15.247 CERTIFICATION
FCC ID: IMKRL8AP

EMI TEST REPORT

ON

RANGELAN802 MODEL 8520/8521 ACCESS POINT

WITH:
CENTURION 1.0 DBI OMNIDIRECTIONAL ANTENNA
CUSHCRAFT 5.15 DBI OMNIDIRECTIONAL ANTENNA
HUBER+SUHNER 8.5 DBI PATCH ANTENNA
MOBILE MARK 9.0 DBI OMNIDIRECTIONAL
VERTEX 9.0 DBI PATCH ANTENNA

PREPARED FOR

PROXIM
295 N. BERNARDO AVE
MOUNTAIN VIEW, CA 94043
TEL: (650) 960-1630
FAX: (650) 960-0332

PREPARED BY

ELECTRONIC COMPLIANCE LABORATORIES INC.
1249 BIRCHWOOD DR.
SUNNYVALE, CA 94089
TEL: (408) 747-1490
FAX: (408) 747-1495

TEST REPORT NUMBER: A803014
DATE OF TEST: MARCH 24, 1998

NVLAP®

FC

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1.0 TEST FACILITY

Name:	Electronic Compliance Laboratories
Location:	1249 Birchwood Dr. Sunnyvale, CA 94089
Site Filing:	A site description is on file at the Federal Communications Commission P.O. Box 429 Columbia, MD 21045
NVLAP LAB CODE:	200089
Types of Sites:	Open Field Radiated and Indoor Screen Room (Line Conducted). All sites are constructed and calibrated to meet ANSI C63.4-1994 requirements.

2.0 TEST EQUIPMENT

Description	Manufacturer	Model	SN
EMI Receiver	HP	8546A	3325A00137
Spectrum Analyzer	HP	8563A	3137A01183
Preamp	HP	8447F	3113A05849
Preamp	HP	8449B	3008A00527
LISN	EM	ANS-25/2	2532
Biconical Antenna	EM	EM 6912	677
Log Periodic Ant	EM	EM 6950	858
Double Ridge Horn	EM	EM 6961	6231
Filter BP 1.2-45 GHz	FSY	HM 1160-1155	001
Filter BP 4-10 GHz	FSY	HM 2950-1565	001
Filter HP 10-18GHz	FSY	HP 8601-7SS	001

3.0 EUT

RangeLAN802 AP
M/N 8521
S/N 0020A6324BA7
FCC ID: IMKRL8AP

Centurion	P/N CAF28777	1.0 dBi Omnidirectional Antenna
Cushcraft	P/N S2403BP48SM	5.15 dBi Omnidirectional Antenna
Huber+Suhner	P/N 1324.19.0002	8.5 dBi Patch Antenna
Mobile Mark	P/N OD9-2400	9.0 dBi Omnidirectional
Vertex	P/N 245LD9W	9.0 dBi Patch Antenna

(antennas not serialized)

4.0 SUPPORT EQUIPMENT

110v/10Hz to 24Vac Transformer

5.0 EQUIPMENT CONFIGURATION

All of the equipment and cables were placed in worst case positions to maximize emissions.

Interconnecting cables were of the type and length specified in the individual equipment requirements.

Grounding was in accordance with the manufacturer requirements and conditions for intended use.

6.0 SUMMARY OF TESTS

The RangeLAN802 AP is a Wireless Point to Multipoint data communications System with a low power frequency hopping spread spectrum (FHSS) radio system operating in the 2400-2483.5 MHz band. Tests were performed with two different antennas. Test firmware resident in the EUT and was used to do the test.

6.1 15.247(a)(1) FREQUENCY HOPPING SYSTEMS

RangeLAN802 AP uses 79 channels, each 1 MHz wide. The system hops over one of 15 pseudorandom sequences. On average, each channel is used equally. Please refer to " RAngeLAN802 AP frequency Hopping Theory of Operation" attached to this submission for more details.

6.1.1 15.247(a)(1)(ii) CHANNEL UTILIZATION

A spectrum analyzer plots labeled "Channel UTILIZATION". The total number of channels is 79. The channels used have nominal center frequencies of 2402 through 2480 MHz. Three spectrum analyzer MAX HOLD plots labeled ""BANDWIDTH" show the 20 dB bandwidth of the hopping channel to be < 1 MHz (.960 /. 940/ .965 MHz) at the low/midband/high frequencies of 2.402/2.440/2.480 GHz. **Test Plots are shown in Appendix A.**

Zero span spectrum analyzer plot labeled "DWELL TIME" shows Worst case transmission time in a given slot: 390ms dwell-time elapsed time, <100 % duty
Maximum allowed: 400 msec.

Test Data in Appendix A.

6.1.2 **15.247(b) MAXIMUM PEAK OUTPUT POWER**

The three spectrum analyzer plots labeled " POWER OUT" show the maximum power of the hopping channel to be 26.67tdBm or 464mW. The EUT was made to transmit uninterrupted random data on each of the low/mid/high channels. **Test Plots are shown in Appendix A.**

The output was taken through 3 feet of RG 142 cable, to Spectrum Analyzer set on Max Hold with no additional attenuation.

Power = 26.37dBm (peak reading) +0.3dB cable loss = +26.67dBm / 464mW EIRP
Limit: +30 dBm / 1 W maximum power

Centurion 2.15 dBi Omnidirectional antenna,
EIRP = +26.67 (peak power) +2.15 (peak gain, dBi) = +28.82 dBm / 762mW EIRP
Limit: +36 dBm / 4 W maximum EIRP
Cushcraft 5 dBi Omnidirectional antenna,
EIRP = +26.37 (peak power) +5.0 (peak gain, dBi) = +31.37 dBm / 1.37W EIRP
Limit: +36 dBm / 4 W maximum EIRP
Huber+Suhner 8.5 dBi Patch Antenna
EIRP = +26.37 (peak power) +8.5 (peak gain, dBi) = +34.87 dBm / 3.07mW EIRP
Limit: +36 dBm / 4 W maximum EIRP
Mobile Mark 9.0 dBi Omnidirectional
EIRP = +26.37 (peak power) +9.0 (peak gain, dBi) = +35.37 dBm / 3.44mW EIRP
Limit: +36 dBm / 4 W maximum EIRP
Vertex 9.0 dBi Patch Antenna
EIRP = +26.37(peak power) +9.0 (peak gain, dBi) = +35.37 dBm / 3.44mW EIRP
Limit: +36 dBm / 4 W maximum EIRP

6.1.3 15.247(c) OUT OF BAND EMISSIONS

The spectrum analyzer plots titled "" OUT OF BAND - BAND EDGES" shows the output spectrum of the EUT while hopping one of the pseudorandom sequences and continuously transmitting packetized data. The analyzer was placed in MAX HOLD mode, and individual sweeps were recorded continually for 10 minutes with the same spectrum analyzer connection as was used for peak output power. The resultant plot shows that the EUT emissions remain inside the 2400 - 2483.5 MHz band when measured in >= 100 kHz bandwidth during operation.

The spectrum analyzer plots labeled "OUT OF BAND <1GHz GHz", " OUT OF BAND 1 -2.75 GHz", and "OUT OF BAND 2.75 - 26.5 GHz" show that emissions measured in >= 100 kHz bandwidth are more than 20 dB below the highest level of the desired power outside of the 2400 - 2483.5 MHz band. **Test Plots are shown in Appendix A.**

6.1.4 15.203 ANTENNA REQUIREMENT

The unit requires professional installation and is therefore exempt from the requirements of 15.203.This product has a standard N type Antenna connector to provide a coupling to the intentional radiator. The Manufacture's control drawings, and the antenna drawings are in **Appendix B.**

6.1.5 15.205 RESTRICTED BAND RADIATION LIMITS

The EUT was placed on a wooden table resting on a turntable. The wooden table was approximately 1 meter above the groundplane of the 3 meter test site. The search antenna was moved in to 1 meter when necessary to improve the noise floor, and the appropriate range factor was applied. While the EUT was transmitting uninterrupted random data on each of the low/mid/high channels and with the spectrum analyzer on MAX HOLD, the turntable was rotated, and the search antenna raised and lowered in an attempt to maximize the received radiated emission level. **Test results are attached in Appendix C** in tabular form showing that no spurious signals were detected above the 74dBuV/m peak/54dBuV/m average limits. Peak measurements were made with a RBW and VBW = 1Mhz. Average measurements were made with a RBW = 1 MHz and a VBW = 10 Hz.

6.1.6 15.207 AC LINE CONDUCTED EMISSIONS

The RF line conducted levels for emissions in the 0.45 - 30 MHz band must not exceed 250 μV when measured with a LISN. Attached graphs and tabular data show that emissions are below the 250 μV (48 dBμV) maximum allowed level. **Test Data is in Appendix D.**

6.1.7 15.209 RADIATED EMISSIONS

The attached table shows that the Class B radiated limits from 30 - 1000 MHz are not exceeded by the EUT. The EUT was operating normally with a combination of transmission and reception and hopping one of the fifteen pseudorandom sequences during this test. The EUT was placed near one edge of a wooden table resting on a turntable. The wooden table was approximately 1 meter above the groundplane of the 3 meter test site. The search antennas were located at 3 meters. Measurements were made in accordance with ANSI C63.4-1994. **Test Data is in Appendix E.**

