

260928

CUS250M

EMISSIONS DATA

Template	260585 iss 2
DWG. No.	260928 iss 1

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Test results are reference data based on our standard measurement condition.

1. Summary of Emissions Test Result

MODEL : CUS250M

Item	Standard	Test Class	Result	Page	Notes & Conditions
Input Current Harmonics	IEC61000-3-2	A	PASS	4	
Voltage Flicker	IEC61000-3-3	$d_{\max} < 4\%$	PASS	5	
Conducted Emissions	CISPR 11 / 32	B	PASS	6	
	FCC 47-15-B	B	PASS	6	
Radiated Emissions	CISPR 11 / 32	B	PASS	9	
	FCC 47-15-B	B	PASS	12	

3. Voltage Flicker (IEC61000-3-3)

MODEL : C U S 2 5 0 M - 1 2 / J

(1) Equipment Used

AC Power Source :Chroma 61505
 Oscilloscope :Rohde & Schwarz RTM3004

(2) Test Conditions

Input Voltage : 230VAC Mains Frequency :50Hz
 Output Voltage :Rated Output Current :20.8A
 Test :d_{max} Ambient Temperature :25°C

(3) Test Result

Number	Voltage (V)	Number	Voltage (V)	Number	Voltage (V)	Number	Voltage (V)
1	6.50	7	4.10	13	2.60	19	7.20
2	7.10	8	3.70	14	4.90	20	6.90
3	2.30	9	6.90	15	5.30	21	4.10
4	7.10	10	4.20	16	2.10	22	6.30
5	6.40	11	4.10	17	3.50	23	4.60
6	6.70	12	3.50	18	7.10	24	3.30

Test	Test	CUS250M-12/J
EN61000-3-3	d _{max} < 4%	PASS

4. Conducted Emissions (CISPR11)

MODEL: CUS250M-12/J

(1) Equipment Used

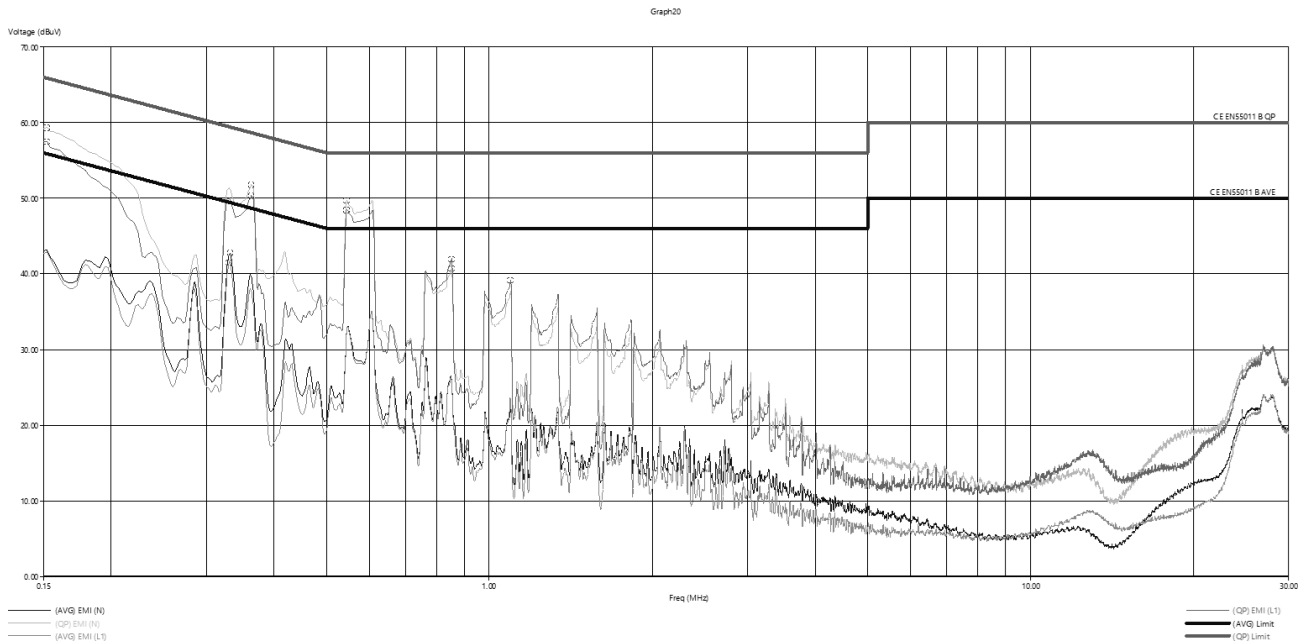
Receiver :Rohde & Schwarz ESR 3
 2 Line V-Network :Rohde & Schwarz ENV216

