

360247

MU

EMISSIONS DATA

Template	260585 iss 1		
Doc No.	360247 iss 1		
	APPD	CHK	DWG
Sign			
Name	Alex Knill	Nick Heighington	Stuart Nottage
Date	08/10/2025	08/10/2025	08/10/2025

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

1. Summary of Emissions Test Result¹

MODEL : MU4

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	6	2.1%
Conducted Emissions	CISPR 11 / 32	B	PASS	8	
	FCC 47-15-B	B	PASS	11	Measured at 100VAC
Radiated Emissions	CISPR 11 / 32	B	PASS	16	
	FCC 47-15-B	B	PASS	19	

MODEL : MU6

Item	Standard	Test Class	Result	Page	Notes & Conditions
Input Current Harmonics	IEC61000-3-2	A	PASS	5	
Voltage Flicker	IEC61000-3-3	d _{max} <4%	PASS	7	3.9%
Conducted Emissions	CISPR 11 / 32	B	PASS	12	
	FCC 47-15-B	B	PASS	15	Measured at 100VAC
Radiated Emissions	CISPR 11 / 32	B	PASS	20	
	FCC 47-15-B	B	PASS	23	

¹ Full EMC Results for the MU Family are in document 260791 – MU Electromagnetic Compatibility Report.
Template No: 260585-1

2. Input Current Harmonics (IEC61000-3-2) MU4

MODEL: MU4FSDL T5H 5SBSJ 12SBSJ 24SBSJ 48SBSJ

(1) Equipment Used

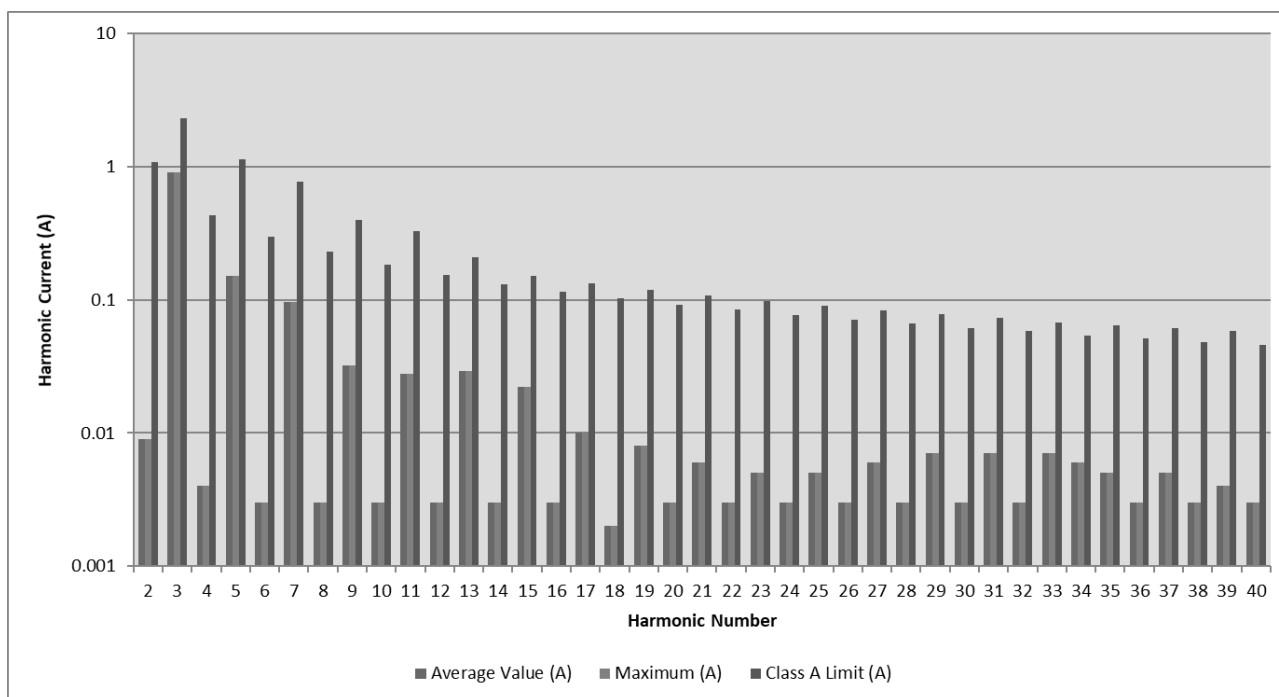
AC Power Source :Chroma 61505
Power Analyser :Vitrek PA900

(2) Test Conditions

Input Voltage :230VAC Mains Frequency :50Hz
Output Voltage :Rated Output Current :Full Load
Test Observation Period :1.5 seconds Ambient Temperature :25°C

(3) Test Result

230Vac



Test	Class	MU4
EN61000-3-2	A	PASS

3. Input Current Harmonics (IEC61000-3-2) MU6

MODEL: MU6FSDL T5H 12SBSL 12SBSL 12SBSL 12SBSL 12SBSL 12SBSL

(4) Equipment Used

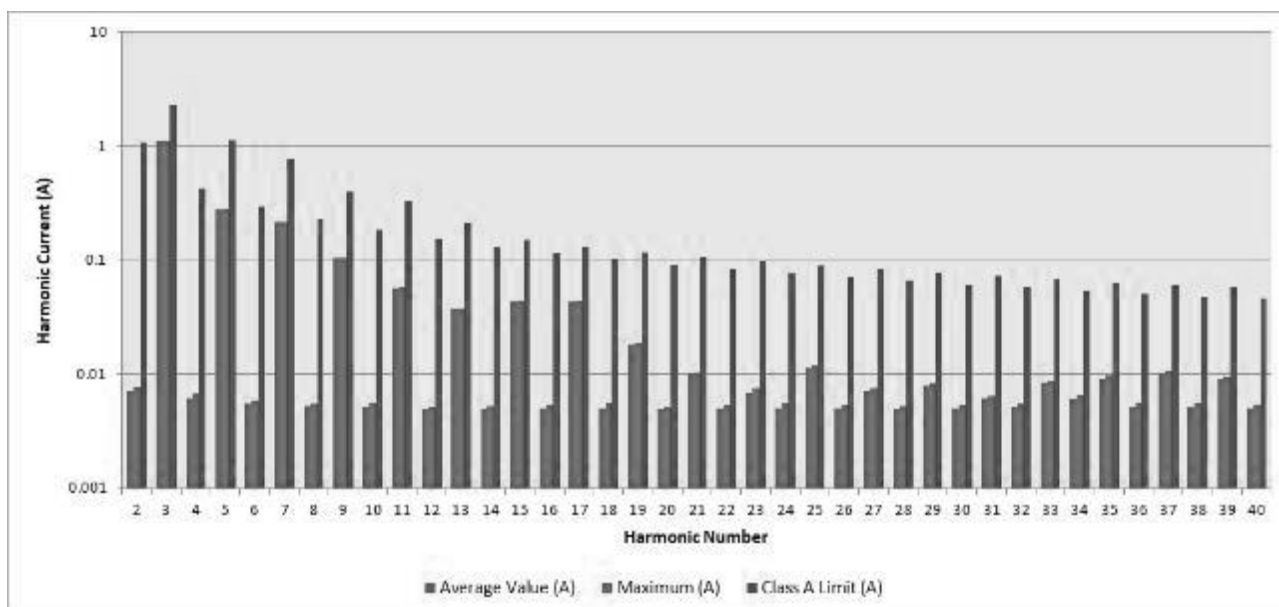
AC Power Source :Chroma 61505
Power Analyser :Vitretek PA900

(5) Test Conditions

Input Voltage :230VAC Mains Frequency :50Hz
Output Voltage :Rated Output Current :Full Load
Test Observation Period :1.5 seconds Ambient Temperature :25°C

(6) Test Result

230Vac



Test	Class	MU6
EN61000-3-2	A	PASS

4. Voltage Flicker (IEC61000-3-3) MU4

MODEL: MU4FSDL T5H 5SBSJ 12SBSJ 24SBSJ 48SBSJ

(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 :Full Load

Test : d_{max}

Ambient Temperature :25°C

(3) Test Result

Number	Voltage (V)	Percentage (%)
1	4.19	1.8%
2	5.03	2.2%
3	5.12	2.2%
4	4.84	2.1%
5	4.85	2.1%
6	4.70	2.0%
7	5.24	2.3%
8	4.50	2.0%
9	3.88	1.7%
10	4.98	2.2%
11	5.27	2.3%
12	3.97	1.7%
13	3.99	1.7%
14	5.02	2.2%
15	4.85	2.1%
16	5.42	2.4%
17	4.89	2.1%
18	3.84	1.7%
19	4.18	1.8%
20	5.36	2.3%
21	5.26	2.3%
22	4.66	2.0%
23	5.47	2.4%
24	4.65	2.0%
Maximum	5.47	2.4%
Minimum	3.84	1.7%
Average	4.77	2.1%

