ACCREDITED
1986.01

TEST REPORT NO. R-2911P
ELECTROMAGNETIC EMISSION EVALUATION
OF THE
hFIELD TECHNOLOGIES, INC.
MODEL #: HFWFG10
FCC PART 15, SUBPART B AND C
11 AUGUST 2006

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ADMINISTRATIVE DATA

TEST PERFORMED:

Measurements of Radiated RF, Conducted Emissions, and Power Density.

PURPOSE OF TEST:

To evaluate the ElectroMagnetic Emissions (EME) characteristics of the Equipment Under Test **(EUT)** with respect to Subpart B and C of Part 15 of the Federal Communications Commission **(FCC)** rules for intentional and unintentional radiators.

EQUIPMENT UNDER TEST:

Model Number: **HFWFG10**
Serial Number: **NSN**

CONTRACT:

Purchase Order Number: **30**

TEST PERIOD:

27 July through 1 August, 2006

TEST FACILITY:

Retlif Testing Laboratories, EMC Test Laboratory, located at: 3131 Detwiler Road, Harleysville, Pennsylvania 19438.

TEST PERSONNEL AND COORDINATORS:

Retlif Testing Laboratories

John Kavalusky

hField Technologies, Inc.

Curtis MacDonald

SUMMARY OF TEST RESULTS

The **Model # HFWFG10,** configured as described herein, **FULLY COMPLIES WITH THE REQUIREMENTS SET FORTH IN SUBPART B AND C OF PART 15 OF THE FEDERAL COMMUNICATIONS COMMISSION (FCC) RULES FOR INTENTIONAL AND UNINTENTIONAL RADIATORS.**

The test results contained in this report represent emission and/or immunity characteristics of only the product(s) (model and serial no.) tested. Retlif Testing Laboratories makes no claim that identical test results will be obtained for future tests of the same model/equipment or that the test results contained herein could be duplicated after the tested product leaves the possession of the Retlif Testing Laboratories test laboratory.

1.0 INTRODUCTION

This document is a report to determine the EMC characteristics of the **Model #: HFWFG10,** presented by **hField Technologies** of Bethlehem, Pennsylvania.

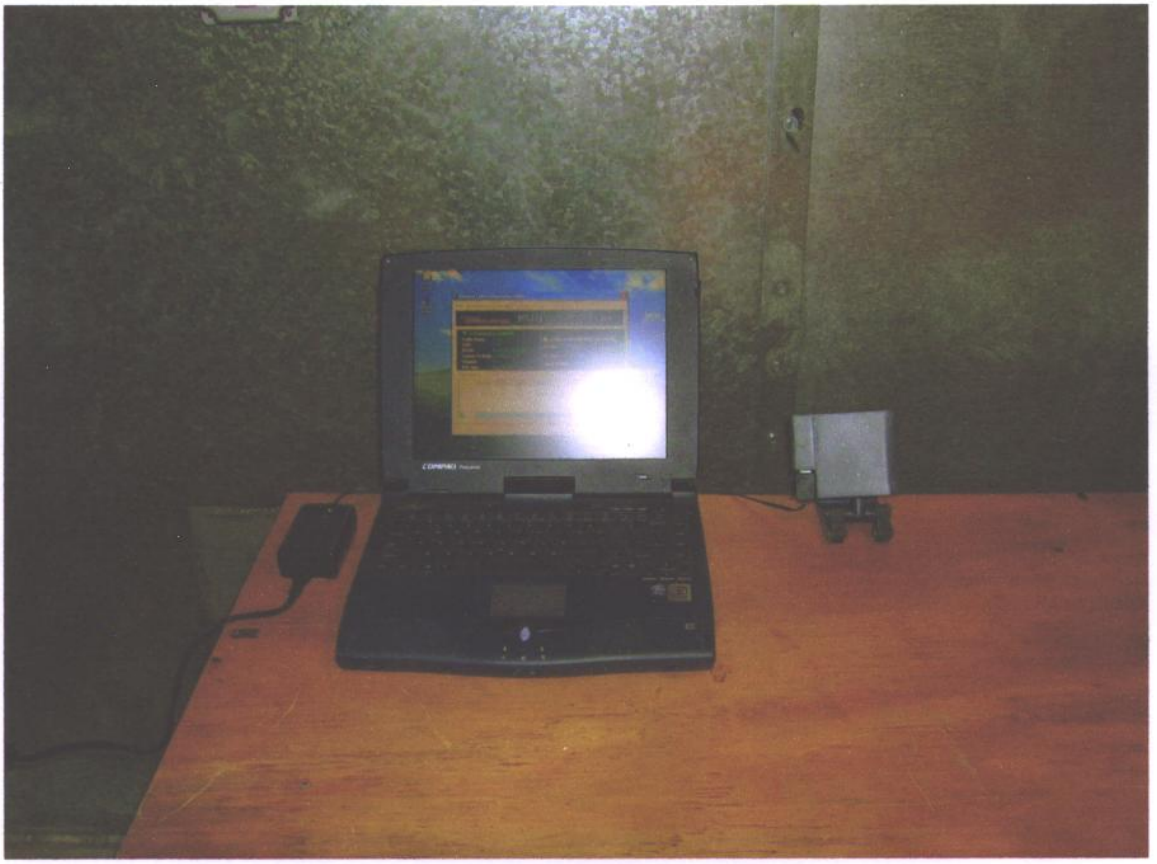
The purpose of the testing was to evaluate the EMC characteristics of the test sample with respect to Subpart B and C of Part 15 of the **FCC** Rules for intentional and unintentional radiators.

