

**ENGINEERING, INC.***"One World, One EMC Solution"*

please upload  
to exhibit # 6  
Bill Inglis  
X3042

**FACSIMILE MESSAGE**

DATE: 11-30-99 # of pages, (including Cover): 10  
TO: Bill Inglis FAX #: 301 344-2050  
@: FCC REF: Corresp. Ref # 10363  
FROM: Bryan Broaddus 731 Conf. # EA95199  
TPL Communications BBD6-1AB-H

*Family owned and operated since 1979*3535 W. Commonwealth Ave. • Fullerton, CA 92833 • Tel. 714/870-7781 • Fax 714/870-5081 • [www.dnbenginc.com](http://www.dnbenginc.com)

Frequency range and Rule changes  
 10/26/99 8:03:48 AM Pacific Standard Time  
 oetech@fccsun07w.fcc.gov (OET)  
 bryan@dnbenginc.com

Bryan Broadus, DNB Engineering, Inc.  
 Bill Inglis  
 binglis@fcc.gov  
 FCC Application Processing Branch

FCC ID BBD6-1AB-H  
 Participant: TPL Communications Inc  
 Correspondence Reference Number: 10363  
 Confirmation Number: EA95199  
 Date of Original E-Mail: 10/26/1999

FCC  
 Letter

The frequency range you have requested is 450 -520MHz. We are unable to find available frequencies above 512MHz. Please  
 use your range or specify the specific radio service in which you intend operation of this amplifier.

Please submit an input occupied bandwidth,OBW,and conducted spurious, and an output OBW and conducted spurious  
 comparison for each Rule part requested.

Please confirm that the amplifier is intended for single channel use or submit 3 signal intermodulation measurement data.

There is no longer a type acceptance program. The Rule Parts which you referenced in your report no longer exist.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to  
 provide the requested information within 60 days of the original e-mail date may result in application dismissal pursuant to  
 section 2.917 (c) and forfeiture of the filing fee pursuant to section 1.1108.

DO NOT reply to this e-mail by using the Reply button. In order for your response to be processed expeditiously, you must  
 upload your response via the Internet at www.fcc.gov, Electronic Filing, OET Equipment Authorization Electronic Filing. If the  
 response is submitted through Add Attachments, in order to expedite processing, a message which informs the processing staff  
 that a new exhibit has been submitted must also be submitted via Submit Correspondence. Also, please note that partial  
 responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the  
 sender.

#### Headers

Return-Path: <dnbriv@www25.web2010.com>  
 Received: from rly-zb04.mx.aol.com (rly-zb04.mail.aol.com [172.31.41.4]) by air-zb02.mail.aol.com (v62.10) with ESMTP; Tue,  
 26 Oct 1999 12:03:47 -0400  
 Received: from www25.web2010.com (www25.web2010.com [216.157.23.254]) by rly-zb04.mx.aol.com (v62.10) with ESMTP;  
 Tue, 26 Oct 1999 12:03:37 -0400  
 Received: by www25.web2010.com (8.9.3/8.9.0) id MAA25268  
 for SSFA7568@aol.com; Tue, 26 Oct 1999 12:02:59 -0400 (EDT)  
 Received: from gatekeeper.fcc.gov (firewall-user@gatekeeper.fcc.gov [192.104.54.1])  
 by www25.web2010.com (8.9.3/8.9.0) with ESMTP id MAA25265  
 for <bryan@dnbenginc.com>; Tue, 26 Oct 1999 12:02:58 -0400 (EDT)  
 Received: by gatekeeper.fcc.gov, id MAA13945; Tue, 26 Oct 1999 12:03:23 -0400 (EDT)  
 Received: from fccsun07w.fcc.gov (165.135.80.56) by gatekeeper.fcc.gov via smap (4.1)  
 id xma013434; Tue, 26 Oct 99 12:02:58 -0400  
 Received: by fccsun07w.fcc.gov (SMI-8.6/SMI-SVR4)  
 id MAA08617; Tue, 26 Oct 1999 12:03:07 -0400



November 18, 1999

Bill Inglis  
FEDERAL COMMUNICATIONS COMMISSION  
Authorization & Evaluation Division  
7435 Oakland Mills Road  
Columbia, MD 21046

RE: Reference Number : 10363  
731 Confirmation #: EA95199  
FCC ID: BBD6-1AB-H

Dear Mr. Inglis:

We have included a proposed label for your review. For this application we will limit the upper frequency to 512 MHz.

