



**ELECTRO MAGNETIC COMPATIBILITY
LABORATORY**

TEST REPORT

**Report number :
961-215-41/e**

SUBJECT : EMI measurement about standard CFR 47 part 15 class B

CONTRACT :

ARCHOS SA

DATE of report :

February, 01 of 1999

CUSTOMER :

B.GONNET

EQUIPMENT :

**PCMCIA connection interface
Mini Zip**

Written by : D. RAUD

Approval : J.L.CANDELON

*This document must be only reproduced by a whole photographic operation.
It contents 6 pages and 11 appendixes.*

This test report is attached to the equipment under test only.

SUMMARY

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1. INFORMATIONS FOR THE TEST

NAME OF EQUIPMENT UNDER TEST :

**PCMCIA connection interface
Mini Zip**

ADDRESS OF THE CUSTOMER :

**ARCHOS SA
ZA les Godets, 37 rue des petits ruisseaux
VERRIERES
91370 (Essonne)
FRANCE**

NAME OF THE CUSTOMER :

B.GONNET

DATE OF THE TEST :

October, 20 of 1998

TEST FACILITY :

**EMC Test Site in ANGERS
34, rue du Nid de Pie
49004 (Angers cedex 01)
FRANCE
FCC recognition number 16U**

ASSISTANT DURING THE TEST :

B.GONNET

TEST DRIVEN BY :

D. RAUD

TEST MANAGER :

Jean Louis CANDELON

2. INTRODUCTION

The test is done to verify the compliance of system configuration described §4 versus the limits class B of USA standard regulation CFR 47 part 15 subpart B for conducted emissions limits (§15.107 class B device) and radiated emission limits (§15.109 class B device).

This equipment is a peripheral device plugged through PCMCIA connection of personal computer.

3. DOCUMENTS OF REFERENCE

CFR 47 part 0 to 19, date of 1997
ANSI C63.4, date of 1992

4. CONFIGURATION OF THE EQUIPMENT UNDER TEST

HARDWARE :

Equipment under test:

- * Mini Zip P/N: MZB-1-100 without serial number with board ref. MD13;
(with reader IOMEGA model Z100NB; P/N: 02961D02; S/N: 7DKV37N38P)
shielded PCMCIA cable; length: 30cm

Associated equipment for the test, measured with EUT :

- * Portable PC IBM (with PCMCIA port) ; Model ThinkPad 750cs; S/N:97-G1BY0
FCC ID: ANO9545CS with AC/DC Adapter IBM P/N 49G2194 without serial number
- * Additionnal visual Zenith Data Systems model ZCM-1426-XT; S/N MYZE4104023521;
FCC ID: CKLHCM-427
- * Microsoft mouse PS/2 compatible mouse; S/N 0133558; FCC ID: C3K5COMB
- * Printer Hewlett Packard Deskjet Plus 2277A FCC-ID: B948JA2277X S/N: 2906A16132
with Power Module 1, model: ETT76J2A Input: 120V/60Hz A.C 0.5A Output: 20V A.C 40VA

Interconnections :

- * AC power cable for visual, unshielded, length = 2.50m
- * Printer parallel data cable; shielded; length 2m, ref. N085675000.01C with shielded connectors

SOFTWARE : Activity during the test

Reads and writes data between Mini Zip and PC in loop mode

5. LIST OF MEASUREMENT APPARATUS

APPARATUS	MANUFACTURER	REFERENCE	SERIAL NUMBER	Date of vérification
*RECEIVERS				
Receptive chain :	Hewlett Packard	HP 8574 A	-	-
Q-P Adaptator	Hewlett Packard	HP 85650A	2811A01134	août-98
Spectrum analyser	Hewlett Packard	HP 8568 B	2816A116603	août-98
Preselector	Hewlett Packard	HP 685685A	287A00784	août-98
Input limiter	Hewlett Packard	11947A00	3107A00899	
EMI Software	Hewlett Packard	HP 85869A	-	
REMS Software for fieldstrength	Hewlett Packard	HP 85879A rev A.02.01	-	
*NETWORKS Adatpters				
LISN	Rohde & Schwarz	ESH2-Z5	871777/031	août-98
LISN	Rohde & Schwarz	ESH2-Z5	861741/019	août-98
LISN	Rohde & Schwarz	ESH2-Z5	872094/037	août-98
*ANTENNAS				
Bilog	CHASE	CBL-6112	2434	oct-98