All test procedures used meet the requirements of the American National Standards Institute Procedure C63.4: **"Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz"**, 2003.

2.0 DESCRIPTION OF THE EQUIPMENT UNDER TEST (EUT)

The **Model HFWFG10**, manufactured by **hField Technologies Inc.,** of Bethlehem, Pennsylvania is a WIFI Transceiver. The EUT is powered by 5VDC supplied by the COMPAQ Laptop Computer. The EUT was tested with 11 active channels.

Hereinafter the **Model HFWFG10** is referred to as the EUT (Equipment under test)



3.0 TEST INSTRUMENTATION

EN/ RSI INV #	DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	CAL DUE DATE
245	LISN	SOLAR	8028-50-TS-24-BNC	830525	2/23/2007
246	LISN	SOLAR	8028-50-TS-24-BNC	830526	2/23/2007
501	MINI MAST	EMCO	2075-2	0002-2278	
502	TURNTABLE	EMCO	2065-1.21	0001-2156	
503	CONTROLLER	EMCO	2090	0001-1489	
709	40ft Cable RG-223	PASTERNACK	BNC TO BNC	N/A	9/15/2006
712	20ft Cable RG-223	PASTERNACK	BNC TO BNC	N/A	10/26/2006
717	10ft SMA Cable	MIRO COAX(blue)	SMA TO SMA	N/A	9/15/2006
718	12ft SMA Cable	pastern.(Siver/gold)	SMA TO SMA	N/A	11/10/2006
8013	ANTENNA	TENSOR	4108	204	6/11/2007
8014	ANTENNA	AMP.RES.ASSOC.	AT1000	4094-025	6/14/2007
8017	ANTENNA	EMCO	3115	2425	6/10/2007
8059	SPEC ANALYZER	ADVANTEST	R3271	J003583	6/4/2007
8074	TRANSFORMER	G.E.	9T51B33G3	NSN	
8076	SPEC. ANALY.	H.P.	8568B	2841A04457	5/26/2007
8077	SPEC. A.DISPLY	H.P	85662A	2848A17406	5/26/2007
8080	RECEIVER	R & S	ESVP	861744/015	2/1/2007
98	ANTENNA	NARDA	638	8309	8/5/2006
R700	Spectrum Analyzer	HP	AT-8563E	3432A.2594	7/26/2008

IF CAL DUE DATE = BLANK FIELD
Calibration is not required.