Additional OBW and Conducted Spurious plots are attached for your review.

This is a class "C" amplifier and is intended for single channel use only.

If you have any additional questions please do not hesitate to call.

Sincerely,

Bryan C. Broaddus  
V.P., Operations

## SECTION IV - Enter FCC ID from Page 1, Section I BBD6-1AB-H

Instead of Applicant, FCC is authorized to mail original Grant to: (See Instructions)

Firm name, DNB ENGINEERING, INC.  
 number, street, 3535 W. Commonwealth Avenue  
 City, State/Country, Fullerton, CA USA  
 ZIP/Postal Code 92833

Name, Title and Mail Stop, if any, of person at above address to receive Grant: (If 1.(a) is completed, this item must be completed)

Bryan C. Broadus, Vice President, Operations

Technical contact:

Firm name, DNB ENGINEERING, INC.  
 contact person, Bryan C. Broadus  
 number, street, 3535 W. Commonwealth Avenue  
 City, State/Country, Fullerton, CA USA  
 ZIP/Postal Code 92833

(b) Telephone No. (Area/Country/City code, No. and Ext.)

(714) 870-7781

(c) FAX No. (Area/Country/City code and No.)

(714) 870-5081

Internet e-mail address:

Non-Technical contact:

Firm name,  
 contact person,  
 number, street,  
 City, State/Country,  
 ZIP/Postal Code

N/A

(f) Telephone No. (Area/Country/City code, No. and Ext.)

(g) FAX No. (Area/Country/City code and No.)

Internet e-mail address:

Does this application include a request for confidentiality for any portion(s) of the data contained in this application pursuant to 47 CFR §0.459 of the Commission's Rules? If "Yes" see Instructions.

☐ Yes☒ No

Does the applicant request that the Commission defer grant of this application pursuant to 47 CFR §0.457(d)(1)(ii)? (See Instructions)

☐ Yes☒ No

Type of equipment authorization requested: (check one box only)

☒ Certification☐ Type Acceptance☐ Notification

Equipment Code and description: (See Instructions, page 4)

☐ T ☐ N ☐ B Non Broadcast Station Trans

(b) Equipment will be operated under FCC Rule Part(s):

Part 22 &amp; Part 90

Application is for: (Check one box only)

☒ 1. Original equipment (See Instructions)☐ 2. Change in identification of presently authorized equipment☐ 3. Class II permissive change or modification of presently authorized equipment (See Instructions)

ORIGINAL FCC ID

Grant date

## EQUIPMENT SPECIFICATIONS: (See Instructions)

(a) Frequency range in MHz	(b) Rated RF power output in watts	(c) Frequency tolerance %, Hz, ppm	(d) Emission designator See 47 CFR §2.201 and §2.202	(e) Microprocessor model number
50 - 512 MHz	45	N/A	F3E	N/A

Is the equipment in this application:

(a) a composite device subject to more than one type of equipment authorization?

☐ Yes☒ No

(b) part of a system that operates with, or is marketed with, another device that requires an equipment authorization?

☐ Yes☒ No

If either of the above questions is answered "Yes" complete items 10.(a) and (b). (See Instructions)

COMPLETE, SIGN and DATE Page 3

**2.983(f) FCC ID: Label**

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**RF POWER AMPLIFIER**

<b>MODEL NO.</b>	<b>MODE</b>	<b>FREQ 450 – 512 MHz</b>
<b>VOLTAGE</b>	<b>INPUT PWR</b>	<b>OUTPUT PWR</b>
<b>FCC ID: BBD6-1AB-H</b>	<b>SERIAL NO.</b>	

**NOTES:**

Label will be constructed of 0.02 inch aluminum as shown on the equipment with permanent adhesive.

All information on the label will be etched or stamped. Both methods will exceed the expected lifetime of the equipment.

The label will be large enough to allow all information to be legible.

**2.983(d) Technical Description**

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See the Service Manual Included in Appendix B herein for the complete description.