Electronic Compliance Laboratories

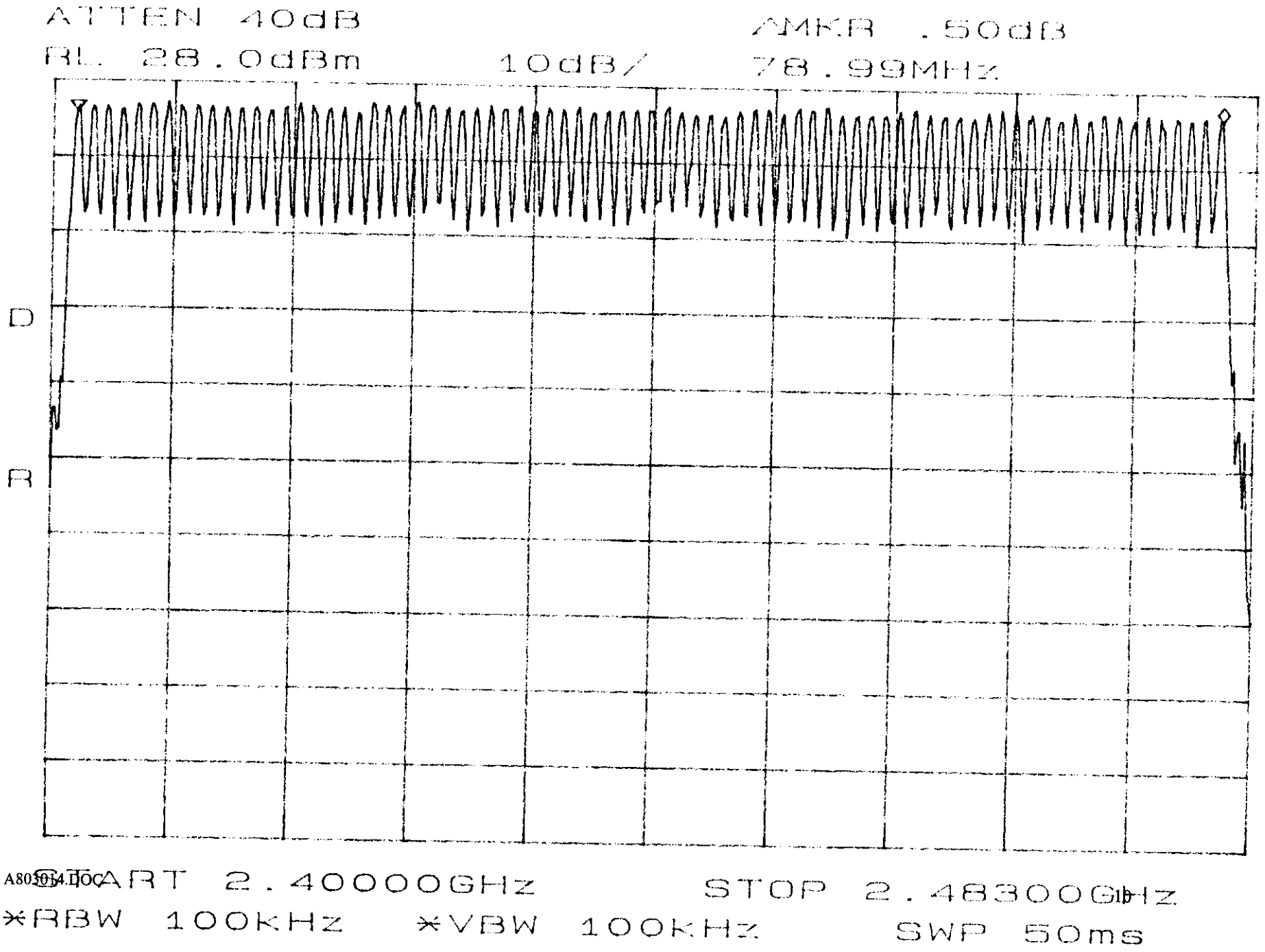
_____ _____

Chris Byleckie Date
Technical Director

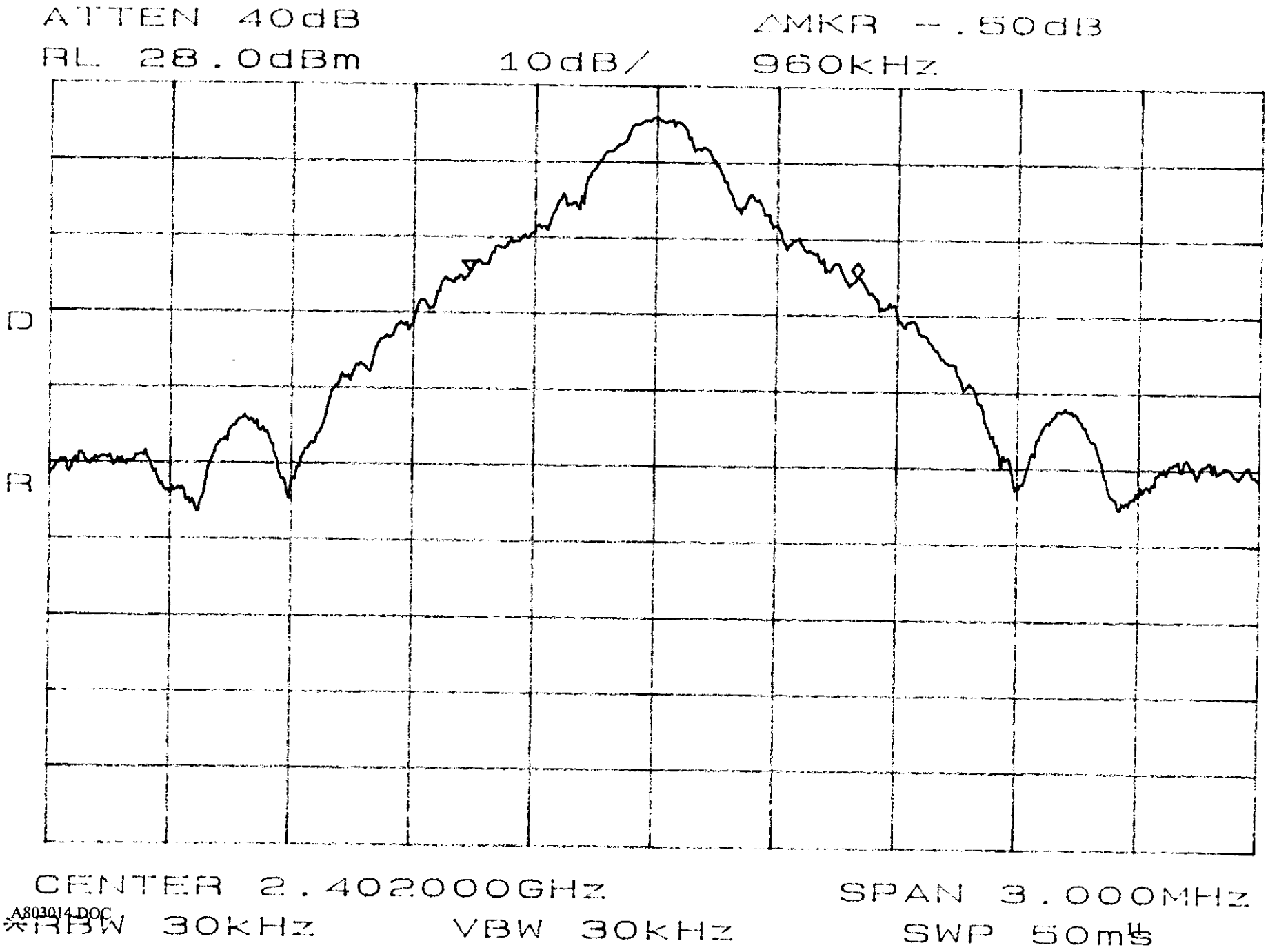
APPENDIX A

SPREAD SPECTRUM PLOTS

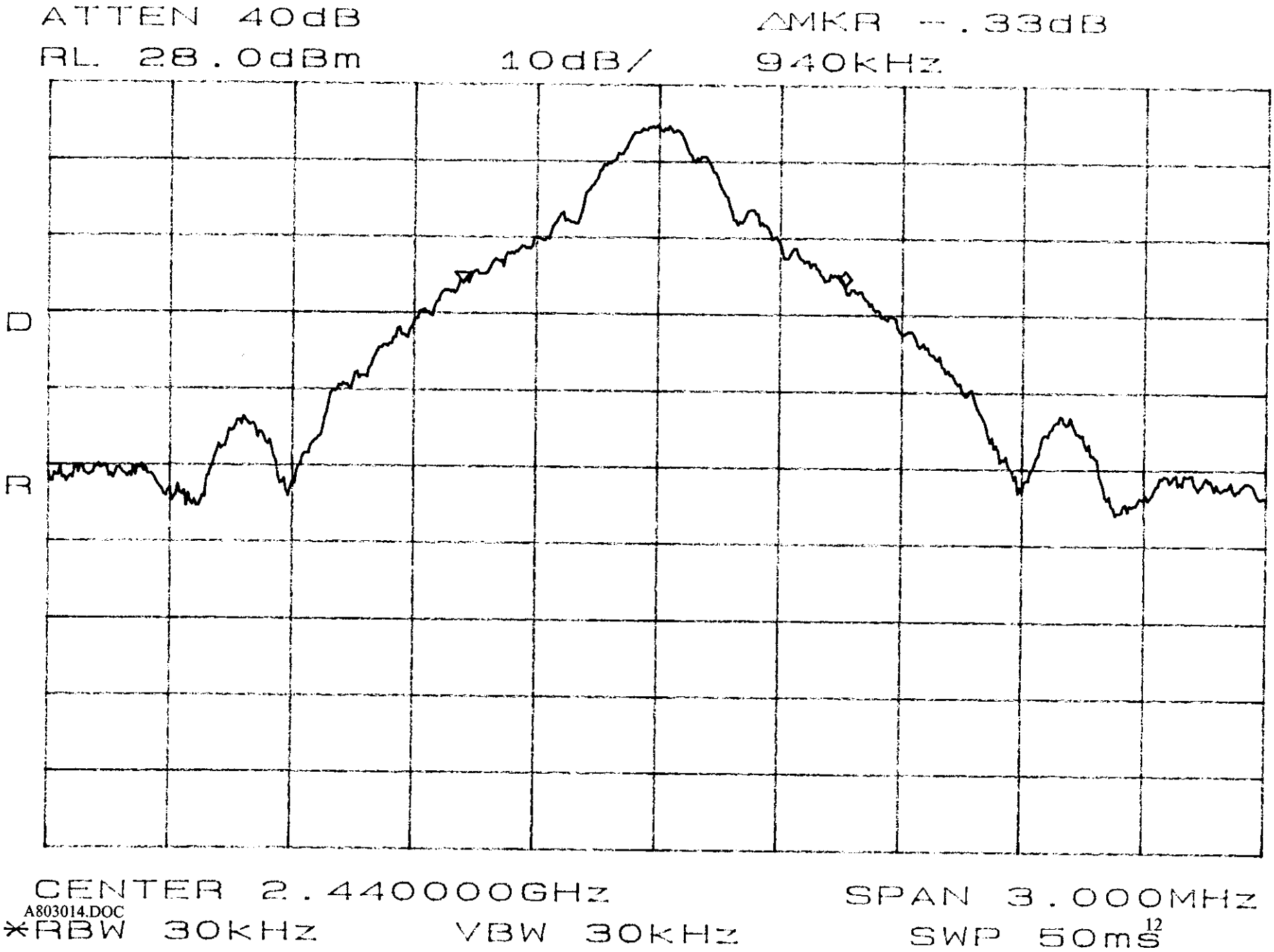
Channel Utilization



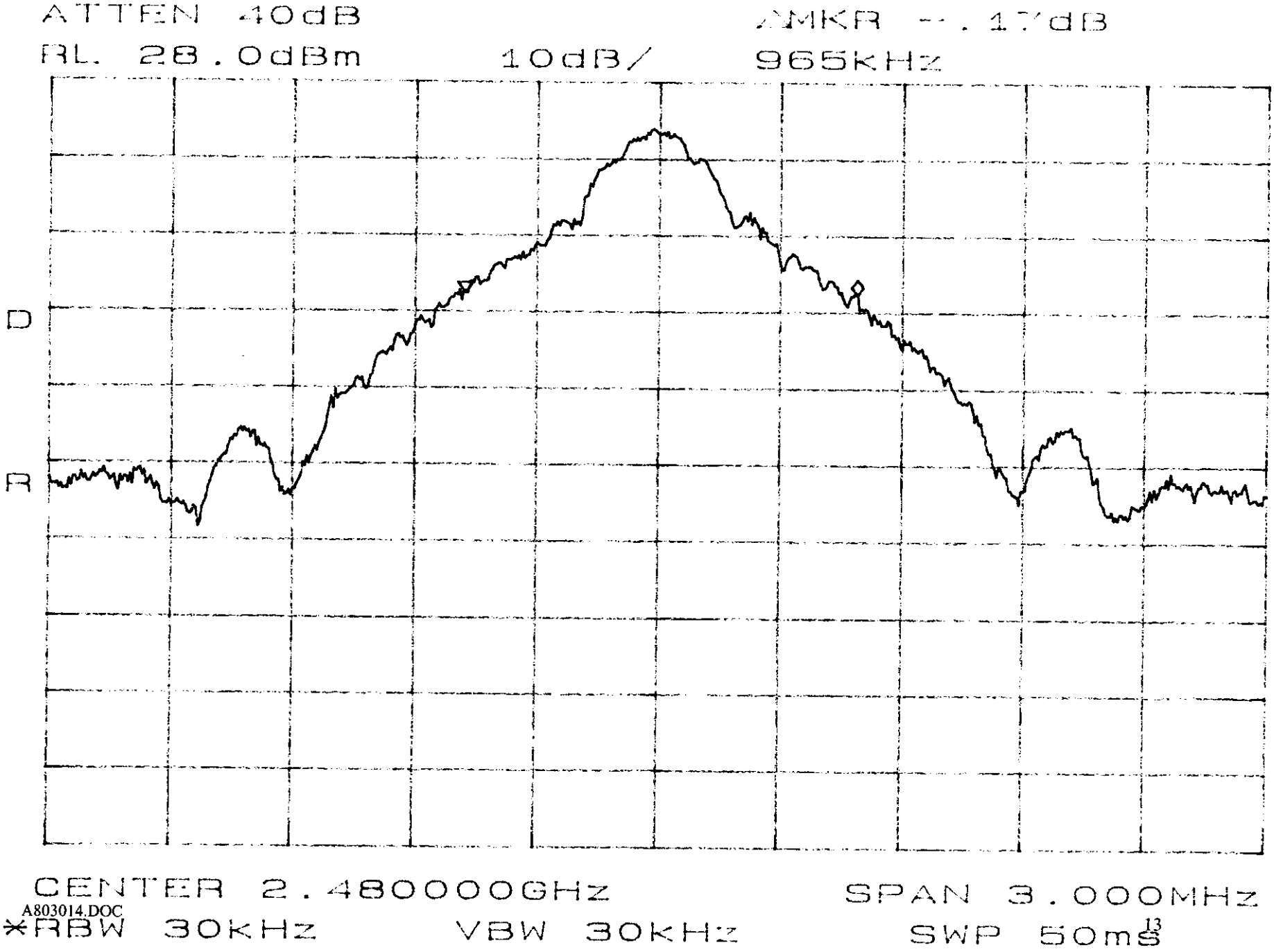
Bandwidth


ATTEN 40dB
ΔMKR -.50dB
RL 28.0dBm
10dB/
960KHz
D
R
CENTER 2.402000GHz
SPAN 3.000MHz
*RBW 30KHz
VBW 30KHz
SWP 50ms

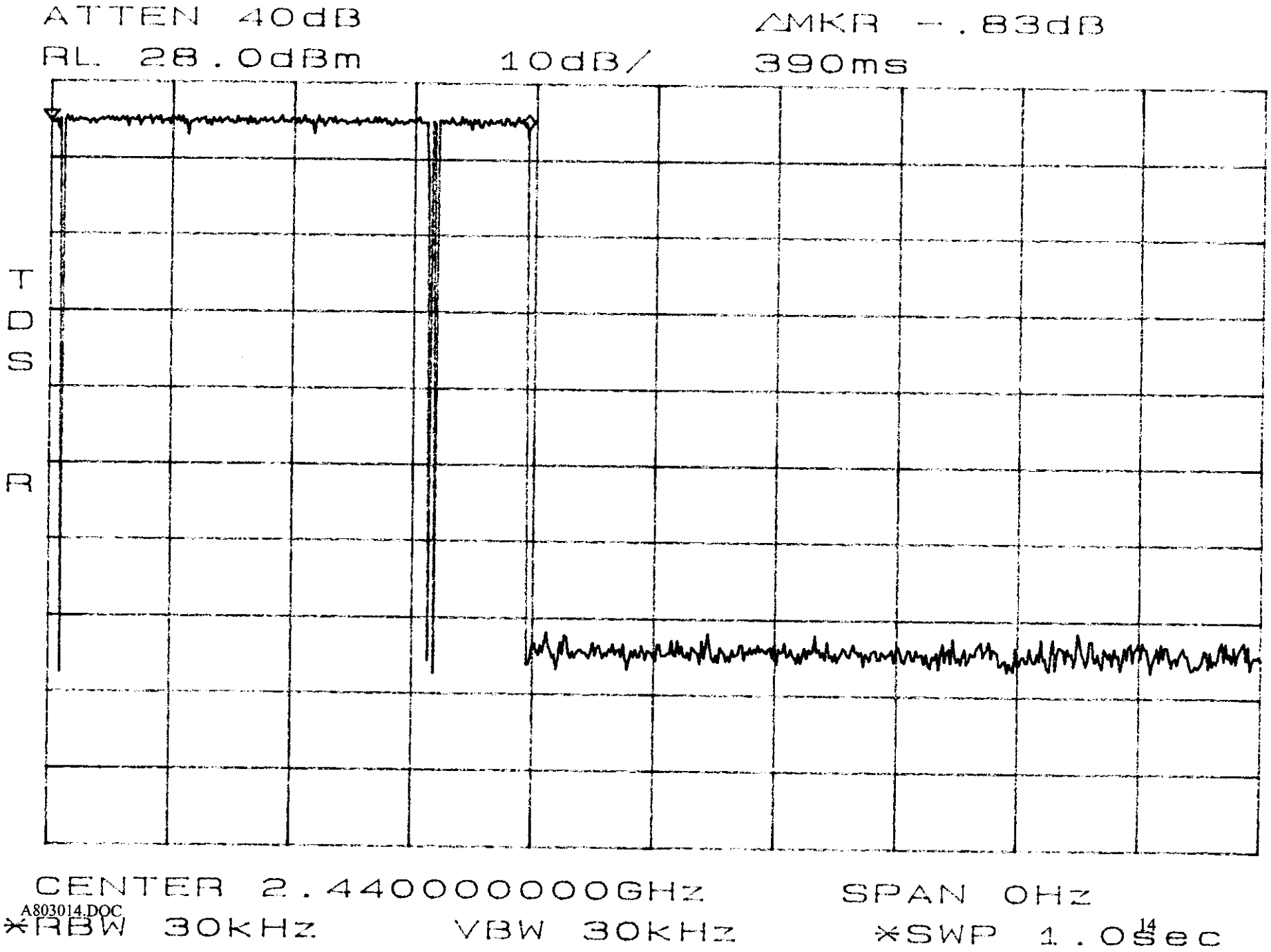
Bandwidth


ATTEN 40dB
ΔMKR -.33dB
RL 28.0dBm
10dB/
940kHz
D
R
CENTER 2.440000GHz
SPAN 3.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50ms

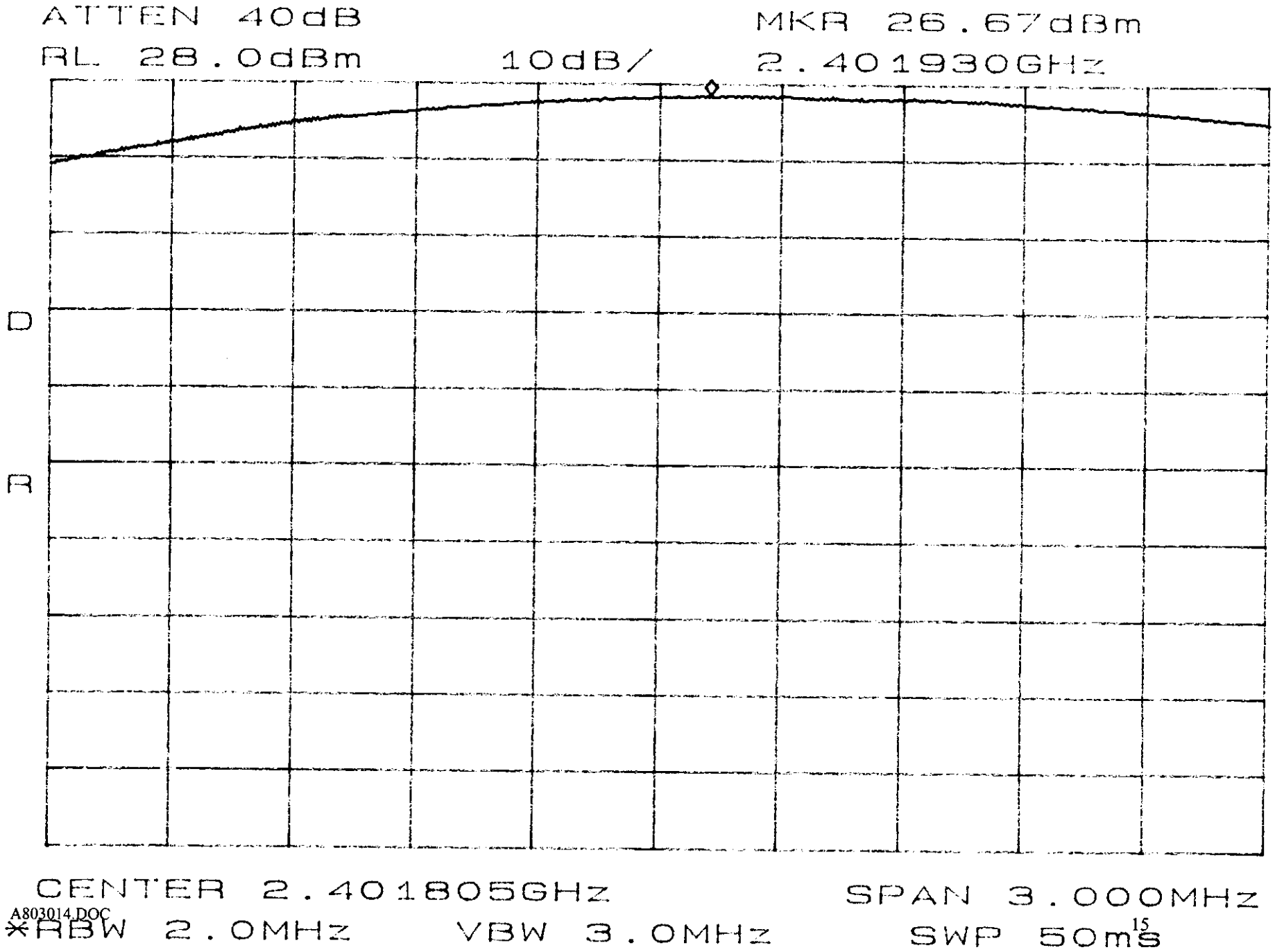
Bandwidth


ATTEN 40dB
RL 28.0dBm
10dB/
965KHz
CENTER 2.480000GHz
SPAN 3.000MHz
*RBW 30KHz
VBW 30KHz
SWP 50ms

