

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e., shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

15.27(a) SPECIAL ACCESSORIES.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.21 INFORMATION TO USER.

THE APPLICANT HAS BEEN CAUTIONED AS TO THE FOLLOWING:

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Required information per ISO/IEC Guide 25-1990, paragraph 13.2:

TEST REPORT

a) Laboratory: M. Flom Associates, Inc.
3356 N. San Marcos Place, Suite 107
Chandler, AZ 85224
b) Report Number: d98b0068

c) Client: Fleet Management Services, Inc.
115 S Weber, Suite 2
Chandler, AZ 85226

e) Identification: 08-0100-0100
FCC ID: OAI 08-0100-0100
Description: Mobile Data Collection Device
f) EUT Condition: Not required unless specified in individual tests.
g) Report Date: November 23, 1998
EUT Received: November 2, 1998

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.
l) Uncertainty: In accordance with MFA internal quality manual.

Morton Flom, P. Eng.



n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

LIST OF GENERAL INFORMATION REQUIRED FOR CERTIFICATION

IN ACCORDANCE WITH FCC RULES AND REGULATIONS,
VOLUME II, PART 2 AND TO

90.203, 90.214

Sub-part 2.1033
(c) (1) : NAME AND ADDRESS OF APPLICANT:

Fleet Management Services, Inc.
115 S Weber, Suite 2
Chandler, AZ 85226

VENDOR:

Applicant

(c) (2) : FCC ID: OAI 08-0100-0100

MODEL NO: 08-0100-0100

(c) (3) : INSTRUCTION MANUAL(S) :
PLEASE SEE ATTACHED EXHIBITS

(c) (4) : TYPE OF EMISSION: 11K0F1D, 6K25F1D

(c) (5) : FREQUENCY RANGE, MHz: 450 to 470

(c) (6) : POWER RATING, Watts: Variable 2 x N/A

(c) (7) : MAXIMUM POWER RATING, Watts: 300

Subpart 2.1033 (continued)
 (c) (8) : VOLTAGES & CURRENTS IN ALL ELEMENTS IN FINAL R. F. STAGE,
 INCLUDING FINAL TRANSISTOR OR SOLID STATE DEVICE:

COLLECTOR CURRENT, A = per manual
 COLLECTOR VOLTAGE, Vdc = per manual
 SUPPLY VOLTAGE, Vdc = 10 - 28

(c) (9) : TUNE-UP PROCEDURE:

PLEASE SEE ATTACHED EXHIBITS

(c) (10) : CIRCUIT DIAGRAM/CIRCUIT DESCRIPTION:
 including description of circuitry & devices provided for
 determining and stabilizing frequency, for suppression of
 spurious radiation, for limiting modulation and limiting
 power.

PLEASE SEE ATTACHED EXHIBITS

(c) (11) : LABEL INFORMATION:

PLEASE SEE ATTACHED EXHIBITS

(c) (12) : PHOTOGRAPHS:

PLEASE SEE ATTACHED EXHIBITS

(c) (13) : DIGITAL MODULATION DESCRIPTION:

ATTACHED EXHIBITS
 X
 N/A

(c) (14) : TEST AND MEASUREMENT DATA:

FOLLOWS

TEST AND MEASUREMENT DATA

Sub-part 2.1033(c) (14):

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II, Part 2, Sub-part J, Sections 2.947, 2.1033(c), 2.1041, 2.1046, 2.1047, 2.1079, 2.1051, 2.1053, 2.1055, 2.1057 and the following individual Parts:

- 21 - Domestic Public Fixed Radio Services
- 22 - Public Mobile Services
- 22 Subpart H - Cellular Radiotelephone Service
- 22.901(d) - Alternative technologies and auxiliary services
- 23 - International Fixed Public Radiocommunication services
- 24 - Personal Communications Services
- 74 Subpart H - Low Power Auxiliary Stations
- 80 - Stations in the Maritime Services
- 80 Subpart E - General Technical Standards
- 80 Subpart F - Equipment Authorization for Compulsory Ships
- 80 Subpart K - Private Coast Stations and Marine Utility Stations
- 80 Subpart S - Compulsory Radiotelephone Installations for Small Passenger Boats
- 80 Subpart T - Radiotelephone Installation Required for Vessels on the Great Lakes
- 80 Subpart U - Radiotelephone Installations Required by the Bridge-to-Bridge Act
- 80 Subpart V - Emergency Position Indicating Radiobeacons (EPIRB'S)
- 80 Subpart W - Global Maritime Distress and Safety System (GMDSS)
- 80 Subpart X - Voluntary Radio Installations
- 87 - Aviation Services
- 90 - Private Land Mobile Radio Services x
- 94 - Private Operational-Fixed Microwave Service
- 95 Subpart A - General Mobile Radio Service (GMRS)
- 95 Subpart C - Radio Control (R/C) Radio Service
- 95 Subpart D - Citizens Band (CB) Radio Service
- 95 Subpart E - Family Radio Service
- 95 Subpart F - Interactive Video and Data Service (IVDS)
- 101 - Fixed Microwave Services

STANDARD TEST CONDITIONS
and
ENGINEERING PRACTICES

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

In accordance with ANSI C63.4-1992, section 6.1.9, and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Prior to testing, the EUT 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.

