

# RFE1600

## EMI TEST DATA

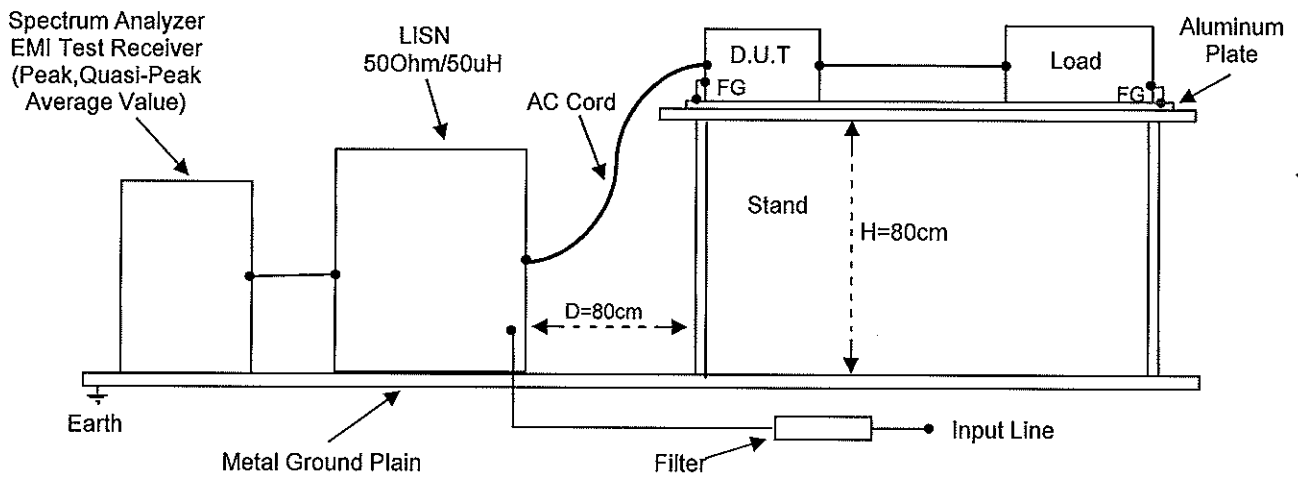
DWG: IA745-58-02		
APPD	CHK	DWG
Asher shitrit 03-Jan-2013	TDN 03/01/2013	TDN 03/01/2013

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The above data is typical value data.

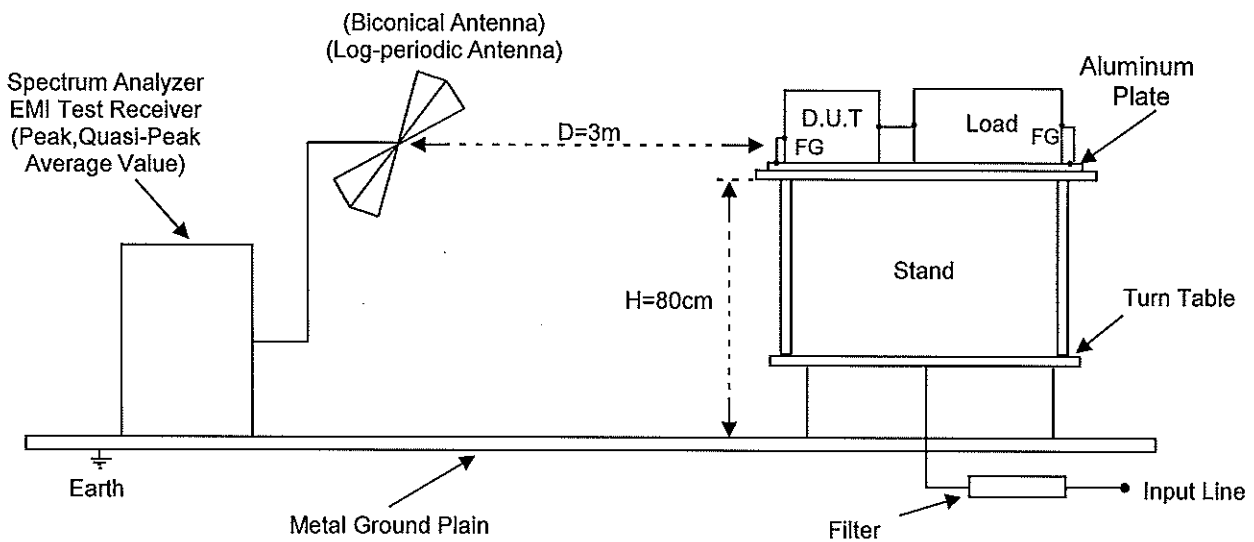
The values are considered to be actual capability data.

(1) Conducted Emission



TEST RECEIVER	ESPI	(ROHDE & SCHWARZ)
LISN	ENV4200	(ROHDE & SCHWARZ)

(2) Radiated Emission



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

## 2. Test Data

RFE1600

### 2.1 Conducted Emission

**12V**

(1) Test condition

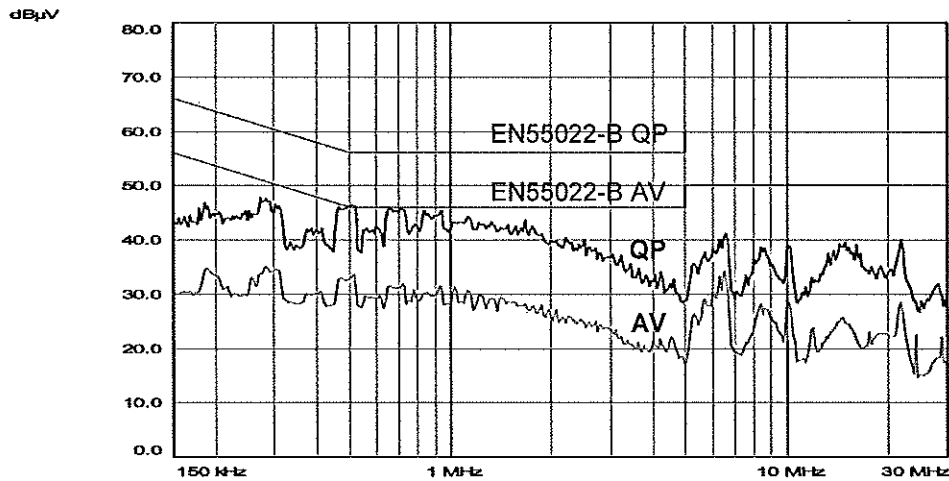
Input voltage/frequency: 100VAC/50Hz  
 Output current: 100%  
 Ambient temperature: 25°C  
 Regulation: EN55022-B

(2) Test results

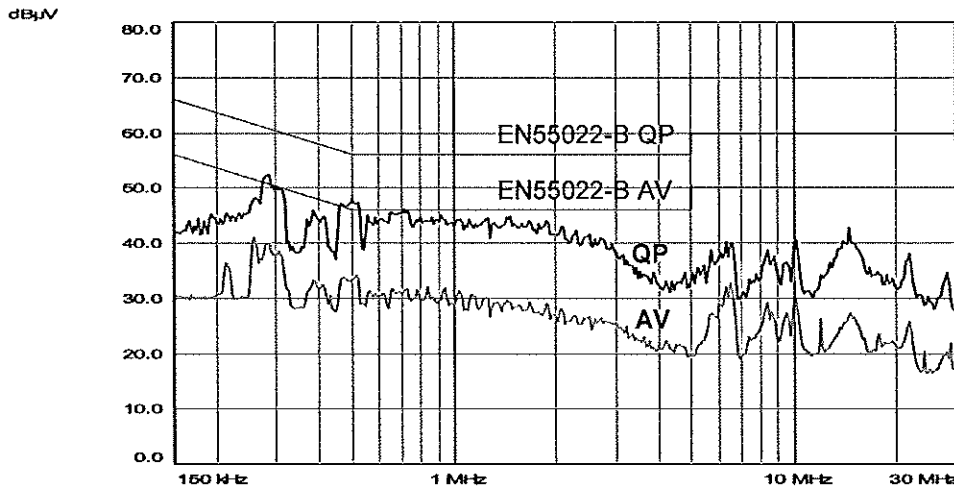
Inteferece wave list

PHASE	FREQ	EN55022-B					
		RESULT		LIMIT		MARGIN	
		QP	AV	QP	AV	QP	AV
	MHz	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V
L	0.514924	43.28	32.89	56.00	46.00	-12.72	-13.11
	0.700000	42.00	32.00	56.00	46.00	-14.00	-14.00
N	0.284381	48.12	39.46	60.69	50.69	-12.57	-11.23
	0.320000	50.00	38.00	61.00	50.00	-11.00	-12.00

