This report cancels and replaces the report N° RM-10814 Ed 0

E.M.C TEST REPORT

According to the standard :
RTCA DO 160 D - Issue 1997

Equipment under test :
ADT 406 AF/AP
P/N : 01N63735A S/N : Proto 007-2001

Company :
ELTA

Distribution : Mr CRESP **(Company : ELTA)**

Number of pages : 15

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NAME OF THE EQUIPMENT UNDER TEST : ADT 406 AF/AP
P/N : 01N63735A
S/N : Proto 007-2001

MANUFACTURER'S NAME : ELTA

COORDINATES OF THE COMPANY INTRODUCING THE EQUIPMENT :

Company : ELTA

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Responsible : Mr. CRESP

DATE OF TEST : The 03rd December 2001

TEST LOCATION : EMITECH laboratory at Montigny le Bretonneux (78) - France

TEST OPERATOR : F. CADIOU

CONTENTS

1. INTRODUCTION

This document provides EMC test results performed on **ADT 406 AF/AP P/N : 01N63735A S/N : Proto 007.2001** according to the document referenced here below..

2. REFERENCE DOCUMENT

RTCA DO 160 D - Issue 1997

3. EQUIPMENT UNDER TEST CONFIGURATION

The equipment ADT 406 AF / AP is supplied with lithium cell.

Equipment control procedure :

- Activation control
- Test control (Auto test)
- Activation (Led)
- Reset

4. CONCLUSIONS

TEST PERFORMED	SPECIFICATION		REMARKS
	Successful	Failed	
Radiated emission - Electric Field		✓	Successful, mode ARMED failed, mode ACTIVATED See results chapter 5.

5. RESULT OF THE RADIATED EMISSION - ELECTRIC FIELD

(According to RTCA DO 160 D specification - Section 21 - Category M)

- Purpose of the test

  The equipment powered and operating in its functional mode defined chapter 3 must not emit, itself and its harness, RF radiated field levels in excess of the specified limits.

- Specified limits

  From 2 MHz to 6 GHz.

- Specified limits

  They are plotted on test figures and compared with spectrum measurements.

- Resolution bandwidths

Frequency range	Resolution
2 MHz - 10 MHz	1 kHz
10 MHz - 30 MHz	1 kHz
30 MHz - 400 MHz	10 kHz
400 MHz - 1 GHz	100 kHz
1 GHz - 6 GHz	1 MHz

- Test set-up

The test set-up is performed according to Figure 5.1.

The equipment is bonded on the ground plane inside the shielded enclosure.

All interconnecting cables are spaced 5 cm above the ground plane with insulating support and run in a distance of 10 cm in parallel to the leading edge of the ground plane.

The receiving antenna is placed at 1 meter in front of equipment and cables.

Below 25 MHz, the measurement is performed in vertical polarization (rod antenna).

Beyond 25 MHz, the both vertical and horizontal polarizations are measured ; if necessary, a low noise amplifier is used.

Photographies are given Pictures 5.2 and 5.3.

- Apparatus list

Emitech number	Category	Manufacturer	Type
1/02/18/032	Spectrum analyzer	Hewlett Packard	8566 B
3/01/12/018	Preamplifier	Mini-Circuits	ZFL-1000LN
3/01/12/022	Preamplifier	Hewlett Packard	8449B
3/24/18/145	Biconical antenna	Electro-Métrics	BIA-30HF
3/24/18/151	Log-periodic antenna	Electro-Métrics	LPA-30
3/24/18/270	Rod antenna	Rohde & Schwarz	HFH2-Z6
4/16/00/010	Shielded enclosure	Ray proof	C.8
4/34/00/012	Software	Emitech	UTEM3H4

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- Test results

Tested modes	Figure number	Antenna polarization (VP or HP)	Remarks
Not powered	5.2.4	VP	Ambient noise
	5.2.5	HP	Ambient noise
Activated	5.2.6	VP	No compliant (*) at: 121.5 MHz (17 dB) 243 MHz (8.5 dB) 1579.5 MHz (5 dB)
	5.2.7	HP	No compliant at: 121.5 MHz (10 dB) 243 MHz (3 dB)

(*) **The equipment is a transmitter of distress frequencies of emissions: 121.5 MHz, 243 MHz and 406.028 MHz.**

Note : Mode ACTIVATED is the after crash condition or non permanente condition (manual / or automatic activation). Could be stopped manually with the remote control panel (RESET).

