

FCC PART 15, SUBPART B AND C  
TEST REPORT

for

POWER TRACKER VI

Model: AV1026

Prepared for

AVID MARKETING, INC.  
3179 HAMNER AVENUE, SUITE 5  
NORCO, CALIFORNIA 91760COMPATIBLE ELECTRONICS INC.  
114 OLINDA DRIVE  
BREA, CALIFORNIA 92823  
(714) 579-0500

DATE: APRIL 7, 2000

REPORT BODY	APPENDICES				TOTAL
	A	B	C	D	
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B	Additional Models Covered Under This Report
C	Diagrams, Charts and Photos <ul style="list-style-type: none"><li>• Test Setup Diagrams</li><li>• Radiated Emissions Photos</li><li>• Antenna and Effective Gain Factors</li></ul>
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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 in any form unless done so in full with the written permission of Compatible Electronics.

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

Device Tested: Power Tracker VI  
 Model: AV1026  
 S/N: N/A

Product Description: See Expository Statement.

Modifications: The EUT was modified during the testing. Please see the list located in Appendix A.

Manufacturer: AVID Marketing, Inc.  
 3179 Hamner Avenue, Suite 5  
 Norco, California 91760

Test Date: April 4, 2000

Test Specifications: EMI requirements  
 CFR Title 47, Part 15 Subpart B and Subpart C, Sections 15.205, 15.207, and 15.209

Test Procedure: ANSI C63.4: 1992

Test Deviations: The test procedure was not deviated from during the testing.

## SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 450 kHz to 30 MHz	Complies with the limits of <b>CFR</b> Title 47, Part 15, Subpart C, section 15.207
2	Radiated RF Emissions from the transmitter, 128 kHz – 1 GHz	Complies with the limits of <b>CFR</b> Title 47, Part 15, Subpart C, sections 15.205 and 15.209
3	Radiated RF Emissions from the digital circuitry, 30 MHz – 1 GHz	Complies with the <b>Class A</b> limits of <b>CFR</b> Title 47, Part 15, Subpart B

## 1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Power Tracker VI Model: AV1026. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 1992. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as the EUT hereafter, are within the specification limits defined by CFR Title 47, Part 15, Subpart C, sections 15.205, 15.207, and 15.209 for the transmitter portion of the EUT and the Class A specification limits defined by CFR Title 47, Part 15, Subpart B for the digital portion of the EUT.



## 2. ADMINISTRATIVE DATA

### 2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

### 2.2 Traceability 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

AVID Marketing, Inc.

Michael F. Cruz Director of Engineering

Compatible Electronics Inc.

Kyle Fujimoto Test Engineer  
Scott McCutchan Lab Manager

### 2.4 Date Test Sample was Received

The test sample was received on April 4, 2000

### 2.5 Disposition of the Test Sample

The test sample was returned to AVID Marketing, Inc. on April 7, 2000.

### 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
Tx	Transmitter



**3.****APPLICABLE DOCUMENTS**

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

<b>SPEC</b>	<b>TITLE</b>
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4 1992	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.



## 4. DESCRIPTION OF TEST CONFIGURATION

### 4.1 Description of Test Configuration - EMI

The EUT was setup and configured in two different ways for the testing.

**Battery Power Mode:** The Power Tracker VI Model: AV1026 (EUT) was connected to the laptop via its RS-232 port. The laptop was also connected to the printer and AC adapter via its parallel and power ports, respectively.

**AC Power Mode:** The Power Tracker VI Model: AV1026 (EUT) was connected to the laptop via its RS-232 port. An AC adapter was also connected to the power port on the interface cable going from the EUT to the laptop. The laptop was also connected to the printer and AC Adapter via its parallel and power ports, respectively.

The EUT was operated as follows:

**Transmitter Portion:** The EUT was continuously transmitting and sending the message on the LCD screen to the laptop. The fundamental and harmonics of the 128 kHz transmitter along with the sidebands that appeared 128 kHz away from the clock harmonics of the digital portion were tested to the limits of section 15.209. **Note:** the 128 kHz sidebands only appeared when the EUT was transmitting.

**Digital Portion:** The EUT was continuously transmitting and sending the message on the LCD screen to the laptop. The clock harmonics of the EUT were tested to the **Class A** specification limits defined by CFR Title 47, Part 15, Subpart B.

**Conducted Emissions:** During the initial investigation, the EUT was tested in both transmit and idle modes. It was determined the conducted emission levels were highest when the EUT was continuously transmitting. The conducted emissions were tested to the limits of section 15.207.

During the initial investigation, it was determined the EUT's highest emissions for all operating modes was when the EUT was operating on AC power. The final radiated as well as conducted data are located in Appendix D of this report. A spectral plot showing the 128 kHz sidebands when the transmitter is on are also located in Appendix D.



#### 4.1.1

#### Cable Construction and Termination

##### Battery Power Setup

###### Cable 1

This is a 6 foot unshielded cable connecting the EUT to the laptop. It has a D-9 pin metallic connector at the EUT end and a D-9 pin metallic and a 1/8 inch power connector at the other end. The cable was bundled to a length of 1 meter. The 1/8 inch power connector was left unterminated for this mode.

###### Cable 2

This is a 5 foot braid and foil shielded cable connecting the printer to the laptop. It has a D-25 pin metallic connector at the laptop end and a Centronics metallic type connector at the printer end. The cable was bundled to a length of 1 meter. The shield of the cable was grounded to the chassis via the connectors.

###### Cable 3

This is a 6 foot unshielded cable connecting the laptop to the AC Adapter. It has a 3 pin power connector at the laptop end and is hard wired into the AC Adapter. The cable was bundled to a length of 1 meter.

##### AC Power Setup

###### Cable 1

This is a 6 foot unshielded cable connecting the EUT to the laptop. It has a D-9 pin metallic connector at the EUT end and a D-9 pin metallic and a 1/8 inch power connector at the other end. The cable was bundled to a length of 1 meter. The 1/8 inch power connector was connected to cable #4.