SUPERVISED BY:

Morton Flom, P. Eng.



POWER SETTING	High
R. F. POWER, WATTS	2

FREQUENCY OF CARRIER, MHZ = 467.1875

MEASUREMENT RESULTS
(Worst case)

2. Measurement accuracy is $\pm 3\%$.

1. The EUT 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.

MEASUREMENT PROCEDURE

TEST EQUIPMENT:

As per attached page

GUIDE:

ANSI/TIA/EIA-603-1992, Paragraph 2.2.1

SPECIFICATION:

47 CFR 2.1046(a)

NAME OF TEST:

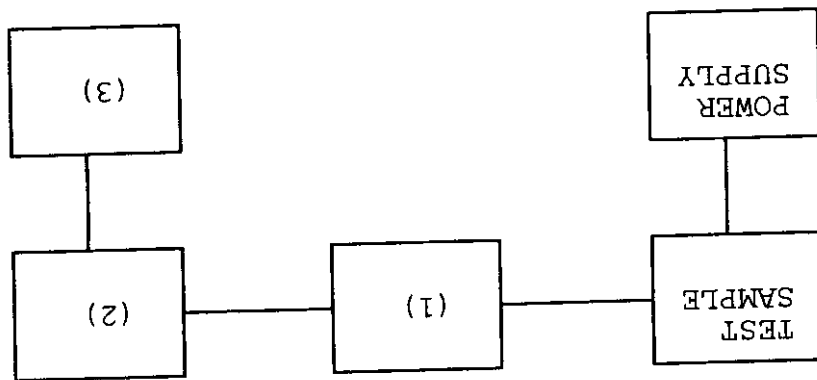
Carrier Output Power (Conducted)

PAGE NO.

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TRANSMITTER POWER CONDUCTED MEASUREMENTS

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



Asset Description s/n

(1)	COAXIAL ATTENUATOR	100122 Narda 766-10	7802
		100123 Narda 766-10	7802A
		100069 Bird 8329 (30 dB)	1006
		100113 Sierra 661A-3D	1059

(2)	POWER METERS	100014 HP 435A	1733A05836
		100039 HP 436A	2709A26776
		100020 HP 8901A POWER MODE	2105A01087

(3)	FREQUENCY COUNTER	100042 HP 5383A	1628A00959
		100019 HP 5334B	2704A00347
		100020 HP 8901A FREQUENCY MODE	2105A01087

Unwanted Emissions (Transmitter Conducted)

47 CFR 2.1051

ANSI/TIA/EIA-603-1992, Paragraph 2.2.13

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 EUT and to at least the 10th harmonic of the carrier frequency, or 40 GHz, whichever is lower.

2. The magnitude of spurious emissions that are attenuated more than 20 dB below the permissible value need not be specified.

3. MEASUREMENT RESULTS: ATTACHED FOR WORST CASE

FREQUENCY OF CARRIER, MHZ = 467.1875
SPECTRUM SEARCHED, GHZ = 0 to 10 x Fc
MAXIMUM RESPONSE, HZ = N/A
ALL OTHER EMISSIONS = ≥ 20 DB BELOW LIMIT
LIMIT(S), dBc = -(43+10xLOG P) = -46 (2 Watts)

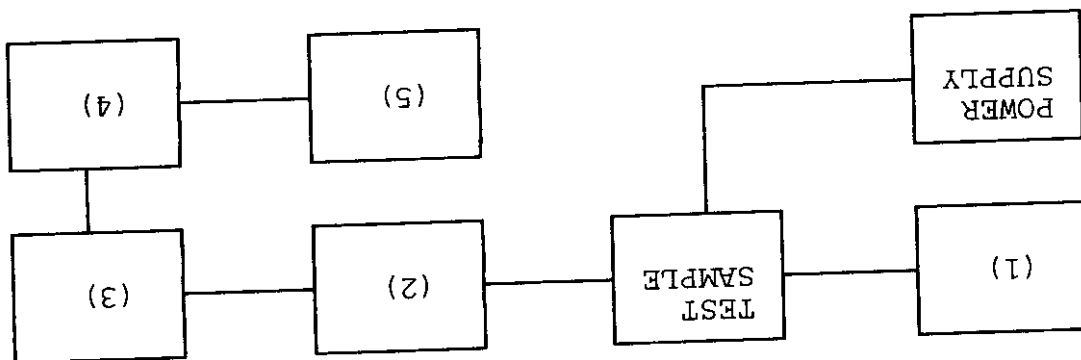
Morton Flom, P. Eng.

