FCC PART 15, SUBPART B and C
TEST REPORT

for

ANTENNA ARRAY CONTROLLER
MODEL: 32000721-XXXX rev X.X
FCC ID: TPZ-32000721

Prepared for

VUE TECHNOLOGY, INC.
103 NORTH POINTE
LAKE FOREST, CALIFORNIA 92630

Prepared by:_____

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DATE: OCTOBER 30, 2005

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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested:	Antenna Array Controller Model Number: 32000721-XXXX rev X.X S/N: None
Product Description:	Please see Operational Description.
Modifications:	The EUT was not modified during the testing.
Manufacturer:	Vue Technology, Inc. 103 North Pointe Lake Forest, California 92630
Test Dates:	July 28 & 31, 2006
Test Specifications:	EMI requirements CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209 and 15.247
Test Procedure:	ANSI C63.4: 2003

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz – 30 MHz	Complies with the **Class B** limits of CFR Title 47, Part 15 Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, section 15.207
2	Spurious Radiated RF Emissions, 10 kHz – 10 GHz	Complies with the **Class B** limits of CFR Title 47, Part 15 Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, section 15.205 and 15.209.
3	Spurious Radiated RF Emissions, 10 kHz – 30 MHz and 1000 MHz – 10 GHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and CFR Title 47, Part 15, Subpart C, section 15.247(d)
4	Fundamental and Emissions produced by the intentional radiator in non-restricted bands, 10 kHz – 10 GHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247(d)
5	Emissions produced by the intentional radiator in restricted bands, 10 kHz – 10 GHz	Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209(a), and section 15.247 (d)
6	20 dB Bandwidth	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (a)(1)
7	Peak Power Output	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247(b)(2).
8	RF Conducted Antenna Port	Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (d)
9	Channel Hopping Separation	This test was not performed because the EUT does not generate the RF signal and the signal source is from an already FCC approved device.
10	Average Time of Occupancy	This test was not performed because the EUT does not generate the RF signal and the signal source is from an already FCC approved device.
11	Number of Hopping Channels	This test was not performed because the EUT does not generate the RF signal and the signal source is from an already FCC approved device.

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Antenna Array Controller Model Number: 32000721-XXXX rev X.X. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2003. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the Class B specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209 and 15.247.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 19121 El Toro Road, Silverado, California 92676.

2.2 Trace ability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Vue Technology, Inc.

Steve Trivelpiece	Director of Hardware
Steve Raynesford	Hardware Engineer

Compatible Electronics, Inc.

Joey Madlangbayan	Test Engineer
John Ethington	Sr. Test Engineer
Scott McCutchan	Lab Manager

2.4 Date Test Sample was Received

The test sample was received on July 28, 2006.

2.5 Disposition of the Test Sample

The sample has remains at Compatible Electronics as of July 31, 2006.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
RFID	Radio Frequency Identification

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
ANSI C63.4 2003	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz
FCC Title 47, Part 15 Subpart B	FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators
FCC Title 47, Part 15 Subpart C	FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators
FCC Public Notice – DA 00-705	Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

- Setup of the equipment under test.

Specifics of the EUT and Peripherals Tested

The EUT was set up in a tabletop configuration while connected to a remote IntelliSwitch Router via a coax cable. The remotely located RFID Tag Reader (FCC ID: H9PRD11320) was connected to the Intelliswitch Router via a rigid coax cable, RF coupler and Ethernet cable. The remote laptop computer was also connected to the IntelliSwitch Router and RFID Tag Reader via the Ethernet and serial cable.

- Operation of the EUT during the testing

For the intentional radiator portion of the test – An RF signal was generated from the RFID Tag Reader and transmitted to the Intelliswitch. The signal was then conducted from the Intelliswitch to the EUT which routed the signal out to the receiving Antenna. A software program was used to remotely control the RFID Tag Reader RF signal output at the lowest, middle and highest channel.

For the unintentional radiator portion of the test – The EUT was operating in passive operating mode which an RF OOK modulated signal was conducted from the Intelliswitch to the EUT and reflected back to the Intelliswitch.

The final radiated as well as the conducted data was taken in the mode above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

Cable 1 This is a 3 meter braid & foil shielded rigid coax cable connecting the EUT to the IntelliSwitch. There is a 1.0/2.3mm coax type connector at each end of the cable. The shield of the cable is grounded to the chassis via the connectors.

Remotely located equipment

Cable 2 This is a 0.5 meter braid & foil shielded rigid coax cable connecting the 15 dB RF Coupler to the IntelliSwitch. The shield of the cable is grounded to the chassis via the connectors.

Cables 3-4 These are 0.5 meter braid & foil shielded rigid coax cables connecting the RFID Reader to the 15 dB RF Coupler. The shields of the cables were grounded to the chassis via the connectors.

Cable 5

This is a 1 meter unshielded DC power cable connecting the Intelliswitch to the RFID Reader. It has a 1/8 inch phone jack connector at both ends.

Cable 6 This is a 2 meter unshielded twisted pair CAT 5 Ethernet cable connecting the IntelliSwitch to the RFID Reader. There is a plastic RJ45 connector at both ends.

Cable 7 This is a 30 meter unshielded twisted pair CAT 5 Ethernet cable connecting the Remote Laptop PC to the IntelliSwitch. There is a plastic RJ45 connector at both ends.

Cable 8

This is a 30 meter foil shielded RS232 serial cable connecting the Remote Laptop PC system to the RFID Reader. There is a metallic DB9 connector at both ends. The shield of the cable was grounded to the chassis via the connectors.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

#	EQUIPMENT TYPE	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
1	ANTENNA ARRAY CONTROLLER (EUT)	VUE TECHNOLOGY, INC.	32000721-XXXX rev X.X	NONE	TPZ-32000721

ACCESSORY EQUIPMENT REMOTELY LOCATED

2	INTELLISWITCH	VUE TECHNOLOGY, INC.	3400002-001-RA	NONE	TPZ-34000002-001
3	RFID TAG READER	SYMBOL	RD11320-16114121US XR-400	NONE	H9PRD11320
4	AC ADAPTER	AULT	PW122	NONE	N/A
5	LAPTOP PC SYSTEM	COMPAQ	EVO N620C	CNU4131P64	N/A
6	ETHERNET ADAPTER	NETGEAR	FA511	FA5314BCB189058	N/A
7	15 DB RF COUPLER	MINI CIRCUITS	ZFD-15-10	SF446200529	N/A

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Analyzer Spectrum – RF Section	Hewlett Packard	8566B	2747A04757	2/15/06	2/15/07
Analyzer Spectrum – Display Section	Hewlett Packard	85662A	2648A15455	2/15/06	2/15/07
Analyzer Spectrum - Quasi-Peak Adapter	Hewlett Packard	85650A	3303A01688	2/15/06	2/15/07
Antenna, Active Loop	Com Power	AL-130	17107	7/28/05	7/28/07
Antenna ,Horn	Com-Power	AH-118	071094	3/06/06	3/06/08
Antenna, Biconical	Com Power	AB-900	15129	3/18/06	3/18/07
Antenna, Log Periodic	Com Power	AL-100	16016	1/19/06	1/19/07
Transient Limiter	Com Power	Hz-560	N/A	4/4/06	4/4/07
Computer Test Station	Hewlett Packard	Pavilion 4530	US91925466	N.C.R.	N/A
Generator Comb - Radiated	Com Power	CG-520	25164	N.C.R.	N/A
Hygrometer	Abbeon	HTAB169B	N/A	N.C.R.	N/A
Keyboard Test Station	Hewlett Packard	5183-7399	B91617825	N.C.R.	N/A
LISN EUT Side	Com Power	LI-115	241043	6/02/06	6/03/07
LISN Accessory Side	Com Power	LI-215	12073	6/02/06	6/03/07
Mast Antenna	Com Power	AM-400	N/A	N.C.R.	N/A
Monitor Test Station	Sony	CPD-100ES	7862A008	N.C.R.	N/A
Mouse Test Station	Hewlett Packard	M-S34	LZC911S8069	N.C.R.	N/A
Plotter	Hewlett Packard	7470A	15925	N.C.R.	N/A
Preamplifier	Com Power	PA-103	1541	1/3/06	1/3/07
Preamplifier	Com Power	PA-122	181923	3/7/06	3/7/07
Printer Test Station	Hewlett Packard	DeskJet 697C	US9341D07G	N.C.R.	N/A

5.4 EMI Measurement and Control Software Information

SOFTWARE TITLE	MANUFACTURER	VERSION
Compatible Electronics Data Capture Program	Compatible Electronics	3.1
Compatible Electronics Emissions Program	Compatible Electronics	2.3 (SR21)

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was grounded via the coax cable.

7. CHARACTERISTICS OF THE TRANSMITTER

7.1 Transmitter Power

Transmit power is herein defined as the power delivered to a 50 ohm load at the RF output of the EUT.

Power	Channel	Accuracy
24.2 dBm	LOW	+2/-2 dB
24.2 dBm	MIDDLE	+2/-2 dB
24.0 dBm	HIGH	+2/-2 dB

7.2 Channel Number and Frequencies

This test was not performed because the EUT does not generate the RF signal and the signal source is from a device already FCC approved device.

7.3 Antenna Gain

The antenna gain is 9.47 dBi.

8. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

8.1 RF Emissions

8.1.1 Conducted Emissions Test

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Section 15.207 for conducted emissions.

The spectrum analyzer was used as a measuring meter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. A quasi-peak and/or average reading was taken only where indicated in the data sheets. A 10 dB attenuation pad was used for the protection of the spectrum analyzer input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was connected to a EMI filter which was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4: 2003. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by the Compatible Electronics conducted emissions software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final qualification data is located in Appendix E.

8.1.2 Radiated Emissions (Spurious and Harmonics) Test

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Sections 15.209 and 15.247 for radiated emissions.

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps.

A quasi-peak and/or average reading was taken only for those readings which are marked accordingly on the data sheets.

The frequencies above 1 GHz were averaged manually by narrowing the video filter down to 10 Hz and putting the sweep time on AUTO on the spectrum analyzer to keep the amplitude reading calibrated.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 10 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2003. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT by the Radiated Emission Manual Test software. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

Radiated Emissions (Spurious and Harmonics) Test (con't)

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance from 10 kHz to 10 GHz to obtain the final test data.

8.3 20 dB Bandwidth

The 20 dB Bandwidth was measured using the spectrum analyzer. The bandwidth was measured using a direct connection from the RF out on the EUT. The resolution and video bandwidths were ≥ 1% of the 20 dB bandwidth.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(1)(i). The 20 dB bandwidth is less than the separation between channels. Please see the data sheets located in Appendix E.

8.4 Peak Output Power

The Peak Output Power was measured using the spectrum analyzer. The EUT was directly connected to the spectrum analyzer. The Peak Output Power was then measured.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (b)(1). The maximum peak output power is less than 1 watt. Please see the results in section 7.1 of this test report.

8.5 RF Antenna Conducted Test

The RF antenna conducted test was performed using the spectrum analyzer. The RF antenna conducted test measured using a direct connection from the RF out on the EUT into the input of the Spectrum Analyzer. The resolution bandwidth was 100 kHz, and the video bandwidth was 100 kHz. The spans were wide enough to include all the harmonics and emissions that were produced by the intentional radiator.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (c). The RF power that is produced by the intentional radiator is at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of desired power. Please see the radiated emission data sheets located in Appendix E.

8.6 RF Band Edges

The RF band edges were taken at the edges of the spectrum (902 MHz when the EUT was on the low channel and 928 MHz when the EUT was on the high channel) using the spectrum analyzer. The 100 kHz bandwidth outside the frequency band was at least 20 dB below from the spectrum analyzer to the spec limit.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (c). The RF power at the band edges at 902 MHz and 928 MHz meet the limits of section 15.209. Please see the data sheets located in Appendix E.

8.7 Carrier Frequency Separation

The Channel Hopping Separation Test was measured using the spectrum analyzer. The EUT was operating in its normal operating mode. The resolution bandwidth was 100 kHz, and the video bandwidth 100 kHz. The frequency span was wide enough to include the peaks of two adjacent channels.

Test Results:

This test was not performed because the EUT does not generate the RF signal and the signal source is from an already FCC approved device.

8.8 Number of Hopping Frequencies

The Channel Hopping Separation Test was measured using the spectrum analyzer. The EUT was operating in its normal operating mode. The resolution bandwidth was 1 MHz, and the video bandwidth 1 MHz. The frequency span was wide enough to include all of the peaks in the frequency band of operation.

Test Results:

This test was not performed because the EUT does not generate the RF signal and the signal source is from an already FCC approved device.

8.8 Average Time of Occupancy Test

The Average Time of Occupancy Test was measured using the spectrum analyzer. The EUT was operating in normal operating mode. The frequency span was taken to 0 Hz with a sweep time of 500 msec to determine the time for each transmission. The EUT was tested in channel hopping mode.

The dwell time for one frequency was 64 msec. In a 10 second period, the number of frequency transmissions that appear are 4. Therefore, if you multiply the dwell time for one frequency transmission with the number of transmissions in a 10 second period, you should have the time of occupancy in a 10 second period.

Test Results:

This test was not performed because the EUT does not generate the RF signal and the signal source is from an already FCC approved device.

9. TEST PROCEDURE DEVIATIONS

The test procedures were not deviated from during the tests.

10. CONCLUSIONS

The Antenna Array Controller Model Number: 32000721-XXXX rev X.X meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C, sections 15.205, 15.207, 15.209 and 15.247.

Note: For the unintentional radiator portion of the test, the EUT was within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B.

APPENDIX A

LABORATORY ACCREDITATIONS & RECOGNITIONS

LABORATORY ACCREDITATIONS AND RECOGNITIONS

NVLAP CODES 200063-0, 200528-0, 200527-0

For US, Canada, Australia/New Zealand, Taiwan and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025 an ISO 9002 equivalent. Please follow the link to the NIST site for each of our facilities NVLAP certificate and scope of accreditation.

Silverado/Lake Forest Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2005270.htm
Brea Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2005280.htm
Agoura Division: http://ts.nist.gov/ts/htdocs/210/214/scopes/2000630.htm

Compatible Electronics has been accredited by ANSI and appointed by the FCC to serve as a Telecommunications Certification Body (TCB). Compatible Electronics ANSI TCB listing can be found at: http://www.ansi.org/public/ca/ansi_cp.html

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for EMC under the US/EU Mutual Recognition Agreement (MRA). Compatible Electronics NIST US/EU CAB listing can be found at: http://ts.nist.gov/ts/htdocs/210/gsig/emc-cabs-mar02.pdf

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for Taiwan/BSMI under the US/APEC (Asia-Pacific Economic Cooperation) Mutual Recognition Agreement (MRA). Compatible Electronics NIST US/APEC CAB listing can be found at: http://ts.nist.gov/ts/htdocs/210/gsig/apec/bsmi-cabs-may02.pdf

World Wide Market Access with Nemko

Compatible Electronics has been validated by NEMKO against ISO/IEC 17025 under the NEMKO EMC Laboratory Authorization (ELA) program to all EN standards required by the European Union (EU) EMC Directive 89/336/EEC. Please follow the link to the Compatible Electronics' web site for each of our facilities NEMKO ELA certificate and scope of accreditation. http://www.celectronics.com/certs.htm

We are also certified/listed for IT products by the following country/agency:

Compatible Electronics VCCI listing can be found at:
http://www.vcci.or.jp/vcci_e/member/tekigo/setsubi_index_id.html

Just type "Compatible Electronics" into the Keyword search box.

Compatible Electronics FCC listing can be found at:
https://gullfoss2.fcc.gov/prod/oet/index_ie.html

Just type "Compatible Electronics" into the Test Firms search box.

Industry Canada Industrie Canada

Compatible Electronics IC listing can be found at:
http://spectrum.ic.gc.ca/~cert/labs/oats_lab_c_e.html

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

No modifications were made to the EUT during the testing.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Antenna Array Controller
Model Number: 32000721-XXXX rev X.X
S/N: None

