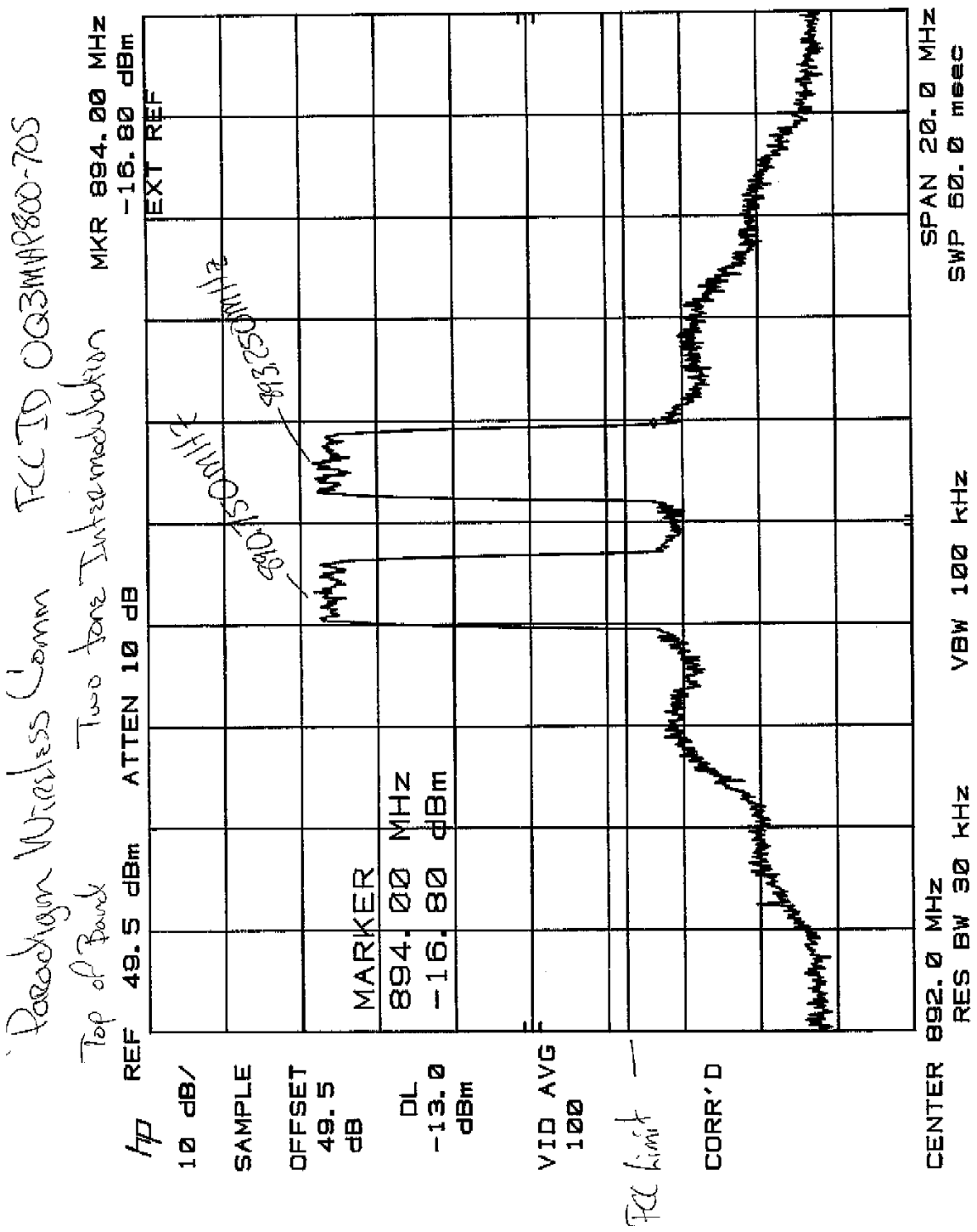