Test	Test	MU4
EN61000-3-3	$d_{max} < 4\%$	PASS

5. Voltage Flicker (IEC61000-3-3) MU6

**MODEL: MU6FSDL T5H 24SBSL 24SBSL 24SBSL 24SBSL
24SBSL 24SBSL**

(4) Equipment Used

AC Power Source

:Chroma 61505

Oscilloscope

: Rohde & Schwarz RTM3004

(5) Test Conditions

Input Voltage : 230VAC

Mains Frequency :50Hz

Output Voltage :Rated

Output Current :Full Load

Test :d_{max}

Ambient Temperature :25°C

(6) Test Result

Number	Voltage (V)	Percentage (%)
1	7.58	3.3%
2	9.57	4.2%
3	9.45	4.1%
4	9.91	4.3%
5	9.51	4.1%
6	8.64	3.8%
7	9.56	4.2%
8	9.12	4.0%
9	9.07	3.9%
10	9.60	4.2%
11	10.10	4.4%
12	9.08	3.9%
13	8.51	3.7%
14	9.59	4.2%
15	8.13	3.5%
16	9.36	4.1%
17	8.90	3.9%
18	9.47	4.1%
19	9.51	4.1%
20	7.55	3.3%
21	8.85	3.8%
22	8.31	3.6%
23	8.04	3.5%
24	9.65	4.2%
Maximum	10.10	4.4%
Minimum	7.55	3.3%
Average	9.06	3.9%

Test	Test	MU6
EN61000-3-3	d _{max} < 4%	PASS

6. Conducted Emissions (CISPR11) MU4

MODEL: MU4FSDL T5H 5SBSL 12SBSL 24SBSL 48SBSL

(1) Equipment Used

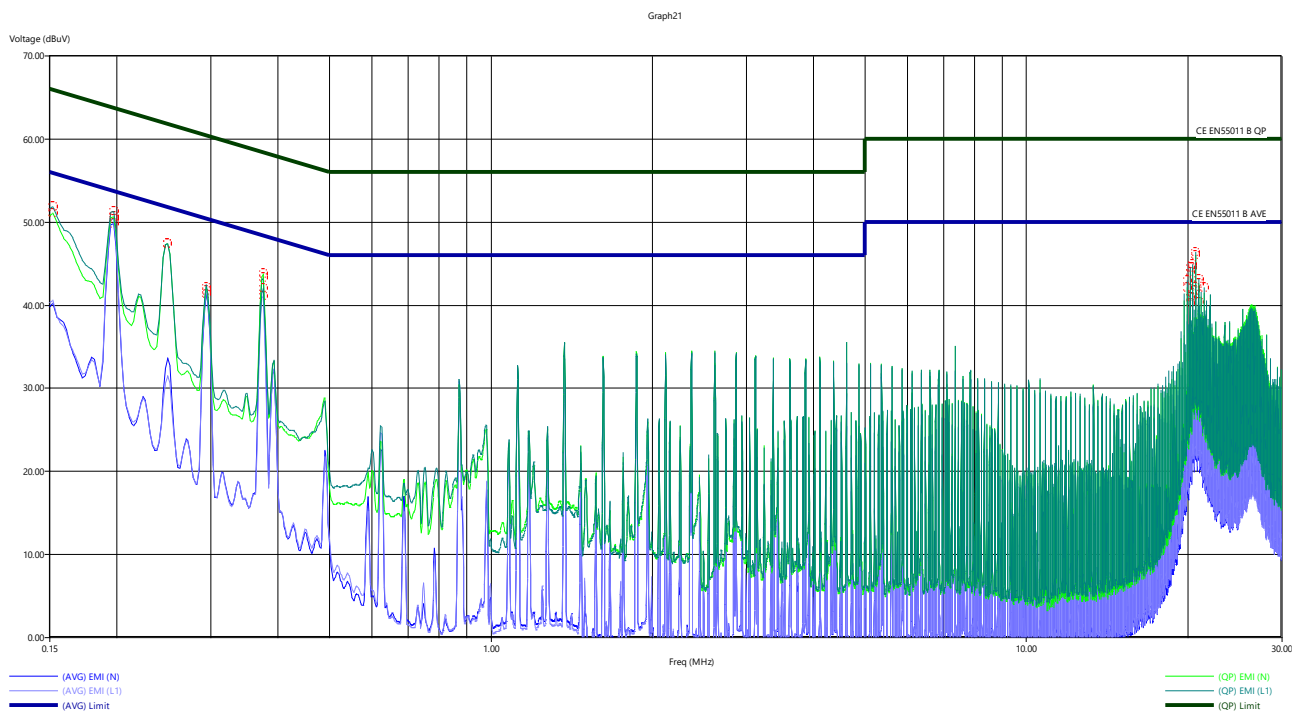
Receiver	:Rohde & Schwarz ESR 3
2 Line V-Network	:Rohde & Schwarz ESH3-Z5
Pulse Limiter	:Rohde & Schwarz ESH3-Z2

(2) Test Conditions

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

(3) Test Results

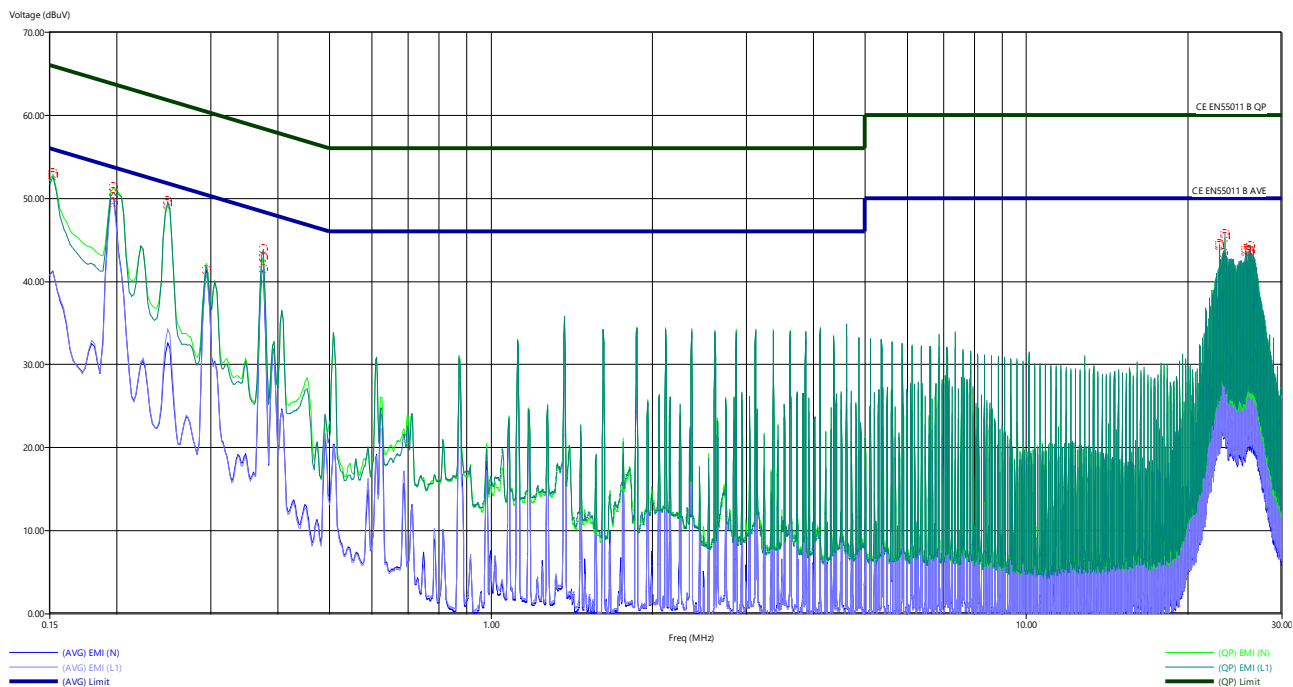
100% Load, 240VAC



Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Quasi-Peak (dBμV)	Limit (dBμV)	Margin (dB)
0.197	50.34	53.73	3.39	51.24	63.73	12.49
0.294	41.73	50.41	8.68	42.48	60.41	17.93
0.375	43.26	48.39	5.13	43.78	58.39	14.61
20.197	40.99	50.00	9.01	44.53	60.00	15.47
20.447	41.42	50.00	8.58	44.89	60.00	15.11
20.697	42.23	50.00	7.77	46.36	60.00	13.64