There were no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

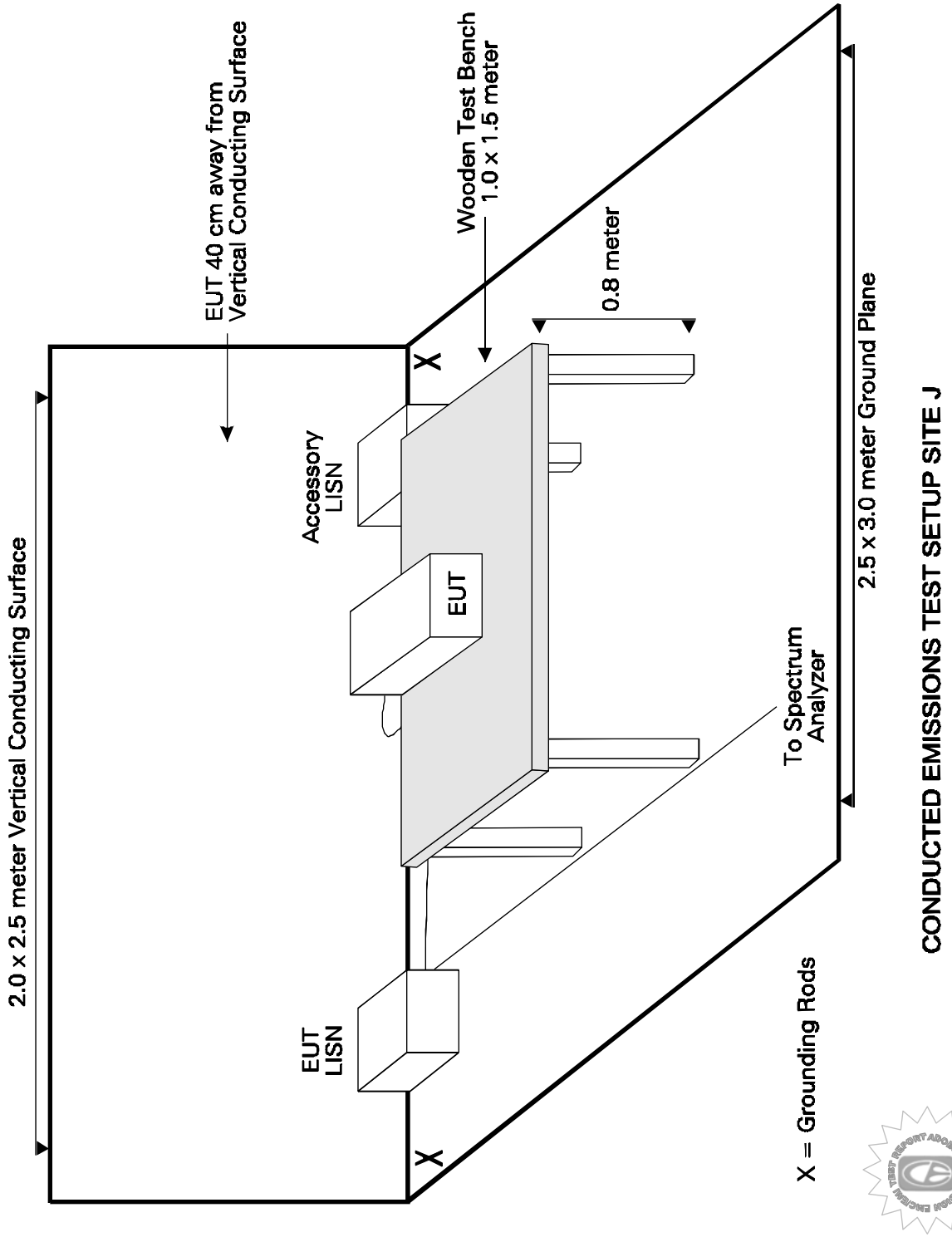
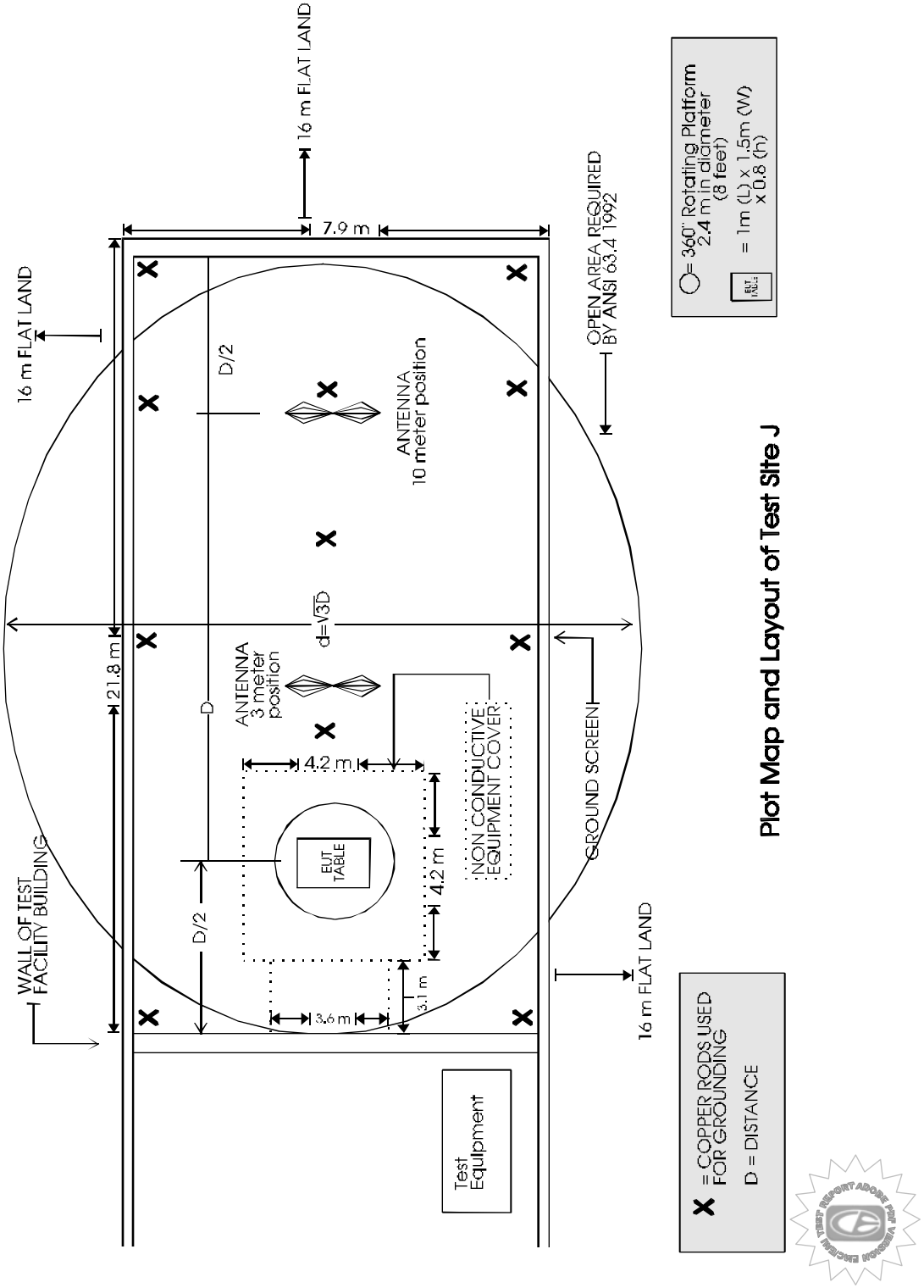


FIGURE 2: PLOT MAP AND LAYOUT OF RADIATED SITE



COM-POWER AL-130

ACTIVE LOOP ANTENNA (E-FIELD)

S/N: 17107

CALIBRATION DATE: JULY 28, 2005

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
0.009	12.0	0.8	11.6
0.01	11.6	0.9	11.5
0.02	11.0	1.0	11.7
0.03	12.4	2.0	12.2
0.4	12.1	3.0	11.9
0.05	10.8	4.0	11.8
0.06	11.4	5.0	12.4
0.07	11.2	6.0	12.5
0.08	11.1	7.0	12.1
0.09	11.3	8.0	12.3
0.1	11.3	9.0	12.6
0.2	8.7	10.0	12.2
0.3	11.4	15.0	9.5
0.4	11.2	20.0	8.9
0.5	11.2	25.0	10.6
0.6	11.7	30.0	3.4
0.7	11.6		

COM-POWER AB-900

LAB J - BICONICAL ANTENNA

S/N: 15129

CALIBRATION DATE: MARCH 18, 2006

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30.0	11.6	120.0	12.6
35.0	10.6	125.0	12.8
40.0	12.4	140.0	12.1
45.0	12.0	150.0	11.8
50.0	11.6	160.0	12.7
60.0	10.2	175.0	15.0
70.0	8.1	180.0	16.2
80.0	6.2	200.0	16.6
90.0	7.9	250.0	15.3
100.0	10.3	300.0	18.9

COM-POWER AL-100

LAB J - LOG PERIODIC ANTENNA

S/N: 16016

CALIBRATION DATE: JANUARY 19, 2006

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.5	350	12.1
400	14.7	450	15.5
500	17.4	550	17.5
600	17.6	650	18.1
700	21.3	750	20.5
800	21.3	850	22.0
900	23.8	950	25.7
1000	25.0	-	-

COM-POWER AH-118

LAB J - HORN ANTENNA

S/N: 071094

CALIBRATION DATE: MARCH 06, 2006

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
1000	25.10	10000	36.60
1500	25.70	10500	38.00
2000	28.80	11000	37.30
2500	29.70	11500	39.90
3000	30.00	12000	39.10
3500	32.10	12500	40.20
4000	31.60	13000	39.70
4500	32.40	13500	39.30
5000	32.70	14000	43.70
5500	33.10	14500	46.00
6000	34.20	15000	39.70
6500	34.80	15500	36.30
7000	35.70	16000	31.80
7500	35.80	16500	45.20
8000	36.40	17000	51.40
8500	38.80	17500	53.10
9000	38.30	18000	58.30
9500	38.90		

COM-POWER PA-103

LAB J - PREAMPLIFIER

S/N: 1541

CALIBRATION DATE: JANUARY 3, 2006

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	32.6	300	32.5
40	32.7	350	32.2
50	32.6	400	32.0
60	32.6	450	31.8
70	32.7	500	31.8
80	32.6	550	31.8
90	32.6	600	31.5
100	32.7	650	31.7
125	32.5	700	31.6
150	32.6	750	31.1
175	32.6	800	31.5
200	32.6	850	30.9
225	32.6	900	30.9
250	32.4	950	30.9
275	32.5	1000	31.0

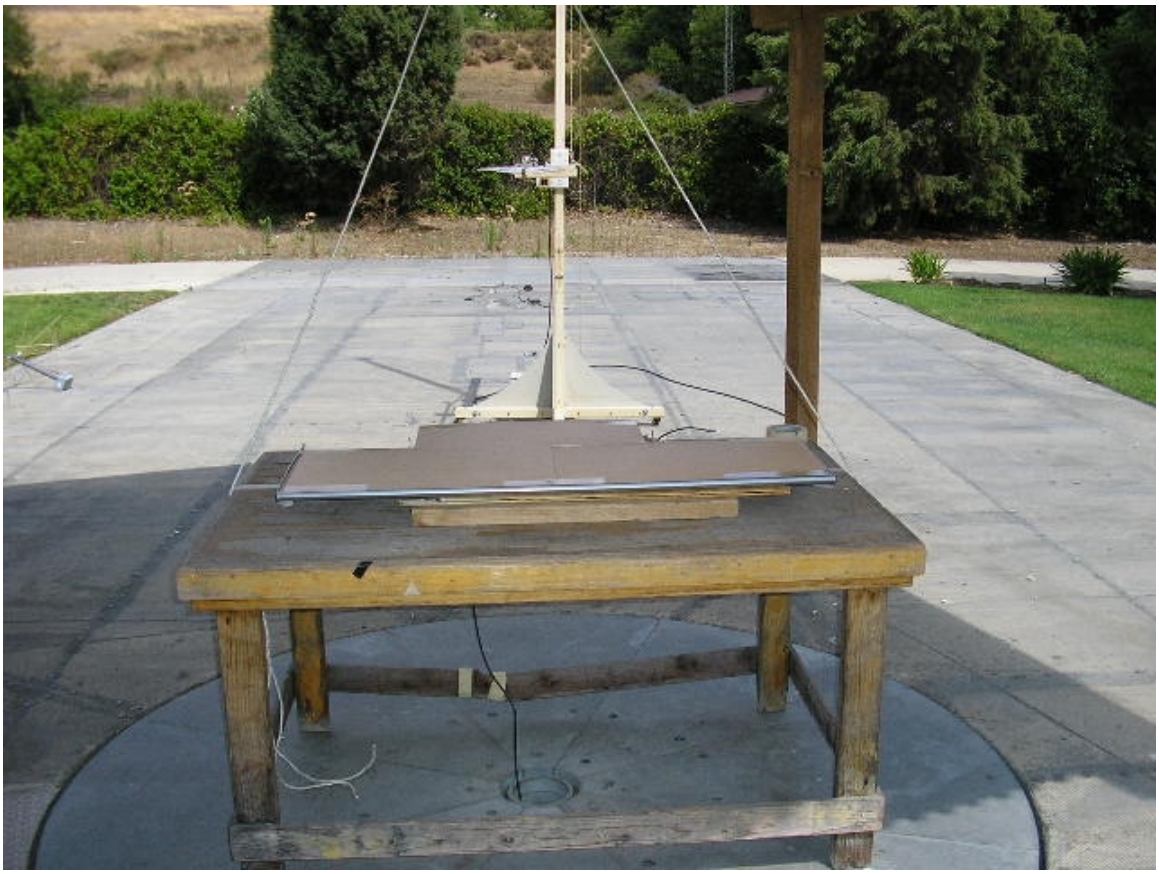
COM-POWER PA-122

LAB J – HI-FREQUENCY PREAMPLIFIER

S/N: 181923

CALIBRATION DATE: MARCH 7, 2006

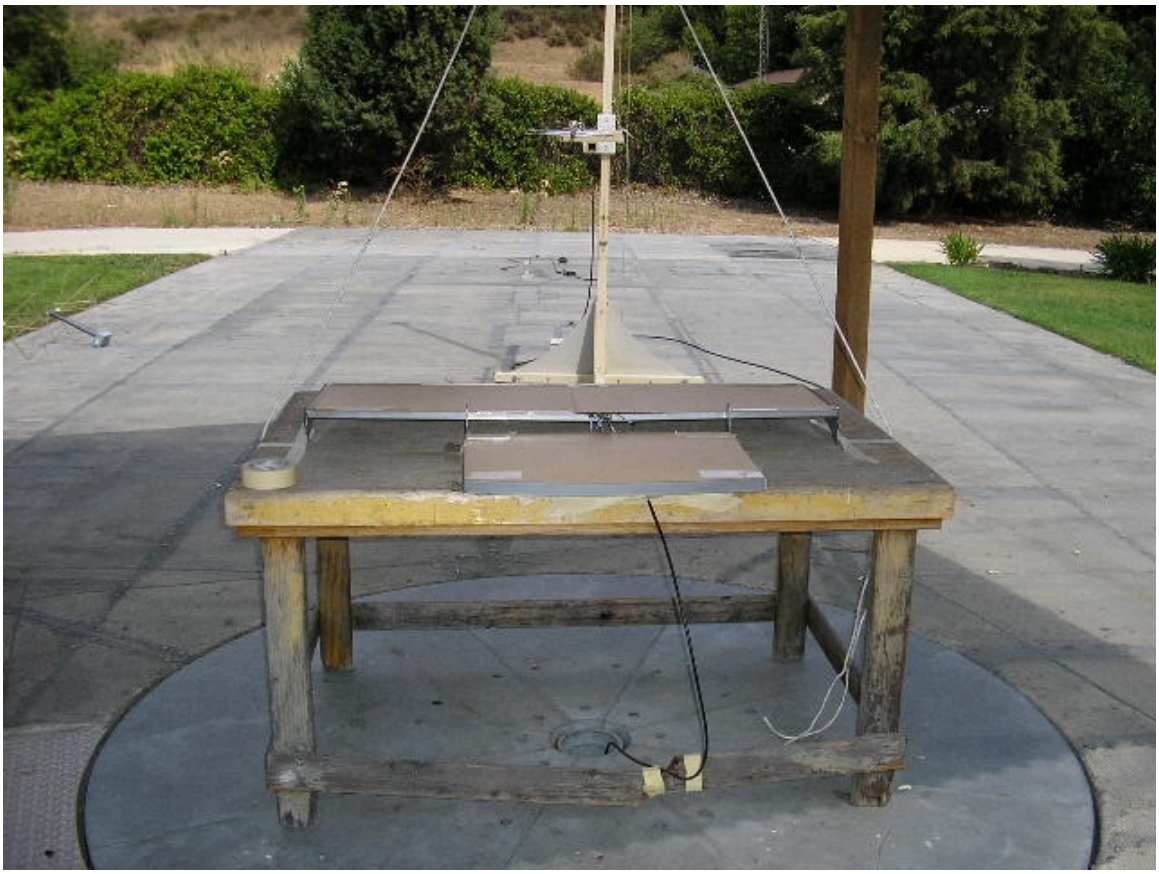
FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
500	36.5	10500	34.3
1000	35.8	11000	34.0
1500	34.7	11500	33.4
2000	34.1	12000	33.0
2500	33.7	12500	33.0
3000	33.6	13000	33.2
3500	33.4	13500	33.5
4000	33.5	14000	33.7
4500	33.7	14500	34.5
5000	33.8	15000	35.3
5500	33.8	15500	36.1
6000	34.8	16000	35.7
6500	35.3	16500	34.4
7000	35.5	17000	33.5
7500	35.1	17500	33.1
8000	34.1	18000	33.2
8500	33.7	19000	33.2
9000	33.4	20000	32.9
9500	33.7	21000	33.7
10000	34.1	22000	35.0



FRONT VIEW

VUE TECHNOLOGY, INC.
ANTENNA ARRAY CONTROLLER
MODEL NUMBER: 32000721-XXXX rev X.X
FCC SUBPART B AND C - RADIATED EMISSIONS – 07-28-06

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

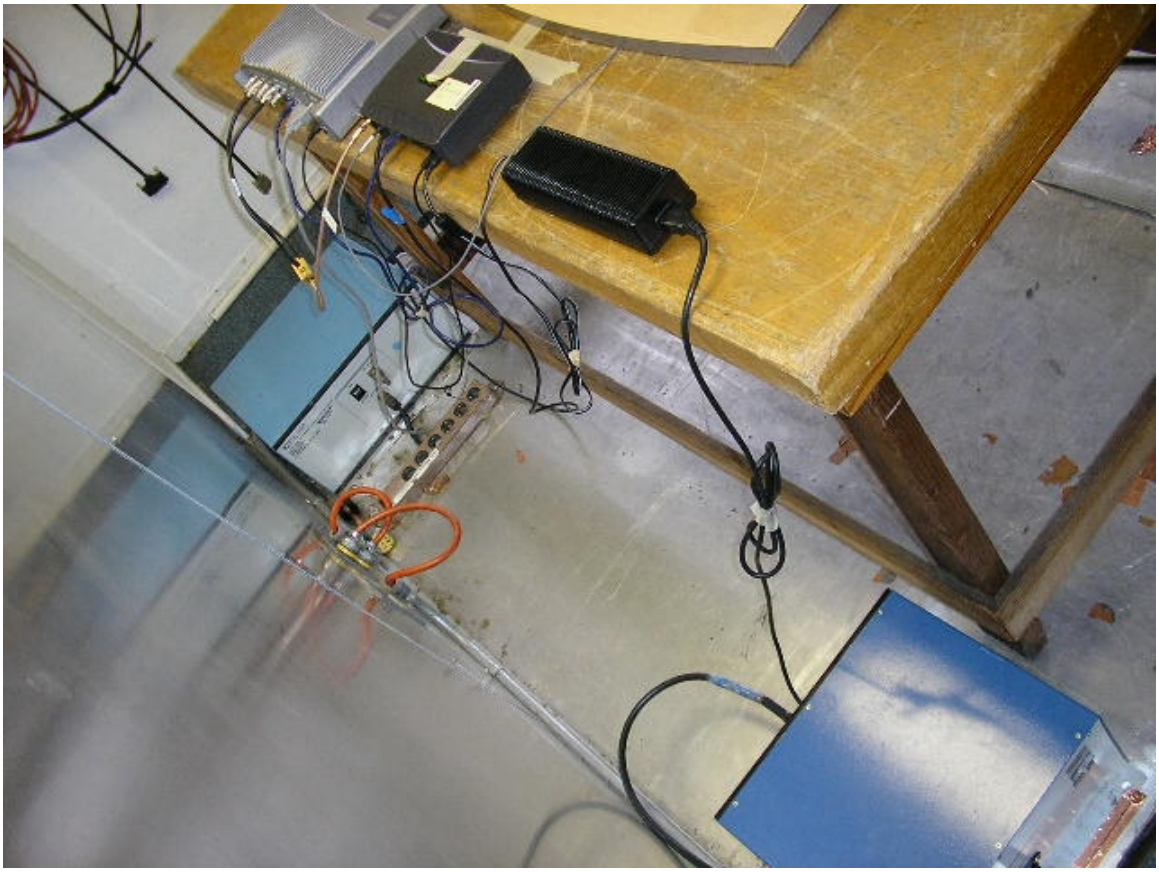
VUE TECHNOLOGY, INC.
ANTENNA ARRAY CONTROLLER
MODEL NUMBER: 32000721-XXXX rev X.X
FCC SUBPART B AND C - RADIATED EMISSIONS – 07-28-06

