


# Z<sup>+</sup>800 Series

*EMI*

*DATA*

DWG No.: IA702-58-02		
APPD	CHK	DWG
 13/7/13	<i>Yanni</i> 10/03/13	<i>D. MIRON</i> Feb-28-2013

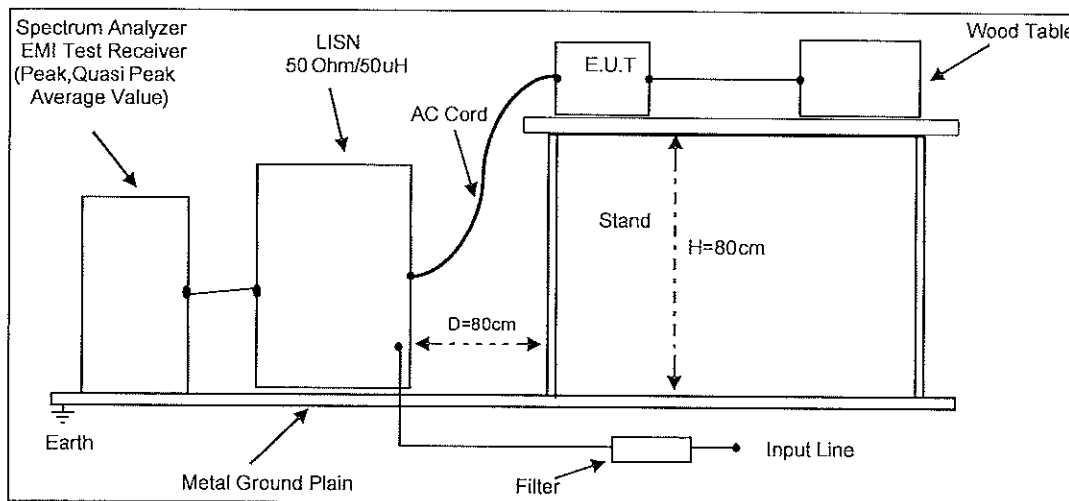
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The above data is typical value data.

The values are considered to be actual capability data.

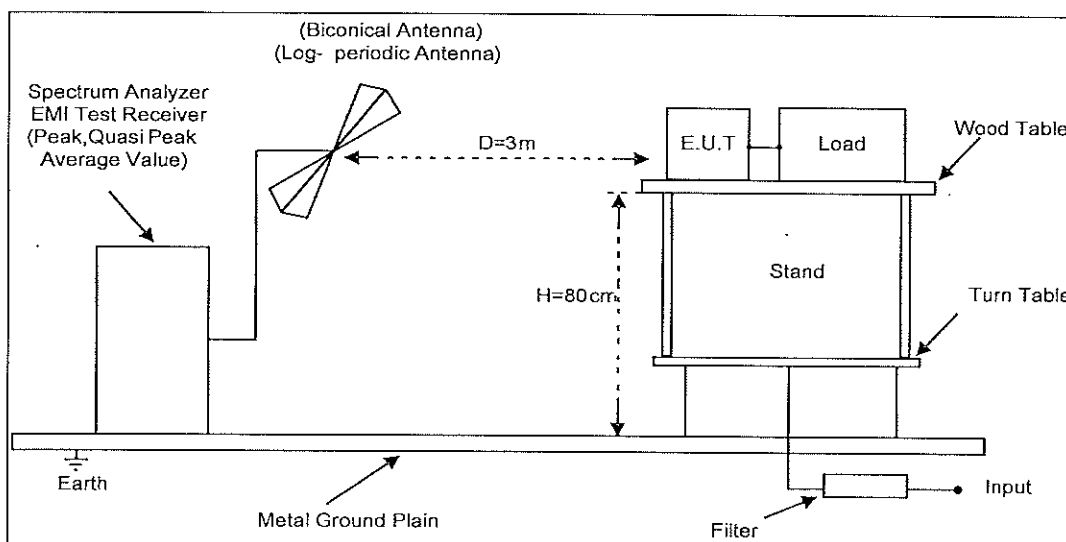
# 1. Test Method

## (1) Conducted Emission



SPECTRUM ANALYZER	85674A	(HEWLLET PACKARD)
EMI TEST RECIEVER	ESPI	(ROHD & SCHWARZ)
LISN	ENV4200	(ROHD & SCHWARZ)

## (2) Radiated Emission



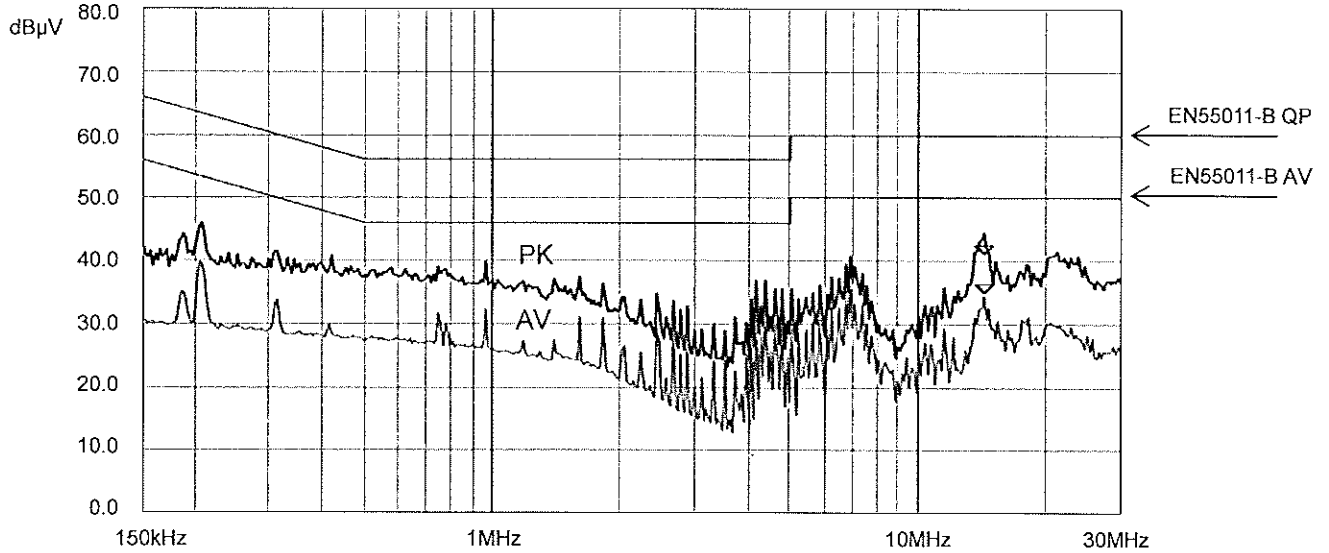
SPECTRUM ANALYZER	MS2601A	(ANRITZU)
EMI TEST RECIEVER	85462A	(HEWLLET PACKARD)
BICONICAL ANTENNA	3110BA30/200	(EMCO)
LOG-PERIODIC ANTENNA	LP200000	(ELECTROMETRIX)
	LPA2530	(ELECTROMETRIX)