#### Phase L



#### Phase N



## 2. Test Data

RFE1600

### 2.1 Conducted Emission

**12V**

#### (1) Test condition

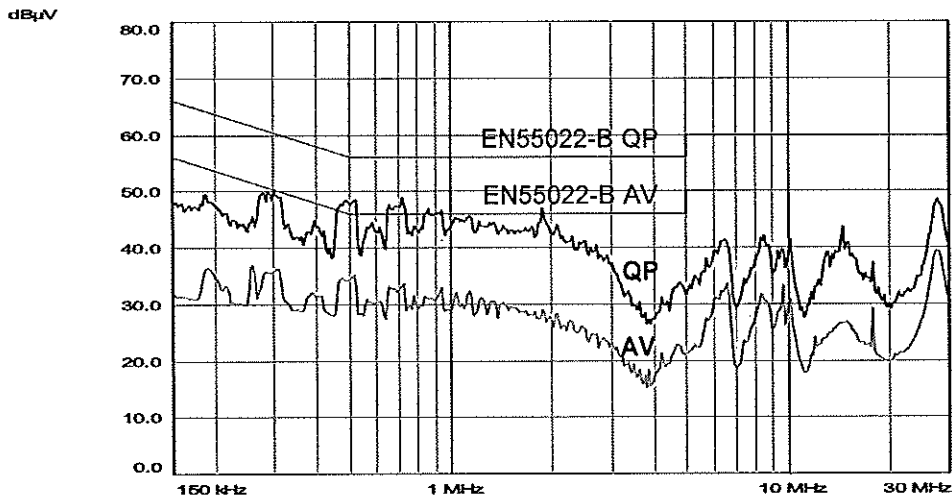
Input voltage/frequency: 230VAC/50Hz  
 Output current: 100%  
 Ambient temperature: 25°C  
 Regulation: EN55022-B

#### (2) Test results

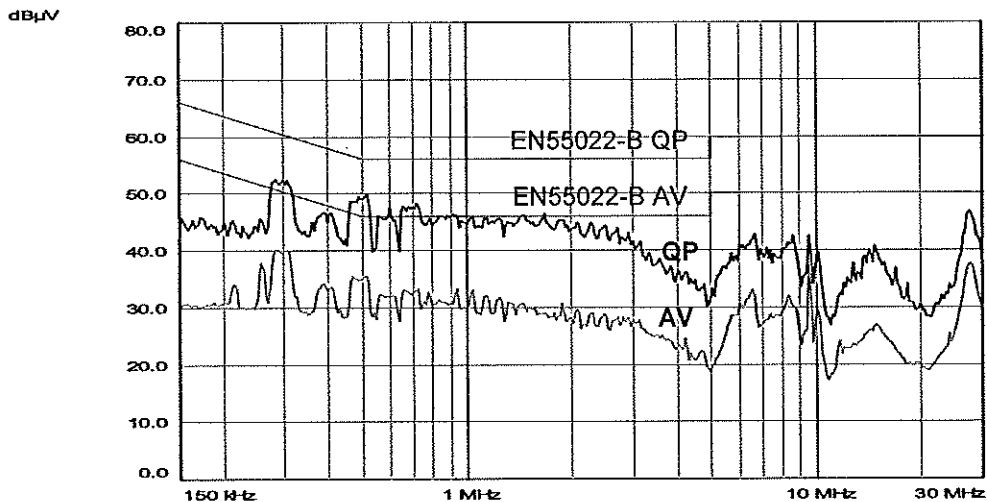
Interference wave list

PHASE	FREQ	EN55022-B					
		RESULT		LIMIT		MARGIN	
		QP	AV	QP	AV	QP	AV
	MHz	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V
L	0.305000	50.00	36.00	60.00	50.00	-10.00	-14.00
	27.695536	44.28	39.11	60.00	50.00	-15.72	-10.89
N	0.310000	52.50	40.00	61.00	50.00	-8.50	-10.00
	27.695536	42.37	37.13	60.00	50.00	-17.63	-12.87

#### Phase L



#### Phase N



## 2. Test Data

RFE1600

### 2.1 Conducted Emission

**24V**

#### (1) Test condition

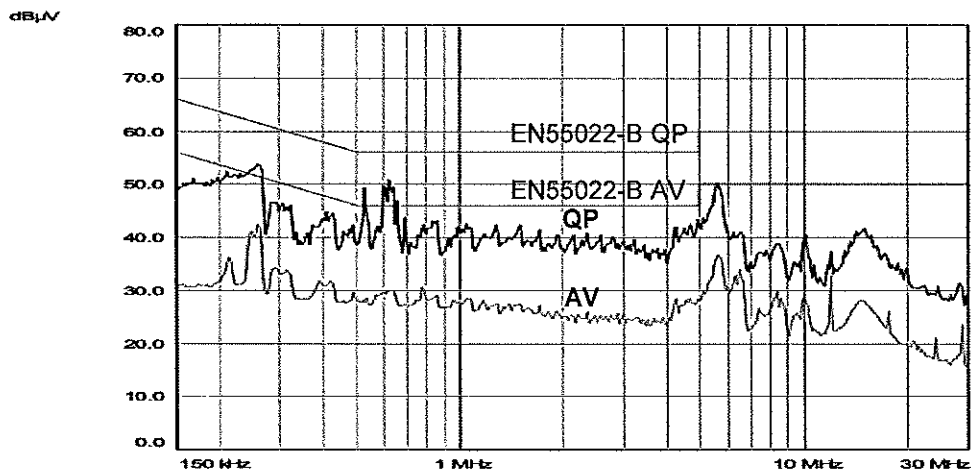
Input voltage/frequency: 100VAC/50Hz  
 Output current: 100%  
 Ambient temperature: 25°C  
 Regulation: EN55022-B

#### (2) Test results

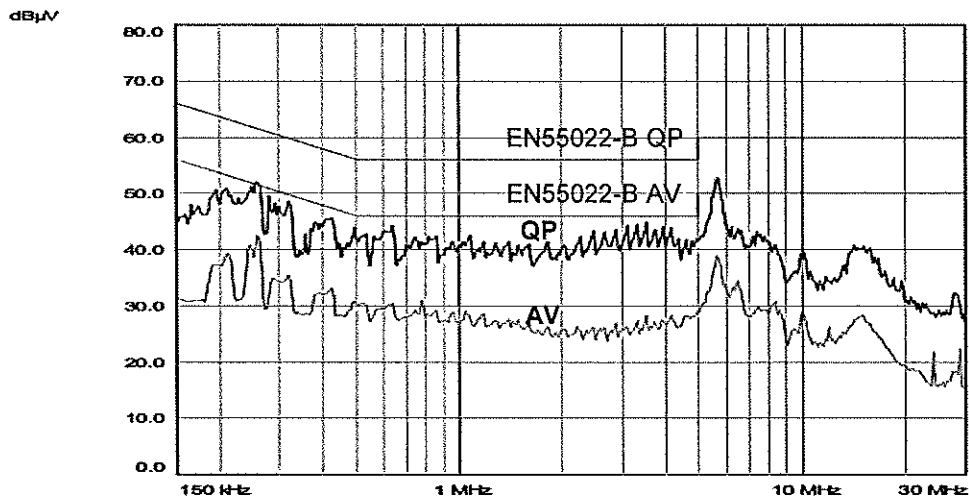
Interference wave list

PHASE	FREQ	EN55022-B					
		RESULT		LIMIT		MARGIN	
		QP	AV	QP	AV	QP	AV
	MHz	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V
L	0.626357	38.53	29.38	56.00	46.00	-17.47	-16.62
	5.692003	45.65	37.26	60.00	50.00	-14.35	-12.74
N	0.260000	53.30	42.00	61.33	52.00	-8.03	-10.00
	5.692003	47.84	39.37	60.00	50.00	-12.60	-10.63