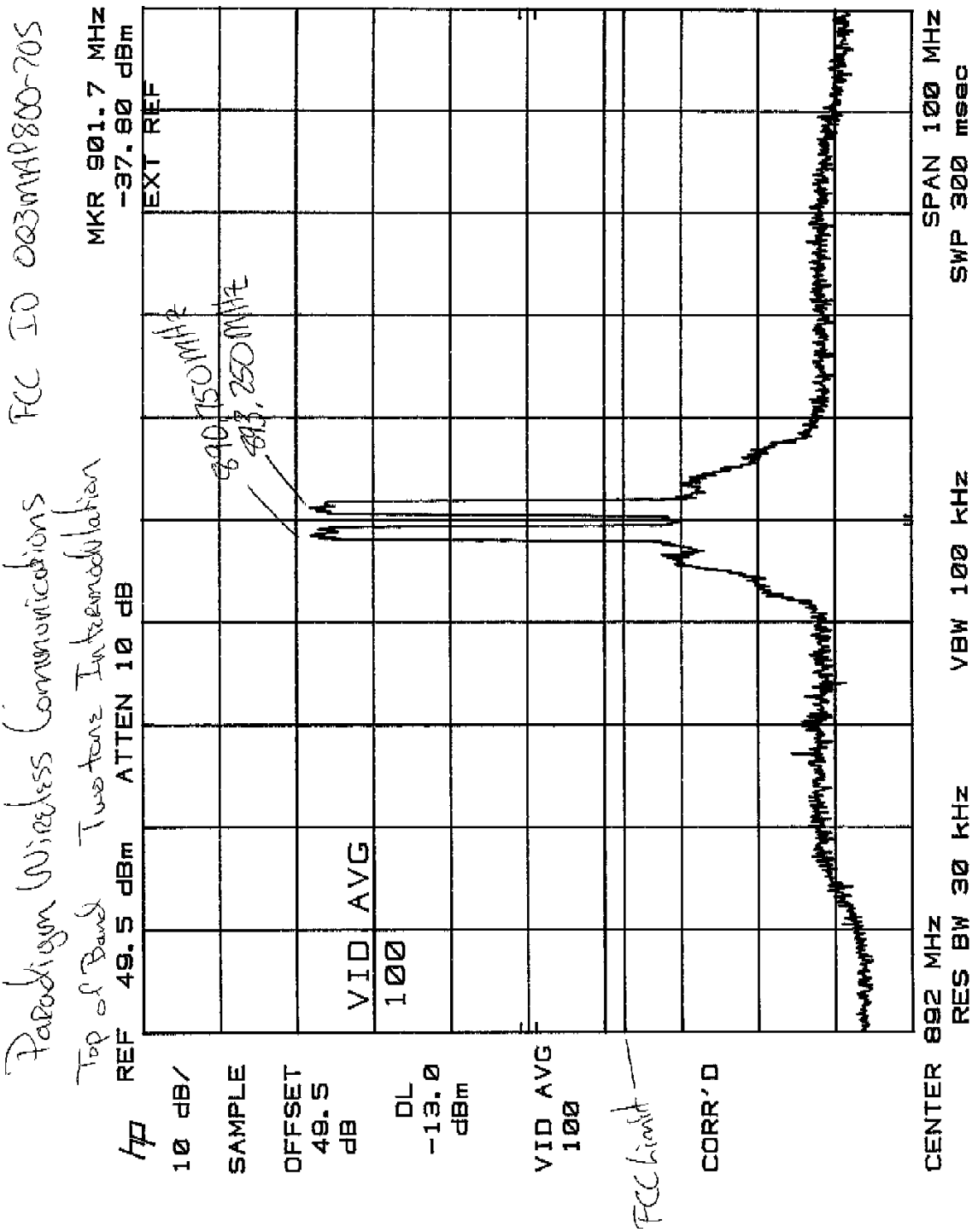