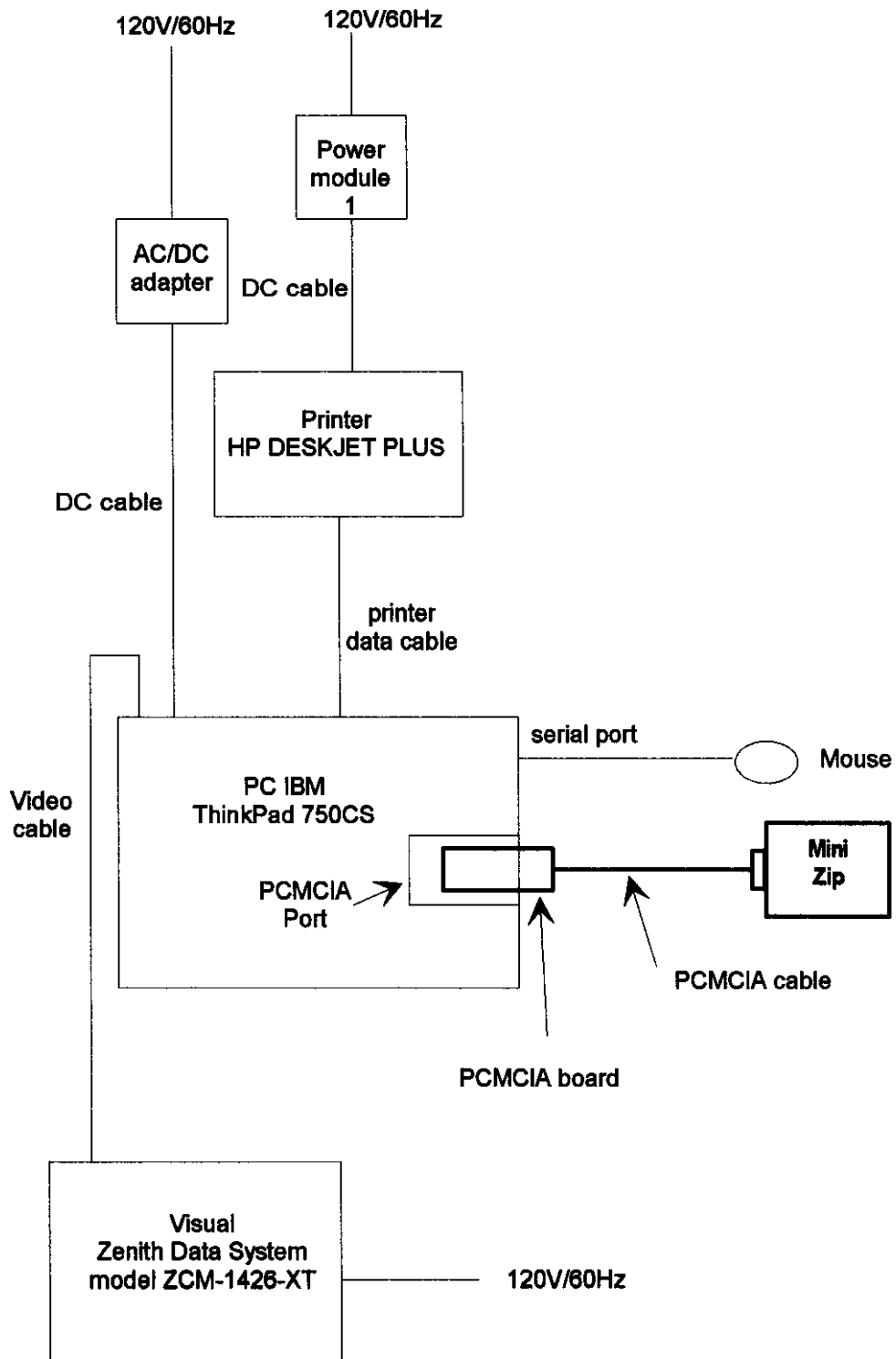
6. RESULTS

Test type	PASS the limit	FAIL the limit	Appendix
Power line interferences: PC with Mini Zip Visual Printer	x x x		1-1 and 1-2 1-3 and 1-4 1-5 and 1-6
Electric fieldstrength	x		2-1 and 2-2

7. CONCLUSION

The sample of equipment under test complies with the limit class B of FCC rules.

TESTED CONFIGURATION



REPORT NUMBER : 961-215-41/e
 PRODUCT NAME : PC IBM MODEL THINKPAD 750 CS + MINI ZIP
 SERIAL NUMBER : 97-G18Y0 (PC)
 STANDARD : FCC PART 15 / 1997 CLASS B
 MEASUREMENT : AC POWER LINE CONDUCTED PHASE
 (Limit line#1= Quasi-Peak limit)
 CONDITIONS : 120V/60Hz - MINI ZIP PC POWERED