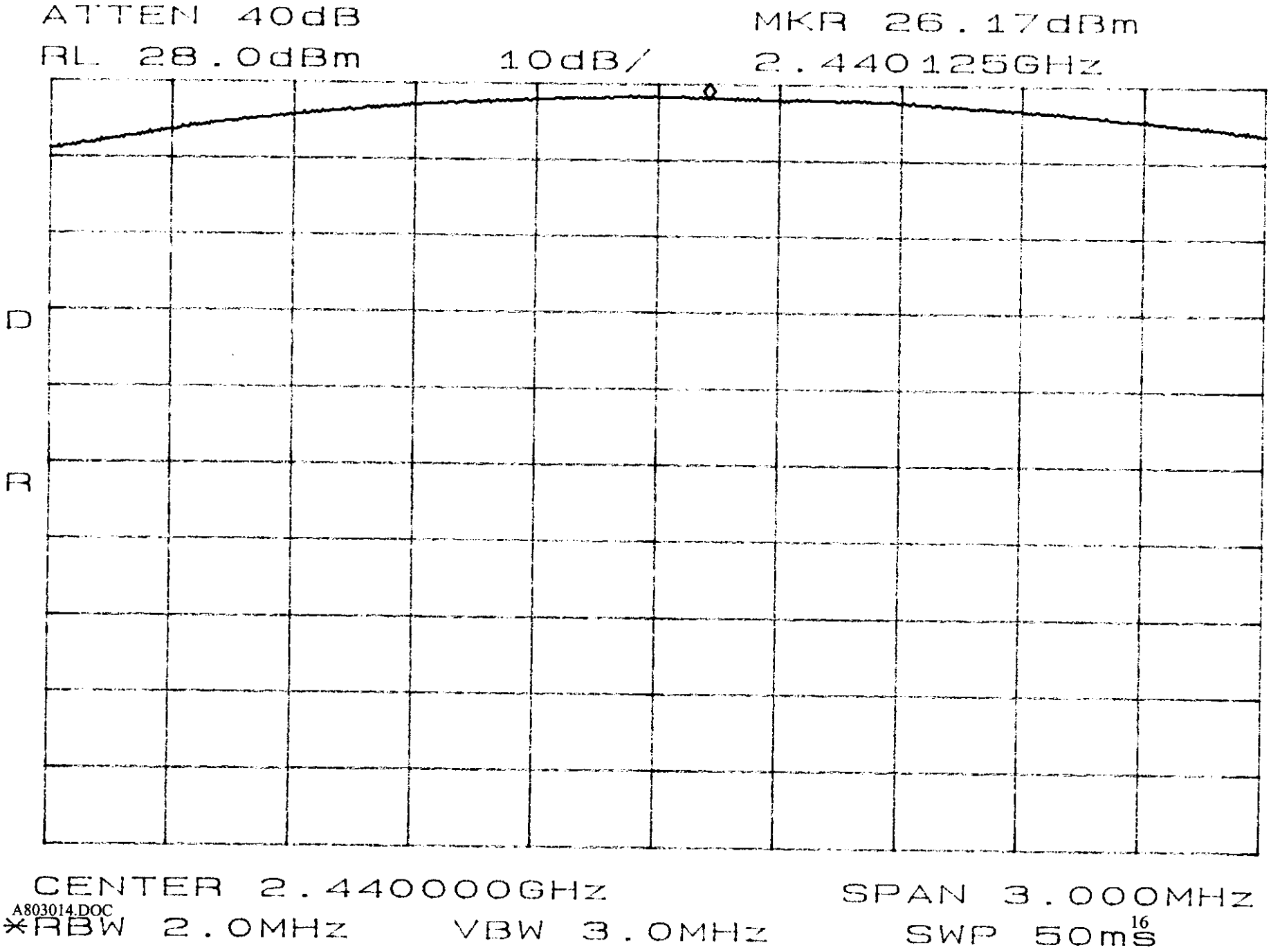
Dwell Time


ATTEN 40dB
ΔMKR -.83dB
RL 28.0dBm
10dB/
390ms
TDS
R
CENTER 2.440000000GHz
SPAN 0Hz
*RBW 30KHz
VBW 30KHz
*SWP 1.0sec

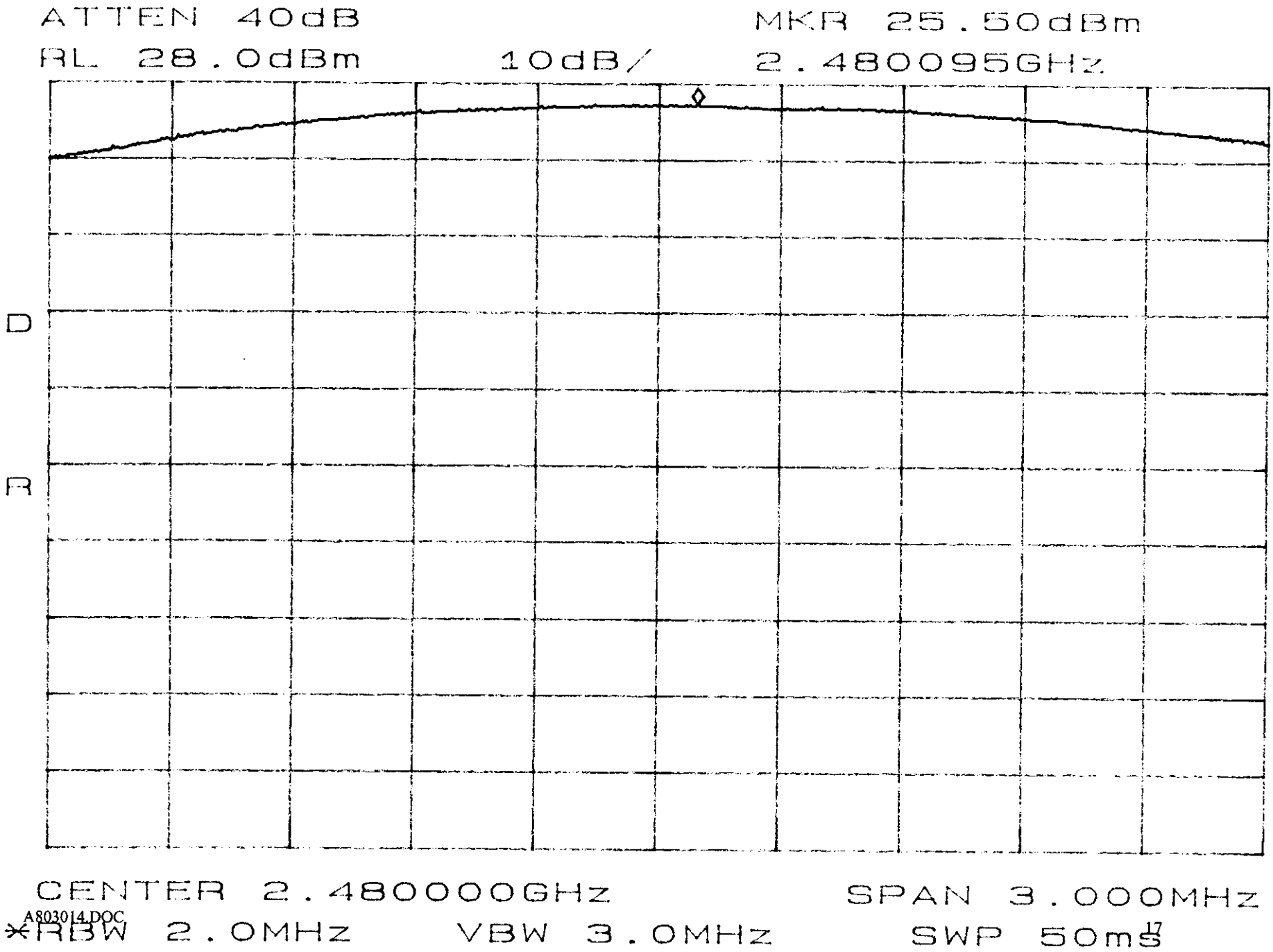
Power Out


ATTEN 40dB
MKR 26.67dBm
RL 28.0dBm
10dB/
2.401930GHz
D
R
CENTER 2.401805GHz
SPAN 3.000MHz
*RBW 2.0MHz
VBW 3.0MHz
SWP 50ms

Power Out

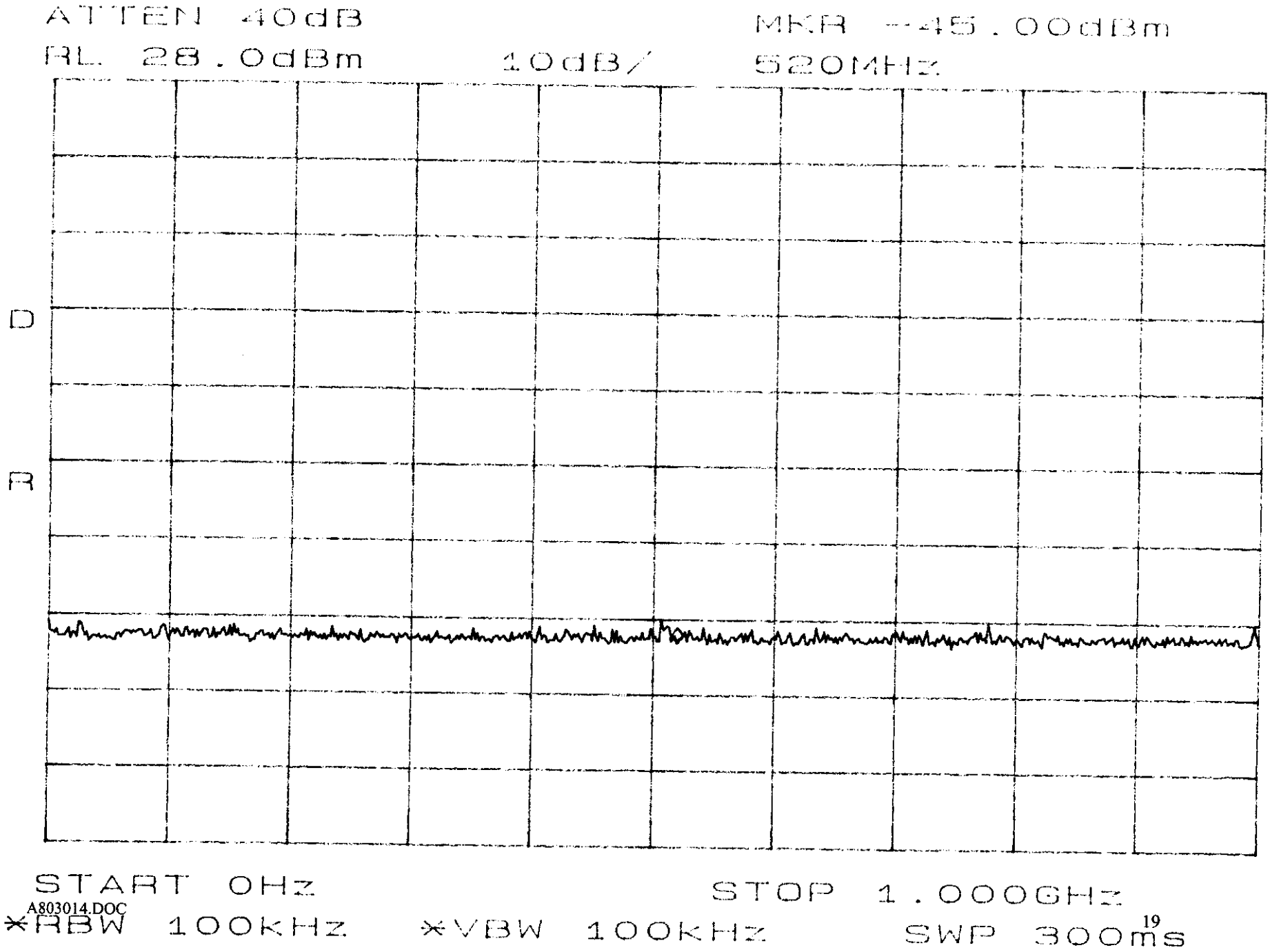

ATTEN 40dB
MKR 26.17dBm
RL 28.0dBm
10dB/
2.440125GHz
D
R
CENTER 2.440000GHz
SPAN 3.000MHz
*RBW 2.0MHz
VBW 3.0MHz
SWP 50ms

Power Out

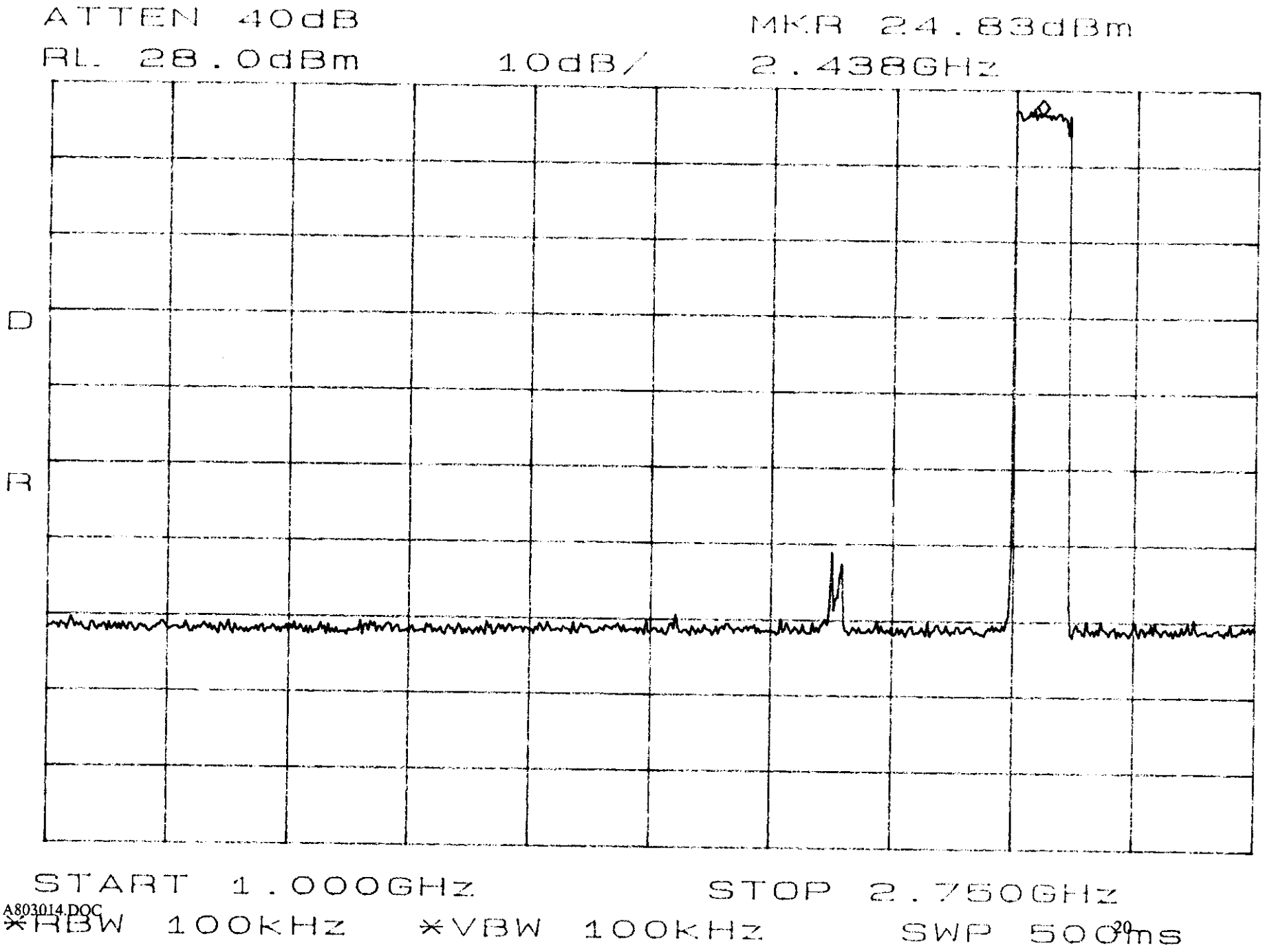

ATTEN 40dB
MKR 25.50dBm
RL 28.0dBm
10dB/
2.480095GHz
D
R
CENTER 2.480000GHz
SPAN 3.000MHz
*RBW 2.0MHz
VBW 3.0MHz
SWP 50ms

