Title	Measurements of radio frequency interference from PlusCom Xpress X62 410 including SafeCom X34 150
Test object	PlusCom Xpress X62 410 including SafeCom X34 150
Report no.	DANAK-194611
Project no.	K220871-1
Date of test	1999-06-29
Client	i-data International A/S Vadstrupvej 27 DK-2880 Bagsværd Denmark Telephone: +45 44 36 60 00 Fax: +45 44 36 61 11
Contact person	Mr. Jens Henneke
Manufacturer	i-data International A/S
Specification	EN 55022:1994 (CISPR 22:1985 + A1 + A2) class B + A1 + A2 FCC part 15 Subpart B class B demonstrated by compliance with EN 55022:1994, class B.
Test personnel	Henrik Egeberg Nielsen
Results	The emission from the PlusCom Xpress X62 410 including SafeCom X34 150 was below the limit of the above specifications.
Date	1999-07-19
Project manager	Per Hansen, Facility Manager, EMC DELTA Electronics Testing
Responsible	Jørgen Duvald Christensen Department Manager, EMC DELTA Electronics Testing

Please note that we have not tested the equipment for any errors which may arise before, during, or after the change of date from the year 1999 to the year 2000, either in the equipment or its interaction with other products.

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1. SUMMARY OF TEST RESULTS

The results of the emission tests can be summarised as follows:

Emission tests	**EN 55022:1994 (CISPR 22: 1985 + A1 + A2) class B + A1 + A2**	**FCC part 15 Subpart B class B ***
Conducted emission, AC mains	Passed	Passed
Radiated electromagnetic field	Passed	Passed

Abbreviations	:	Passed	:	The emission was below the limit.
		Not done	:	No test was performed.
		N/A	:	Not applicable.
		Not relevant	:	The test was not relevant for the test object.

* The FCC class B was demonstrated by compliance with EN 55022:1994, class B.

The test results relate only to the specimen tested.

2. TEST SPECIMEN 1

Category	:	Card Reader
Manufacturer	:	i-data International A/S
Model/Type	:	SafeCom X34 150
Part no.	:	-
Serial no.	:	-
Supply voltage	:	12 VDC from 115 VAC adapter.
Operational mode	:	Normal operation.
Comments	:	-

TEST SPECIMEN 2

Category	:	Printer server
Manufacturer	:	i-data International A/S
Model/Type	:	PlusCom Xpress X62 410
Part no.	:	-
Serial no.	:	-
Supply voltage	:	12 VDC from 115 VAC adapter.
Operational mode	:	Normal operation.
Comments	:	100 Mbit transmission speed.