APPENDIX:1-1

MEASUREMENTS DONE BY : D.RAUD

16 Oct 1998 10:22:01

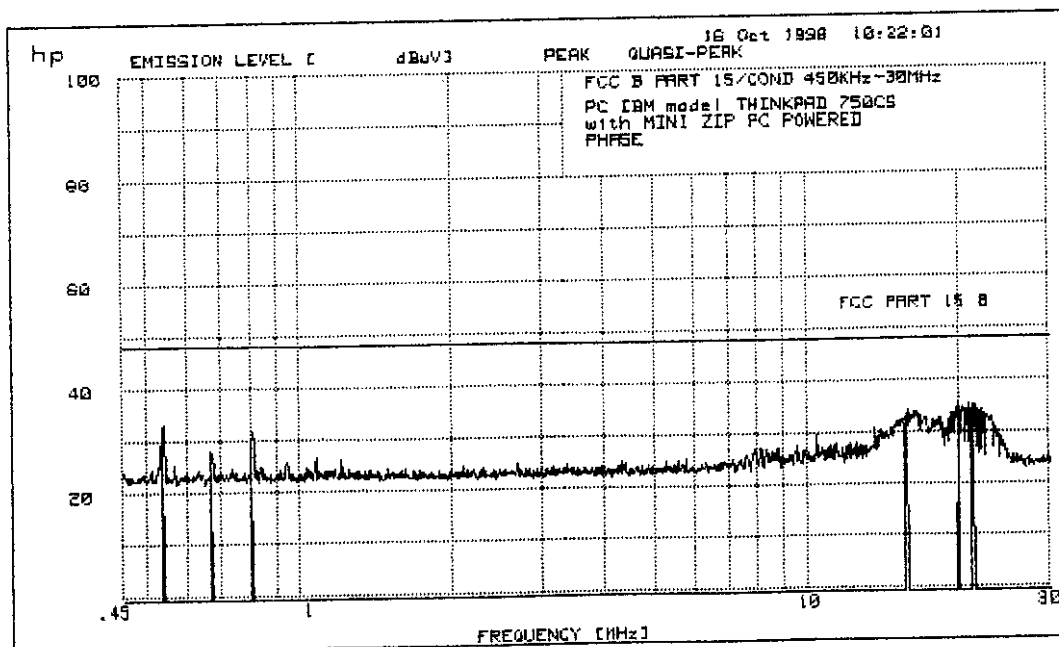
1. CONDUCTION SECTEUR

1.1 FCC B PART 15/COND 450KHz-30MHz

PC IBM model THINKPAD 750CS
 with MINI ZIP PC POWERED
 PHASE

Quasi-Peaks above -25 dB of Limit Line #1
 peak criteria = 6 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.539	32.1	-15.9
2	.6732	25.9	-22.1
3	.8063	29.7	-18.3
4	15.79	32	-16.0
5	19.97	32.4	-15.6
6	21.27	34.7	-13.27



REPORT NUMBER : 961-215-41/e
 PRODUCT NAME : PC IBM MODEL THINKPAD 750 CS + MINI ZIP
 SERIAL NUMBER : 97-61BY0 (PC)
 STANDARD : FCC PART 15 / 1997 CLASS B
 MEASUREMENT : AC POWER LINE CONDUCTED NEUTRAL
 - (Limit line#1= Quasi-Peak limit)
 CONDITIONS : 120V/60Hz - MINI ZIP PC POWERED

APPENDIX:1-2

MEASUREMENTS DONE BY : D.RAUD

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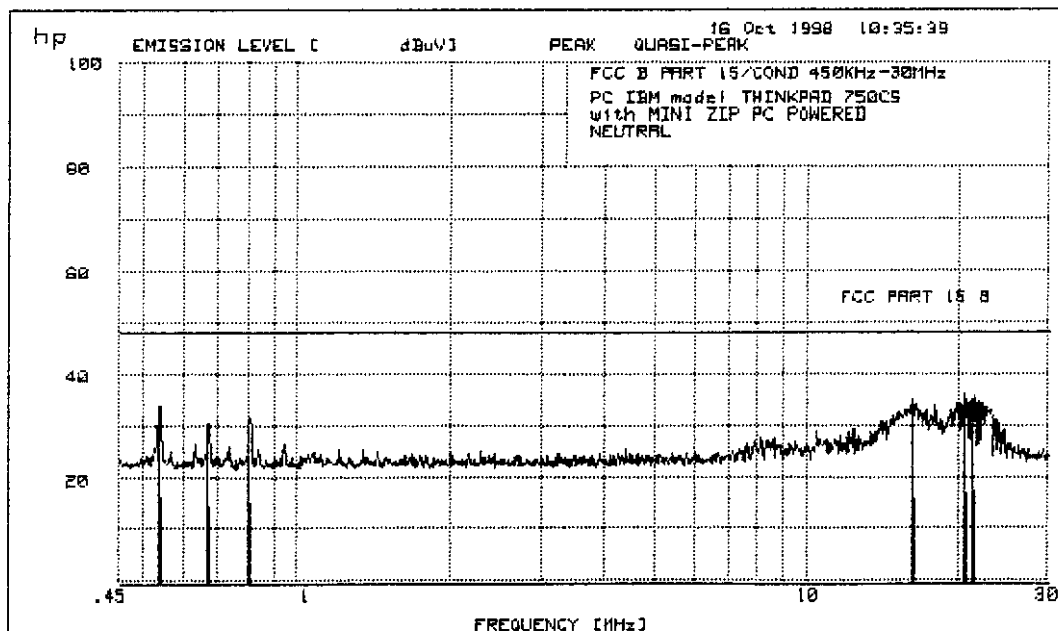
1. CONDUCTION SECTEUR

1.1 FCC B PART 15/COND 450KHz-30MHz

PC IBM model THINKPAD 750CS
 with MINI ZIP PC POWERED
 NEUTRAL

Quasi-Peaks above -25 dB of Limit Line #1
 peak criteria = 6 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.539	33	-15.0
2	.6732	29.2	-18.8
3	.8063	30.5	-17.5
4	16.26	31.8	-16.2
5	20.57	33.9	-14.1
6	21.36	34.7	-13.3



