


Z⁺800 Series

EMI

DATA

DWG No.: IA702-58-02		
APPD	CHK	DWG
 13/8/13	<i>Yanni</i> 10/03/13	<i>D. MIRON</i> Feb-28-2013

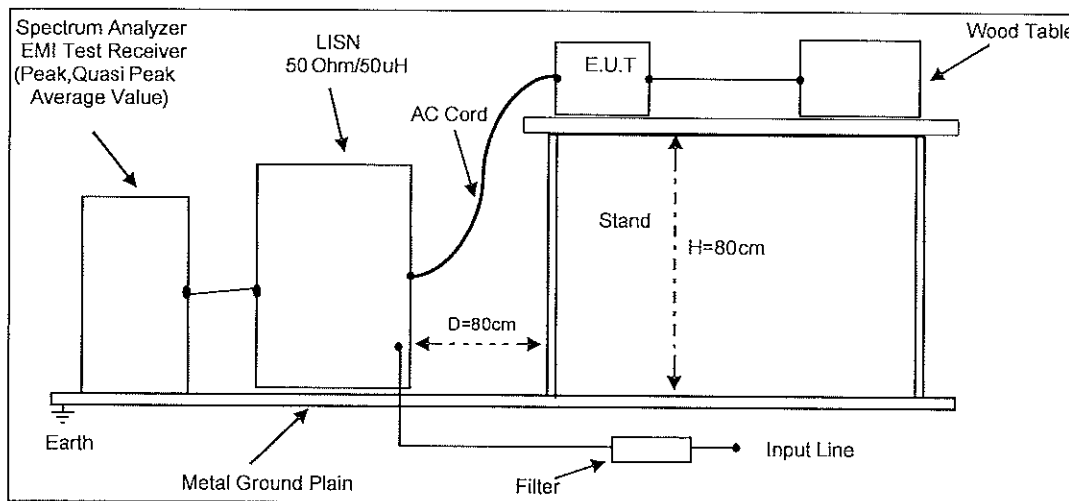
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The above data is typical value data.

The values are considered to be actual capability data.

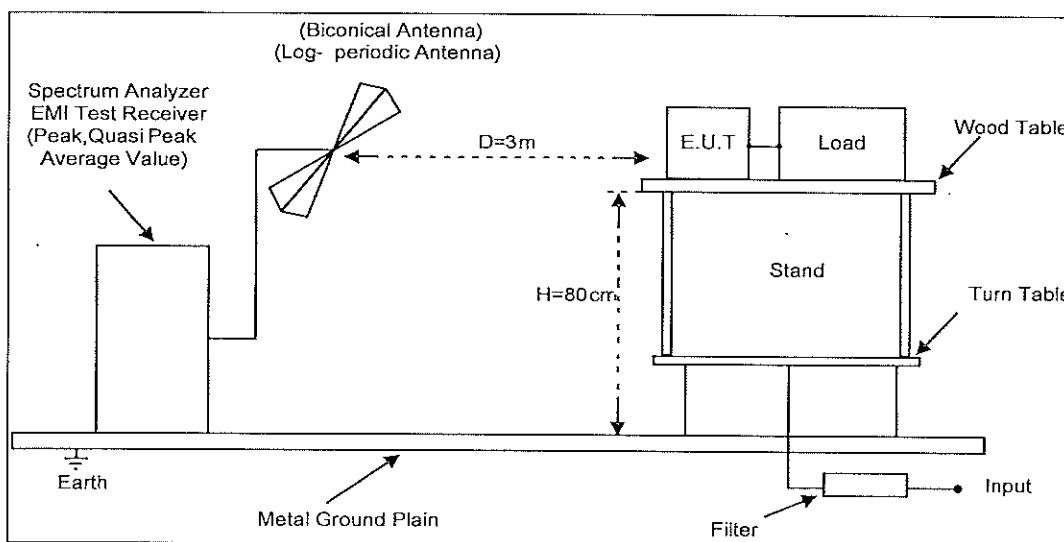
1. Test Method

(1) Conducted Emission



SPECTRUM ANALYZER	85674A	(HEWLETT PACKARD)
EMI TEST RECEIVER	ESPI	(ROHD & SCHWARZ)
LISN	ENV4200	(ROHD & SCHWARZ)

(2) Radiated Emission



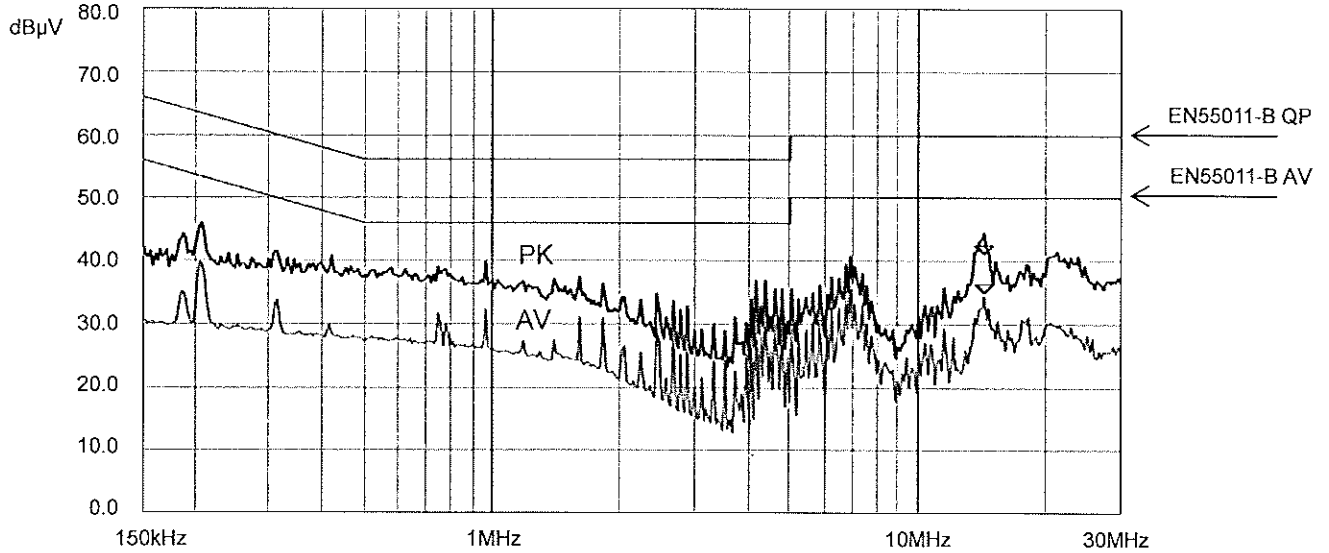
SPECTRUM ANALYZER	MS2601A	(ANRITZU)
EMI TEST RECEIVER	85462A	(HEWLETT PACKARD)
BICONICAL ANTENNA	3110BA30/200	(EMCO)
LOG-PERIODIC ANTENNA	LP200000	(ELECTROMETRIX)
	LPA2530	(ELECTROMETRIX)

2. Test Data

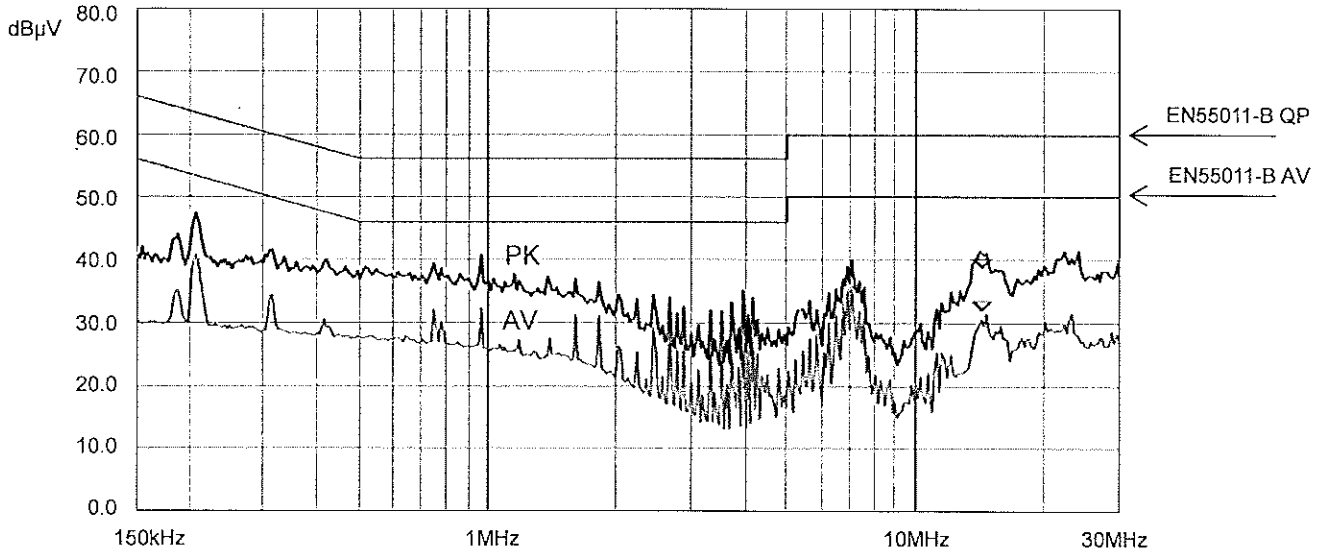
2.1 Conducted emission

Conditions: Vin = 115Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z10-72



PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
L	14.30	41.2	35.0	60.0	50.0	-18.8	-15.0
	14.42	40.5	31.7	60.0	50.0	-19.5	-18.4