2. Test Data

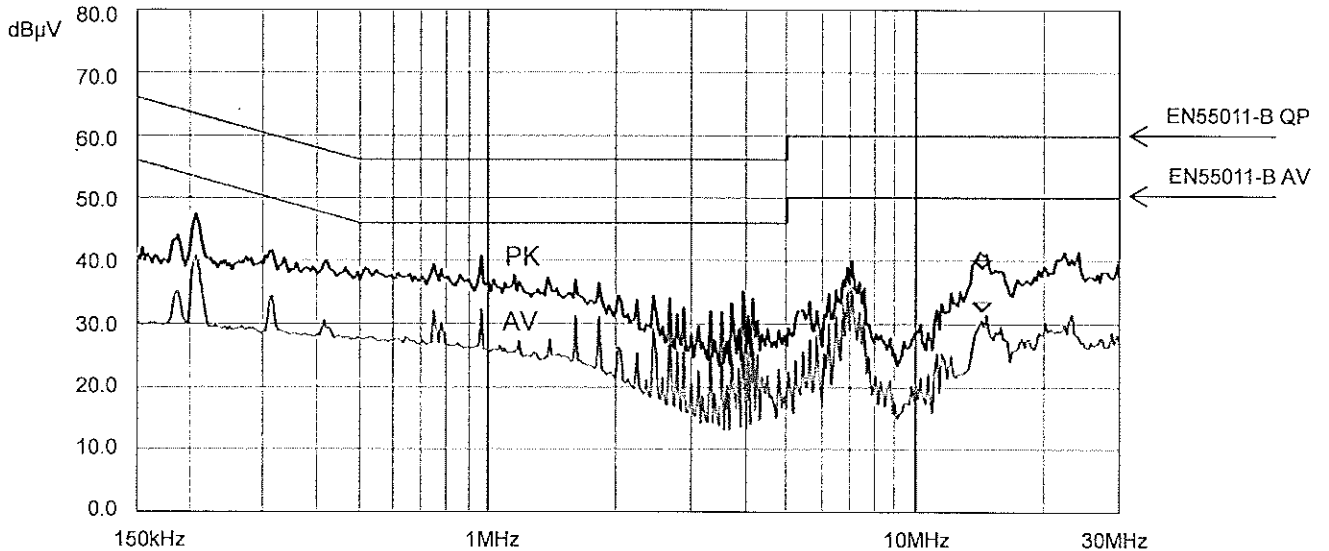
2.1 Conducted emission

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



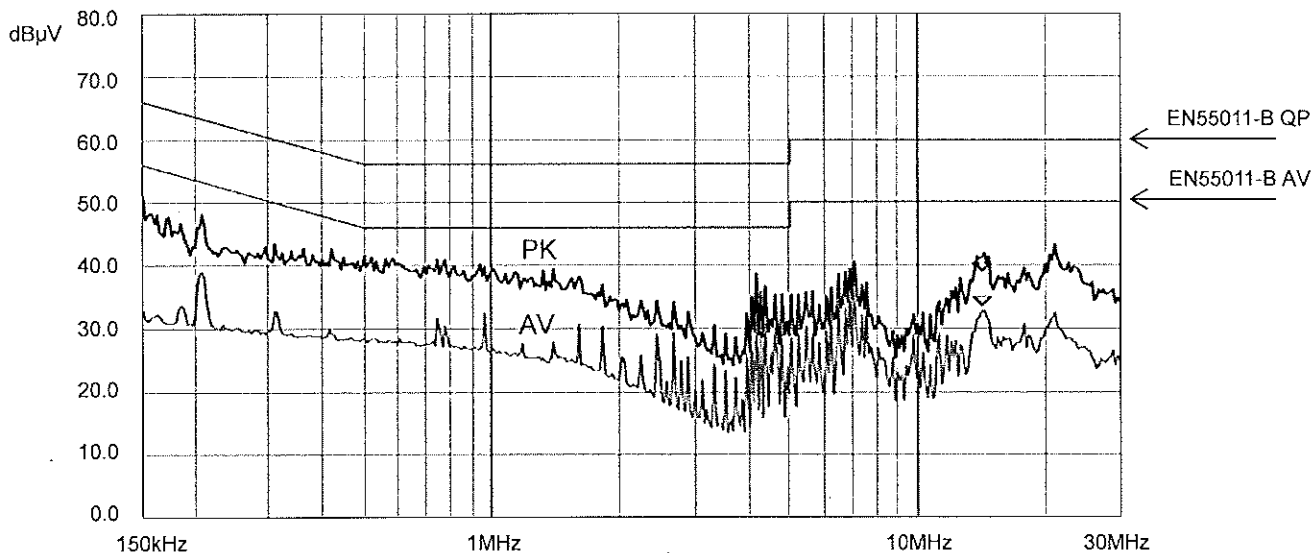
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	6.51	35.4	31.6	60.0	50.0	-24.6	-18.4
	14.30	38.8	32.0	60.0	50.0	-21.2	-18.0

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

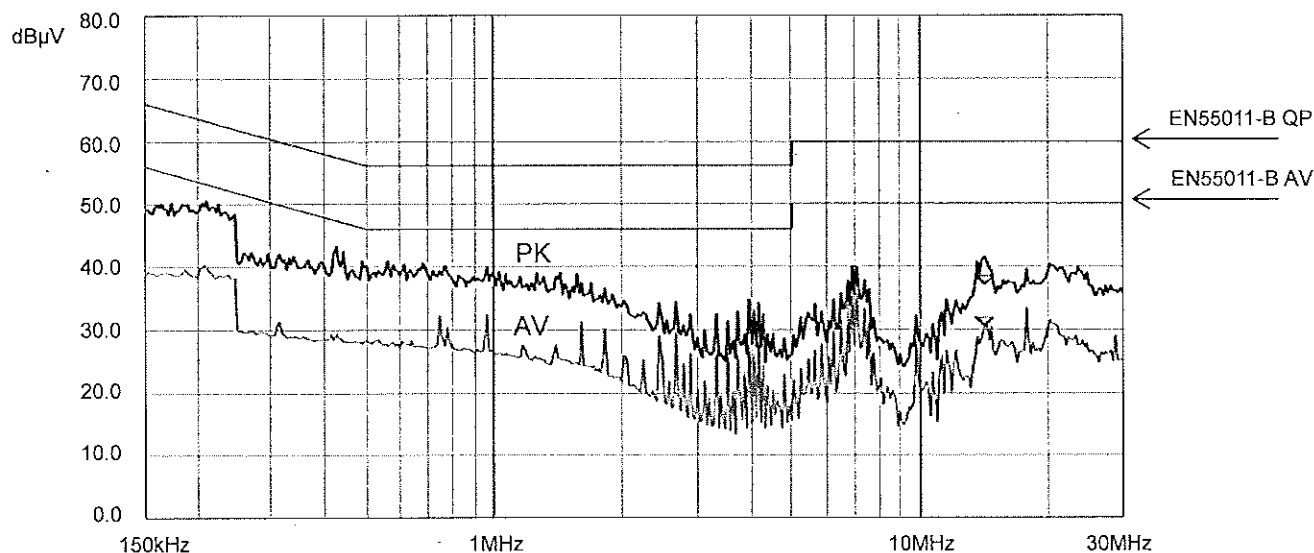
2.1 Conducted emission

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



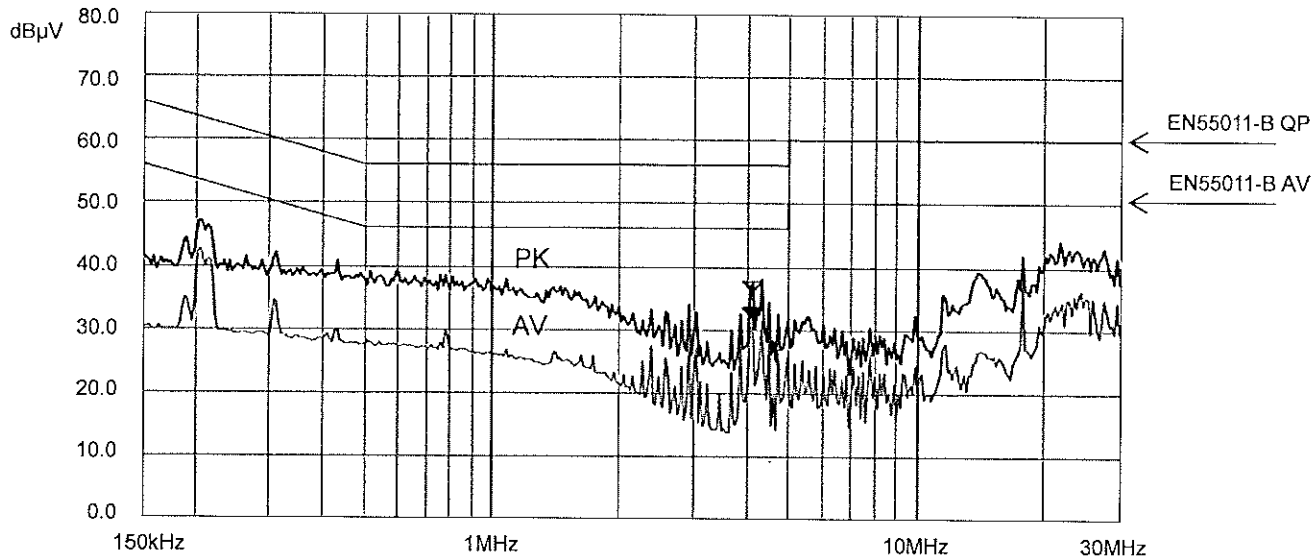
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	14.19	37.2	30.6	60.0	50.0	-22.9	-19.4
	20.28	40.4	31.5	60.0	50.0	-19.7	-18.5