REPORT NUMBER : 961-215-41/e
 PRODUCT NAME : VISUAL ZDS MODEL ZCM-1426-XT
 SERIAL NUMBER : MYZE4104023521
 STANDARD : FCC PART 15 / 1997 CLASS B
 MEASUREMENT : AC POWER LINE CONDUCTED PHASE
 (Limit line#1= Quasi-Peak limit)
 CONDITIONS : 120V/60Hz

APPENDIX:1-3

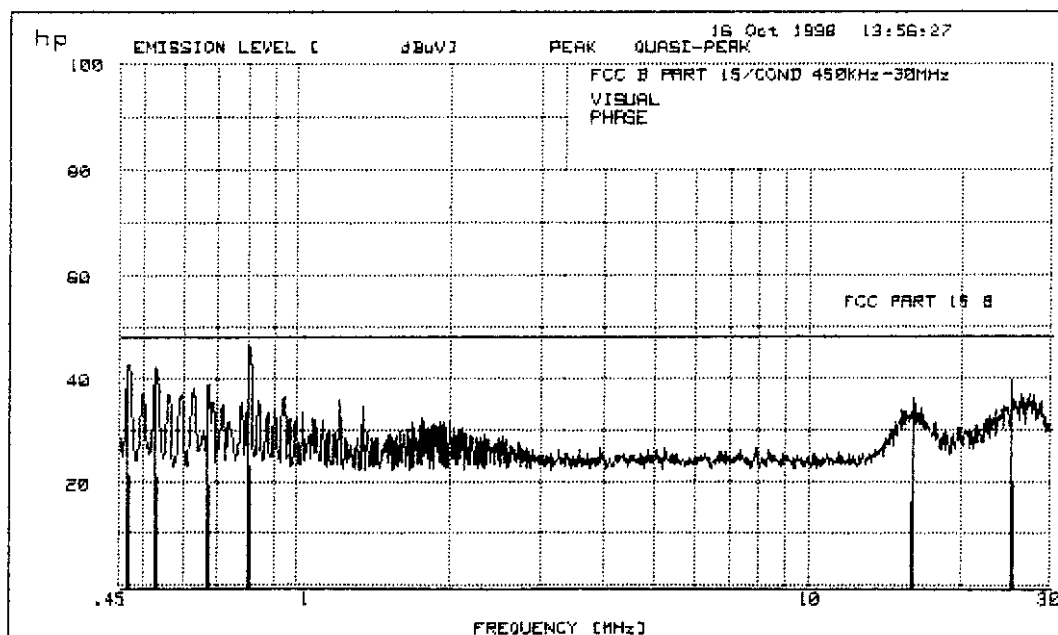
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 16 Oct 1998 13:56:27
 =====
 1. CONDUCTION SECTEUR
 1.1 FCC B PART 15/COND 450KHz-30MHz
 =====

VISUAL
PHASE

Quasi-Peaks above -25 dB of Limit Line #1
 peak criteria = 6 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.4673	42.5	-5.5
2	.53	41.7	-6.3
3	.6732	38.7	-9.3
4	.8063	46.4	-1.6
5	15.99	32.6	-15.4
6	25.15	39.5	-8.5



REPORT NUMBER : 961-215-41/e
PRODUCT NAME : VISUAL ZDS MODEL ZCM-1426-XT
SERIAL NUMBER : MYZE4104023521
STANDARD : FCC PART 15 / 1997 CLASS B
MEASUREMENT : AC POWER LINE CONDUCTED NEUTRAL
(Limit line#1= Quasi-Peak limit)
CONDITIONS : 120V/60Hz

APPENDIX:1-4

MEASUREMENTS DONE BY : D.RAUD

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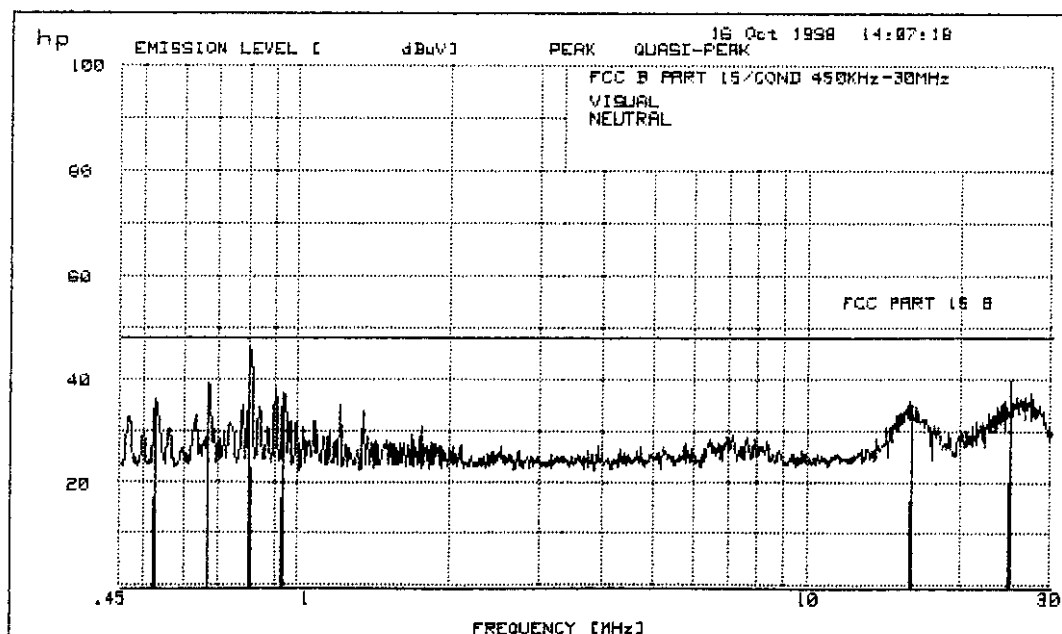
1. CONDUCTION SECTEUR