4.0 TEST RESULTS

4.1 Conducted Power Line Measurements, Paragraph 15.207

Conducted power line measurements were recorded for the **EUT**.

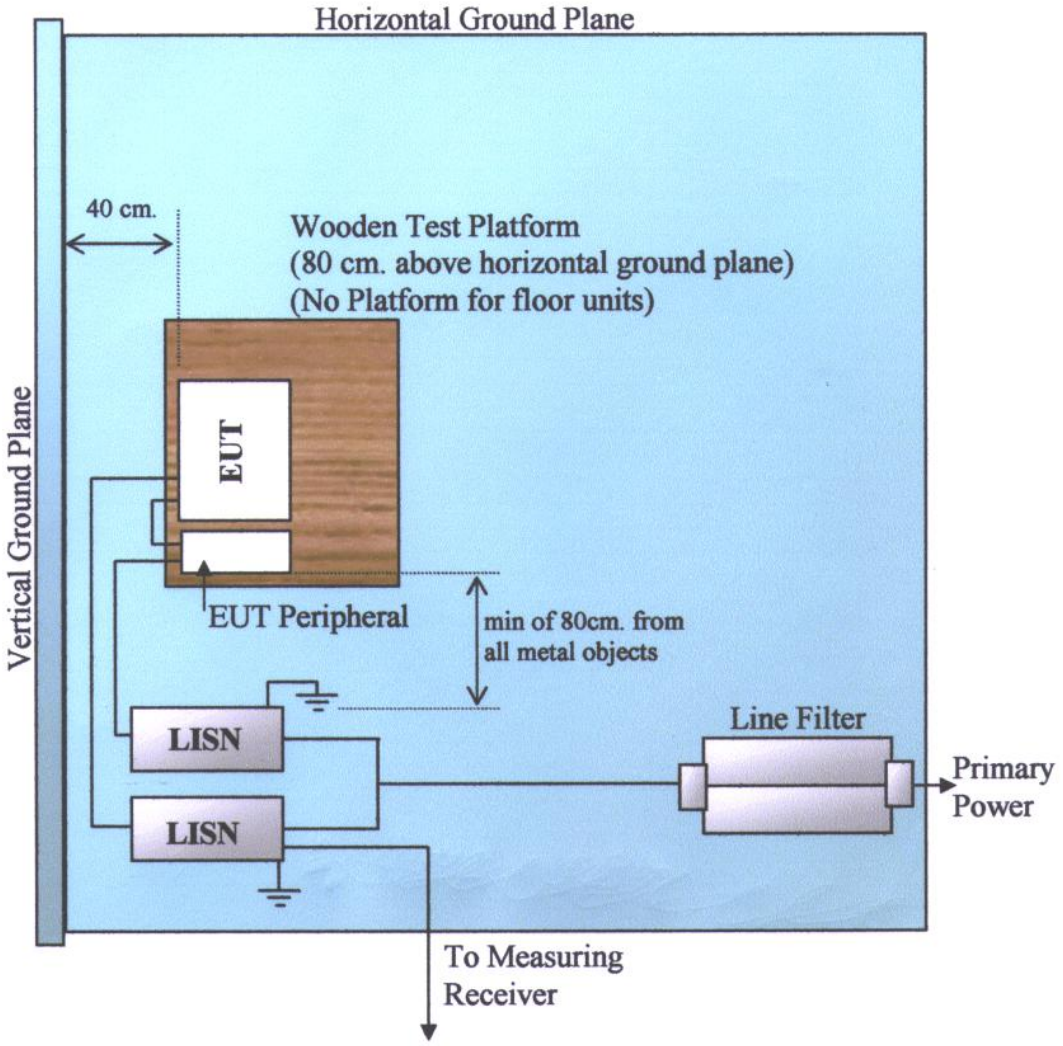
Initial scans were performed with an HP "Peak Reading" Spectrum analyzer.

The test setup diagram is shown in Figure 1 and test setup photographs are shown in Figure 2.

