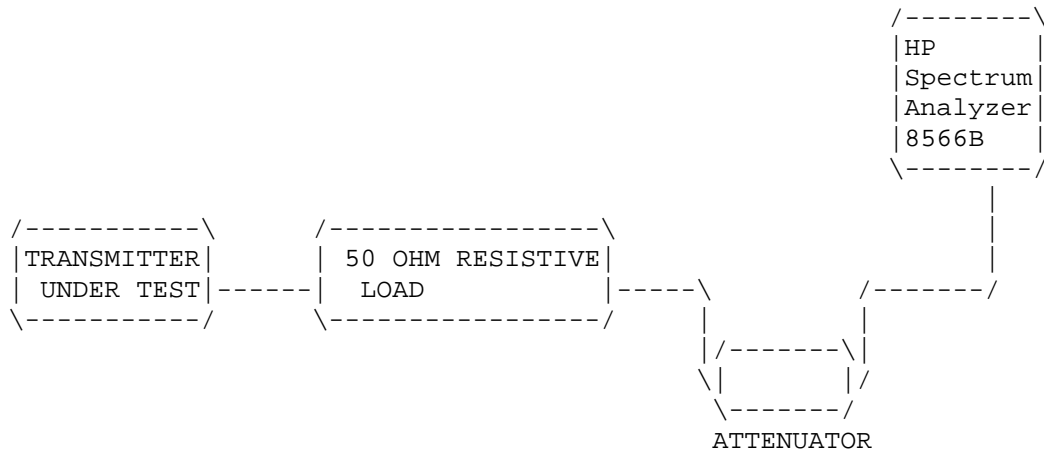


15.247(c) Method of Measuring RF Conducted Spurious Emissions



NAME OF TEST: SPURIOUS EMISSIONS AT ANTENNA TERMINALS

REQUIREMENTS: Emissions must be at least 20dB down from the highest emission level within the authorized band as measured with a 1 MHz RBW.

EMISSION FREQUENCY MHz	dB BELOW CARRIER
2418.0	00.0
4836.0	75.8
7254.0	100.0
9672.0	89.4
12090.0	95.8
2437.0	00.0
4874.0	88.4
7311.0	91.9
9748.0	90.7
12185.0	99.2
2467.0	00.0
4934.0	79.0
7401.0	70.7
9868.0	91.0
12335.0	98.4

NOTE: THE SPECTRUM WAS SCANNED TO THE TENTH HARMONIC.

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15.247(c), 15.205 & 15.209(b) Field strength of spurious emissions:

REQUIREMENTS:

FIELD STRENGTH of Fundamental:	FIELD STRENGTH of Harmonics	15.209	
2.4-2.4835 GHz	30 - 88 MHz	40 dBuV/m @3M	
127.38 dBuV/m @3m	88 -216 MHz	43.5	
	216 -960 MHz	46.0	
	ABOVE 960 MHz	54.0	

REQUIREMENTS: Emissions that fall in the restricted bands (15.205) must be less than 54dBuV/m otherwise the spurious and harmonics must be attenuated by at least 20dB.

TEST DATA:

EMISSION FREQUENCY MHz	METER READING @ 3m dBuV	COAX LOSS dB	ACF dB	FIELD STRENGTH dBuV/m	FCC. LIMIT dB	MARGIN dB	ANT.
2417.70	73.70	1.09	29.04	103.84	127.38	23.54	V
4835.40	6.70	1.46	33.94	42.10	54.00	11.90	V
2441.90	73.30	1.10	29.10	103.50	127.38	23.88	V
4883.80	1.20	1.46	33.99	36.66	54.00	17.34	H
2471.90	72.60	1.10	29.18	102.88	127.38	24.50	V