#### Phase L



#### Phase N



## 2. Test Data

RFE1600

### 2.1 Conducted Emission

24V

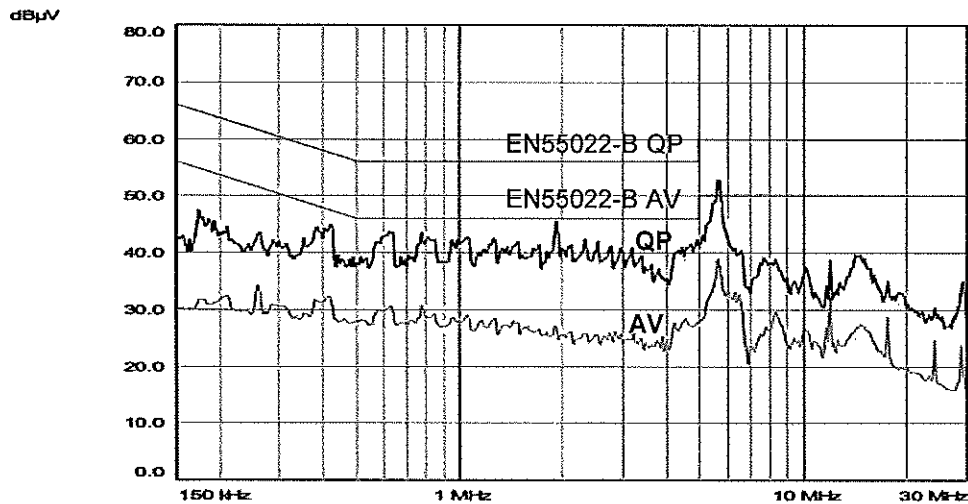
Input voltage/frequency: 230VAC/50Hz  
 Output current: 100%  
 Ambient temperature: 25°C  
 Regulation: EN55022-B

(2) Test results

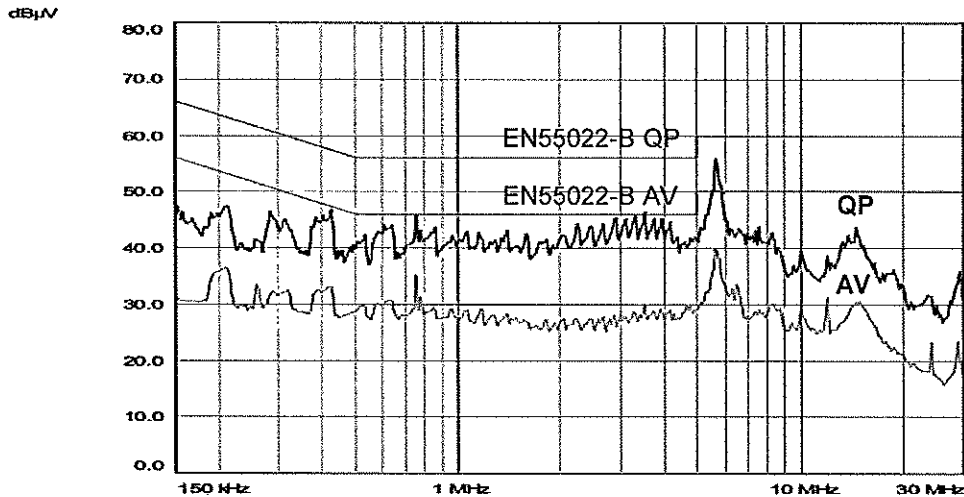
Interference wave list

PHASE	FREQ	EN55022-B					
		RESULT		LIMIT		MARGIN	
		QP	AV	QP	AV	QP	AV
	MHz	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V
L	0.160000	47.50	32.50	65.00	55.00	-17.50	-22.50
	5.692003	47.58	38.38	60.00	50.00	-12.42	-11.62
N	3.500000	46.00	30.00	56.00	46.00	-10.00	-16.00
	5.692003	49.67	39.30	60.00	50.00	-10.33	-10.70

#### Phase L



#### Phase N



## 2. Test Data

RFE1600

### 2.1 Conducted Emission

48V

(1) Test condition

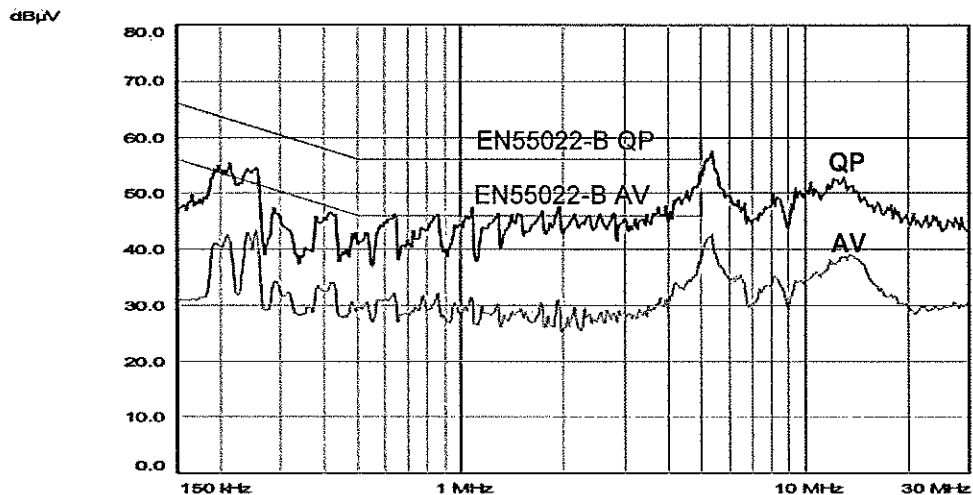
Input voltage/frequency: 100VAC/50Hz  
 Output current: 100%  
 Ambient temperature: 25°C  
 Regulation: EN55022-B

(2) Test results

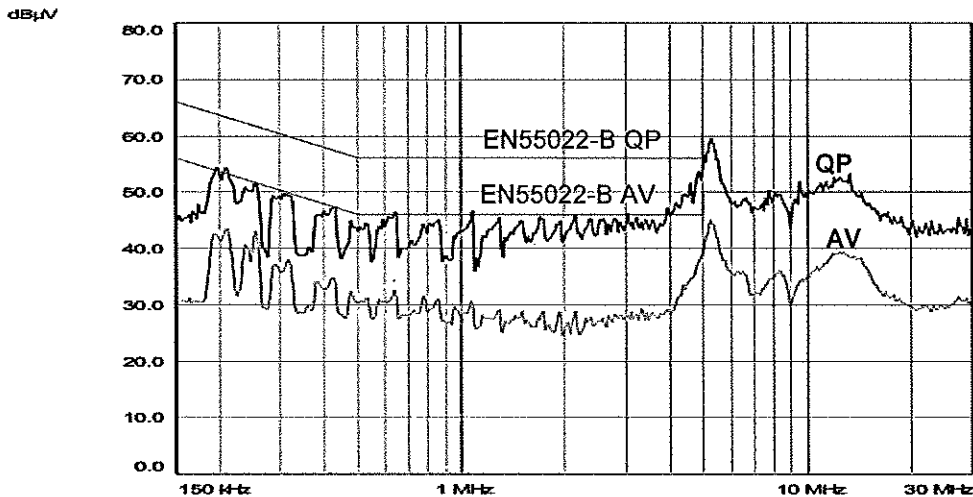
Interference wave list

PHASE	FREQ	EN55022-B					
		RESULT		LIMIT		MARGIN	
		QP	AV	QP	AV	QP	AV
	MHz	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V
L	0.220000	55.5	43.00	63.50	53.00	-8.00	-10.00
	5.376786	53.48	41.95	60.00	50.00	-6.52	-8.05
N	0.148000	54.00	45.00	64.00	54.00	-10.00	-9.00
	5.275641	55.67	44.08	60.00	50.00	-4.33	-5.92