**2.983(d)(1) Type(s) of Emissions**

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F3E

**2.983(d)(2) Frequency Range**

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450 MHz to 512 MHz

**2.983(d)(3) Operating Power Level**

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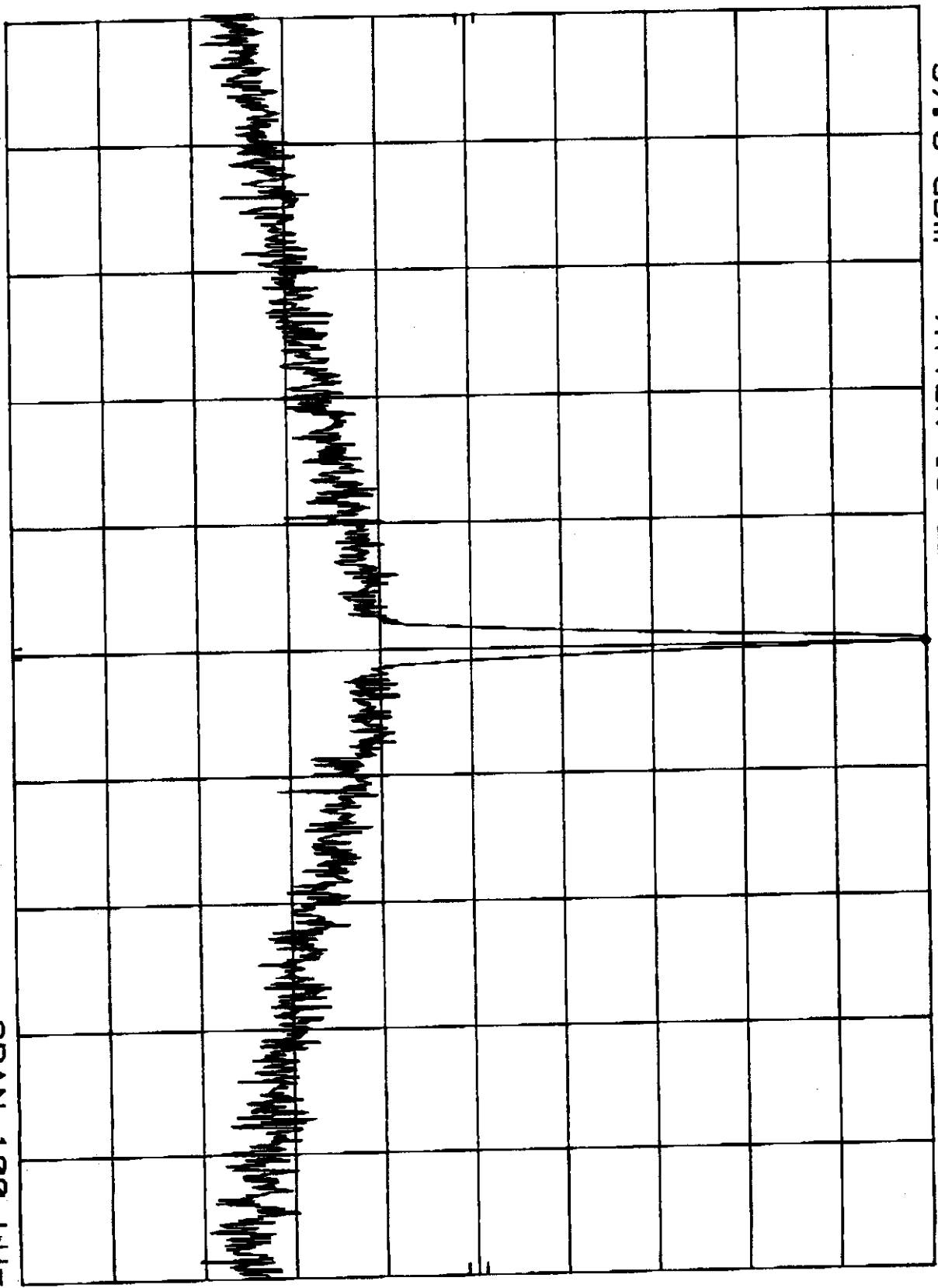
45 Watts