1.1 FCC B PART 15/COND 450KHz-30MHz

VISUAL
NEUTRAL

Quasi-Peaks above -25 dB of Limit Line #1
peak criteria = 6 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.5278	34.6	-13.4
2	.6704	38.7	-9.3
3	.8063	45.9	-2.1
4	.9377	34.6	-13.4
5	15.99	33.7	-14.3
6	25.05	39.4	-8.6



REPORT NUMBER : 961-215-41/e APPENDIX:1-5
 PRODUCT NAME : PRINTER HP DESKJET PLUS (WITH EXTERNAL POWER SUPPLY)
 SERIAL NUMBER : 2906A16132
 STANDARD : FCC PART 15 / 1997 CLASS B
 MEASUREMENT : AC POWER LINE CONDUCTED PHASE
 (Limit line#1= Quasi-Peak limit)
 CONDITIONS : 120V/60Hz

MEASUREMENTS DONE BY : D.RAUD

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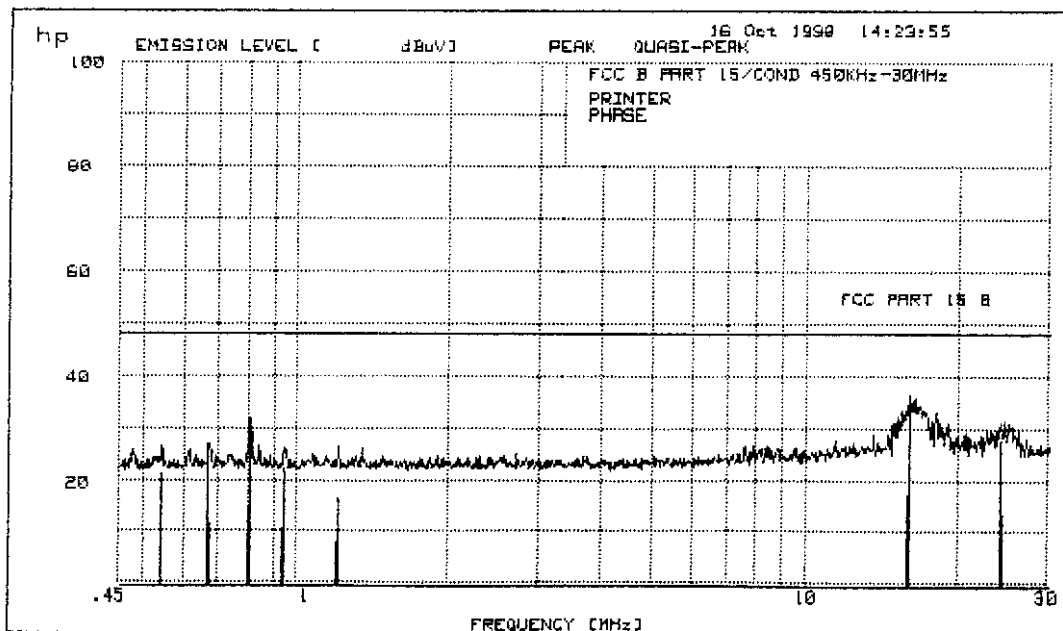
1. CONDUCTION SECTEUR

1.1 FCC B PART 15/COND 450KHz-30MHz

PRINTER
 PHASE

Quasi-Peaks above -30 dB of Limit Line #1
 peak criteria = 6 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.5435	20.8	-27.2
2	.6732	23.9	-24.1
3	.8097	30.7	-17.3
4	.9456	22.3	-25.7
5	15.99	34.8	-13.2
6	24.22	27.4	-20.6



REPORT NUMBER : 961-215-41/e APPENDIX:1-6
 PRODUCT NAME : PRINTER HP DESKJET PLUS (WITH EXTERNAL POWER SUPPLY)
 SERIAL NUMBER : 2906A16132
 STANDARD : FCC PART 15 / 1997 CLASS B
 MEASUREMENT : AC POWER LINE CONDUCTED NEUTRAL
 (Limit line#1= Quasi-Peak limit)
 CONDITIONS : 120V/60Hz