50% Load, 240VAC

Graph21



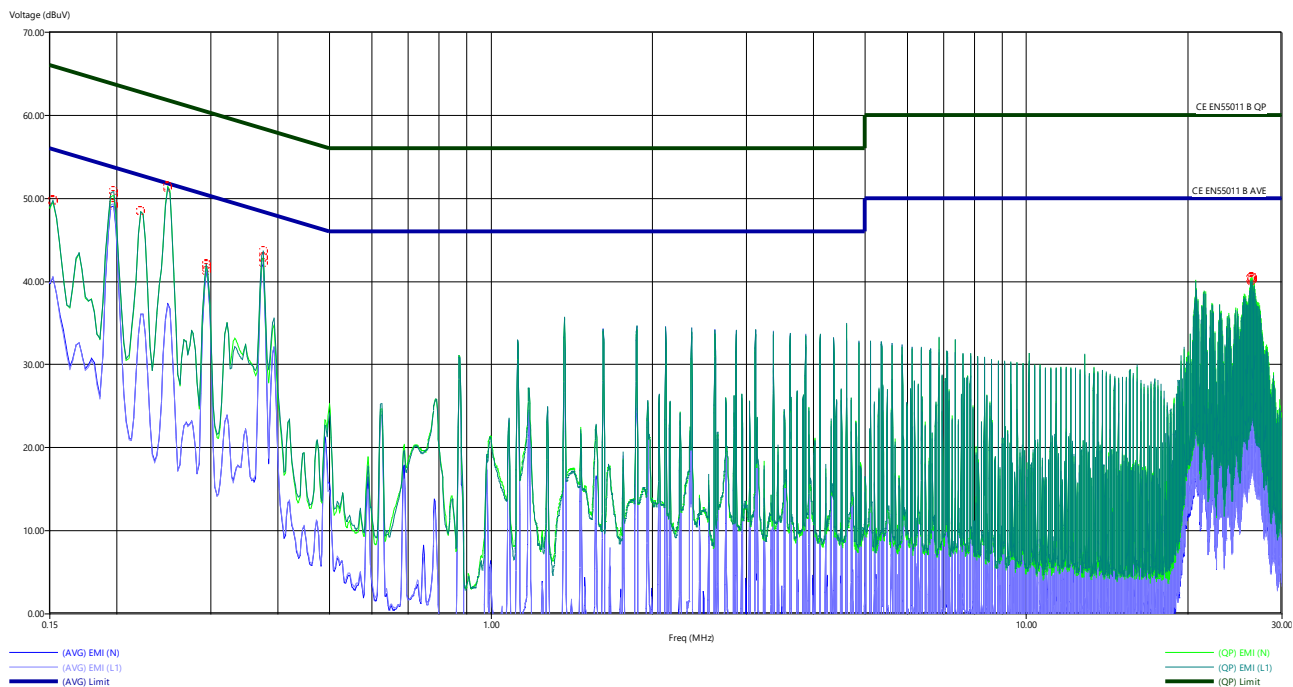
Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Quasi-Peak (dBμV)	Limit (dBμV)	Margin (dB)
0.197	50.03	53.73	3.70	51.33	63.73	12.40
0.375	42.75	48.39	5.64	43.83	58.39	14.56
25.894	41.85	50.00	8.15	43.62	60.00	16.38
25.991	41.70	50.00	8.30	43.68	60.00	16.32
26.090	41.87	50.00	8.13	43.74	60.00	16.26
26.189	41.75	50.00	8.25	44.18	60.00	15.82

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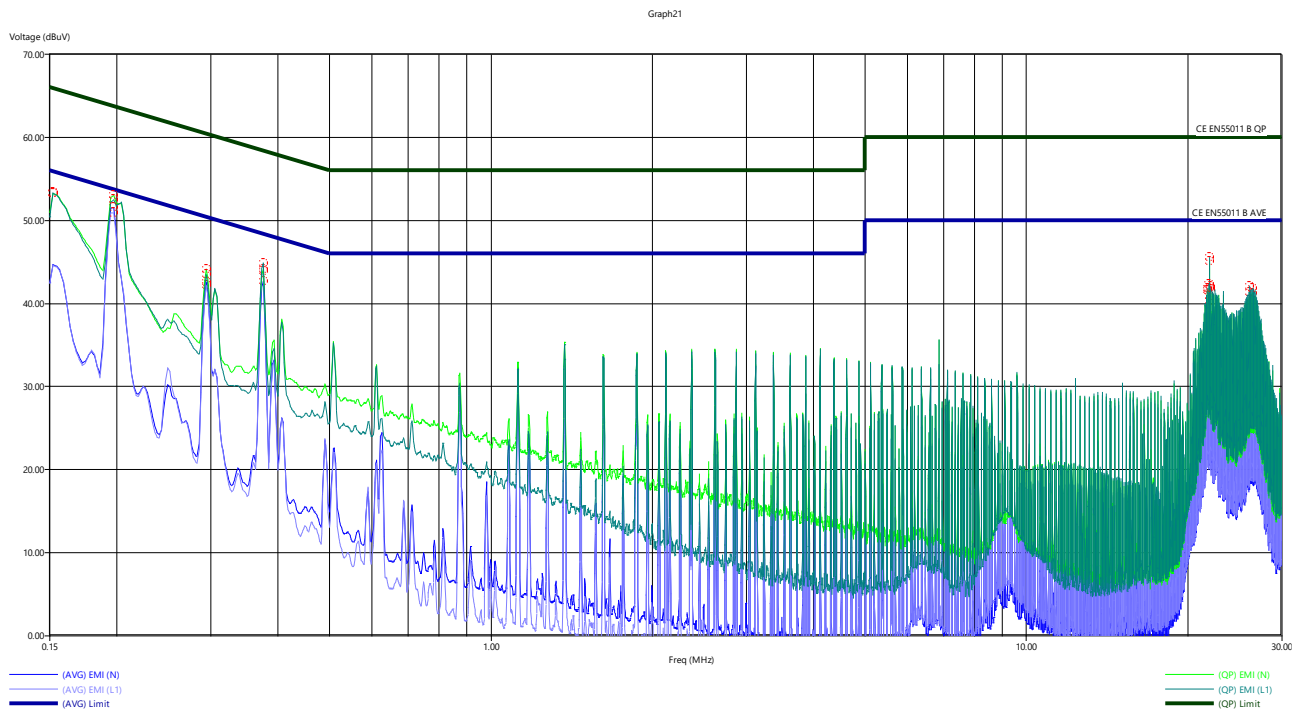
MU

0% Load, 240VAC

Graph21



100% Load, 100VAC



Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Quasi-Peak (dBμV)	Limit (dBμV)	Margin (dB)
0.197	51.50	53.73	2.23	53.04	63.73	10.69
0.294	42.60	50.41	7.81	44.15	60.41	16.26
0.375	43.88	48.39	4.51	44.90	58.39	13.49
21.964	40.90	50.00	9.10	45.49	60.00	14.51
21.966	40.67	50.00	9.33	45.43	60.00	14.57
26.475	39.91	50.00	10.09	41.82	60.00	18.18