Out Of Band Emissions Band Edges

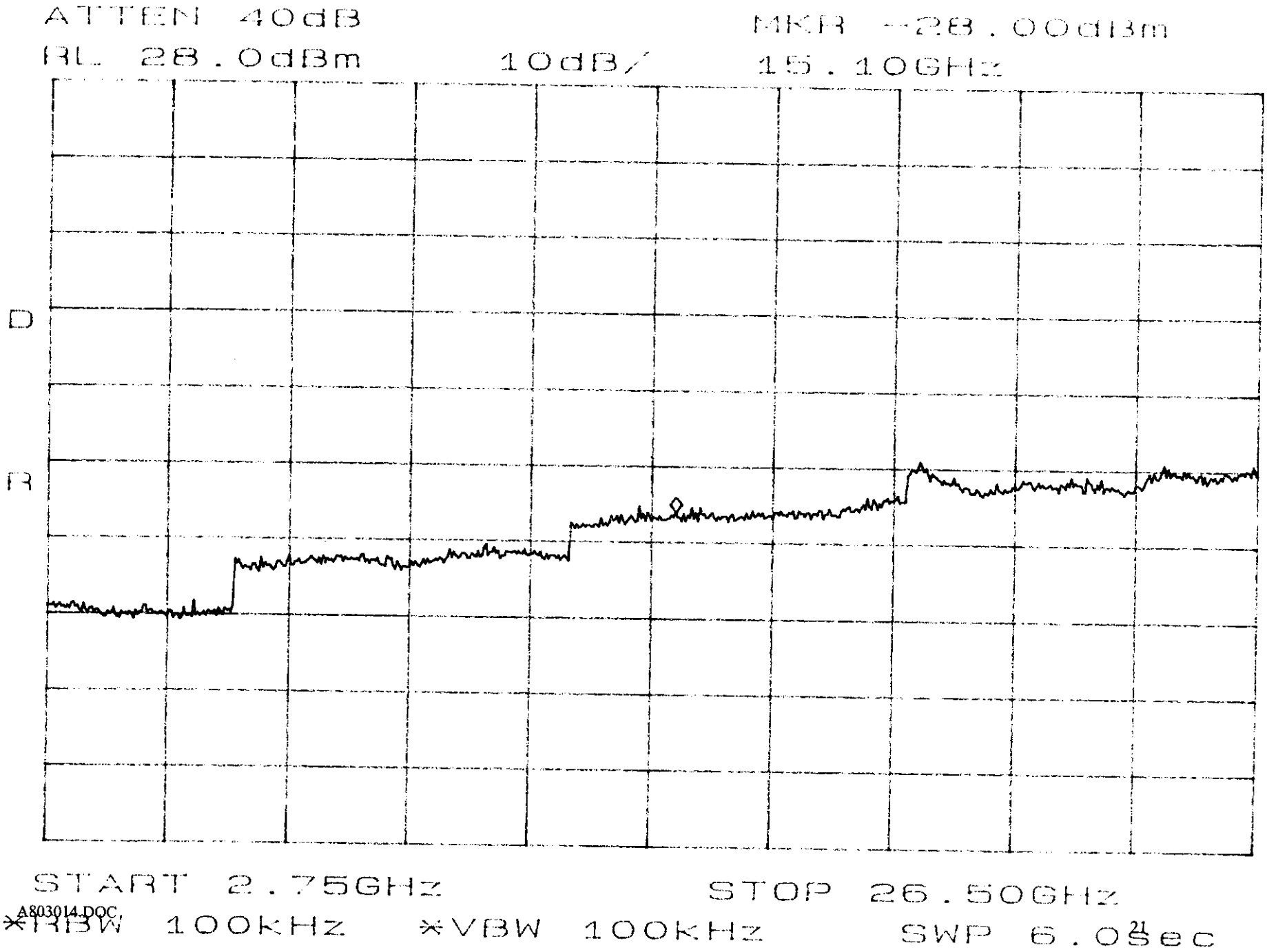
Out Of Band < 1 GHz



Out Of Band 1 – 2.75 GHz

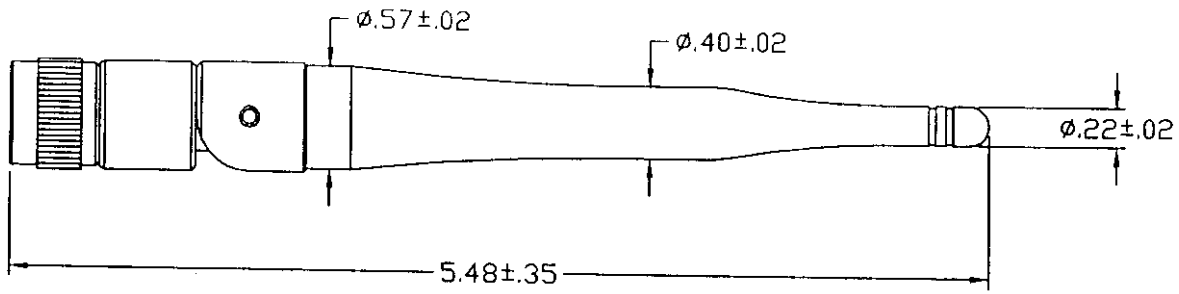


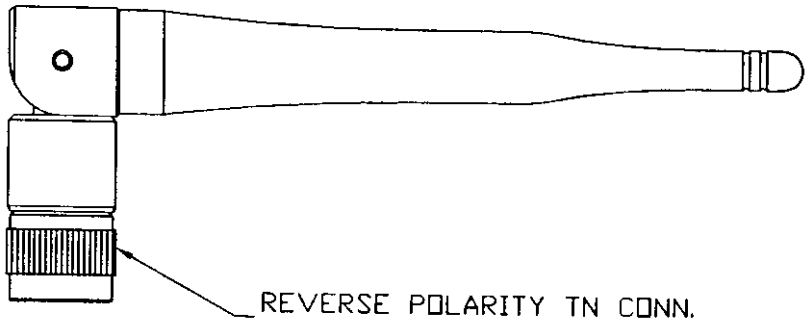
Out of Band 2.75 – 26.5 GHz



APPENDIX B

ANTENNA DRAWINGS





PNR DATA SHEET
Part # [illegible]
Sheet 2 of 2

NOTES:

1 SPECIFICATIONS:
- GAIN: 2.15 dBi
- OPERATING TEMPERATURE: -40°C TO +85°C
- FLEX TEST: PER QEA0014
- PULL TEST: 20 lbs. LINEAR PULL
- TORQUE TEST: 20 in-lbs
- POWER RATING: 50 WATTS
- VSWR 1.5:1 MAX. AT RESONANCE

2 CENTURION ANTENNA NO.

CAF28777	2.4GHZ	2.4-2.5GHZ	NONE

ALL DIMENSIONS ARE IN INCHES

LET	REVISION	DATE	CK	APP
A	ECO951387	12/95		

SCALE: 1:1 | DR: JB | CK:

TOL. UNLESS NOTED:
.XX = ± .010
.XXX = ± .005
ANGULAR ± 30'

CENTURION INT. INC.
PH. 402-467-4491
FAX. 402-467-4528
P.O. BOX 82846
LINCOLN, NE 68501

ANT, CELL, EXR-2400-TNSP

MATERIAL: N/A

DATE:	DWG NO.:	PG:	REV.
12/07/95	CAF28777	1/5	A

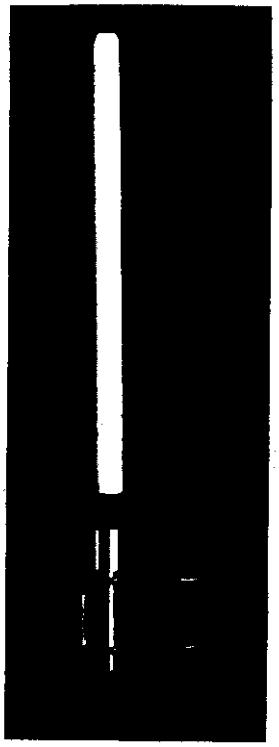
3900-B River Road, Schiller Park, IL 60176;
Tel: 800-648-2800 or 708-671-6690
Fax: 708-671-6715

MOBILE MARK
COMMUNICATIONS ANTENNAS

OD Series Site Antenna (pat.pnd.)

PCS, ISM & High Frequency Bands

- **6 dBi & 9 dBi fiberglass antennas with omnidirectional pattern**
- **Can be mounted anywhere; no ground plane required**
- **Extended aperture minimizes fading effect**
- **Mounting kit includes all hardware needed**



OD Series Antenna

PNR DATA SHEET
PART # 1900.0035
SH. 7 OF 7 REV A

The OD Series Base Station Antenna are high frequency designs for use in PCS, ISM & other high frequency applications. These small antennas consist of a collinear array with the radiating elements stacked vertically.

A unique designed phasing element (pat.pnd.) cancels unwanted out-of-phase current distribution. This results in improved bandwidth, and minimizes minor sidelobes in the radiation pattern. The design maintains a circular pattern in the horizontal plane and compresses the vertical pattern to achieve gain.

These multi-element collinear gain antennas improve both transmit and receive signal in all installations. They are effective for both close-in and fringe applications. The antenna's design characteristics further improve performance by increasing the effective spatial signal-to-noise ratio.

The OD Series antennas are free space antennas and can be mounted anywhere; no ground plane is required.

The low profile radome makes the OD series durable and rugged. They can withstand the harshest environments of snow, wind, rain, and ice. The lower feed assembly is made of precision machined aluminum components and is irridited for further weather protection.

The OD Series comes with all the hardware needed to install it to a mast. Customized hardware is also available for unique mounting applications.

	6 dBi Models	9 dBi Models
1700 - 1900 MHz range	OD6-1800	OD9-1800
1800 - 2000 MHz range	OD6-1900	OD9-1900
2300 - 2600 MHz range	OD6-2400	OD9-2400 ←

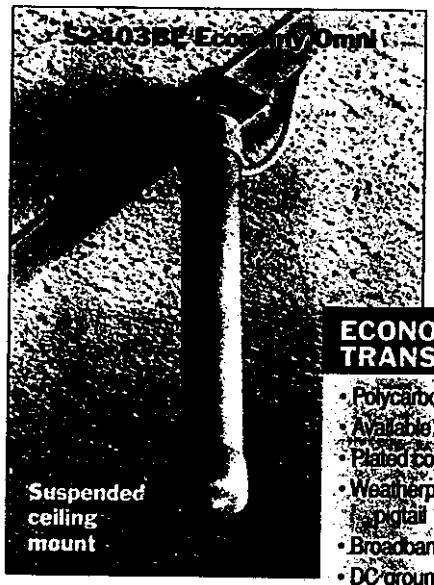
Note: Specify center frequency desired for all models. Other frequencies available upon request, please consult factory.

Specifications	
Frequency:	See above
Gain:	See above
Bandwidth @2:1:	140 MHz
Nominal Impedance:	50 ohms
Max. Power (continuous):	100 watts
Vertical Beamwidth (-3 dB point)	
6 dBi model:	32 degrees
9 dBi model:	17 degrees
Wind Loading (flat plate equiv.):	30 sq. inches
Rated Wind Velocity:	100+ mph
Lightning Protection:	direct ground
Material:	fiberglass radome, with aluminum feed
Antenna length:	
6 dBi Models	17 inches
9 dBi Models	25 inches
Antenna Weight:	1.8 lbs with clamp
Termination:	N male connector
Mounting Kit:	Mast mount kit included
Mounting Dimensions:	Use mast up to 2" OD

Economy Data Transmission Omnidirectional Antennas

These economy models of the above antennas are built without the extensive decoupling circuits found in the standard models. For some applications this can enhance performance. In others it has little effect on actual performance.

Economy Omnis are housed in long-life ultraviolet-stabilized poly-carbonate radomes. They may be used indoors or out without regard to the environment. Their radiation patterns have a tendency to fill the available space. There are a variety of mounting options from suspension ceiling clamps to pole mounts.

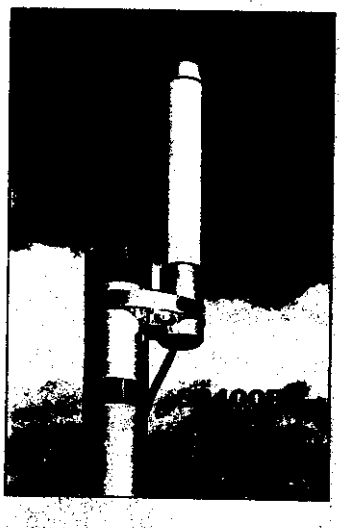


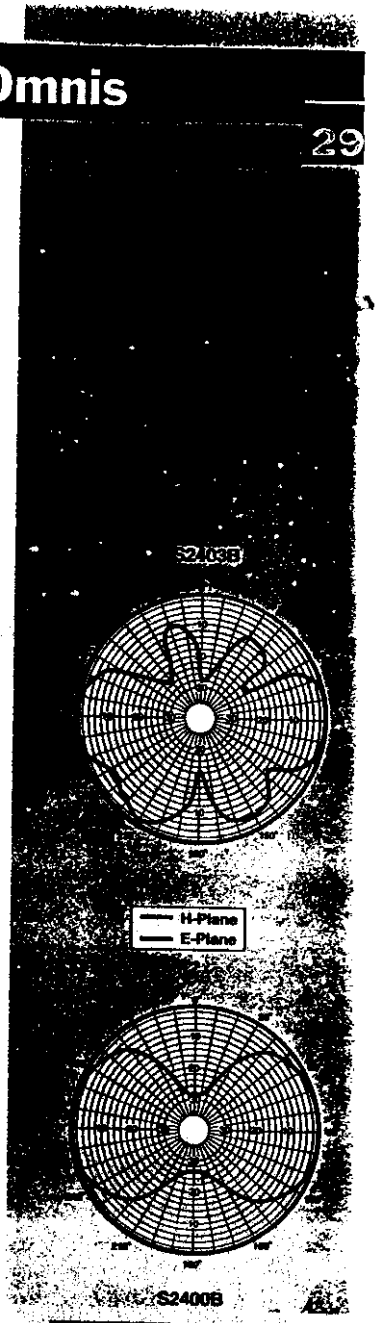
Omnidirectional antenna designs are also available for any frequency between 25 MHz and 6 GHz. Please call our sales engineers for full information.

