Nemko EESI, Inc.
Part 90 Spurious Emissions Data Sheet
(3m Open Area Test Site)

Client: Sonik
EUT: VHF Paging Transmitter
Model #: PTX-150

Conducted by: C. Richard
Date of Test: 2/22/00
Test Distance, Amp. gain: 3 m, 0 dB

Frequency (MHz)	Spectrum Analyzer Reading at 3m (dBμV)	f_x	Antenna Polorization (vertical or horizontal)	Amp. Gain & Cable Loss, Distance & Antenna Factor Correction for 3 m (dBuV/m)	Total Interference Level at 3 m (dBμV/m)
76.800	10.6	-	v	9.1	19.7
115.190	11.6	-	h	17.0	28.6
124.790	10.7	-	h	15.6	26.3
153.590	8.8	-	v	17.4	26.2
174.000	70	f_0	h	20.1	90.1
192.000	8.0	-	v	20.5	28.5
268.790	17.9	-	h	19.1	37.0
297.590	10.4	-	v	22.2	32.6
348.000	25.3	f_2	h	20.8	46.1
422.395	3.1	-	v	28.3	31.4
522.000	26.9	f_3	v	25.7	52.6
696.000	18.7	f_4	v	29.8	48.5
870.000	40.9	f_5	h	32.1	73.0
998.410	6.7	-	h	34.4	41.1
1044.000	21.6	f_6	v	28.5	50.1
1196.095	3.2	-	v	28.3	31.5
1218.000	19.6	f_7	v	28.3	47.9
1392.000	25.9	f_8	v	28.0	53.9
1566.000	16.8	f_9	h	28.2	45.0
1740.000	20.2	f_{10}	v	28.9	49.1

Test Conditions: Standard radiated emissions test set up on FCC registered open field site. The highest emissions for all antenna heights, polarities, and table orientations are the only emissions recorded.

MNT-PTX-150

RADIATED EMISSIONS DATA SHEET

Date: 2-22-00 | Location: NOATS | Test Personnel: Chuck | Co./EUT: SONIK PTX-150

Power: 115VAC 60Hz | Temp. °C: | R.H.: % | Barometric Press: in. Hg | Frequency Range Requirement:

Test Description: FCC Part 90 f_o = 174 MHz into Dummy Load.

	Frequency MHz	V Pol Peak	H Pol Peak	V Pol Quasi Peak	H Pol Quasi Peak	Amp dB	Ant Fact dB	Total Inter.	Spec. Level dBuV/m	Delta Spec. Level	Comments		
f_o	174	61.5	70.1	61.4	70.0		20.2	90.2	C				
f_2	348	22.3	26.0	20.7	25.3		20.8	46.1					
f_3	522	27.2	26.6	26.9			25.7	52.6					
f_4	696	21.2	21.0	18.7			29.9	48.6					
f_5	870	35.5	41.0	35.2	40.9		32.3	73.2			BRI		
f_6	1044	23.8	23.1	21.6 Avg	Avg		28.5	50.1			(B)	15.205	(54 dBuV/m)
f_7	1218	22.7	22.4	19.6			28.3	47.9			F	15.205	"
f_8	1392	27.2	21.4	25.9			28.0	53.9			F	15.205	"
f_9	1566	19.9	20.2	15.2	16.8		28.2	45.0			F	15.205	"
f_{10}	1740	22.9	20.8	20.2			28.9	49.1			F		

fccemiss

Electromagnetic Engineering Services, Inc., 11696 Sorrento Valley Road, Suite F, San Diego, CA 92121
(619) 793-9911 Voice (619) 793-9914 FAX

MNT-PTX-150

RADIATED EMISSIONS DATA SHEET

Date: 2-22-00 | Location: NOATS | Test Personnel: Chuck | Co./EUT: SONIK PTX-150

Power: 115 VAC 60 Hz | Temp. °C: | R.H.: % | Barometric Press : in. Hg | Frequency Range Requirement:

Test Description: FCC f_o = 174 MHz

Frequency MHz	V Pol Peak	H Pol Peak	V Pol Quasi Peak	H Pol Quasi Peak	Amp dB	Ant Fact dB	Total Inter.	Spec. Level dBuV/m	Delta Spec. Level	Comments
10.146	–									
16.175	–									
60.	–	–								
76.8	13.4	–	10.6			9.0	19.6	40		
115.19	13.2	13.2	10.5	11.6		17.0	28.6	43.5		
124.79	11.9	13.9	9.4	10.7		15.5	26.2	43.5		
153.59	11.5	9.0	8.8			17.3	26.1	43.5		
192.	11.1	–	8.0			20.5	28.5	43.5		
268.79	18.2	18.4	17.6	17.9		19.0	36.9	46	-6.1	
297.59	12.7	9.5	10.4			22.5	32.9	46		
422.395	7.4	6.0	3.1					46		
998.41	7.8	9.5	3.7	6.7		34.4	41.1	54		
1009.11	–	–								
1075.17	–	–								
1196.095	14.3	12.9	3.2			28.3	31.5	54		
	~~27.8~~									

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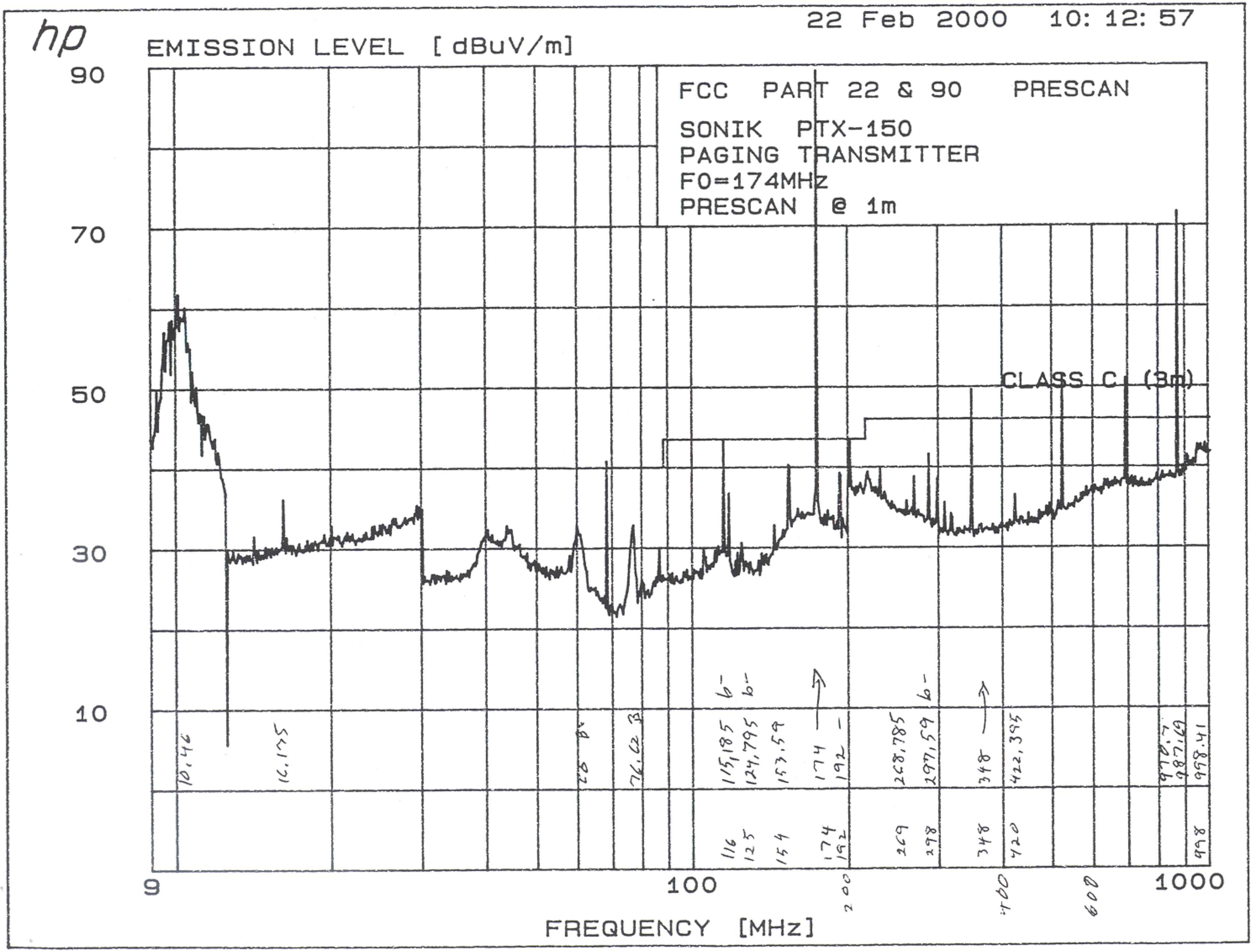
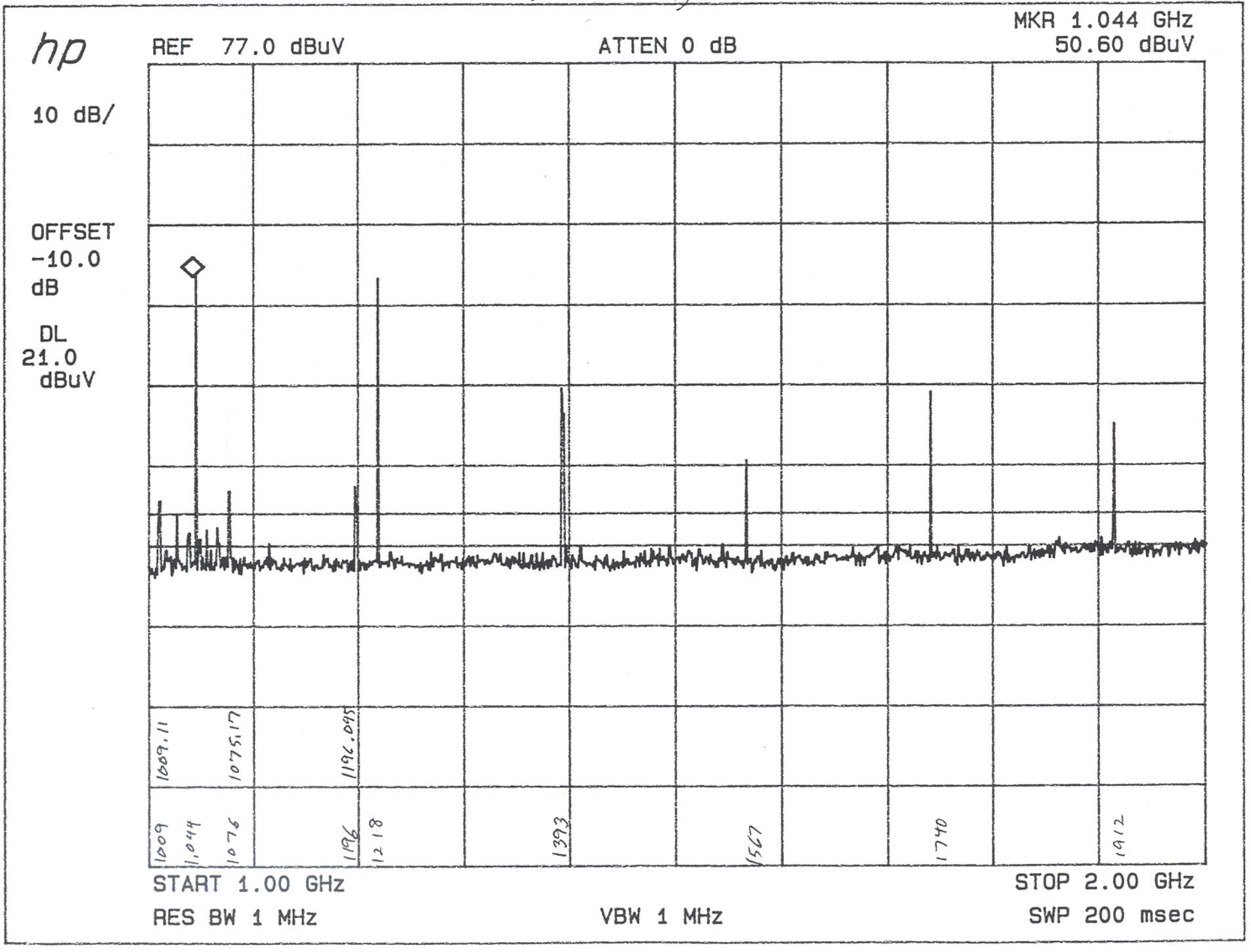
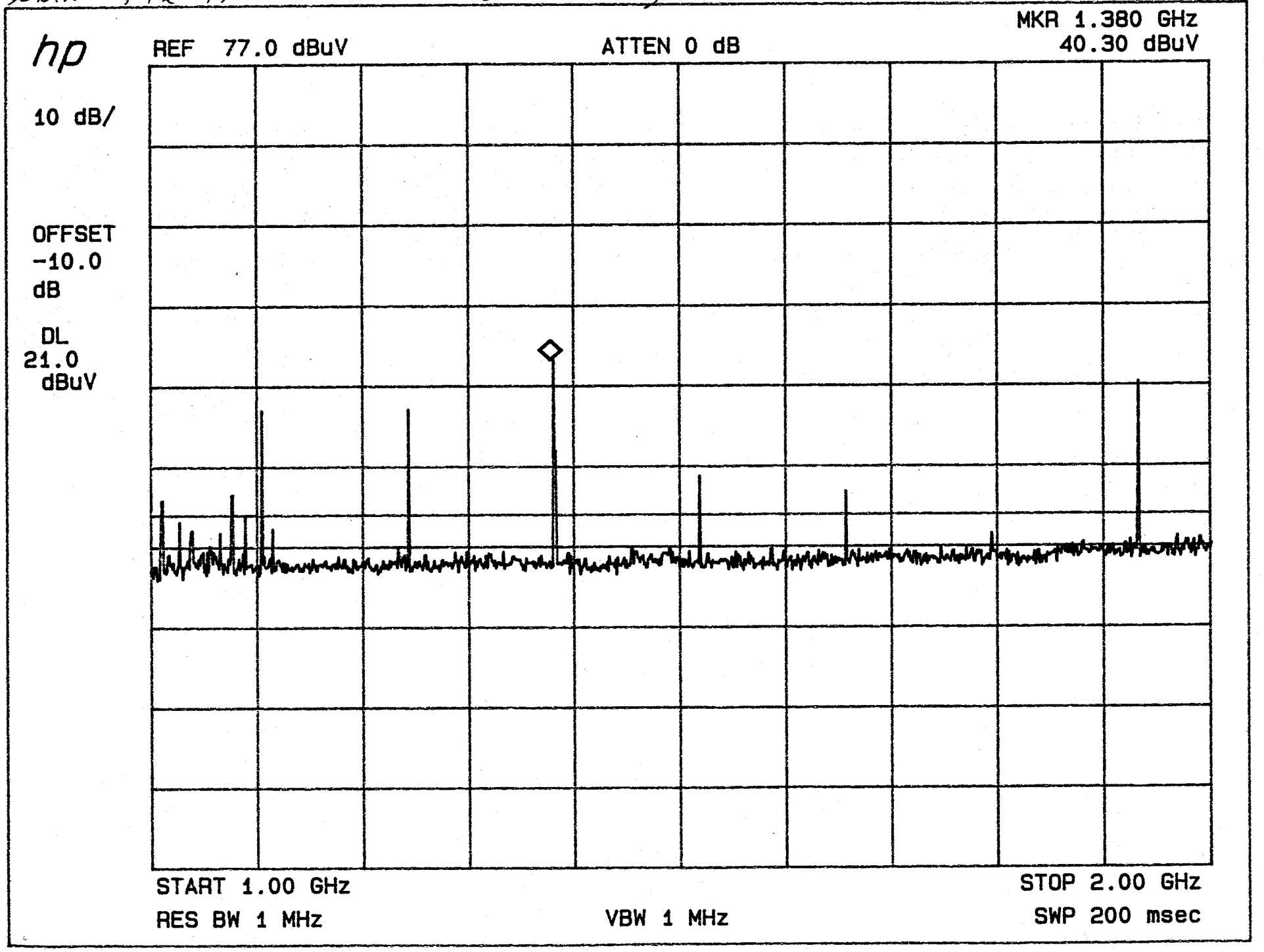