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

VUE TECHNOLOGY, INC.
ANTENNA ARRAY CONTROLLER
MODEL NUMBER: 32000721-XXXX rev X.X
FCC SUBPART B & C - CONDUCTED EMISSIONS - 07-31-06

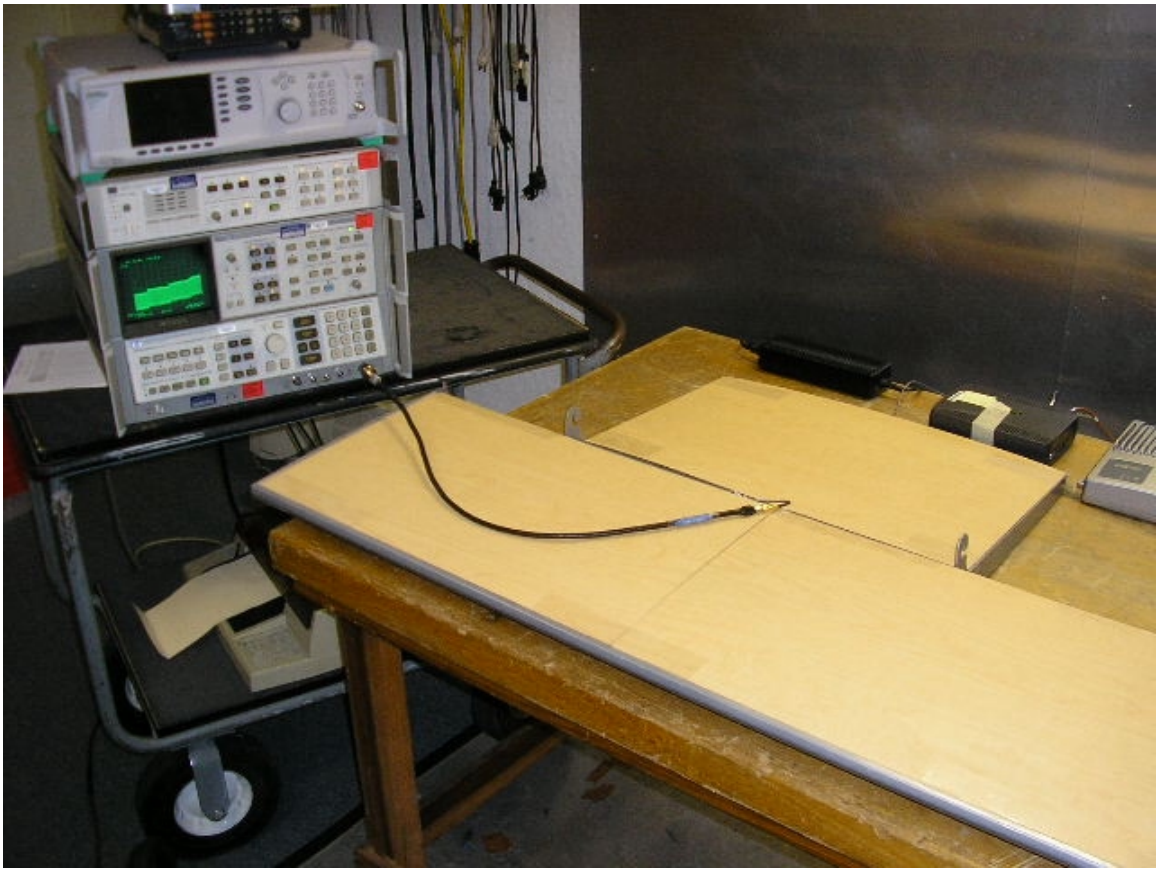
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

VUE TECHNOLOGY, INC.
ANTENNA ARRAY CONTROLLER
MODEL NUMBER: 32000721-XXXX rev X.X
FCC SUBPART B & C - CONDUCTED EMISSIONS - 07-31-06

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

VUE TECHNOLOGY, INC.
ANTENNA ARRAY CONTROLLER
MODEL NUMBER: 32000721-XXXX rev X.X
FCC SUBPART C – ANTENNA COAX PORT CONDUCTED EMISSIONS - 07-31-06

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED & CONDUCTED EMISSIONS

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**VueTechnology, Inc.**	**DATE**	**7/28/06**	
EUT	**Antenna Array Controller**	**DUTY CYCLE**	**N/A**	**%**
MODEL	**32000721-XXXXrev X.X**	**PEAK TO AVG**	**N/A**	**dB**
S/N	**0**	**TEST DIST.**	**3**	**Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**	

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2708.2500	52.1	A	H	3.0	270			26.9	2.0	33.7		0.0	**47.4**	**-6.6**	**54.0**	
2708.2500	54.5	53.5 A	V	2.5	0			26.9	2.0	33.7		0.0	**48.8**	**-5.2**	**54.0**	
2744.2500	50.9	A	H	4.0	270			27.1	2.0	33.7		0.0	**46.3**	**-7.7**	**54.0**	
2744.2500	52.8	A	V	3.0	0			27.1	2.0	33.7		0.0	**48.2**	**-5.8**	**54.0**	
2781.7500	48.8	A	H	4.0	270			27.2	2.0	33.6		0.0	**44.4**	**-9.6**	**54.0**	
2781.7500	53.0	A	V	1.5	270			27.2	2.0	33.6		0.0	**48.6**	**-5.4**	**54.0**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**VueTechnology, Inc.**	**DATE**	**7/28/06**	
EUT	**Antenna Array Controller**	**DUTY CYCLE**	**N/A**	**%**
MODEL	**32000721-XXXXrev X.X**	**PEAK TO AVG**	**N/A**	**dB**
S/N	**0**	**TEST DIST.**	**3**	**Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**	

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
3611.0000	48.3	A	H	2.0	0			27.8	2.7	33.4		0.0	**45.3**	**-8.7**	**54.0**	
3611.0000	51.5	A	V	2.0	0			27.8	2.7	33.4		0.0	**48.5**	**-5.5**	**54.0**	
3659.0000	47.9	A	H	2.0	270			27.9	2.8	33.4		0.0	**45.1**	**-8.9**	**54.0**	
3659.0000	51.1	A	V	3.0	0			27.9	2.8	33.4		0.0	**48.3**	**-5.7**	**54.0**	
3709.0000	48.6	A	H	3.0	0			27.9	3.0	33.4		0.0	**46.0**	**-8.0**	**54.0**	
3709.0000	50.3	A	V	1.5	0			27.9	3.0	33.4		0.0	**47.7**	**-6.3**	**54.0**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**VueTechnology, Inc.**	**DATE**	**7/28/06**
EUT	**Antenna Array Controller**	**DUTY CYCLE**	**N/A %**
MODEL	**32000721-XXXXrev X.X**	**PEAK TO AVG**	**N/A dB**
S/N	**0**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
4513.7500	46.1	A	H	3.0	0			29.4	2.5	33.7		0.0	**44.3**	**-9.7**	**54.0**	
4513.7500	46.7	A	V	2.0	0			29.4	2.5	33.7		0.0	**44.9**	**-9.1**	**54.0**	
4573.7500	50.2	A	H	3.0	0			29.5	2.5	33.7		0.0	**48.6**	**-5.4**	**54.0**	
4573.7500	52.1	49.5 A	V	2.0	0			29.5	2.5	33.7		0.0	**47.9**	**-6.1**	**54.0**	
4636.2500	47.6	A	H	3.0	270			29.7	2.6	33.7		0.0	**46.1**	**-7.9**	**54.0**	
4636.2500	48.1	A	V	2.0	270			29.7	2.6	33.7		0.0	**46.6**	**-7.4**	**54.0**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**VueTechnology, Inc.**	**DATE**	**7/28/06**	
EUT	**Antenna Array Controller**	**DUTY CYCLE**	**N/A**	**%**
MODEL	**32000721-XXXXrev X.X**	**PEAK TO AVG**	**N/A**	**dB**
S/N	**0**	**TEST DIST.**	**3**	**Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**	

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
5416.5000		A	H					31.1	2.8	33.8					**54.0**	**no emission found**
5416.5000		A	V					31.1	2.8	33.8					**54.0**	**no emission found**
5488.5000	43.7	A	H	2.0	90			31.2	2.8	33.8		0.0	**43.9**	**-10.1**	**54.0**	
5488.5000	42.3	A	V	2.0	0			31.2	2.8	33.8		0.0	**42.5**	**-11.5**	**54.0**	
5563.5000	40.9	A	H	3.0	0			31.1	2.8	33.9		0.0	**40.9**	**-13.1**	**54.0**	
5563.5000	46.3	A	V	2.0	90			31.1	2.8	33.9		0.0	**46.3**	**-7.7**	**54.0**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**VueTechnology, Inc.**	**DATE**	**7/28/06**
EUT	**Antenna Array Controller**	**DUTY CYCLE**	**N/A %**
MODEL	**32000721-XXXXrev X.X**	**PEAK TO AVG**	**N/A dB**
S/N	**0**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
6319.2500		A	H					31.8	3.1	35.1					**54.0**	**no emission found**
6319.2500		A	V					31.8	3.1	35.1					**54.0**	**no emission found**
6403.2500		A	H					32.1	3.1	35.2					**54.0**	**no emission found**
6403.2500		A	V					32.1	3.1	35.2					**54.0**	**no emission found**
6490.7500		A	H					32.4	3.2	35.3					**54.0**	**no emission found**
6490.7500		A	V					32.4	3.2	35.3					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**VueTechnology, Inc.**	**DATE**	**7/28/06**	
EUT	**Antenna Array Controller**	**DUTY CYCLE**	**N/A**	**%**
MODEL	**32000721-XXXXrev X.X**	**PEAK TO AVG**	**N/A**	**dB**
S/N	**0**	**TEST DIST.**	**3**	**Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**	

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
7222.0000		A	H					34.4	3.4	35.3					**54.0**	**no emission found**
7222.0000		A	V					34.4	3.4	35.3					**54.0**	**no emission found**
7318.0000		A	H					34.6	3.5	35.2					**54.0**	**no emission found**
7318.0000		A	V					34.6	3.5	35.2					**54.0**	**no emission found**
7418.0000		A	H					34.9	3.5	35.2					**54.0**	**no emission found**
7418.0000		A	V					34.9	3.5	35.2					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**VueTechnology, Inc.**	**DATE**	**7/28/06**
EUT	**Antenna Array Controller**	**DUTY CYCLE**	**N/A %**
MODEL	**32000721-XXXXrev X.X**	**PEAK TO AVG**	**N/A dB**
S/N	**0**	**TEST DIST.**	**3 Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
8124.7500		A	H					35.3	3.6	34.0					**54.0**	**no emission found**
8124.7500		A	V					35.3	3.6	34.0					**54.0**	**no emission found**
8232.7500		A	H					35.3	3.5	33.9					**54.0**	**no emission found**
8232.7500		A	V					35.3	3.5	33.9					**54.0**	**no emission found**
8345.2500		A	H					35.2	3.7	33.8					**54.0**	**no emission found**
8345.2500		A	V					35.2	3.7	33.8					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.247 AND 15.205)

COMPANY	**VueTechnology, Inc.**	**DATE**	**7/28/06**	
EUT	**Antenna Array Controller**	**DUTY CYCLE**	**N/A**	**%**
MODEL	**32000721-XXXXrev X.X**	**PEAK TO AVG**	**N/A**	**dB**
S/N	**0**	**TEST DIST.**	**3**	**Meters**
TEST ENGINEER	**Joey Madlangbayan**	**LAB**	**J**	

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	Distance Factor (dB)	Mixer Factor (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
9027.5000		A	H					37.0	4.3	33.4					**54.0**	**no emission found**
9027.5000		A	V					37.0	4.3	33.4					**54.0**	**no emission found**
9147.5000		A	H					36.7	4.3	33.5					**54.0**	**no emission found**
9147.5000		A	V					36.7	4.3	33.5					**54.0**	**no emission found**
9272.5000		A	H					36.3	4.3	33.5					**54.0**	**no emission found**
9272.5000		A	V					36.3	4.3	33.5					**54.0**	**no emission found**

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

Test Location : Compatible Electronics
Customer : Steve Raynesford
Manufacturer : Vue Technology, Inc.
Eut name : Antenna Array System
Model : 32000721-XXXX rev X.X
Serial # : Hi-Pwr RF (TX) mode (902.75)
Specification : FCC Pt. 15 - Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : clk: 9.83MHz(cpu AAC), 922MHz (10)
Qualification 10kHz-10GHz
tested by: J. Madlangbayan
sprurious emissions

Page : 1/1
Date : 07/28/2006
Time : 01:58:36 PM
Lab : H
Test Distance : 3.00 Meters

Pol	Freq	Reading	Cable loss	Antenna factor	Amplifier gain	Corr'd rdg = R	Limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB
1V	69.034	56.70	1.09	8.61	32.69	33.71	40.00	-6.29
2V	49.148	39.30	0.98	12.83	32.61	20.51	40.00	-19.49
3V	78.638	46.30	1.19	6.57	32.61	21.44	40.00	-18.56
4V	117.958	36.00	1.52	12.66	32.55	17.63	43.50	-25.87
5V	127.788	34.70	1.61	13.11	32.51	16.91	43.50	-26.59
6V	137.618	36.30	1.65	12.45	32.55	17.85	43.50	-25.65
7V	922.047	31.70	4.93	24.65	30.90	30.38	46.00	-15.62

Test Location : Compatible Electronics
Customer : Steve Raynesford
Manufacturer : Vue Technology, Inc.
Eut name : Antenna Array System
Model : 32000721-XXXX rev X.X
Serial # : Hi-Pwr RF (TX) mode (914.75)
Specification : FCC Pt. 15 - Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : clk: 9.83MHz(cpu AAC), 922MHz (10)
Qualification 10kHz-10GHz
tested by: J. Madlangbayan
sprurious emissions

Page : 1/1
Date : 07/28/2006
Time : 02:33:12 PM
Lab : H
Test Distance : 3.00 Meters

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	69.034	57.40	1.09	8.61	32.69	34.41	40.00	-5.59
2V	117.956	36.70	1.52	12.66	32.55	18.33	43.50	-25.17
3V	127.786	33.50	1.61	13.11	32.51	15.71	43.50	-27.79
4V	137.616	35.50	1.65	12.45	32.55	17.05	43.50	-26.45
5V	157.258	36.60	1.73	12.73	32.63	18.43	43.50	-25.07
6V	176.918	35.70	1.81	15.66	32.69	20.48	43.50	-23.02
7V	922.074	30.20	4.93	24.65	30.90	28.89	46.00	-17.11

Test Location : Compatible Electronics
Customer : Steve Raynesford
Manufacturer : Vue Technology, Inc.
Eut name : Antenna Array System
Model : 32000721-XXXX rev X.X
Serial # : Hi-Pwr RF (TX) mode (927.25)
Specification : FCC Pt. 15 - Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : clk: 9.83MHz(cpu AAC), 922MHz (10)
Qualification 10kHz-10GHz
tested by: J. Madlangbayan
sprurious emissions

Page : 1/1
Date : 07/28/2006
Time : 03:07:01 PM
Lab : H
Test Distance : 3.00 Meters

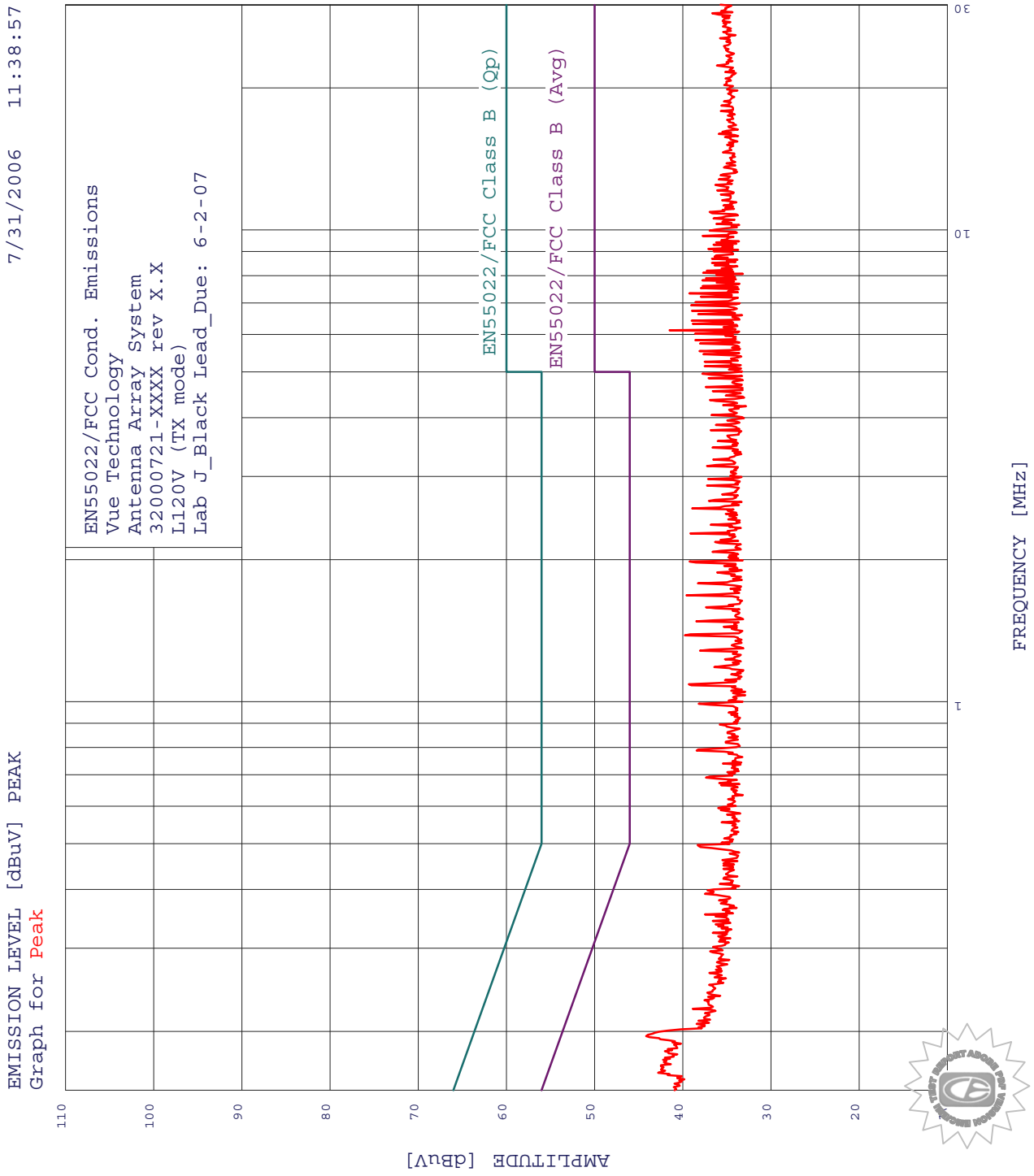
Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	69.041	56.90	1.09	8.61	32.69	33.91	40.00	-6.09
2H	58.985	36.30	1.00	10.90	32.60	15.60	40.00	-24.40
3H	68.815	40.20	1.09	8.65	32.69	17.25	40.00	-22.75
4H	78.645	42.30	1.19	6.57	32.61	17.44	40.00	-22.56
5H	117.965	34.00	1.52	12.67	32.55	15.64	43.50	-27.86
6H	127.795	34.30	1.61	13.10	32.51	16.50	43.50	-27.00
7V	922.005	31.30	4.93	24.65	30.90	29.98	46.00	-16.02