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

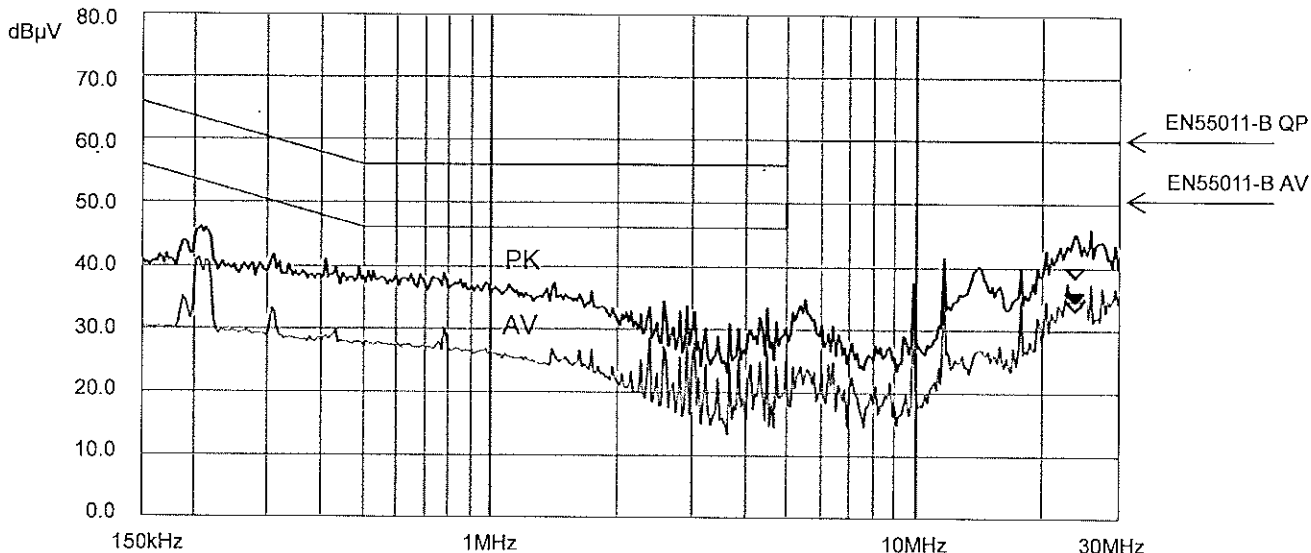
2.1 Conducted emission

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



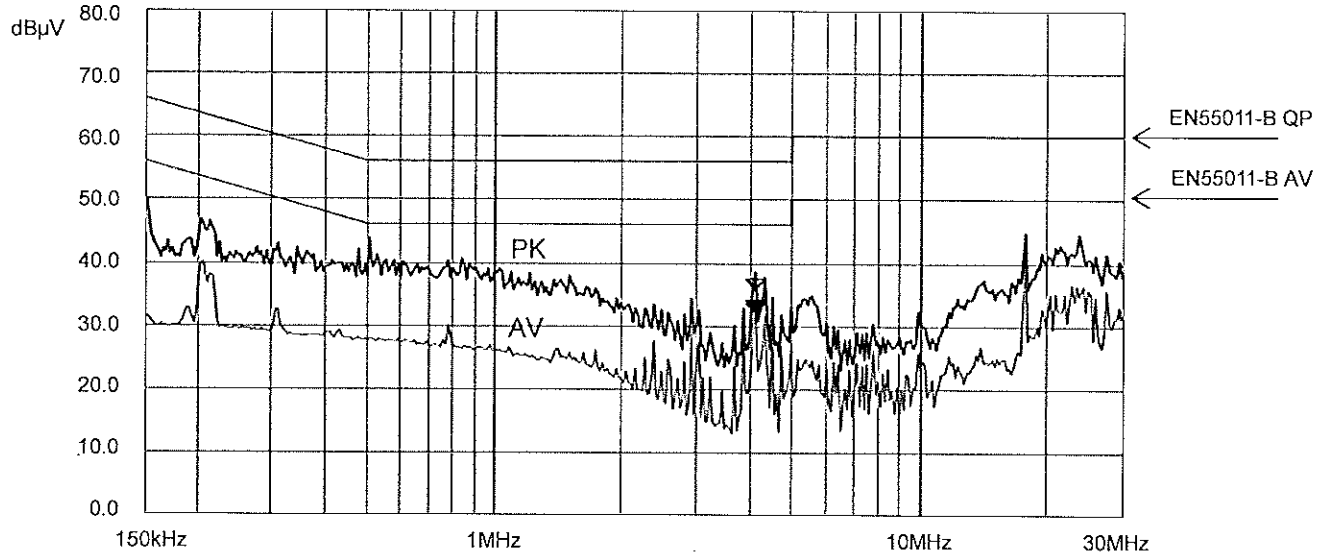
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	22.16	40.6	33.5	60.0	50.0	-19.4	-16.6
	23.77	38.4	33.1	60.0	50.0	-21.6	-16.9