###### Cable 2

This is a 5 foot braid and foil shielded cable connecting the printer to the laptop. It has a D-25 pin metallic connector at the laptop end and a Centronics metallic type connector at the printer end. The cable was bundled to a length of 1 meter. The shield of the cable was grounded to the chassis via the connectors.

###### Cable 3

This is a 6 foot unshielded cable connecting the laptop to the AC Adapter. It has a 3 pin power connector at the laptop end and is hard wired into the AC Adapter. The cable was bundled to a length of 1 meter.

###### Cable 4

This is a 12 foot unshielded cable connecting the laptop side of cable #1 to the AC Adapter. It has a 1/8 inch power connector at the cable #1 end and is hard wired into the AC Adapter.



## 5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

### 5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
POWER TRACKER VI (EUT)	AVID MARKETING, INC.	AV1026	N/A	<b>IOL-125-AV1026</b>
AC ADAPTER FOR POWER TRACKER VI	AVID MARKETING, INC.	LPS-016	P/N: AVS-003	N/A
PRINTER	CITIZEN	LSP-10	1130060-73	<b>DLK66TLSP-10</b>
LAPTOP	NEC	PC-410-0511	C37000221N	<b>A3DP50</b>
AC ADAPTER	NEC	OP-520-4001	N/A	N/A



## 5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Spectrum Analyzer	Hewlett Packard	8566B	3638A08768	Dec. 14, 1999	Dec. 14, 2000
Preamplifier	Com Power	PA-102	1017	Jan. 11, 2000	Jan. 11, 2001
Quasi-Peak Adapter	Hewlett Packard	85650A	3303A01688	Nov. 10, 1999	Nov. 10, 2000
RF Attenuator	Sertek	412-10	N/A	Nov. 22, 1999	Nov. 22, 2000
LISN	Com Power	LI-215	12075	Nov. 13, 1999	Nov. 13, 2000
LISN	Com Power	LI-215	12078	Nov. 13, 1999	Nov. 13, 2000
Biconical Antenna	Com Power	AB-100	1548	Oct. 14, 1999	Oct. 14, 2000
Log Periodic Antenna	Com Power	AL-100	16039	Oct. 14, 1999	Oct. 14, 2000
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	D5251A 888	US74458128	N/A	N/A
Printer	Hewlett Packard	C5886A	SG7CM1P090	N/A	N/A
Monitor	Hewlett Packard	D5258A	DK74889705	N/A	N/A
Loop Antenna	Com-Power	AL-130	25309	Apr. 13, 1999	Apr. 13, 2000



## 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 not grounded.



## 7. TEST PROCEDURES

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

### 7.1

#### Conducted Emissions Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak detector was used 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 spectrum analyzer offset was adjusted accordingly to read the actual data measured. The LISN output was read by the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for the conducted emissions 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 filtered and the filter 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: 1992. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The initial test data was taken in manual mode while scanning the frequency ranges of 0.45 MHz to 1.6 MHz, 1.6 MHz to 5 MHz and 5 MHz to 30 MHz. The conducted emissions from the EUT were maximized for operating mode as well as cable placement. Once a predominant frequency (within 12 dB of the limit) was found, it was more closely examined with the spectrum analyzer span adjusted to 1 MHz.

The final data was collected under program control by the HP 9000/300 in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave.



## 7.2

**Radiated Emissions (Spurious and Harmonics) Test**

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. A preamplifier was used to increase the sensitivity of the instrument. The Com Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz. 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. The quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets. 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

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: 1992. 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. 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).



### 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 to obtain final test data for the sidebands that appeared 128 kHz away from the clock harmonics. The EUT was tested at a 10 meter test distance for the fundamental and harmonics of the Tx, and for the digital portion of the EUT.



## 8. CONCLUSIONS

The Power Tracker VI Model: AV1026 meets all of the specification limits defined in CFR Title 47, Part 15 Subpart C sections 15.205, 15.207, and 15.209 for the transmitter portion and the **Class A** specification limits defined in CFR Title 47, Part 15, Subpart B for the digital portion.



**APPENDIX A**

***MODIFICATIONS TO THE EUT***



## MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and C specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

Modifications:

- 1) Add a 220 pF capacitor from pin 5 to pin 6 of U1A.
- 2) Add two clip-on ferrites (FairRite P/N: 0431164281) to the EUT side of the interface cable.
- 3) Add a ferrite with 3  $\frac{1}{2}$  turns to the AC Adapter power cord (FairRite P/N: 0431167281).