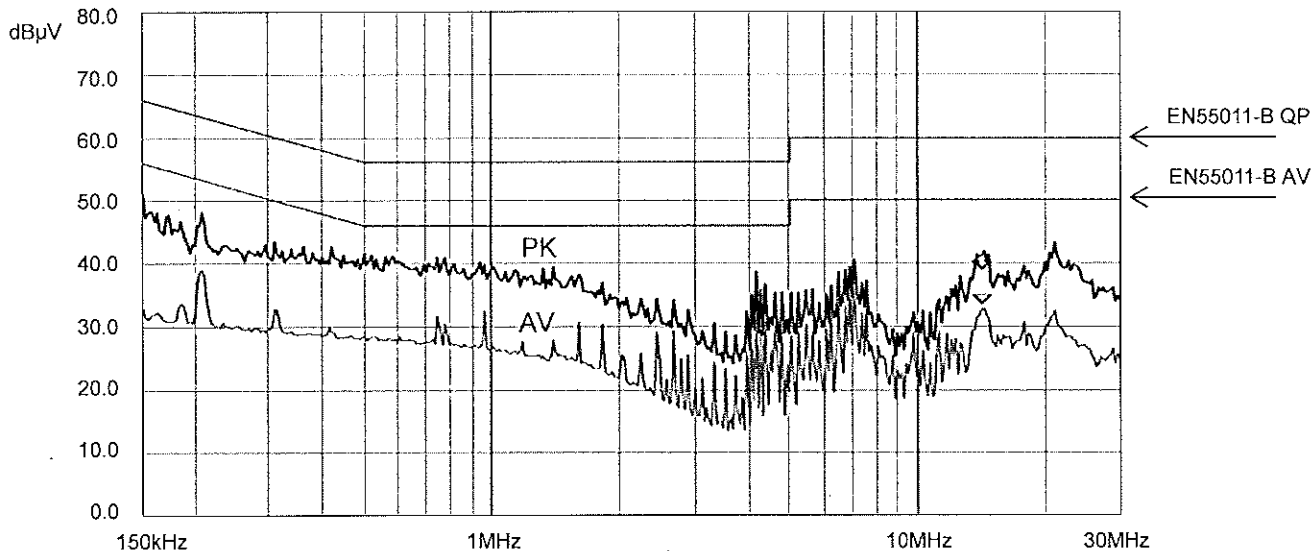
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	6.51	35.4	31.6	60.0	50.0	-24.6	-18.4
	14.30	38.8	32.0	60.0	50.0	-21.2	-18.0

Limit of EN550011-B, EN55022-B are the same

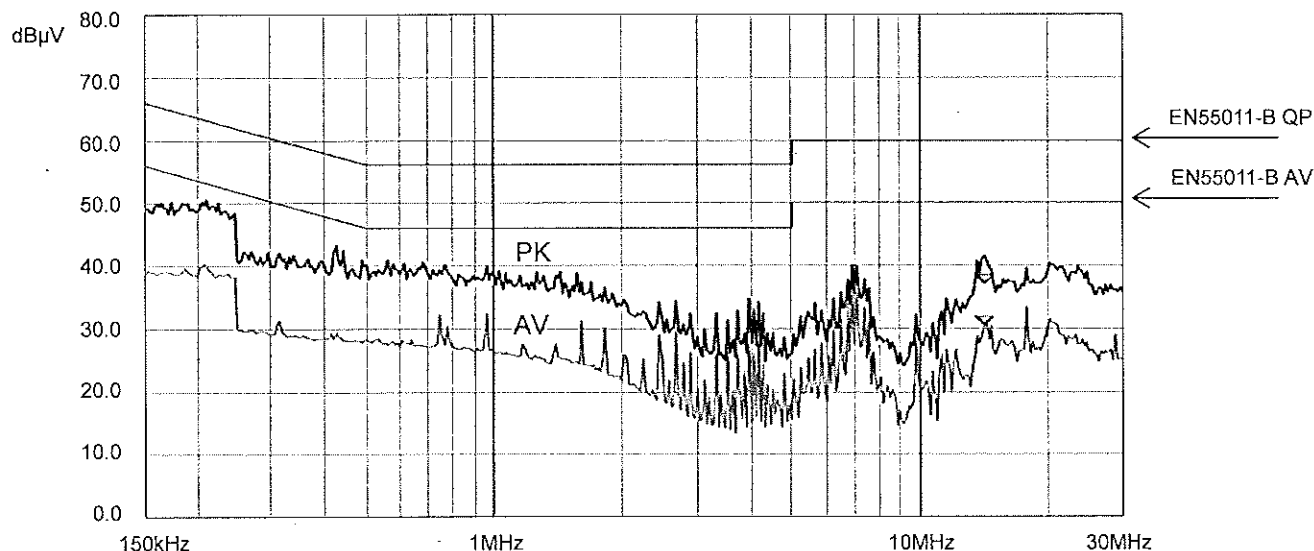
2.1 Conducted emission

Conditions: Vin = 230Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z10-72



PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
L	14.19	39.0	33.5	60.0	50.0	-21.0	-16.5
	21.12	40.6	32.0	60.0	50.0	-19.4	-18.0



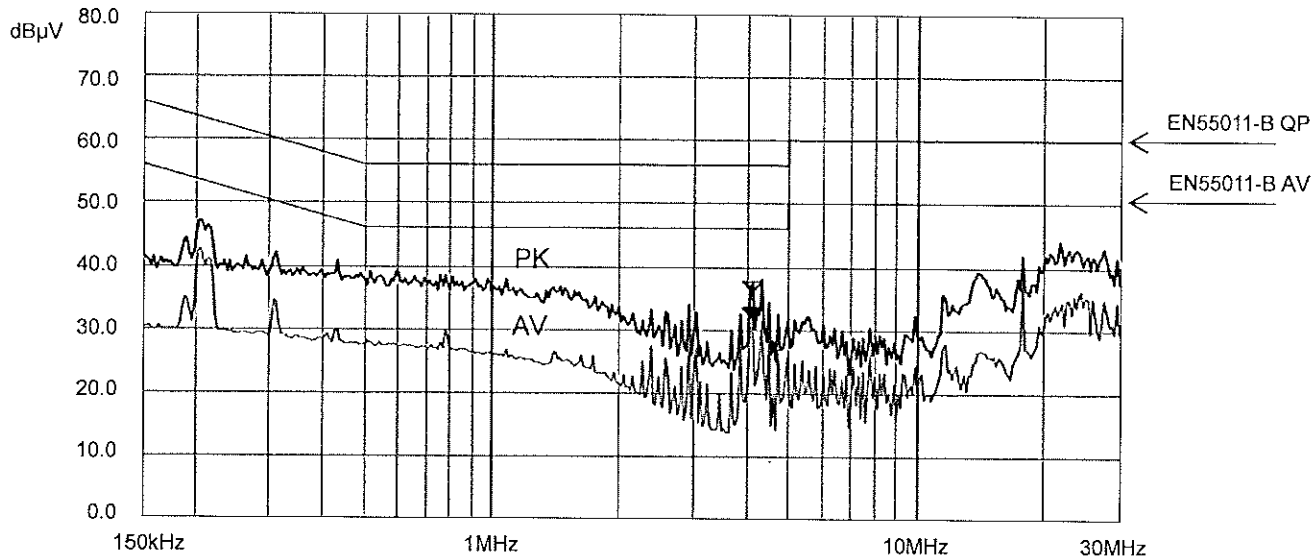
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	14.19	37.2	30.6	60.0	50.0	-22.9	-19.4
	20.28	40.4	31.5	60.0	50.0	-19.7	-18.5