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

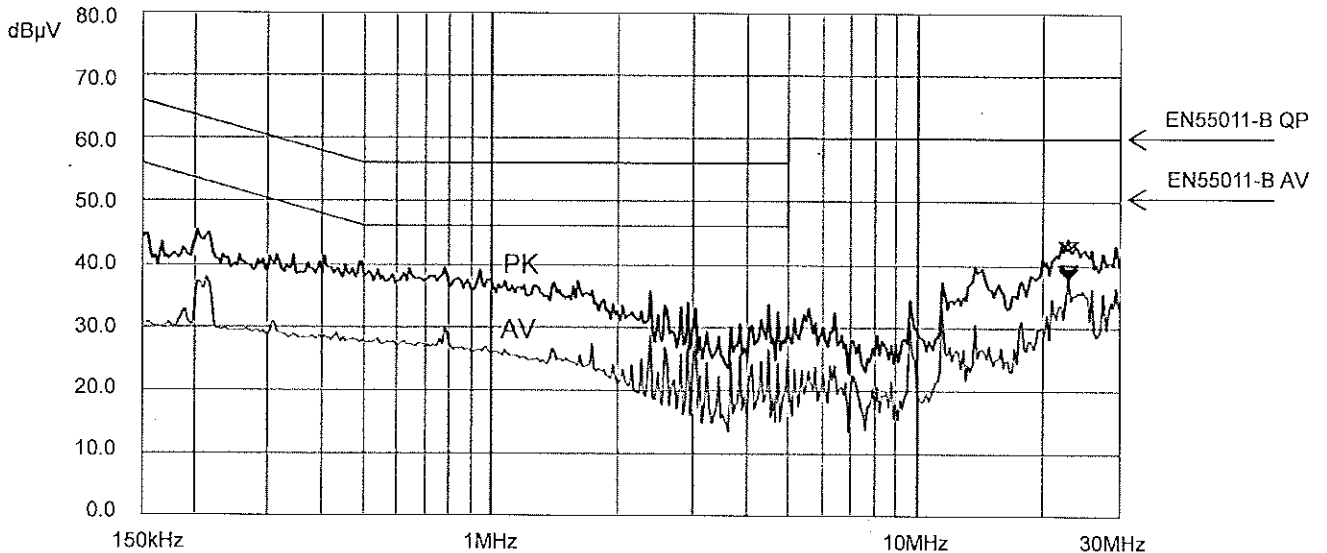
2.1 Conducted emission

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



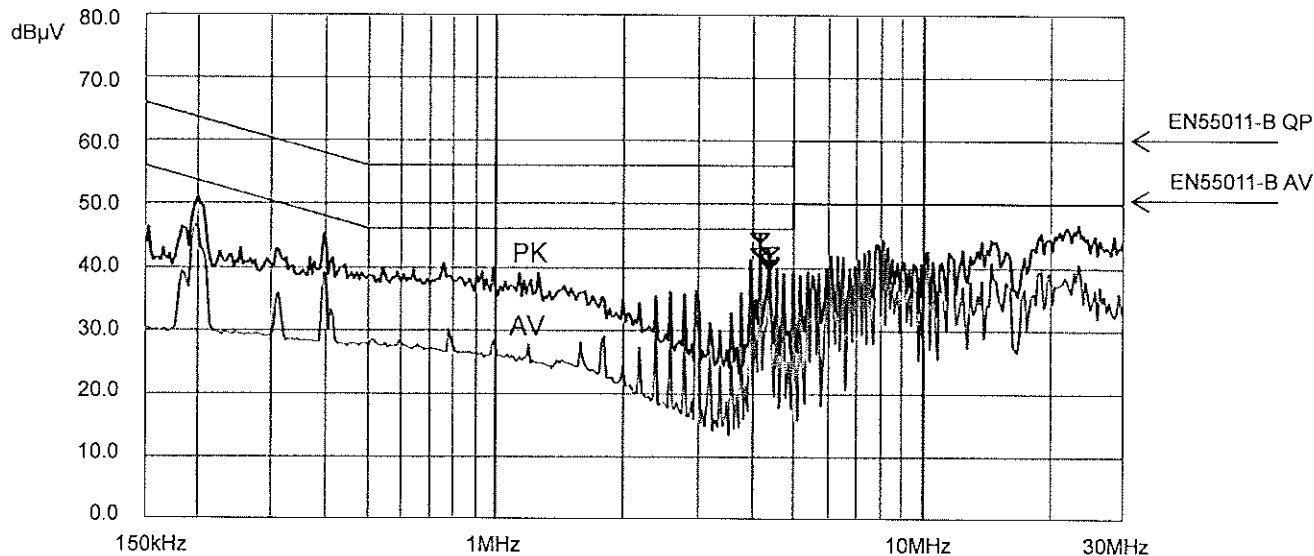
PHASE	FREQ MHz	RESULT		LIMIT		MARGIN	
		QP dBµV	AV dBµV	QP dBµV	AV dBµV	QP dBµV	AV dBµV
N	2.37	35.6	29.1	56.0	46.0	-20.4	-16.9
	23.02	42.4	38.6	60.0	50.0	-17.7	-11.4

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

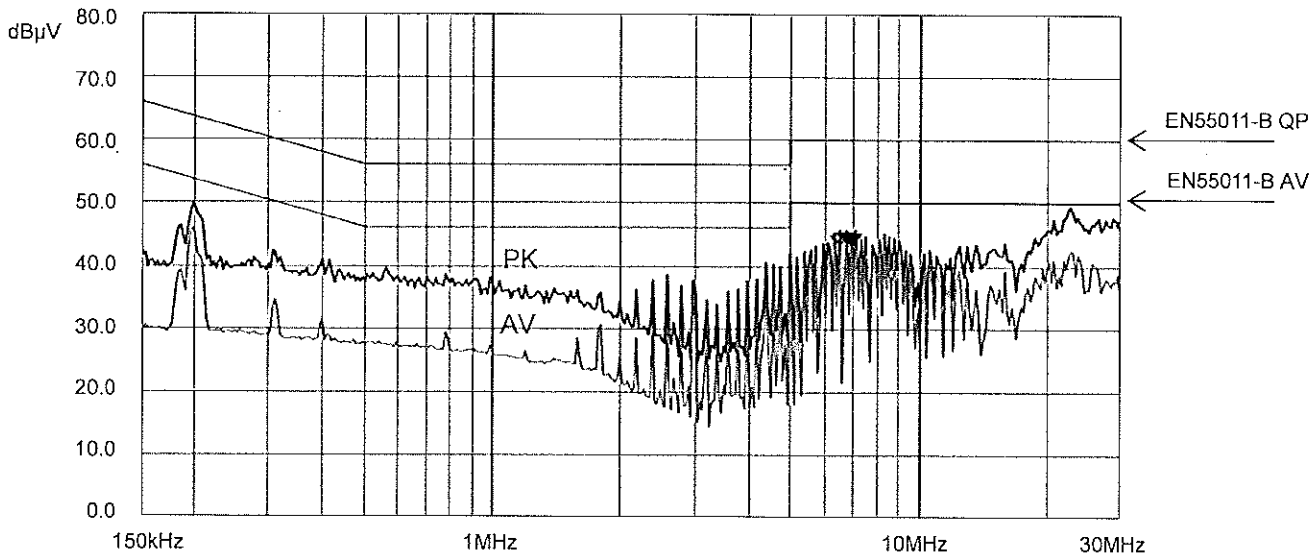
2.1 Conducted emission

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

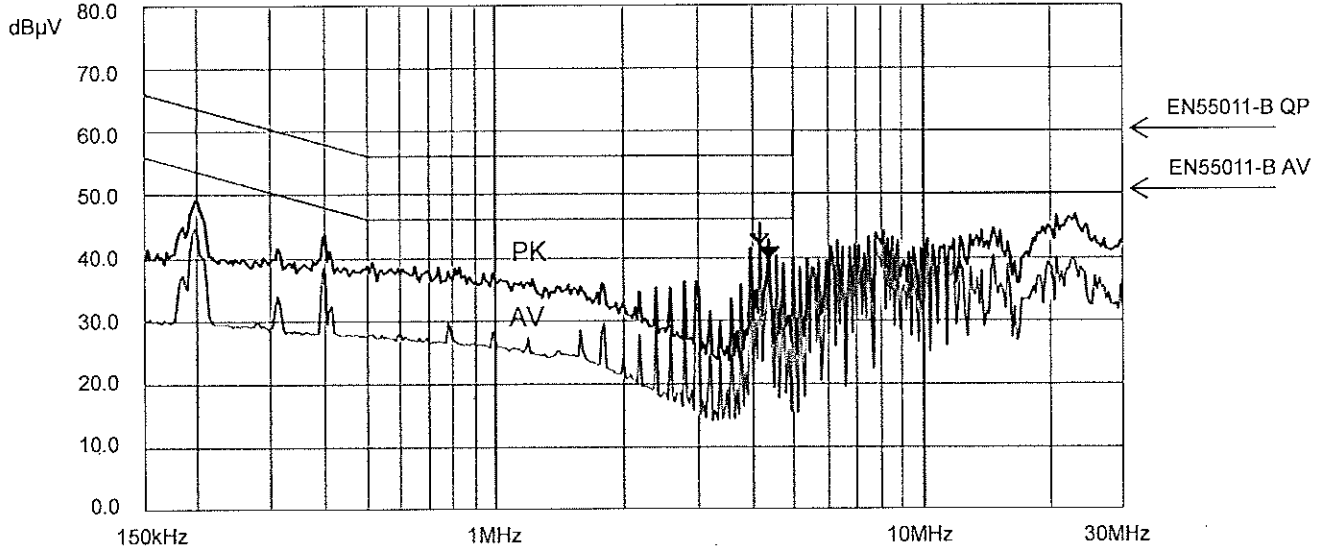
Limit of EN550011-B, EN55022-B are the same