ECONOMY DATA TRANSMISSION OMNIS

- Polycarbonate enclosures
- Available with ceiling mounts
- Plated copper laminated radiator
- Weatherproof designs with UltraLink pigtail
- Broadband performance
- DC grounded
- Omnidirectional performance

Model	Spread Spectrum	SCADA
S8960BE	Yes	Yes
S8963BE	Yes	No
S2400BE	Yes	NA
S2403BE	Yes	NA





PNR DATA SHEET
PART # 1900.0040
SH. 3 OF 3 REV A

DATA OMNI SELECTOR CHART

Model	Freq. MHz	Gain dBd	Bandwidth 1.5:1 MHz	-3dB bmwidth E-Plane°	Height in (cm)	Weight lb (kg)	W/sur Area ft² (m²)	W/survival mph (kph)	Power (Watts)	Enclosure Material	Mount Style	Mast Dia in (cm)
S8960B	896-960	0	64	75	17-1/2 (44.5)	0.56 (0.25)	0.083 (0.009)	125 (200)	150	Fiberglass	Tube end	2 (5.1)
S8960BE	896-960	0	64	75	9 (22.9)	0.36 (0.16)	0.122 (0.011)	125 (200)	150	Polycarbonate	Ceiling	N/A
S8963B	896-960	3	64	38	30-3/4 (78)	1.19 (0.53)	0.176 (0.016)	125 (200)	150	Fiberglass	Tube end	2 (5.1)
S8963BE	896-960	3	64	38	17 (43.2)	0.41 (0.18)	0.24 (0.022)	125 (200)	150	Polycarbonate	Ceiling	N/A
S8964B	896-960	4	64	30	42-1/8 (107)	1.56 (0.70)	0.22 (0.02)	125 (200)	150	Fiberglass	Tube end	2 (5.1)
S1403B	1410-1455	3	45	38	30 (76.2)	0.58 (0.26)	0.43 (0.04)	125 (200)	75	Polycarbonate	Tube end	2 (5.1)
S1406B	1410-1455	6	45	20	17-1/2 (44.5)	0.34 (0.15)	0.25 (0.023)	125 (200)	75	Polycarbonate	Tube end	2 (5.1)
S1804B	1850-1970	0	120	38	20-1/2 (52.1)	0.40 (0.17)	0.26 (0.024)	125 (200)	50	Polycarbonate	Tube end	2 (5.1)
S1806B	1850-1970	3	120	20	26-1/2 (67.3)	0.51 (0.23)	0.38 (0.035)	125 (200)	50	Polycarbonate	Tube end	2 (5.1)
S2400B	2400-2500	0	100	75	8 (20.3)	0.25 (0.11)	.11 (0.010)	125 (200)	50	Polycarbonate	Tube end	2 (5.1)
S2400BE	2400-2500	0	100	75	9 (22.9)	0.29 (0.64)	0.122 (0.011)	125 (200)	50	Polycarbonate	Ceiling	N/A
S2403B	2400-2500	3	100	38	13-1/2 (34.3)	0.41 (0.18)	0.22 (0.02)	125 (200)	50	Polycarbonate	Tube end	2 (5.1)
S2403BE	2400-2500	3	100	38	9 (22.9)	0.31 (0.14)	0.122 (0.011)	125 (200)	50	Polycarbonate	Ceiling	2 (5.1)

Common Specifications: VSWR - 1.2: nominal; Connector Type - N-female; Element material - printed circuit

VertexTechnologies

2.4 GHz Datacomm Antenna

245LD9W

The 245LD9w is designed specifically for the specialized needs of wireless communication equipment operating at 2.4 GHz. This high frequency antenna has been designed specifically for spread spectrum applications such as Wireless Local Area Networks.

The Datacomm Antenna is roughly the size of a small smoke detector. It has a conformal design that lies flush against any wall and an off-white case and cable. This aesthetically pleasing antenna seems to almost disappear in most office environments.

Electrical Specifications

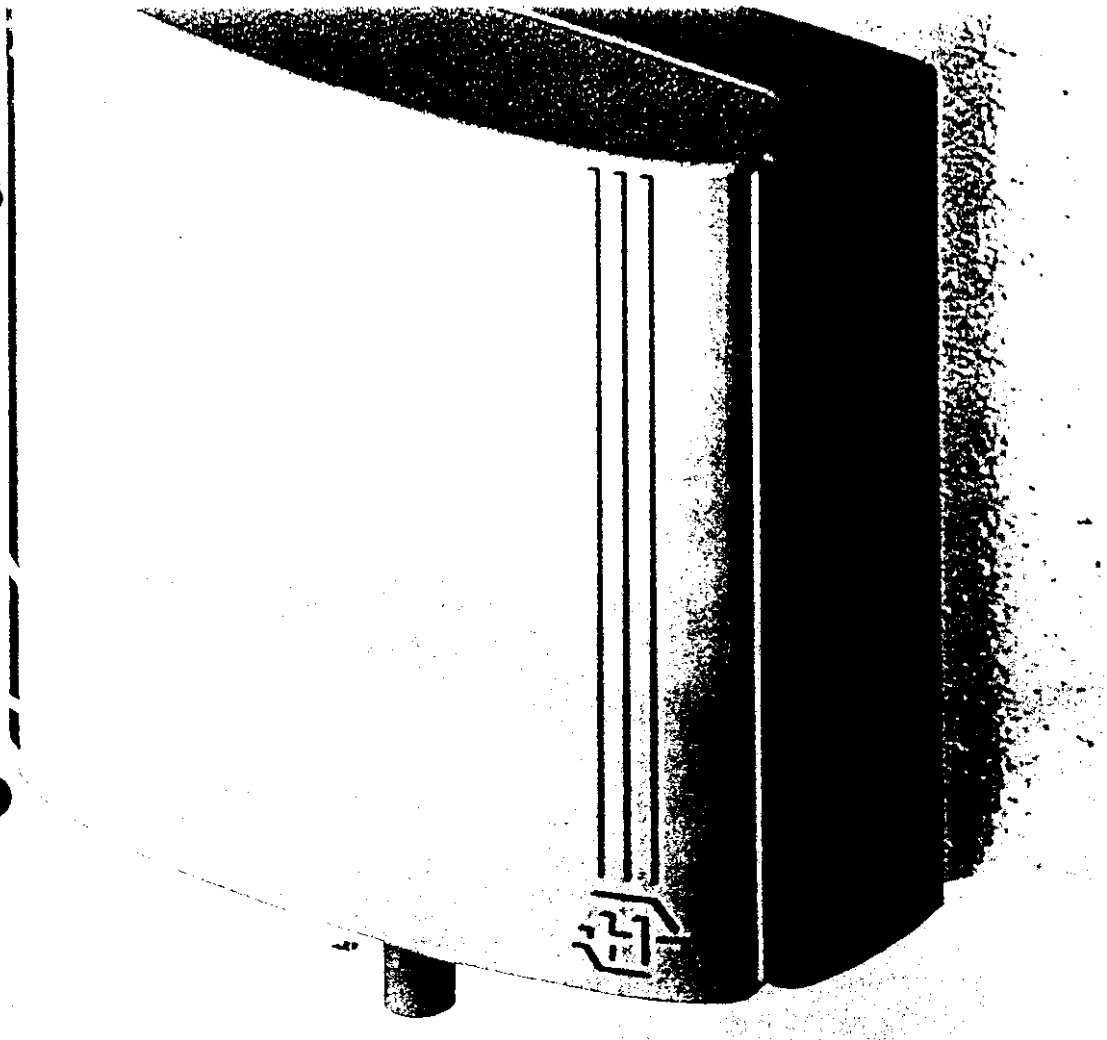
Frequency:	2.4 to 2.5 GHz
Gain:	9 dBi
Typical Bandwidth (1.5:1 VSWR):	140 MHz
Polarization:	Linear (Vertical or Horizontal)
3dB Beamwidth (typical):	
E-Plane:	55 degrees
H-Plane:	60 degrees
Pattern:	Directional

Mechanical Specifications

Dimensions:	4.755 x 4.755 x 0.66 inches
Connector:	SMA Male
Cable Length:	12 inches
Color:	Shell White
Environmental:	Indoor/Outdoor Use

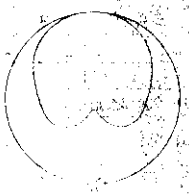
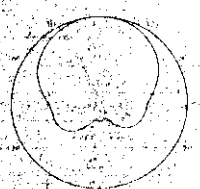
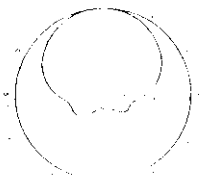
PNR DATA SHEET
PART # 1900.0036
SH. 3 OF 5 REV A

Vertex Technologies, Inc.•1780 30th Street• Suite 447• Boulder, CO 80301•Phone 303 442 6565•Facsimile 303 442 5043



PNR DATA SHEET
PART # 1900.0043
SH. 5 OF 6 REV A

TECHNICAL DATA

Application	DCS 1800/PCN etc.	DECT/PCS etc.	Rural tel. etc.	ISM/WLAN etc.
Electrical Data				
Frequency range (MHz)	1710-1880	1850-1990	2100-2300	2300-2500
Impedance (Ohm)	50	50	50	50
VSWR (max.)	1.5	1.5	1.5	1.5
Polarisation	vertical	vertical	vertical	vertical
Gain min. (dBi)	7	7.5	8	8.5
3 dB beamwidth horizontal (deg.)	85	80	80	75
3 dB beamwidth vertical (deg.)	50	50	50	50
Front to back ratio min. (dB)	12	15	15	15
Max. input power (W)	75	75	75	75
Standard connector (female)	SMA	SMA	SMA	SMA
Mechanical Data				
Dimensions (mm)	101x95x32	101x95x32	101x95x32	101x95x32
Dimensions w.o. mounting bracket (mm)	100x80x21	100x80x21	100x80x21	100x80x21
Weight (g)	100	100	100	100
Housing material	ASA	ASA	ASA	ASA
Antenna colour	RAL 7035 grey	RAL 7035 grey	RAL 7035 grey	RAL 7035 grey
Mounting bracket colour	RAL 7042 dark grey	RAL 7042 dark grey	RAL 7042 dark grey	RAL 7042 dark grey
Operating temp. range (°C)	-40..+80	-40..+80	-40..+80	-40..+80
Windload max. (200 km/h) (N)	24	24	24	24
Indoor and/or outdoor use	yes	yes	yes	yes
Typical Radiation Pattern (H plane)				
Type no.	1318 19.0005	1319 19.0003	1322 19.0003	1324 19.0003
Art no.	649571	649572	649573	649574

APPENDIX C

RESTRICTED BAND DATA

FCC RADIATED DATA SHEET

		DATE:	MAR 24 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032601A.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	CENTURION 1.0 dBi OMNIDIRECTIONAL ANTENNA		**DIST dB:** 10

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2402									
4804	41.7	Pk	32.8	7.0	35.0	10.0	36.5	74.0	-37.5
4804	31.7	Avg	32.8	7.0	35.0	10.0	26.5	54.0	-27.5
12010	38.5	Pk	39.3	13.6	35.0	10.0	46.4	74.0	-27.7
12010	27.5	Avg	39.3	13.6	35.0	10.0	35.4	54.0	-18.7
Fund = 2440									
4880	40.3	Pk	32.8	7.0	35.0	10.0	35.1	74.0	-38.9
4880	30.5	Avg	32.8	7.0	35.0	10.0	25.3	54.0	-28.7
7320	41.3	Pk	36.0	10.6	35.0	10.0	42.9	74.0	-31.1
7320	31.0	Avg	36.0	10.6	35.0	10.0	32.6	54.0	-21.4
12200	38.8	Pk	39.3	13.6	35.0	10.0	46.7	74.0	-27.4
12200	17.7	Avg	39.3	13.6	35.0	10.0	25.6	54.0	-28.5
Fund = 2480									
4960	43.0	Pk	32.8	7.0	35.0	10.0	37.8	74.0	-36.2
4960	32.5	Avg	32.8	7.0	35.0	10.0	27.3	54.0	-26.7
7440	41.2	Pk	36.0	10.6	35.0	10.0	42.8	74.0	-31.2
7440	30.3	Avg	36.0	10.6	35.0	10.0	31.9	54.0	-22.1
12400	37.8	Pk	39.3	13.6	35.0	10.0	45.7	74.0	-28.4
12400	17.5	Avg	39.3	13.6	35.0	10.0	25.4	54.0	-28.7

FCC RADIATED DATA SHEET

EUT:	RANGELAN802 AP	**DATE:**	MAR 24 98
S/N:		**CUSTOMER NAME:**	PROXIM
RULE PART:	15.247	**WORK ORDER:**	8032601
		FILE:	8032601B.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	CUSHCRAFT 5.15 DBI OMNIDIRECTIONAL ANTENNA		**DIST dB:** 10

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2402									
4804	41.3	Pk	32.8	7.0	35.0	10.0	36.1	74.0	-37.9
4804	30.8	Avg	32.8	7.0	35.0	10.0	25.6	54.0	-28.4
12010	39.0	Pk	39.3	13.6	35.0	10.0	46.9	74.0	-27.2
12010	27.5	Avg	39.3	13.6	35.0	10.0	35.4	54.0	-18.7
Fund = 2440									
4880	39.7	Pk	32.8	7.0	35.0	10.0	34.5	74.0	-39.5
4880	29.7	Avg	32.8	7.0	35.0	10.0	24.5	54.0	-29.5
7320	42.0	Pk	36.0	10.6	35.0	10.0	43.6	74.0	-30.4
7320	30.8	Avg	36.0	10.6	35.0	10.0	32.4	54.0	-21.6
12200	37.3	Pk	39.3	13.6	35.0	10.0	45.2	74.0	-28.9
12200	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-28.4
Fund = 2480									
4960	40.5	Pk	32.8	7.0	35.0	10.0	35.3	74.0	-38.7
4960	30.2	Avg	32.8	7.0	35.0	10.0	25.0	54.0	-29.0
7440	40.5	Pk	36.0	10.6	35.0	10.0	42.1	74.0	-31.9
7440	30.2	Avg	36.0	10.6	35.0	10.0	31.8	54.0	-22.2
12400	37.2	Pk	39.3	13.6	35.0	10.0	45.1	74.0	-29.0
12400	17.7	Avg	39.3	13.6	35.0	10.0	25.6	54.0	-28.5

FCC RADIATED DATA SHEET

		DATE:	MAR 24 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032601C.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	HUBER+SUHNER 5.15 DBI PATCH ANTENNA		**DIST dB:** 10

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2402									
4804	40.0	Pk	32.8	7.0	35.0	10.0	34.8	74.0	-39.2
4804	29.5	Avg	32.8	7.0	35.0	10.0	24.3	54.0	-29.7
12010	37.0	Pk	39.3	13.6	35.0	10.0	44.9	74.0	-29.2
12010	27.5	Avg	39.3	13.6	35.0	10.0	35.4	54.0	-18.7
Fund = 2440									
4880	39.7	Pk	32.8	7.0	35.0	10.0	34.5	74.0	-39.5
4880	27.8	Avg	32.8	7.0	35.0	10.0	22.6	54.0	-31.4
7320	40.7	Pk	36.0	10.6	35.0	10.0	42.3	74.0	-31.7
7320	30.5	Avg	36.0	10.6	35.0	10.0	32.1	54.0	-21.9
12200	37.8	Pk	39.3	13.6	35.0	10.0	45.7	74.0	-28.4
12200	16.7	Avg	39.3	13.6	35.0	10.0	24.6	54.0	-29.5
Fund = 2480									
4960	41.0	Pk	32.8	7.0	35.0	10.0	35.8	74.0	-38.2
4960	28.8	Avg	32.8	7.0	35.0	10.0	23.6	54.0	-30.4
7440	41.0	Pk	36.0	10.6	35.0	10.0	42.6	74.0	-31.4
7440	29.8	Avg	36.0	10.6	35.0	10.0	31.4	54.0	-22.6
12400	37.0	Pk	39.3	13.6	35.0	10.0	44.9	74.0	-29.2
12400	16.7	Avg	39.3	13.6	35.0	10.0	24.6	54.0	-29.5