Test Location : Compatible Electronics **Page** : 1/1
Customer : Steve Raynesford **Date** : 07/28/2006
Manufacturer : Vue Technology, Inc. **Time** : 10:07:40 AM
Eut name : Antenna Array System **Lab** : H
Model : 32000721-XXXX rev X.X **Test Distance** : 3.00 Meters
Serial # : IS-AAC passive comm. mode
Specification : FCC Pt. 15 - Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : clk: 9.83MHz(cpu AAC), 922MHz (10)
Qualification 30MHz-1000MHz
tested by: J. Madlangbayan temp: 24degC RH: 66% humid

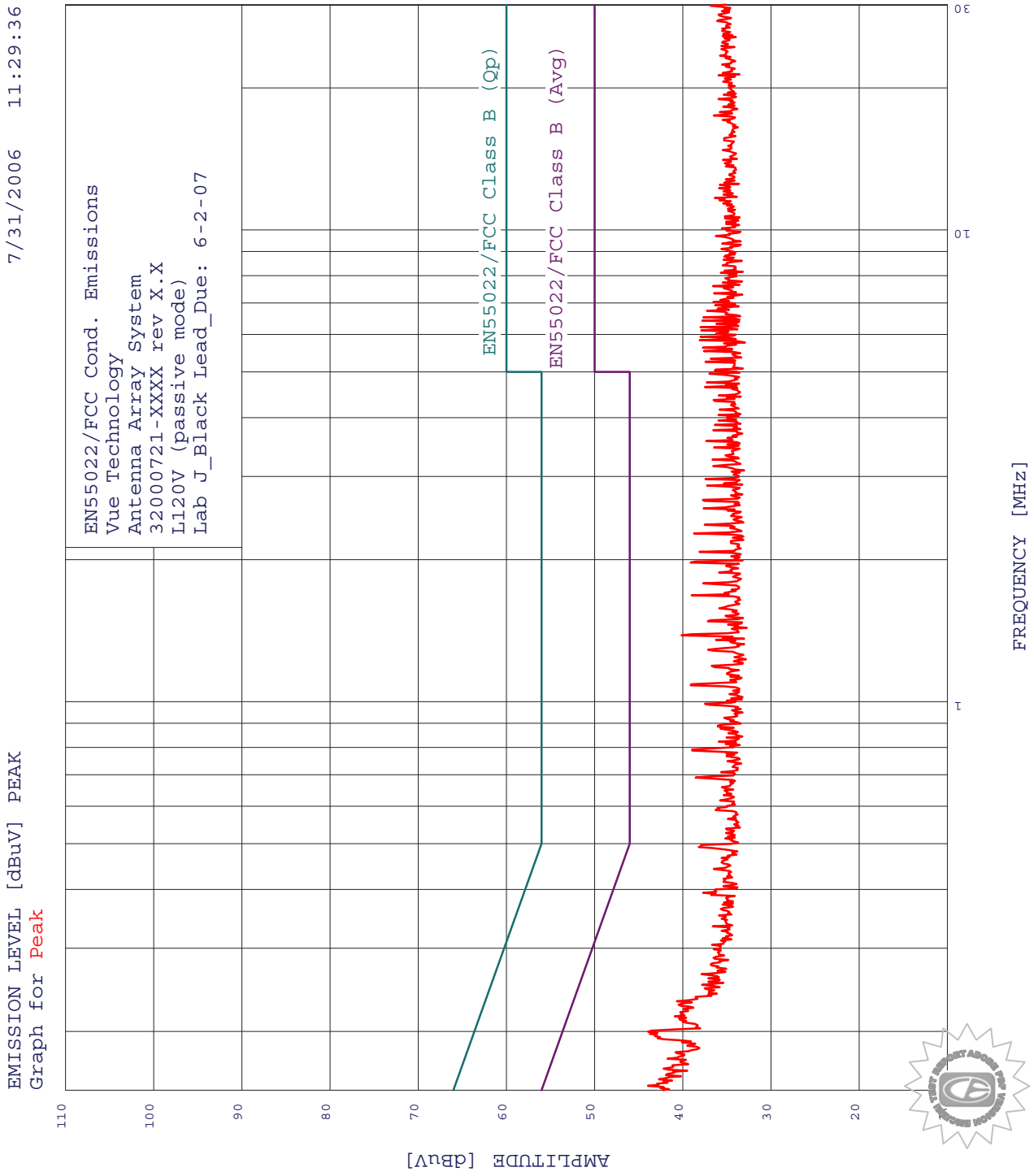
Pol	Freq	Reading	Cable loss	Antenna factor	Amplifier gain	Corr'd rdg = R	Limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB
1V	922.063	53.90	4.93	24.65	30.90	52.59	46.00	6.59
2V	922.052Qp	46.31	4.93	24.65	30.90	44.99	46.00	-1.01
3H	922.075	51.30	4.93	24.65	30.90	49.99	46.00	3.99
4V	115.255	51.20	1.49	12.35	32.57	32.46	43.50	-11.04
5H	922.075Qp	43.66	4.93	24.65	30.90	42.35	46.00	-3.65
6V	93.416	60.30	1.30	9.04	32.64	38.01	43.50	-5.49
7V	80.977	54.60	1.21	6.51	32.60	29.72	40.00	-10.28
8V	84.818	58.70	1.25	7.29	32.60	34.64	40.00	-5.36
9V	49.182	40.80	0.99	12.83	32.61	22.01	40.00	-17.99
10V	59.012	44.20	1.00	10.89	32.60	23.49	40.00	-16.51
11V	127.822	36.20	1.61	13.10	32.51	18.40	43.50	-25.10
12H	902.815	43.90	4.82	23.91	30.90	41.73	46.00	-4.27
13V	902.806	43.70	4.82	23.91	30.90	41.53	46.00	-4.47
	902.8 symbol reader signal							

Test Location : Compatible Electronics **Page** : 1/1
Customer : Steve Raynesford **Date** : 07/31/2006
Manufacturer : Vue Technology, Inc. **Time** : 08:37:13 AM
Eut name : Antenna Array System **Lab** : J
Model : 32000721-XXXX rev X.X **Test Distance** : 3.00 Meters
Serial # : IS-AAC passive comm. mode
Specification : FCC Pt. 15 - Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : clk: 9.83MHz(cpu AAC), 922MHz (10)
Qualification 1 to 9.22GHz
tested by: J. Madlangbayan
spurious emissions temp: 22degC RH: 73% humid

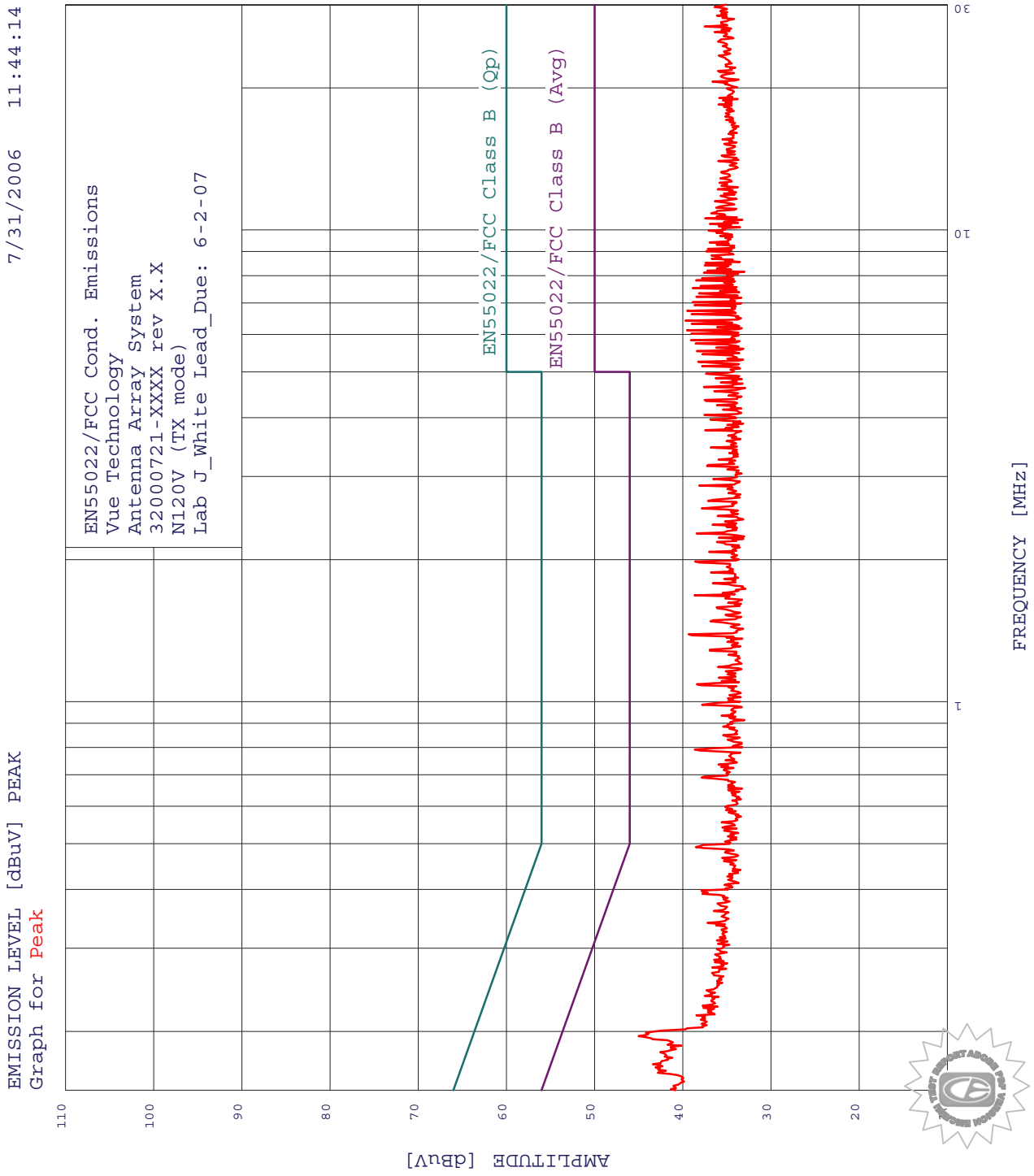
Pol	Freq	Reading	Cable loss	Antenna factor	Amplifier gain	Corr'd rdg = R	Limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB
1V	1844.034	42.80	1.60	26.07	34.27	36.20	54.00	-17.80
2V	2766.047	42.30	2.02	27.21	33.64	37.88	54.00	-16.12
3V	3688.013	41.30	2.91	27.90	33.44	38.66	54.00	-15.34
4V	4610.020	40.90	2.54	29.63	33.72	39.35	54.00	-14.65
5V	5532.020	39.00	2.81	31.17	33.87	39.11	54.00	-14.89
6H	1844.039	42.60	1.60	26.07	34.27	36.00	54.00	-18.00
7H	2766.240	40.80	2.02	27.21	33.64	36.39	54.00	-17.61
8H	3687.980	40.50	2.91	27.90	33.44	37.86	54.00	-16.14
9H	4610.480	40.00	2.54	29.63	33.72	38.45	54.00	-15.55


7/31/2006 11:38:57
EN55022/FCC Cond. Emissions
Vue Technology
Antenna Array System
32000721-XXXX rev X.X
L120V (TX mode)
Lab J_Black Lead_Due: 6-2-07
EN55022/FCC Class B (Qp)
EN55022/FCC Class B (Avg)
EMISSION LEVEL [dBuV] PEAK
Graph for Peak
AMPLITUDE [dBuV]
FREQUENCY [MHz]
110
100
90
80
70
60
50
40
30
20
30
10
1

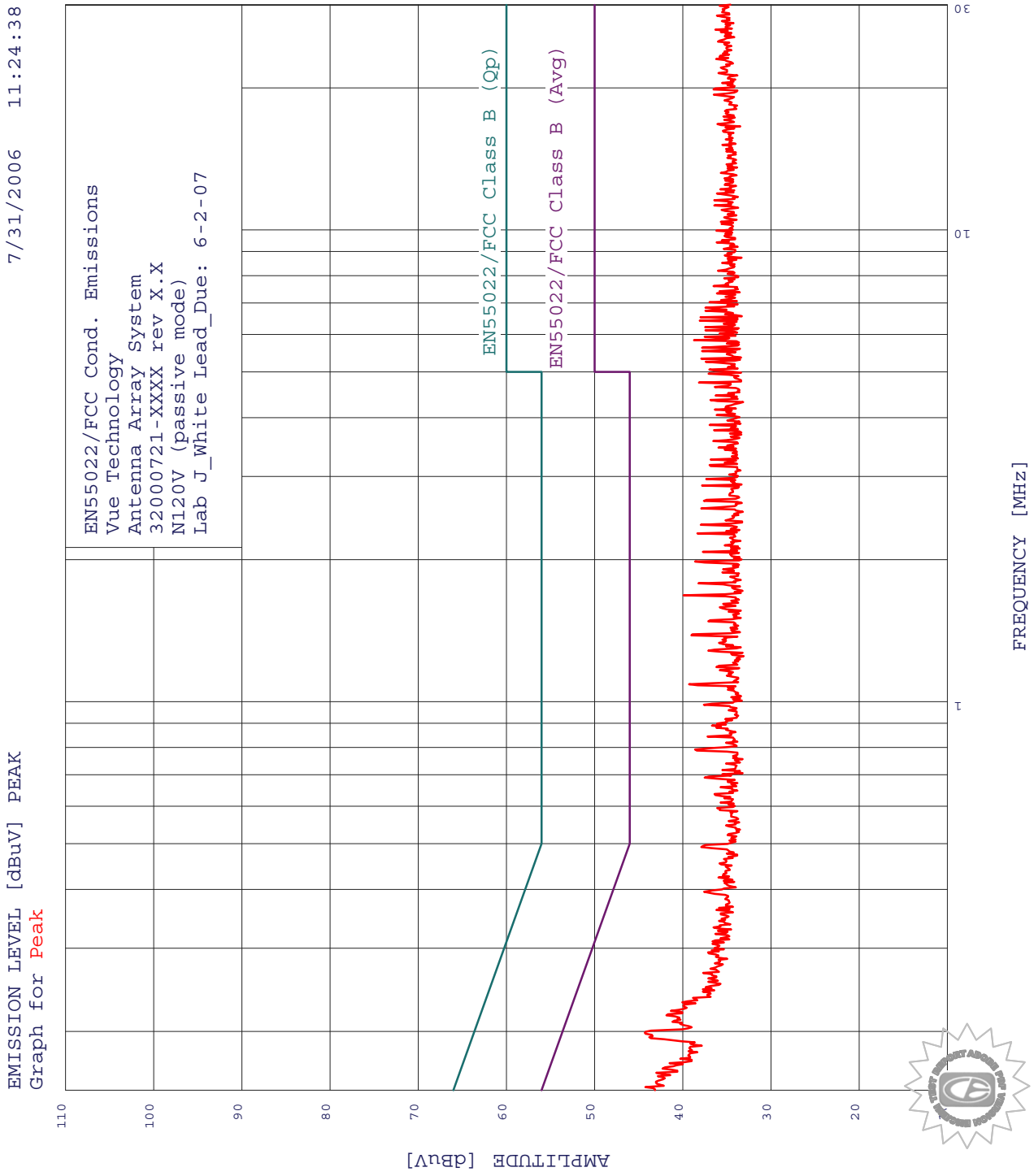
```
EN55022/FCC Cond. Emissions   7/31/2006     11:38:57
Vue Technology
Antenna Array System
32000721-XXXX rev X.X
L120V (TX mode)
Lab J_Black Lead_Due: 6-2-07
TEST ENGINEER :  J. Madlangbayan
-------------------------------------------------
10 highest peaks above -50.00 dB of EN55022/FCC Class B (Avg) limit line
Peak criteria :  3.00 dB, Curve : Peak
Peak#  Freq(MHz)  Amp(dBuV)  Limit(dB)  Delta(dB)
  1      1.382      39.74       46.00      -6.26
  2      1.680      39.57       46.00      -6.43
  3      1.089      39.30       46.00      -6.70
  4      1.981      39.21       46.00      -6.79
  5      2.274      39.12       46.00      -6.88
  6      2.568      38.92       46.00      -7.08
  7      1.480      38.45       46.00      -7.55
  8      0.788      38.43       46.00      -7.57
  9      1.781      38.28       46.00      -7.72
 10      0.497      38.29       46.05      -7.76
-------------------------------------------------
```