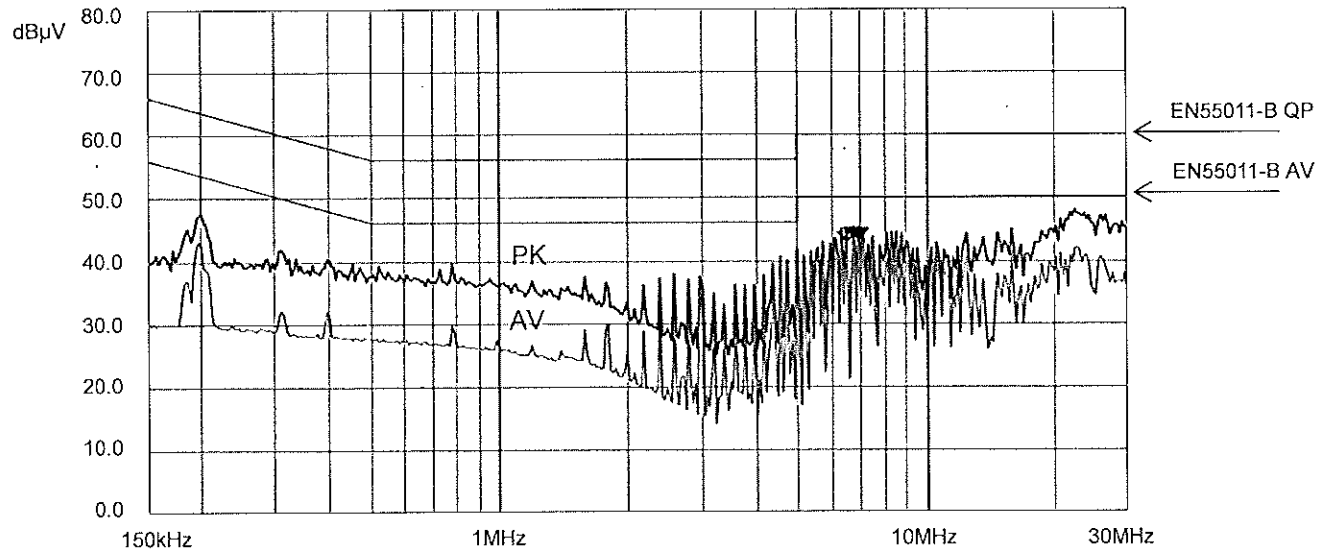
2.1 Conducted emission

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

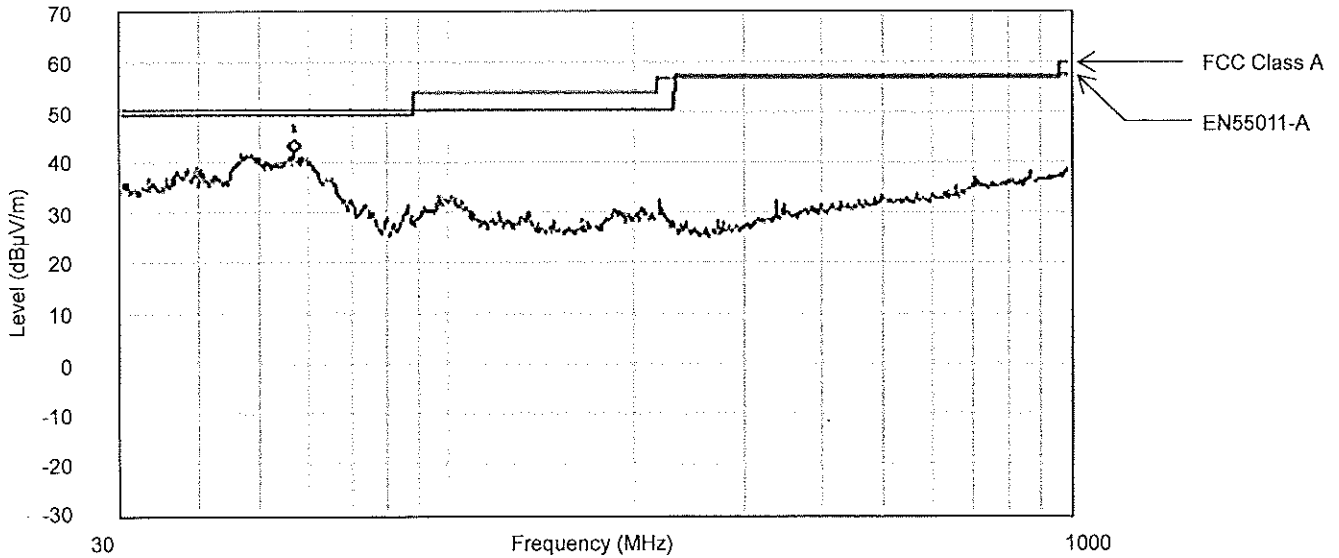
Limit of EN550011-B, EN55022-B are the same

2.2 Radiated emission

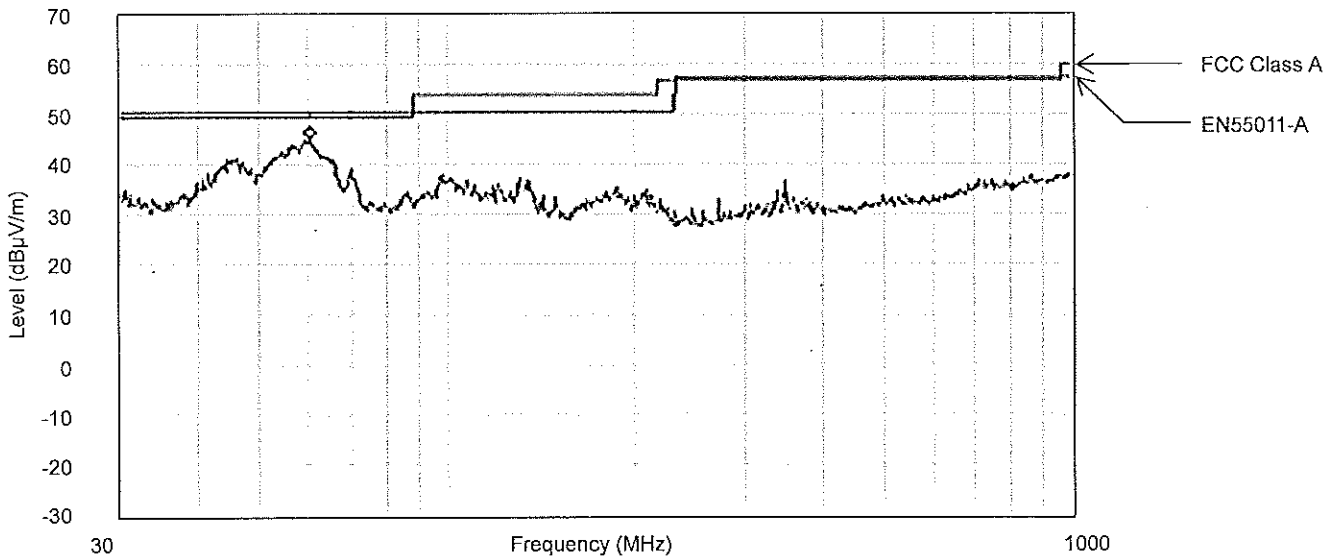
Conditions: Vin = 115Vac  
 Vout = 100%  
 Iout = 100%  
 Ta = 25°C

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

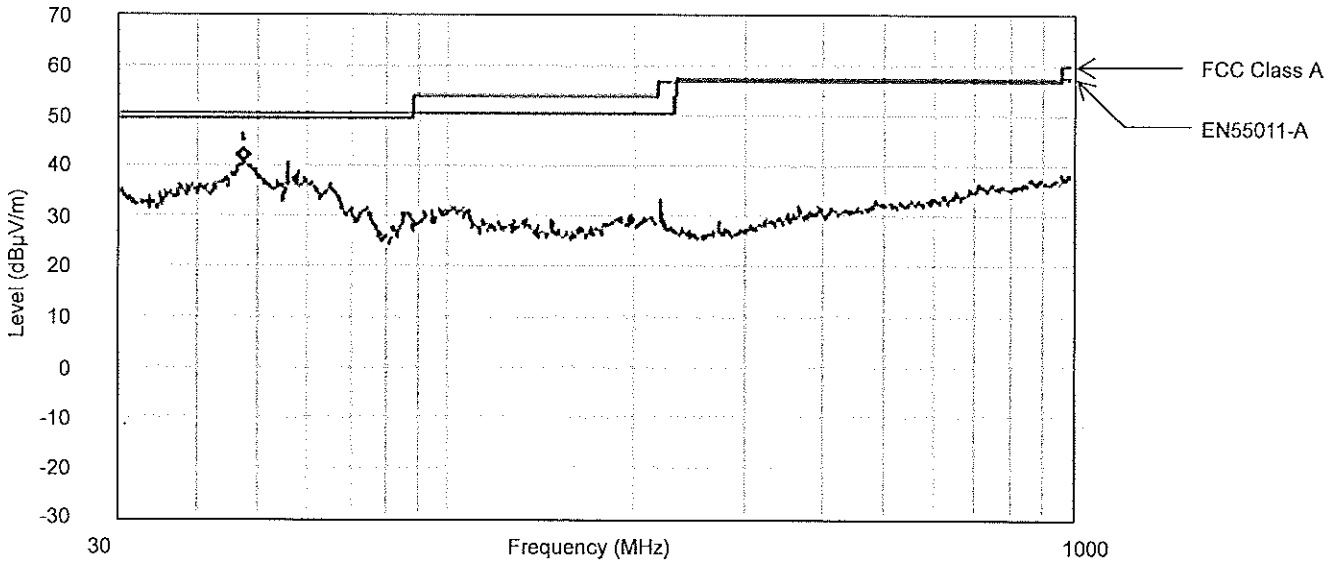
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