Limit of EN550011-B, EN55022-B are the same

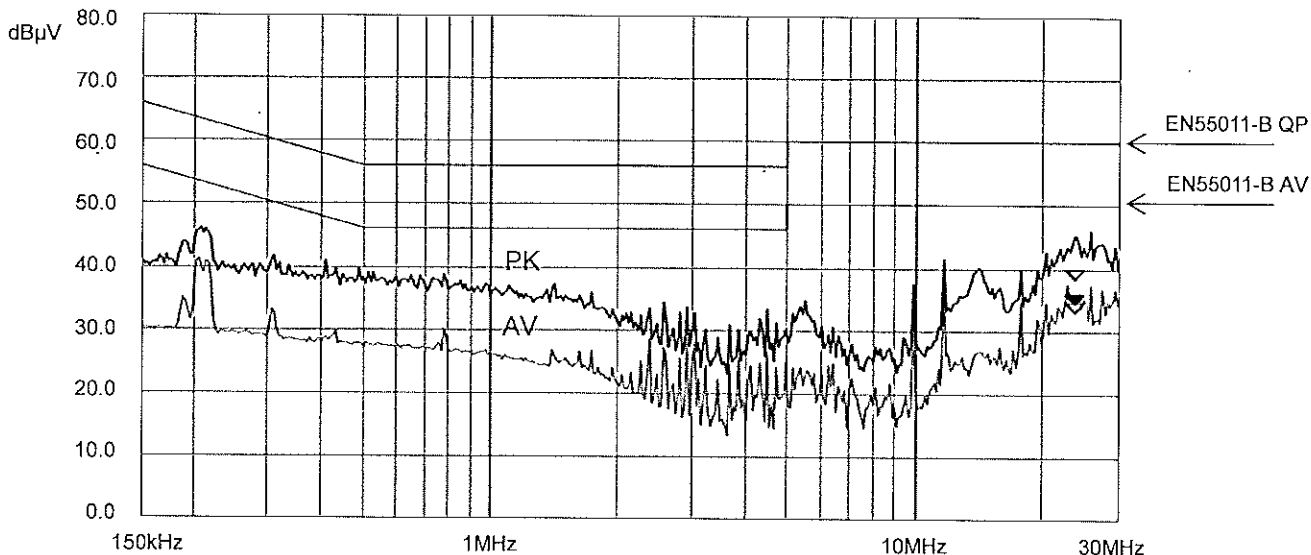
2.1 Conducted emission

Conditions: Vin = 115Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z36-24



PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
L	4.09	36.1	32.2	56.0	46.0	-19.9	-13.8
	22.05	41.3	33.9	60.0	50.0	-18.7	-16.1



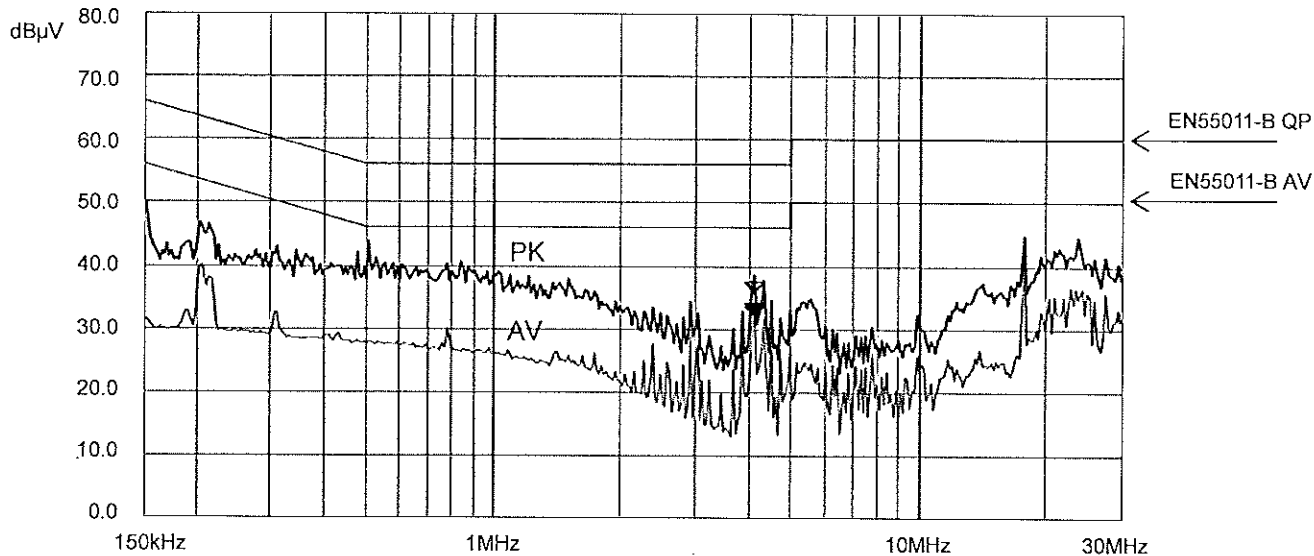
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	22.16	40.6	33.5	60.0	50.0	-19.4	-16.6
	23.77	38.4	33.1	60.0	50.0	-21.6	-16.9

Limit of EN550011-B, EN55022-B are the same

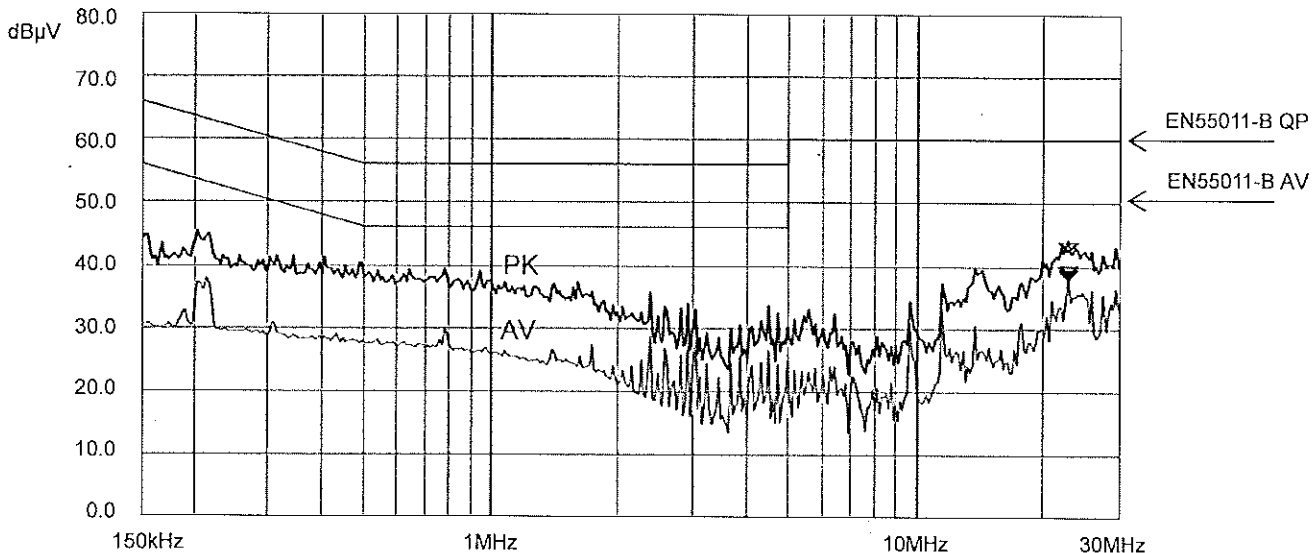
2.1 Conducted emission

Conditions: Vin = 230Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z36-24



PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
L	4.09	35.8	32.1	56.0	46.0	-20.2	-13.9
	23.98	41.7	33.1	60.0	50.0	-18.3	-16.9



