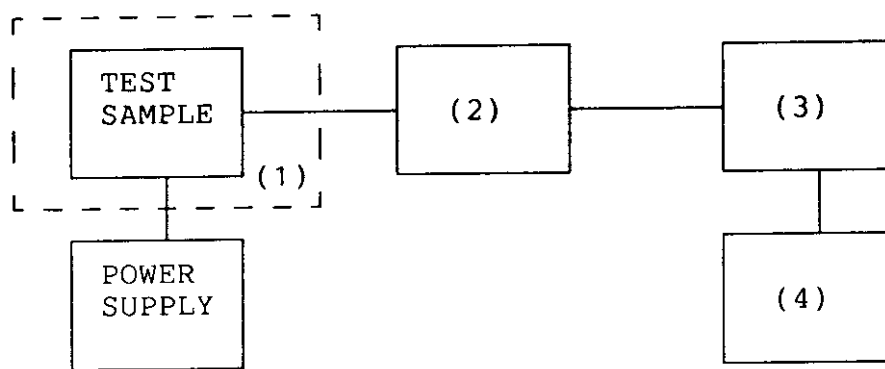
NAME OF TEST: FREQUENCY STABILITY - TEMPERATURE VARIATION
PARAGRAPH: 47 CFR 2.995 (a)(1), 80.209
GUIDE: TIA/EIA STANDARD 603
TEST CONDITIONS: AS INDICATED
TEST EQUIPMENT: AS PER ATTACHED PAGE

MEASUREMENT PROCEDURE

1. The E.U.T. and test equipment were set up as shown on the following page.
2. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was noted within one minute.
3. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The temperature tests were performed for the worst case.
5. MEASUREMENT RESULTS: ATTACHED

TRANSMITTER TEST SET-UP

TEST A. OPERATIONAL STABILITY
 TEST B. CARRIER FREQUENCY STABILITY
 TEST C. OPERATIONAL PERFORMANCE STABILITY
 TEST D. HUMIDITY
 TEST E. VIBRATION
 TEST F. ENVIRONMENTAL TEMPERATURE
 TEST G. FREQUENCY STABILITY: TEMPERATURE VARIATION
 TEST H. FREQUENCY STABILITY: VOLTAGE VARIATION