3. GENERAL TEST CONDITIONS

3.1 Test set-up

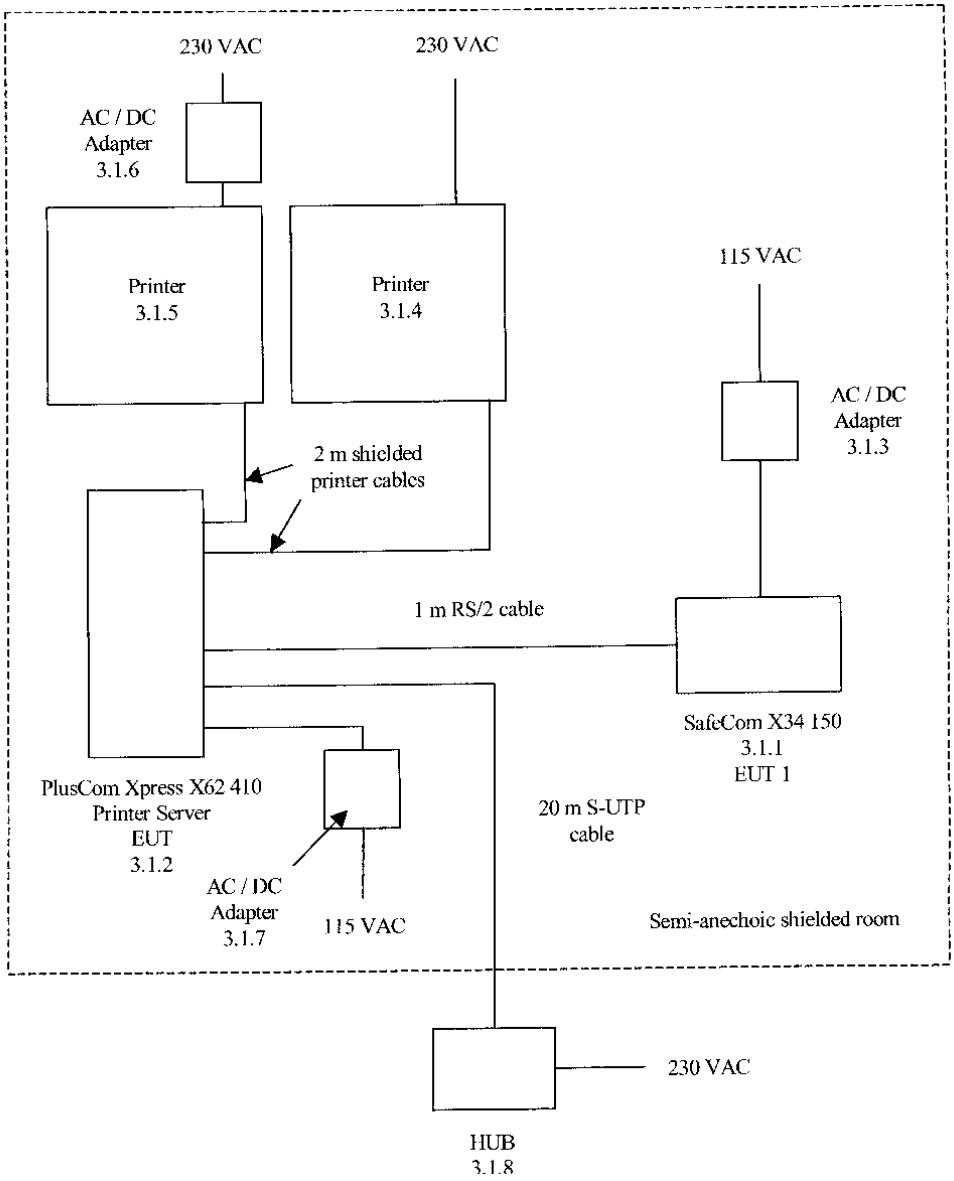

FIG. 1 Test set-up including test object and peripheral equipment

The complete system used during the tests consisted of the following units:

3.1.1 Card Reader **EUT 1**

Manufacturer	:	i-data International A/S
Model/type	:	SafeCom X34 150
Part no.	:	-
Serial no.	:	-
FCC ID.	:	-

3.1.2 Printer Server **EUT 2**

Manufacturer	:	i-data International A/S
Model/type	:	PlusCom Xpress X62 410
Part no.	:	-
Serial no.	:	-
FCC ID.	:	-

3.1.3 AC / DC Adapter

Manufacturer	:	FRIWO
Model/type	:	FW 3288
Part no.	:	-
Serial no.	:	-
FCC ID	:	-

3.1.4 Printer

Manufacturer	:	Hewlett Packard
Model/type	:	C1676A
Part no.	:	-
Serial no.	:	SGC5302456
FCC ID	:	B94C1676

3.1.5 Printer

Manufacturer	:	Hewlett Packard
Model/type	:	895 CXi
Part no.	:	C6410A
Serial no.	:	SG89A2W2HT
FCC ID.	:	-

3.1.6 AC / DC Adapter

Manufacturer	:	Hewlett Packard
Model/type	:	HP Deskjet power adapter
Part no.	:	C6409-60014
Serial no.	:	T5838041928
FCC ID.	:	-