Unmodulated Carrier Driver

INPUT 5 WATTS POWER  
REF 37.0 dBm ATTEN 10 dB  
MKR 480.000 2 MHz  
37.00 dBm

HP  
10 dB/  
POS PK  
OFFSET  
60.0  
dB

CENTER 480.000 MHz  
RES BW 300 Hz  
VBW 1 kHz  
SPAN 100 kHz  
SWP 3.00 sec



*Occupied Bandwidth Driver*

HP

INPUT 5 WATTS POWER  
REF 37.0 dBm ATTEN 10 dB

MKR  $\Delta$  2.5 kHz  
9.30 dB

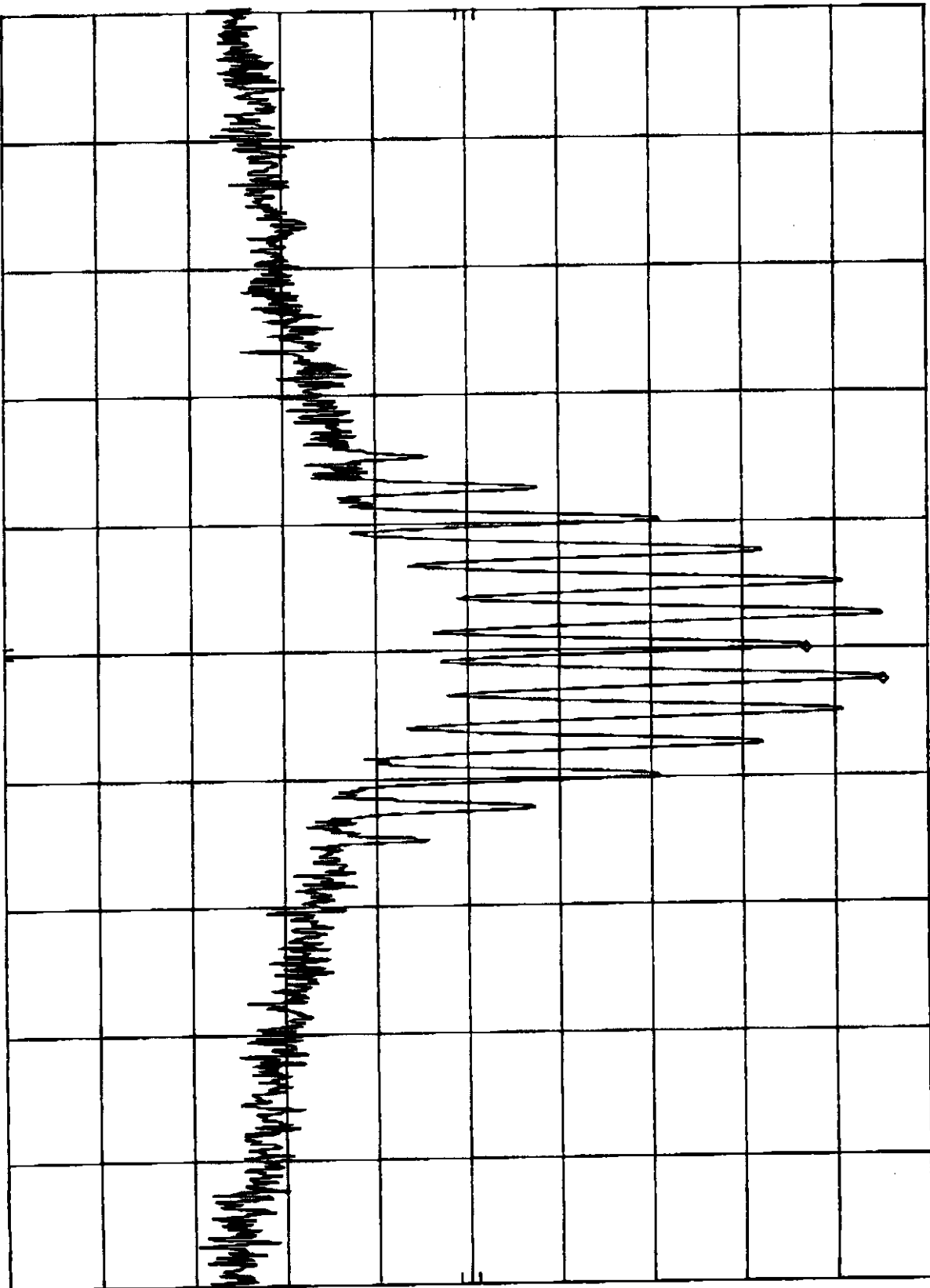
10 dB/

POS PK

OFFSET

60.0

dB



CENTER 480.000 MHz

RES BW 300 Hz

VBW 1 kHz

SPAN 100 kHz  
SMP 3.00 sec



# Antenna Conducted Spurious Driver

HP

5 WATTS INPUT ANT. CONDUCTED SPURIOUS  
REF 60.0 DBm ATTEN 10 DB

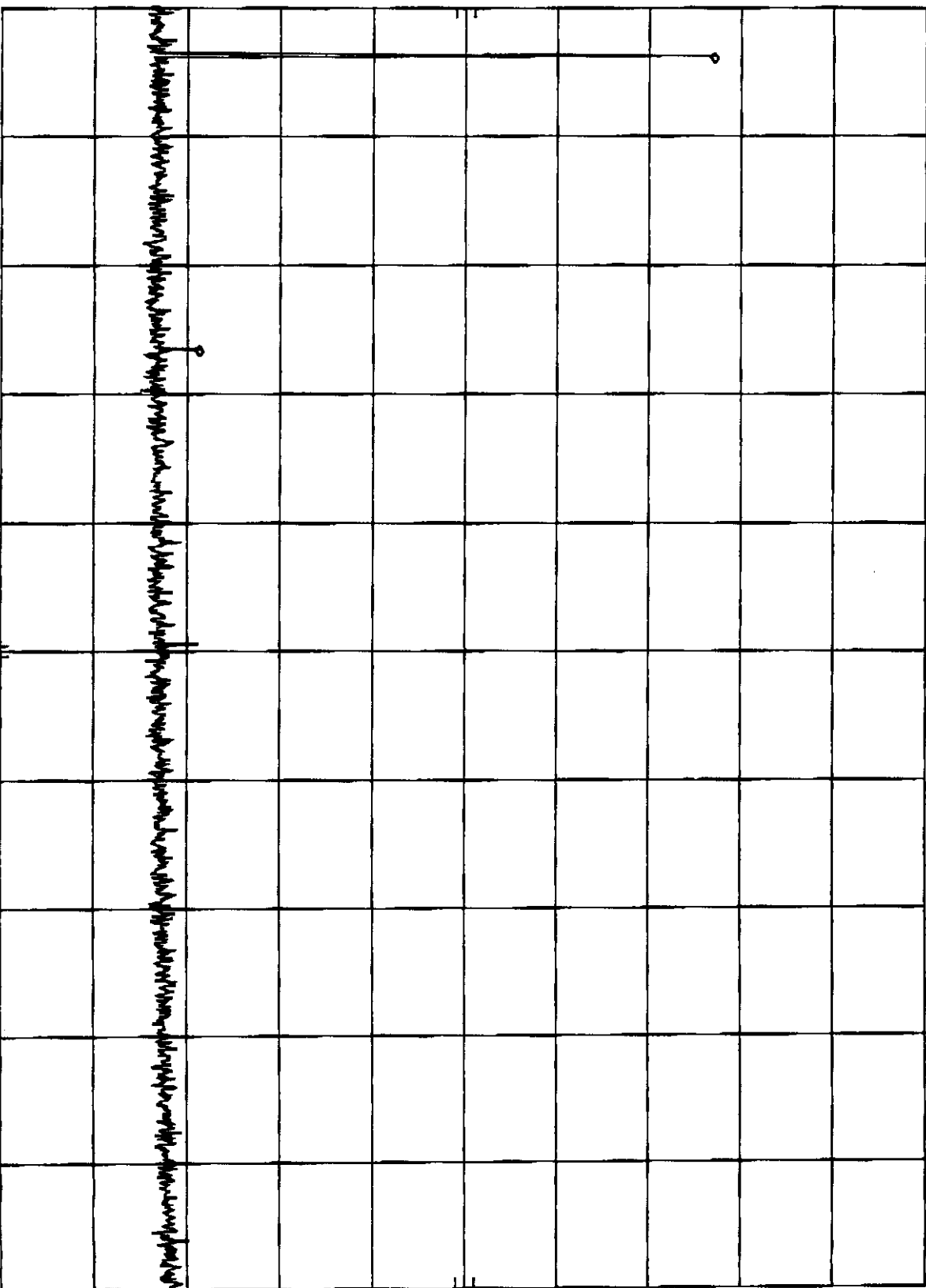
MKR Δ 479 MHz  
-55.80 DB

10 DB/

POS PK