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

7. Conducted Emissions (CISPR11) MU6

MODEL: MU6PSDL T5H 12SCSG 12SBSL 12SBSL 12SBSL 12SBSL

(4) Equipment Used

Receiver

:Rohde & Schwarz ESR 3

2 Line V-Network

:Rohde & Schwarz ENV216

(5) Test Conditions

Input Voltage : 100VAC, 240VAC

Mains Frequency :50Hz

Output Voltage :Rated

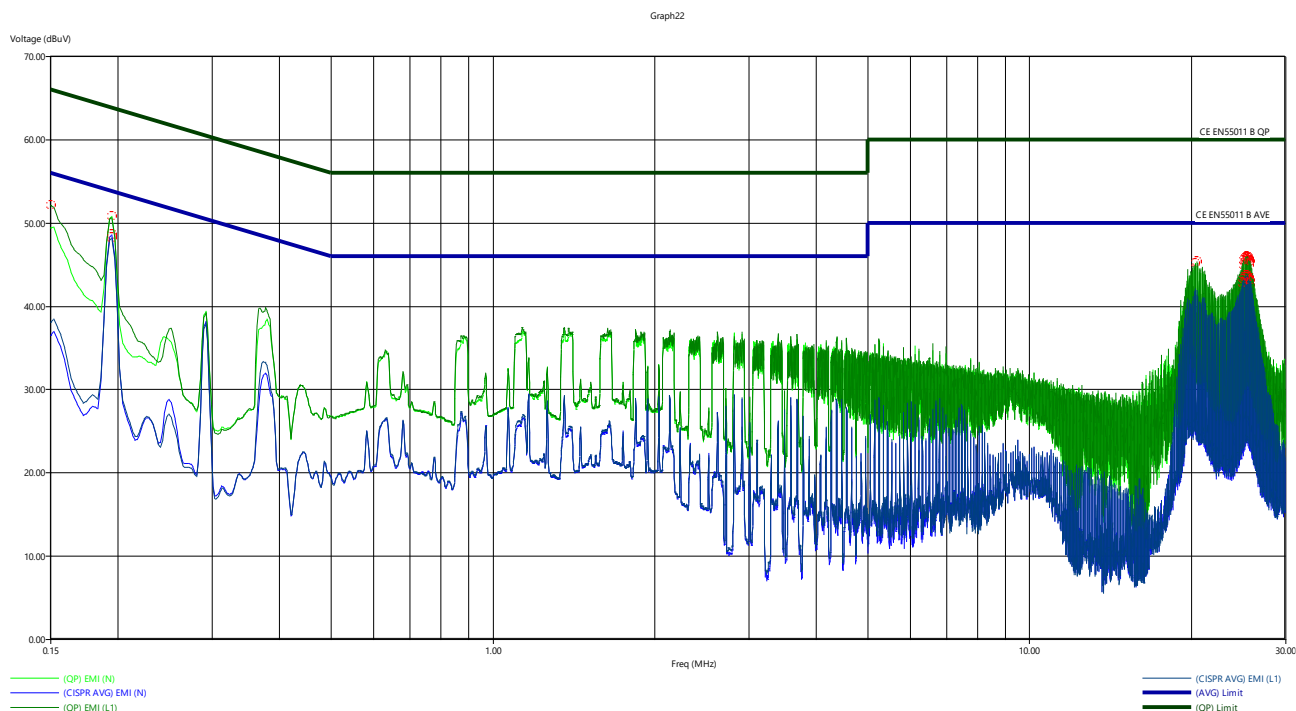
Output Load :100%, 50% and 0%

Class :B

Ambient Temperature :21°C

(6) Test Results

100% Load, 240VAC



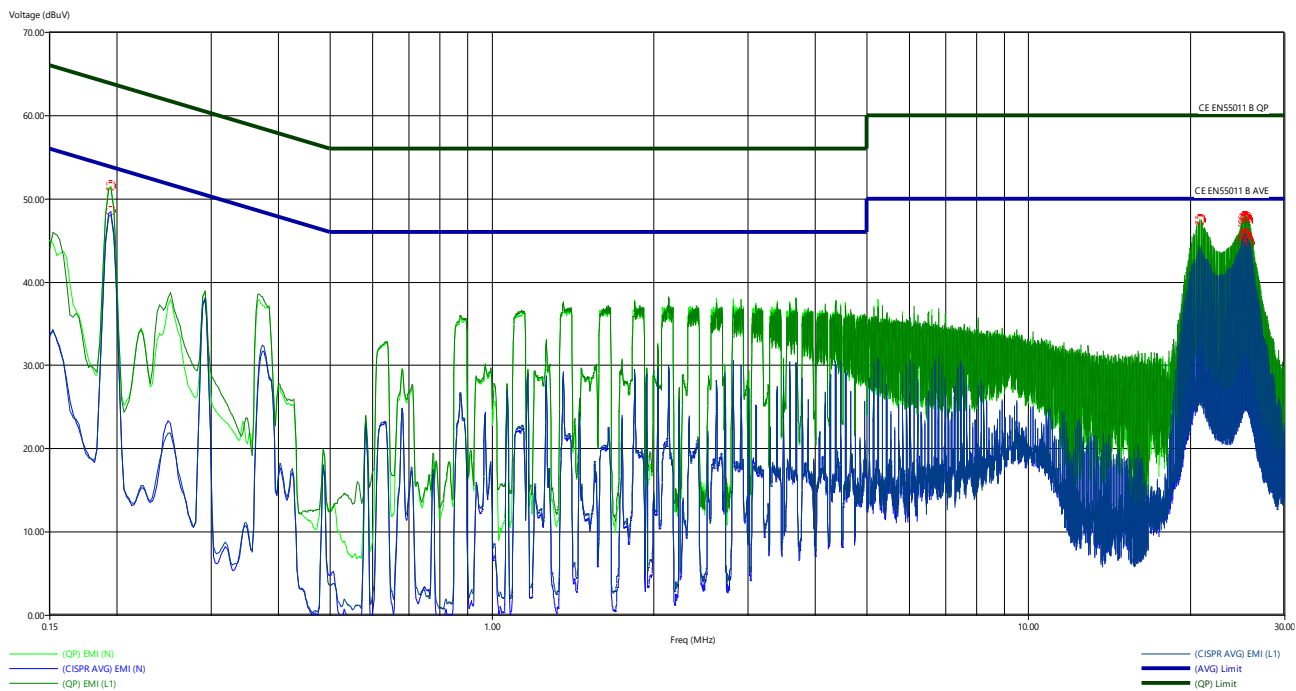
Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Quasi-Peak (dBμV)	Limit (dBμV)	Margin (dB)
0.195	48.56	53.82	5.26	50.77	63.82	13.05
25.134	43.53	50.00	6.47	45.74	60.00	14.26
25.231	43.70	50.00	6.30	45.91	60.00	14.09
25.328	43.77	50.00	6.23	46.03	60.00	13.97
25.424	43.71	50.00	6.29	46.03	60.00	13.97
25.523	43.53	50.00	6.47	45.92	60.00	14.08