hp
22 Feb 2000 10: 12: 57
EMISSION LEVEL [dBuV/m]
90
70
50
30
10
FCC PART 22 & 90 PRESCAN
SONIK PTX-150
PAGING TRANSMITTER
F0=174MHz
PRESCAN @ 1m
CLASS C (3m)
9
100
1000
FREQUENCY [MHz]

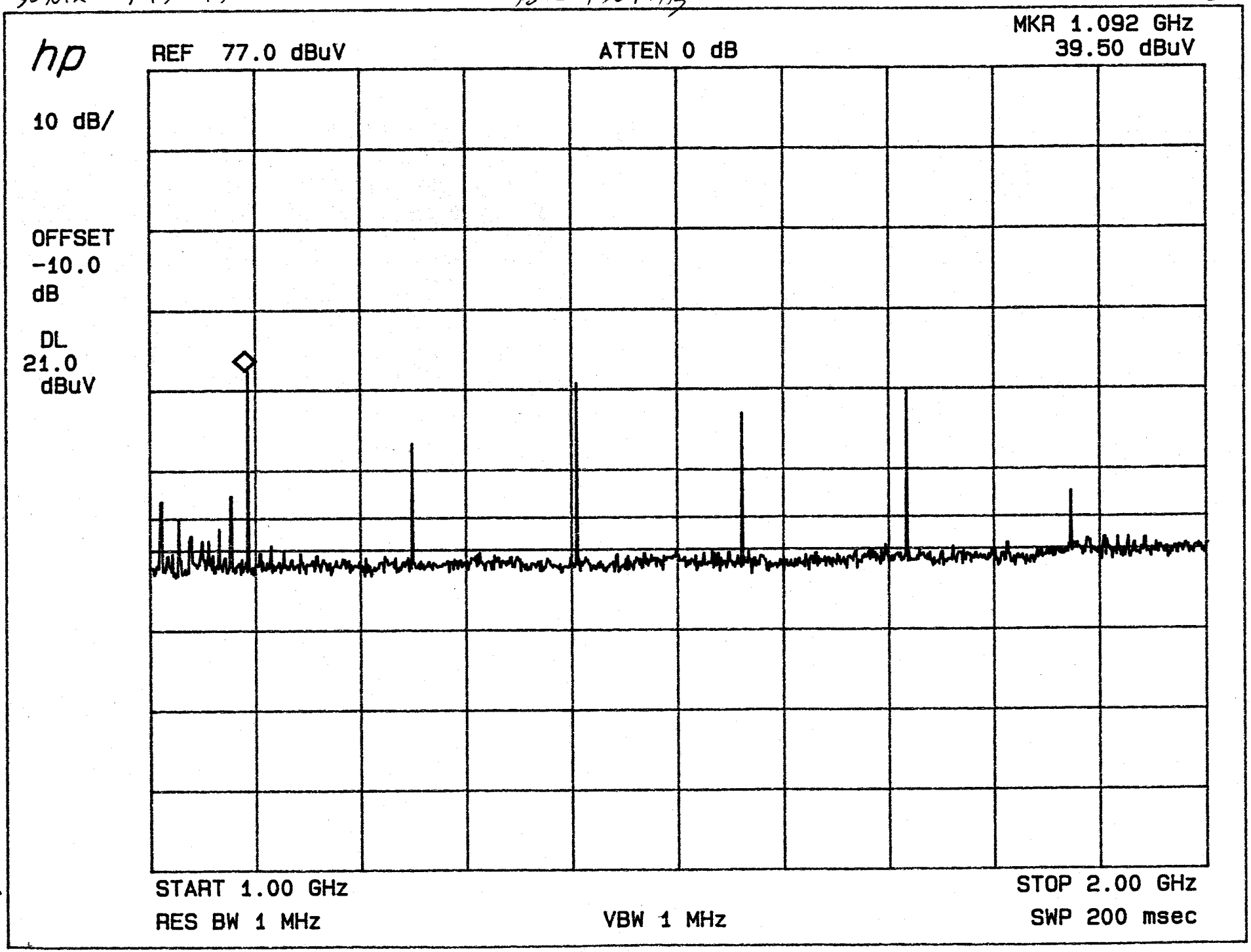
SONIK PTX-150 f_o = 174 MHz 2-22-00



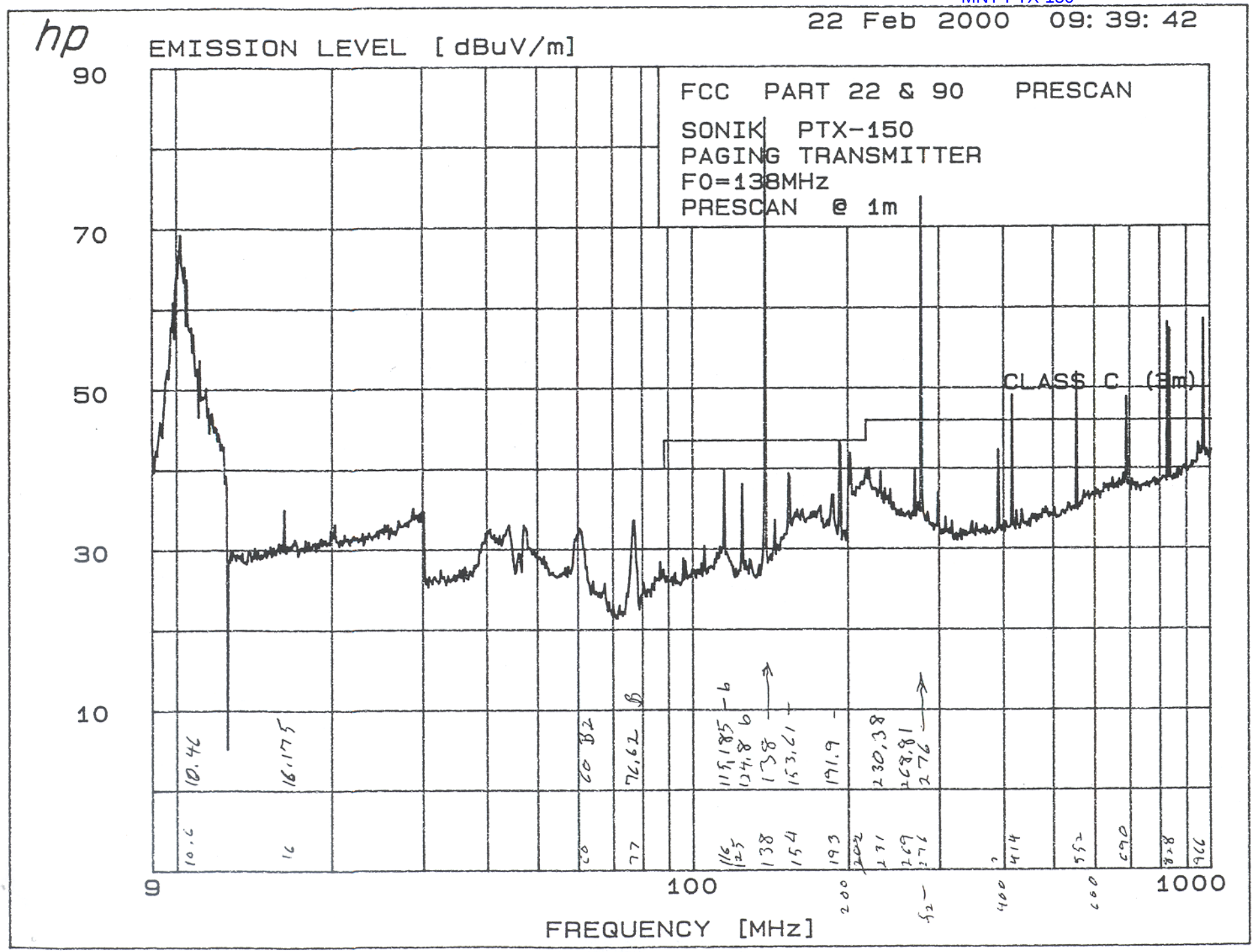