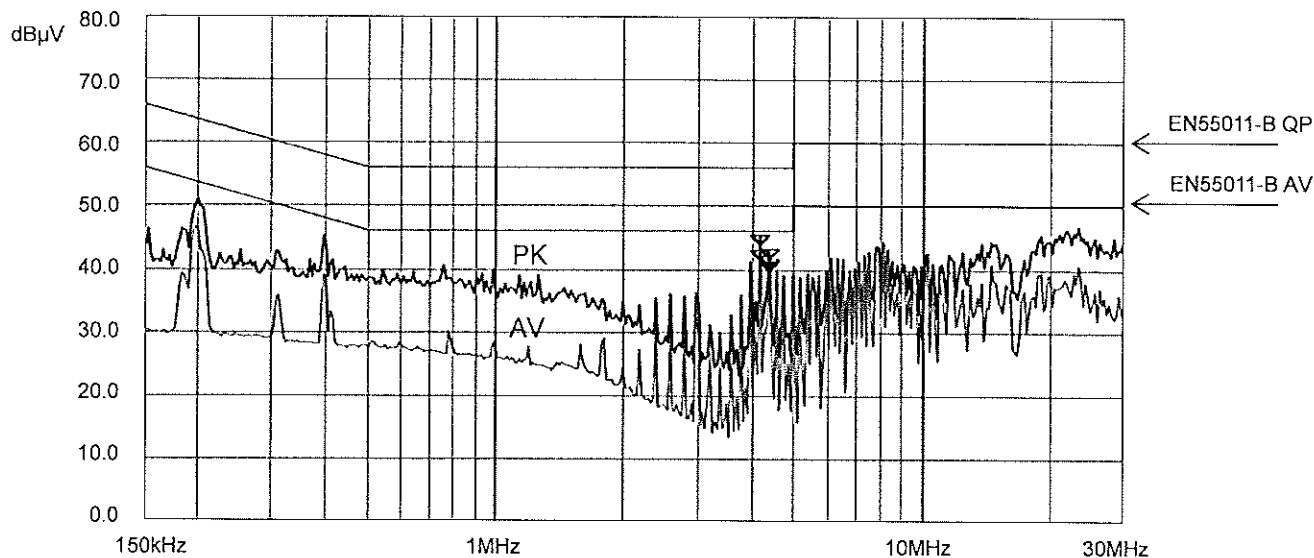
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	2.37	35.6	29.1	56.0	46.0	-20.4	-16.9
	23.02	42.4	38.6	60.0	50.0	-17.7	-11.4

Limit of EN550011-B, EN55022-B are the same

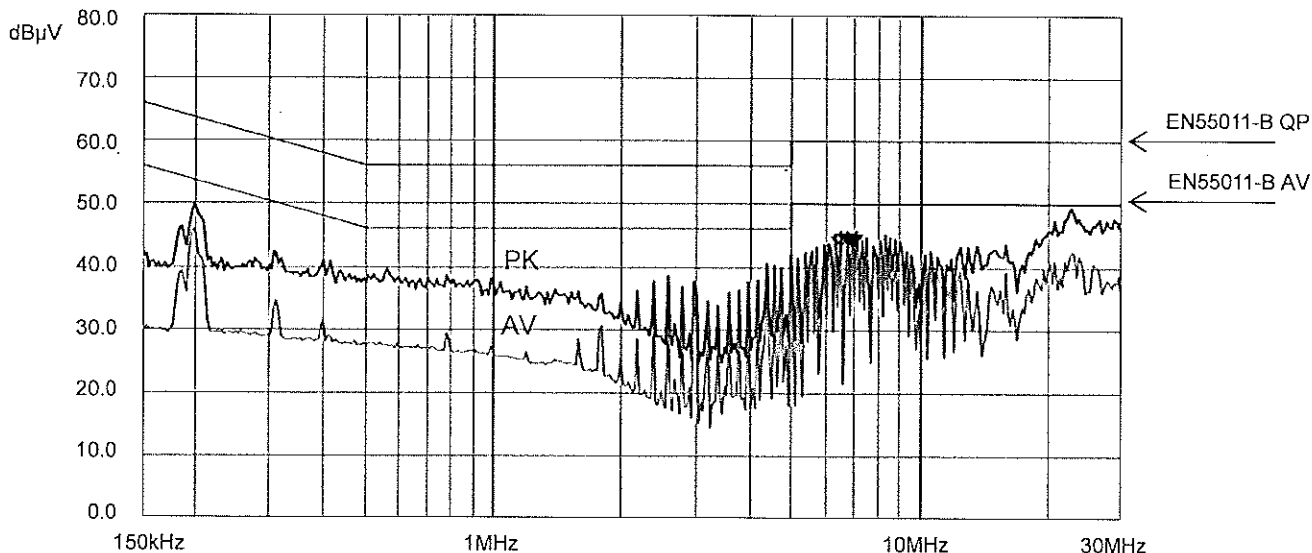
2.1 Conducted emission

Conditions: Vin = 115Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z100-8



PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
L	4.16	43.9	41.4	56.0	46.0	-12.2	-4.6
	4.36	41.6	40.1	56.0	46.0	-14.4	-5.9



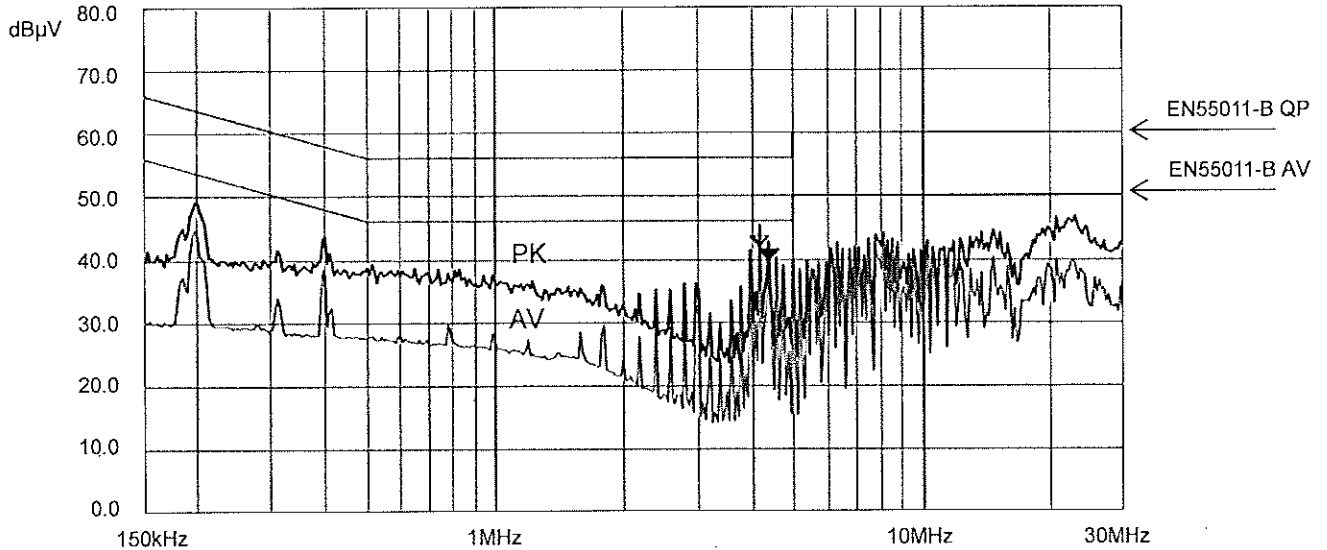
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	6.54	45.7	43.5	60.0	50.0	-14.3	-6.5
	6.94	45.4	43.6	60.0	50.0	-14.6	-6.4

Limit of EN550011-B, EN55022-B are the same

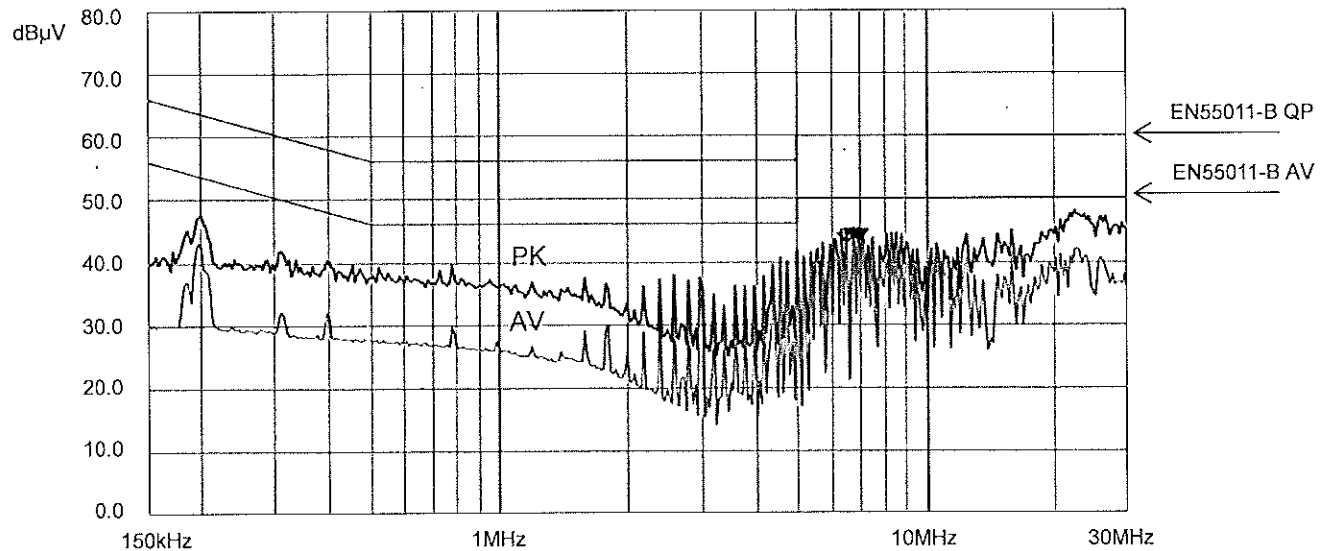
2.1 Conducted emission

Conditions: Vin = 230Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z100-8



PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
L	4.16	45.4	42.0	56.0	46.0	-10.6	-4.0
	4.36	42.9	39.9	56.0	46.0	-13.2	-6.1



PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	6.54	45.2	43.0	60.0	50.0	-14.8	-7.0
	6.94	45.4	43.6	60.0	50.0	-14.6	-6.4

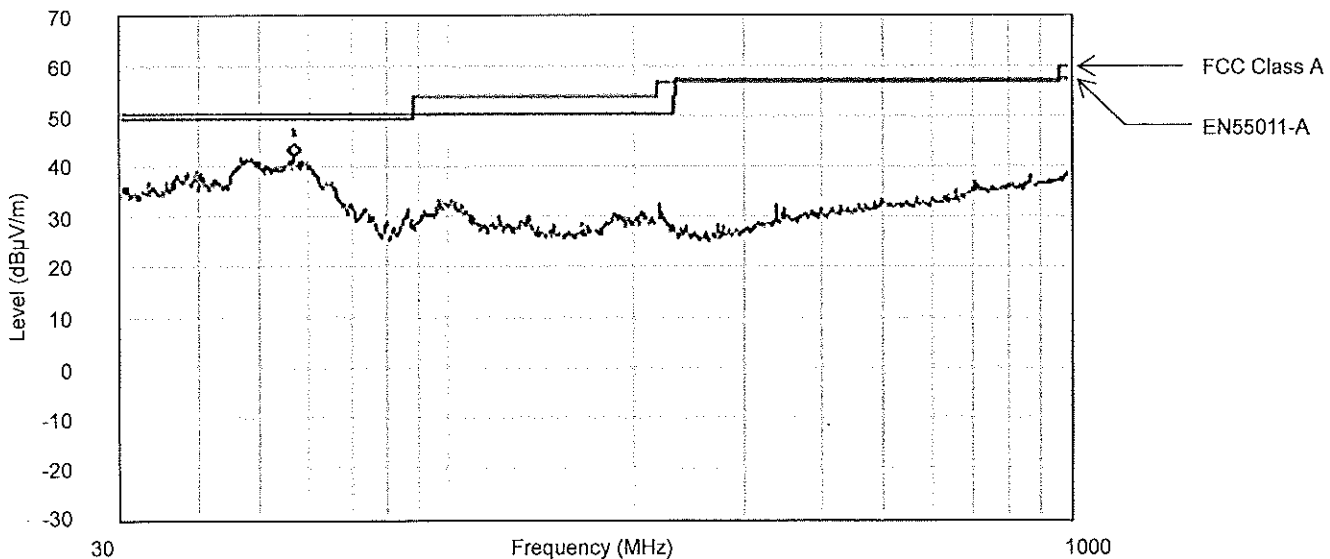
Limit of EN550011-B, EN55022-B are the same

2.2 Radiated emission

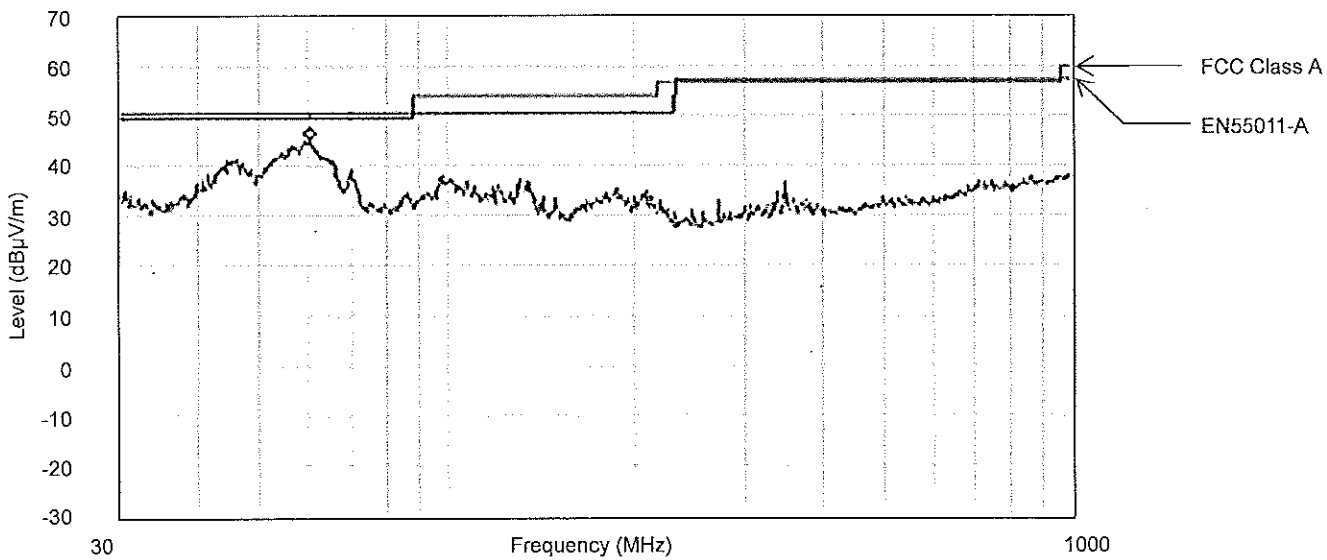
Conditions: Vin = 115Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z10-72

VERTICAL



HORIZONTAL



Freq. (MHz)	Peak Amp. (dBµV/m)	QP Amp. (dBµV/m)	Limit (dBµV/m)	QP Margin (dB)	Polariz.
56.7	41.9	39.3	49.5 (FCC)	-10.2	Vertical
56.7	41.9	39.3	50.5 (EN)	-11.2	Vertical
60.1	45.2	42.4	49.5 (FCC)	-7.1	Horizontal
60.1	45.2	42.4	50.5 (EN)	-8.1	Horizontal

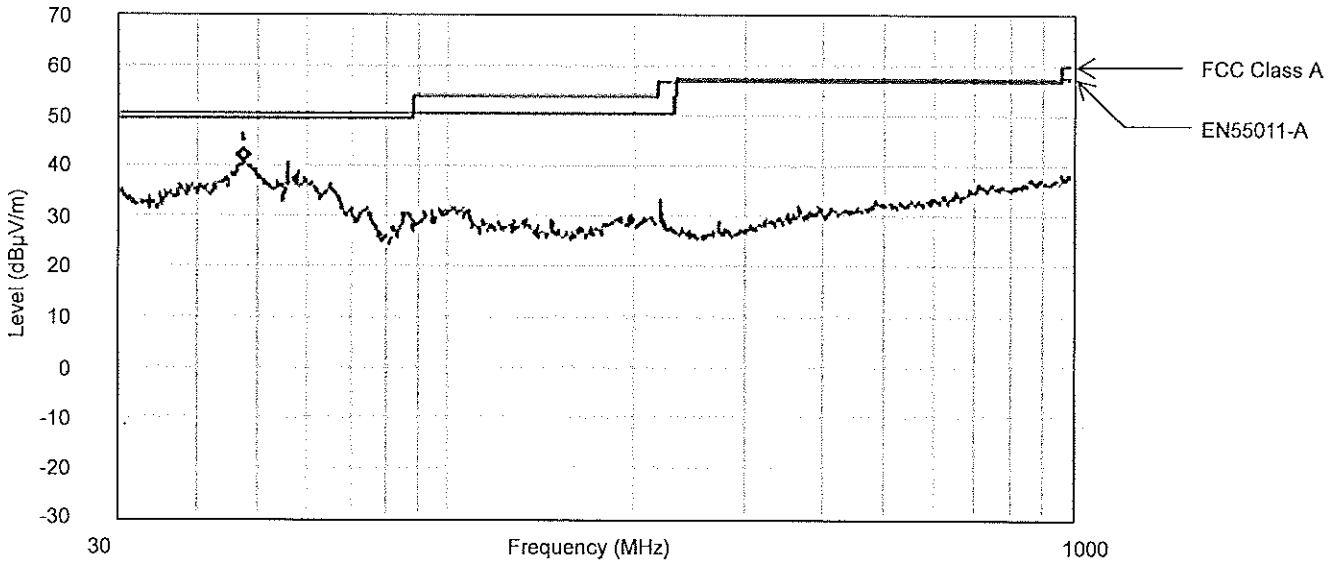
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