7/31/2006 11:29:36
EN55022/FCC Cond. Emissions
Vue Technology
Antenna Array System
32000721-XXXX rev X.X
L120V (passive mode)
Lab J_Black Lead_Due: 6-2-07
EN55022/FCC Class B (Qp)
EN55022/FCC Class B (Avg)
EMISSION LEVEL [dBuV] PEAK
Graph for Peak
AMPLITUDE [dBuV]
FREQUENCY [MHz]
110
100
90
80
70
60
50
40
30
20
30
10
1

```
EN55022/FCC Cond. Emissions    7/31/2006     11:29:36
Vue Technology
Antenna Array System
32000721-XXXX rev X.X
L120V (passive mode)
Lab J_Black Lead_Due: 6-2-07
TEST ENGINEER :  J. Madlangbayan
-------------------------------------------------
10 highest peaks above -50.00 dB of EN55022/FCC Class B (Avg) limit line
Peak criteria :  3.00 dB, Curve : Peak
Peak#  Freq(MHz)  Amp(dBuV)  Limit(dB)  Delta(dB)
  1      1.382      40.14       46.00      -5.86
  2      1.971      39.11       46.00      -6.89
  3      1.083      39.10       46.00      -6.90
  4      1.680      38.97       46.00      -7.03
  5      0.788      38.93       46.00      -7.07
  6      2.274      38.72       46.00      -7.28
  7      0.690      38.55       46.00      -7.45
  8      2.077      38.11       46.00      -7.89
  9      0.492      38.19       46.14      -7.95
 10      2.679      37.72       46.00      -8.28
-------------------------------------------------
```

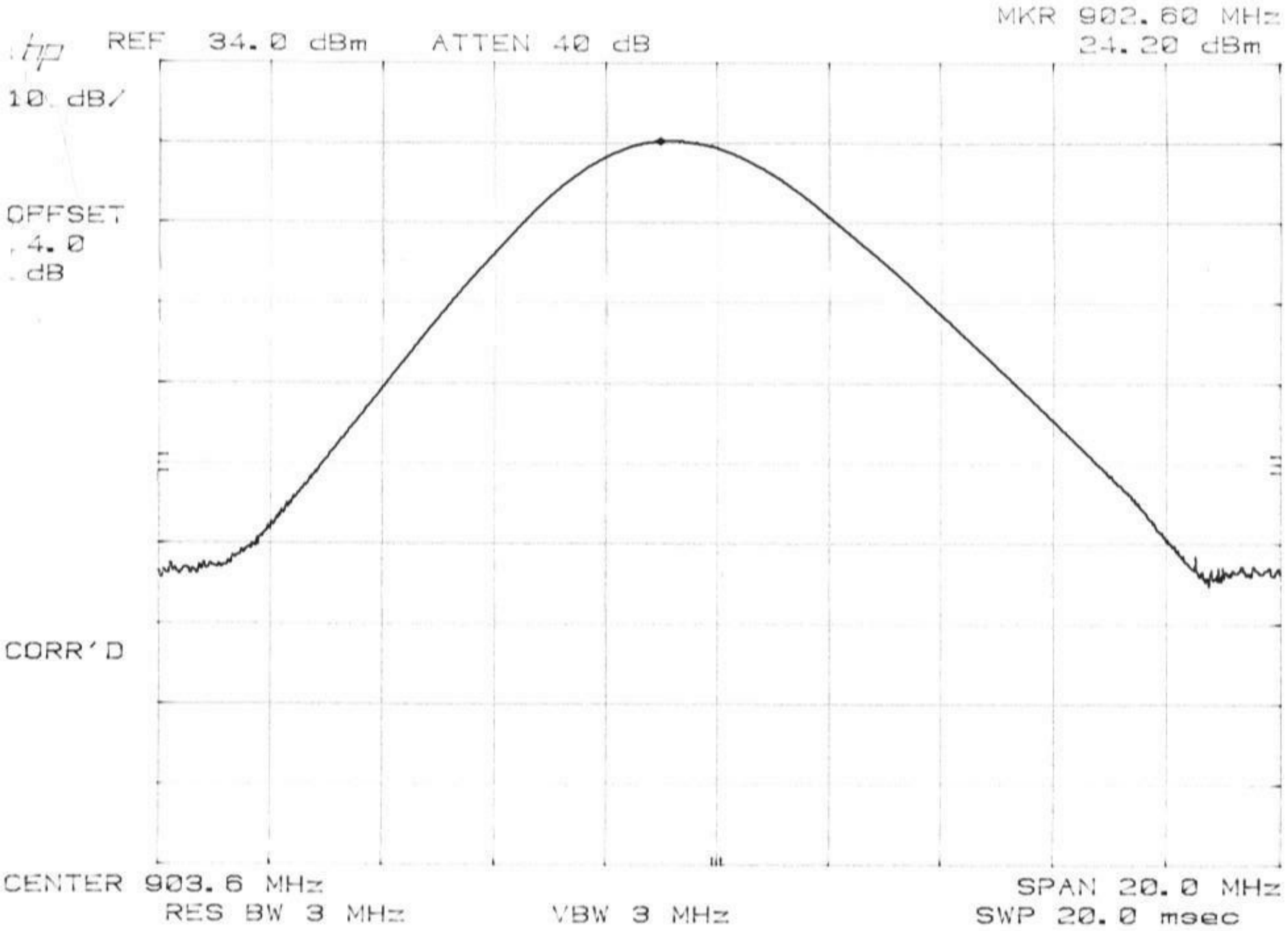

7/31/2006 11:44:14
EN55022/FCC Cond. Emissions
Vue Technology
Antenna Array System
32000721-XXXX rev X.X
N120V (TX mode)
Lab J_White Lead_Due: 6-2-07
EN55022/FCC Class B (Qp)
EN55022/FCC Class B (Avg)
EMISSION LEVEL [dBuV] PEAK
Graph for Peak
AMPLITUDE [dBuV]
FREQUENCY [MHz]
110
100
90
80
70
60
50
40
30
20
30
10
1

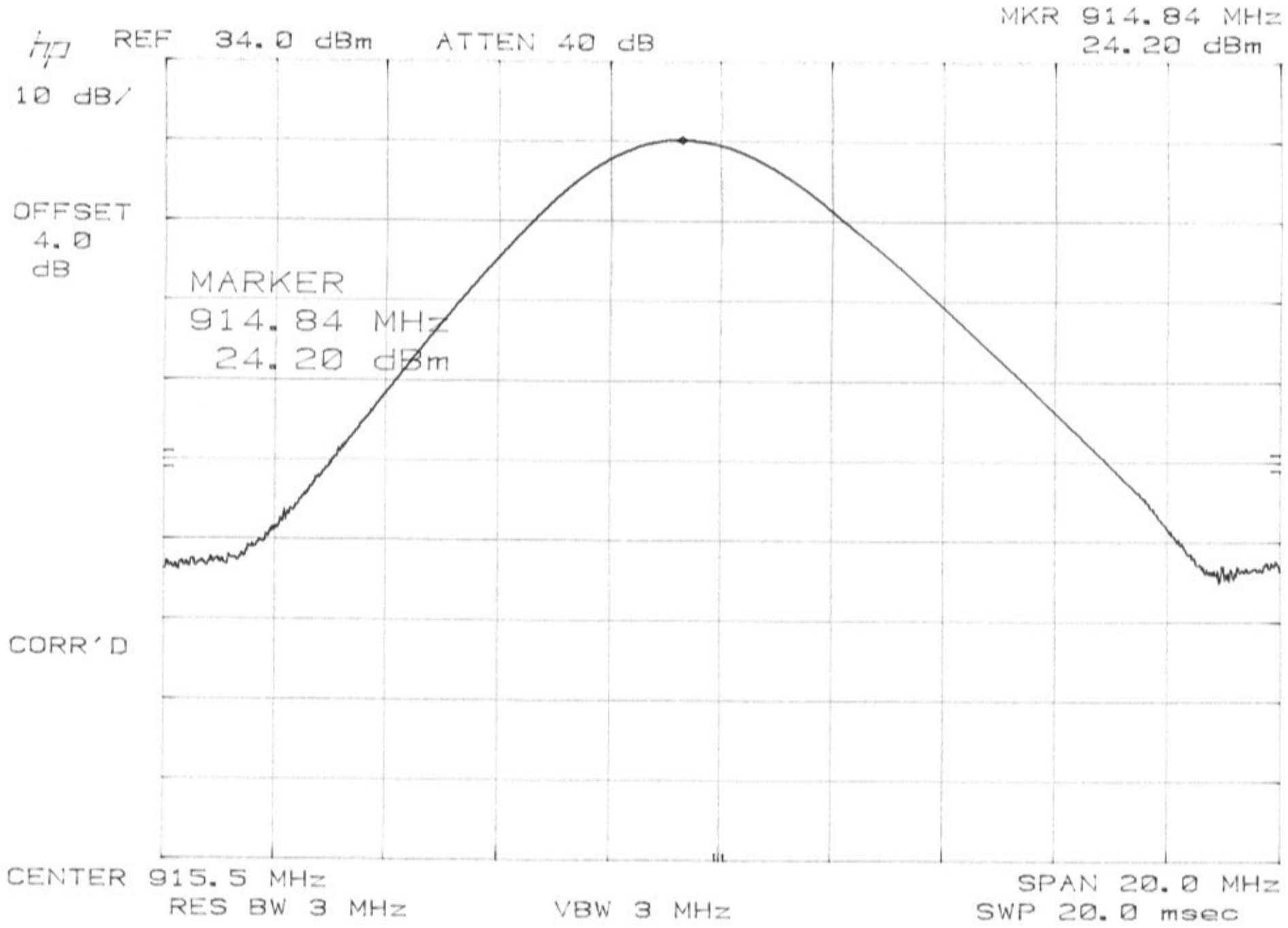
```
EN55022/FCC Cond. Emissions   7/31/2006     11:44:14
Vue Technology
Antenna Array System
32000721-XXXX rev X.X
N120V (TX mode)
Lab J_White Lead_Due: 6-2-07
TEST ENGINEER :  J. Madlangbayan
-------------------------------------------------
10 highest peaks above -50.00 dB of EN55022/FCC Class B (Avg) limit line
Peak criteria :  3.00 dB, Curve : Peak
Peak#  Freq(MHz)  Amp(dBuV)  Limit(dB)  Delta(dB)
  1      1.389      39.34       46.00      -6.66
  2      1.680      38.67       46.00      -7.33
  3      0.792      38.63       46.00      -7.37
  4      1.981      38.61       46.00      -7.39
  5      2.274      38.42       46.00      -7.58
  6      1.089      38.40       46.00      -7.60
  7      0.492      38.50       46.14      -7.63
  8      2.870      38.13       46.00      -7.87
  9      0.690      37.86       46.00      -8.14
 10      2.568      37.82       46.00      -8.18
-------------------------------------------------
```

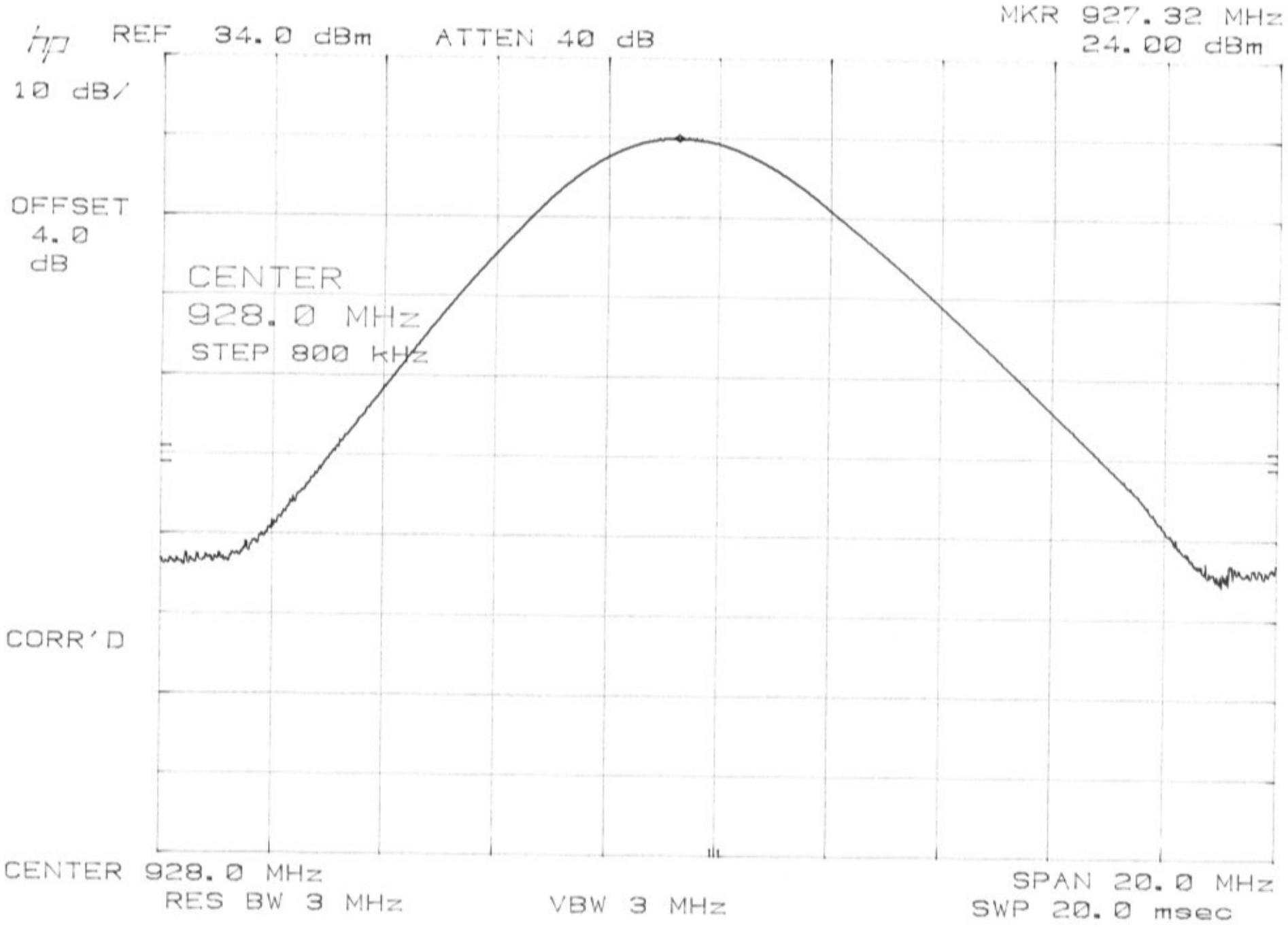

7/31/2006 11:24:38
EN55022/FCC Cond. Emissions
Vue Technology
Antenna Array System
32000721-XXXX rev X.X
N120V (passive mode)
Lab J_White Lead_Due: 6-2-07
EN55022/FCC Class B (Qp)
EN55022/FCC Class B (Avg)
EMISSION LEVEL [dBuV] PEAK
Graph for Peak
AMPLITUDE [dBuV]
FREQUENCY [MHz]
110
100
90
80
70
60
50
40
30
20
30
10
1

```
EN55022/FCC Cond. Emissions  7/31/2006     11:24:38
Vue Technology
Antenna Array System
32000721-XXXX rev X.X
N120V (passive mode)
Lab J_White Lead_Due: 6-2-07
TEST ENGINEER :  J. Madlangbayan
-------------------------------------------------
10 highest peaks above -50.00 dB of EN55022/FCC Class B (Avg) limit line
Peak criteria :  3.00 dB, Curve : Peak
Peak#  Freq(MHz)  Amp(dBuV)  Limit(dB)  Delta(dB)
  1      1.680      39.90       46.00      -6.10
  2      1.089      39.29       46.00      -6.71
  3      1.382      39.00       46.00      -7.00
  4      1.981      38.61       46.00      -7.39
  5      0.792      38.59       46.00      -7.41
  6      2.274      38.34       46.00      -7.66
  7      1.781      38.21       46.00      -7.79
  8      4.748      38.16       46.00      -7.84
  9      2.371      37.95       46.00      -8.05
 10      2.568      37.88       46.00      -8.12
-------------------------------------------------
```