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MU

50% Load, 240VAC

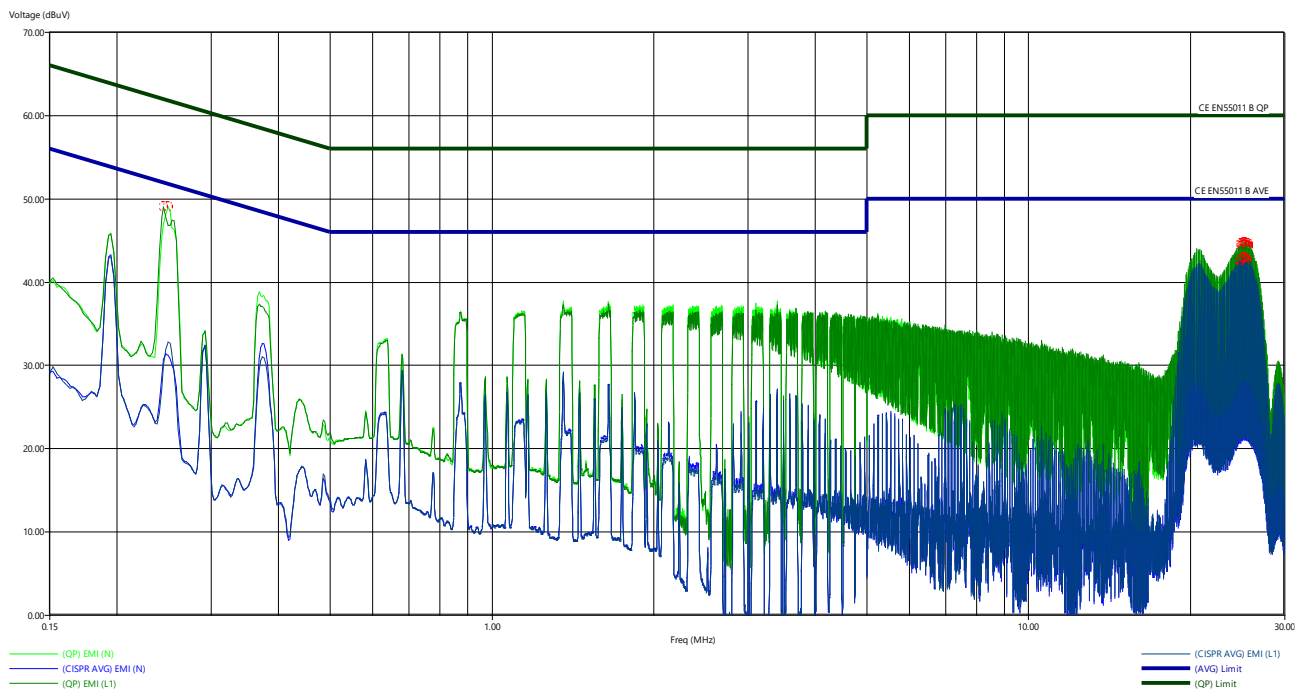
Graph22



Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Quasi-Peak (dBμV)	Limit (dBμV)	Margin (dB)
25.037	45.32	50.00	4.68	47.47	60.00	12.53
25.134	45.64	50.00	4.36	47.74	60.00	12.26
25.231	45.82	50.00	4.18	47.90	60.00	12.10
25.328	45.85	50.00	4.15	47.97	60.00	12.03
25.424	45.72	50.00	4.28	47.90	60.00	12.10
25.521	45.46	50.00	4.54	47.76	60.00	12.24

0% Load, 240VAC

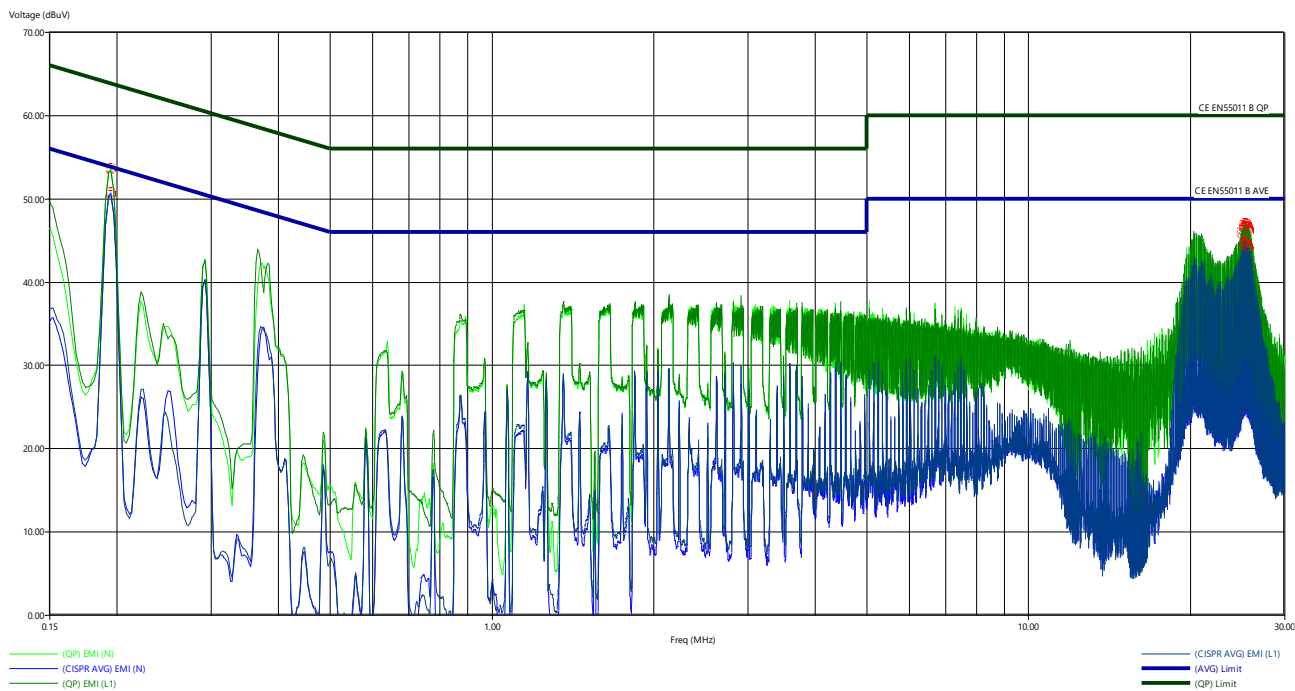
Graph22



Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Quasi-Peak (dBμV)	Limit (dBμV)	Margin (dB)
24.943	42.69	50.00	7.31	44.63	60.00	15.37
25.040	42.83	50.00	7.17	44.72	60.00	15.28
25.136	42.90	50.00	7.10	44.77	60.00	15.23
25.233	42.93	50.00	7.07	44.79	60.00	15.21
25.330	42.88	50.00	7.12	44.77	60.00	15.23
25.426	42.78	50.00	7.22	44.73	60.00	15.27

100% Load, 100VAC

Graph22



Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Quasi-Peak (dBμV)	Limit (dBμV)	Margin (dB)
0.195	50.70	53.82	3.12	53.56	63.82	10.26
25.143	44.64	50.00	5.36	46.85	60.00	13.15
25.240	44.84	50.00	5.16	47.07	60.00	12.93
25.336	44.87	50.00	5.13	47.13	60.00	12.87
25.433	44.76	50.00	5.24	47.06	60.00	12.94
25.530	44.54	50.00	5.46	46.88	60.00	13.12

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

8. Radiated Emissions (CISPR11) MU4

MODEL: MU4FSDL T5H 5SBSL 12SBSL 24SBSL 48SBSL

(1) Equipment Used

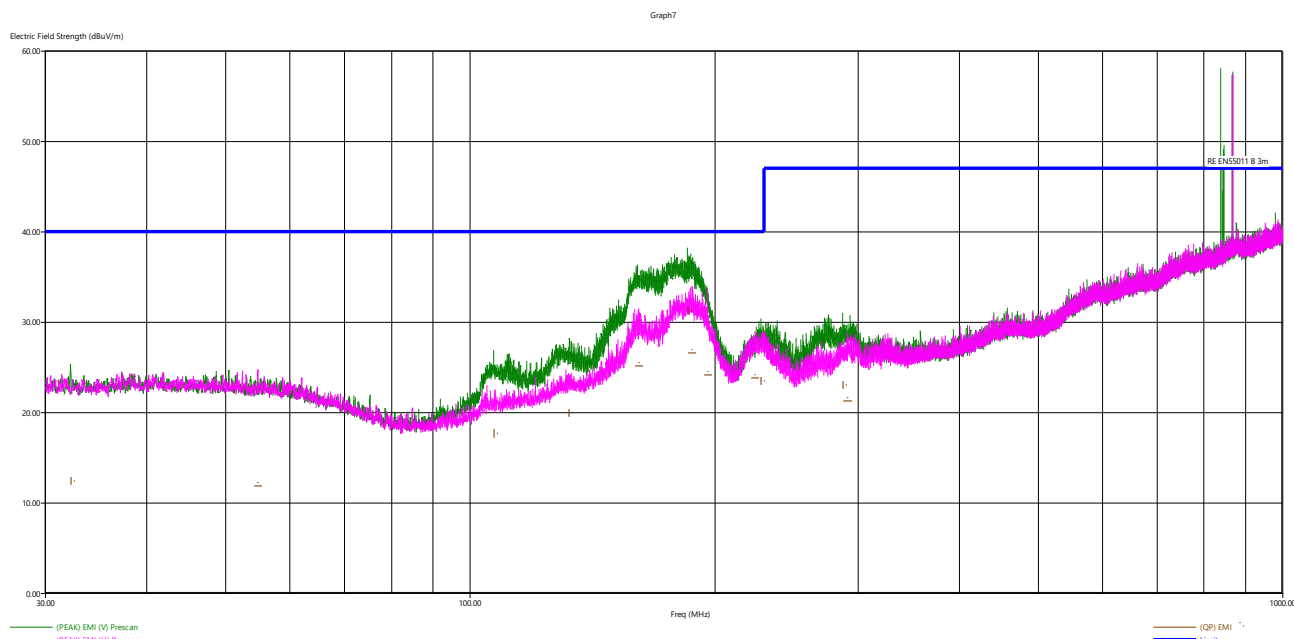
Receiver	:Rohde & Schwarz ESR 3
Antenna	:Schwarzbeck Mess VULB 9168
Controller	:Mature Control Unit MCU
Antenna Mast	:Mature Antenna Mast AM 4.0
Turntable	:Mature Turntable TT 2.0 SI
Semi-Anechoic Chamber	:TRS 3m Semi-Anechoic Chamber