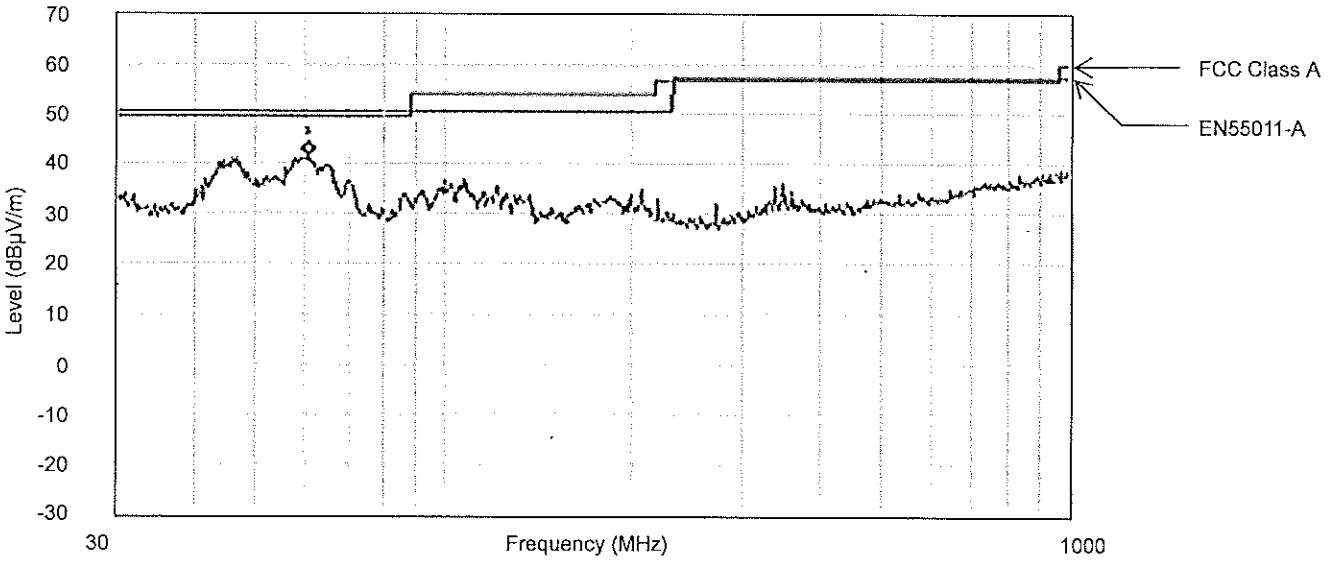
Conditions: Vin = 230Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z10-72

VERTICAL



HORIZONTAL



Freq. (MHz)	Peak Amp. (dBµV/m)	QP Amp. (dBµV/m)	Limit (dBµV/m)	QP Margin (dB)	Polariz.
47.3	40.9	38.3	49.5 (FCC)	-11.2	Vertical
47.3	40.9	38.3	50.5 (EN)	-12.2	Vertical
60.6	41.7	39.1	49.5 (FCC)	-10.4	Horizontal
60.6	41.7	39.1	50.5 (EN)	-11.4	Horizontal

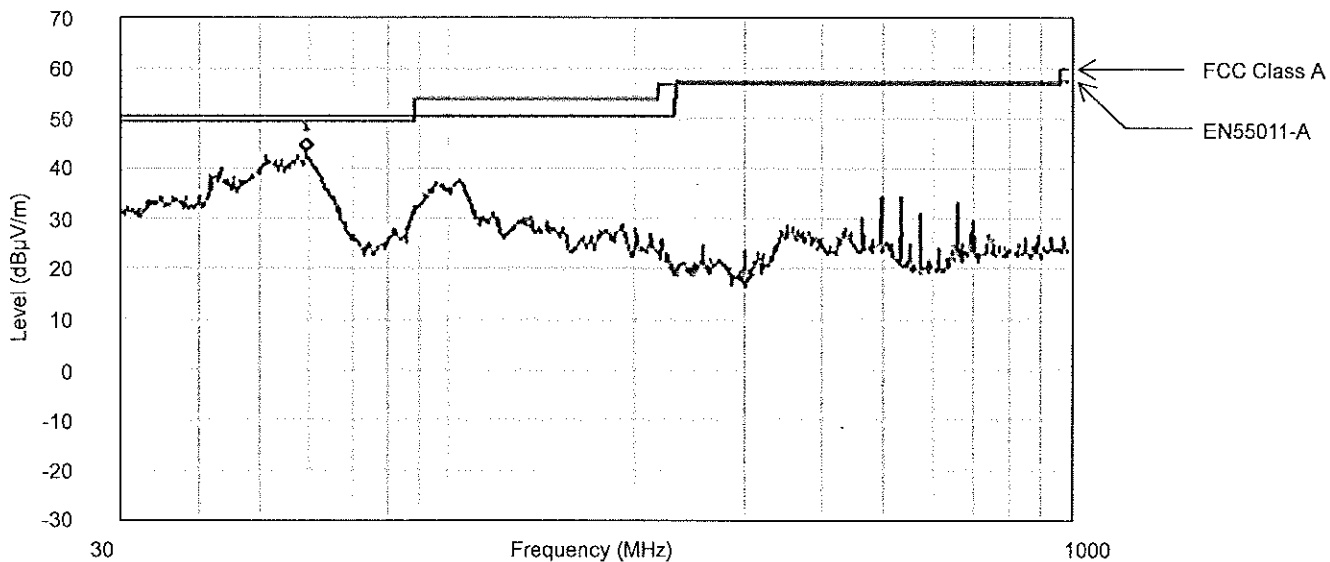
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

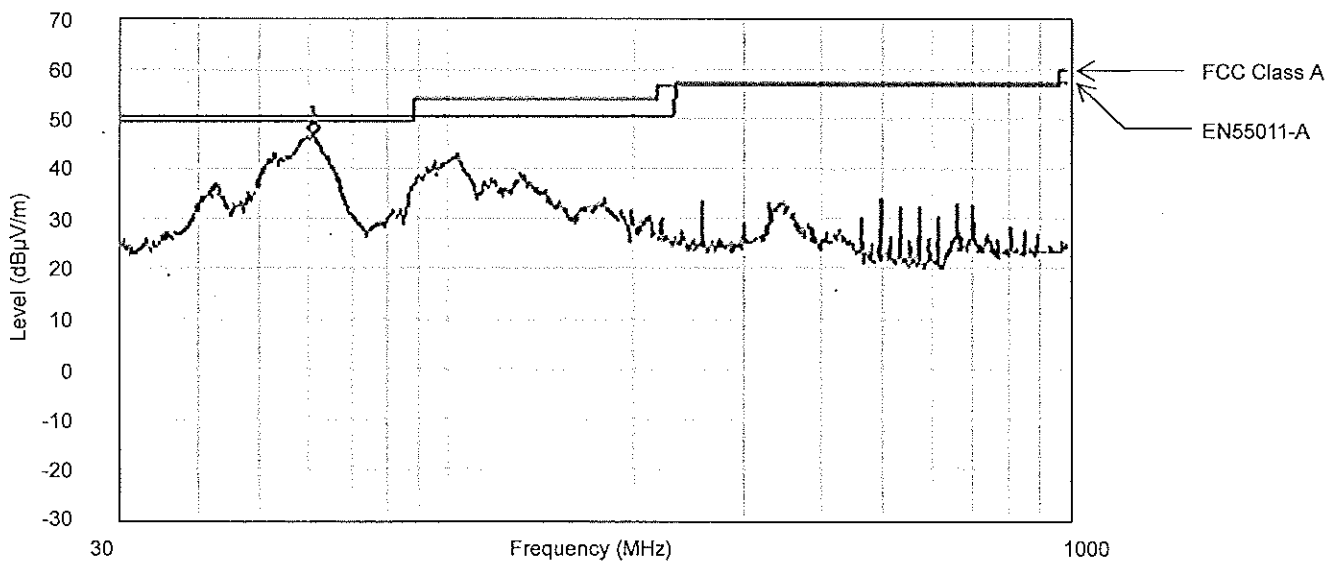
Conditions: Vin = 115Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z36-24