FCC RADIATED DATA SHEET

		DATE:	MAR 25 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032601D.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	TELEX 5.15		**DIST dB:** 10
	OMNIDIRECTIONAL ANTENNA		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2402									
4804	42.7	Pk	32.8	7.0	35.0	10.0	37.5	74.0	-36.5
4804	33.5	Avg	32.8	7.0	35.0	10.0	28.3	54.0	-25.7
12010	38.0	Pk	39.3	13.6	35.0	10.0	45.9	74.0	-28.2
12010	27.5	Avg	39.3	13.6	35.0	10.0	35.4	54.0	-18.7
Fund = 2440									
4880	41.3	Pk	32.8	7.0	35.0	10.0	36.1	74.0	-37.9
4880	32.2	Avg	32.8	7.0	35.0	10.0	27.0	54.0	-27.0
7320	42.5	Pk	36.0	10.6	35.0	10.0	44.1	74.0	-29.9
7320	31.5	Avg	36.0	10.6	35.0	10.0	33.1	54.0	-20.9
12200	38.5	Pk	39.3	13.6	35.0	10.0	46.4	74.0	-27.7
12200	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-28.4
Fund = 2480									
4960	43.3	Pk	32.8	7.0	35.0	10.0	38.1	74.0	-35.9
4960	34.2	Avg	32.8	7.0	35.0	10.0	29.0	54.0	-25.0
7440	41.5	Pk	36.0	10.6	35.0	10.0	43.1	74.0	-30.9
7440	30.5	Avg	36.0	10.6	35.0	10.0	32.1	54.0	-21.9
12400	37.3	Pk	39.3	13.6	35.0	10.0	45.2	74.0	-28.9
12400	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-28.4

FCC RADIATED DATA SHEET

EUT:	RANGELAN802 AP	**DATE:**	MAR 25 98
S/N:		**CUSTOMER NAME:**	PROXIM
RULE PART:	15.247	**WORK ORDER:**	8032601
		FILE:	8032601E.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	MOBILE MARK		**DIST dB:** 10
	OMNIDIRECTIONAL ANTENNA		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2402									
4804	42.7	Pk	32.8	7.0	35.0	10.0	37.5	74.0	-36.50
4804	33.5	Avg	32.8	7.0	35.0	10.0	28.3	54.0	-45.7
12010	38.0	Pk	39.3	13.6	35.0	10.0	45.9	74.0	-8.2
12010	27.5	Avg	39.3	13.6	35.0	10.0	35.4	54.0	-38.7
Fund = 2440									
4880	41.3	Pk	32.8	7.0	35.0	10.0	36.1	74.0	-37.9
4880	32.2	Avg	32.8	7.0	35.0	10.0	27.0	54.0	-47.0
7320	42.5	Pk	36.0	10.6	35.0	10.0	44.1	74.0	-9.9
7320	31.5	Avg	36.0	10.6	35.0	10.0	33.1	54.0	-40.9
12200	38.5	Pk	39.3	13.6	35.0	10.0	46.4	74.0	-7.7
12200	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-48.4
Fund = 2480									
4960	43.3	Pk	32.8	7.0	35.0	10.0	38.1	74.0	-35.9
4960	34.2	Avg	32.8	7.0	35.0	10.0	29.0	54.0	-45.0
7440	41.5	Pk	36.0	10.6	35.0	10.0	43.1	74.0	-10.9
7440	30.5	Avg	36.0	10.6	35.0	10.0	32.1	54.0	-41.9
12400	37.3	Pk	39.3	13.6	35.0	10.0	45.2	74.0	-8.9
12400	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-48.4

FCC RADIATED DATA SHEET

		DATE:	MAR 25 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032601F.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	VERTEX		**DIST dB:** 10
	PATCH ANTENNA		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2402									
4804	39.3	Pk	32.8	7.0	35.0	10.0	34.1	74.0	-39.9
4804	29.3	Avg	32.8	7.0	35.0	10.0	24.1	54.0	-29.9
12010	37.7	Pk	39.3	13.6	35.0	10.0	45.6	74.0	-28.5
12010	27.5	Avg	39.3	13.6	35.0	10.0	35.4	54.0	-18.7
Fund = 2440									
4880	39.2	Pk	32.8	7.0	35.0	10.0	34.0	74.0	-40.0
4880	28.3	Avg	32.8	7.0	35.0	10.0	23.1	54.0	-30.9
7320	42.2	Pk	36.0	10.6	35.0	10.0	43.8	74.0	-30.2
7320	30.8	Avg	36.0	10.6	35.0	10.0	32.4	54.0	-21.6
12200	38.8	Pk	39.3	13.6	35.0	10.0	46.7	74.0	-27.4
12200	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-28.4
Fund = 2480									
4960	41.5	Pk	32.8	7.0	35.0	10.0	36.3	74.0	-37.7
4960	30.3	Avg	32.8	7.0	35.0	10.0	25.1	54.0	-28.9
7440	41.2	Pk	36.0	10.6	35.0	10.0	42.8	74.0	-31.2
7440	30.2	Avg	36.0	10.6	35.0	10.0	31.8	54.0	-22.2
12400	38.5	Pk	39.3	13.6	35.0	10.0	46.4	74.0	-27.7
12400	17.7	Avg	39.3	13.6	35.0	10.0	25.6	54.0	-28.5

FCC RADIATED DATA SHEET

		DATE:	MAR 25 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032601G.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	TECOM		**DIST dB:** 10
	OMNIDIRECTIONAL ANTENNA		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2402									
4804	41.7	Pk	32.8	7.0	35.0	10.0	36.5	74.0	-37.5
4804	31.8	Avg	32.8	7.0	35.0	10.0	26.6	54.0	-27.4
12010	38.2	Pk	39.3	13.6	35.0	10.0	46.1	74.0	-28.0
12010	27.5	Avg	39.3	13.6	35.0	10.0	35.4	54.0	-18.7
Fund = 2440									
4880	39.7	Pk	32.8	7.0	35.0	10.0	34.5	74.0	-39.5
4880	29.2	Avg	32.8	7.0	35.0	10.0	24.0	54.0	-30.0
7320	41.5	Pk	36.0	10.6	35.0	10.0	43.1	74.0	-30.9
7320	31.2	Avg	36.0	10.6	35.0	10.0	32.8	54.0	-21.2
12200	38.0	Pk	39.3	13.6	35.0	10.0	45.9	74.0	-28.2
12200	18.0	Avg	39.3	13.6	35.0	10.0	25.9	54.0	-28.2
Fund = 2480									
4960	40.5	Pk	32.8	7.0	35.0	10.0	35.3	74.0	-38.7
4960	30.8	Avg	32.8	7.0	35.0	10.0	25.6	54.0	-28.4
7440	41.7	Pk	36.0	10.6	35.0	10.0	43.3	74.0	-30.7
7440	30.2	Avg	36.0	10.6	35.0	10.0	31.8	54.0	-22.2
12400	37.8	Pk	39.3	13.6	35.0	10.0	45.7	74.0	-28.4
12400	17.5	Avg	39.3	13.6	35.0	10.0	25.4	54.0	-28.7

FCC RADIATED DATA SHEET

		DATE:	MAR 25 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032601H.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	TELEX		**DIST dB:** 10
	LOG PERIODIC ANTENNA		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2402									
4804	40.5	Pk	32.8	7.0	35.0	10.0	35.3	74.0	-38.7
4804	29.3	Avg	32.8	7.0	35.0	10.0	24.1	54.0	-29.9
12010	38.5	Pk	39.3	13.6	35.0	10.0	46.4	74.0	-27.7
12010	27.5	Avg	39.3	13.6	35.0	10.0	35.4	54.0	-18.7
Fund = 2440									
4880	41.0	Pk	32.8	7.0	35.0	10.0	35.8	74.0	-38.2
4880	33.0	Avg	32.8	7.0	35.0	10.0	27.8	54.0	-26.2
7320	41.3	Pk	36.0	10.6	35.0	10.0	42.9	74.0	-31.1
7320	31.0	Avg	36.0	10.6	35.0	10.0	32.6	54.0	-21.4
12200	37.5	Pk	39.3	13.6	35.0	10.0	45.4	74.0	-28.7
12200	18.0	Avg	39.3	13.6	35.0	10.0	25.9	54.0	-28.2
Fund = 2480									
4960	40.8	Pk	32.8	7.0	35.0	10.0	35.6	74.0	-38.4
4960	29.7	Avg	32.8	7.0	35.0	10.0	24.5	54.0	-29.5
7440	41.8	Pk	36.0	10.6	35.0	10.0	43.4	74.0	-30.6
7440	30.2	Avg	36.0	10.6	35.0	10.0	31.8	54.0	-22.2
12400	38.0	Pk	39.3	13.6	35.0	10.0	45.9	74.0	-28.2
12400	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-28.4

FCC RADIATED DATA SHEET

		DATE:	MAR 25 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032401S.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	LO leakage		**DIST dB:** 10
	TELEX 5.0 DBI LOG PERIODIC ANTENNA		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2077									
4154	39.3	Pk	33.1	7.0	35.0	10.0	34.4	74.0	-39.6
4154	29.2	Avg	33.1	7.0	35.0	10.0	24.3	54.0	-29.7
8308	41.7	Pk	37.0	11.4	35.0	10.0	45.1	74.0	-28.9
8308	30.0	Avg	37.0	11.4	35.0	10.0	33.4	54.0	-20.6
12462	40.3	Pk	39.3	13.6	35.0	10.0	48.2	74.0	-25.9
12462	17.3	Avg	39.3	13.6	35.0	10.0	25.2	54.0	-28.9
Fund = 2115									
4230	41.0	Pk	33.1	7.0	35.0	10.0	36.1	74.0	-37.9
4230	30.3	Avg	33.1	7.0	35.0	10.0	25.4	54.0	-28.6
8460	41.7	Pk	37.0	11.4	35.0	10.0	45.1	74.0	-28.9
8460	29.8	Avg	37.0	11.4	35.0	10.0	33.2	54.0	-20.8
Fund = 2155									
4310	41.2	Pk	33.1	7.0	35.0	10.0	36.3	74.0	-37.7
4310	30.3	Avg	33.1	7.0	35.0	10.0	25.4	54.0	-28.6
10775	38.5	Pk	38.9	13.6	35.0	10.0	46.0	74.0	-28.0
10775	18.5	Avg	38.9	13.6	35.0	10.0	26.0	54.0	-28.0

FCC RADIATED DATA SHEET

				DATE: MAR 25 98	MAR 25 98
EUT:	RANGELAN802 AP			**CUSTOMER NAME:**	PROXIM
S/N:				**WORK ORDER:**	8032601
RULE PART:	15.247			**FILE:**	8032401T.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**		**ATTN dB:**	0
MODULATION TYPE:				**DUTY dB:**	0
TESTED BY:	DONNIE			**HP IL dB:**	0
COMMENTS:	Lo leakage			**DIST dB:**	10
	TECOM 8.0 DBI OMNIDIRECTIONAL ANTEN				

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2077									
4154	40.2	Pk	33.1	7.0	35.0	10.0	35.3	74.0	-38.7
4154	29.3	Avg	33.1	7.0	35.0	10.0	24.4	54.0	-29.6
8308	41.2	Pk	37.0	11.4	35.0	10.0	44.6	74.0	-29.4
8308	30.2	Avg	37.0	11.4	35.0	10.0	33.6	54.0	-20.4
12462	37.7	Pk	39.3	13.6	35.0	10.0	45.6	74.0	-28.5
12462	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-28.4
Fund = 2115									
4230	41.0	Pk	33.1	7.0	35.0	10.0	36.1	74.0	-37.9
4230	30.2	Avg	33.1	7.0	35.0	10.0	25.3	54.0	-28.7
8460	40.8	Pk	37.0	11.4	35.0	10.0	44.2	74.0	-29.8
8460	29.8	Avg	37.0	11.4	35.0	10.0	33.2	54.0	-20.8
Fund = 2155									
4310	40.7	Pk	33.1	7.0	35.0	10.0	35.8	74.0	-38.2
4310	30.2	Avg	33.1	7.0	35.0	10.0	25.3	54.0	-28.7
10775	38.5	Pk	38.9	13.6	35.0	10.0	46.0	74.0	-28.0
10775	19.5	Avg	38.9	13.6	35.0	10.0	27.0	54.0	-27.0

FCC RADIATED DATA SHEET

		DATE:	MAR 25 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032401U.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	LO Leakage		**DIST dB:** 10
	VERTEX 9.0 DBI PATCH ANTENNA		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2077									
4154	39.0	Pk	33.1	7.0	35.0	10.0	34.1	74.0	-39.9
4154	29.3	Avg	33.1	7.0	35.0	10.0	24.4	54.0	-29.6
8308	40.2	Pk	37.0	11.4	35.0	10.0	43.6	74.0	-30.4
8308	30.0	Avg	37.0	11.4	35.0	10.0	33.4	54.0	-20.6
12462	37.8	Pk	39.3	13.6	35.0	10.0	45.7	74.0	-28.4
12462	17.8	Avg	39.3	13.6	35.0	10.0	25.7	54.0	-28.4
Fund = 2115									
4230	40.5	Pk	33.1	7.0	35.0	10.0	35.6	74.0	-38.4
4230	30.0	Avg	33.1	7.0	35.0	10.0	25.1	54.0	-28.9
8460	41.8	Pk	37.0	11.4	35.0	10.0	45.2	74.0	-28.8
8460	30.0	Avg	37.0	11.4	35.0	10.0	33.4	54.0	-20.6
Fund = 2155									
4310	41.7	Pk	33.1	7.0	35.0	10.0	36.8	74.0	-37.2
4310	30.0	Avg	33.1	7.0	35.0	10.0	25.1	54.0	-28.9
10775	38.2	Pk	38.9	13.6	35.0	10.0	45.7	74.0	-28.3
10775	18.3	Avg	38.9	13.6	35.0	10.0	25.8	54.0	-28.2

FCC RADIATED DATA SHEET

		DATE:	MAR 25 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032401V.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	LO Leakage		**DIST dB:** 10
	MOBILE MARK 9.0 DBI OMNIDIRECTIONAL		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2077									
4154	40.3	Pk	33.1	7.0	35.0	10.0	35.4	74.0	-38.6
4154	29.0	Avg	33.1	7.0	35.0	10.0	24.1	54.0	-29.9
8308	40.2	Pk	37.0	11.4	35.0	10.0	43.6	74.0	-30.4
8308	30.0	Avg	37.0	11.4	35.0	10.0	33.4	54.0	-20.6
12462	37.8	Pk	39.3	13.6	35.0	10.0	45.7	74.0	-28.4
12462	17.3	Avg	39.3	13.6	35.0	10.0	25.2	54.0	-28.9
Fund = 2115									
4230	41.2	Pk	33.1	7.0	35.0	10.0	36.3	74.0	-37.7
4230	30.2	Avg	33.1	7.0	35.0	10.0	25.3	54.0	-28.7
8460	41.5	Pk	37.0	11.4	35.0	10.0	44.9	74.0	-29.1
8460	29.8	Avg	37.0	11.4	35.0	10.0	33.2	54.0	-20.8
Fund = 2155									
4310	41.5	Pk	33.1	7.0	35.0	10.0	36.6	74.0	-37.4
4310	29.7	Avg	33.1	7.0	35.0	10.0	24.8	54.0	-29.2
10775	39.3	Pk	38.9	13.6	35.0	10.0	46.8	74.0	-27.2
10775	18.7	Avg	38.9	13.6	35.0	10.0	26.2	54.0	-27.8

FCC RADIATED DATA SHEET

				DATE:	MAR 25 98
EUT:	RANGELAN802 AP			**CUSTOMER NAME:**	PROXIM
S/N:				**WORK ORDER:**	8032601
RULE PART:	15.247			**FILE:**	8032401W.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**		**ATTN dB:**	0
MODULATION TYPE:				**DUTY dB:**	0
TESTED BY:	DONNIE			**HP IL dB:**	0
COMMENTS:	LO Leakage			**DIST dB:**	10
	TELEX 5.15 DBI OMNIDIRECTIONAL ANTE				