(2) Test Conditions

Input Voltage	: 230VAC	Mains Frequency	:50Hz
Output Voltage	:Rated	Output Load	:100%, 50% and 0%
Class	:B	Ambient Temperature	:21°C

(3) Test Results

100% Load

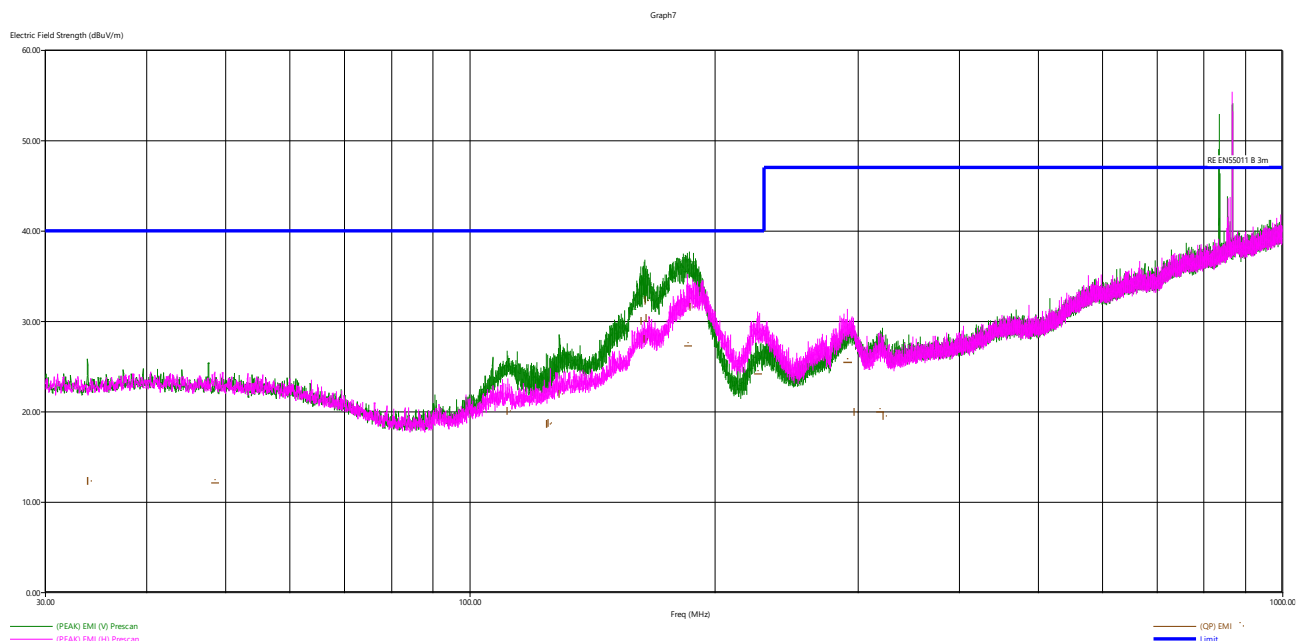


Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBuV/m)	Limit (dBuV/m)	Margin (dB)
161.19	H	79.5	199	25.10	40.00	14.90
187.68	H	335.5	249	26.53	40.00	13.47
195.90	H	12.5	149	24.12	40.00	15.88
224.13	H	335.9	149	23.72	40.00	16.28
185.13	V	140.5	101	31.23	40.00	8.77
227.76	V	12.0	101	23.42	40.00	16.58

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MU

50% Load

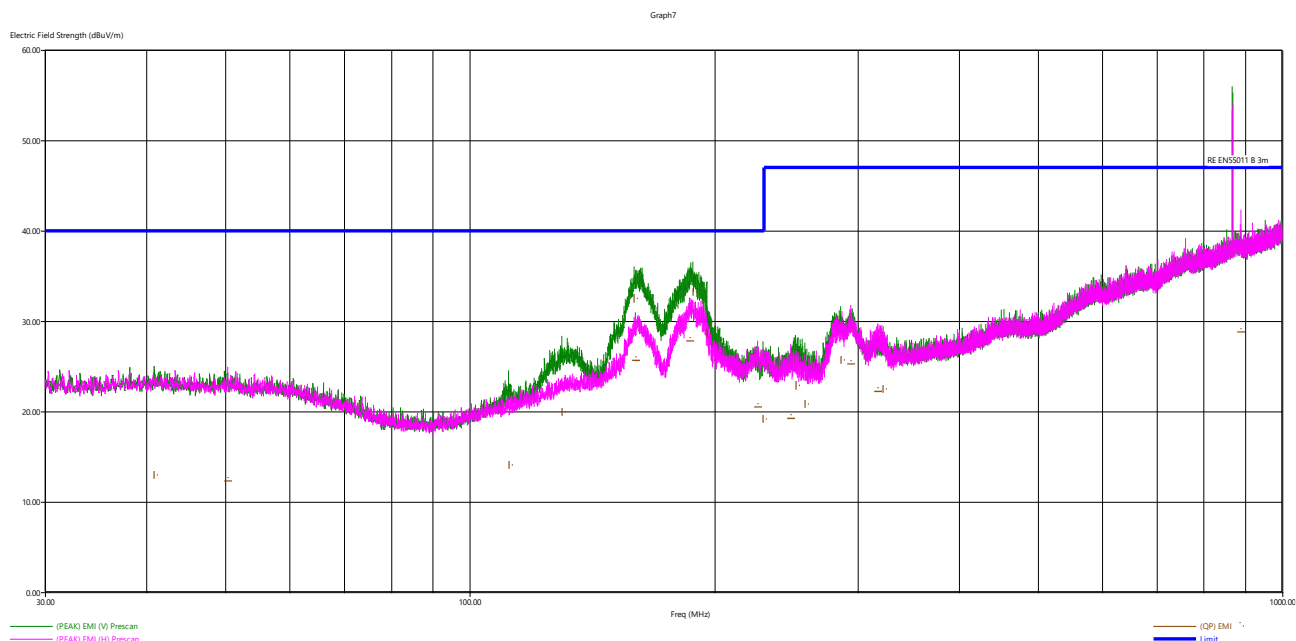


Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)
184.98	H	270.4	199	27.22	40.00	12.78
162.18	V	130.6	101	30.03	40.00	9.97
163.62	V	132.5	101	27.99	40.00	12.01
163.95	V	130.6	101	32.24	40.00	7.76
164.67	V	132.5	101	30.32	40.00	9.68
186.15	V	105.5	101	31.55	40.00	8.45

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MU

0% Load



Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)
159.54	H	85.6	199	25.59	40.00	14.41
186.15	H	338.4	149	27.77	40.00	12.23
887.85	H	31.6	299	28.75	47.00	18.25
159.00	V	12.5	101	32.49	40.00	7.51
187.95	V	74.4	101	33.12	40.00	6.88
195.39	V	73.0	101	28.61	40.00	11.39