OFFSET

60.0  
DB



START 400 MHz

STOP 2.50 GHz

RES BW 30 KHz

VBW 100 KHz

SMP 6.30 sec

# Antenna Conducted Spurious Drive

hp

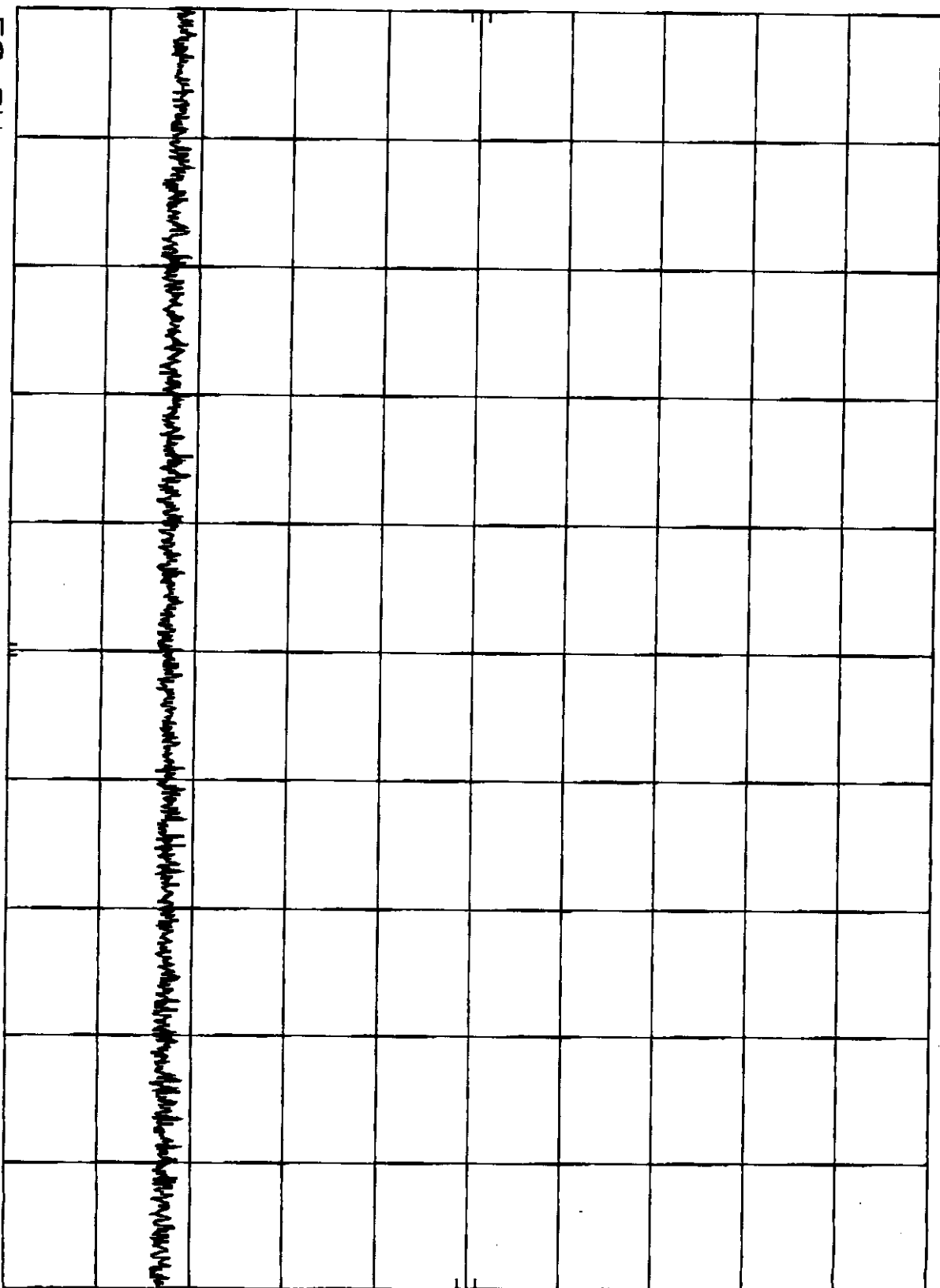
5 WATTS INPUT ANT. CONDUCTED SPURIOUS  
REF 60.0 dBm ATTEN 10 dB

10 dB/

POS PK

OFFSET  
60.0

dB



START 2.50 GHz

RES BW 30 kHz

VBW 100 kHz

STOP 5.50 GHz

SWP 9.00 sec