VERTICAL



HORIZONTAL



Freq. (MHz)	Peak Amp. (dBµV/m)	QP Amp. (dBµV/m)	Limit (dBµV/m)	QP Margin (dB)	Polariz.
59.2	43.3	40.6	49.5 (FCC)	-8.9	Vertical
59.2	43.3	40.6	50.5 (EN)	-9.9	Vertical
60.8	46.9	44.0	49.5 (FCC)	-5.5	Horizontal
60.8	46.9	44.0	50.5 (EN)	-6.5	Horizontal

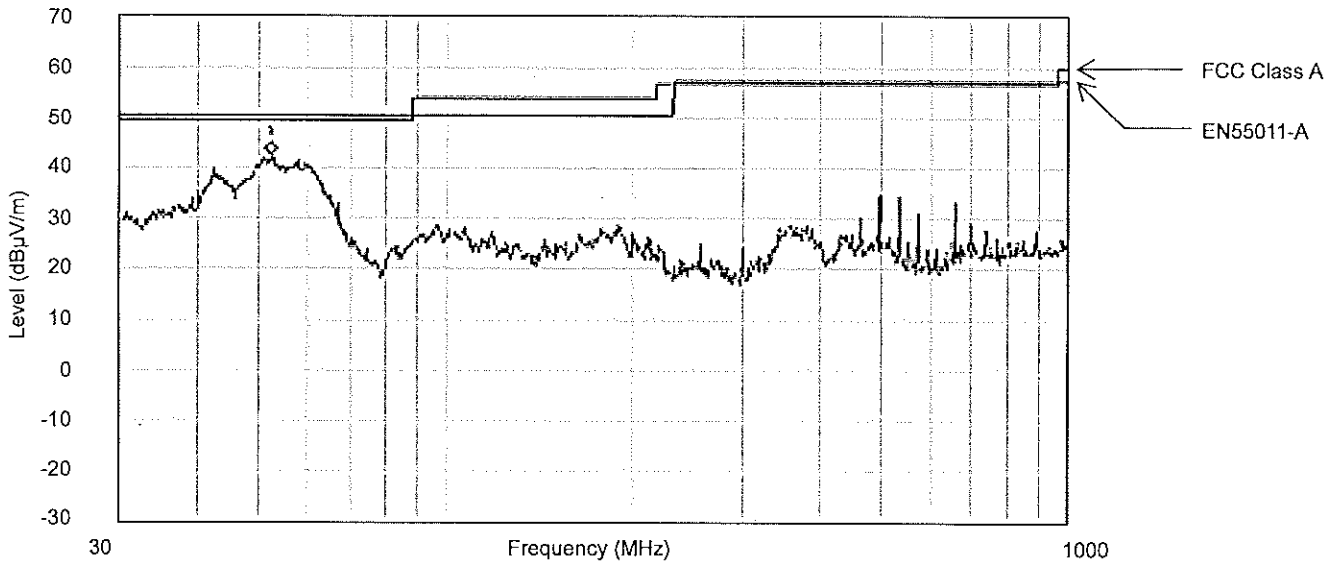
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

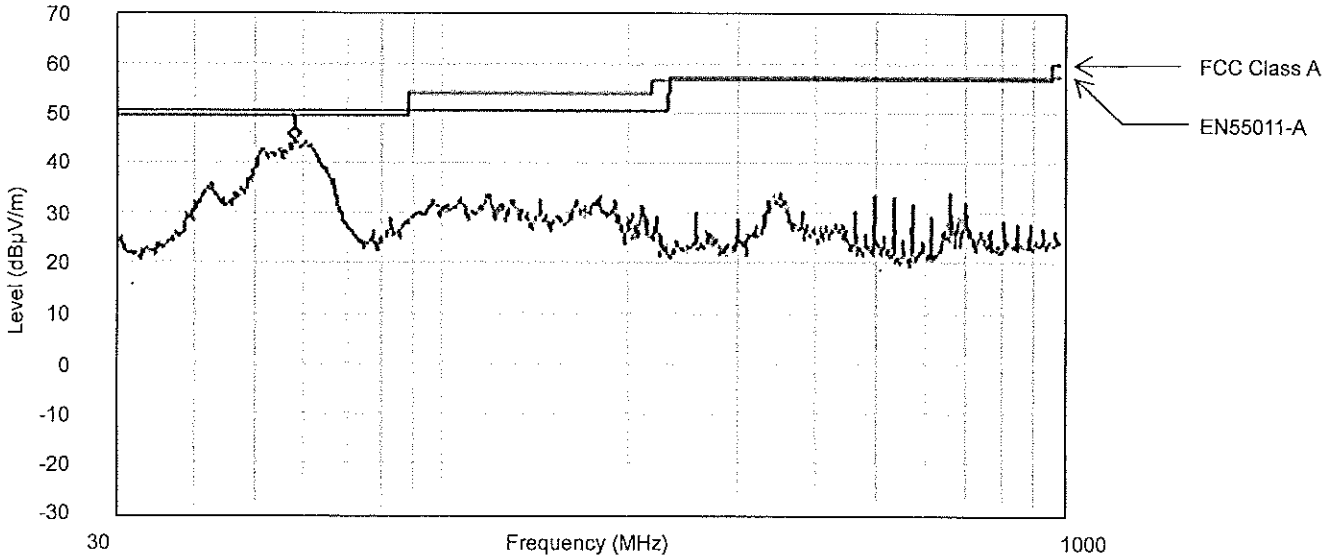
Conditions: Vin = 230Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z36-24

VERTICAL



HORIZONTAL



Freq. (MHz)	Peak Amp. (dBµV/m)	QP Amp. (dBµV/m)	Limit (dBµV/m)	QP Margin (dB)	Polariz.
52.3	42.6	39.9	49.5 (FCC)	-9.6	Vertical
52.3	42.6	39.9	50.5 (EN)	-10.6	Vertical
57.6	44.5	41.7	49.5 (FCC)	-7.8	Horizontal
57.6	44.5	41.7	50.5 (EN)	-8.8	Horizontal

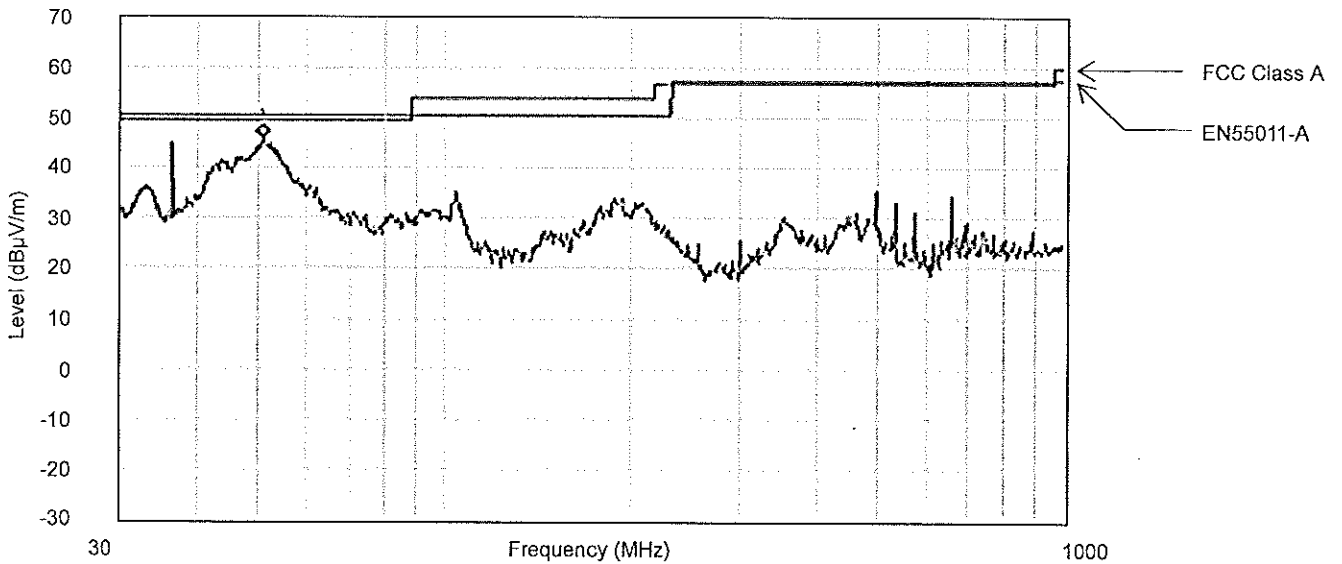
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