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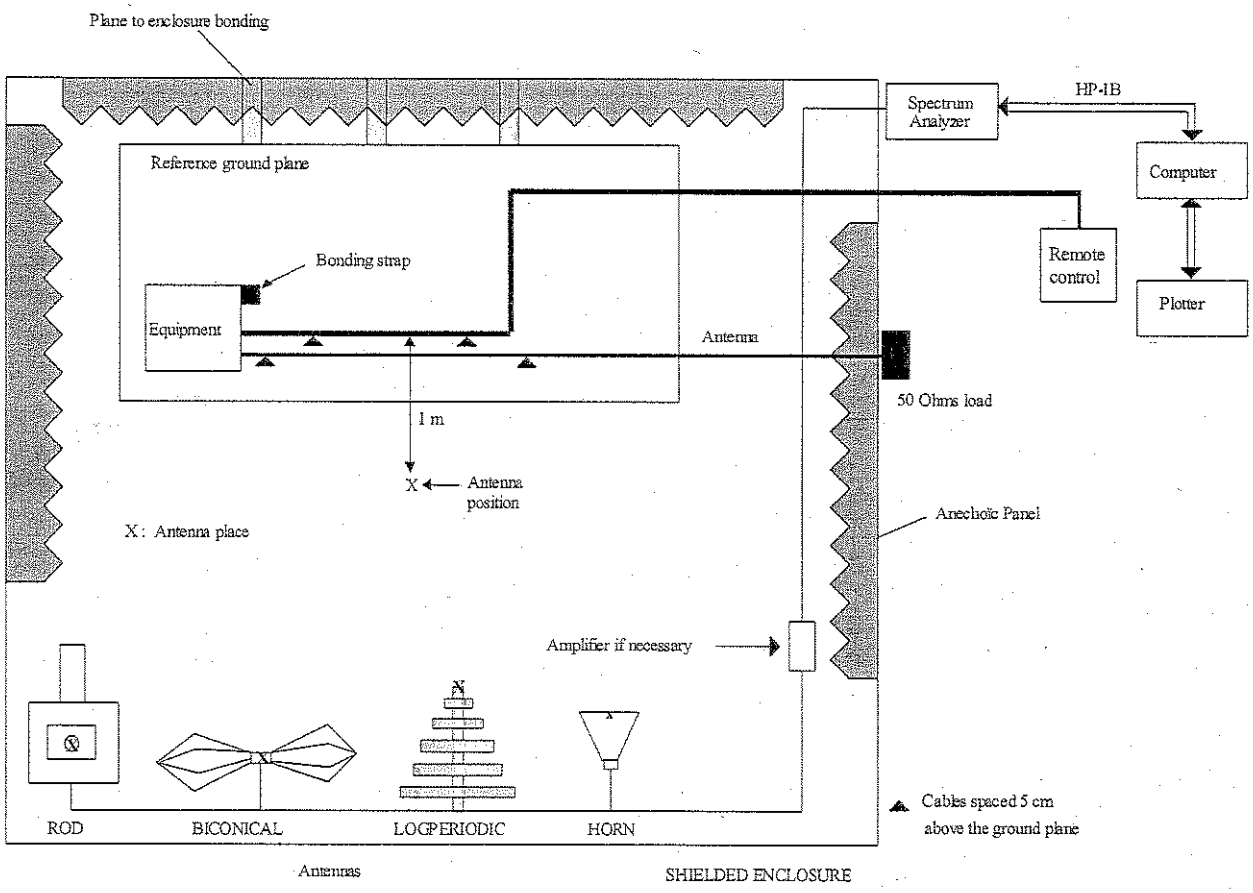
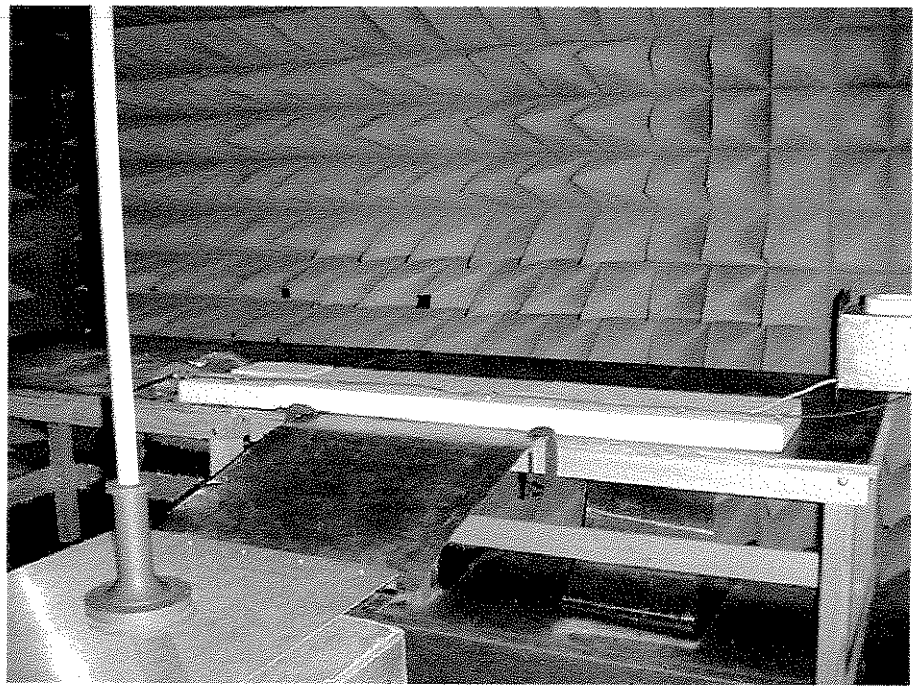
Figure 5.1