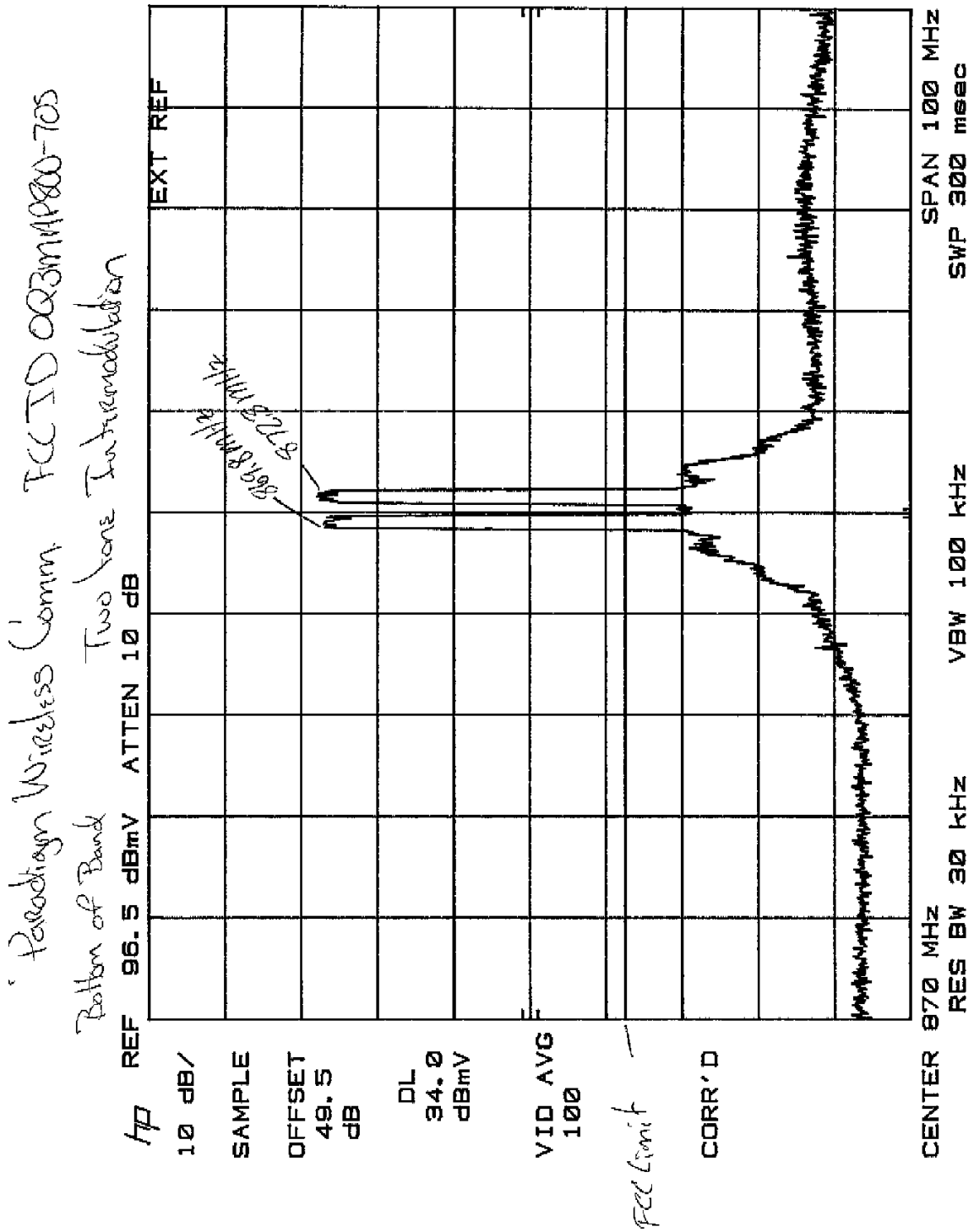
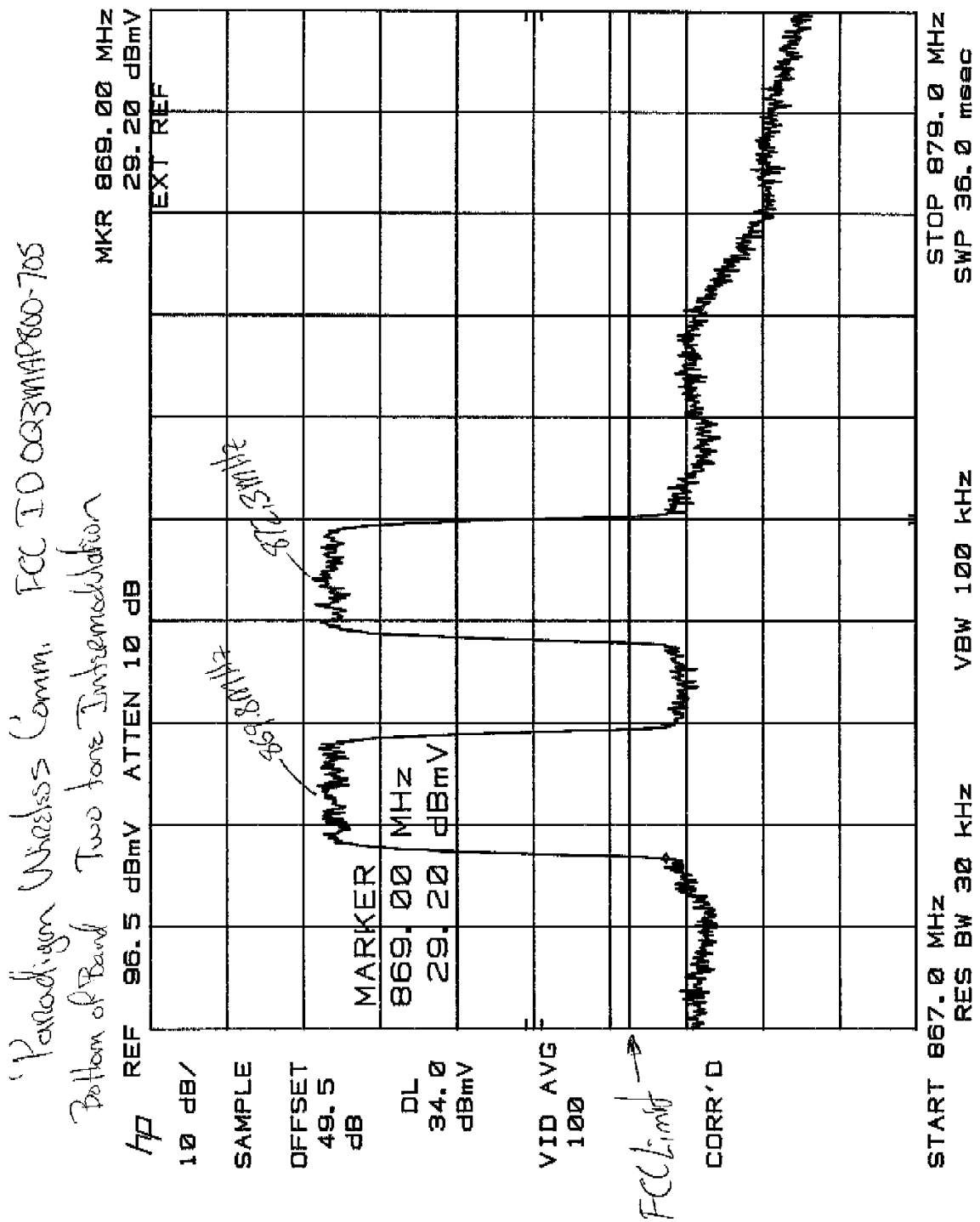