(2) Test Conditions

Input Voltage : 240VAC Class I Mains Frequency :50Hz
 Output Voltage :Rated Output Load :100%, 50% and 0%
 Class :B Ambient Temperature :21°C

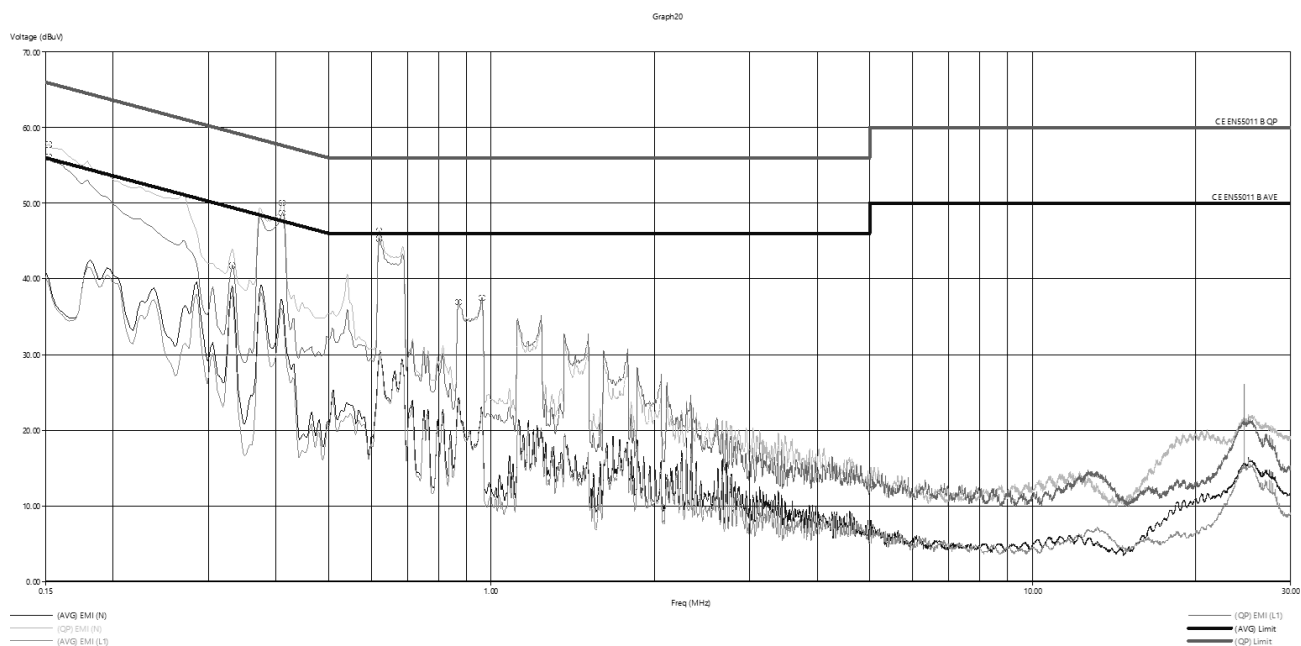
(3) Test Results

100% Load



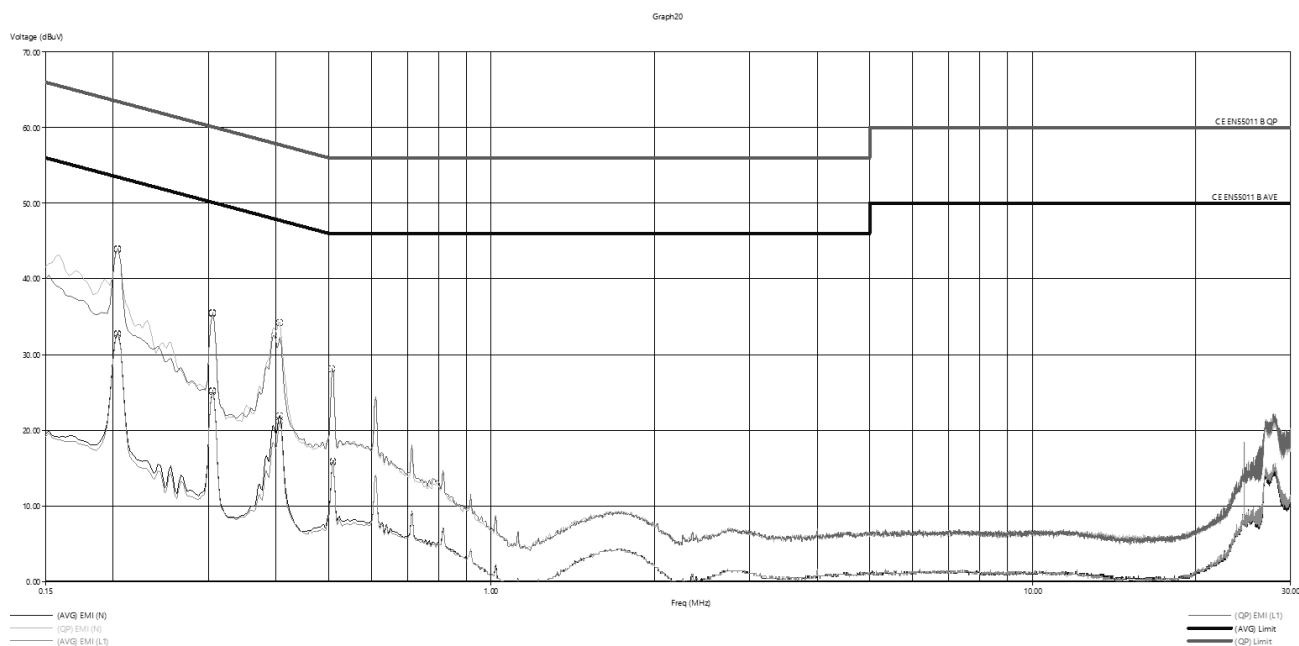
Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Quasi-Peak (dBµV)	Limit (dBµV)	Margin (dB)
0.15	43.18	55.88	12.70	59.41	65.88	6.47
0.33	42.58	49.45	6.87	51.33	59.45	8.12
0.33	42.77	49.39	6.62	51.13	59.39	8.26
0.36	39.59	48.64	9.05	51.77	58.64	6.87
0.55	33.01	46.00	12.99	49.76	56.00	6.24
0.85	25.48	46.00	20.52	41.96	56.00	14.04
1.10	22.95	46.00	23.05	39.25	56.00	16.75

50% Load



Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Quasi-Peak (dBµV)	Limit (dBµV)	Margin (dB)
0.15	39.84	55.88	16.04	57.81	65.88	8.07
0.33	39.08	49.39	10.31	43.98	59.39	15.41
0.41	37.05	47.63	10.58	50.14	57.63	7.49
0.62	29.98	46.00	16.02	46.36	56.00	9.64
0.87	24.37	46.00	21.63	37.18	56.00	18.82
0.96	21.96	46.00	24.04	37.58	56.00	18.42

0% Load



Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Quasi-Peak (dBµV)	Limit (dBµV)	Margin (dB)
0.20	32.93	53.45	20.52	44.05	63.45	19.40
0.31	25.28	50.10	24.82	35.58	60.10	24.52
0.40	20.17	47.91	27.74	33.41	57.91	24.50
0.41	22.03	47.72	25.69	34.26	57.72	23.46
0.51	15.60	46.00	30.40	28.19	56.00	27.81
0.51	15.98	46.00	30.02	27.74	56.00	28.26

Note: Limits of CISPR11, EN55011, CISPR32, EN55032, FCC and VCCI Class B are identical.