**APPENDIX B**

***ADDITIONAL MODELS COVERED  
UNDER THIS REPORT***



## ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Power Tracker VI  
Model: AV1026  
S/N: N/A

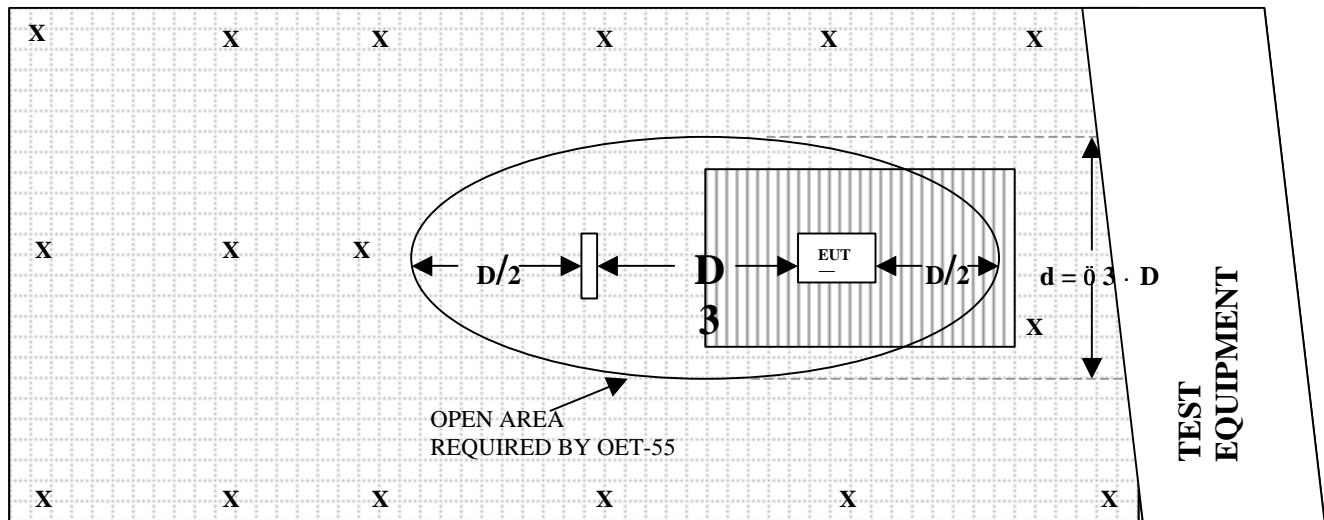
There were no additional models covered under this report.



**APPENDIX C**

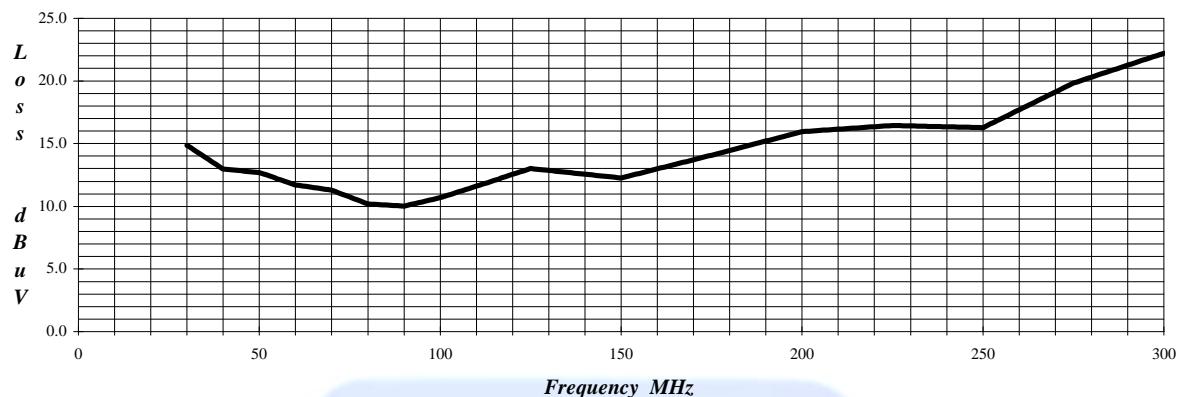
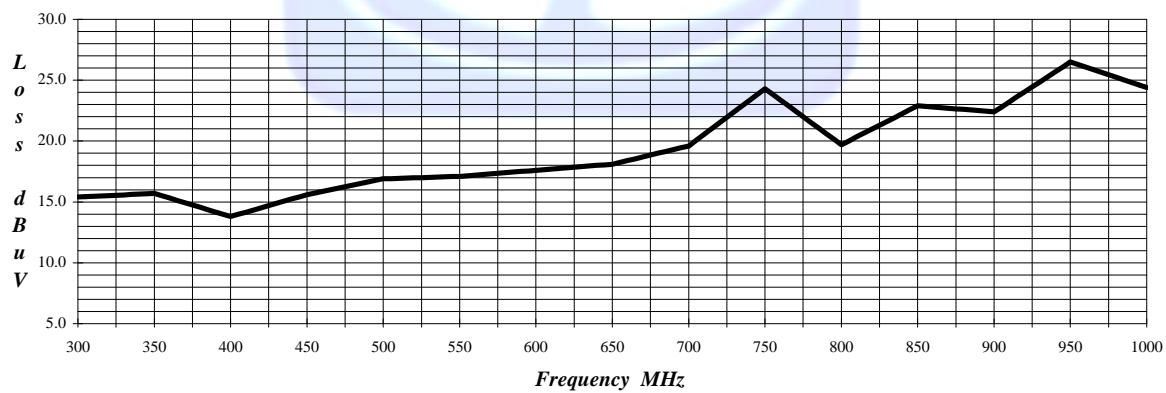
***DIAGRAMS, CHARTS AND PHOTOS***