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SUPERVISED BY:

TRANSMITTER SPURIOUS EMISSION

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



Asset Description s/n

(1) AUDIO OSCILLATOR/GENERATOR

100010 HP 204D	1105A04683
100017 HP 8903A	2216A01753
100012 HP 3312A	1432A11250

(2) COAXIAL ATTENUATOR

100122 Narda 766-10	7802
100123 Narda 766-10	7802A
100069 Bird 8329 (30 dB)	1006
100113 Sierra 661A-3D	1059

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

100126 Eagle TNF-1	100-250
100125 Eagle TNF-1	50-60
100124 Eagle TNF-1	250-850

(4) SPECTRUM ANALYZER

100048 HP 8566B	2511A01467
100029 HP 8563E	3213A00104

(5) SCOPE

100058 HP 1741A	2251A09356
100030 HP 54502A	2927A00209
100071 Tektronix 935	1935-B011343

NAME OF TEST: Unwanted Emissions (Transmitter Conducted)
 998b0005: 1998-Nov-02 Mon 13:17:00
 STATE: 2: High Power

FREQUENCY TUNED, MHZ	FREQUENCY LEVEL, dbm	LEVEL, dbc	MARGIN, db
467.187500	420.160000	-26.5	-13.5
467.187500	934.376000	-28.4	-15.4
467.187500	1401.564000	-27.1	-14.1
467.187500	1868.741000	-37.8	-24.8
467.187500	2336.049000	-41.6	-28.6
467.187500	2802.835000	-43.5	-30.5
467.187500	3270.784000	-43.7	-30.7
467.187500	3737.720000	-44.6	-31.6
467.187500	4204.841000	-44.1	-31.1
467.187500	4671.450000	-44.6	-31.6
467.187500	5139.401000	-43.2	-30.2
467.187500	5606.108500	-44.4	-31.4
467.187500	6072.990700	-38.1	-25.1
467.187500	6541.030800	-38.2	-25.2
467.187500	7007.514600	-38.6	-25.6
467.187500	420.160000	-26.5	-13.5
467.187500	934.376000	-28.4	-15.4
467.187500	1401.564000	-27.1	-14.1
467.187500	1868.741000	-37.8	-24.8
467.187500	2336.049000	-41.6	-28.6
467.187500	2802.835000	-43.5	-30.5
467.187500	3270.784000	-43.7	-30.7
467.187500	3737.720000	-44.6	-31.6
467.187500	4204.841000	-44.1	-31.1
467.187500	4671.450000	-44.6	-31.6
467.187500	5139.401000	-43.2	-30.2
467.187500	5606.108500	-44.4	-31.4
467.187500	6072.990700	-38.1	-25.1
467.187500	6541.030800	-38.2	-25.2
467.187500	7007.514600	-38.6	-25.6

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Field Strength of Spurious Radiation

47 CFR 2.1053(a)

ANSI/TIA/EIA-603-1992, Paragraph 2.2.12

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. Excess power leads were coiled near the power supply.

The cables were oriented in order to obtain the maximum response. At each emission frequency, the turntable was rotated and the search antennas were raised and lowered vertically.

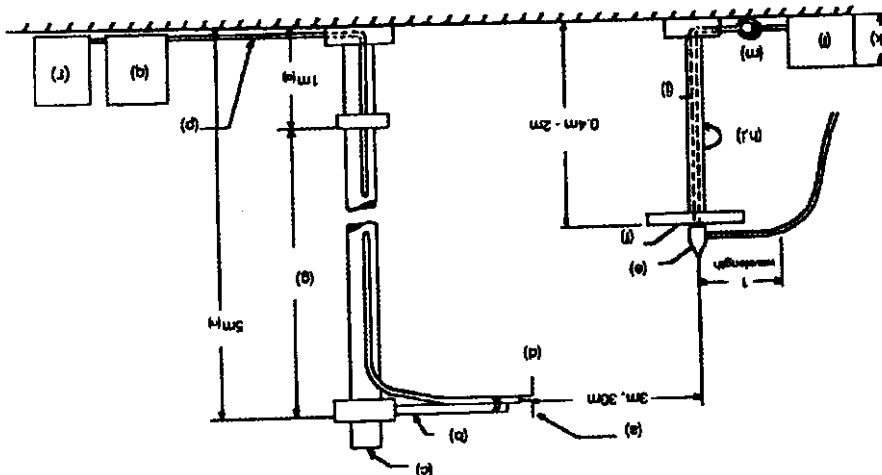
4. The emission was observed with both a vertically polarized and a horizontally polarized search antenna and the worst case was used.

6. The field strength of each emission within 20 dB of the limit was recorded and corrected with the appropriate cable and transducer factors.