5. Radiated Emissions (CISPR11)

MODEL : CUS250M-12/J

(1) Equipment Used

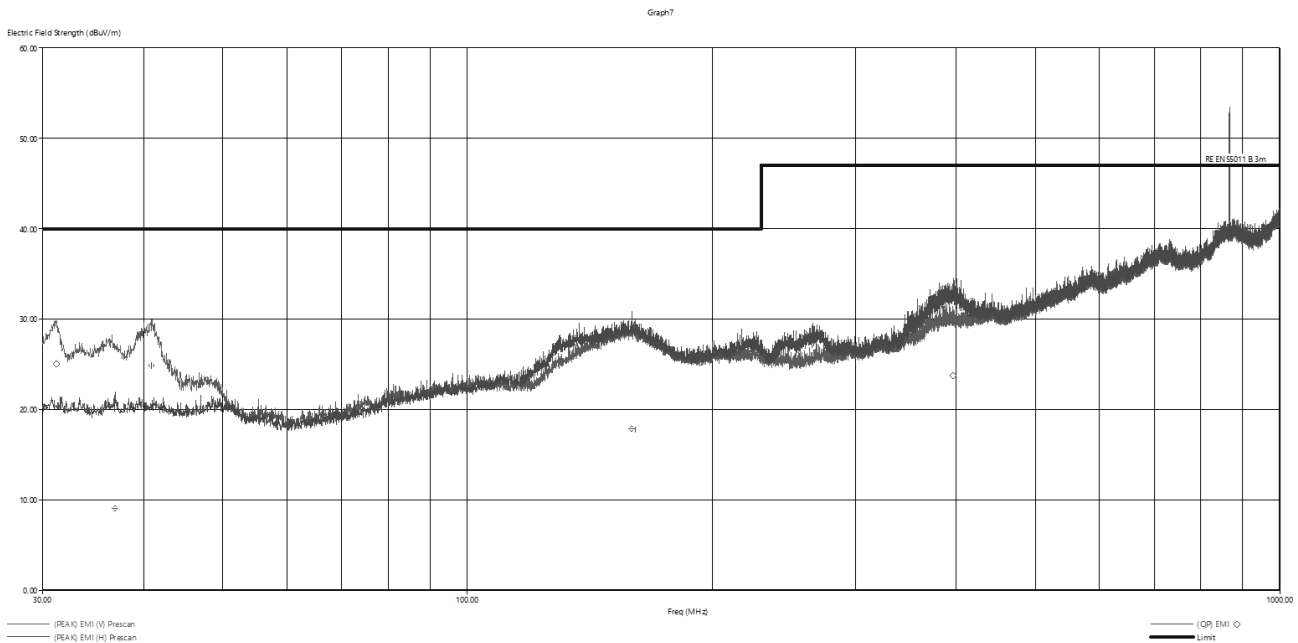
Receiver	:Rohde & Schwarz ESR 3
Antenna	:Schwarzbeck Mess VULB 9166
Controller	:Mature Control Unit MCU
Antenna Mast	:Mature Antenna Mast AM 4.0
Turntable	:Mature Turntable TT 2.0 SI
Semi-Anechoic Chamber	:TRS 3m Semi-Anechoic Chamber

(2) Test Conditions

Input Voltage	: 230VAC Class I	Mains Frequency	:50Hz
Output Voltage	:Rated	Output Load	:100%, 50% and 0%
Class	:B	Ambient Temperature	:22°C