#### Phase L



#### Phase N





## 2. Test Data

RFE1600

### 2.1 Conducted Emission

**48V**

#### (1) Test condition

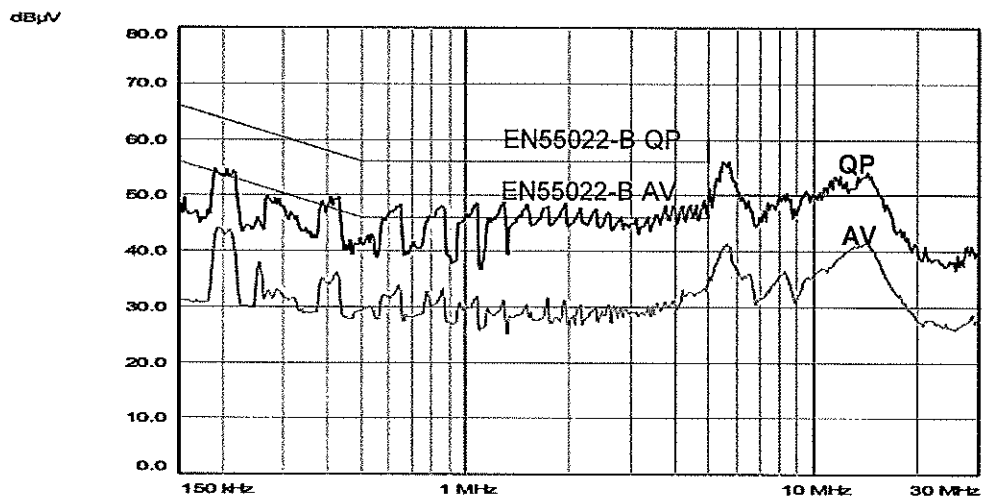
Input voltage/frequency: 230VAC/50Hz  
 Output current: 100%  
 Ambient temperature: 25°C  
 Regulation: EN55022-B

#### (2) Test results

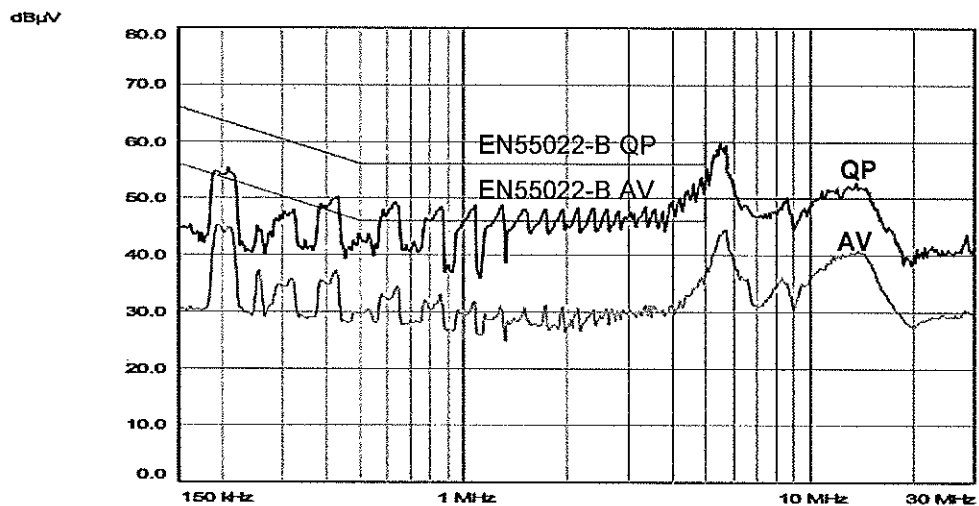
Interference wave list

PHASE	FREQ	RESULT		EN55022-B			
				LIMIT		MARGIN	
		QP	AV	QP	AV	QP	AV
	MHz	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V	dB $\mu$ V
L	5.714805	51.31	40.57	60.00	50.00	-8.69	-9.43
	14.36220	47.25	40.39	60.00	50.00	-12.75	-9.61
N	5.496325	56.87	43.76	60.00	50.00	-3.13	-6.24
	5.657970	54.25	44.04	60.00	50.00	-5.75	-5.96