7. The worst case for all channels is shown.

8. Measurement results: ATTACHED FOR WORST CASE

RADIATED TEST SETUP



NOTES:

- 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 10m in length
- (q) Amplifier (optional)
- (r) Spectrum Analyzer

Asset	Description	s/n	Cycle	Last cal

Page AMSI CSJ-4-1992, 10-1-4

TRANSDUCER	100065	EMCO 3109B 100HZ-50MHZ	2336	12 mo.
	100033	Singer 94593-1 10kHz-32MHZ	0219	12 mo.
x	100088	EMCO 3109-B 25MHZ-300MHZ	2336	12 mo.
x	100089	Apriel 2001 200MHZ-1GHZ	001500	12 mo.
x	100103	EMCO 3115 1GHZ-18GHZ	9208-3925	12 mo.
	100085	EMCO 3116 10GHZ-40GHZ	2076	12 mo.
AMPLIFIER	100028	HP 8449A	2749A00121	12 mo.
				Mar-98
SPECTRUM ANALYZER	100029	HP 8563E	3213A00104	12 mo.
	100033	HP 85462A	3625A00357	12 mo.
x	100048	HP 8566B	2511AD1467	6 mo.
				Mar-98

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2nd to 10th

EMISSION, MHZ/HARMONIC
SPURIOUS LEVEL, dbc
High
<-55

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

NAME OF TEST: Field Strength of Spurious Radiation

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Emission Masks (Occupied Bandwidth)

47 CFR 2.1049(c) (1)

ANSI/TIA/EIA-603-1992, Paragraph 2.2.11

As per previous page

MEASUREMENT PROCEDURE

1. The EUT and test equipment were set up as shown on the following page, with the Spectrum Analyzer connected.

2. For EUTs supporting audio modulation, 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). With level constant, the signal level was increased 16 dB.

3. For EUTs supporting digital modulation, the digital modulation mode was operated to its maximum extent.

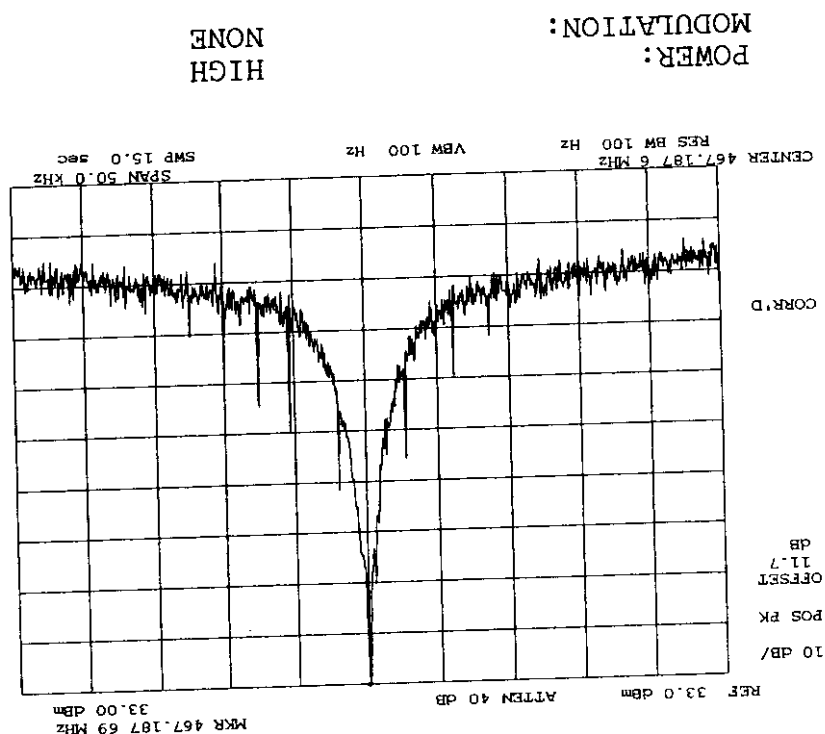
4. The Occupied Bandwidth was measured with the Spectrum Analyzer controls set as shown on the test results.

5. MEASUREMENT RESULTS: ATTACHED

SUPERVISED BY:

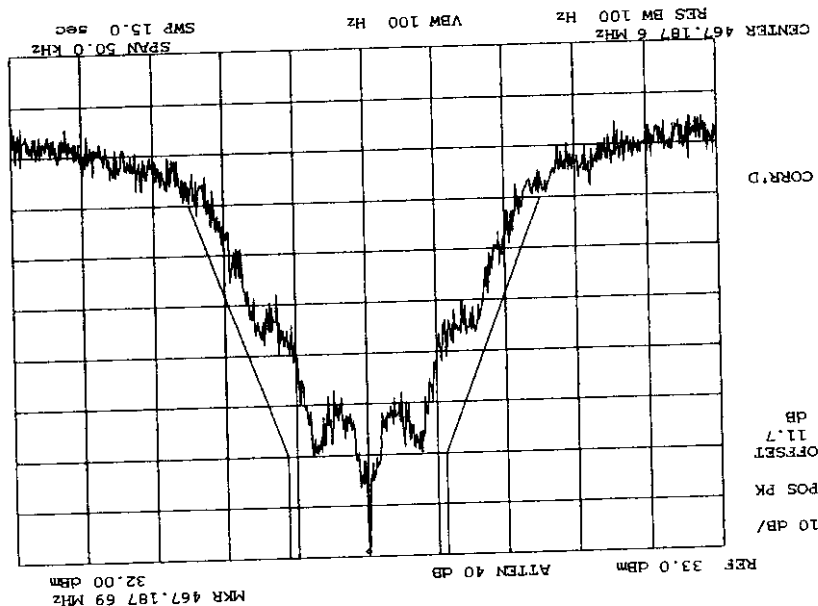
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PAGE NO. 15 of 26.
NAME OF TEST: Emission Masks (Occupied Bandwidth)
STATE: 2: High Power
g98b0001: 1998-Nov-02 Mon 10:28:00

NAME OF TEST: Emission Masks (Occupied Bandwidth)
STATE: 2:High Power
g98b0002: 1998-Nov-02 Mon 10:43:00



POWER:
MODULATION:

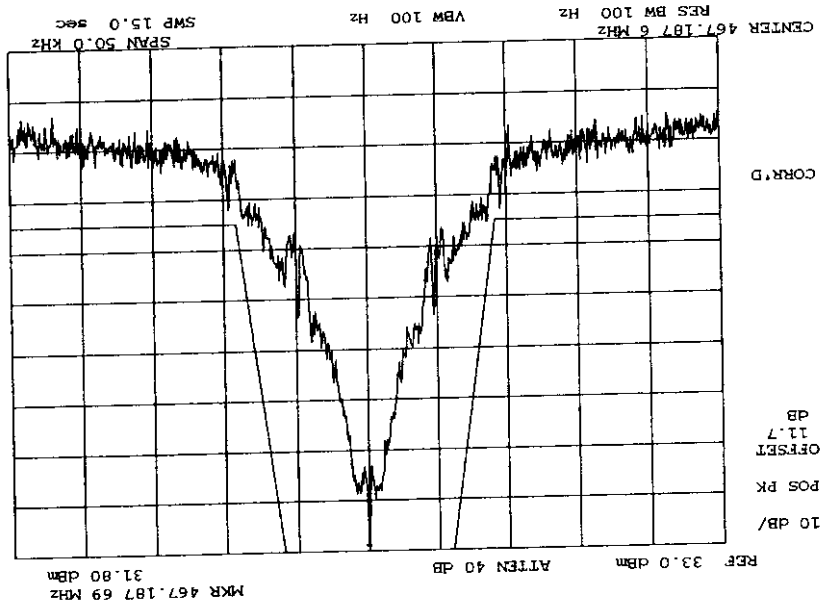
HIGH
FSK DATA 9600 BPS
MASK: D, VHF/UHF 12.5KHz BW

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NAME OF TEST: Emission Masks (Occupied Bandwidth)
g98b0003: 1998-Nov-02 Mon 11:56:00
STATE: 2: High Power



POWER: HIGH
MODULATION: FSK DATA 4800 BPS
MASK: E, VHF/UHF 6.25KHZ BW

M. J. P. Eng.

Morton Flom, P. Eng.

SUPERVISED BY:

ME 098b0001, g98b00068

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Transient Frequency Behavior

47 CFR 90.214

ANSI/TIA/EIA-603-1992, Paragraph 2.2.19

As per attached page

MEASUREMENT PROCEDURE

1. The EUT was setup as shown on the attached page, following TIA/EIA-603 steps a, b, and c as a guide.

2. The transmitter was turned on.

3. Sufficient attenuation was provided so that the transmitter carrier level measured at the output of the combiner was 40 dB below the maximum input level of the test receiver. This level was recorded as step f.

4. The transmitter was turned off.

5. An RF signal generator (1) modulated with a 1 KHz tone at either 25, 12.5, or 6.25 KHz deviation, and set to the same frequency as the assigned transmitter frequency, (2) was adjusted to a level -20 dB below the level recorded for step f, as measured at the output of the combiner. This level was then fixed for the remainder of the test and is recorded at step h.

6. The oscilloscope was setup using TIA/EIA-603 steps j and k as a guide, and to either 10 ms/div (UHF) or 5 ms/div (VHF).

7. The 30 dB attenuator was removed, the transmitter was turned on, and the level of the carrier at the output of the combiner was recorded as step i.

8. The carrier on-time as referenced in TIA/EIA-603 steps m, n, and o was captured and plotted. The carrier off-time as referenced in TIA/EIA-603 steps p, q, r, and s was captured and plotted.