RADIATED EMISSION - ELECTRIC FIELD

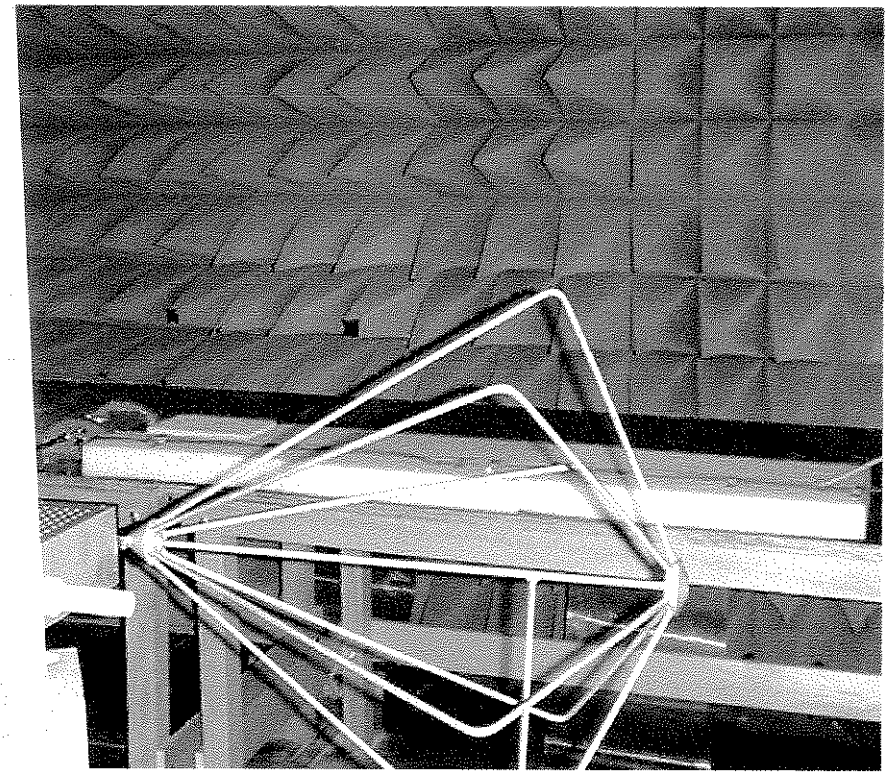


Picture 5.2

RADIATED EMISSION - ELECTRIC FIELD



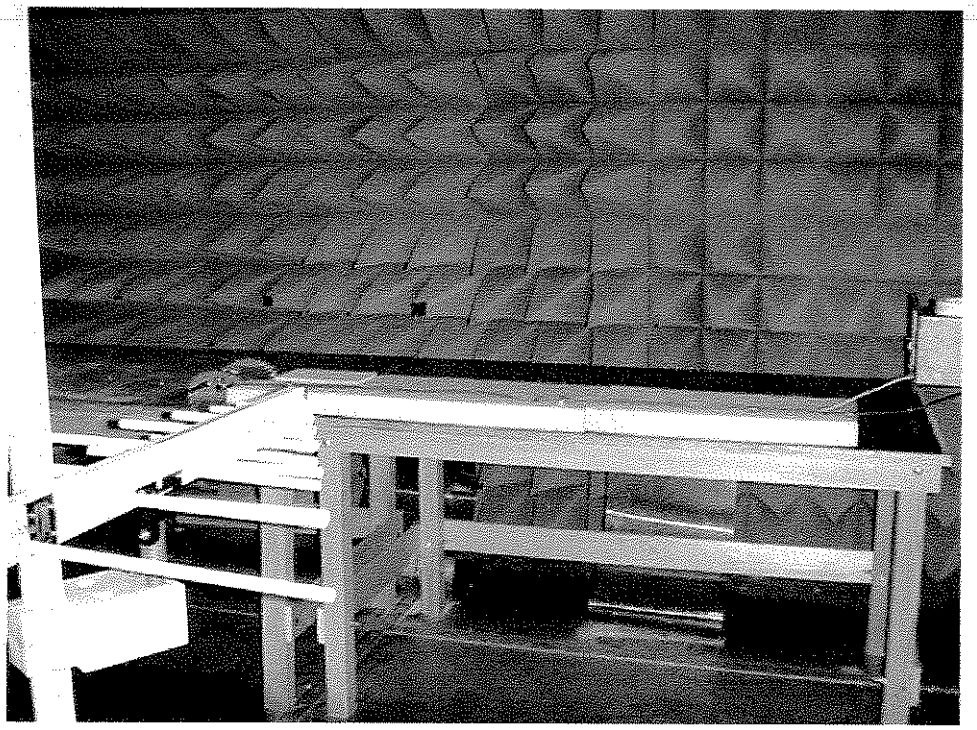