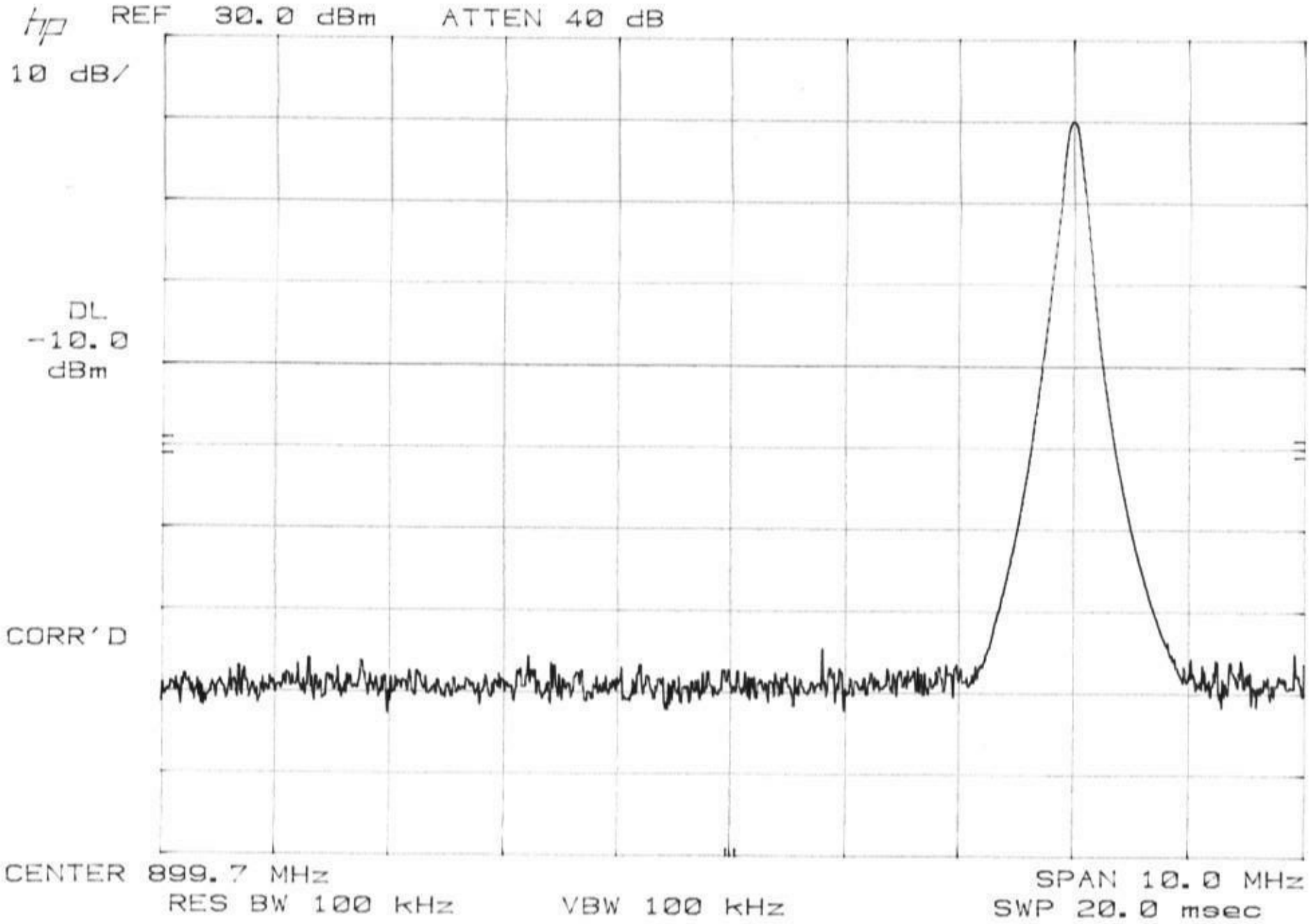
PEAK POWER OUTPUT

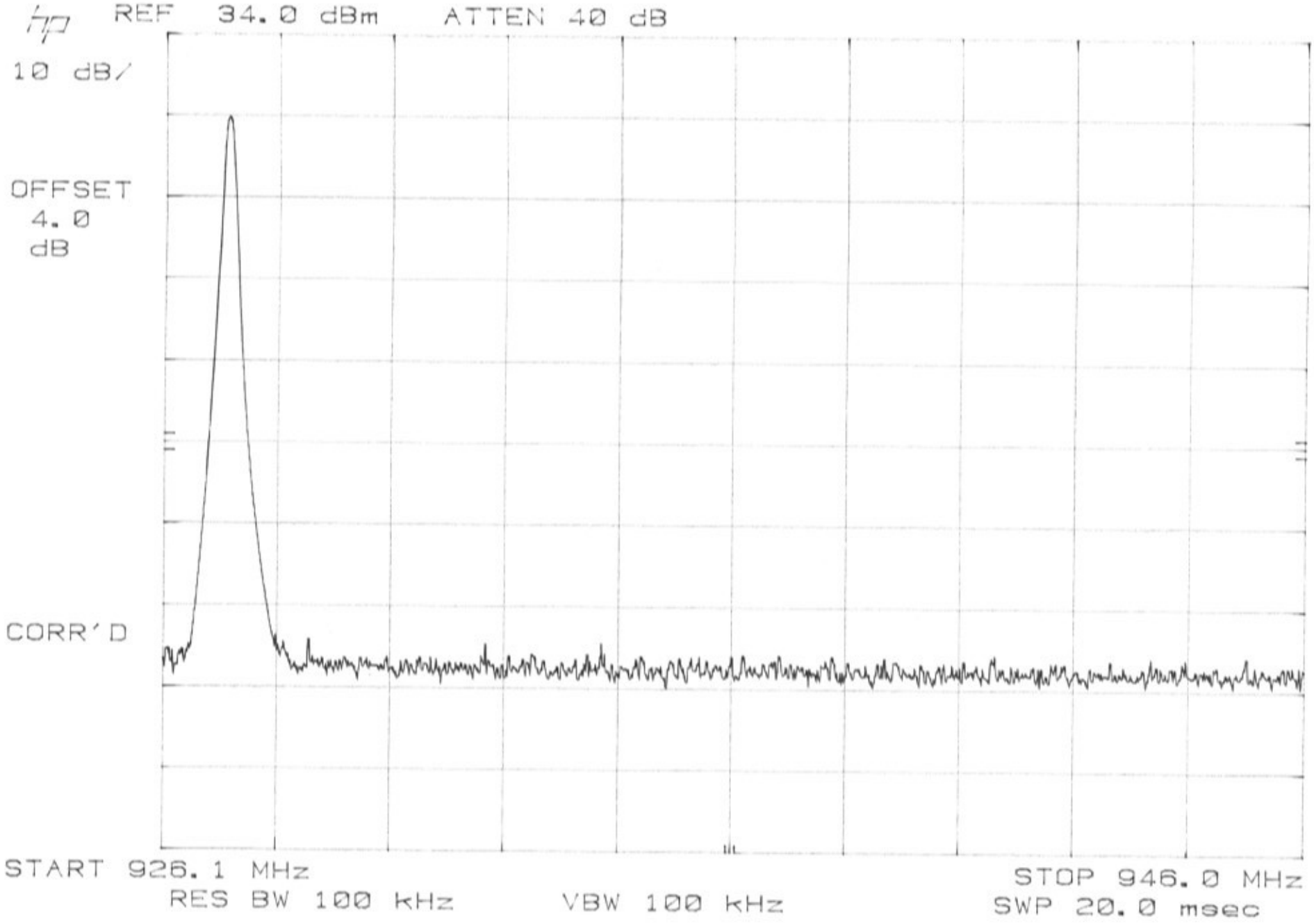

MKR 902.60 MHz
24.20 dBm
REF 34.0 dBm
ATTEN 40 dB
10 dB/
OFFSET
4.0
dB
CORR'D
CENTER 903.6 MHz
RES BW 3 MHz
VBW 3 MHz
SPAN 20.0 MHz
SWP 20.0 msec


MKR 914.84 MHz
24.20 dBm
REF 34.0 dBm
ATTEN 40 dB
10 dB/
OFFSET
4.0
dB
MARKER
914.84 MHz
24.20 dBm
CORR'D
CENTER 915.5 MHz
RES BW 3 MHz
VBW 3 MHz
SPAN 20.0 MHz
SWP 20.0 msec

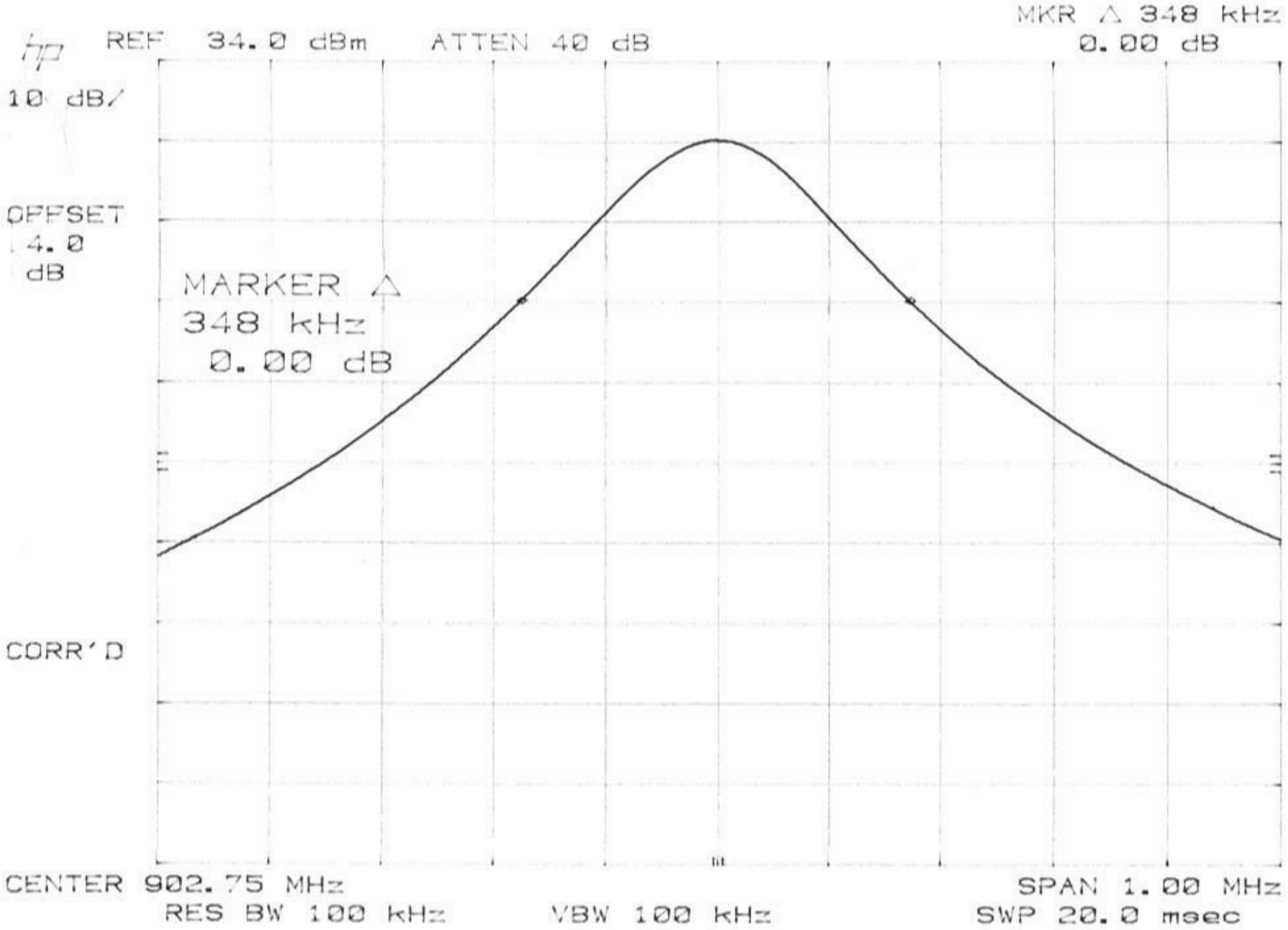

REF 34.0 dBm
ATTEN 40 dB
MKR 927.32 MHz
24.00 dBm
10 dB/
OFFSET
4.0
dB
CENTER
928.0 MHz
STEP 800 kHz
CORR'D
CENTER 928.0 MHz
RES BW 3 MHz
VBW 3 MHz
SPAN 20.0 MHz
SWP 20.0 msec

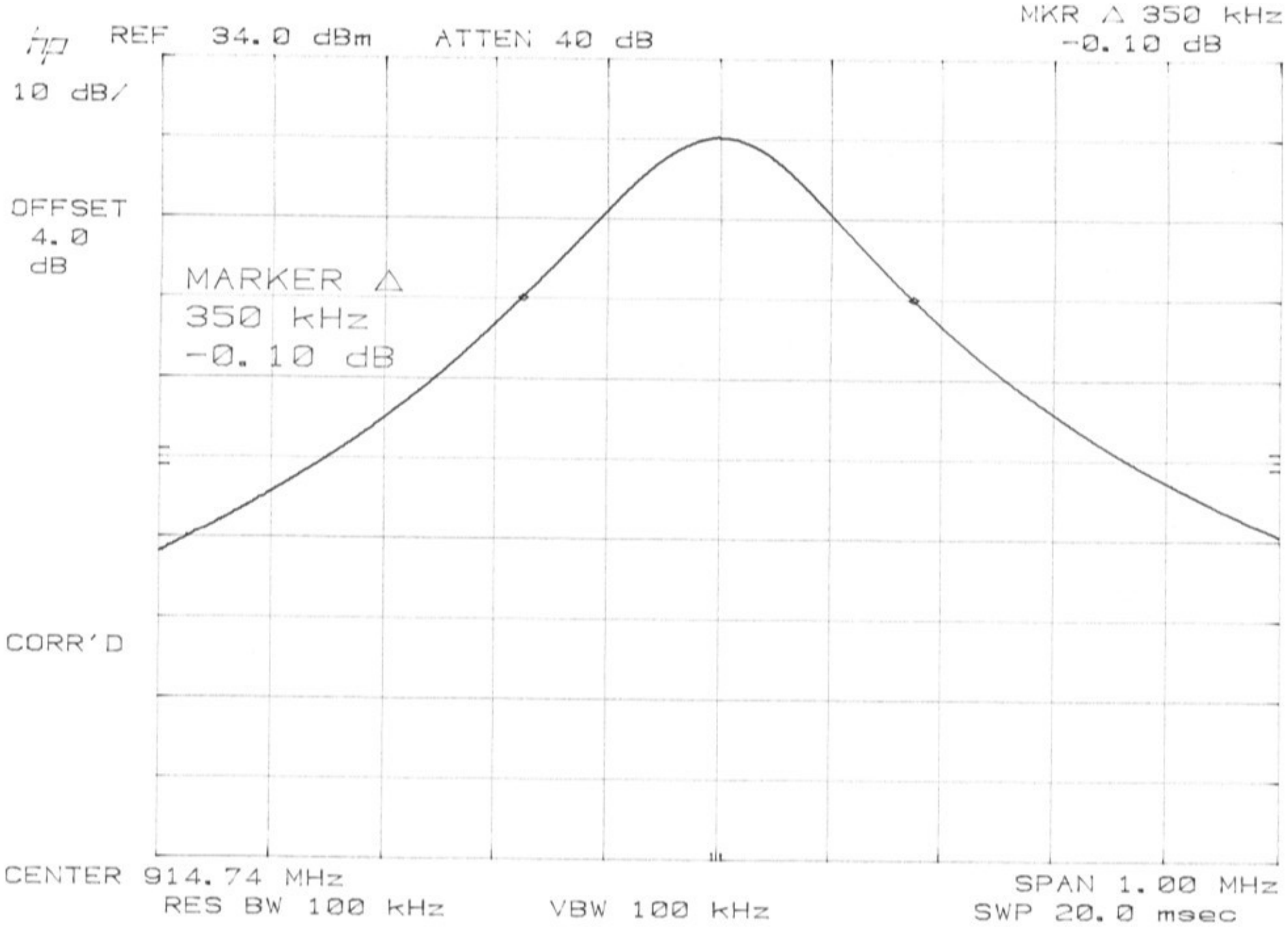
BAND EDGES

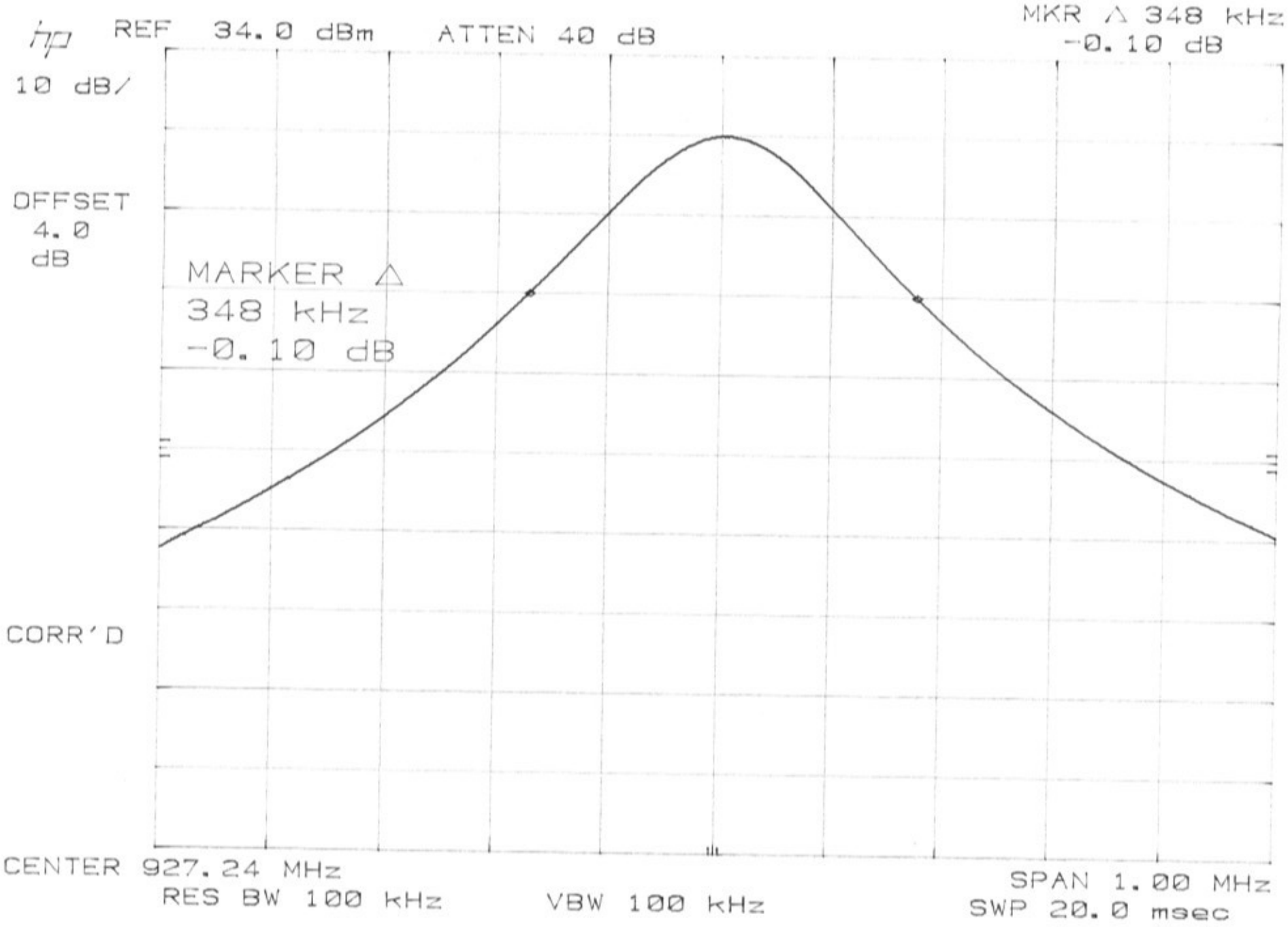

hp
REF 30.0 dBm
ATTEN 40 dB
10 dB/
DL
-10.0
dBm
CORR'D
CENTER 899.7 MHz
RES BW 100 kHz
VBW 100 kHz
SPAN 10.0 MHz
SWP 20.0 msec


REF 34.0 dBm
ATTEN 40 dB
10 dB/
OFFSET
4.0
dB
CORR'D
START 926.1 MHz
RES BW 100 kHz
VBW 100 kHz
STOP 946.0 MHz
SWP 20.0 msec