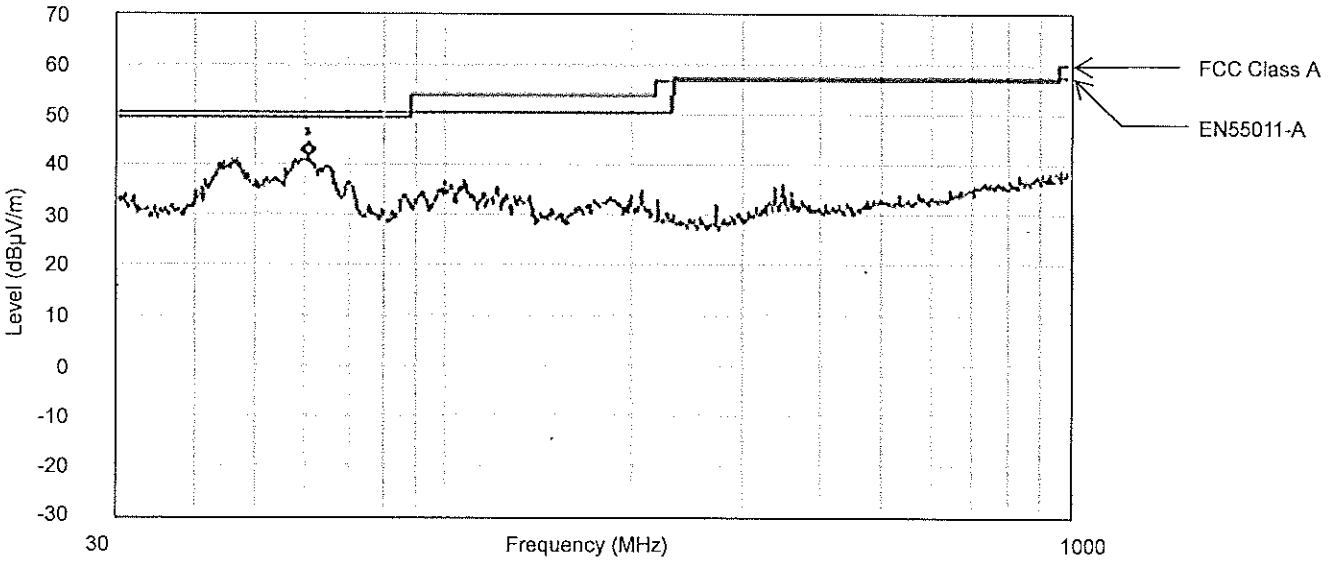
Conditions: Vin = 230Vac  
 Vout = 100%  
 Iout = 100%  
 Ta = 25°C

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

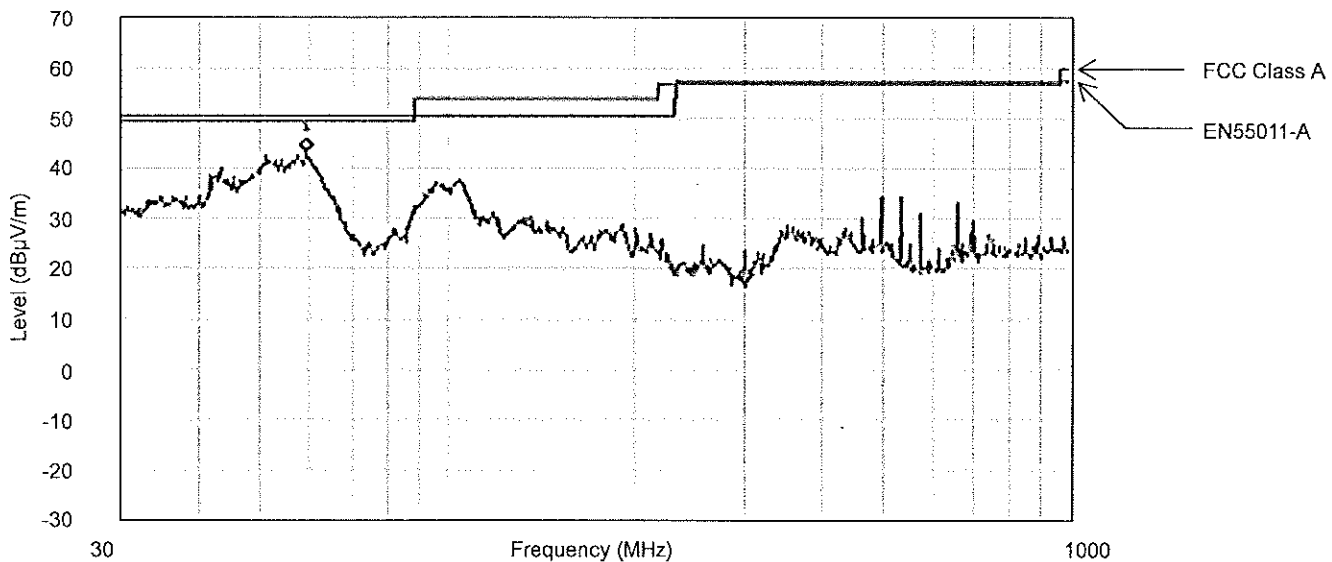
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

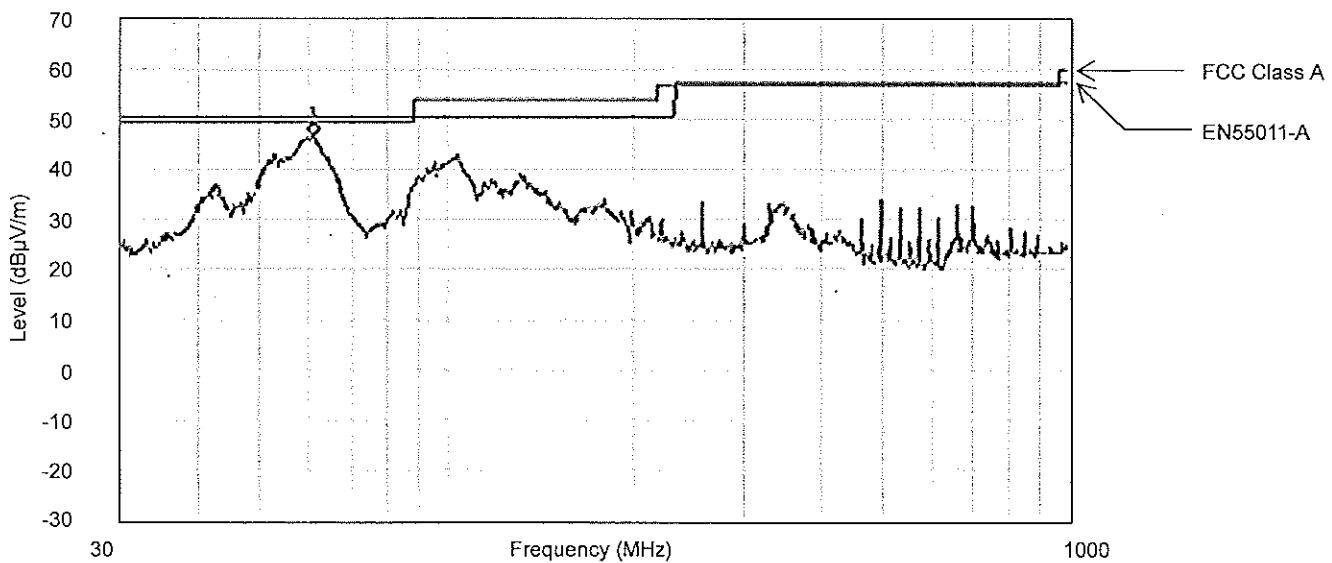
Conditions: Vin = 115Vac  
 Vout = 100%  
 Iout = 100%  
 Ta = 25°C