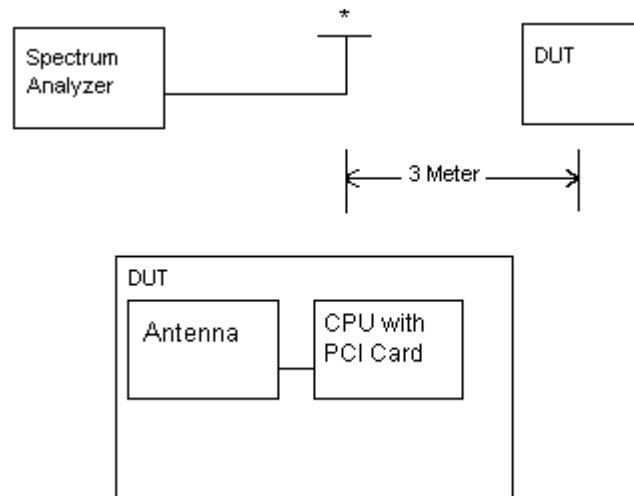
METHOD OF MEASUREMENT: The procedure used was ANSI STANDARD C63.4-1992 & the Guidance on Measurements for Direct Sequence Spread Spectrum Systems. Measurements were made at the open field test site of TIMCO ENGINEERING INC. located at 849 N.W. State Road, Newberry, FL 32669.

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2.993(a)(b)

2.993(a)(b) Continued Field_strength_of_spurious_emissions:

Method of Measuring Radiated Spurious Emissions



* Tuned, Calibrated
Antenna which may
be raised from 1-4 Meters
above ground
and changed in polarization.

Equipment placed 80 cm above ground
on a rotatable platform.

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APPLICANT: WIDELINK CO., LTD.

FCC ID: PISWWL-1100P

NAME OF TEST: RADIATED SPURIOUS EMISSIONS INTO ADJACENT
RESTRICTED BAND

REQUIREMENTS: Emissions that fall in the restricted bands
(15.205). These emissions must be less than
or equal to 500 uV/m (54 dBuV/m).

TEST PROCEDURE: An in band field strength measurement of the
fundamental emissions using the RBW and
detector function required by C63.4-2000 and
FCC rules. The procedure was repeated with
an average detector and a plot made. The
calculated field strength in the adjacent
restricted band is presented below.