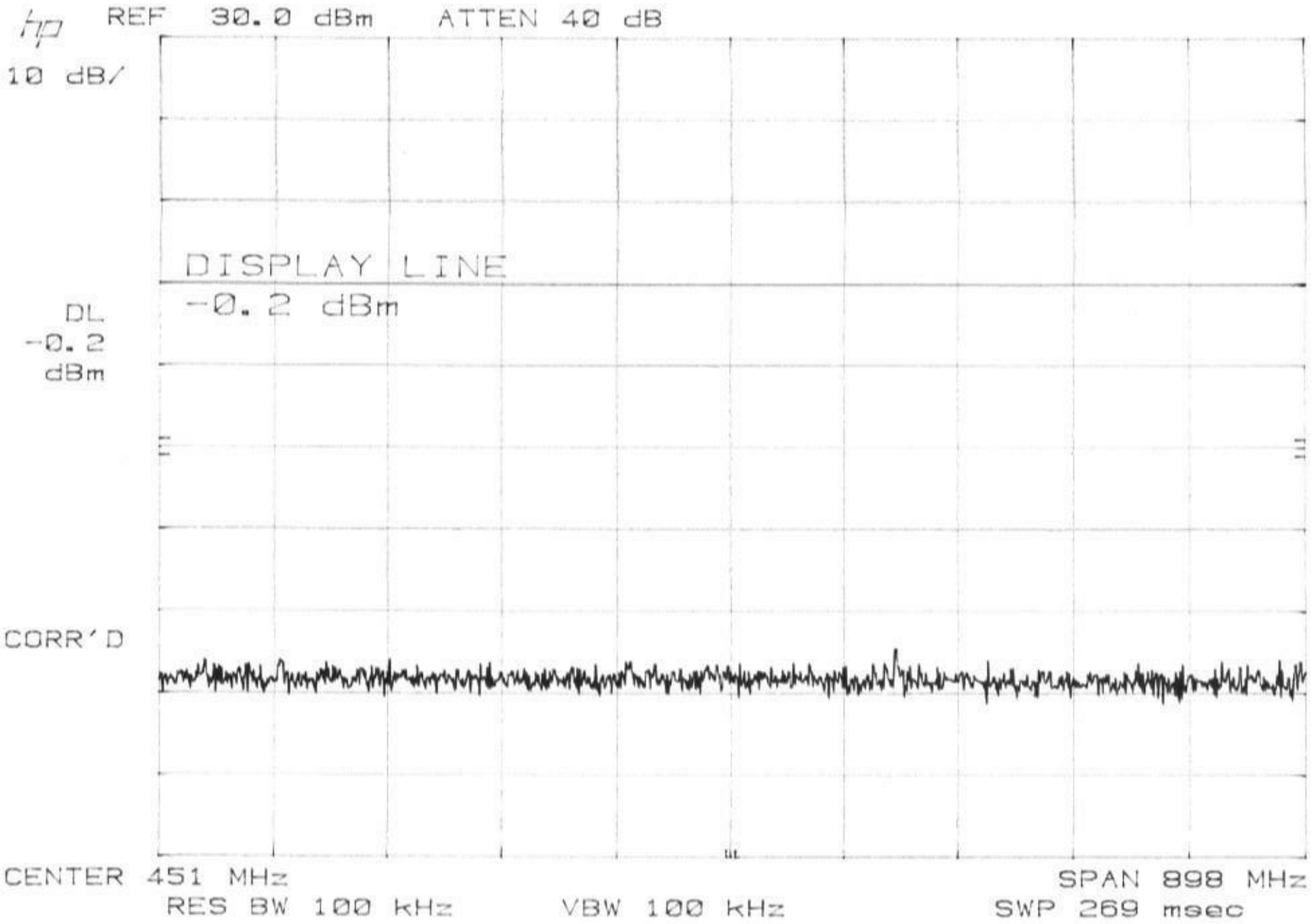
BAND WIDTH

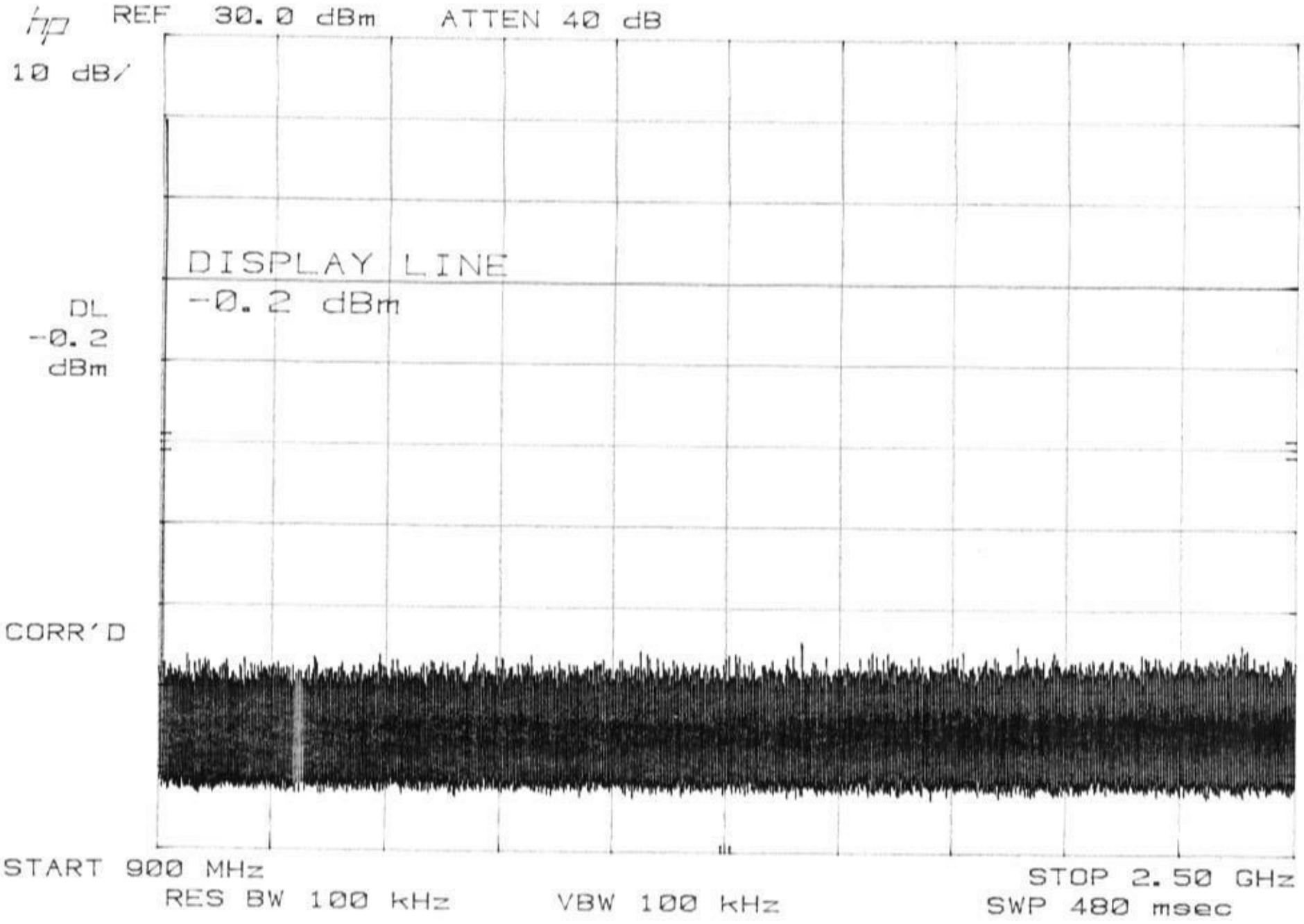

MKR Δ 348 kHz
0.00 dB
REF 34.0 dBm
ATTEN 40 dB
10 dB/
OFFSET
4.0
dB
MARKER Δ
348 kHz
0.00 dB
CORR'D
CENTER 902.75 MHz
SPAN 1.00 MHz
RES BW 100 kHz
VBW 100 kHz
SWP 20.0 msec

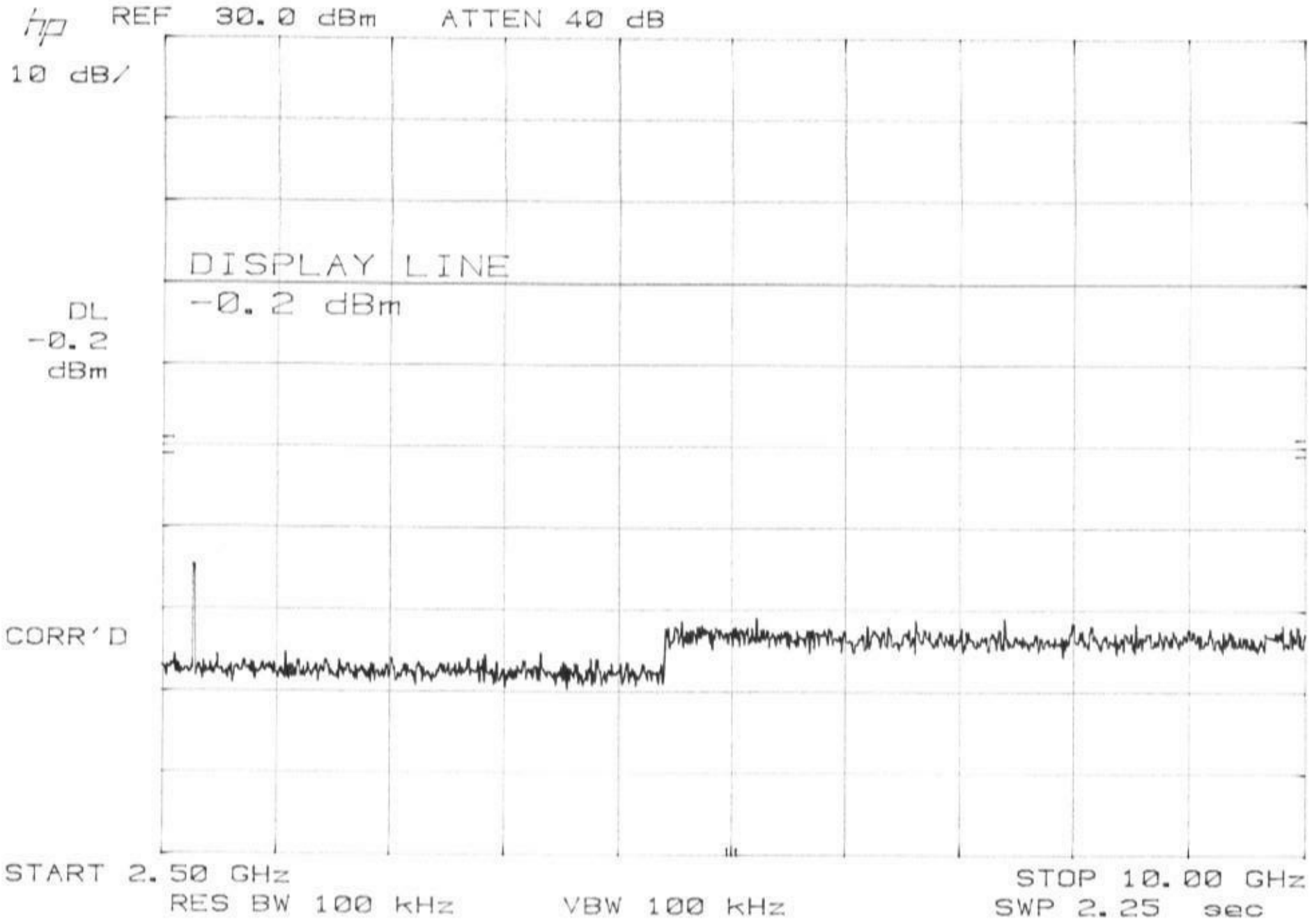

REF 34.0 dBm
ATTEN 40 dB
MKR Δ 350 kHz
-0.10 dB
10 dB/
OFFSET
4.0
dB
MARKER Δ
350 kHz
-0.10 dB
CORR'D
CENTER 914.74 MHz
RES BW 100 kHz
VBW 100 kHz
SPAN 1.00 MHz
SWP 20.0 msec

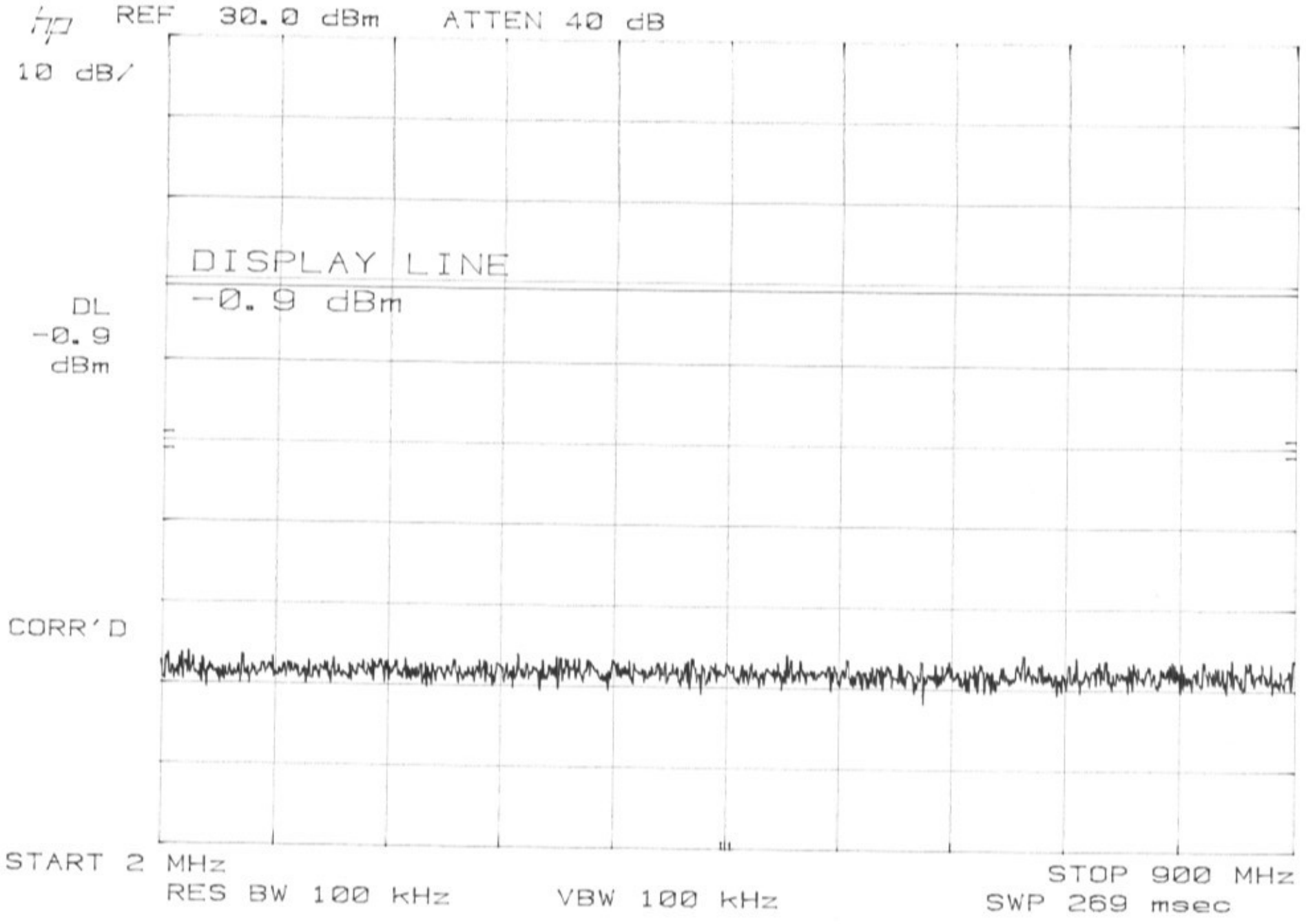

REF 34.0 dBm
ATTEN 40 dB
MKR Δ 348 kHz
-0.10 dB
10 dB/
OFFSET
4.0
dB
MARKER Δ
348 kHz
-0.10 dB
CORR'D
CENTER 927.24 MHz
RES BW 100 kHz
VBW 100 kHz
SPAN 1.00 MHz
SWP 20.0 msec