Test from 2 MHz to 25 MHz



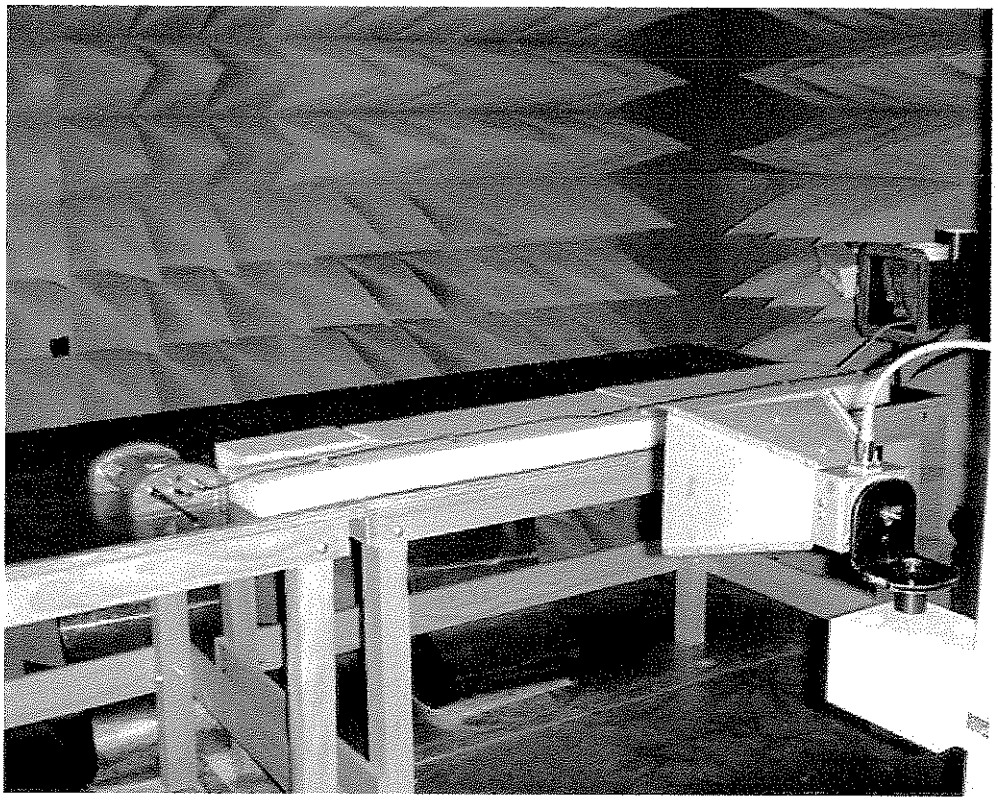
Test from 25 MHz to 200 MHz

Picture 5.3

RADIATED EMISSION - ELECTRIC FIELD