LEVELS MEASURED:

step f, dbm
step h, dbm
step i, dbm

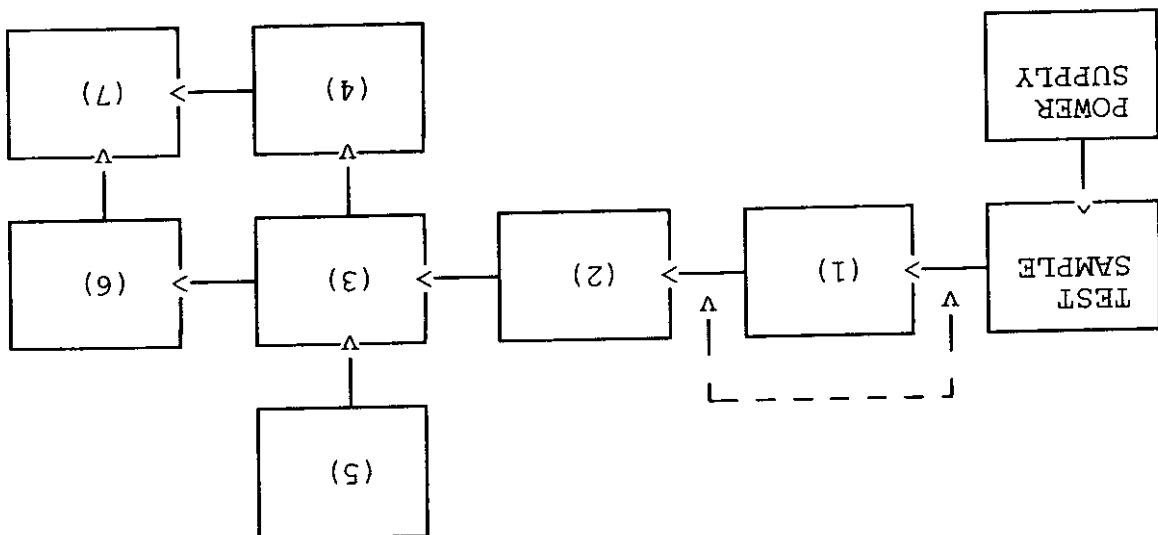
= -23.0
= -40.1
= 10.8

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SUPERVISED BY:

TRANSIENT FREQUENCY BEHAVIOR



Asset Description s/n

(1) ATTENUATOR (Removed after 1st step)
100112 Philco 30 dB 989

(2) ATTENUATOR
100112 Philco 30 dB 989
100172 Bird 30 dB 989
100122 Narda 10 dB 7802
100123 Narda 10 dB 7802A
100110 Kay Variable 145-387