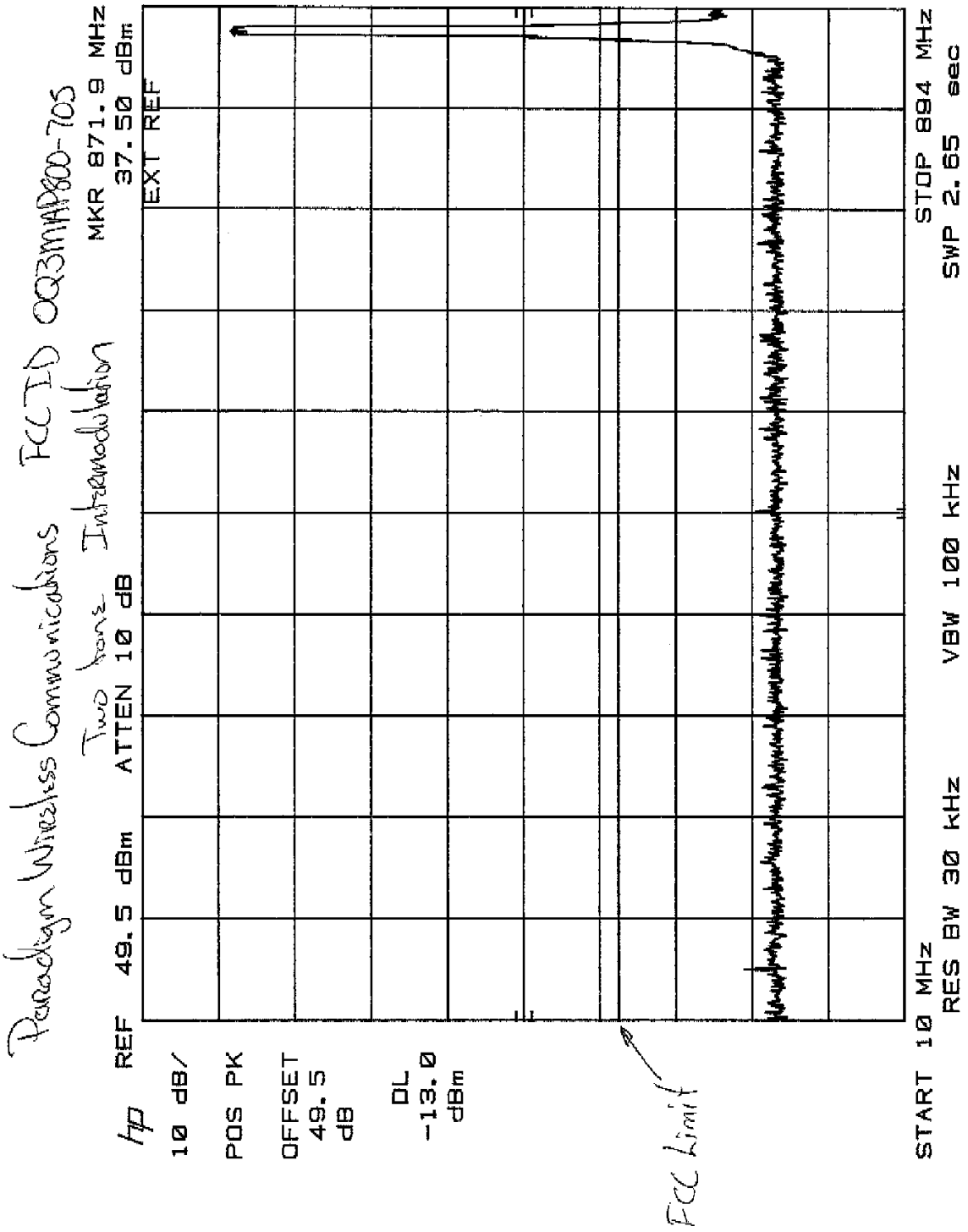