MEASUREMENTS DONE BY : D.RAUD

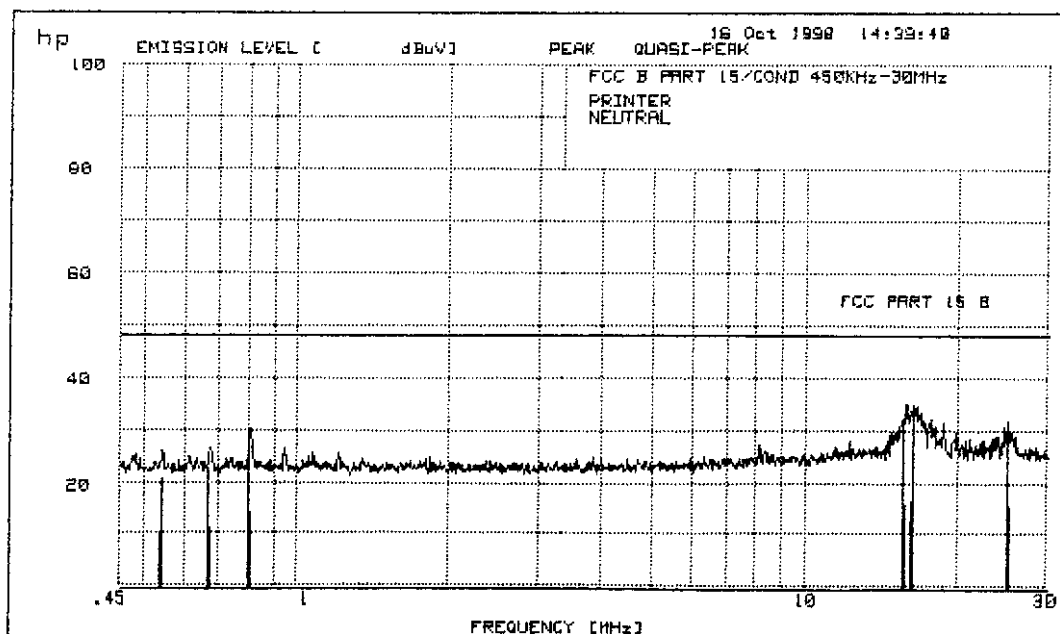
16 Oct 1998 14:39:40

1. CONDUCTION SECTEUR
 1.1 FCC B PART 15/COND 450KHz-30MHz

PRINTER
 NEUTRAL

Quasi-Peaks above -30 dB of Limit Line #1
 peak criteria = 6 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	.5412	20.7	-27.3
2	.6732	22.5	-25.5
3	.8063	28.5	-19.5
4	15.66	32.3	-15.7
5	16.33	33.6	-14.4
6	25.15	31.1	-16.9



REPORT : 961-215-41/e APPENDIX 2-1
 PRODUCT NAME : PC IBM MODEL THINKPAD 750CS with MINI ZIP on PCMCIA port
 SERIAL NUMBER : PC: 97-G18Y0 CONFIGURATION ON APPENDIX A
 STANDARD : FCC PART15 DATE OF 1997 CLASS B D=3m
 MEASUREMENT : ELECTRIC FIELD 30-1000MHz
 CONDITIONS : 120V/60Hz - MINI ZIP PC POWERED
 DATE : 16 Oct 1998