(3) COMBINER
100154 4 x 25 Ω COMBINER 154

(4) CRYSTAL DETECTOR
100159 HP 8470B 1822A10054

(5) RF SIGNAL GENERATOR
100018 HP 8656A 2228A03472
100031 HP 8656A 2402A06180
100067 HP 8920A 3345U01242

(6) MODULATION ANALYZER
100020 HP 8901A 2105A01087

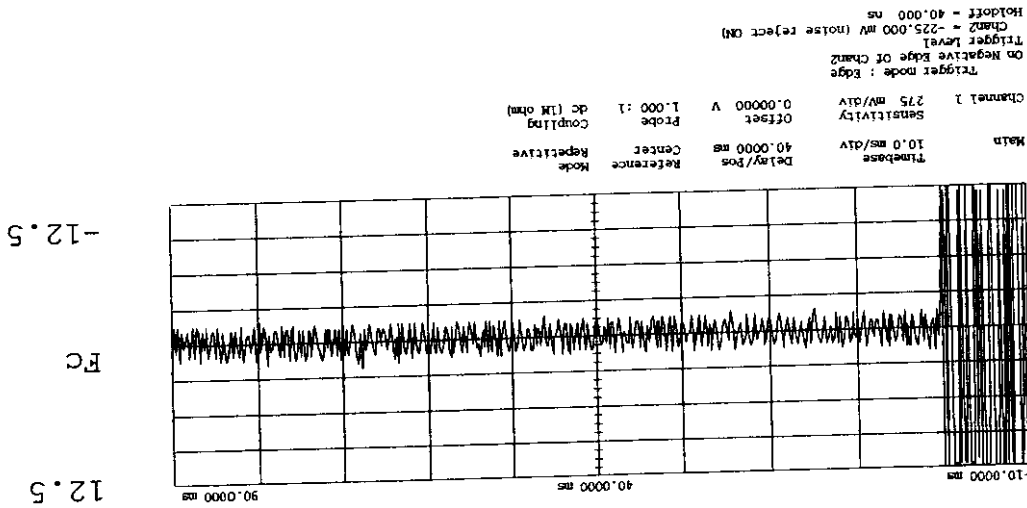
(7) SCOPE
100030 HP 54502A 2927A00209

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M. Flom

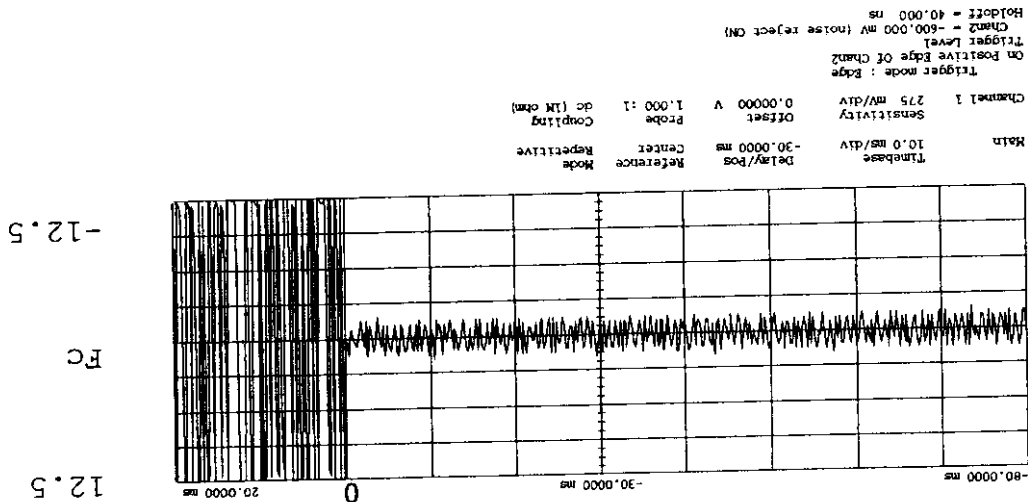
POWER: n/a
MODULATION: Ref Gen=12.5 KHz Deviation
DESCRIPTION: CARRIER ON TIME



NAME OF TEST: Transient Frequency Behavior
STATE: 0:General
g98b0008: 1998-Nov-02 Mon 14:05:00

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NAME OF TEST: Transient Frequency Behavior
998b0009: 1998-Nov-02 Mon 14:07:00
STATE: 0:General



POWER: MODULATION: DESCRIPTION:
n/a Ref Gen=12.5 KHZ Deviation
CARRIER OFF TIME

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Frequency Stability (Temperature Variation)

47 CFR 2.1055(a)(1)

ANSI/TIA/EIA-603-1992, Paragraph 2.2.2

As Indicated

As per previous page

MEASUREMENT PROCEDURE

1. The EUT 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.

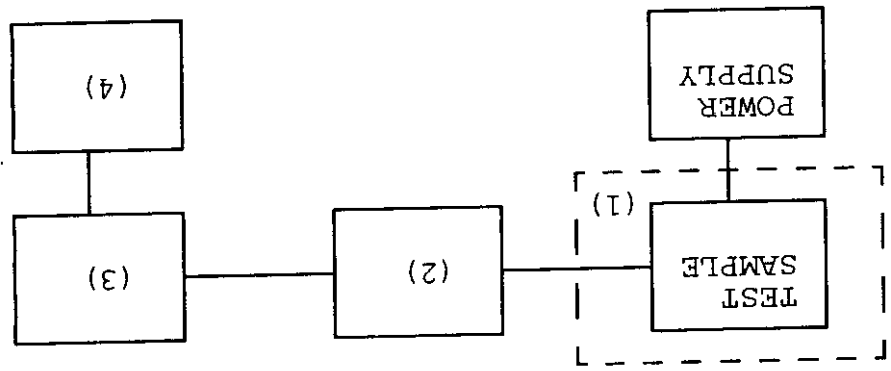
3. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.