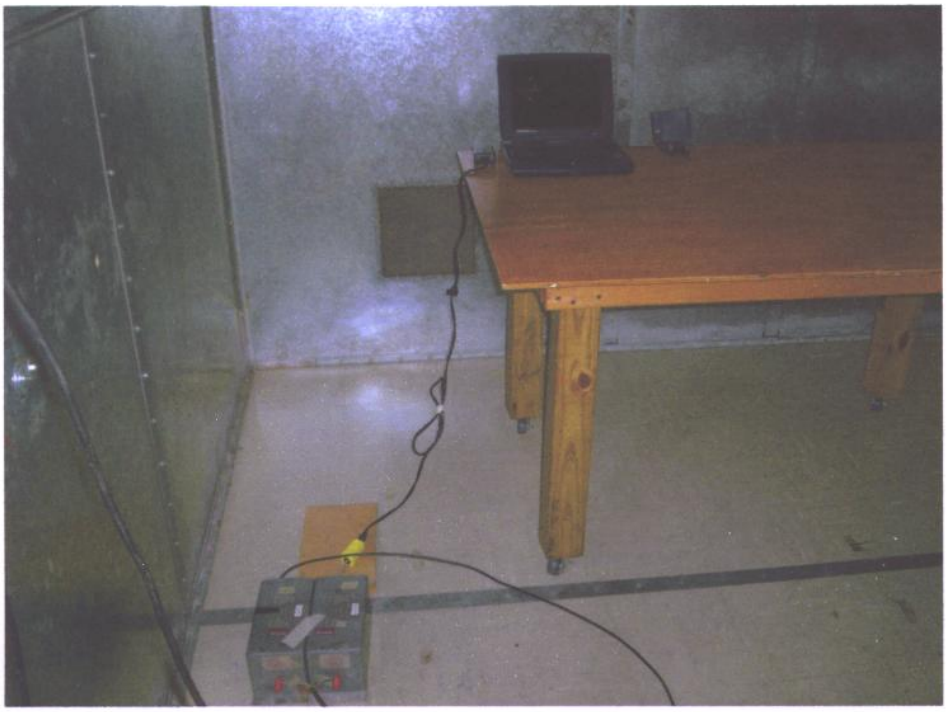
The **EUT** was tested while operated at two transmit frequencies of 2.412 and 2.462GHz.

The results of the line-to-ground radio noise voltage measurements are shown on graphs in Figures 3 through 6.

THE LEVELS ARE BELOW THE APPLICABLE LIMITS AS SPECIFIED BY THE FCC IN PARAGRAPH 15.207.