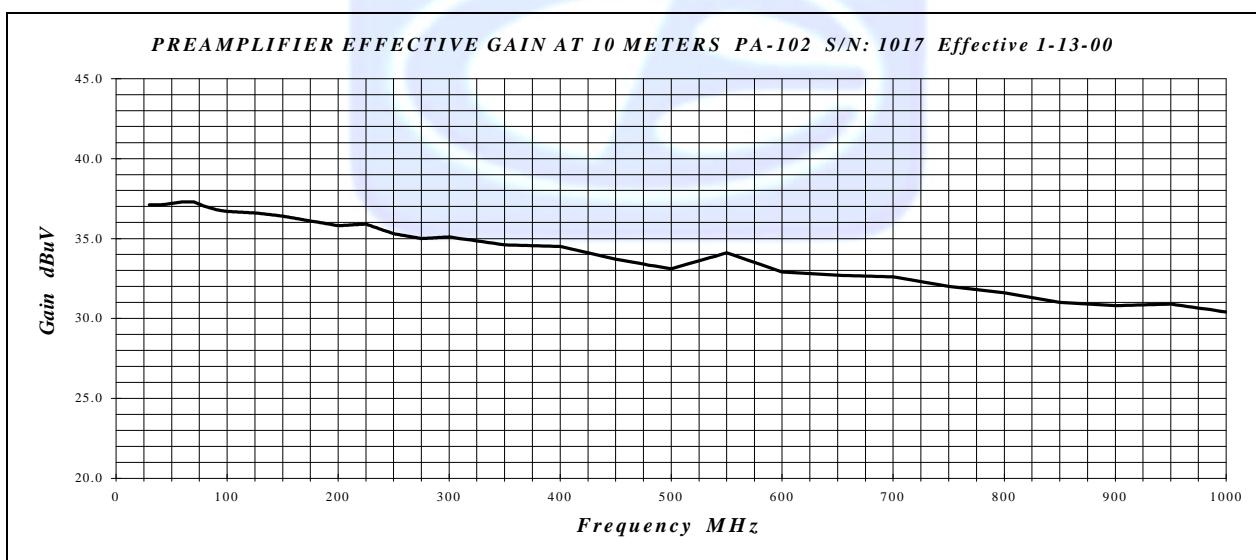
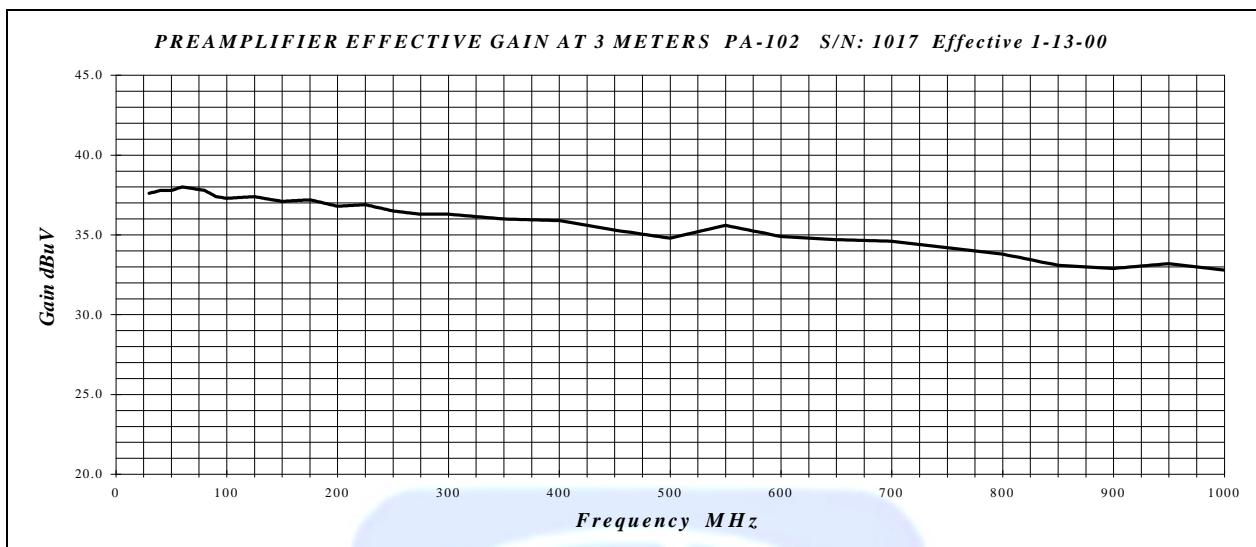


**FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED SITE****OPEN LAND > 15 METERS****OPEN LAND > 15 METERS****OPEN LAND > 15 METERS**

	= GROUND RODS		= GROUND SCREEN
	= TEST DISTANCE (meters)		= WOOD COVER



**LAB "D" BICONICAL ANTENNA AB-100 S/N 01548 Cal: 10-14-99****LAB "D" LOG PERIODIC ANTENNA AL-100 S/N 16039 Cal: 10-14-99**



**FRONT VIEW**

AVID MARKETING, INC.  
POWER TRACKER VI  
MODEL: AV1026

FCC SUBPART C -10 kHz to 30 MHz - RADIATED EMISSIONS – 4-4-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



**REAR VIEW**

AVID MARKETING, INC.  
POWER TRACKER VI  
MODEL: AV1026  
FCC SUBPART C - 10 kHz to 30 MHz - RADIATED EMISSIONS - 4-4-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



**FRONT VIEW**

AVID MARKETING, INC.  
POWER TRACKER VI  
MODEL: AV1026  
FCC SUBPART C - 30 MHz to 1 GHz - RADIATED EMISSIONS - 4-4-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



**REAR VIEW**

AVID MARKETING, INC.  
POWER TRACKER VI  
MODEL: AV1026  
FCC SUBPART C - 30 MHz to 1 GHz - RADIATED EMISSIONS - 4-4-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



**FRONT VIEW**

AVID MARKETING, INC.  
POWER TRACKER VI  
MODEL: AV1026  
FCC SUBPART B - 30 MHz to 1 GHz - RADIATED EMISSIONS - 4-4-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



**REAR VIEW**

AVID MARKETING, INC.  
POWER TRACKER VI  
MODEL: AV1026  
FCC SUBPART B - 30 MHz to 1 GHz - RADIATED EMISSIONS - 4-4-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**





**FRONT VIEW**

AVID MARKETING, INC.  
POWER TRACKER VI  
MODEL: AV1026  
FCC SUBPART C – CONDUCTED EMISSIONS – 4-4-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



**REAR VIEW**

AVID MARKETING, INC.  
POWER TRACKER VI  
MODEL: AV1026  
FCC SUBPART C – CONDUCTED EMISSIONS – 4-4-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION  
FOR MAXIMUM EMISSIONS**