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

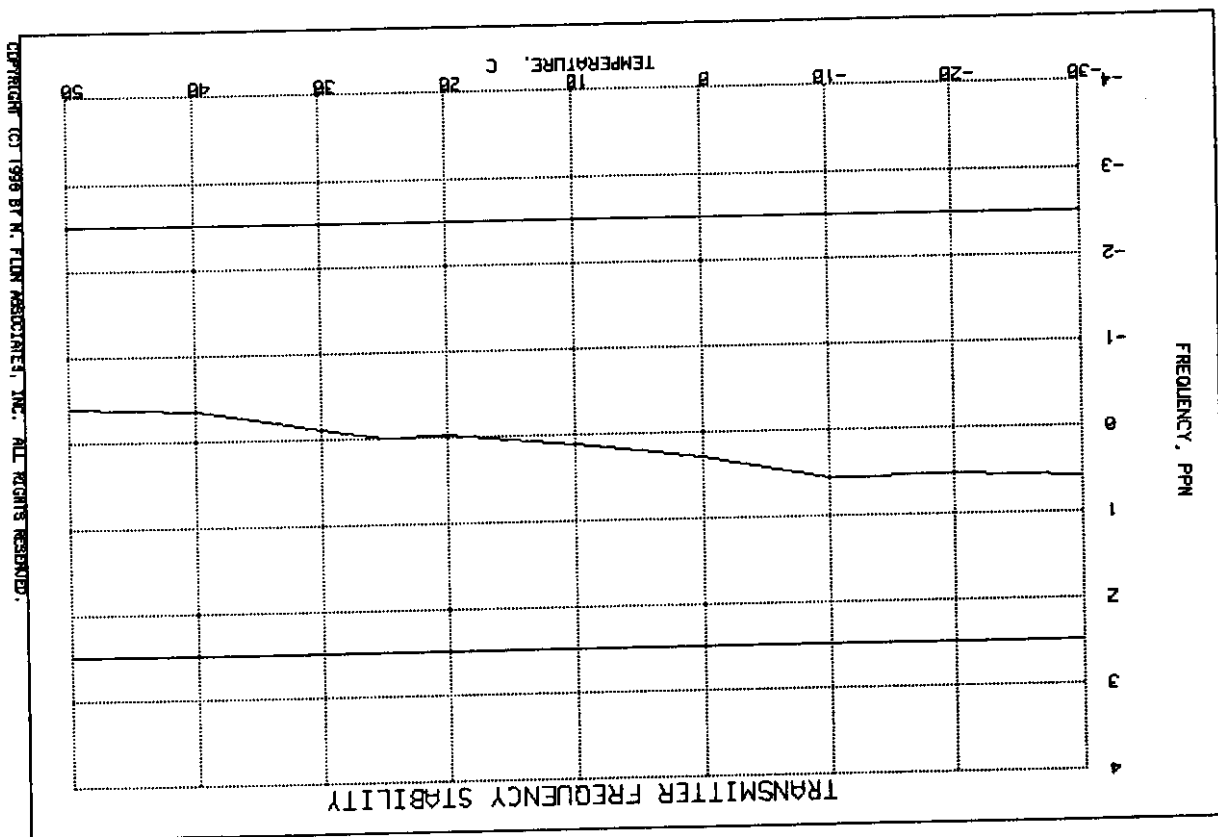


100	100	100027	Tenny Temp. Chamber	9083-765-234
x			Weber Humidity Chamber	
			L.A.B. RVH 18-100	

			COAXIAL ATTENUATOR	
		100122	NARDA 766-10	7802
		100123	NARDA 766-10	7802A
	x	100113	SIERRA 661A-3D	1059
		100069	BIRD 8329 (30 dB)	10066

			R.F. POWER	
		100014	HP 435A POWER METER	1733A05839
	x	100039	HP 436A POWER METER	2709A26776
	x	100020	HP 8901A POWER METER	2105A01087

			FREQUENCY COUNTER	
		100042	HP 5383A	1628A00959
	x	100019	HP 5334B	2704A00347
	x	100020	HP 8901A	2105A01087



FREQUENCY OF CARRIER, MHz = 467.18774
LIMIT, ppm = 2.5
LIMIT, Hz = 1168

Frequency Stability (Voltage Variation)

NAME OF TEST:

47 CFR 2.1055(b) (1)

SPECIFICATION:

ANSI/TIA/EIA-603-1992, Paragraph 2.2.2

GUIDE:

As per previous page

TEST EQUIPMENT:

MEASUREMENT PROCEDURE

1. The EUT was placed in a temperature chamber at 25±5°C and connected as for "Frequency Stability - Temperature Variation" test.

2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

RESULTS: Frequency Stability (Voltage Variation)

LIMIT, ppm = 2.5
LIMIT, Hz = 1168

% of STV	Voltage	Frequency, MHz	Change, Hz
115	14.3	467.187584	-84
100	12.5	467.187500	0
85	10.6	467.187510	10

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M. Flom

SUPERVISED BY:

PAGE NO. NAME OF TEST: SPECIFICATION: Necessary Bandwidth and Emission Bandwidth 47 CFR 2.202(g)

MODULATION = 11K0F1D
NECESSARY BANDWIDTH CALCULATION:
MAXIMUM MODULATION (M), KHz
MAXIMUM DEVIATION (D), KHz
CONSTANT FACTOR (K)
NECESSARY BANDWIDTH (B_N), KHz
= 3
= 2.5
= 1
= (2 x M) + (2 x D x K)
= 11.0

MODULATION = 6K25F1D
NECESSARY BANDWIDTH CALCULATION:
MAXIMUM MODULATION (M), KHz
MAXIMUM DEVIATION (D), KHz
CONSTANT FACTOR (K)
NECESSARY BANDWIDTH (B_N), KHz
= 3
= 1.25
= 1
= (2 x M) + (2 x D x K)
= 8.5

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M. Flom

SUPERVISED BY:

TESTIMONIAL
AND
STATEMENT OF CERTIFICATION

THIS IS TO CERTIFY THAT:

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.

Morton Flom, P. Eng.

Morton Flom, P. Eng.

CERTIFYING ENGINEER:

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).

Oliver P. Guy
MORTON FLOW, P. Eng.