Conducted Emissions Test Setup Diagram (Top View)
Figure 1



EUT 80cm
From LISN

EUT 40cm from
vertical ground
plane

Conducted Emissions Test Setup Photographs
Figure 2

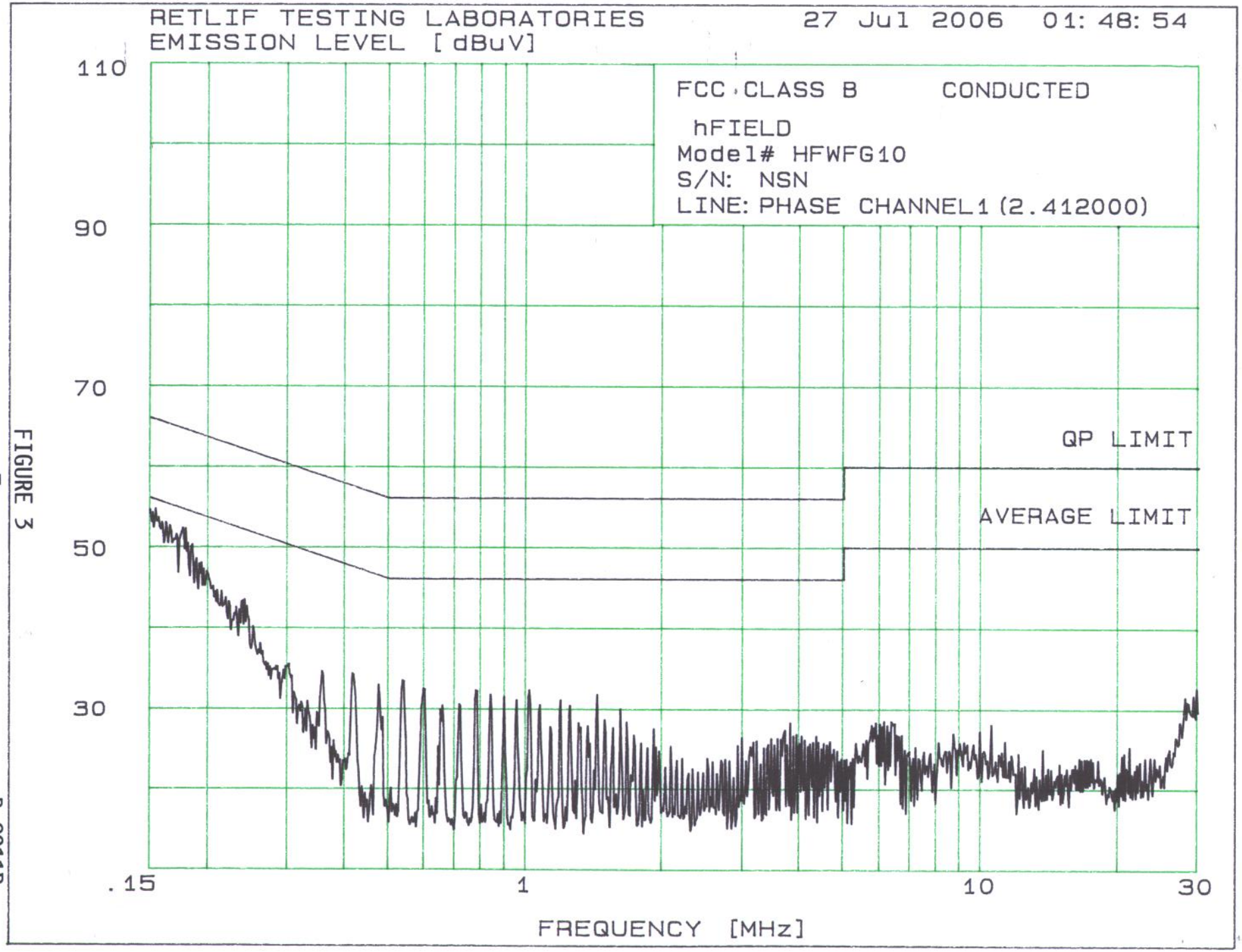

RETLIF TESTING LABORATORIES
27 Jul 2006 01:48:54
EMISSION LEVEL [dBuV]
FCC CLASS B CONDUCTED
hFIELD
Model# HFWFG10
S/N: NSN
LINE: PHASE CHANNEL1 (2.412000)
QP LIMIT
AVERAGE LIMIT
110
90
70
50
30
.15
1
10
30
FREQUENCY [MHz]