# Com-Power Corporation

(949) 587-9800

## Antenna Calibration

Antenna Type:	Loop Antenna	
Model:	AL-130	
Serial Number:	25309	
Calibration Date:	4/13/99	
Frequency MHz	Magnetic dB/m	Electric dB/m
0.01	-40.6	10.9
0.02	-41.5	10.0
0.03	-39.9	11.6
0.04	-40.2	11.3
0.05	-41.5	10.0
0.06	-41.1	10.4
0.07	-41.3	10.2
0.08	-41.6	9.9
0.09	-41.7	9.8
0.1	-41.7	9.8
0.2	-44.0	7.5
0.3	-41.6	9.9
0.4	-41.6	9.9
0.5	-41.7	9.8
0.6	-41.5	10.0
0.7	-41.4	10.1
0.8	-41.5	10.0
0.9	-41.6	9.9
1	-41.2	10.3
2	-40.5	11.0
3	-40.8	10.7
4	-41.0	10.5
5	-40.5	11.0
6	-40.5	11.0
7	-40.7	10.8
8	-40.8	10.7
9	-40.1	11.4
10	-40.4	11.1
12	-41.0	10.5
14	-42.1	9.4
15	-42.3	9.2
16	-42.7	8.8
18	-41.0	10.5
20	-41.1	10.4
25	-43.4	8.1
30	-45.3	6.2

Trans. Antenna Height  
Receiving Antenna Height

2 meter  
2 meter

**APPENDIX D**

***DATA SHEETS***





***RADIATED DATA SHEETS  
FOR THE TRANSMITTER PORTION***





## **RADIATED EMISSIONS**

COMPANY NAME: AVID MARKETING, INC. DATE: 4-4-00

EUT: POWER TRACKER VI EUT S/N: NIA

EUT MODEL: RV1026 LOCATION:  BREA  SILVERADO  AGOURA

SPECIFICATION: FCC IS.209 CLASS: TEST DISTANCE: 10 M LAB: D

**ANTENNA:**  LOOP  BICONICAL  LOG  HORN

POLARIZATION:  VERT  HORIZ

QUALIFICATION  ENGINEERING  MFG. AUDIT  ENGINEER: *Kyle F.*

NOTES: DISTANCE FACTOR 40 LOG  $\frac{300}{10} = 59.0$  dB TRANSMITTER FUND.  
AND HARMONICS

\* CORRECTED READING = METER READING - DISTANCE FACTOR - ANTENNA GAIN

\*\* DELTA = CORRECTED READING - SPECIFICATION LIMIT

Test location: Compatible Electronics  
 Customer : AVID Date : 4/ 4/2000  
 Manufacturer : AVID Time : 15.58  
 EUT name : POWER TRACKER VI Model: AV1026  
 Specification: Fcc\_B Test distance: 3.0 mtrs Lab: D  
 Distance correction factor(20\*log(test/spec)) : 0.00  
 Test Mode : VERTICAL POLARIZATION 30 TO 3000 MHz  
 TEMPERATURE 88 DEGREES F.  
 RELATIVE HUMIDITY 43%  
 SIDEBANDS 128 kHz AWAY FROM THE CLOCK HARMONICS  
 TESTED BY: Kyle Fujimoto  
 KYLE FUJIMOTO

Pol	Freq	Rdng	Cable	Ant	Amp	Cor'd	limit	Delta
	MHz	dBuV	loss	factor	gain	rdg = R	= L	R-L
			dB	dB	dB	dBuV	dBuV/m	dB
1V	36.96	58.20	0.77	13.54	38.51	34.00	40.00	-6.00
2V	48.98	58.60	0.89	12.71	38.69	33.51	40.00	-6.49
3V	49.48	58.70	0.89	12.69	38.69	33.59	40.00	-6.41
4V	73.67	53.70	1.00	10.93	38.86	26.77	40.00	-13.23
5V	73.92	56.80	1.00	10.90	38.86	29.84	40.00	-10.16
6V	98.52	56.00	1.29	10.63	38.60	29.32	43.50	-14.18
7V	110.54	57.30	1.34	11.70	38.68	31.65	43.50	-11.85
8V	110.80	54.50	1.34	11.72	38.69	28.88	43.50	-14.62
9V	122.81	54.40	1.39	12.81	38.78	29.82	43.50	-13.68
10V	123.07	53.20	1.39	12.84	38.78	28.64	43.50	-14.86
11V	147.39	54.10	1.58	12.33	38.71	29.30	43.50	-14.20
12V	147.66	54.50	1.58	12.32	38.71	29.69	43.50	-13.81
13V	159.71	44.10	1.60	12.96	38.74	19.92	43.50	-23.58
14V	159.93	47.40	1.60	12.97	38.74	23.23	43.50	-20.27
15V	184.24	43.60	1.67	14.76	38.73	21.31	43.50	-22.19
16V	184.48	47.60	1.68	14.78	38.72	25.33	43.50	-18.17
17V	196.55	46.70	1.77	15.69	38.63	25.54	43.50	-17.96
18V	196.81	46.80	1.77	15.71	38.63	25.66	43.50	-17.84
19V	208.82	42.30	1.84	16.12	38.67	21.59	43.50	-21.91
20V	209.09	40.20	1.84	16.13	38.67	19.49	43.50	-24.01
21V	221.12	52.00	1.88	16.36	38.77	31.48	46.00	-14.52
22V	221.36	51.00	1.89	16.37	38.77	30.48	46.00	-15.52
23V	233.41	44.70	1.97	16.38	38.73	24.32	46.00	-21.68
24V	233.67	35.80	1.97	16.38	38.73	15.42	46.00	-30.58
25V	245.68	48.30	2.07	16.30	38.63	28.03	46.00	-17.97
26V	245.94	48.10	2.07	16.30	38.63	27.83	46.00	-18.17
27V	270.26	40.10	2.18	19.16	38.52	22.92	46.00	-23.08
28V	270.52	40.00	2.18	19.19	38.52	22.86	46.00	-23.14