9. Radiated Emissions (FCC Title 47 – 15 B) MU4

MODEL: MU4FSDL T5H 5SBSL 12SBSL 24SBSL 48SBSL

(1) Equipment Used

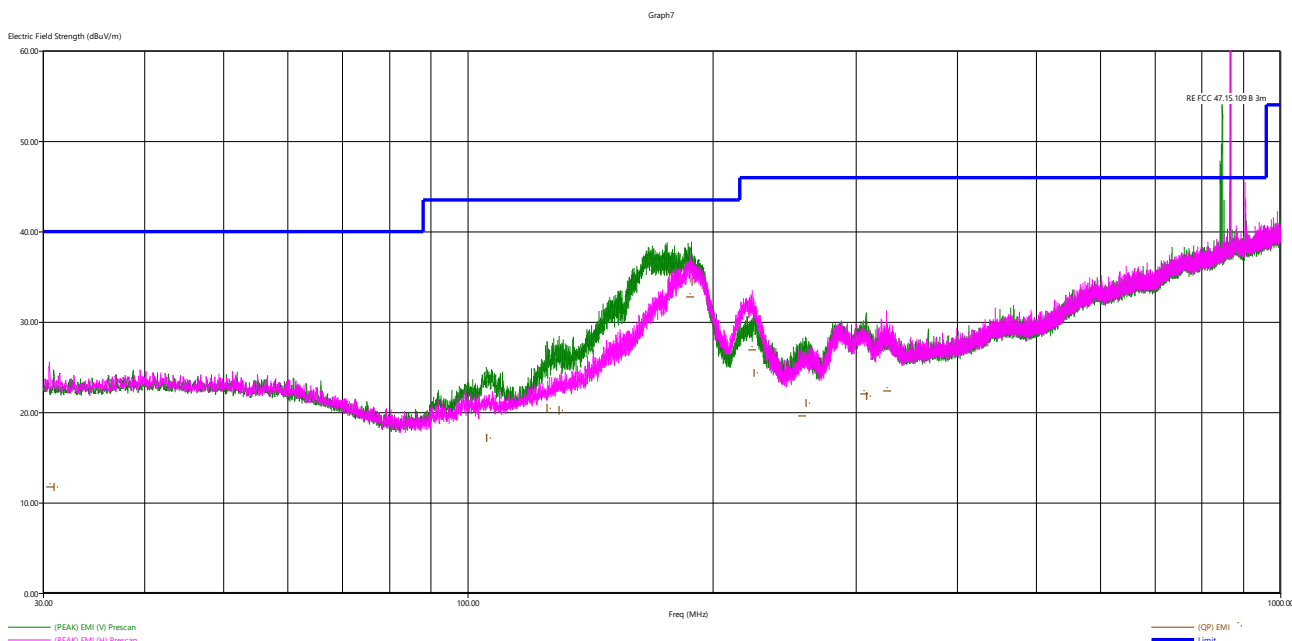
Receiver	:Rohde & Schwarz ESR 3
Antenna	:Schwarzbeck Mess VULB 9168
Controller	:Mature Control Unit MCU
Antenna Mast	:Mature Antenna Mast AM 4.0
Turntable	:Mature Turntable TT 2.0 SI
Semi-Anechoic Chamber	:TRS 3m Semi-Anechoic Chamber

(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 (dBuV/m)	Limit (dBuV/m)	Margin (dB)
187.62	H	342.5	199	32.75	43.50	10.75
223.47	H	341.1	199	26.85	46.00	19.15
125.10	V	1.4	101	20.40	43.50	23.10
175.62	V	59.5	101	35.46	43.50	8.04
188.28	V	43.5	149	34.41	43.50	9.09
224.67	V	32.0	101	24.30	46.00	21.70

10. Radiated Emissions (CISPR11) MU6

MODEL: MU6PSDL T5H 12SCSG 12SBSL 12SBSL 12SBSL 12SBSL

(4) Equipment Used

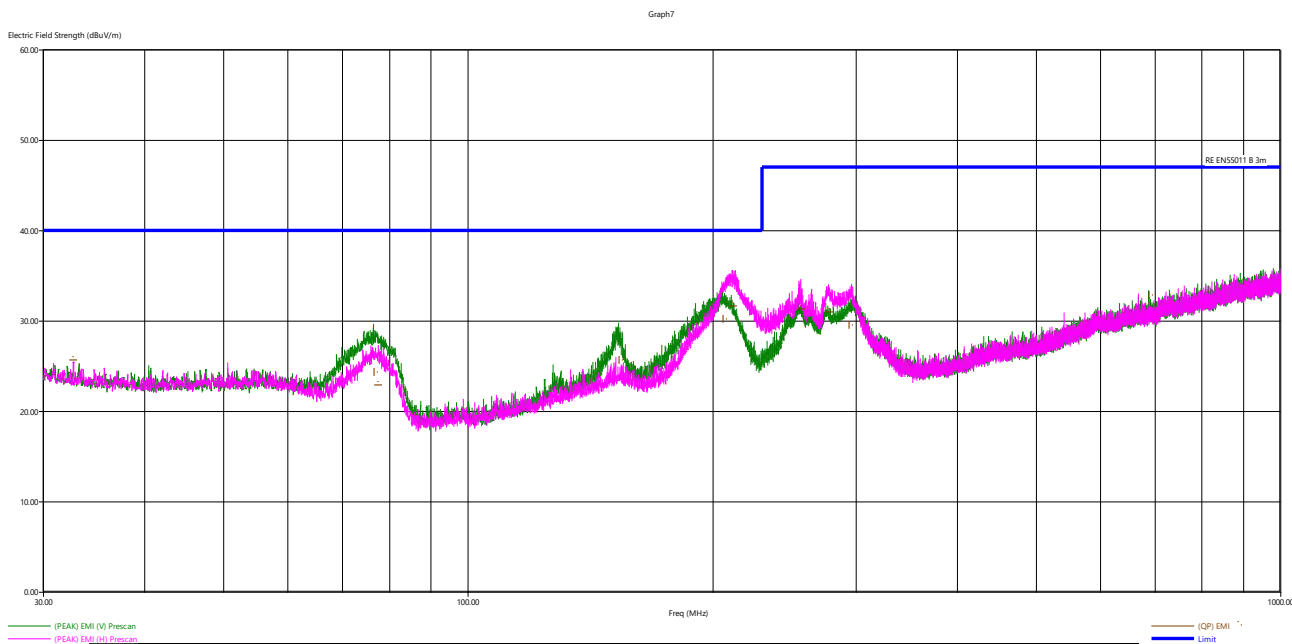
Receiver	: Rohde & Schwarz ESR 3
Antenna	: Schwarzbeck Mess VULB 9168
Controller	: Maturo Control Unit MCU
Antenna Mast	: Maturo Antenna Mast AM 4.0
Turntable	: Maturo Turntable TT 2.0 SI
Semi-Anechoic Chamber	: TRS 3m Semi-Anechoic Chamber

(5) Test Conditions

Input Voltage	: 230VAC	Mains Frequency	: 50Hz
Output Voltage	: Rated	Output Load	: 100%, 50% and 0%
Class	: B	Ambient Temperature	: 21°C

(6) Test Results

100% Load

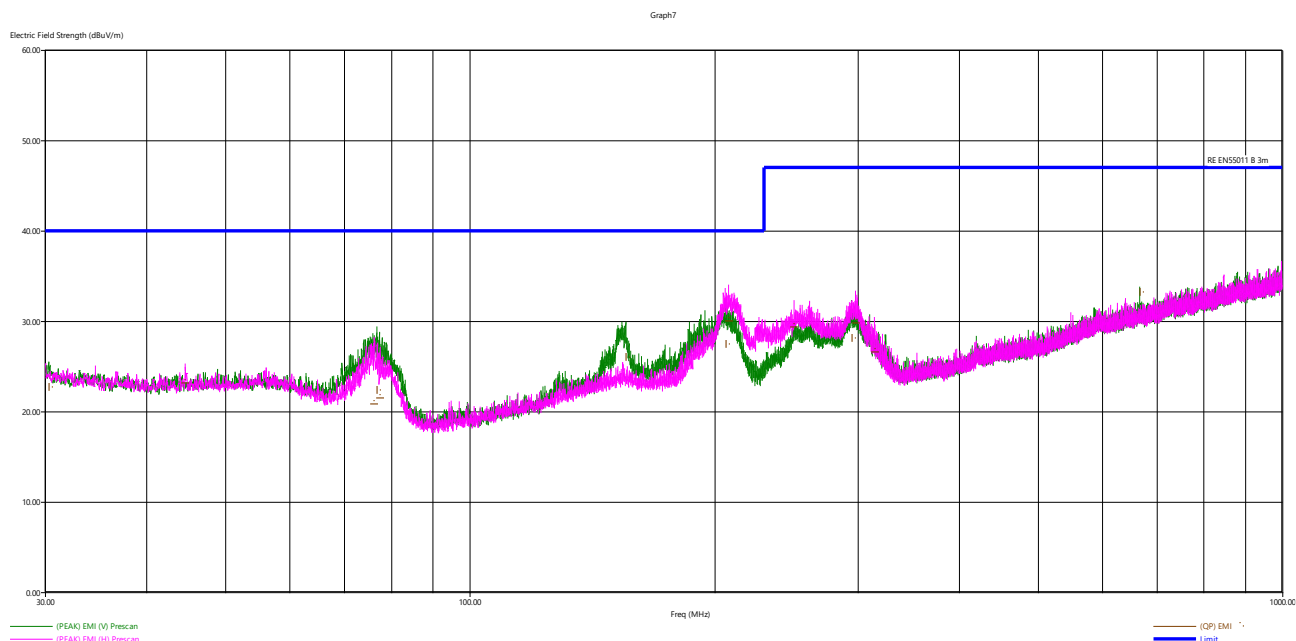


Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBuV/m)	Limit (dBuV/m)	Margin (dB)
32.64	H	177.0	399	25.62	40.00	14.38
211.71	H	338.5	149	31.58	40.00	8.42
76.38	V	12.5	101	24.31	40.00	15.69
153.06	V	14.2	101	25.58	40.00	14.42
205.47	V	64.5	149	30.13	40.00	9.87
687.39	V	181.4	349	32.81	47.00	14.19