FIGURE 3

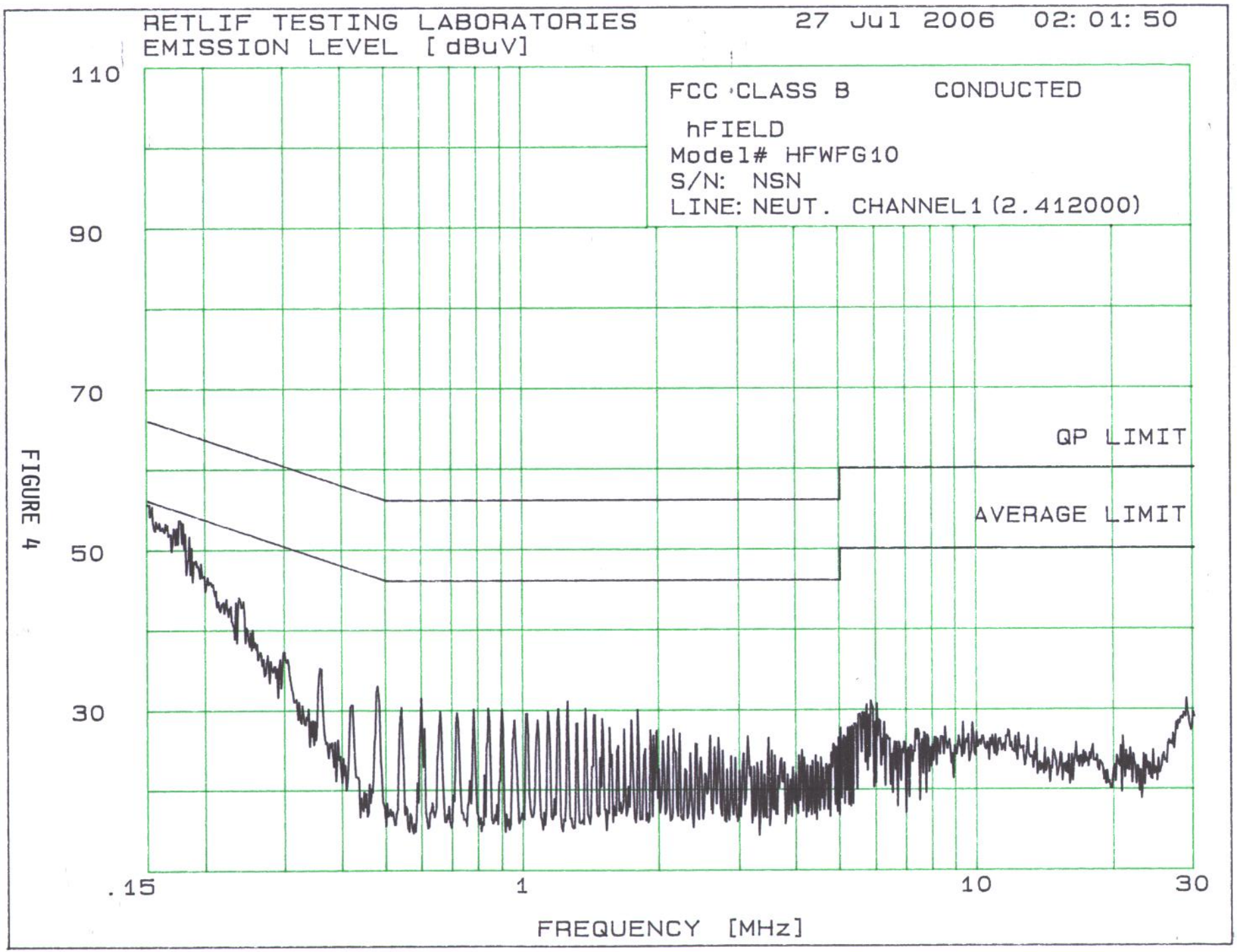

RETLIF TESTING LABORATORIES
27 Jul 2006 02:01:50
EMISSION LEVEL [dBuV]
FCC CLASS B CONDUCTED
hFIELD
Model# HFWFG10
S/N: NSN
LINE: NEUT. CHANNEL1 (2.412000)
QP LIMIT
AVERAGE LIMIT
110
90
70
50
30
.15
1
10
30
FREQUENCY [MHz]