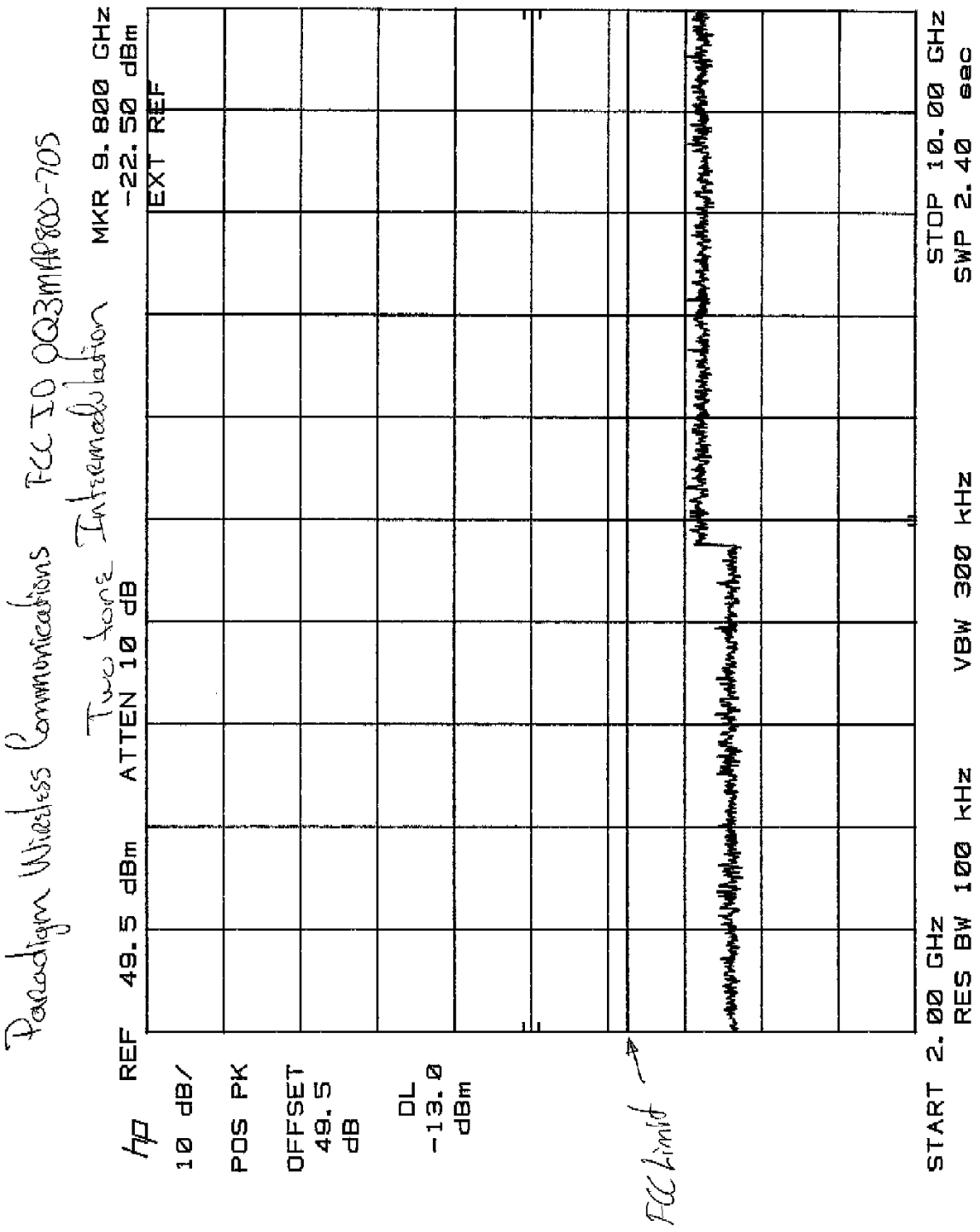