-102.60 dBm - from Plot
+ 29.21 dB - ACF
+ 1.1 dB - Coax Loss

- 72.99 dBm
+107.00

34.71 dBuV

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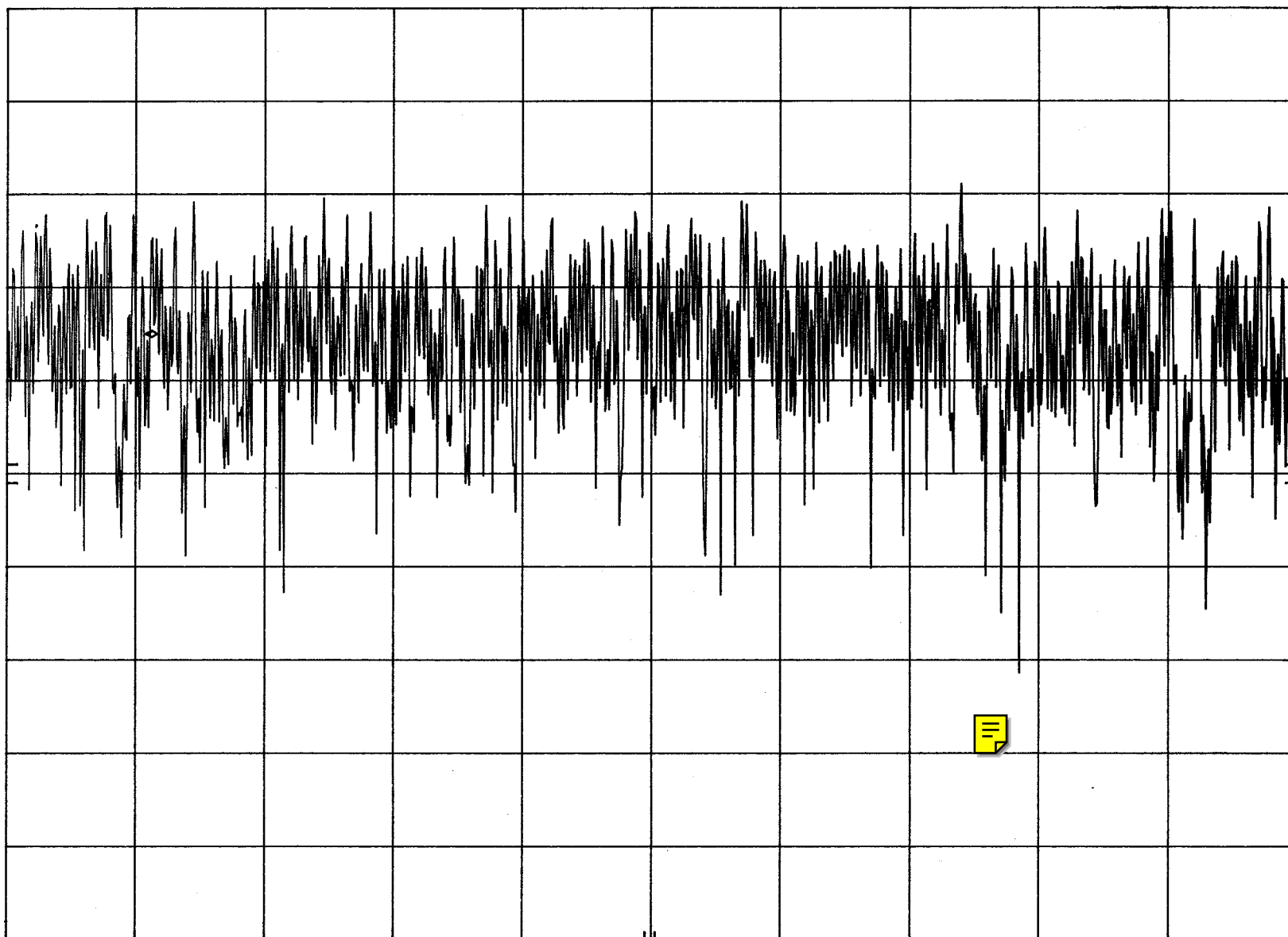
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MKR 2.437 458 GHz
-75.80 dBm (1Hz)

hp REF -10.0 dBm ATTEN 0 dB + 20 dB

10 dB/
SAMPLE



CENTER 2.438 03 GHz
RES BW 3 kHz (i)

VBW 300 kHz

SPAN 1.50 MHz
SWP 500 sec

APPLICANT: WIDELINK CO., LTD.

FCC ID: PISWWL-1100P

NAME OF TEST: POWER SPECTRAL DENSITY

RULES PART NUMBER: 15.247(d)

REQUIREMENTS: The peak level measured must be no greater than +8.0dBm.

DATA: The plots are on the following pages as exhibits # 14A-14C.

The level at	2438.03 MHz .	2417.44 MHz	2472.48 MHz
From Plot:	- 75.8 dBm	-73.20 dBm	-74.00 dBm
	+ 20.0 dB ATT	+20.00 dB ATT	+20.00 dB ATT
	+ 35.0 CF	+35.00 CF	+35.00 CF
Calculation:	- 20.8 dBm	-18.20 dBm	-19.00 dBm

NAME OF TEST: PROCESSING GAIN

RULES PART NUMBER: 15.247(e)

REQUIREMENTS:

DATA: The processing gain information supplied by the manufacturer is 10.0dB.

See Exhibits 7A-7F and 8A-8C for processing gain test methods and data.

APPLICANT: WIDELINK CO., LTD.