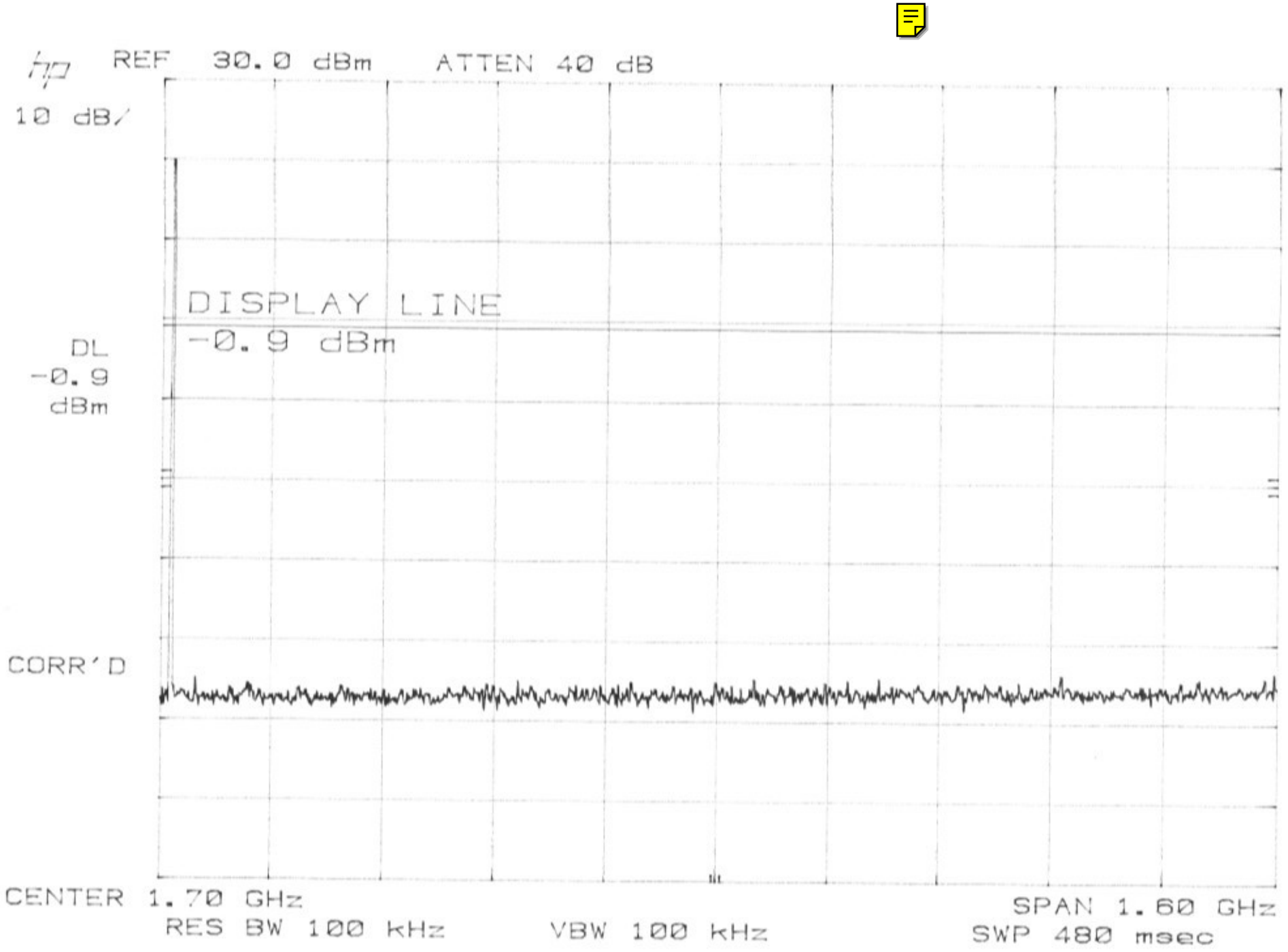
FUNDAMENTAL & HARMONIC EMISSIONS

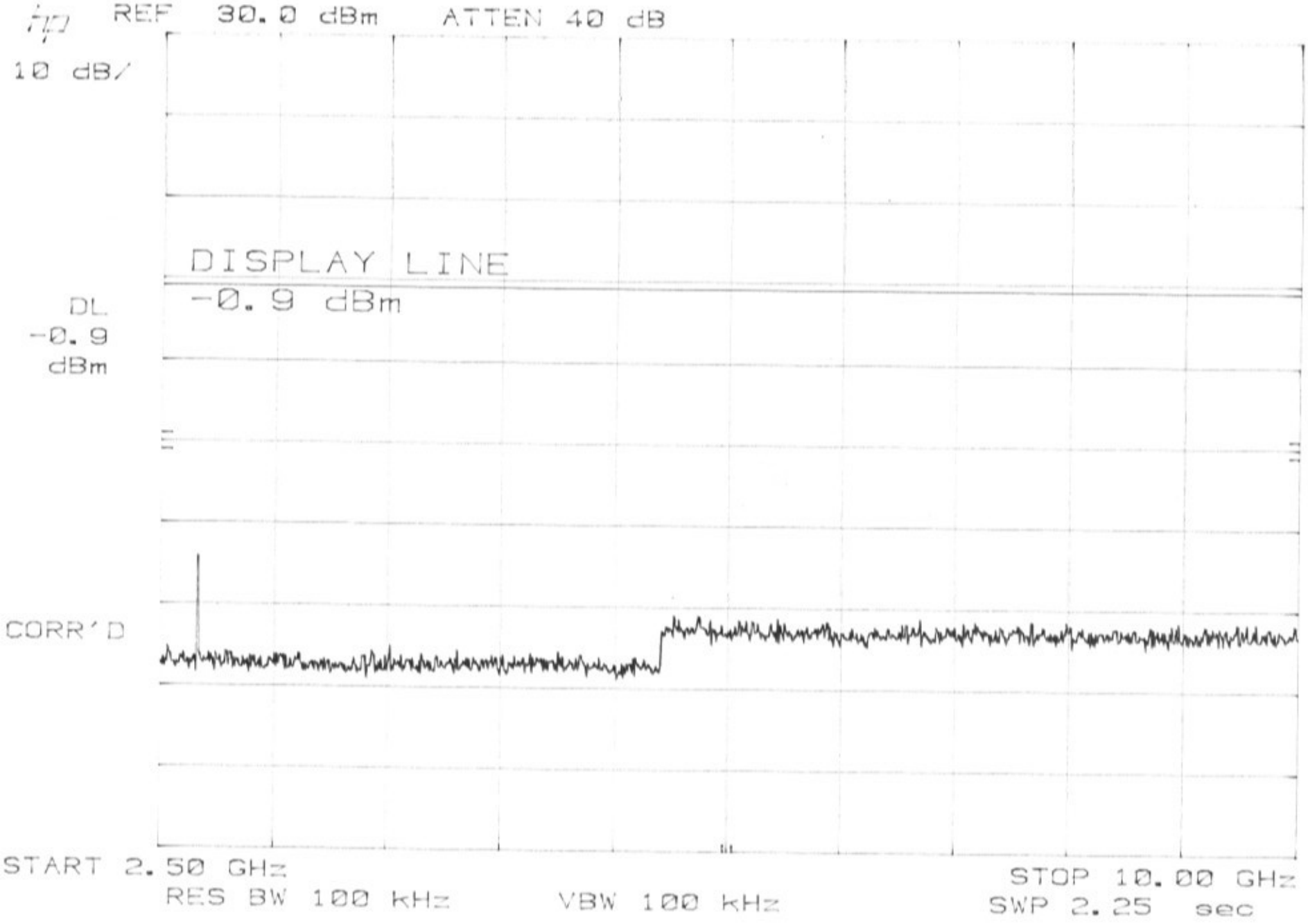

REF 30.0 dBm
ATTEN 40 dB
10 dB/
DISPLAY LINE
-0.2 dBm
DL
-0.2
dBm
CORR'D
CENTER 451 MHz
SPAN 898 MHz
RES BW 100 kHz
VBW 100 kHz
SWP 269 msec

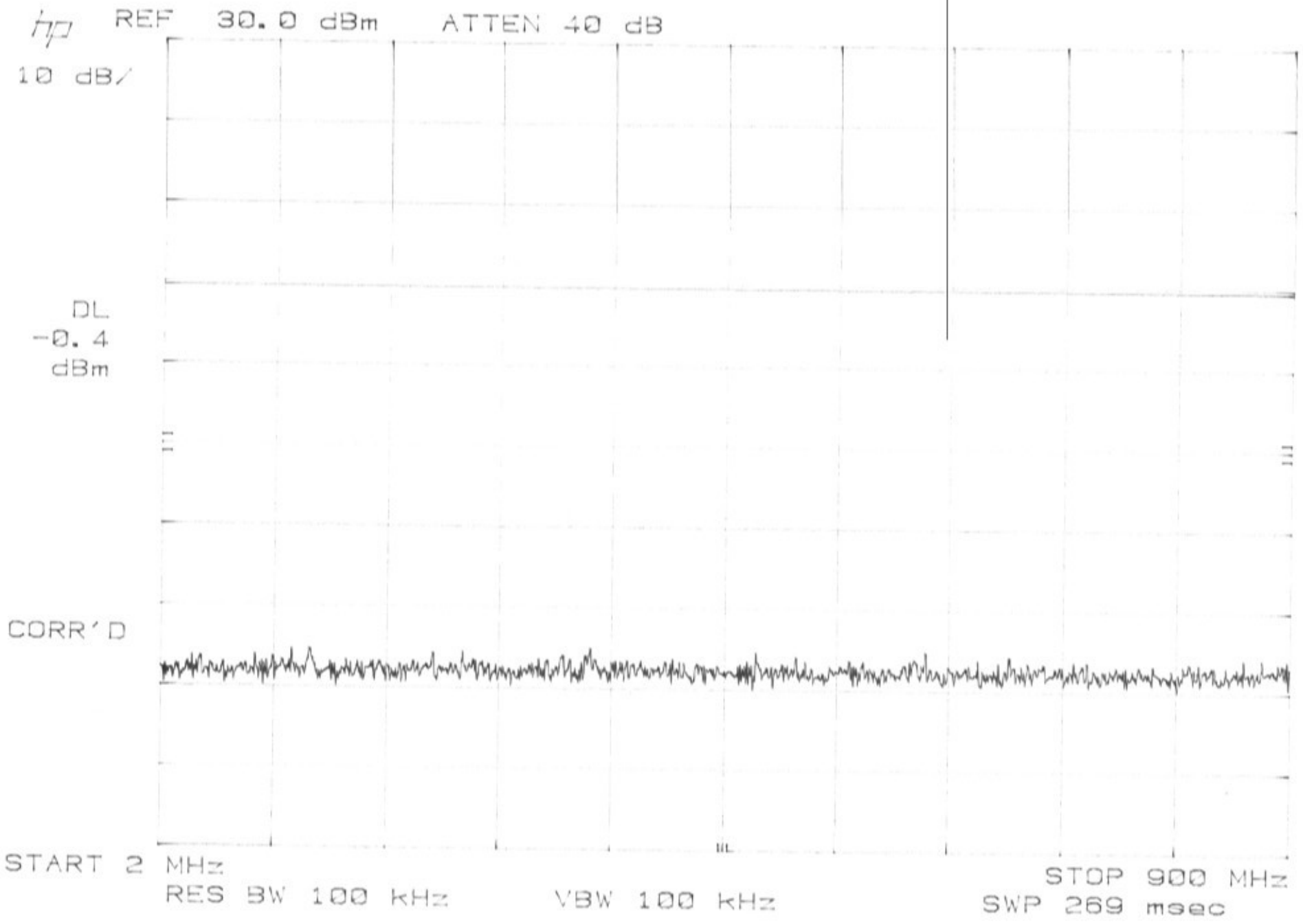

REF 30.0 dBm
ATTEN 40 dB
10 dB/
DISPLAY LINE
-0.2 dBm
DL
-0.2
dBm
CORR'D
START 900 MHz
RES BW 100 kHz
VBW 100 kHz
STOP 2.50 GHz
SWP 480 msec

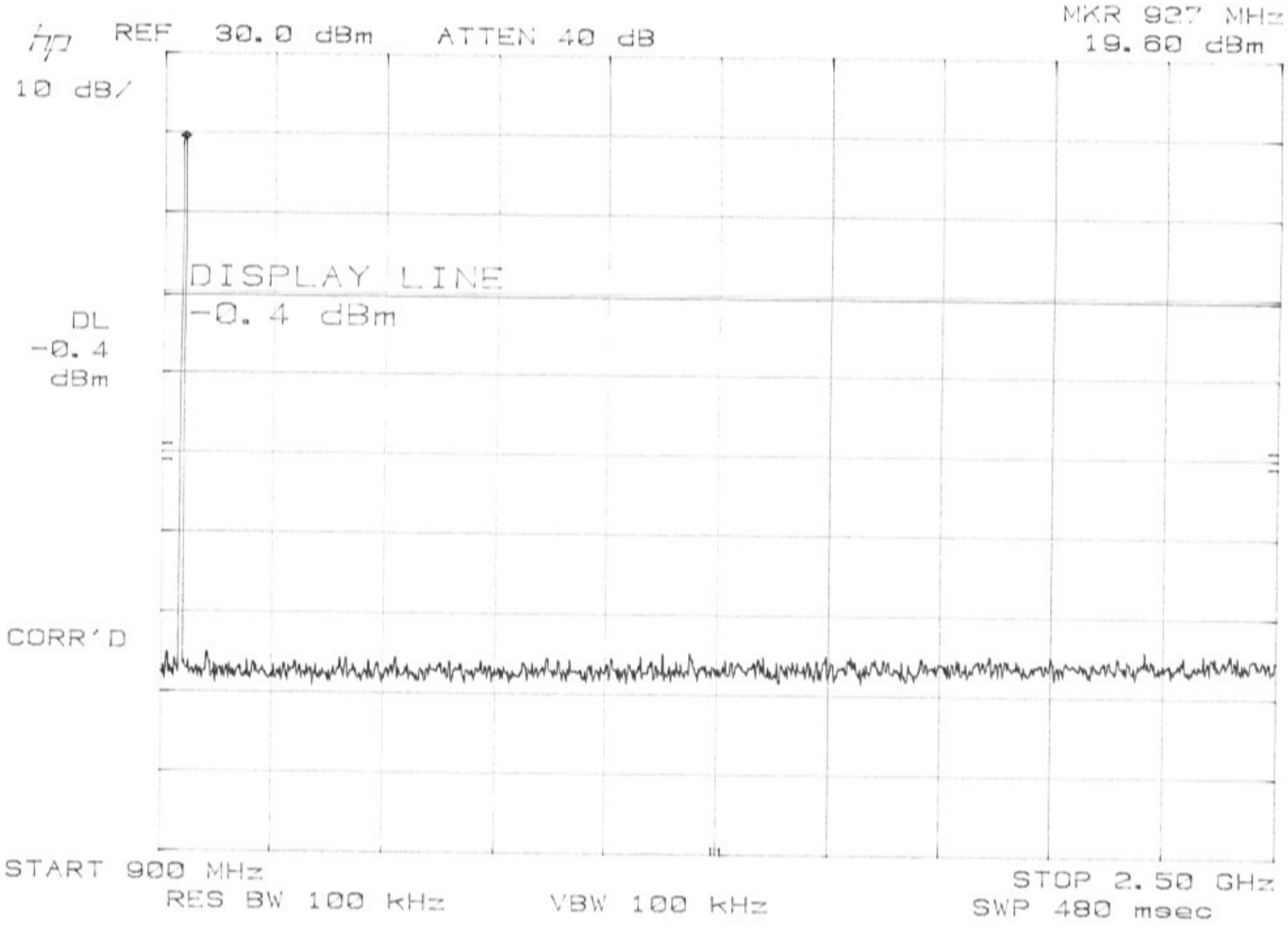

REF 30.0 dBm
ATTEN 40 dB
10 dB/
DISPLAY LINE
-0.2 dBm
DL
-0.2
dBm
CORR'D
START 2.50 GHz
RES BW 100 kHz
VBW 100 kHz
STOP 10.00 GHz
SWP 2.25 sec

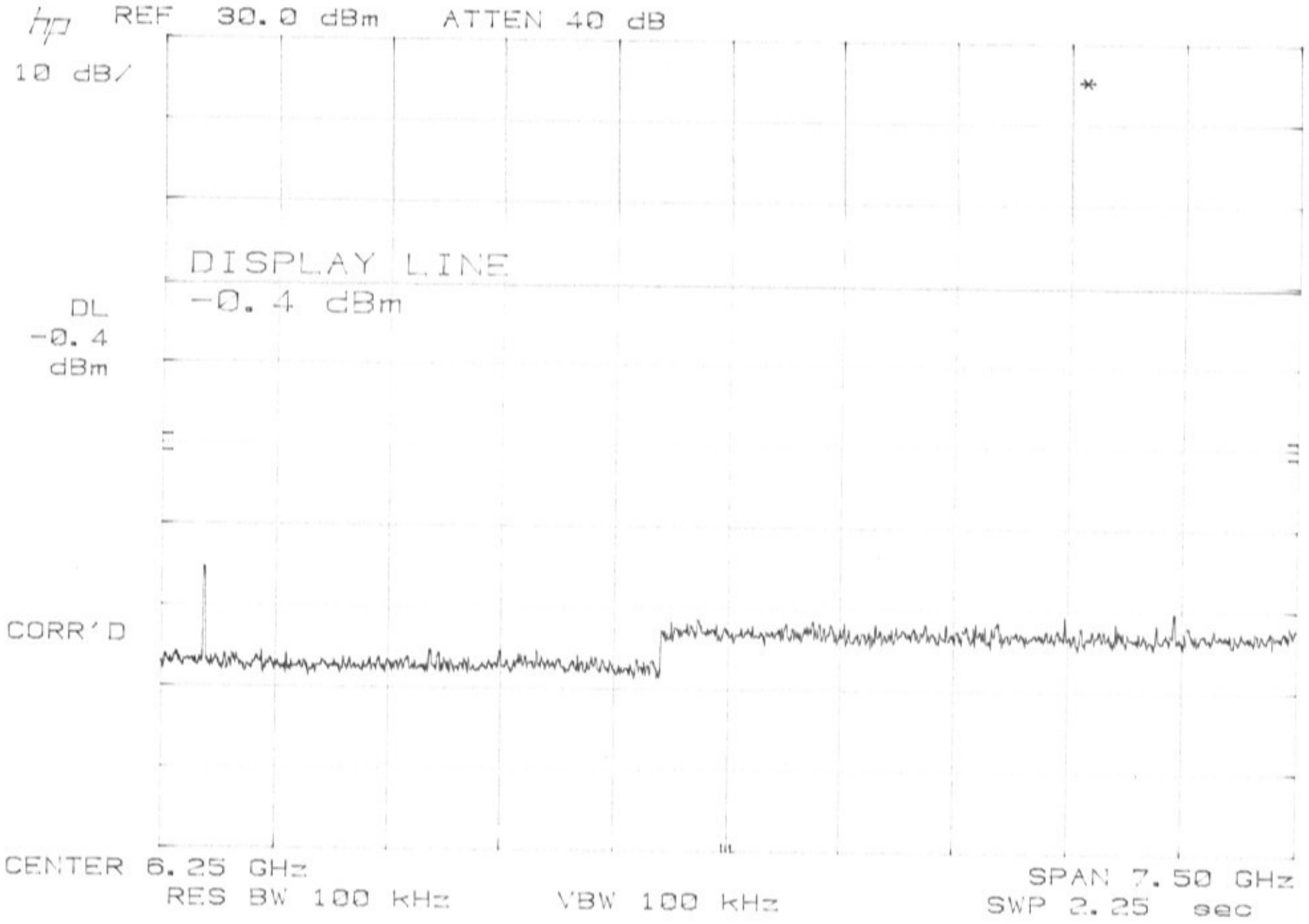

REF 30.0 dBm
ATTEN 40 dB
10 dB/
DISPLAY LINE
-0.9 dBm
DL
-0.9
dBm
CORR'D
START 2 MHz
RES BW 100 kHz
VBW 100 kHz
STOP 900 MHz
SWP 269 msec


REF 30.0 dBm
ATTEN 40 dB
10 dB/
DISPLAY LINE
-0.9 dBm
DL
-0.9
dBm
CORR'D
CENTER 1.70 GHz
RES BW 100 kHz
VBW 100 kHz
SPAN 1.60 GHz
SWP 480 msec


REF 30.0 dBm
ATTEN 40 dB
10 dB/
DISPLAY LINE
-0.9 dBm
DL
-0.9
dBm
CORR'D
START 2.50 GHz
RES BW 100 kHz
VBW 100 kHz
STOP 10.00 GHz
SWP 2.25 sec


REF 30.0 dBm
ATTEN 40 dB
10 dB/
DL
-0.4
dBm
CORR'D
START 2 MHz
RES BW 100 kHz
VBW 100 kHz
STOP 900 MHz
SWP 269 msec


REF 30.0 dBm
ATTEN 40 dB
MKR 927 MHz
19.60 dBm
10 dB/
DISPLAY LINE
-0.4 dBm
DL
-0.4
dBm
CORR'D
START 900 MHz
RES BW 100 kHz
VBW 100 kHz
STOP 2.50 GHz
SWP 480 msec


REF 30.0 dBm
ATTEN 40 dB
10 dB/
DISPLAY LINE
-0.4 dBm
DL
-0.4
dBm
CORR'D
CENTER 6.25 GHz
RES BW 100 kHz
VBW 100 kHz
SPAN 7.50 GHz
SWP 2.25 sec