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

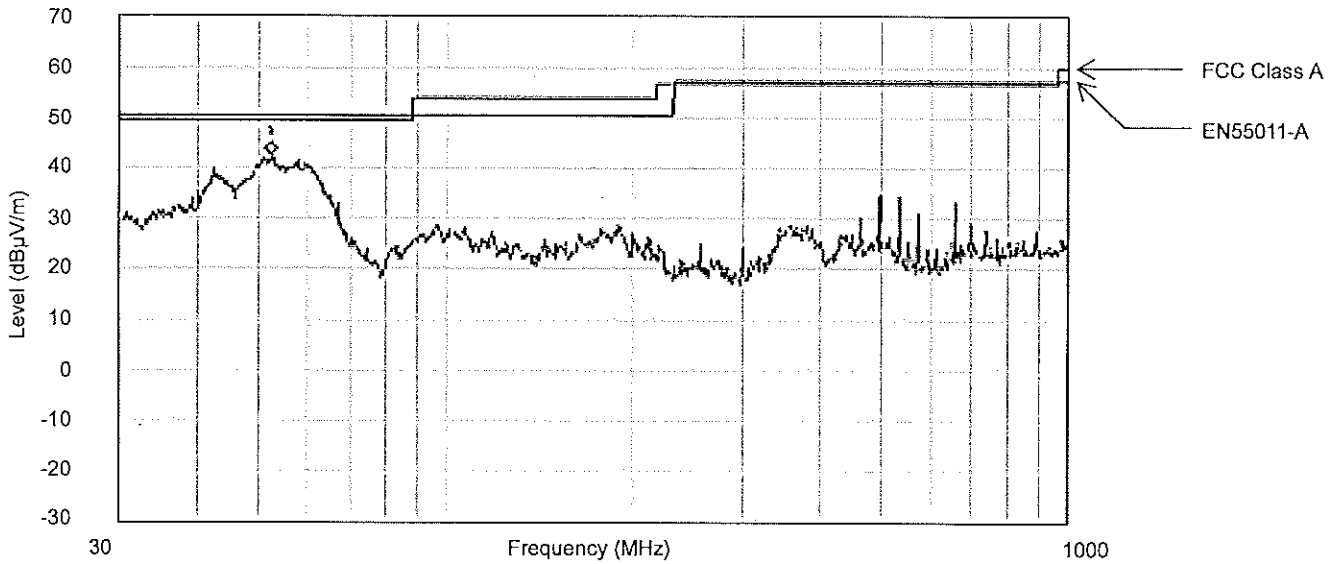
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

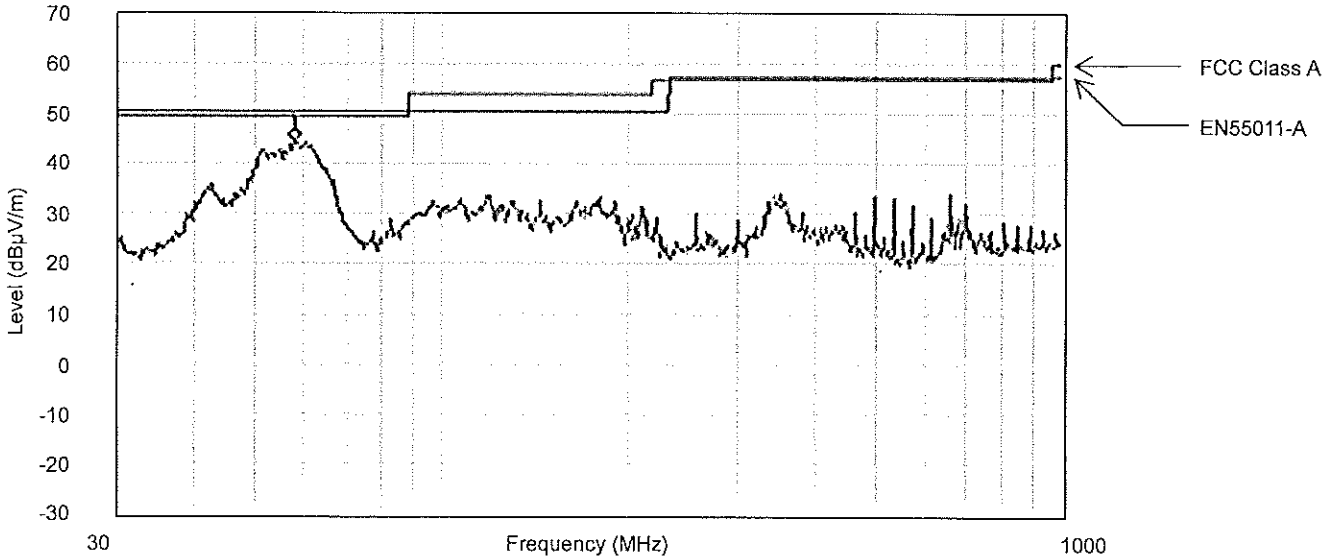
Conditions: Vin = 230Vac  
 Vout = 100%  
 Iout = 100%  
 Ta = 25°C

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

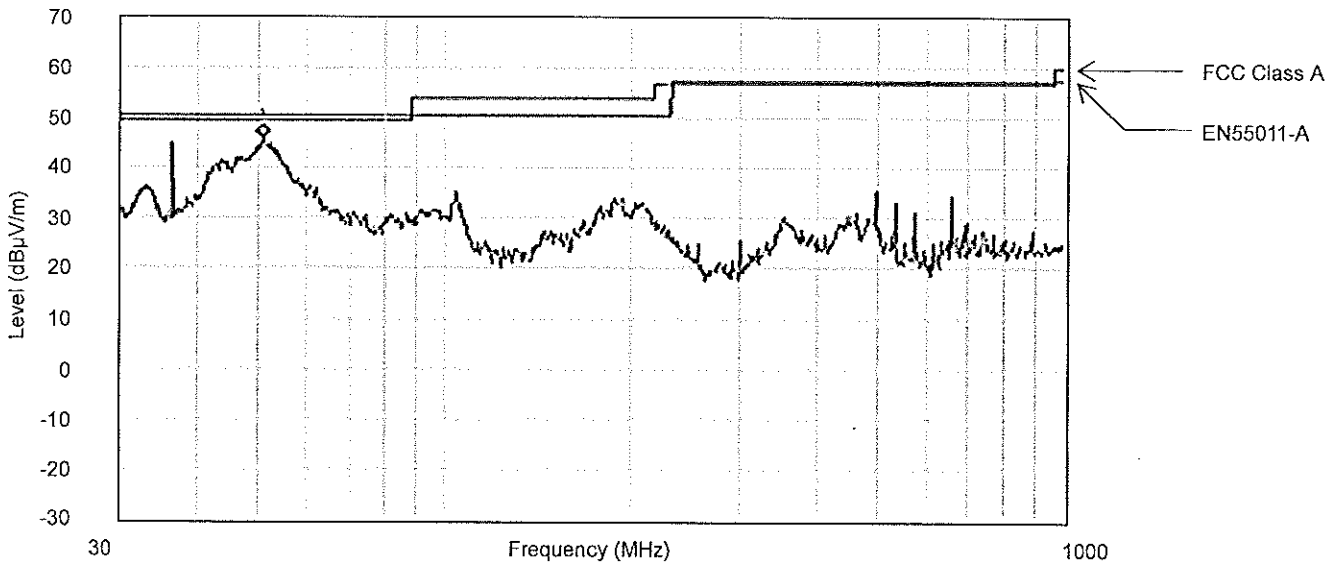
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