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50% Load

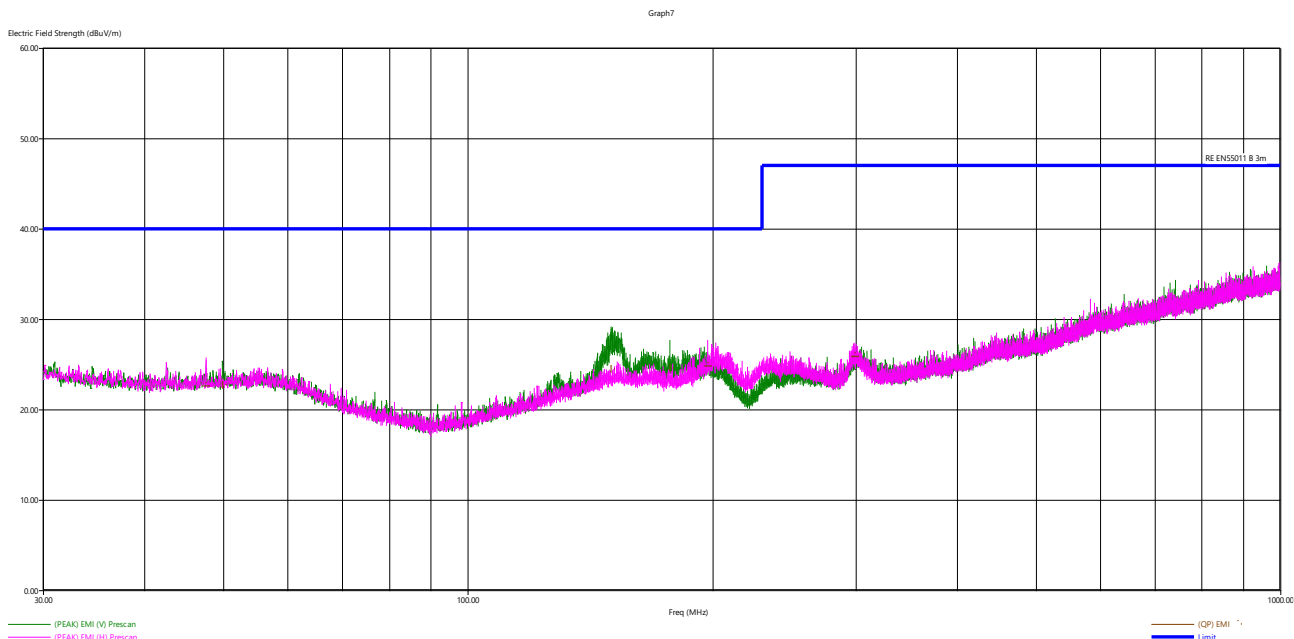


Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)
44.58	H	287.9	199	23.16	40.00	16.84
207.81	H	298.5	199	30.01	40.00	9.99
297.90	H	354.0	101	29.76	47.00	17.24
155.34	V	177.5	101	25.99	40.00	14.01
206.40	V	53.5	199	27.48	40.00	12.52
666.54	V	2.6	349	33.16	47.00	13.84

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MU

0% Load



Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
47.58	H	23.9	299	22.52	40.00	17.48
197.22	H	269.5	149	24.76	40.00	15.24
298.98	H	68.6	101	25.85	47.00	21.15
49.83	V	185.5	101	22.69	40.00	17.31
149.82	V	19.6	101	24.38	40.00	15.62
177.12	V	159.4	101	24.58	40.00	15.42

11. Radiated Emissions (FCC Title 47 – 15 B) MU6

MODEL: MU6PSDL T5H 12SCSG 12SBSL 12SBSL 12SBSL 12SBSL

(7) Equipment Used

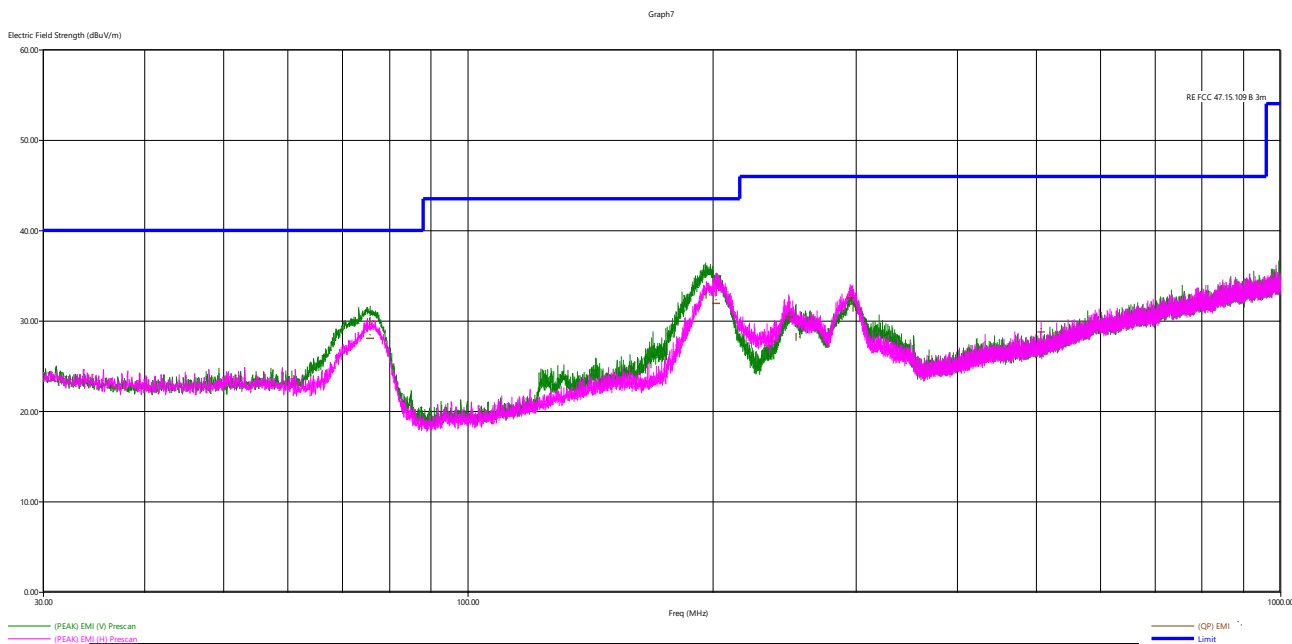
Receiver	: Rohde & Schwarz ESR 3
Antenna	: Schwarzbeck Mess VULB 9168
Controller	: Maturo Control Unit MCU
Antenna Mast	: Maturo Antenna Mast AM 4.0
Turntable	: Maturo Turntable TT 2.0 SI
Semi-Anechoic Chamber	: TRS 3m Semi-Anechoic Chamber

(8) Test Conditions

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

(9) Test Results

100% Load



Frequency (MHz)	Polarisation	EUT Angle (Degrees)	Tower Height (cm)	Quasi-Peak (dBuV/m)	Limit (dBuV/m)	Margin (dB)
75.57	H	285.9	249	27.97	40.00	12.03
201.81	H	298.5	199	31.86	43.50	11.64
295.11	H	67.5	101	32.46	46.00	13.54
75.72	V	19.6	149	29.92	40.00	10.08
195.96	V	75.5	101	32.78	43.50	10.72
297.12	V	204.5	149	31.40	46.00	14.60