Test from 200 MHz to 1 GHz



Test from 1 GHz to 6 GHz

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Figure 5.4

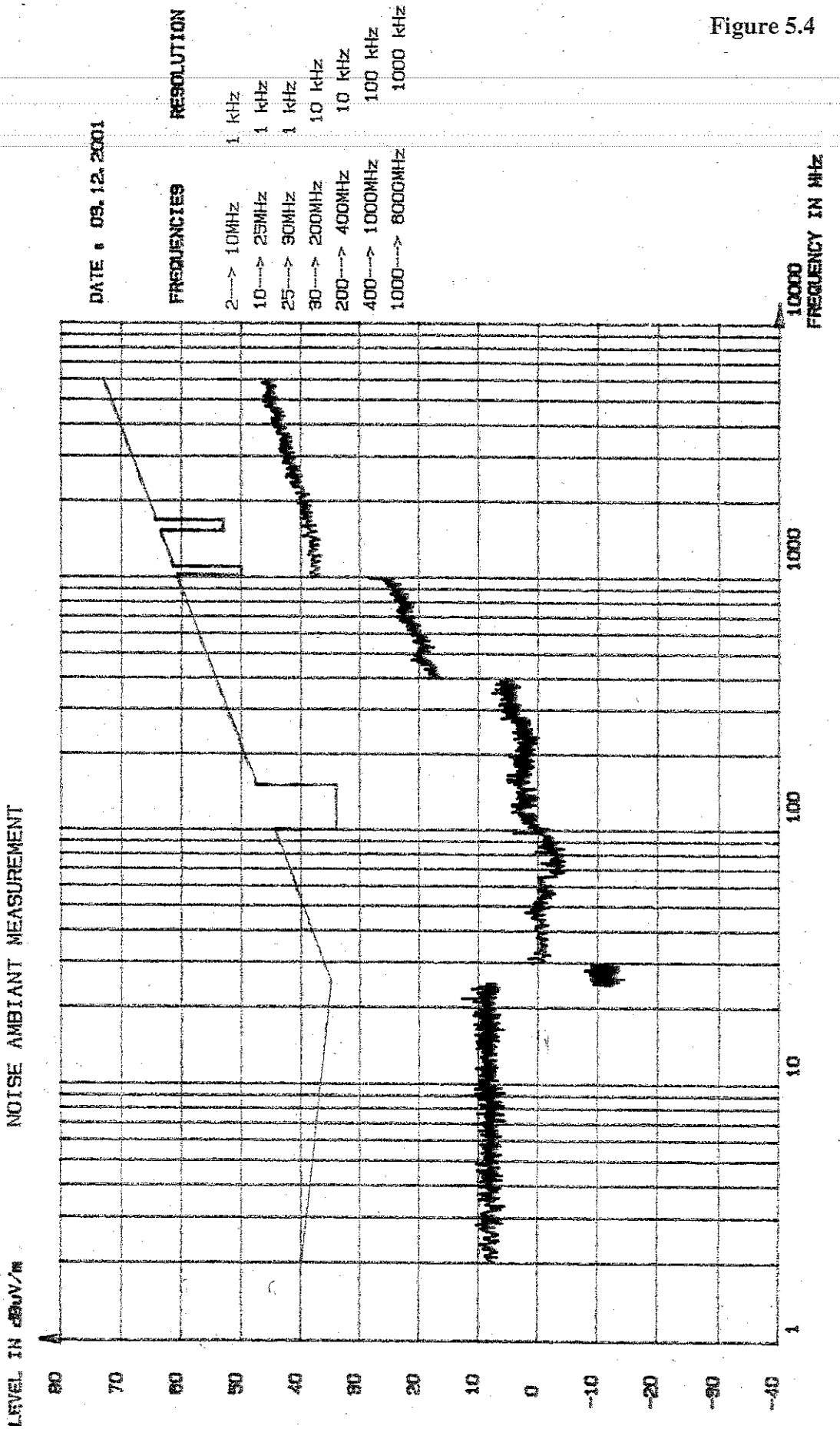

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Figure 5.5

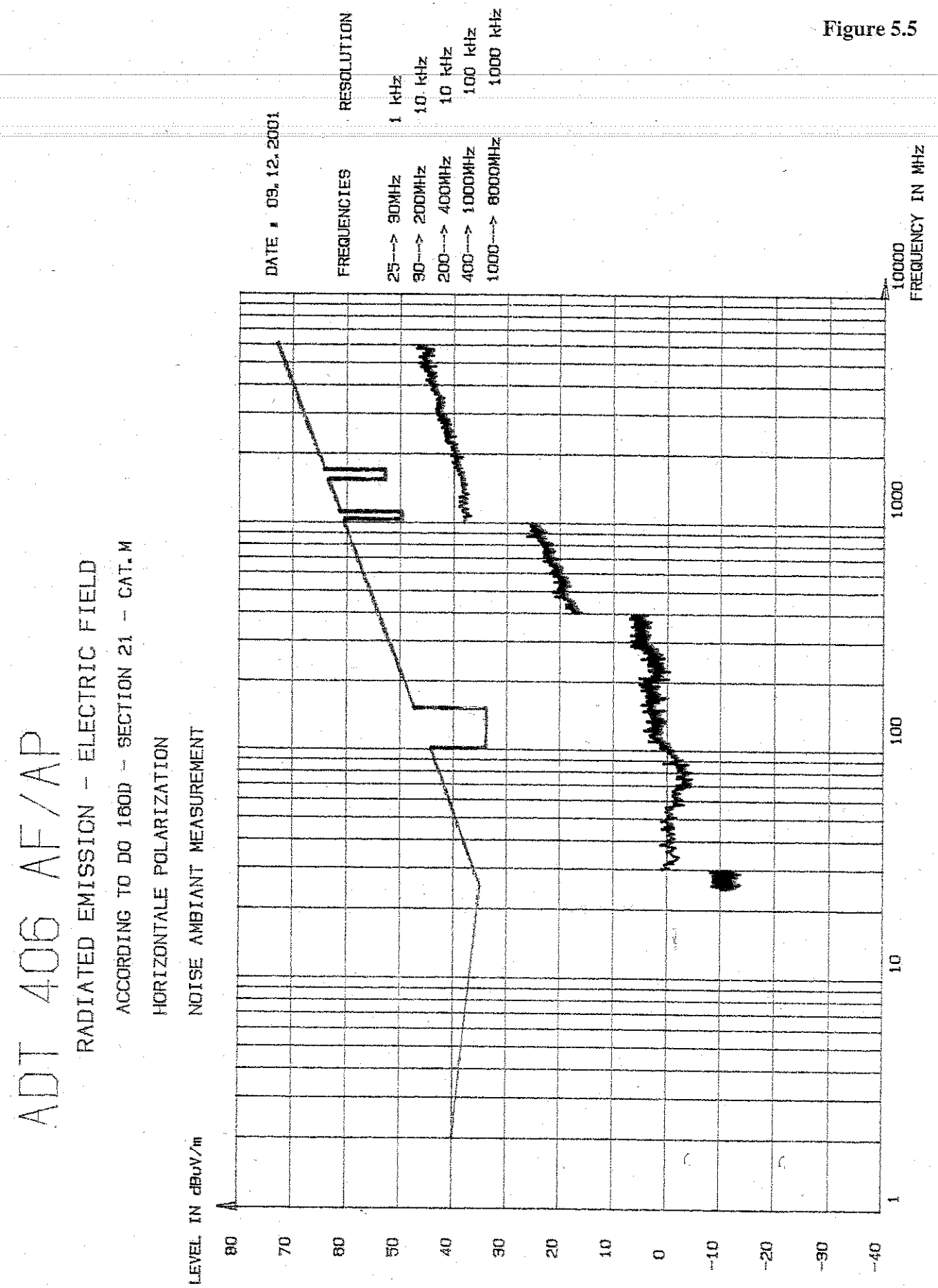