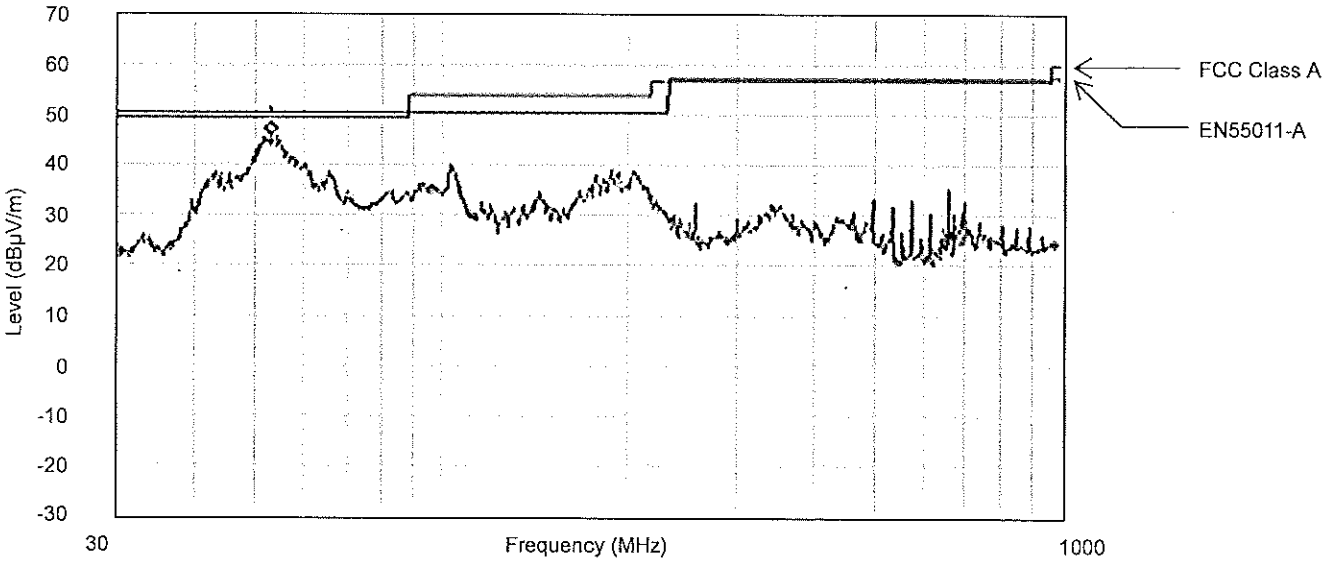
Conditions: Vin = 115Vac  
 Vout = 100%  
 Iout = 100%  
 Ta = 25°C

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

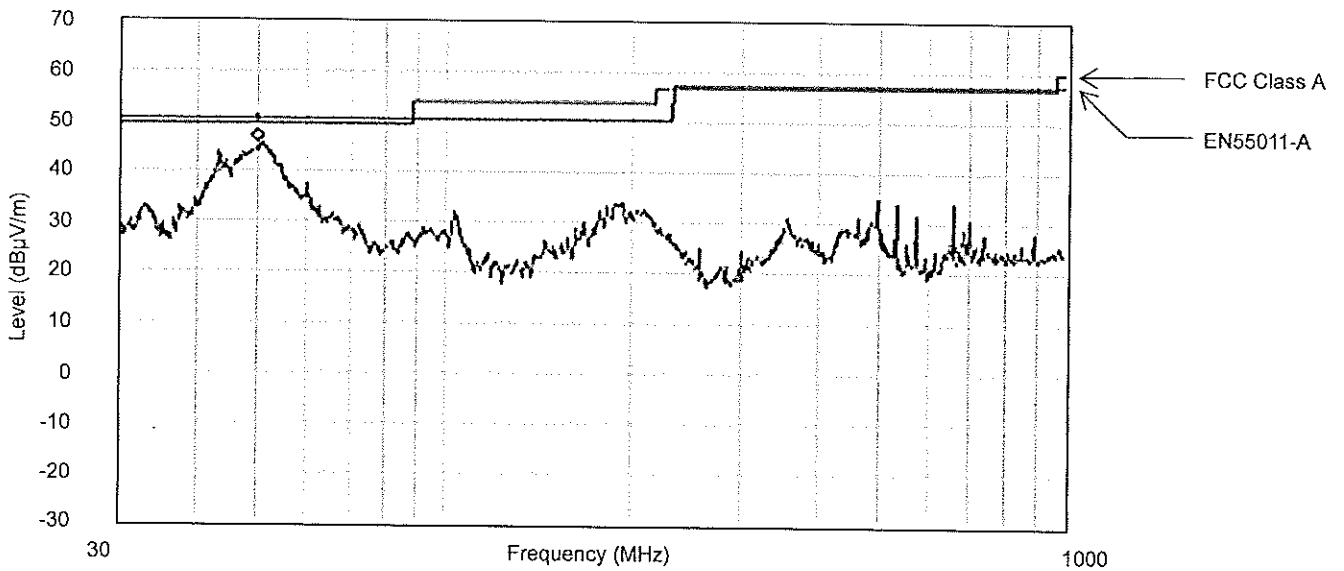
Limit of EN550011-A, EN55022-A are the same

2.2 Radiated emission

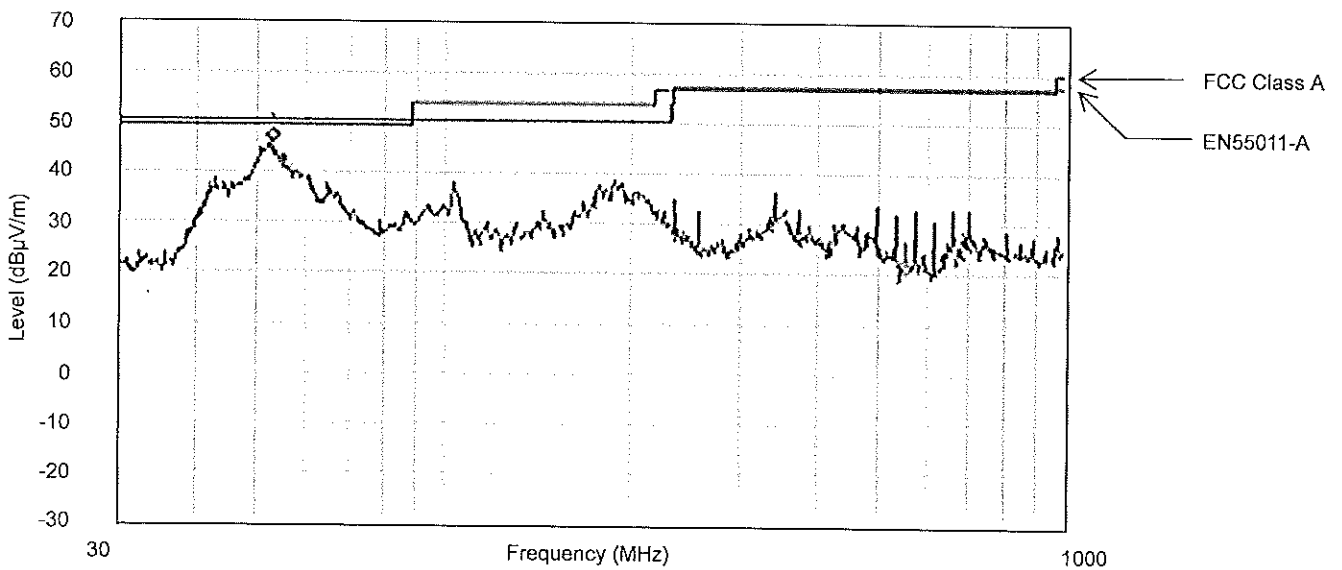
Conditions: Vin = 230Vac  
 Vout = 100%  
 Iout = 100%  
 Ta = 25°C

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