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2077									
4154	40.5	Pk	33.1	7.0	35.0	10.0	35.6	74.0	-38.4
4154	29.5	Avg	33.1	7.0	35.0	10.0	24.6	54.0	-29.4
8308	41.0	Pk	37.0	11.4	35.0	10.0	44.4	74.0	-29.6
8308	30.2	Avg	37.0	11.4	35.0	10.0	33.6	54.0	-20.4
12462	38.5	Pk	39.3	13.6	35.0	10.0	46.4	74.0	-27.7
12462	17.3	Avg	39.3	13.6	35.0	10.0	25.2	54.0	-28.9
Fund = 2115									
4230	41.5	Pk	33.1	7.0	35.0	10.0	36.6	74.0	-37.4
4230	30.2	Avg	33.1	7.0	35.0	10.0	25.3	54.0	-28.7
8460	40.5	Pk	37.0	11.4	35.0	10.0	43.9	74.0	-30.1
8460	30.0	Avg	37.0	11.4	35.0	10.0	33.4	54.0	-20.6
Fund = 2155									
4310	40.5	Pk	33.1	7.0	35.0	10.0	35.6	74.0	-38.4
4310	30.2	Avg	33.1	7.0	35.0	10.0	25.3	54.0	-28.7
8620	40.8	Pk	37.4	11.7	35.0	10.0	44.9	74.0	-29.1
8620	20.8	Avg	37.4	11.7	35.0	10.0	24.9	54.0	-29.1

FCC RADIATED DATA SHEET

				DATE:	MAR 24 98
EUT:	RANGELAN802 AP			**CUSTOMER NAME:**	PROXIM
S/N:				**WORK ORDER:**	8032601
RULE PART:	15.247			**FILE:**	8032401X.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**		**ATTN dB:**	0
MODULATION TYPE:				**DUTY dB:**	0
TESTED BY:	DONNIE			**HP IL dB:**	0
COMMENTS:	LO Leakage			**DIST dB:**	10
	HUBER+SUHNER 8.5 DBI PATCH				

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2077									
4154	39.7	Pk	33.1	7.0	35.0	10.0	34.8	74.0	-39.2
4154	29.7	Avg	33.1	7.0	35.0	10.0	24.8	54.0	-29.2
8308	40.3	Pk	37.0	11.4	35.0	10.0	43.7	74.0	-30.3
8308	30.3	Avg	37.0	11.4	35.0	10.0	33.7	54.0	-20.3
12462	38.3	Pk	39.3	13.6	35.0	10.0	46.2	74.0	-27.9
12462	17.5	Avg	39.3	13.6	35.0	10.0	25.4	54.0	-28.7
Fund = 2115									
4230	39.5	Pk	33.1	7.0	35.0	10.0	34.6	74.0	-39.4
4230	29.0	Avg	33.1	7.0	35.0	10.0	24.1	54.0	-29.9
8460	39.0	Pk	37.0	11.4	35.0	10.0	42.4	74.0	-31.6
8460	29.3	Avg	37.0	11.4	35.0	10.0	32.7	54.0	-21.3
Fund = 2155									
4310	40.8	Pk	33.1	7.0	35.0	10.0	35.9	74.0	-38.1
4310	30.2	Avg	33.1	7.0	35.0	10.0	25.3	54.0	-28.7
8620	39.3	Pk	37.4	11.7	35.0	10.0	43.4	74.0	-30.6
8620	19.5	Avg	37.4	11.7	35.0	10.0	23.6	54.0	-30.4

FCC RADIATED DATA SHEET

		DATE:	MAR 24 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032401Y.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	LO Leakage		**DIST dB:** 10
	CUSHCRAFT 5.15 DBI OMNI		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2077									
4154	40.7	Pk	33.1	7.0	35.0	10.0	35.8	74.0	-38.2
4154	30.0	Avg	33.1	7.0	35.0	10.0	25.1	54.0	-28.9
8308	39.7	Pk	37.0	11.4	35.0	10.0	43.1	74.0	-30.9
8308	30.0	Avg	37.0	11.4	35.0	10.0	33.4	54.0	-20.6
12462	36.8	Pk	39.3	13.6	35.0	10.0	44.7	74.0	-29.4
12462	17.5	Avg	39.3	13.6	35.0	10.0	25.4	54.0	-28.7
Fund = 2115									
4230	41.0	Pk	33.1	7.0	35.0	10.0	36.1	74.0	-37.9
4230	30.0	Avg	33.1	7.0	35.0	10.0	25.1	54.0	-28.9
8460	40.7	Pk	37.0	11.4	35.0	10.0	44.1	74.0	-29.9
8460	30.0	Avg	37.0	11.4	35.0	10.0	33.4	54.0	-20.6
Fund = 2155									
4310	40.2	Pk	33.1	7.0	35.0	10.0	35.3	74.0	-38.7
4310	30.5	Avg	33.1	7.0	35.0	10.0	25.6	54.0	-28.4
10775	38.0	Pk	38.9	13.6	35.0	10.0	45.5	74.0	-28.5
10775	18.7	Avg	38.9	13.6	35.0	10.0	26.2	54.0	-27.8

FCC RADIATED DATA SHEET

		DATE:	MAR 24 98
EUT:	RANGELAN802 AP	**CUSTOMER NAME:**	PROXIM
S/N:		**WORK ORDER:**	8032601
RULE PART:	15.247	**FILE:**	8032401Z.xls
ANTENNA:	HORN	**OTHER CAL FACTOR**	**ATTN dB:** 0
MODULATION TYPE:			**DUTY dB:** 0
TESTED BY:	DONNIE		**HP IL dB:** 0
COMMENTS:	LO Leakage		**DIST dB:** 10
	CENTURION 1.0 DBI OMNI		

FREQ.	EADING	Pk, QP,	A.F.	able los	AMP	O.C.F.	TOTAL,	LIMIT	DELTA
MHz	dB(uV)	or Av	dB	dB	dB	dB	dB(uV/m)	dB(uV/m)	dB
Fund = 2077									
4154	39.8	Pk	33.1	7.0	35.0	10.0	34.9	74.0	-39.1
4154	29.3	Avg	33.1	7.0	35.0	10.0	24.4	54.0	-29.6
8308	41.3	Pk	37.0	11.4	35.0	10.0	44.7	74.0	-29.3
8308	30.3	Avg	37.0	11.4	35.0	10.0	33.7	54.0	-20.3
12462	37.3	Pk	39.3	13.6	35.0	10.0	45.2	74.0	-28.9
12462	17.5	Avg	39.3	13.6	35.0	10.0	25.4	54.0	-28.7
Fund = 2115									
4230	41.8	Pk	33.1	7.0	35.0	10.0	36.9	74.0	-37.1
4230	30.0	Avg	33.1	7.0	35.0	10.0	25.1	54.0	-28.9
8460	39.5	Pk	37.0	11.4	35.0	10.0	42.9	74.0	-31.1
8460	30.0	Avg	37.0	11.4	35.0	10.0	33.4	54.0	-20.6
Fund = 2155									
4310	40.0	Pk	33.1	7.0	35.0	10.0	35.1	74.0	-38.9
4310	29.8	Avg	33.1	7.0	35.0	10.0	24.9	54.0	-29.1
10775	39.5	Pk	38.9	13.6	35.0	10.0	47.0	74.0	-27.0
10775	18.3	Avg	38.9	13.6	35.0	10.0	25.8	54.0	-28.2

APPENDIX D
15.207
CONDUCTED EMISSIONS

Electronic Compliance Laboratories, Inc.
1249 Birchwood Ave.
Sunnyvale, CA

Conducted Emissions
Frequency range: 150KHz-30MHz

Government Agency and Limit: CISPR Class B

QP = Quasi-Peak Note: Ignore peak readings when Quasi-Peak reading exists
PK = Peak

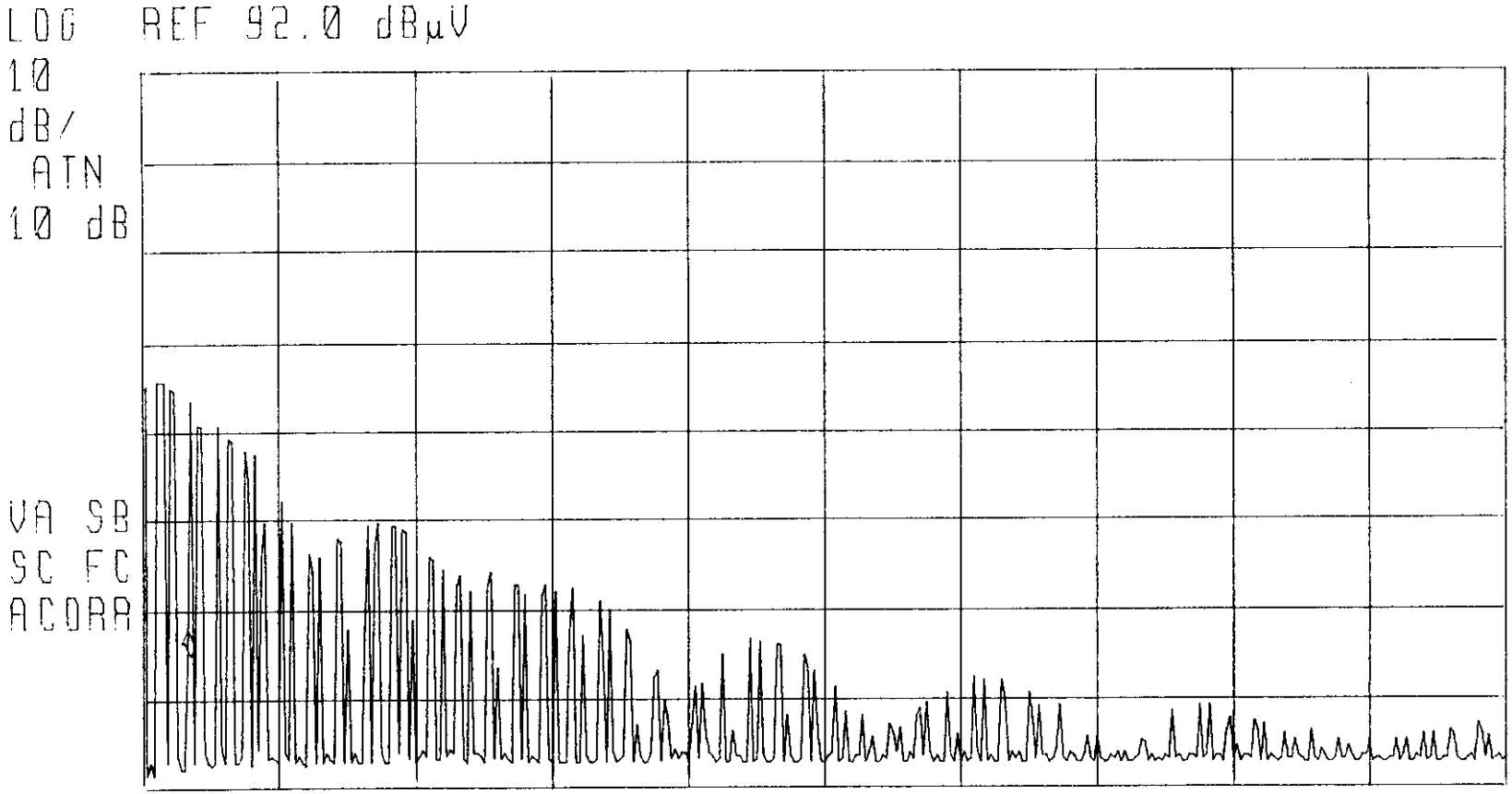
Customer:	PROXIM	Operator:	DONNIE
Date:	03-24-1998	Time:	12:17:48
Temperature Range:	70 Deg F	Percent Humidity:	40
E.U.T.:	RANGELAN802 ACCESS POINT		
Serial Number:	NONE		
Exercise Program:			
Modifications:	None		
Report File Name:	F:\TESTDATA\8032601.C		

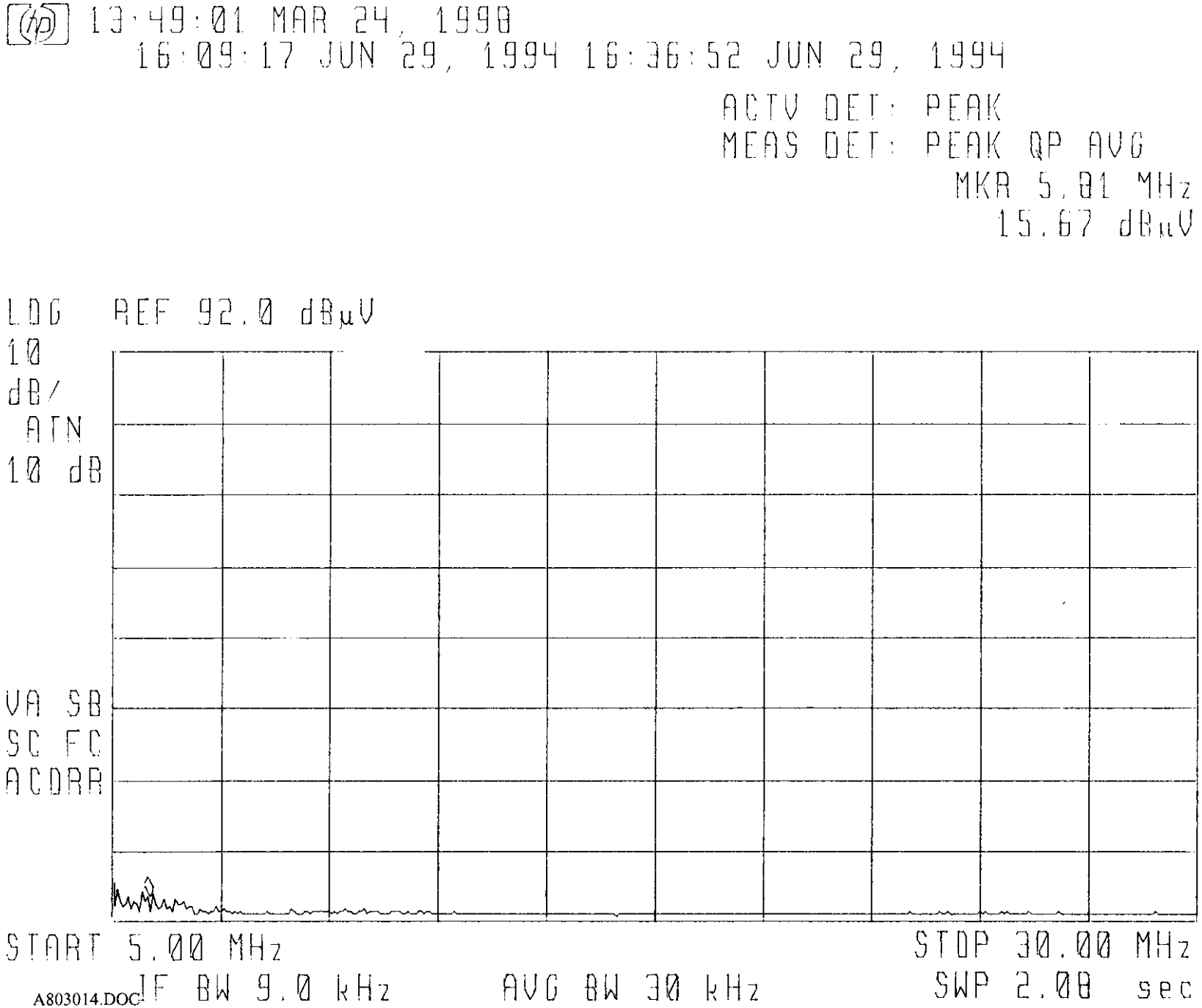
TEST FREQ	TEST dBuV	CLASS B LIMIT	VERSUS B LIMIT	CONDUCTOR	TYPE
0.150	57.6	56.5	1.1	LINE	PK
0.211	57.3	53.5	3.8	LINE	PK
0.289	56.5	50.8	5.7	LINE	PK
0.320	55.4	49.9	5.5	LINE	PK
0.150	51.9	56.5	-4.6	LINE	QP
0.211	51.3	53.5	-2.2	LINE	QP
0.289	50.0	50.8	-0.8	LINE	QP
0.320	49.4	49.9	-0.5	LINE	QP
0.150	11.2	56.5	-45.3	LINE	AV
0.211	11.8	53.5	-41.7	LINE	AV
0.289	11.3	50.8	-39.5	LINE	AV
0.320	11.0	49.9	-38.9	LINE	AV
5.000	17.9	50.0	-32.1	LINE	PK
5.690	16.4	50.0	-33.6	LINE	PK
5.940	16.0	50.0	-34.0	LINE	PK
6.190	15.2	50.0	-34.8	LINE	PK
0.186	56.8	54.6	2.2	NEUTRAL	PK
0.235	56.3	52.6	3.7	NEUTRAL	PK
0.308	54.6	50.2	4.4	NEUTRAL	PK
0.332	51.1	49.6	1.5	NEUTRAL	PK
0.186	50.9	54.6	-3.7	NEUTRAL	QP
0.235	49.8	52.6	-2.8	NEUTRAL	QP
0.308	48.1	50.2	-2.1	NEUTRAL	QP
0.332	47.4	49.6	-2.2	NEUTRAL	QP