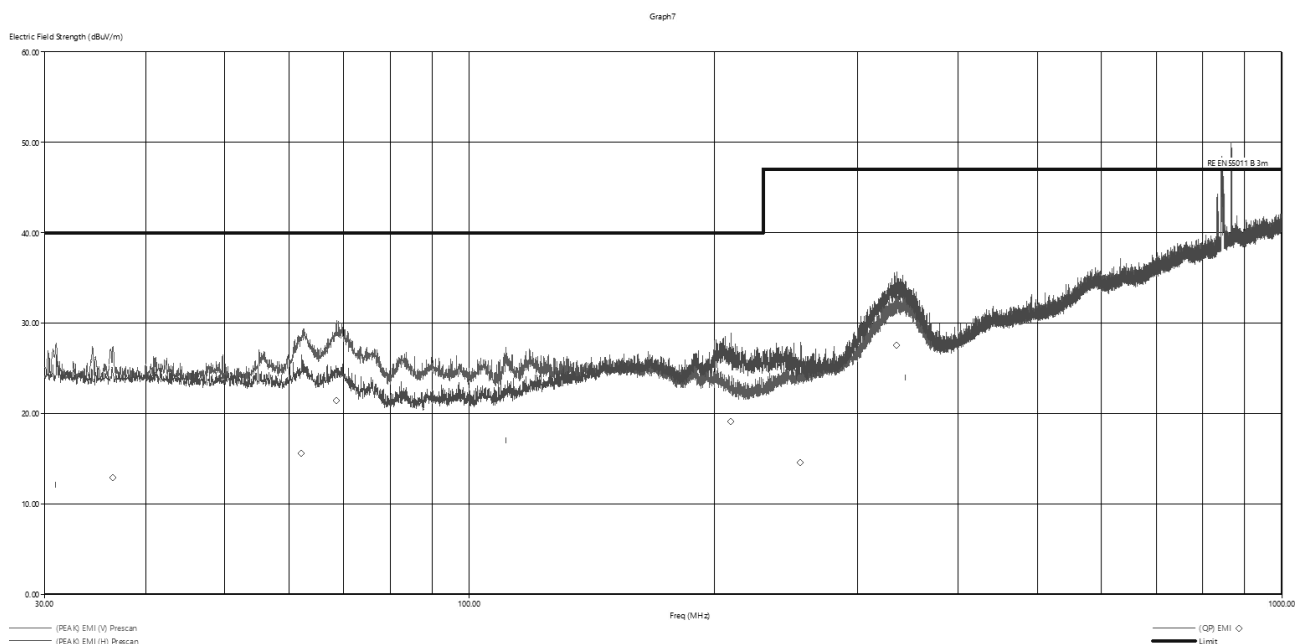
(3) Test Results

100% Load



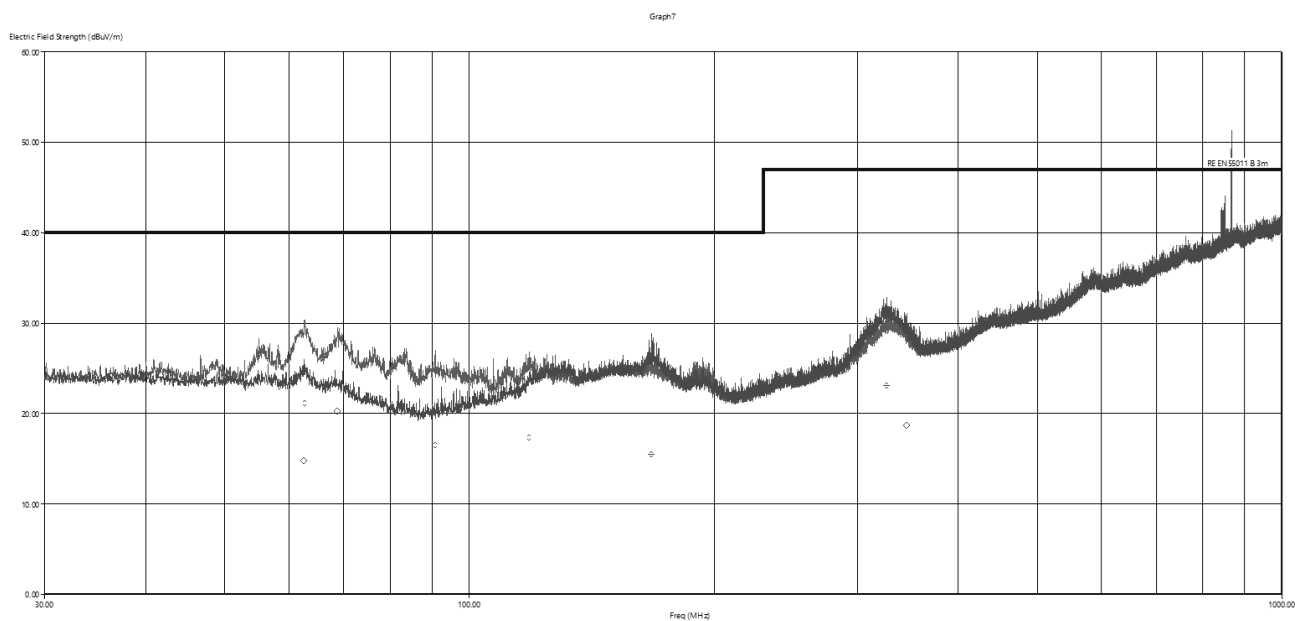
Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
36.87	H	255.9	149	9.09	40.00	30.91
159.45	H	66.0	149	17.93	40.00	22.07
396.81	H	88.5	101	23.82	47.00	23.18
31.20	V	133.5	120	25.05	40.00	14.95
40.92	V	108.1	120	24.89	40.00	15.11
161.16	V	108.9	120	17.83	40.00	22.17
36.87	H	255.9	149	9.09	40.00	30.91
159.45	H	66.0	149	17.93	40.00	22.07
396.81	H	88.5	101	23.82	47.00	23.18

50% Load



Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
62.22	H	301.8	149	15.67	40.00	24.33
210.00	H	300.6	149	19.18	40.00	20.82
255.69	H	312.9	101	14.61	47.00	32.39
336.12	H	311.5	101	27.62	47.00	19.38
31.02	V	36.6	199	12.16	40.00	27.84
36.45	V	38.5	199	13.01	40.00	26.99
68.64	V	255.4	199	21.46	40.00	18.54
110.97	V	248.0	149	17.10	40.00	22.90
344.70	V	125.5	149	24.05	47.00	22.95