(1) TEMPERATURE, HUMIDITY, VIBRATION

TENNEY TEMPERATURE CHAMBER	<u> x </u>
WEBER HUMIDITY CHAMBER	<u> </u>
L.A.B. RVH 18-100	<u> </u>

(2) COAXIAL ATTENUATOR

NARDA 766-10	<u> </u>
SIERRA 661A-30	<u> x </u>
BIRD 8329 (30 dB)	<u> x </u>

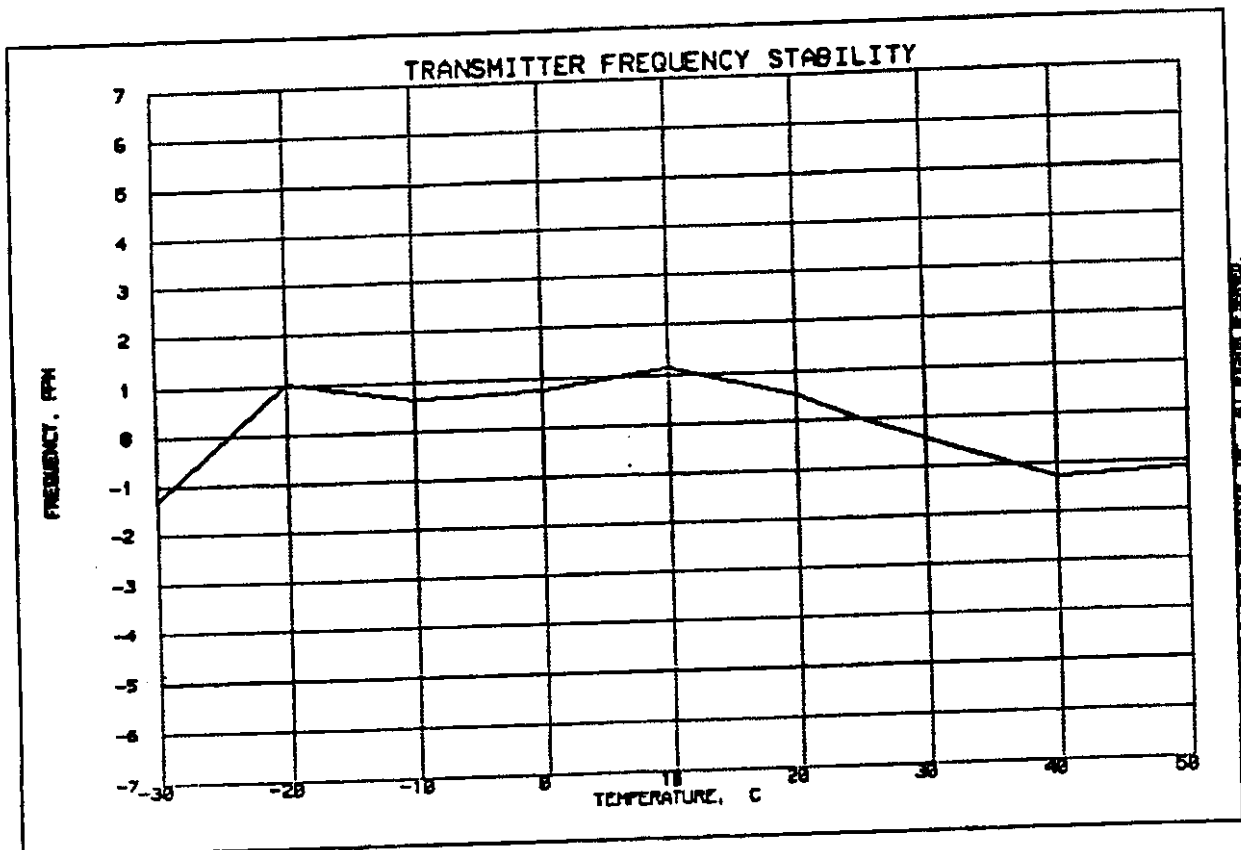
(3) R.F. POWER

HP 435A POWER METER	<u> </u>
HP 436A POWER METER	<u> x </u>
HP 8901A POWER MODE	<u> x </u>

(4) FREQUENCY COUNTER

HP 5383A	<u> </u>
HP 5334B	<u> x </u>
HP 8901A	<u> x </u>

TRANSMITTER FREQUENCY STABILITY
regionet Wireless, Inc., MX800



FREQUENCY OF CARRIER, MHz = 218

LIMIT, ppm = 5

LIMIT, Hz = 1090

SUPERVISED BY:

Morton Flom P. Eng.
MORTON FLOM, P. Eng.

NAME OF TEST: FREQUENCY STABILITY - VOLTAGE VARIATION
PARAGRAPH: 47 CFR 2.995 (b)(1)
GUIDE: SEE MEASUREMENT PROCEDURE BELOW
TEST CONDITIONS: AS SHOWN
TEST EQUIPMENT: AS PER PREVIOUS PAGE

MEASUREMENT PROCEDURE

1. The E.U.T. was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected as for "Frequency Stability - Temperature Variation" test.
2. The power supply voltage to the E.U.T. was varied from 85% to 115% of the nominal value measured at the input to the E.U.T.
3. The variation in frequency was measured for the worst case.

MEASUREMENT RESULTS

LIMIT, ppm = 5
 LIMIT, Hz = 1090

STV, %	Vdc	<u>CHANGE IN FREQUENCY, Hz</u>	
85	11.7	218000000	0
100	13.8	218000000	0
115	15.9	218000000	0
BATTERY END POINT:	11.9	218000000	0

SUPERVISED BY:


 MORTON FLOM, P. Eng.

§ 15.205 Restricted Bands of operation.