#### Phase L



#### Phase N



## 2. Test Data

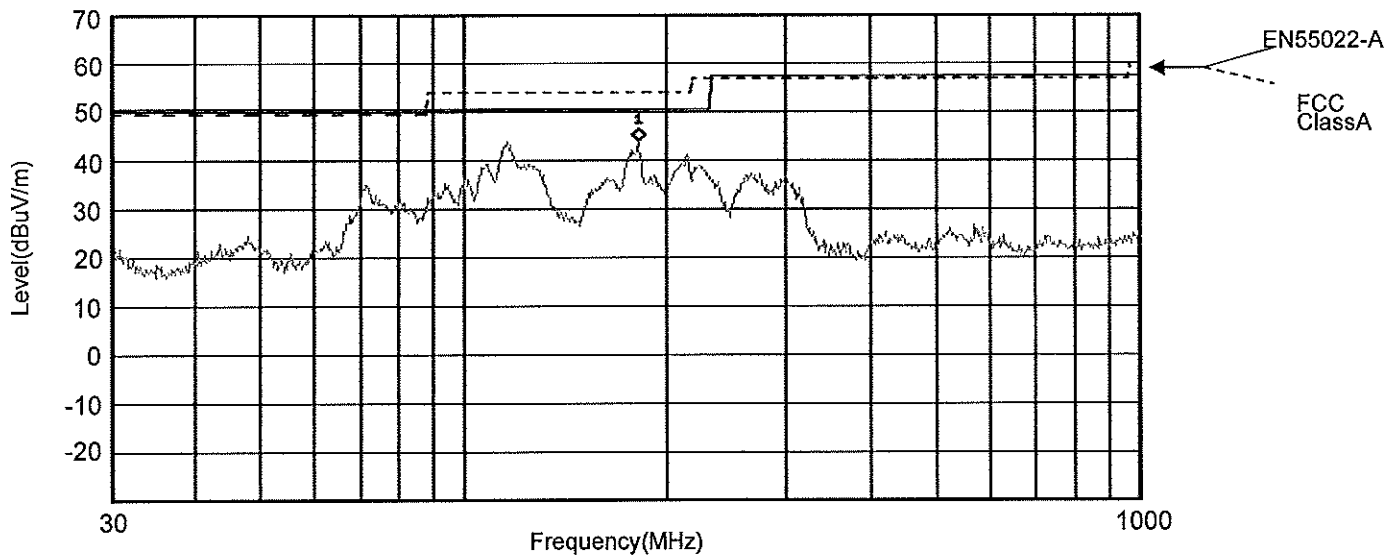
RFE1600

### 2.2 Radiated Emission

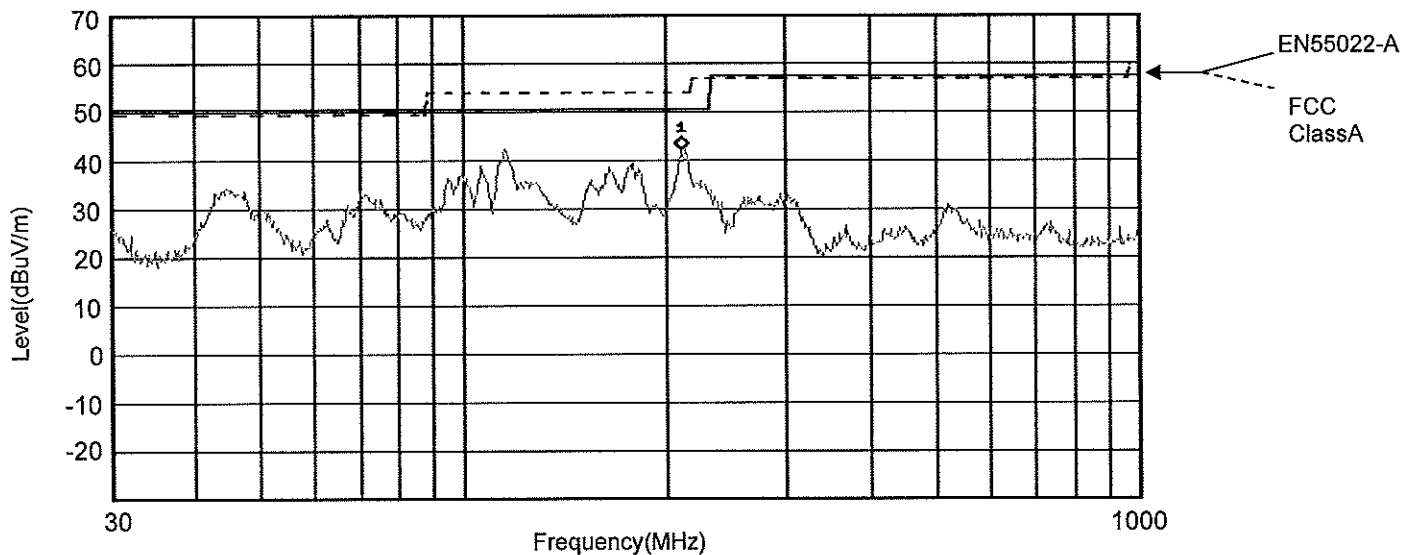
12V

Conditions: Vin: 100VAC  
 Vout: 12V  
 Iout: 100%  
 Ta: 25°C

#### HORIZONTAL



#### VERTICAL



Freq (MHz)	Peak Amp (dBuV/m)	QP Amp (dBuV/m)	Limit (dBuV/m)	QP margin (dB)	Polariz.
209.29	42.41	39.15	54(FCC)	-14.85	Vertical
209.29	42.41	39.15	50.5(EN)	-11.35	Vertical
180.72	43.96	40.22	54(FCC)	-13.78	Horizontal
180.72	43.96	40.22	50.5(EN)	-10.28	Horizontal

Limits of EN55022-A are same as VCCI-A

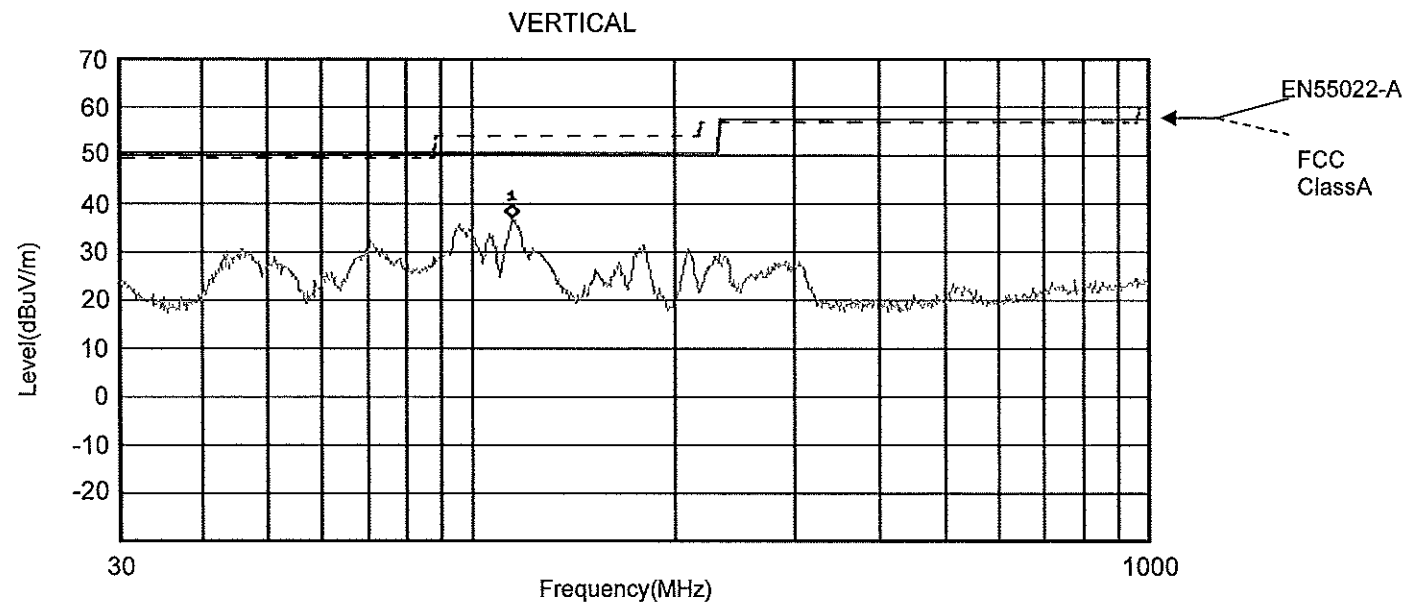
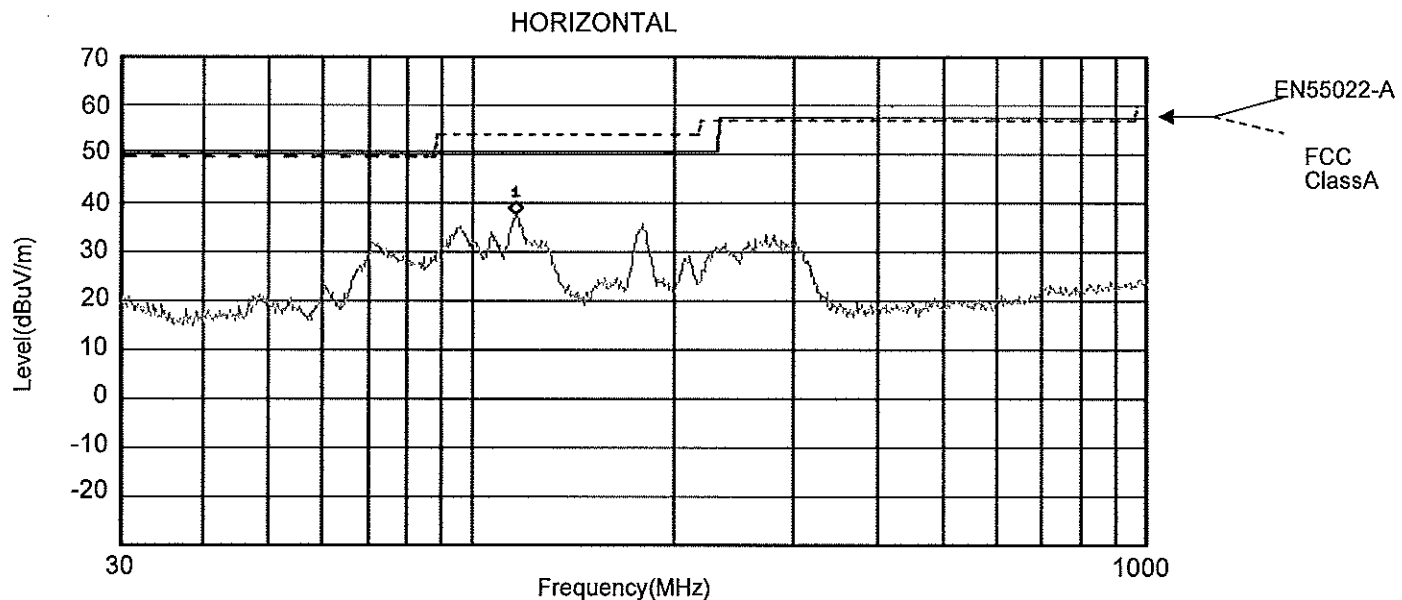
## 2. Test Data

RFE1600

### 2.2 Radiated Emission

12V

Conditions: Vin: 230VAC  
 Vout: 12V  
 Iout: 100%  
 Ta: 25°C



Freq (MHz)	Peak Amp (dBuV/m)	QP Amp (dBuV/m)	Limit (dBuV/m)	QP margin (dB)	Polariz.
114.58	37.25	33.82	54(FCC)	-20.18	Vertical
114.58	37.25	33.82	50.5(EN)	-16.68	Vertical
115.47	37.65	34.55	54(FCC)	-19.45	Horizontal
115.47	37.65	34.55	50.5(EN)	-15.95	Horizontal