0% Load



Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
62.64	H	309.9	299	14.86	40.00	25.14
167.64	H	328.9	149	15.54	40.00	24.46
326.37	H	122.6	101	23.14	47.00	23.86
62.73	V	279.5	120	21.21	40.00	18.79
68.85	V	277.6	120	20.32	40.00	19.68
90.78	V	244.1	149	16.60	40.00	23.40
118.41	V	256.0	120	17.39	40.00	22.61
345.96	V	150.5	149	18.72	47.00	28.28

6. Radiated Emissions (FCC Title 47 – 15 B)

MODEL : CUS250M-12/J

(1) Equipment Used

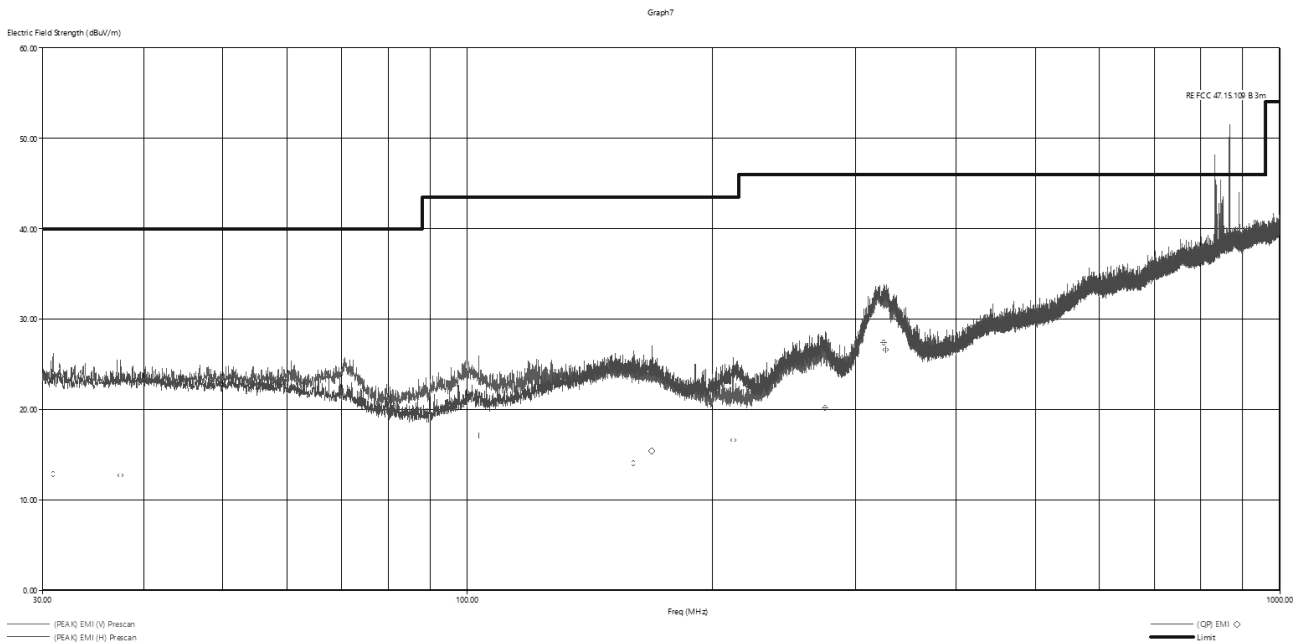
Receiver	:Rohde & Schwarz ESR 3
Antenna	:Schwarzbeck Mess VULB 9166
Controller	:Mature Control Unit MCU
Antenna Mast	:Mature Antenna Mast AM 4.0
Turntable	:Mature Turntable TT 2.0 SI
Semi-Anechoic Chamber	:TRS 3m Semi-Anechoic Chamber

(2) Test Conditions

Input Voltage	: 120VAC	Mains Frequency	:50Hz
Output Voltage	:Rated	Output Load	:100%
Class	:B	Ambient Temperature	:21°C

(3) Test Results

100% Load



Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
37.44	H	325.0	199	12.79	40.00	27.21
168.66	H	272.5	149	15.43	43.50	28.07
212.55	H	280.4	101	16.61	43.50	26.89
276.21	H	122.5	101	20.23	46.00	25.77
325.98	H	317.5	101	27.46	46.00	18.54
30.93	V	27.1	120	12.93	40.00	27.07
103.41	V	271.5	120	17.16	43.50	26.34
160.44	V	286.0	120	14.11	43.50	29.39
327.99	V	128.6	199	26.63	46.00	19.37