FIGURE 4

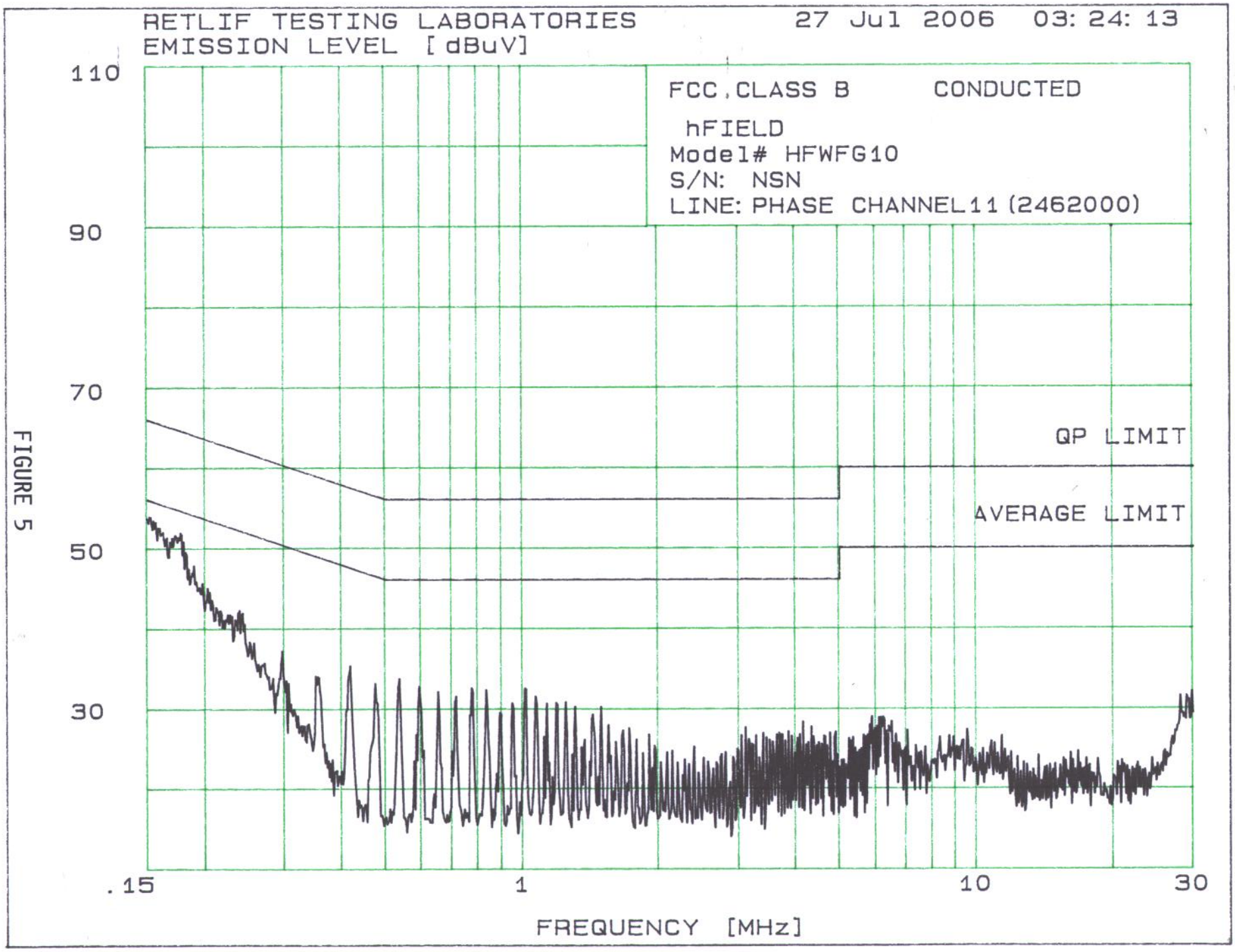

RETLIF TESTING LABORATORIES
27 Jul 2006 03:24:13
EMISSION LEVEL [dBuV]
FCC,CLASS B CONDUCTED
hFIELD
Model# HFWFG10
S/N: NSN
LINE: PHASE CHANNEL11 (2462000)
QP LIMIT
AVERAGE LIMIT
110
90
70
50
30
.15
1
10
30
FREQUENCY [MHz]