Limits of EN55022-A are same as VCCI-A

## 2. Test Data

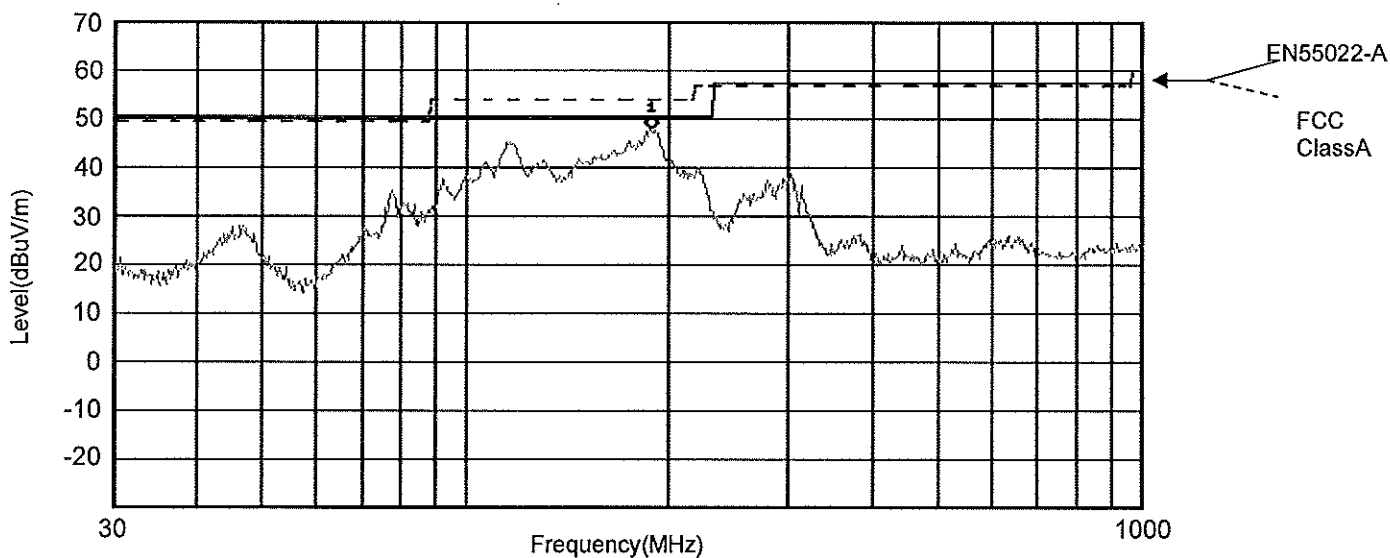
RFE1600

### 2.2 Radiated Emission

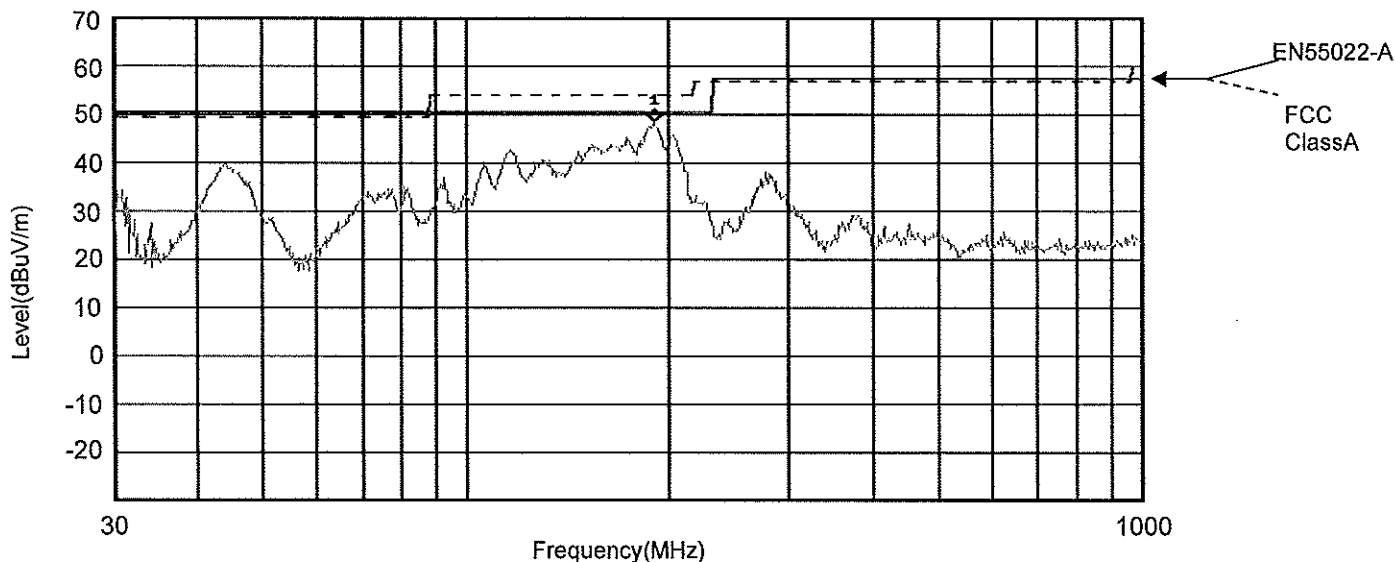
**24V**

Conditions: Vin: 100VAC  
 Vout: 24V  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL



VERTICAL



Freq (MHz)	Peak Amp (dBuV/m)	QP Amp (dBuV/m)	Limit (dBuV/m)	QP margin (dB)	Polariz.
189.29	48.58	45.03	54(FCC)	-8.97	Vertical
189.29	48.58	45.03	50.5(EN)	-5.47	Vertical
187.84	47.99	44.71	54(FCC)	-9.29	Horizontal
187.84	47.99	44.71	50.5(EN)	-5.79	Horizontal