NSTMX800-217

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.25
0.495-0.505 ¹	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2655-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

TESTIMONIAL
AND
STATEMENT OF CERTIFICATION

NSTMX800-217

THIS IS TO CERTIFY:

1. THAT the application was prepared either by, or under the direct supervision of, the undersigned.
2. THAT the technical data supplied with the application was taken under my direction and supervision.
3. THAT the data was obtained on representative units, randomly selected.
4. THAT, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.

CERTIFYING ENGINEER:


MORTON FLOM, P. Eng.

STATEMENT OF QUALIFICATIONS

EDUCATION:

1. B. ENG. in ENGINEERING PHYSICS, 1949, McGill University, Montreal, Canada.
2. Post Graduate Studies, McGill University & Sir George Williams University, Montreal.

PROFESSIONAL AFFILIATIONS:

1. ARIZONA SOCIETY OF PROFESSIONAL ENGINEERS (NSPE), #026 031 821.
2. ORDER OF ENGINEERS (QUEBEC) 1949. #4534.
3. ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOPHYSICISTS & GEOLOGISTS OF ALBERTA #5916.
4. REGISTERED ENGINEERING CONSULTANT - GOVERNMENT OF CANADA, DEPARTMENT OF COMMUNICATIONS. Radio Equipment Approvals.
5. IEEE, Lifetime Member No. 0417204 (member since 1947).

EXPERIENCE:

1. Research/Development/Senior Project Engineer, R.C.A. LIMITED (4 years).
2. Owner/Chief Engineer of Electronics. Design/Manufacturing & Cable TV Companies (10 years).
3. CONSULTING ENGINEER (over 25 years).


MORTON FLOM, P. Eng.

TEST INSTRUMENTATION LIST

All equipment calibrated
within last 90 days

ADAPTER

HP X281 (Coaxial
waveguide); HP S281; HP
85659 (Quasi peak)

AMPLIFIER

Pre-amp. HP 10885A (2-1300
MHz); HP 8447D, HP 8447E,
HP 8449A

ANTENNA See end

ATTENUATOR

Kay 432D; Power, Sierra
661A-30; Narda 76610; Narda
4779-3, -6, -10 dB

AUDIO OSCILLATOR

HP 204D; AIEC DTC-1;
Motorola S-1333B; HP 3312A;
HP 8903A

BATTERY

Sears Diehard, Stock #4341

CAMERA

Oscilloscope, Tektronix
C5A; Polaroid Impulse AF;
Kodak DC-50

CAPACITOR

Feed-Thru, 10 μ F, Solar
6512-106R; Solar 7525-1

CLOSE FIELD PROBE

HP 11940A, 11941A, HP
11945A

COMPUTER

HP 332; HP Vectra 486/25VL;
Various PC Compatibles

CONVERTOR, Down

HP 117 10B

COUPLER

Narda 1080, Waveguide; HP
S750E (Cross guide);
Waveline 274/40; Solar
7415-3; Solar 7835-891 &
-896

CURRENT PROBE

Solar 6741-1

DETECTOR

HP 8470B

DIGITAL MULTIMETER

HP 3476A w/H.F. Probe;
Fluke 8030A-01; HP 3478A

DISTORTION ANALYZER

HP 334A; HP 8903A

ELECTRONIC COUNTER

HP 5383A; HP 5334B

FILTER

Cirqtel FHT/7-50-57/
50-1A/1B (HP); Jerrold
TLB-1; THB-1, Piezo 5064;
Eagle TNF-I Series,
Krohn-Hite 3202;
Phelps-Dodge #PD-495-8;
Newtone #PD6000 Line
Protector; 870-890 MHz (Lab
Design); 900 MHz (Lab
Design); Solar High-Pass
s/n 882029

FREQ. DEV. METER

HP 8901A

FREQ. DOUBLER

HP 11721A

FREQUENCY METER

HP 537A; HP 536A

GENERATOR

Solar 6550-1 (power sweep);
HP 8640B, GAW 1012, HP
8656A (signal); Solar
8282-1 (spike)

HUMIDITY CHAMBER

Ember Co FW30; Bowser 0

LIMITER, R.F.