MEASUREMENT DONE BY : D.RAUD

PRODUCT EMISSIONS

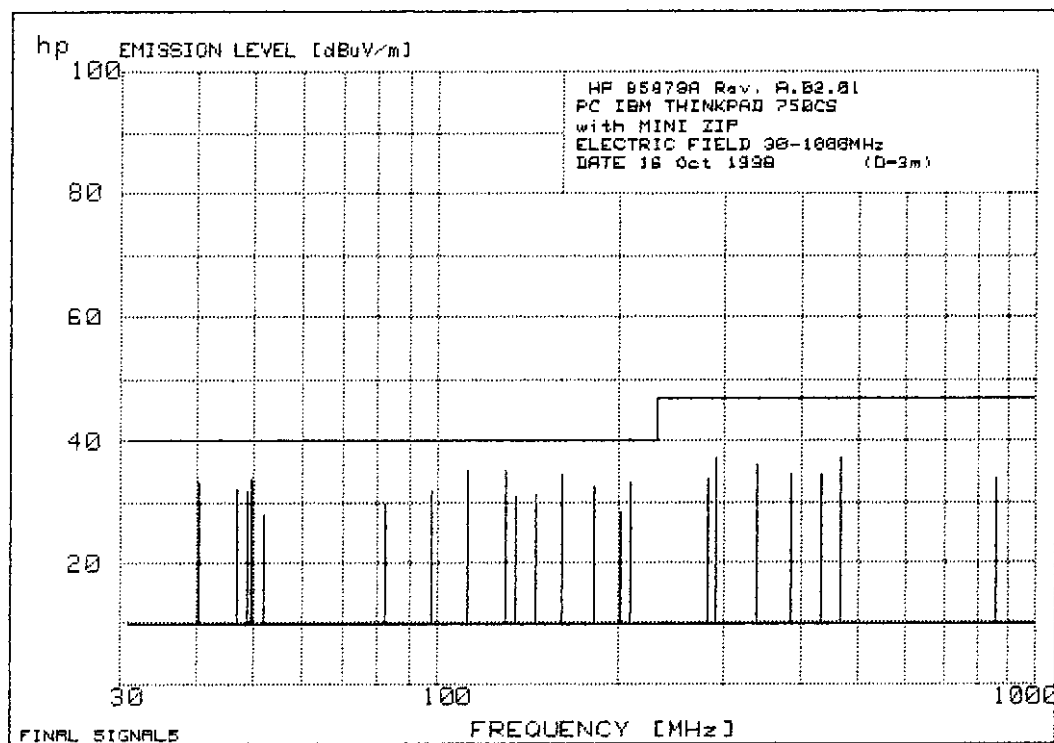
HP 85879A Rev. A.02.01

Data File: E FIELD (PC POWERED) 16 Oct 1998

No	EMISSION	SPEC	MEASUREMENTS			SITE		CORR	COMMENTS
	FREQUENCY MHz	LIMIT dBuV/m	ABS	dLIM dB	MODE	POL	HGT cm	FACTOR dB	
							AZM deg		
1	39.266	40.0	33.4	-6.6	PK	V	130	310	15.4
2	45.630	40.0	32.2	-7.8	QP	V	100	215	12.4
3	47.217	40.0	32.0	-8.0	QP	V	100	165	11.7
4	48.019	40.0	34.0	-6.0	QP	V	100	300	11.3
5	50.322	40.0	28.1	-11.9	QP	V	100	205	10.3
6	80.241	40.0	29.5	-10.5	PK	V	100	240	9.6
7	96.002	40.0	32.0	-8.0	QP	V	100	0	12.3
8	110.977	40.0	35.2	-4.8	QP	V	100	95	13.
9	128.008	40.0	35.2	-4.8	QP	V	100	95	13.2
10	132.942	40.0	31.0	-9.0	PK	V	100	95	13.2
11	144.004	40.0	31.3	-8.7	PK	V	100	85	13.3
12	159.993	40.0	34.4	-5.6	PK	V	100	305	13.
13	180.372	40.0	32.5	-7.5	PK	V	100	0	12.4
14	200.002	40.0	28.3	-11.7	PK	V	100	195	11.8
15	208.025	40.0	33.3	-6.7	PK	V	220	360	12.4
16	280.055	47.0	33.9	-13.1	PK	H	210	130	16.2
17	288.016	47.0	37.2	-9.8	PK	V	180	190	16.4
18	336.013	47.0	36.2	-10.8	PK	H	190	135	17.8
19	384.004	47.0	34.5	-12.5	PK	H	200	330	19.3
20	432.080	47.0	34.5	-12.5	PK	H	200	85	20.5
21	465.274	47.0	37.2	-9.8	QP	H	230	185	21.3
22	864.135	47.0	34.0	-13.0	PK	H	240	75	26.

REPORT : 961-215-41/e APPENDIX 2-2
PRODUCT NAME : PC IBM MODEL THINKPAD 750CS with MINI ZIP on PCMCIA port
SERIAL NUMBER : PC: 97-61BY0 CONFIGURATION ON APPENDIX A
STANDARD : FCC PART15 DATE OF 1997 CLASS B D=3m
MEASUREMENT : ELECTRIC FIELD 30-1000MHz
CONDITIONS : 120V/60Hz - MINI ZIP PC POWERED
DATE : 16 Oct 1998

MEASUREMENT DONE BY : D.RAUD



NOTIFICATION OF APPLICANT CODE ASSIGNMENT

Date: May 23, 1996
File No.: 31010/EQU-CODE

Applicant/Grantee

Archos S. A.
99 Rue d'Amblainvilliers
91370 Verrieres Le Buisson, France

Attn: H. Crohas

Re: Request for assignment of applicant/grantee code

In response to the referenced request, please be advised that assignment of the code listed below is NOT an authorization to market equipment in the United States. Marketing of equipment requiring a Grant of Equipment Authorization (FCC Form 731A) to be issued by the Commission, prior to the issuance of the prerequisite grant, is prohibited by Section 2.803 of the Rules. Violation of Section 2.803 may subject the violator to the fines and penalties specified in Sections 501 and 502 of the Communications Act of 1934, as amended.

We have entered your company name and address into our records based on the information provided in the request. If this is NOT your legal company name, or if there is any other discrepancy, please advise us IMMEDIATELY. Changes in name/address of grantee must be reported to: **FEDERAL COMMUNICATIONS COMMISSION, EQUIPMENT AUTHORIZATION BRANCH, 7435 OAKLAND MILLS ROAD, COLUMBIA, MD 21046.**

The code listed below is assigned PERMANENTLY to, and is valid ONLY for, the party listed above. The same applicant/grantee code shall be used for all equipment authorization applications. Reference Section 2.926(c)(1).