Limits of EN55022-A are same as VCCI-A

## 2. Test Data

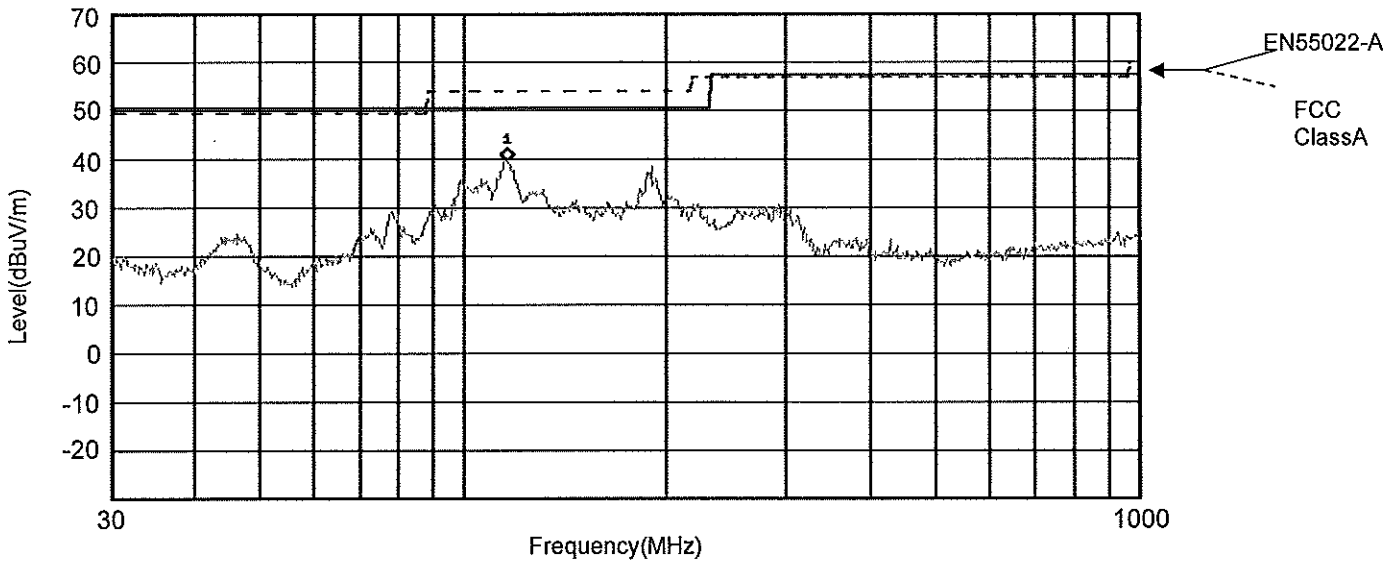
RFE1600

### 2.2 Radiated Emission

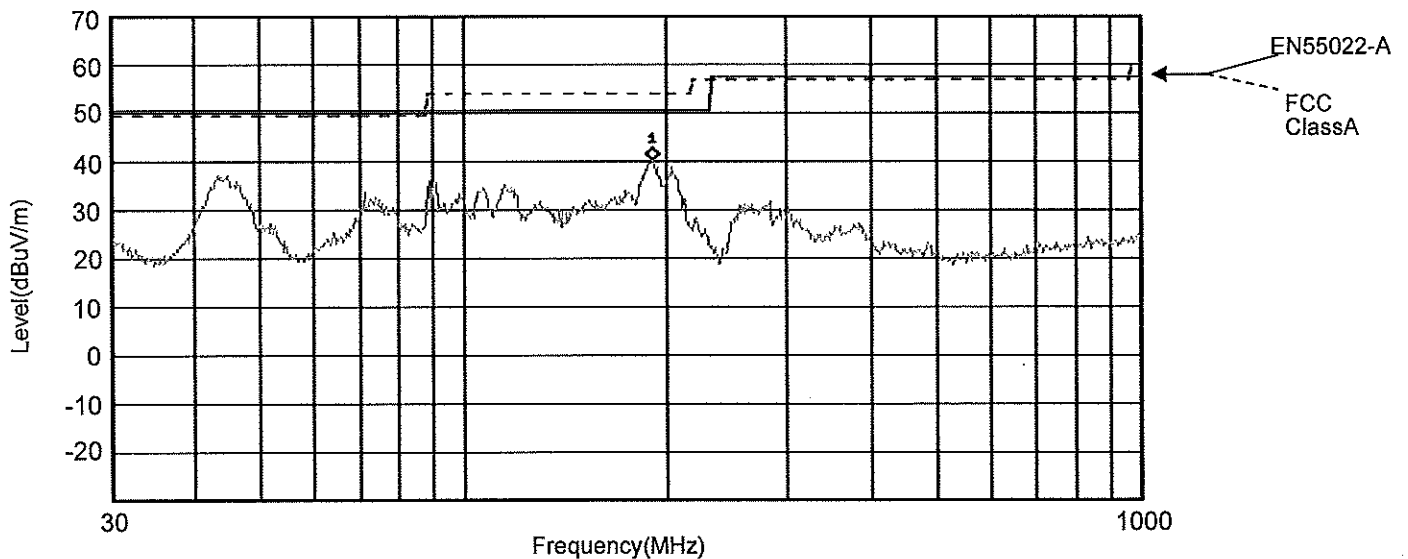
**24V**

Conditions: Vin: 230VAC  
 Vout: 24V  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL



VERTICAL



Freq (MHz)	Peak Amp (dBuV/m)	QP Amp (dBuV/m)	Limit (dBuV/m)	QP margin (dB)	Polariz.
190.03	40.4	37.17	54(FCC)	-16.83	Vertical
190.03	40.4	37.17	50.5(EN)	-13.33	Vertical
115.91	39.68	36.64	54(FCC)	-17.36	Horizontal
115.91	39.68	36.64	50.5(EN)	-13.86	Horizontal

Limits of EN55022-A are same as VCCI-A

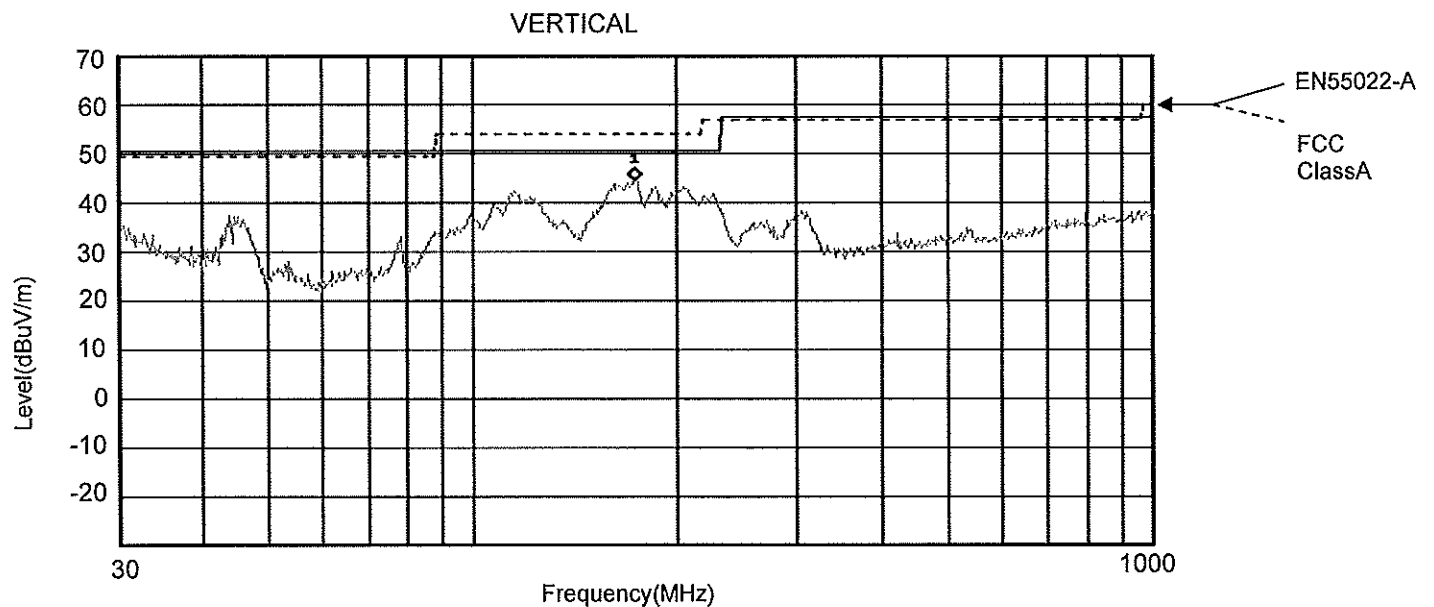
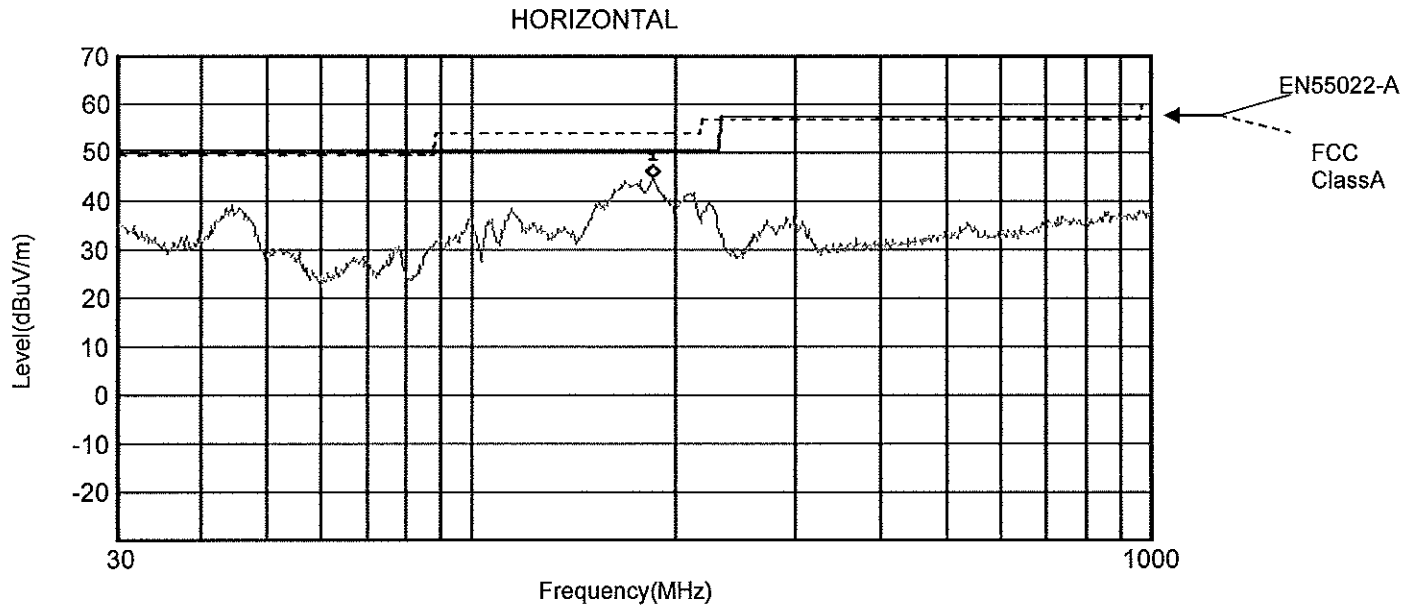
## 2. Test Data