SONIK PTX-150 f_o = 138 MHz 2-22-00

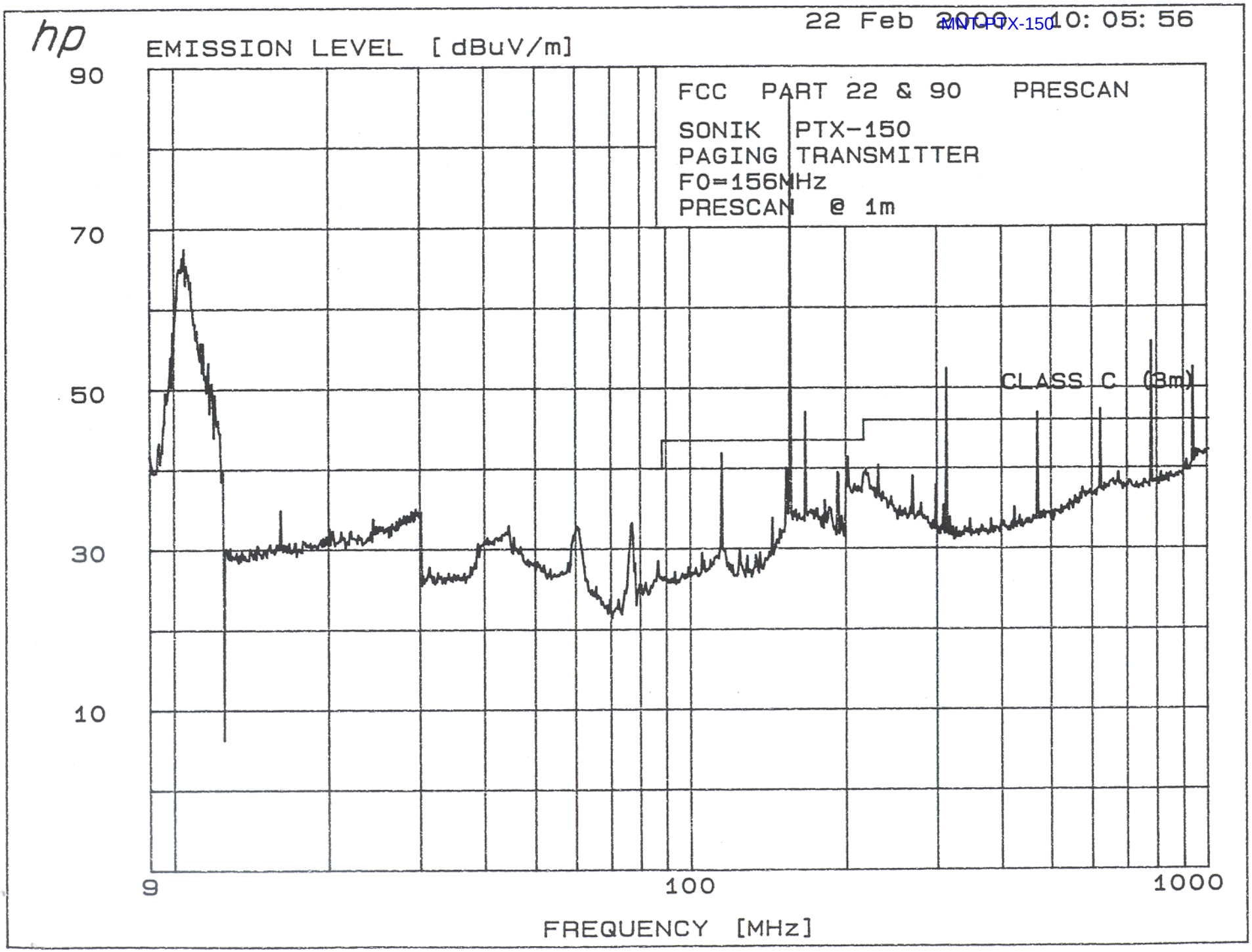


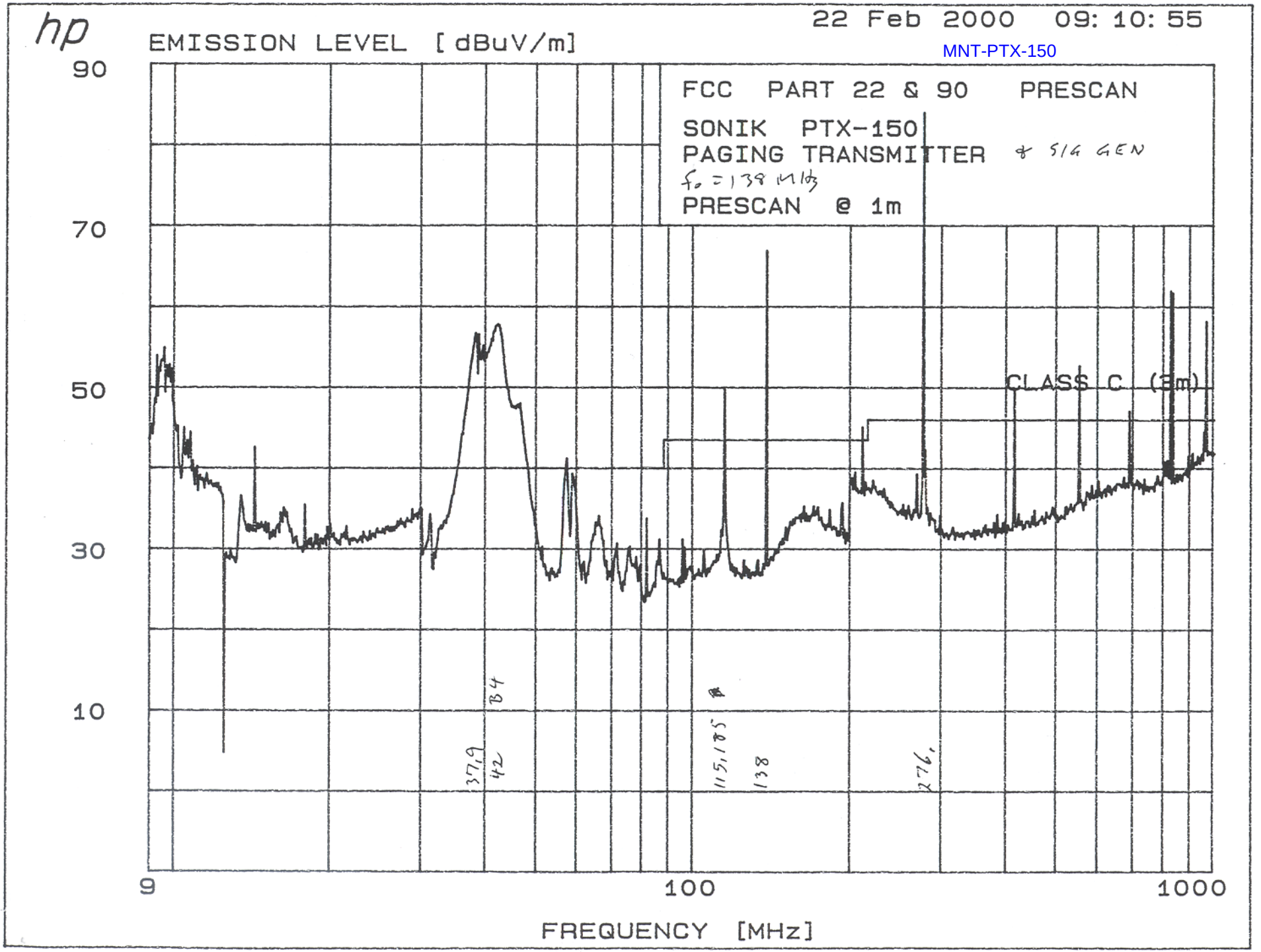
SONIK PTX-150 f_o = 156 MHz 2-22-00



MNT-PTX-150


hp
22 Feb 2000 09: 39: 42
EMISSION LEVEL [dBuV/m]
90
70
50
30
10
FCC PART 22 & 90 PRESCAN
SONIK PTX-150
PAGING TRANSMITTER
FO=138MHz
PRESCAN @ 1m
CLASS C (3m)
10.47
16.175
30.82
76.62
115.185
134.86
138
153.71
191.9
230.38
268.81
276
9
100
200
400
600
1000
FREQUENCY [MHz]


hp
22 Feb 2000 10: 05: 56
MNT-PTX-150
EMISSION LEVEL [dBuV/m]
90
70
50
30
10
FCC PART 22 & 90 PRESCAN
SONIK PTX-150
PAGING TRANSMITTER
F0=156MHz
PRESCAN @ 1m
CLASS C (3m)
9
100
1000
FREQUENCY [MHz]


hp
EMISSION LEVEL [dBuV/m]
22 Feb 2000 09: 10: 55
MNT-PTX-150
FCC PART 22 & 90 PRESCAN
SONIK PTX-150
PAGING TRANSMITTER & SIG GEN
fo = 138 MHz
PRESCAN @ 1m
CLASS C (3m)
90
70
50
30
10
9
100
1000
FREQUENCY [MHz]
37.9
42
84
115.185
138
276.