Paradigm Wireless Comm FCC ID OQ3MAP800-70S
Top of Band
Two tone Intermodulation
hp
REF 49.5 dBm
ATTEN 10 dB
MKR 894.00 MHz
-16.80 dBm
EXT REF
10 dB/
SAMPLE
OFFSET
49.5
dB
DL
-13.0
dBm
VID AVG
100
CORR'D
MARKER
894.00 MHz
-16.80 dBm
CENTER 892.0 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 20.0 MHz
SWP 60.0 msec

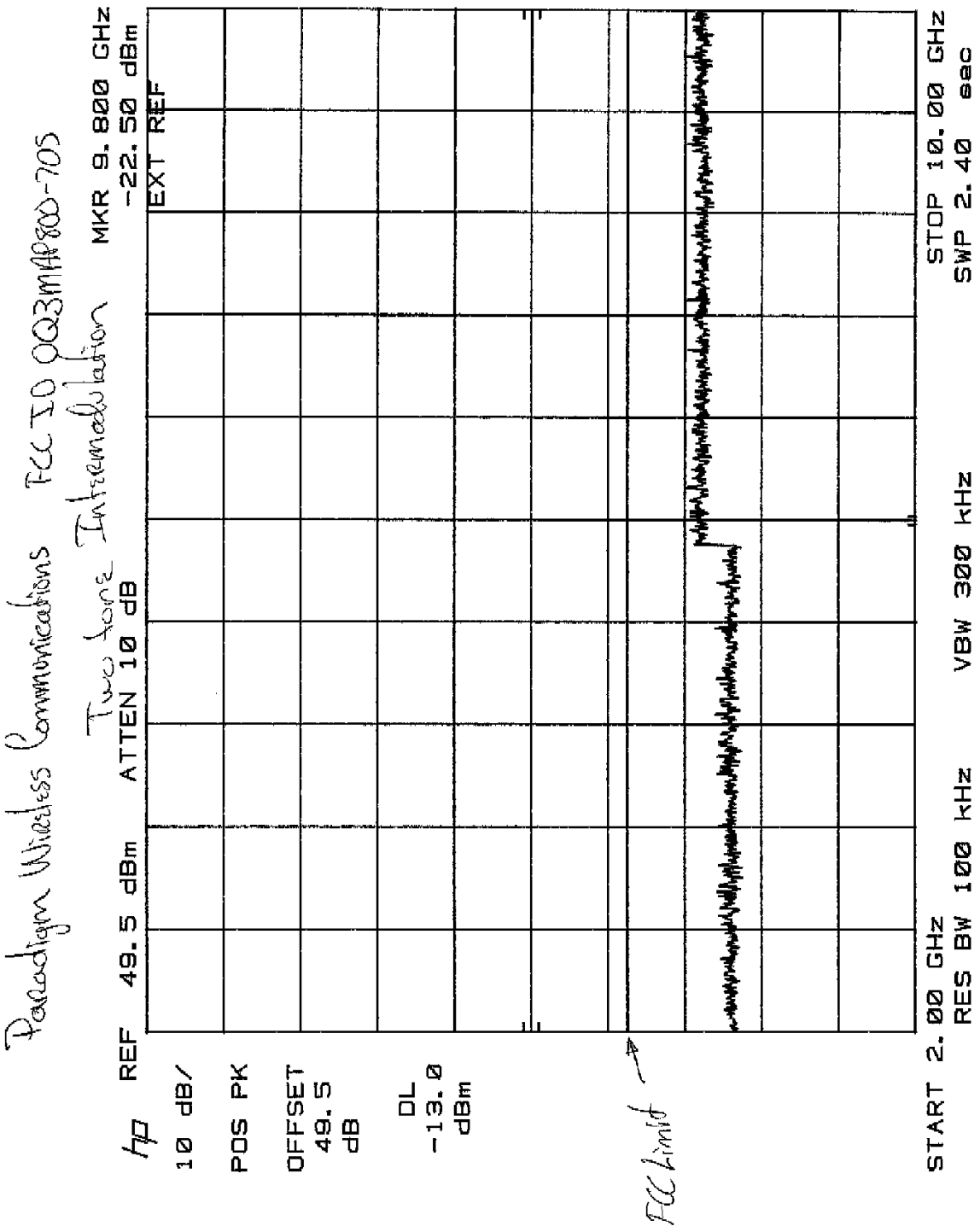

Paradigm Wireless Communications FCC ID OQ3MAP800-70S
Top of Band Two-tone Intermodulation
MKR 901.7 MHz
-37.80 dBm
EXT REF
REF 49.5 dBm
ATTEN 10 dB
10 dB/
SAMPLE
OFFSET
49.5
dB
VID AVG
100
DL
-13.0
dBm
VID AVG
100
CORR'D
FCC Limit
840.750MHz
843.250MHz
CENTER 892 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 100 MHz
SWP 300 msec


Paradigm Wireless Comm. FCC ID OQ3MAP800-70S
Bottom of Band
Two Tone Intermodulation
REF 96.5 dBmV ATTEN 10 dB
EXT REF
10 dB/
SAMPLE
OFFSET
49.5
dB
DL
34.0
dBmV
VID AVG
100
CORR'D
FCC Limit
CENTER 870 MHz
RES BW 30 kHz
VBW 100 kHz
SPAN 100 MHz
SWP 300 msec


Paladyn Wireless Comm. FCC ID OQ3MAP800-70S
Bottom of Band Two tone Intermodulation
MKR 869.00 MHz
29.20 dBmV
EXT REF
REF 96.5 dBmV ATTEN 10 dB
10 dB/
SAMPLE
OFFSET
49.5
dB
DL
34.0
dBmV
VID AVG
100
CORR'D
MARKER
869.00 MHz
29.20 dBmV
869.8MHz
872.3MHz