Test location: Compatible Electronics  
 Customer : AVID Date : 4/ 4/2000  
 Manufacturer : AVID Time : 16.16  
 EUT name : POWER TRACKER VI Model: AV1026  
 Specification: Fcc\_B Test distance: 3.0 mtrs Lab: D  
 Distance correction factor(20\*log(test/spec)) : 0.00  
 Test Mode : HORIZONTAL POLARIZATION 30 TO 300 MHz  
 TEMPERATURE 88 DEGREES F.  
 RELATIVE HUMIDITY 43%  
 SIDEBANDS 128 kHz AWAY FROM THE CLOCK HARMONICS  
 TESTED BY: Kyle Fujimoto  
 KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1H	36.82	48.90	0.77	13.56	38.50	24.73	40.00	-15.27
2H	37.06	50.90	0.77	13.52	38.51	26.68	40.00	-13.32
3H	49.11	45.60	0.89	12.70	38.69	20.50	40.00	-19.50
4H	49.37	47.00	0.89	12.70	38.69	21.90	40.00	-18.10
5H	73.66	50.60	1.00	10.93	38.86	23.67	40.00	-16.33
6H	73.93	54.00	1.00	10.90	38.86	27.04	40.00	-12.96
7H	98.22	53.20	1.28	10.61	38.60	26.50	43.50	-17.00
8H	98.52	56.30	1.29	10.63	38.60	29.62	43.50	-13.88
9H	110.53	51.70	1.34	11.70	38.68	26.05	43.50	-17.45
10H	110.81	47.90	1.34	11.72	38.69	22.28	43.50	-21.22
11H	122.80	51.50	1.39	12.81	38.78	26.92	43.50	-16.58
12H	123.09	50.20	1.39	12.84	38.78	25.64	43.50	-17.86
13H	147.40	45.30	1.58	12.33	38.71	20.50	43.50	-23.00
14H	147.66	50.10	1.58	12.32	38.71	25.29	43.50	-18.21
15H	171.97	50.30	1.60	13.85	38.79	26.96	43.50	-16.54
16H	172.23	45.70	1.60	13.87	38.79	22.38	43.50	-21.12
17H	184.25	48.30	1.67	14.77	38.73	26.01	43.50	-17.49
18H	184.50	51.10	1.68	14.78	38.72	28.84	43.50	-14.66
19H	221.10	47.00	1.88	16.36	38.77	26.48	46.00	-19.52
20H	221.37	47.00	1.89	16.37	38.77	26.48	46.00	-19.52
21H	245.69	44.70	2.07	16.30	38.63	24.43	46.00	-21.57
22H	245.94	44.80	2.07	16.30	38.63	24.53	46.00	-21.47

Test location: Compatible Electronics  
 Customer : AVID Date : 4/ 4/2000  
 Manufacturer : AVID Time : 16.41  
 EUT name : POWER TRACKER VI Model: AV1026  
 Specification: Fcc\_B Test distance: 3.0 mtrs Lab: D  
 Distance correction factor( $20 \log(\text{test/spec})$ ) : 0.00  
 Test Mode : HORIZONTAL POLARIZATION 300 TO 1000 MHz  
 TEMPERATURE 88 DEGREES F.  
 RELATIVE HUMIDITY 43%  
 SIDEBANDS 128 kHz AWAY FROM THE CLOCK HARMONICS  
 TESTED BY: Kyle Fujimoto  
 KYLE FUJIMOTO

Pol	Freq	Rdng	Cable	Ant	Amp	Cor'd	limit	Delta
	MHz	dBuV	loss	factor	gain	rdg = R	= L	R-L
			dB	dB	dB	dBuV	dBuV/m	dB
HORIZONTAL POLARIZATION								
1H	307.12	41.90	2.34	15.45	38.60	21.09	46.00	-24.91
2H	307.36	37.70	2.34	15.45	38.60	16.89	46.00	-29.11
3H	368.56	43.50	2.64	14.97	38.60	22.50	46.00	-23.50
4H	368.79	44.80	2.64	14.96	38.60	23.80	46.00	-22.20
5H	393.12	41.50	2.69	14.02	38.60	19.61	46.00	-26.39
6H	393.38	41.50	2.69	14.01	38.60	19.60	46.00	-26.40
7H	442.28	39.50	2.78	15.32	38.18	19.42	46.00	-26.58
8H	442.53	35.00	2.79	15.33	38.17	14.94	46.00	-31.06

Test location: Compatible Electronics  
 Customer : AVID Date : 4/ 4/2000  
 Manufacturer : AVID Time : 16.43  
 EUT name : POWER TRACKER VI Model: AV1026  
 Specification: Fcc\_B Test distance: 3.0 mtrs Lab: D  
 Distance correction factor(20\*log(test/spec)) : 0.00  
 Test Mode : VERTICAL POLARIZATION 300 TO 1000 MHZ  
 TEMPERATURE 88 DEGREES F.  
 RELATIVE HUMIDITY 43%  
 SIDEBANDS 128 kHz AWAY FROM THE CLOCK HARMONICS  
 TESTED BY: Kyle Fujimoto  
 KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1V	319.42	41.10	2.42	15.51	38.60	20.43	46.00	-25.57
2V	319.68	42.00	2.42	15.52	38.60	21.33	46.00	-24.67
3V	368.54	40.20	2.64	14.97	38.60	19.21	46.00	-26.79
4V	368.82	39.10	2.64	14.96	38.60	18.10	46.00	-27.90
5V	491.40	39.30	3.05	16.66	37.93	21.07	46.00	-24.93
6V	491.68	40.60	3.05	16.67	37.93	22.38	46.00	-23.62



***RADIATED DATA SHEETS  
FOR THE DIGITAL PORTION***



Test location: Compatible Electronics  
 Customer : AVID Date : 4/ 4/2000  
 Manufacturer : AVID Time : 14.54  
 EUT name : POWER TRACKER VI Model: AV1026  
 Specification: Fcc\_A Test distance: 10.0 mtrs Lab: D  
 Distance correction factor( $20 \log(\text{test/spec})$ ) : 0.00  
 Test Mode : VERTICAL AND HORIZONTAL POLARIZATION 30 TO 300 MHZ  
 TEMPERATURE 88 DEGREES F.  
 RELATIVE HUMIDITY 43%  
 TESTED BY: Kyle Fujimoto  
 KYLE FUJIMOTO