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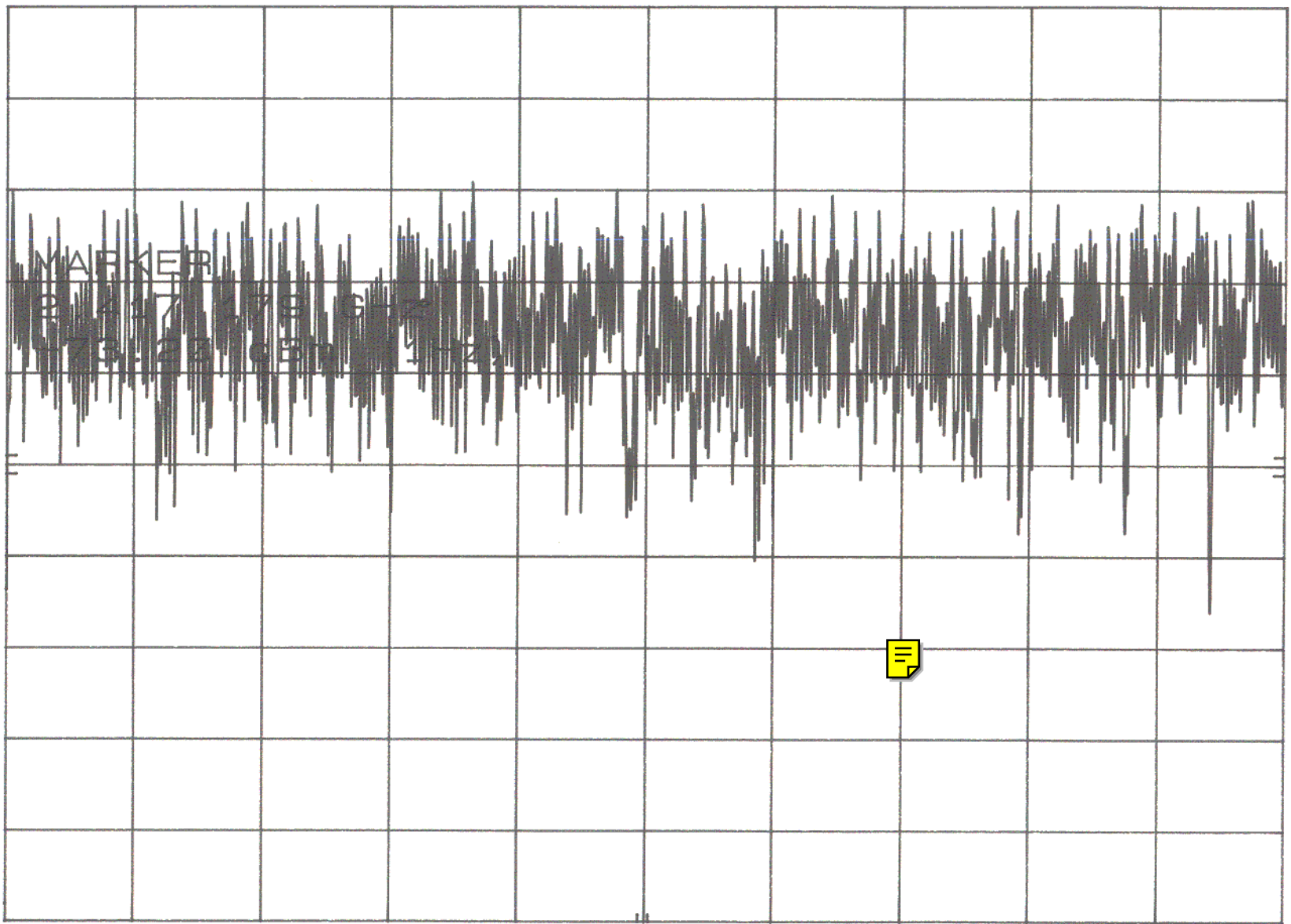
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hp

REF -10.0 dBm ATTEN 0 dB + 20 dB

MKR 2.417 179 GHz
-73.20 dBm (1Hz)

10 dB/
SAMPLE



CENTER 2.417 44 GHz

RES BW 3 kHz (i)