RFE1600

### 2.2 Radiated Emission

**48V**

Conditions: Vin: 100VAC  
 Vout: 48V  
 Iout: 100%  
 Ta: 25°C



Freq (MHz)	Peak Amp (dBuV/m)	QP Amp (dBuV/m)	Limit (dBuV/m)	QP margin (dB)	Polariz.
173.21	44.68	41.18	54.0(FCC)	-12.82	Vertical
173.21	44.68	41.18	50.5(EN)	-9.32	Vertical
184.24	44.75	41.95	54.0(FCC)	-12.05	Horizontal
184.24	44.75	41.95	50.5(EN)	-8.55	Horizontal

Limits of EN55022-A are same as VCCI-A

## 2. Test Data

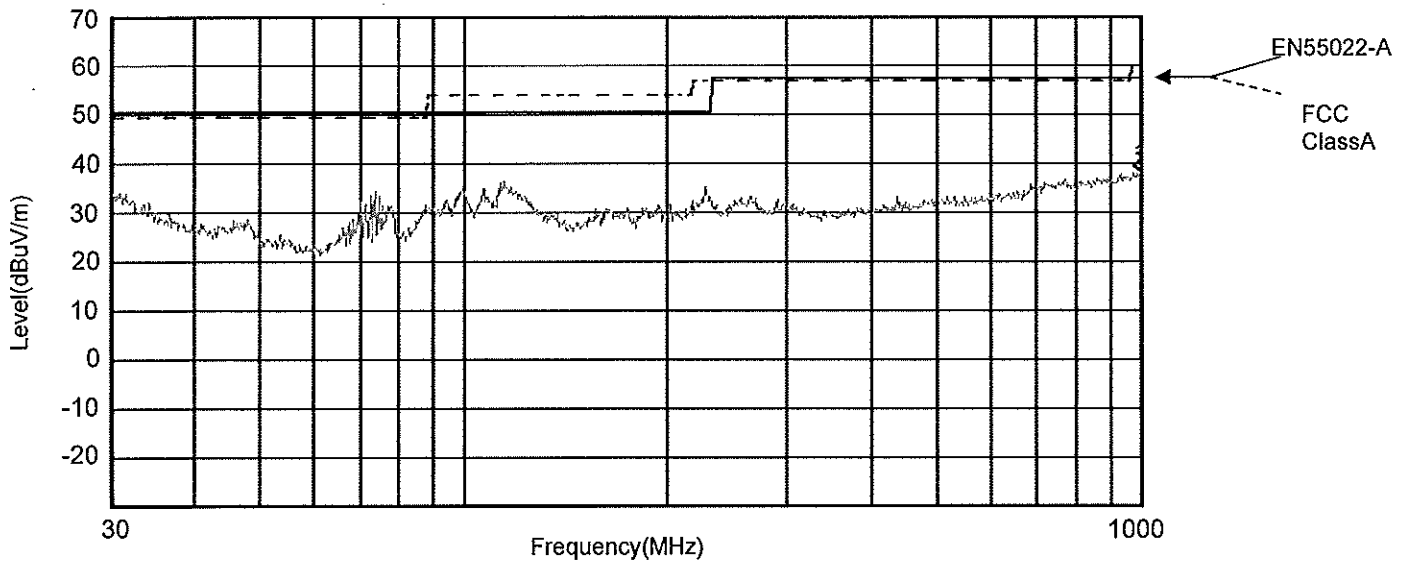
RFE1600

### 2.2 Radiated Emission

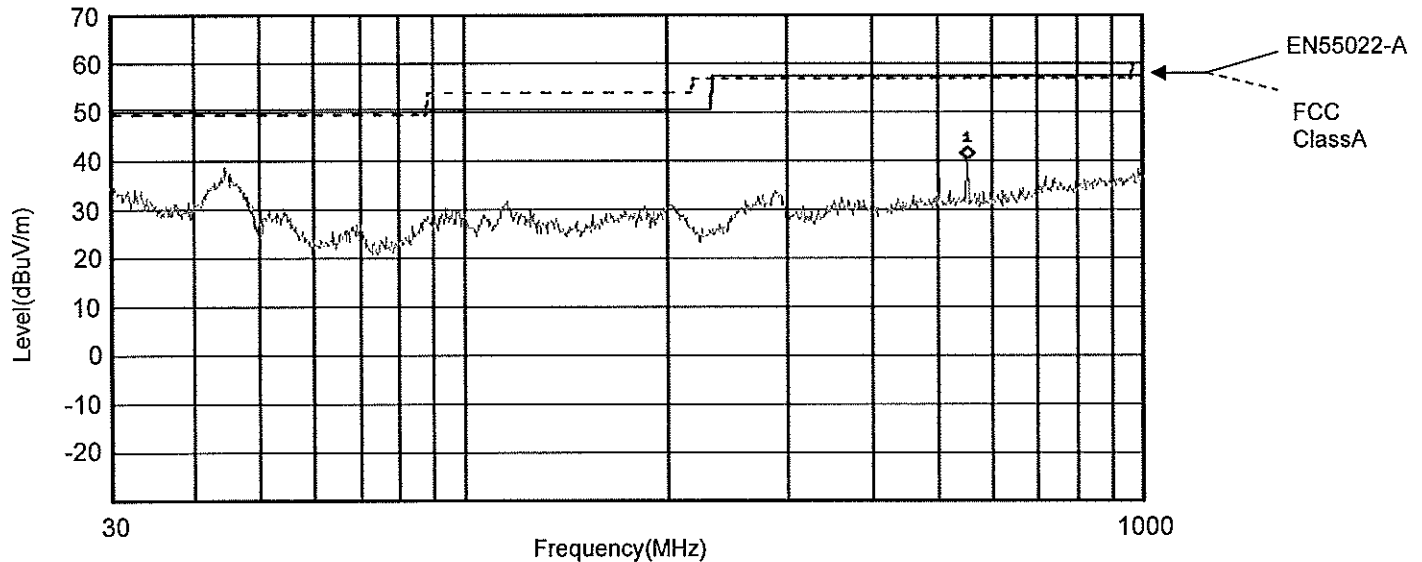
48V

Conditions: Vin: 230VAC  
 Vout: 48V  
 Iout: 100%  
 Ta: 25°C

HORIZONTAL



VERTICAL



Freq (MHz)	Peak Amp (dBuV/m)	QP Amp (dBuV/m)	Limit (dBuV/m)	QP margin (dB)	Polariz.
551.71	40.34	36.59	56.9(FCC)	-20.31	Vertical
551.71	40.34	36.59	57.5(EN)	-20.91	Vertical
996.15	38.35	34.72	60.0(FCC)	-25.28	Horizontal
996.15	38.35	34.72	57.5(EN)	-22.78	Horizontal

Limits of EN55022-A are same as VCCI-A