3.1.7 AC / DC Adapter

Manufacturer	:	FRIWO
Model/type	:	FW 3288
Part no.	:	-
Serial no.	:	-
FCC ID	:	-

3.1.8 HUB (100 Mbit)

Manufacturer	:	Cabletron Systems
Model/type	:	EZ 5208 TX
Part no.	:	720.301
Serial no.	:	K164700128
FCC ID	:	-

4. TESTS AND RESULTS

4.1 Conducted emission, AC mains (EN 55022, class B)

	Requirements	
Specification	EN 50081-1:1992	
Test method	EN 55022:1994 (CISPR 22:1985 + A1 + A2) class B + A1 + A2	
Frequency range	0.15 - 30 MHz	
Limit: (quasi-peak)	0.15-0.50 MHz: (decreasing lin. with the logarithm of freq.)	66-56 dBµV
	0.50-5 MHz:	56 dBµV
	5-30 MHz:	60 dBµV
Limit: (average)	0.15-0.50 MHz: (decreasing lin. with the logarithm of freq.)	56-46 dBµV
	0.50-5 MHz:	46 dBµV
	5-30 MHz:	50 dBµV
Test record sheets and photos		*Annex* 2

Results:

The emission was within the specified limits.

Comments:

Conducted emission was meassured separately on EUT 1 and EUT 2.

The supply voltage to EUT 1 and EUT 2 was 12 VDC from separate 115 VAC adapters.

4.2 Radiated electromagnetic field (EN 55022, class B)

	Requirements	
Specification	EN 50081-1:1992	
Test method	EN 55022:1994 (CISPR 22:1985 + A1 + A2) class B + A1 + A2	
Measuring distance	10 m	
Frequency range	30 - 1000 MHz	
Limit: (quasi-peak)	30-230 MHz: 230-1000 MHz:	30 dBµV/m 37 dBµV/m
Test record sheets and photos		*Annex 3*

Results:

The emission was within the specified limits.

Comments:

The supply voltage to EUT 1 and EUT 2 was 12 VDC from seperate 115 VAC adapters

4.3 Conducted emission, AC mains (FCC, class B / EN 55022, class B)

	Requirements	
Specification	FCC Rules and Regulations:1997, part 15, subpart B class B, demonstrated by compliance with EN 55022:1994, class B	
Test method	CISPR 22:1985 + A1 + A2	
Frequency range	0.15 - 30 MHz	
Test set-up	ANSI C63.4:1992	
Limit: (quasi-peak)	0.15-0.50 MHz: (decreasing lin. with the logarithm of freq.) 0.50-5 MHz: 5-30 MHz:	66-56 dBµV 56 dBµV 60 dBµV
Limit: (average)	0.15-0.50 MHz: (decreasing lin. with the logarithm of freq.) 0.50-5 MHz: 5-30 MHz:	56-46 dBµV 46 dBµV 50 dBµV
Test record sheets and photos		*Annex 4*

Results:

The emission was within the specified limits.

Comments:

Conducted emission was meassured seperately on EUT 1 and EUT 2

The supply voltage to EUT 1 and EUT 2 was 12 VDC from seperate 115 VAC adapters

4.4 Radiated electromagnetic field (FCC, class B / EN 55022, class B)

	Requirements	
Specification	FCC Rules and Regulations:1997, part 15, subpart B, class B, demonstrated by compliance with EN 55022:1994, class B	
Test method	CISPR 22:1985 + A1 + A2	
Test set-up	ANSI C63.4:1992	
Measuring distance	10 m	
Frequency range	30 - 1000 MHz	
Limit: (quasi-peak)	30-230 MHz: 230-1000 MHz:	30 dBµV/m 37 dBµV/m
Test record sheets and photos		*Annex 5*

Results:

The emission was within the specified limits.

Comments:

The supply voltage to EUT 1 and EUT 2 was 12 VDC from seperate 115 VAC adapters.