VBW 10 kHz

SPAN 1.50 MHz

SWP 500 sec

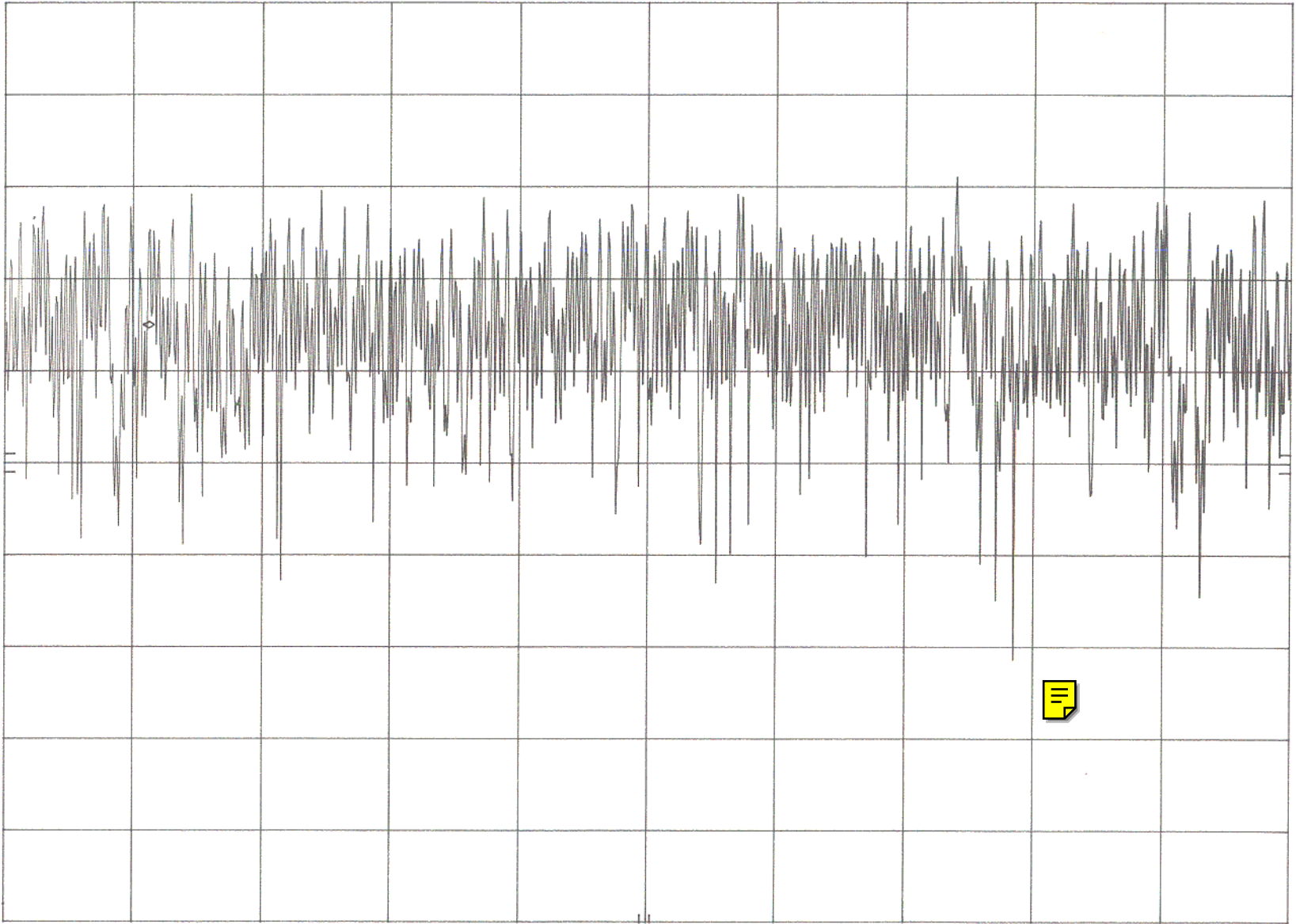


hp

REF -10.0 dBm ATTEN 0 dB + 20 dB

MKR 2.437 458 GHz
-75.80 dBm (1Hz)

10 dB/
SAMPLE



CENTER 2.438 03 GHz

RES BW 3 kHz (i)