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
<b>VERTICAL POLARIZATION</b>								
1V	49.26	54.70	1.50	12.70	38.69	30.21	39.10	-8.89
2V	73.78	62.80	1.68	10.92	38.86	36.53	39.10	-2.57
3V	73.78	61.35	1.68	10.92	38.86	35.08Qp	39.10	-4.02
4V	86.09	46.70	1.80	10.10	38.68	19.93	39.10	-19.17
5V	98.38	61.00	1.88	10.62	38.60	34.91	43.50	-8.59
6V	110.67	56.10	2.03	11.71	38.69	31.15	43.50	-12.35
7V	122.98	65.80	2.18	12.83	38.78	42.02	43.50	-1.48
8V	122.98	64.93	2.18	12.83	38.78	41.15Qp	43.50	-2.35
9V	147.49	52.40	2.29	12.33	38.71	28.31	43.50	-15.19
10V	172.12	56.60	2.65	13.86	38.79	34.33	43.50	-9.17
11V	196.69	59.80	2.79	15.70	38.63	39.66	43.50	-3.84
12V	221.27	63.40	2.89	16.37	38.77	43.88	46.40	-2.52
13V	221.27	62.78	2.89	16.37	38.77	43.26Qp	46.40	-3.14
14V	245.84	61.50	3.23	16.30	38.63	42.40	46.40	-4.00
15V	270.37	55.50	3.46	19.17	38.52	39.62	46.40	-6.78
16V	294.95	46.90	3.50	21.73	38.58	33.55	46.40	-12.85
<b>HORIZONTAL POLARIZATION</b>								
17H	73.83	52.60	1.68	10.91	38.86	26.33	39.10	-12.77
18H	98.41	56.10	1.88	10.63	38.60	30.01	43.50	-13.49
19H	122.97	56.00	2.18	12.83	38.78	32.22	43.50	-11.28
20H	147.55	59.30	2.29	12.32	38.71	35.20	43.50	-8.30
21H	172.07	52.40	2.65	13.86	38.79	30.12	43.50	-13.38
22H	196.64	59.00	2.79	15.70	38.63	38.86	43.50	-4.64
23H	221.22	57.90	2.88	16.37	38.77	38.38	46.40	-8.02
24H	245.79	54.90	3.23	16.30	38.63	35.80	46.40	-10.60

Test location: Compatible Electronics

Customer : AVID

Date : 4/ 4/2000

Manufacturer : AVID

Time : 15.05

EUT name : POWER TRACKER VI

Model: AV1026

Specification: Fcc\_A Test distance: 10.0 mtrs Lab: D

Distance correction factor(20\*log(test/spec)) : 0.00

Test Mode : VERTICAL AND HORIZONTAL POLARIZATION 300 TO 1000 MHz  
TEMPERATURE 88 DEGREES F.

RELATIVE HUMIDITY 43%

TESTED BY: Kyle Fujimoto

KYLE FUJIMOTO

Pol	Freq	Rdng	Cable	Ant	Amp	Cor'd	limit	Delta
	MHz	dBuV	loss	factor	gain	rdg = R	= L	R-L
			dB	dB	dB	dBuV	dBuV/m	dB

## VERTICAL POLARIZATION

1V	319.56	56.00	3.70	15.52	38.60	36.61	46.40	-9.79
2V	344.13	47.10	3.94	15.65	38.60	28.09	46.40	-18.31
3V	368.71	52.70	4.04	14.96	38.60	33.10	46.40	-13.30
4V	417.81	47.60	4.21	14.42	38.42	27.80	46.40	-18.60
5V	516.12	43.40	4.90	16.95	38.32	26.93	46.40	-19.47

## HORIZONTAL POLARIZATION

6H	319.56	51.80	3.70	15.52	38.60	32.41	46.40	-13.99
7H	368.71	55.10	4.04	14.96	38.60	35.50	46.40	-10.90
8H	393.28	55.10	4.09	14.02	38.60	34.60	46.40	-11.80
9H	442.43	49.20	4.35	15.32	38.18	30.70	46.40	-15.70
10H	491.59	39.70	4.73	16.66	37.93	23.16	46.40	-23.24
11H	589.89	39.40	5.34	17.51	38.48	23.77	46.40	-22.63