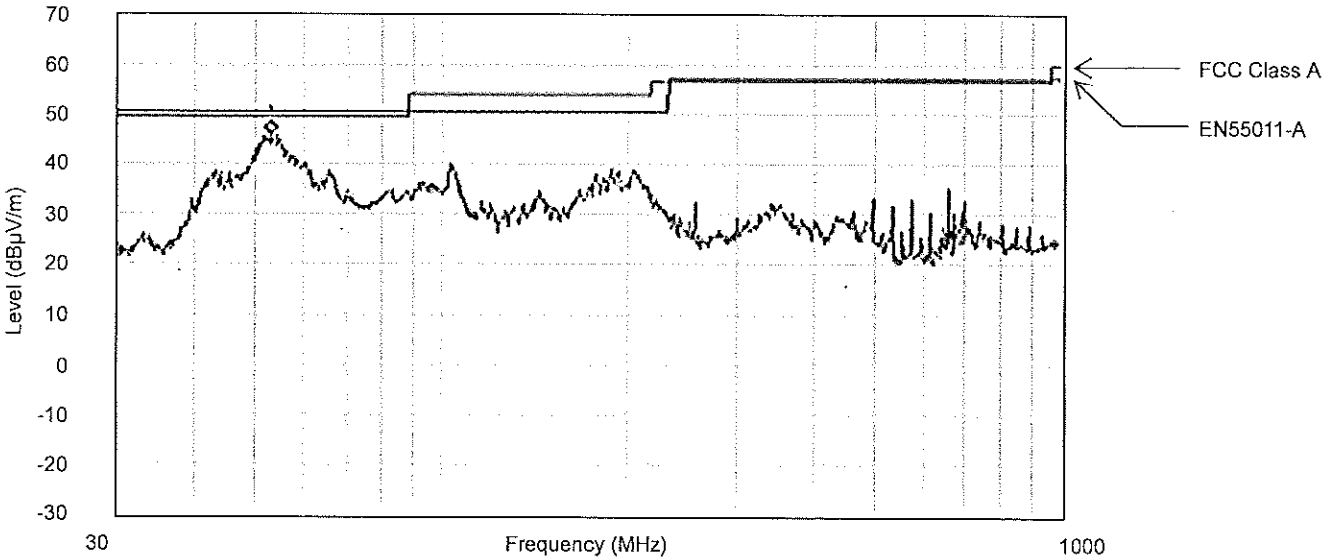
Conditions: Vin = 115Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z100-8

VERTICAL



HORIZONTAL



Freq. (MHz)	Peak Amp. (dBµV/m)	QP Amp. (dBµV/m)	Limit (dBµV/m)	QP Margin (dB)	Polariz.
50.7	46.0	43.2	49.5 (FCC)	-6.3	Vertical
50.7	46.0	43.2	50.5 (EN)	-7.3	Vertical
52.7	45.9	43.0	49.5 (FCC)	-6.5	Horizontal
52.7	45.9	43.0	50.5 (EN)	-7.5	Horizontal

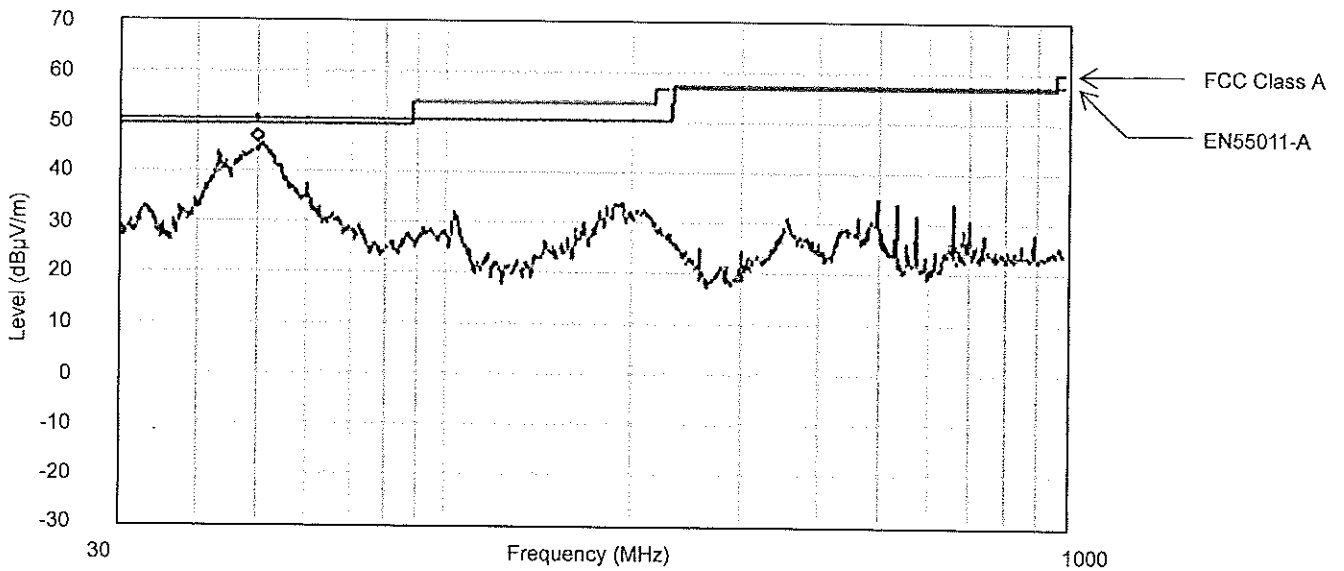
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

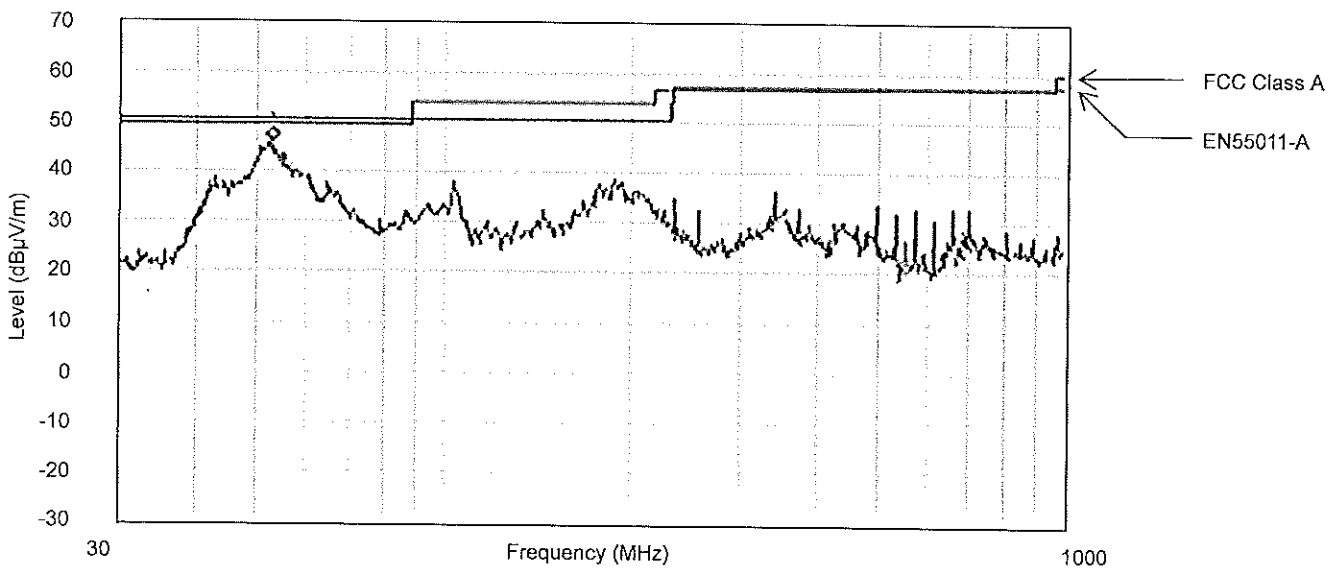
Conditions: Vin = 230Vac
 Vout = 100%
 Iout = 100%
 Ta = 25°C

Z100-8

VERTICAL



HORIZONTAL



Freq. (MHz)	Peak Amp. (dBµV/m)	QP Amp. (dBµV/m)	Limit (dBµV/m)	QP Margin (dB)	Polariz.
49.8	45.7	42.9	49.5 (FCC)	-6.6	Vertical
49.8	45.7	42.9	50.5 (EN)	-7.6	Vertical
52.9	46.1	43.2	49.5 (FCC)	-6.3	Horizontal
52.9	46.1	43.2	50.5 (EN)	-7.3	Horizontal

Limit of EN550011-A, EN55022-A are the same