VBW 300 kHz

SPAN 1.50 MHz

SWP 500 sec



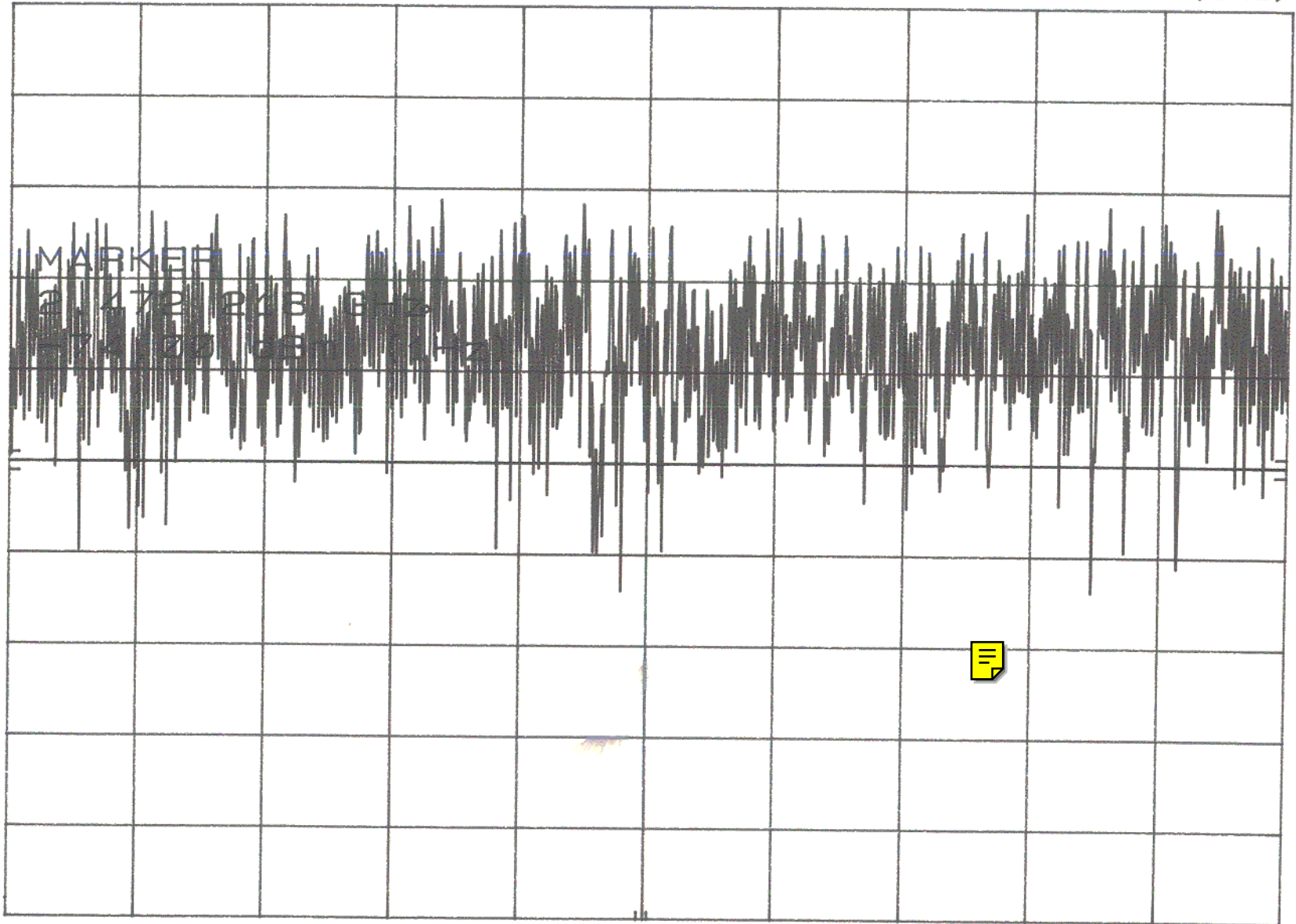
hp

REF -10.0 dBm ATTEN 0 dB + 20 dB

MKR 2.472 218 GHz
-74.00 dBm (1Hz)

10 dB/
SAMPLE

DL
-60.0
dBm



CENTER 2.472 48 GHz
RES BW 3 KHz (i)

VBW 10 KHz

SPAN 1.50 MHz
SWP 500 sec