FIGURE 5

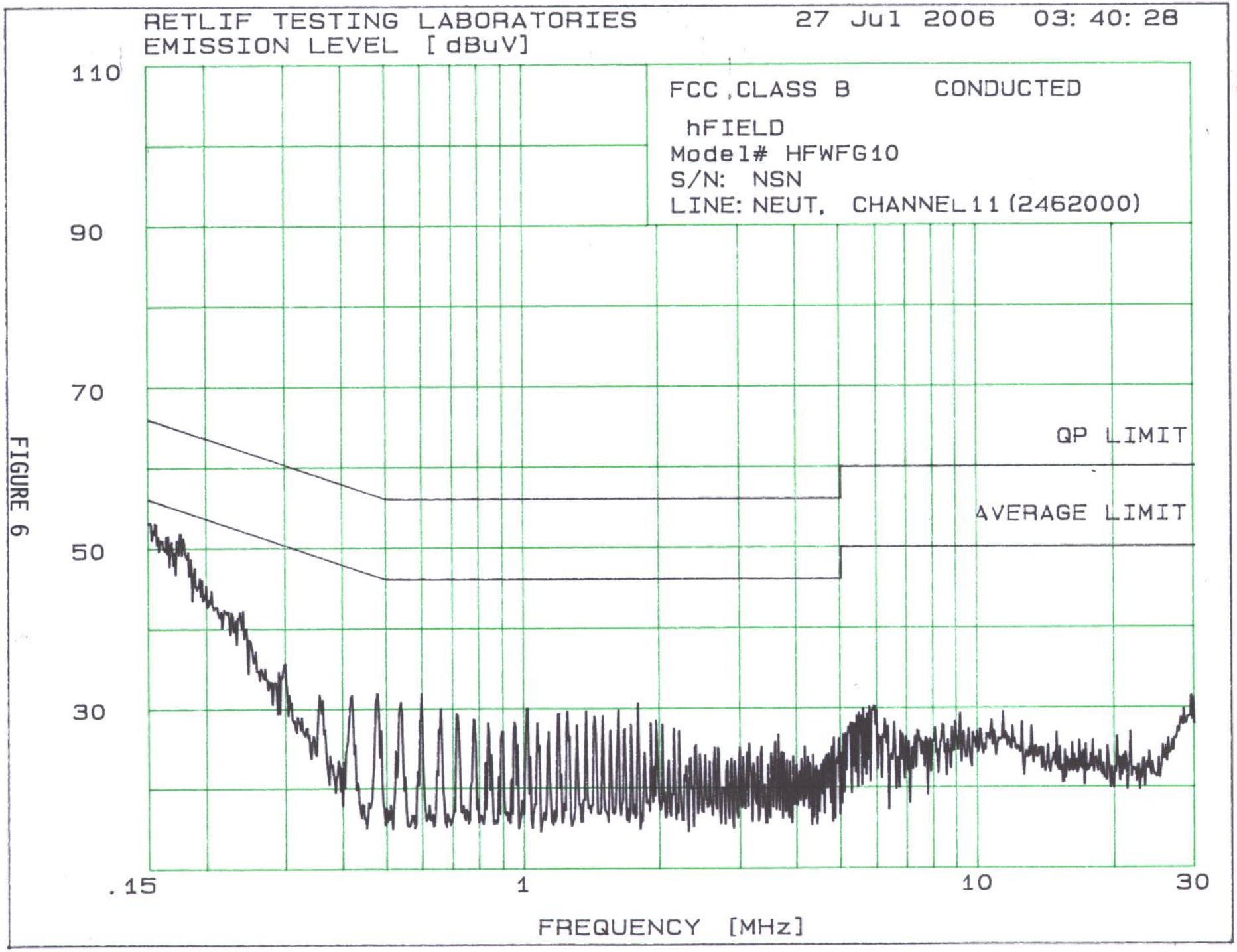

RETLIF TESTING LABORATORIES
27 Jul 2006 03: 40: 28
EMISSION LEVEL [dBuV]
110
90
70
50
30
FCC, CLASS B CONDUCTED
hFIELD
Model# HFWFG10
S/N: NSN
LINE: NEUT, CHANNEL 11 (2462000)
QP LIMIT
AVERAGE LIMIT
.15
1
10
30
FREQUENCY [MHz]

FIGURE 6