HP 11867A; HP 11693A;
HP 10509A

LISN

Singer 91221-1; Ailtech
94641-1 (50 μ H)

LOAD, POWER

Telewave TLW-25; Bird 8329

MILLIAMETER

HP 428B

MIXER

HP 10514A; Mini-Circuits
TAK-1H

OPEN FIELD SITE

As filed with FCC & IC and
kept up-dated.

TURNABLES:

Up to 2000# capacity

GROUND SCREEN:

Complies with docket 80-284

ANTENNA MAST:

Complies as above

OSCILLOSCOPE

HP 1741A; HP 181T;
Tektronix T935; HP 54502A

PHANTOM

M.F.A. Labs Left and Right
human head

PLOTTER

HP 7470; HP7475A

POWER METER

AF GR 1840A; HP 435A with
8481A & 8482H Power
Sensors; HP 436A; HP 8901A

POWER SUPPLY

HP 6286A; Heathkit 1P 2711;
1P 5220; Honda EM400
(portable gas gen.); HP
6012

PRINTER

Brother HL-8; Brother
HL-10V; HP DeskJet 640C

R. F. PRESELECTOR

HP 85685A

RADIATION METER

Narda 8717 w/8010 Amp,
8021B and 8760 probes

RESISTOR, PRECISION

Solar 7144-1.0, 7144-10.0;
Solar 8525-1

SCALE

Weigh-Tronix 3632T-50

SCANNER

HP 9190A Scanjet

SCREEN ROOM

Lindgren 22-2/2-0

SIGNAL LEVEL METER

Jerrold 704B

SIGNAL SAMPLER

R. F. Bird 4273-030,
4275-030

SINAD/VOLTMETER

Helper Sinadder

SPECTRUM ANALYZER

HP 8558B, 8557; HP 8563E;
HP 853A; HP 8566B/8568B

TEMPERATURE CHAMBER

Tenney, Jr

TEMPERATURE PROBE

Fluke 80T-150C

TERMINATION

Narda 320B Waveguide.
Waveline #281

TEST SET

Semi-Automatic; HP 8953A;
HP 8954A Interface;
Computer / Controller; P.S.
Programmer; HP 59501A; RF
Communications; HP 8920A

TRANSFORMERS

Audio Isolation; Solar
6220-1A; Impedance; HP
11694A; Isolation; Solar
7032-1; Matching; Solar
7033-1

TRANSMISSION & NOISE

MEASURING SET

HP 3555B

VIBRATION CHAMBER

Unholtz-Dickie T 500;
Unholtz-Dickie T 4000

VOLTMETER

HP 410C; HP 3478A

WATTMETER

Bird 43, Sierra 174A-2

ANTENNAS

30 - 50 Hz
Emco 7603 M-Field; Emco
7604 M-Field

20 - 200 MHz

Apriel Biconical Model
AAB20200

20 - 300 MHz

Emco Biconical H-Field

25 - 1000 MHz

Singer DM-105A; EMCO 3121C

200 - 1000 MHz

Apriel Log Periodic, Model

AALP 2001

10 kHz - 30 MHz

Emco 3107B, E-Field; Emco

3101B/1, Rod E-Field

10 kHz - 32 MHz

Singer 94593-1 (Loop)

150 kHz - 32 MHz

Singer 92197-1 (41")

150 kHz - 32 MHz

Singer 93049-1 (9')

1 - 10 GHz

Singer 90794-A Discone

1 - 18 GHz

Horn: Apriel Model AAH-118

18 - 40 GHz

Emco 3116, Horn

40 - 60 GHz

Horn: HP 11970U, HP 11971U,

HP 11975A (Lo Drive

Amplifier)

50 - 75 GHz

Mixer, HP 11970V, HP 11971V

75 - 110 GHz

Mixer, HP 11970W