CODE

APPLICANT/GRANTEE

MX6

Name and address as listed above

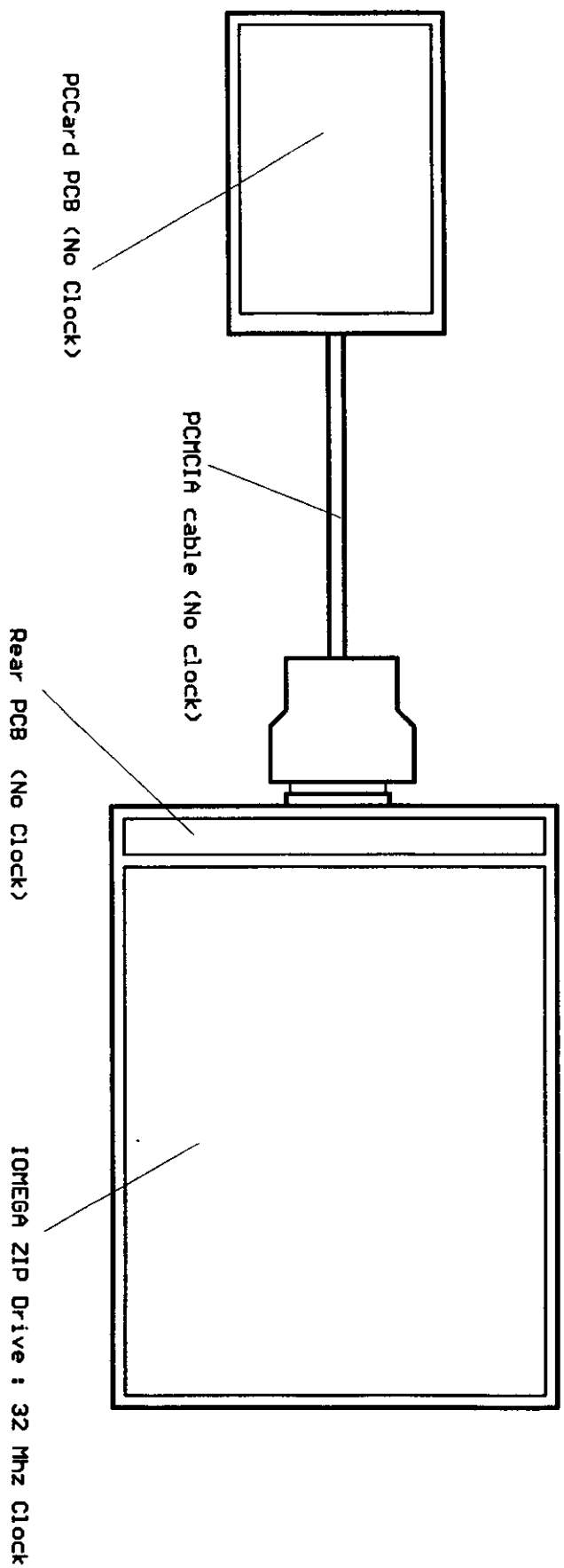
PLEASE NOTE: The numeral ONE and the digit ZERO are not assigned as characters in applicant/grantee codes.

This Notice should be retained in the applicant/grantee's files as a permanent record of the assignment of an applicant/grantee code.

Inquiries may be directed to Phyllis B. Parrish, Legal Instruments Examiner.

ATTACHMENTS

Block diagram showing the frequency of all clocks/oscillators



P/N MZB-1-100
FCC ID : MX6AR9711

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CANADA ICES/NMB-302 CLASS/CLASSE B



**LABEL ON THE BOTTOM
OF MINICD DRIVE**

P/N MZB-1-100
FCC ID : MX6AR9711

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

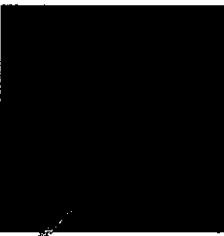
CANADA ICES/NMB-302 CLASS/CLASSE B



LABEL ON PCCARD

FCC LABELS (actual size)

ARCHOS



Federal Communications Commission
EQUIPMENT APPROVAL SERVICES
P.O. Box 358315
Pittsburg, PA 15251-5315
USA

Sub. Submission for FCC Class B Equipment Authorization
FCC ID : MX6 AR9711

February 11th 1999

Dear Sir,

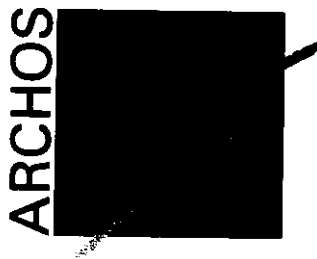
We would be grateful if you will consider our present APPLICATION FOR EQUIPMENT AUTHORIZATION on the basis of the enclosed FCC FORM 731 and our TEST REPORT.
The name and address of our company is :

ARCHOS S.A.
99,rue d'Amblainvilliers
91370 Verrières le Buisson
France

Yours sincerely,

A handwritten signature in black ink, appearing to read "Henri CROHAS".

Henri CROHAS
Director



REF : FCC ID MX6 AR9711

CONTENTS

1. BANK CHECK USD 45.00
2. FCC FORM 731
3. MINIZIP TEST REPORT
4. COPY OF THE NOTIFICATION OF APPLICANT CODE ASSIGNMENT
5. MINIZIP USER'S MANUAL
6. BLOCK DIAGRAMM (SHOWING THE FREQUENCY OF ALL CLOCKS/OSCILLATORS)
7. COPY OF ARCHOS LABELS FOR MINIZIP
8. INNER ENVELOPE