***CONDUCTED EMISSION  
DATA SHEETS***





AVID

POWER TRACKER VI

MODEL: AV1026

FCC B - BLACK LEAD

TEST ENGINEER : Kyle Fujimoto  
KYLE FUJIMOTO

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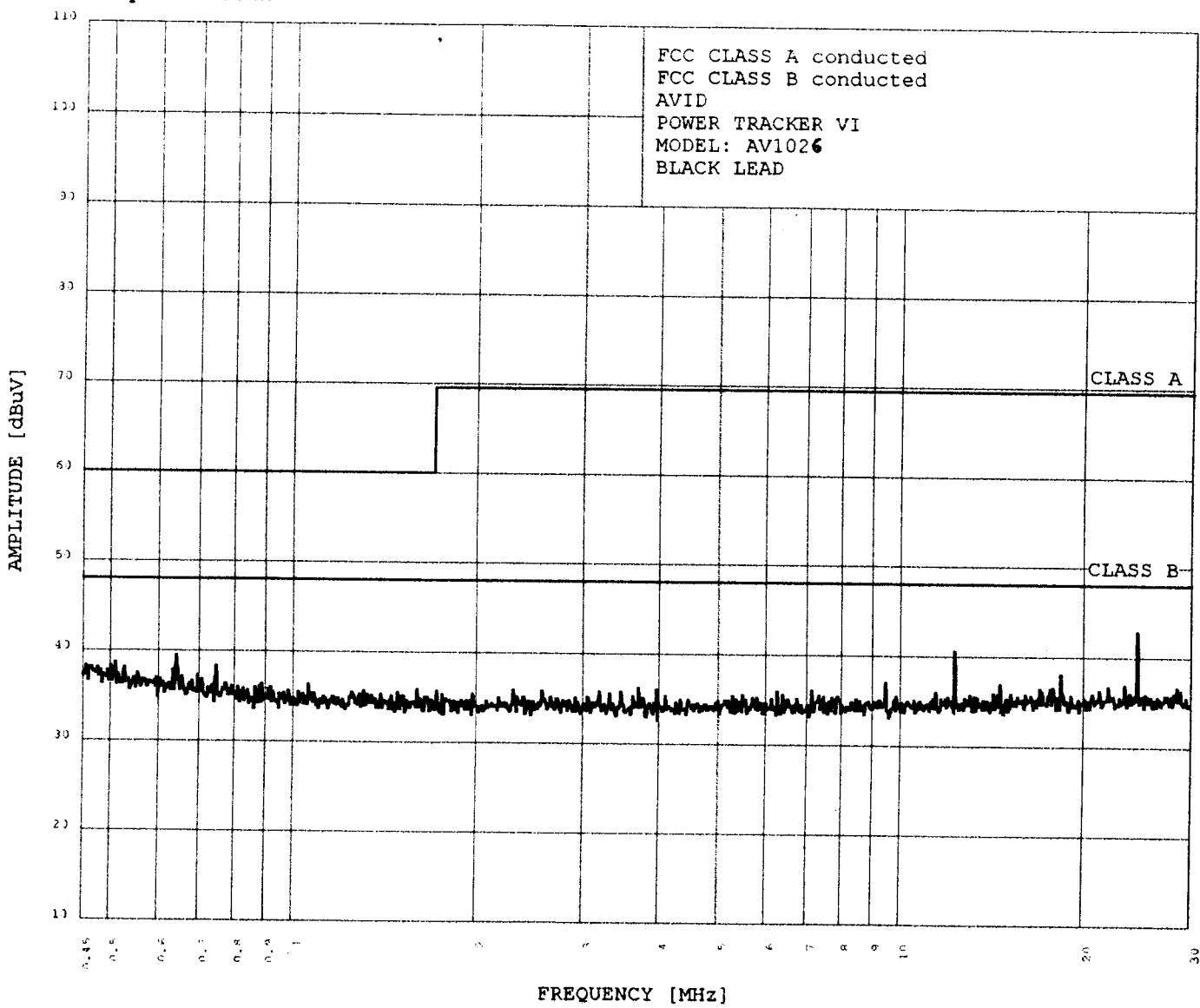
30 highest peaks above -50.00 dB of CLASS B limit line  
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	24.544	42.78	48.00	-5.22
2	12.274	40.47	48.00	-7.53
3	0.643	39.40	48.00	-8.60
4	0.511	38.60	48.00	-9.40
5	0.456	38.20	48.00	-9.80
6	0.502	38.20	48.00	-9.80
7	0.748	38.20	48.00	-9.80
8	0.464	38.10	48.00	-9.90
9	0.528	38.00	48.00	-10.00
10	18.362	37.99	48.00	-10.01
11	0.635	37.80	48.00	-10.20
12	0.496	37.70	48.00	-10.30
13	0.556	37.40	48.00	-10.60
14	0.515	37.30	48.00	-10.70
15	0.697	37.20	48.00	-10.80
16	0.657	37.00	48.00	-11.00
17	9.459	36.91	48.00	-11.09
18	0.546	36.90	48.00	-11.10
19	0.604	36.80	48.00	-11.20
20	14.581	36.80	48.00	-11.20
21	23.420	36.80	48.00	-11.20
22	0.709	36.70	48.00	-11.30
23	22.003	36.59	48.00	-11.41
24	28.550	36.51	48.00	-11.49
25	0.682	36.50	48.00	-11.50
26	17.832	36.47	48.00	-11.53
27	17.613	36.36	48.00	-11.64
28	16.956	36.34	48.00	-11.66
29	0.774	36.30	48.00	-11.70
30	0.889	36.30	48.00	-11.70

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EMISSION LEVEL [dBuV] PEAK  
Graph for Peak

4/04/2000 16:58:53





AVID

POWER TRACKER VI

MODEL: AV1026

FCC B - WHITE LEAD

TEST ENGINEER : Kyle Fujimoto  
KYLE FUJIMOTO

30 highest peaks above -50.00 dB of CLASS B limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	24.544	43.11	48.00	-4.89
2	12.274	39.45	48.00	-8.55
3	0.646	39.07	48.00	-8.93
4	3.964	37.28	48.00	-10.72
5	22.472	36.76	48.00	-11.24
6	26.916	36.58	48.00	-11.42
7	18.680	36.52	48.00	-11.48
8	28.066	36.47	48.00	-11.53
9	21.909	36.42	48.00	-11.58
10	16.737	36.38	48.00	-11.62
11	17.102	36.31	48.00	-11.69
12	18.362	36.30	48.00	-11.70
13	28.792	36.26	48.00	-11.74
14	7.928	36.23	48.00	-11.77
15	25.054	36.20	48.00	-11.80
16	3.706	35.88	48.00	-12.12
17	14.889	35.85	48.00	-12.15
18	17.321	35.83	48.00	-12.17
19	17.978	35.77	48.00	-12.23
20	19.971	35.76	48.00	-12.24
21	19.633	35.75	48.00	-12.25
22	4.670	35.71	48.00	-12.29
23	10.288	35.71	48.00	-12.29
24	15.456	35.69	48.00	-12.31
25	0.771	35.67	48.00	-12.33
26	5.935	35.58	48.00	-12.42
27	13.860	35.57	48.00	-12.43
28	9.580	35.55	48.00	-12.45
29	0.715	35.47	48.00	-12.53
30	3.351	35.46	48.00	-12.54



COMPATIBLE  
ELECTRONICS

EMISSION LEVEL [dBuV] PEAK  
Graph for Peak

4/04/2000 17:17:31