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Figure 5.6

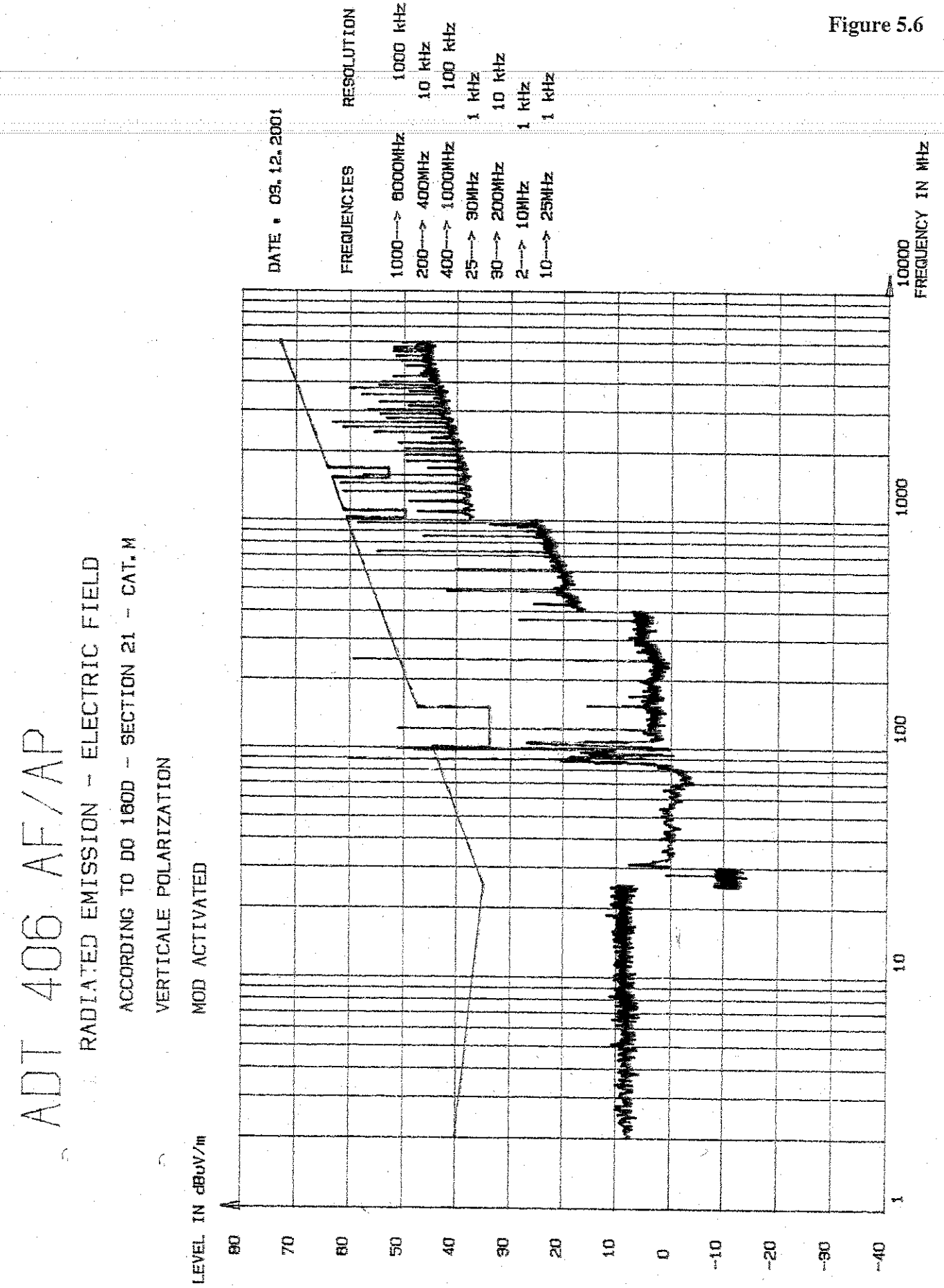

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Figure 5 7