FCC Limit
START 867.0 MHz
RES BW 30 kHz
VBW 100 kHz
STOP 879.0 MHz
SWP 36.0 msec


Paradigm Wireless Communications FCC ID OQ3MAP800-705
Two tone Intermodulation
hp
REF 49.5 dBm
ATTEN 10 dB
MKR 871.9 MHz
37.50 dBm
EXT REF
10 dB/
POS PK
OFFSET
49.5
dB
DL
-13.0
dBm
FCC Limit
START 10 MHz
RES BW 30 kHz
VBW 100 kHz
STOP 894 MHz
SWP 2.65 sec


Paradigm Wireless Communications FCC ID OQ3MAP800-70S
Two tone Intermodulation
REF 49.5 dBm
ATTEN 10 dB
MKR 9.800 GHz
-22.50 dBm
EXT REF
10 dB/
POS PK
OFFSET
49.5
dB
DL
-13.0
dBm
FCC Limit
START 2.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 10.00 GHz
SWP 2.40 sec


Paradigm Wireless Communications FCC ID OQ3MAP800-70S
Two tone Intermodulation
REF 49.5 dBm
ATTEN 10 dB
MKR 9.800 GHz
-22.50 dBm
EXT REF
10 dB/
POS PK
OFFSET
49.5
dB
DL
-13.0
dBm
FCC Limit
START 2.00 GHz
RES BW 100 kHz
VBW 300 kHz
STOP 10.00 GHz
SWP 2.40 sec

2.1053 Field Strength of Spurious Radiation

Definition:
Emissions from the equipment when connected into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communication desired. The reduction in the level of these spurious emissions will not affect the quality of the information being transmitted.

Test Method: Per EIA RS 152-B.