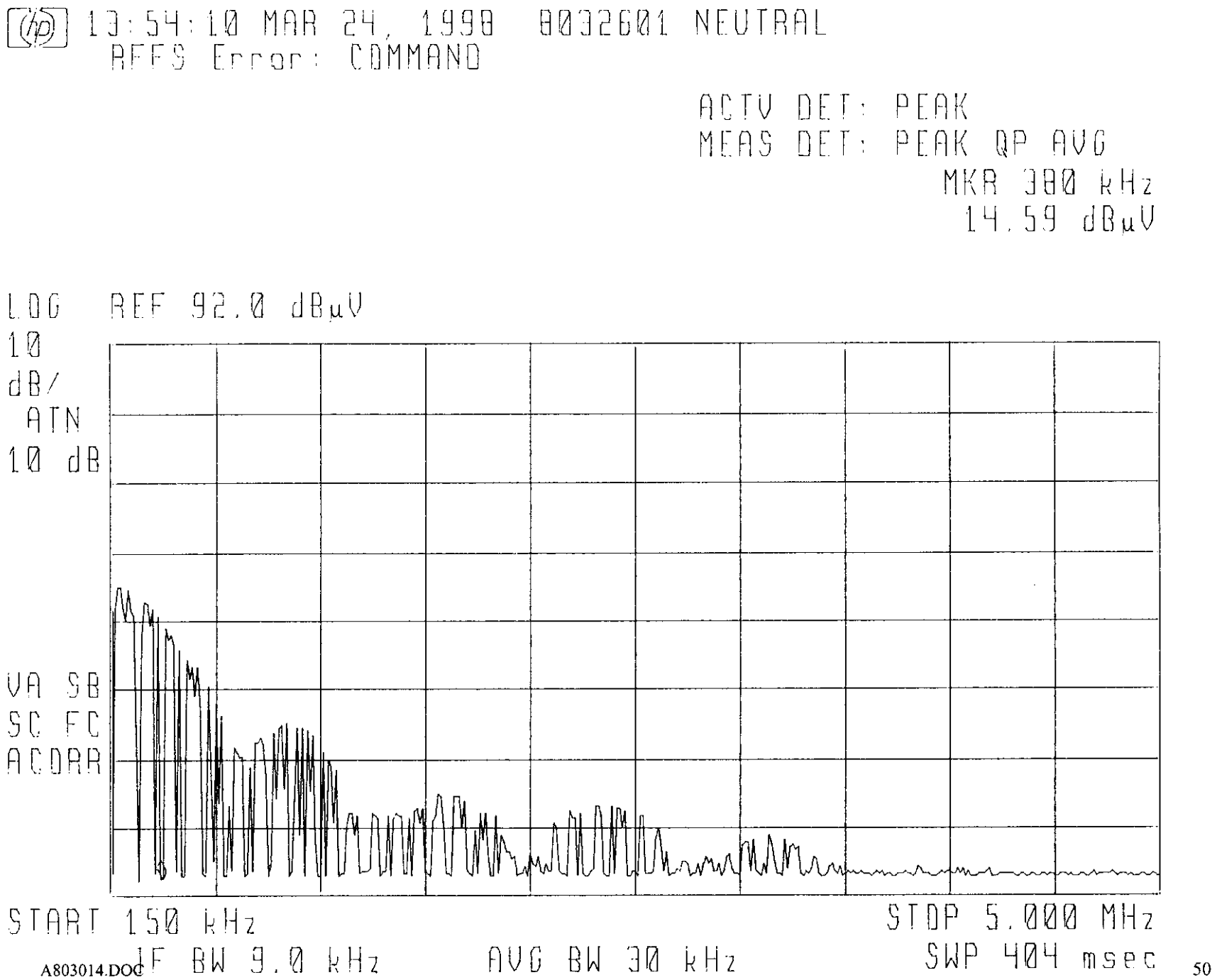
TEST FREQ	TEST dBuV	CLASS B LIMIT	VERSUS B LIMIT	CONDUCTOR	TYPE
0.186	11.4	54.6	-43.2	NEUTRAL	AV
0.235	9.8	52.6	-42.8	NEUTRAL	AV
0.308	8.5	50.2	-41.7	NEUTRAL	AV
0.332	8.2	49.6	-41.4	NEUTRAL	AV
6.440	13.3	50.0	-36.7	NEUTRAL	PK
16.940	13.8	50.0	-36.2	NEUTRAL	PK
18.250	13.8	50.0	-36.2	NEUTRAL	PK
18.440	14.5	50.0	-35.5	NEUTRAL	PK

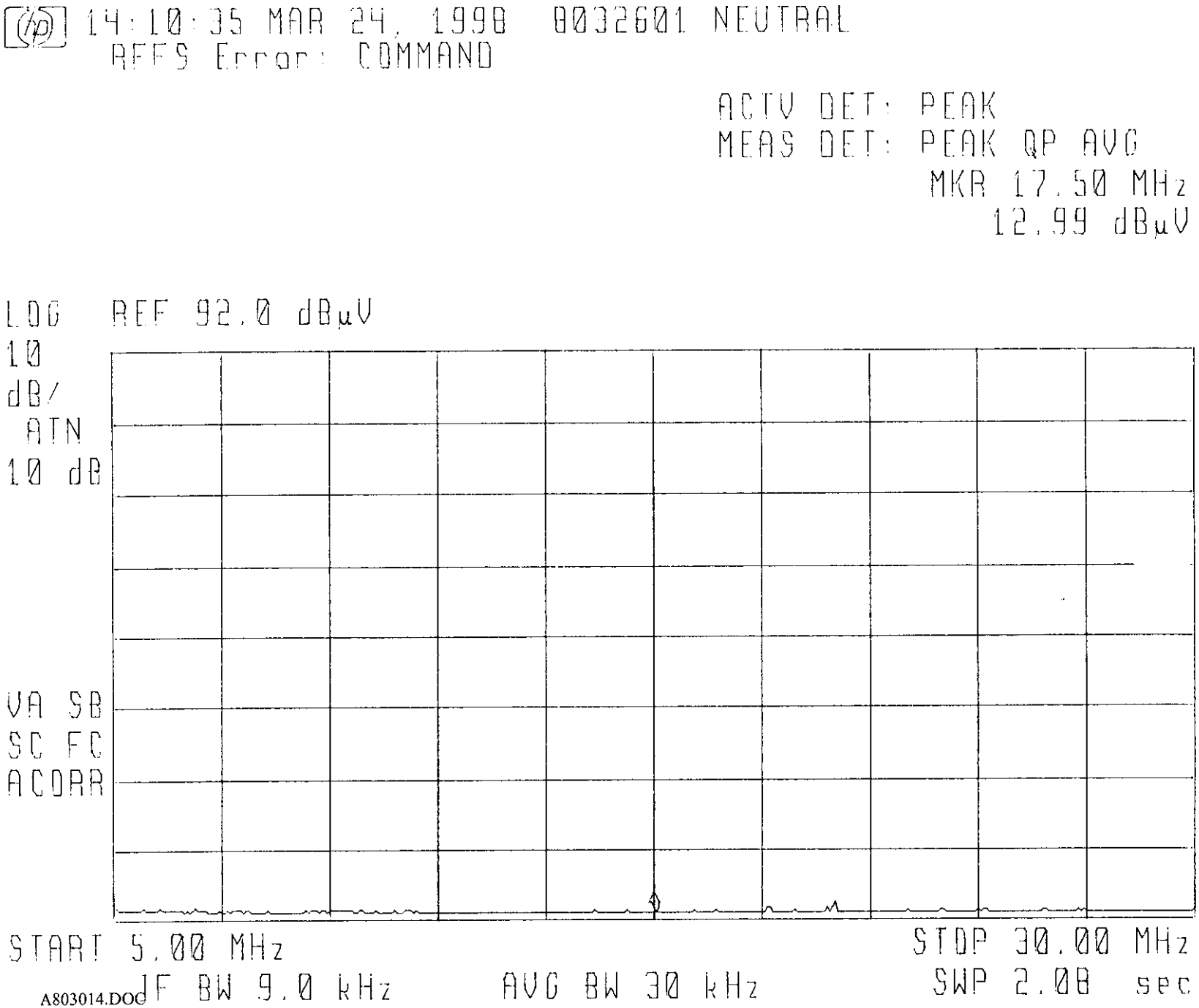
13:10:50 MAR 24, 1998
16:09:17 JUN 29, 1994 16:36:52 JUN 29, 8032601 LINE

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 308 kHz
26.88 dBµV




13:49:01 MAR 24, 1998
16:09:17 JUN 29, 1994 16:36:52 JUN 29, 1994
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 5.81 MHz
15.67 dBµV
LOG REF 92.0 dBµV
10
dB/
ATN
10 dB
VA SB
SC FC
ACORR
START 5.00 MHz
STOP 30.00 MHz
IF BW 9.0 kHz
AVG BW 30 kHz
SWP 2.08 sec


13:54:10 MAR 24, 1998 8032601 NEUTRAL
RFFS Error: COMMAND
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 380 kHz
14.59 dBµV
LOG REF 92.0 dBµV
10
dB/
ATN
10 dB
VA SB
SC FC
ACORR
START 150 kHz
STOP 5.000 MHz
IF BW 9.0 kHz
AVG BW 30 kHz
SWP 404 msec


14:10:35 MAR 24, 1998 8032601 NEUTRAL
REFS Error: COMMAND
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 17.50 MHz
12.99 dBµV
LOG REF 92.0 dBµV
10
dB/
ATN
10 dB
VA SB
SC FC
ACORR
START 5.00 MHz
STOP 30.00 MHz
IF BW 9.0 kHz
AVG BW 30 kHz
SWP 2.0B sec

A803014.DOC

APPENDIX E
15.209
RADIATED EMISSIONS

Electronic Compliance Laboratories, Inc.
1249 Birchwood Ave.
Sunnyvale, CA
Radiated Emissions
Frequency range: 30MHz-1000MHz

3 Meter Open Site
Site Calibrated: June 1997

Government Agency and Limit: FCC Class B

QP = Quasi-Peak Note: Ignore peak readings when Quasi-Peak reading exists
PK = Peak

Customer:	PROXIM	Operator:	DONNIE
Date:	03-24-1998	Time:	08:44:56
Temperature Range:	60 Deg F	Percent Humidity:	68
E.U.T.:	RANGELAN802 ACCESS POINT		
Report File Name:	F:\TESTDATA\8032601.RF		

Antenna Type: BICONICAL

TEST FREQ	TEST dBuV	ACTUAL dBuV/m	CLASS B LIMIT	VERSUS B LIMIT	TABLE DEGREES	ANTENNA HEIGHT	POLAR-IZATION	DETECTOR Type
32.000	37.7	29.8	40.0	-10.2	180	1.5	V	PK
288.000	34.3	29.2	46.0	-16.8	180	1.0	V	PK
288.000	36.4	31.3	46.0	-14.7	135	1.3	H	PK
280.000	35.4	29.4	46.0	-16.6	180	1.4	V	PK
280.000	38.0	32.0	46.0	-14.0	270	1.4	H	PK
		CHANGED ANTENNA TO LOG PERIODIC						
300.000	39.7	30.6	46.0	-15.4	180	1.5	V	PK
320.000	42.8	33.5	46.0	-12.5	90	2.0	V	PK
340.000	33.3	24.2	46.0	-21.8	135	2.0	V	PK
360.000	41.1	32.4	46.0	-13.6	200	1.3	V	PK
400.000	38.8	31.1	46.0	-14.9	270	1.8	V	PK
480.000	43.7	37.8	46.0	-8.2	90	1.3	V	PK
500.000	38.5	33.2	46.0	-12.8	135	1.0	V	PK
520.000	39.6	34.7	46.0	-11.3	120	1.0	V	PK
540.000	42.9	38.1	46.0	-7.9	225	1.0	V	PK
560.000	45.8	41.2	46.0	-4.8	240	1.2	V	PK
560.000	45.0	40.4	46.0	-5.6	240	1.2	V	QP
580.000	41.9	37.8	46.0	-8.2	45	1.2	V	PK
600.000	43.2	39.4	46.0	-6.6	90	1.3	V	PK
620.000	37.8	34.3	46.0	-11.7	90	1.4	V	PK
640.000	38.5	35.5	46.0	-10.5	270	1.0	V	PK

TEST FREQ	TEST dBuV	ACTUAL dBuV/m	CLASS B LIMIT	VERSUS B LIMIT	TABLE DEGREES	ANTENNA HEIGHT	POLAR-IZATION	DETECTOR Type
660.000	34.5	32.1	46.0	-13.9	135	1.0	V	PK
700.000	34.6	33.1	46.0	-12.9	135	1.0	V	PK
740.000	35.1	33.7	46.0	-12.3	90	1.0	V	PK
800.000	36.2	35.8	46.0	-10.2	90	1.0	V	PK
820.000	32.9	32.9	46.0	-13.1	225	1.0	H	PK
800.000	37.6	37.2	46.0	-8.8	135	1.0	H	PK
780.000	36.1	35.4	46.0	-10.6	315	1.0	H	PK
740.000	38.2	36.8	46.0	-9.2	135	1.0	H	PK
720.000	34.9	33.4	46.0	-12.6	135	1.2	H	PK
700.000	34.1	32.6	46.0	-13.4	225	1.2	H	PK
660.000	34.4	32.0	46.0	-14.0	90	1.2	H	PK
640.000	38.5	35.5	46.0	-10.5	135	1.2	H	PK
620.000	44.1	40.6	46.0	-5.4	270	1.2	H	PK
620.000	40.4	36.9	46.0	-9.1	270	1.2	H	QP
600.000	40.8	37.0	46.0	-9.0	0	1.3	H	PK
580.000	43.2	39.1	46.0	-6.9	270	1.0	H	PK
560.000	46.4	41.8	46.0	-4.2	270	1.1	H	PK
560.000	45.4	40.8	46.0	-5.2	270	1.1	H	QP
540.000	43.8	39.0	46.0	-7.0	45	1.0	H	PK
520.000	39.0	34.1	46.0	-11.9	0	1.0	H	PK
500.000	37.9	32.6	46.0	-13.4	180	1.0	H	PK
480.000	42.2	36.3	46.0	-9.7	135	1.0	H	PK
460.000	40.9	34.4	46.0	-11.6	120	1.0	H	PK
440.000	44.5	37.5	46.0	-8.5	135	1.0	H	PK
420.000	38.2	30.8	46.0	-15.2	90	1.0	H	PK
400.000	42.0	34.3	46.0	-11.7	45	1.0	H	PK
380.000	43.3	35.0	46.0	-11.0	90	1.0	H	PK
360.000	43.1	34.4	46.0	-11.6	135	1.0	H	PK
340.000	36.6	27.5	46.0	-18.5	135	1.0	H	PK
320.000	38.1	28.8	46.0	-17.2	270	1.0	H	PK
300.000	44.0	34.9	46.0	-11.1	90	1.0	H	PK