Connect the equipment and follow the procedure described in paragraph 2.2.1.1 and paragraph 5.0. Measure the amplitude of each spurious radiated signal through the 10th harmonic. The level in dBuV/m is calculated on the following page. The spurious signals are then measured on the 3 meter range.

$$\text{Spurious attenuation dB} = 10 \log \frac{\text{Po Watts}}{\text{Calc. Spurious power}}$$

Test Results: See TABLE on following Page.

All radiated spurious emissions are below the FCC Specifications.

RF Exposure

The information contained in "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields", OET Bulletin 65; August 1997 is applicable when a radiating antenna is connected to this amplifier. Paging stations that utilize this amplifier authorized under Part 22 (Subpart E) and Part 90 are subject to routine environmental evaluation for RF exposure if an antenna is located on a rooftop and if its ERP exceeds 1000 watts.

This product is certified to meet the RF exposure guidelines of OET-65 as a stand-alone RF power amplifier. The RF spurious emissions recorded when the antenna output connector is terminated into a non-radiating 50 ohm load do not exceed the 27.5 V/m limit specified for General Population/Uncontrolled Exposure in OET Bulletin 65.

TEST EQUIPMENT LOG

Customer: Paradigm Wireless Technology **Test Procedure:** FCC, Parts 22, 90

EUT: UHF Amplifier, 869-894 MHz **Test Specification:** Radiated Spurious

Model / Part #: MAP800-70S **Test Engineer:** John Stanford

Serial #: N/A **Customer Rep:** Charlie Lipsey

February 5, 2001

DESCRIPTION	MANUFACTURER	MODEL # / SERIAL #	CAL. DUE
Spectrum Analyzer	Hewlett-Packard	8566B/2407A13212	03/08/01
Signal Generator (*)	Agilent	E4436B/US89260471	Reference
Amplifier	Mini-Circuits	ZHL-42/122884	03/23/01
Amplifier	Miteq	AFD3-040080-40/121391	01/30/02
Antenna, DRG Horn	Electrometrics	RGA60/6103	01/12/01
50 ohm load (1500W)	Dielectric	5750/0910861	Reference
Power Supply (*) (0-40 Vdc, 0-75A)	Sorensen	DCS 40-75	Reference
Coaxial Cables (3)	Malik Cable Devices	CA-NP5096NPS-H260	Cal prior to test

• - Customer furnished

FORM 0010

DNB Engineering, Inc.
SPURIOUS RADIATED SIGNAL MEASUREMENTS
(Ref: Part 2, Subpart J, 2.1053 and 2.1057)

Date	5-Feb-01
Customer	Paradigm
EUT	RF Power Amplifier
P/N	MAP800-70S
S/N	N/A
Pass/Fail	PASS
Operating Mode	CDMA
Test Engineer	John Stanford
Fund. Freq.	880 MHz
Output Power	110 W
Output Impedance	50 ohms
Fund. Field Strength	24.7 V/m
Fund. Field Strength	147.9 dBuV/m
FCC Limit	63.4 dBc

	Input Fields
	Calculated Fields

Antenna Polarization	Freq (MHz)	Measured Signal (dBuV)	AF (dB/m)	Cable Loss (dB)	Amp Gain (dB)	Corrected Measurement (dBuV)	Fundamental Field Strength (dBuV/m)	Spurious Below Carrier (dBc)	FCC Limit (dBc)
V	1760	61.4	27.4	2.2	29.8	61.2	147.9	86.7	63.4
H	2640	42.4	28.7	2.5	32.2	41.4	147.9	106.5	63.4
H	3520	31.5	31.0	2.8	30.2	35.1	147.9	112.8	63.4
H	4400	38.0	32.9	3.6	28.4	46.1	147.9	101.8	63.4
H	5280	25.3	34.6	4.3	28.6	35.6	147.9	112.3	63.4
V	6160	18.3	35.3	4.6	29.3	28.9	147.9	119.0	63.4
H	7040	18.2	37.0	5.0	28.5	31.7	147.9	116.2	63.4
V	7920	18.1	37.0	5.4	28.5	32.0	147.9	115.9	63.4
H	8800	18.0	37.8	5.5	26.0	35.3	147.9	112.6	63.4

2.1055 Measurement of Frequency Stability

The EUT is a power amplifier and contains no circuitry for generating or stabilizing the RF signal. The driver will be responsible for this task.

2.1057 Frequency Spectrum to be Investigated

The Frequency was searched from the lowest radio frequency generated in the equipment through the 10th harmonic of the carrier frequency.