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GENERAL INFORMATION

1 APPLICANT : UIS ABLER ELECTRONICS CO., LTD.

2 ADDRESS : 1F, No. 3, Lane 7, Paokao Rd.,
Hsintien 23114, Taipei Hsien,
Taiwan, R. O. C.

3 MANUFACTURER : UIS ABLER ELECTRONICS CO., LTD.

4 ADDRESS : 1F, No. 3, Lane 7, Paokao Rd.,
Hsintien 23114, Taipei Hsien,
Taiwan, R. O. C.

5 DESCRIPTION OF EUT :

EUT	:	VESTA PLASTIC UPS Series
FCC ID	:	OUAUIS-VT1
Model Number	:	VT625P; VT525P
Serial #	:	N/A
Data Cable	:	UN-SHIELDED
Power Cord	:	UN-SHIELDED
Power Supply Type	:	SWITCHING

6 FEATURES OF EUT :

		VT525P	VT625P
6.1	Break Down Voltage:	AC1500V/1min (10mA/Max)	
6.2	Isolation Impedence:	DC500V>100MΩ	
6.3	Output Voltage:	110V 115Vac ± 6%	
6.4	Output Voltage frequency:	60HZ / ± 1HZ	
6.5	Battery Charge Voltage(VDC):	13.8 ± 0.4%	
6.6	Battery discharge cutoff voltage:	10 ± 0.5Vdc.	
6.7	Full load discharge time:	280W/3min30sec.	350W ± 2.5 min
6.8	Over load protection (AC oN):	300W ± 30W	380W ± 30W
6.9	Over load protection (AC off):	280W ± 30W	350W ± 30W
6.10	AC→DC Switch time:	2~8ms	
6.11	DC→AC Switch time:		
6.12	AVR LOW active/inactive vlotage:	110V 100 ± 7 / 105 ± 7	
6.13	AVR High active/inactive vlotage:	110V 122 ± 7 / 117 ± 7	
6.14	AC LOW active/inactive vlotage:	110V 78 ± 5 / 93 ± 5	
6.15	AC High active/inactive vlotage:	110V 137 ± 7 / 132 ± 7	

MODIFICATION LIST

THE FOLLOWING ACCESSORIES WERE ADDED TO THE EUT DURING TESTING :

NO MODIFICATION BY HOMETEK TECHNOLOGY INC.

CONDUCTED POWER LINE TEST

1 TEST INSTRUMENTS & FACILITIES

The following test Instruments was used during the conducted test :

Item	Instruments/ Facilities	Specification	Manufacturer	Model #	Date Of Cal.
1	EMI Receiver	9KHz ~ 30MHz	ROHDE & SCHWARZ	ESHS 30	MAR/99
2	LISN	50Ω/50uH/100A 9KHz ~ 30MHz	SCHWARZ BECK	NNLK 8121	MAR/99
3	LISN	9KHz ~ 30MHz	ROHDE & SCHWARZ	ESH3-Z5	MAR/99
4	ESXS-K1	Version 2.03b	ROHDE & SCHWARZ	1082.9678.02 840.913/246	N/A
5	Cables	10KHz ~ 30MHz		NO : 10	JUL/99

2 TEST PROCEDURE

2.1 The EUT was tested according to **EN55022** Class B.

2.2 The EUT was placed 0.4 meter from the conducting wall of shielding room and kept at least 0.8 meter from any other grounded conducting surface.

2.3 The frequency range form 0.15 MHz to 30 MHz was investigated.

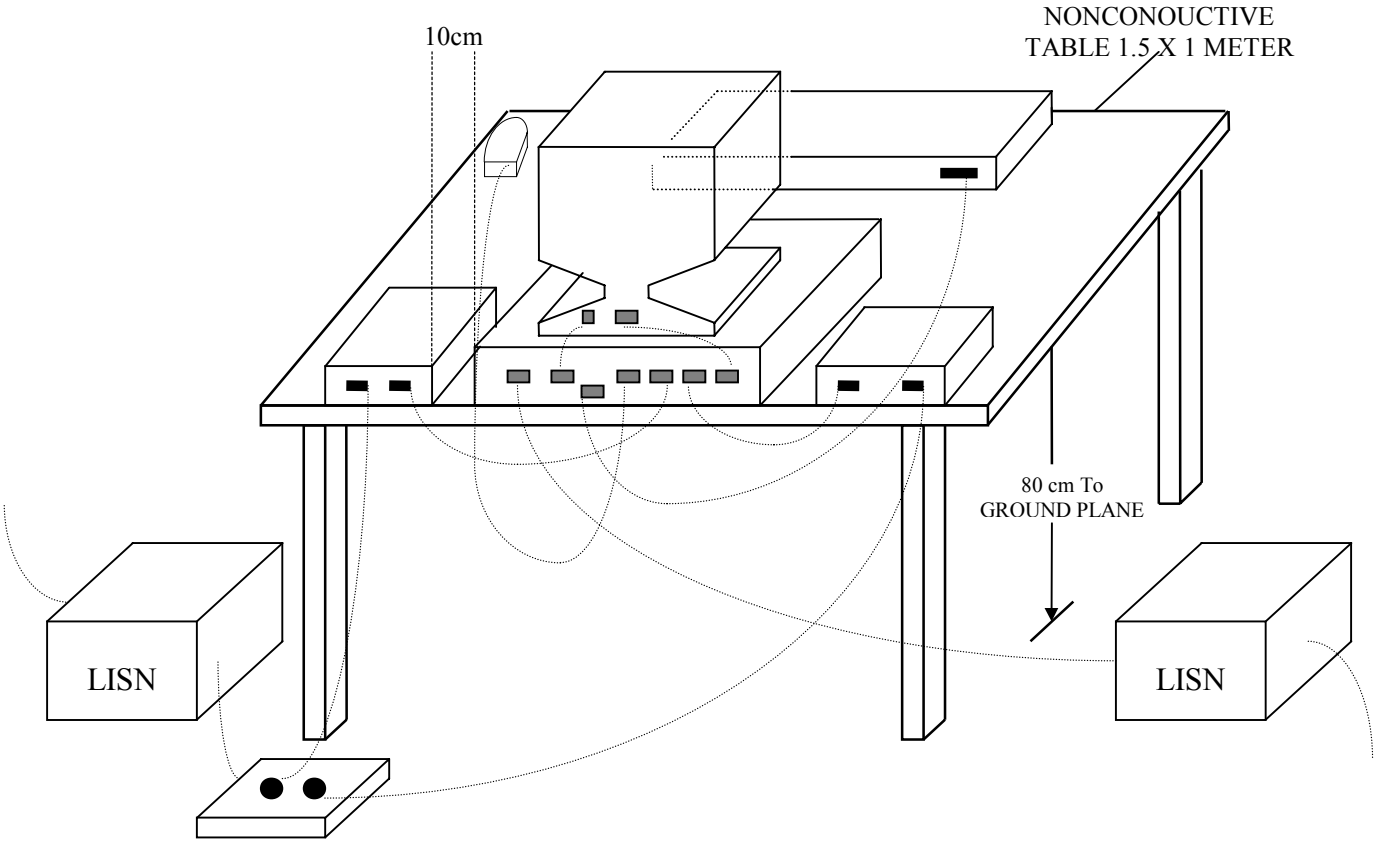
2.4 The LISN used was 50 Ohm / 50 uHenry as specified by **EN55022,** and AC power source is 110V/60Hz.

2.5 All the support peripherals are connect to the other LISN.

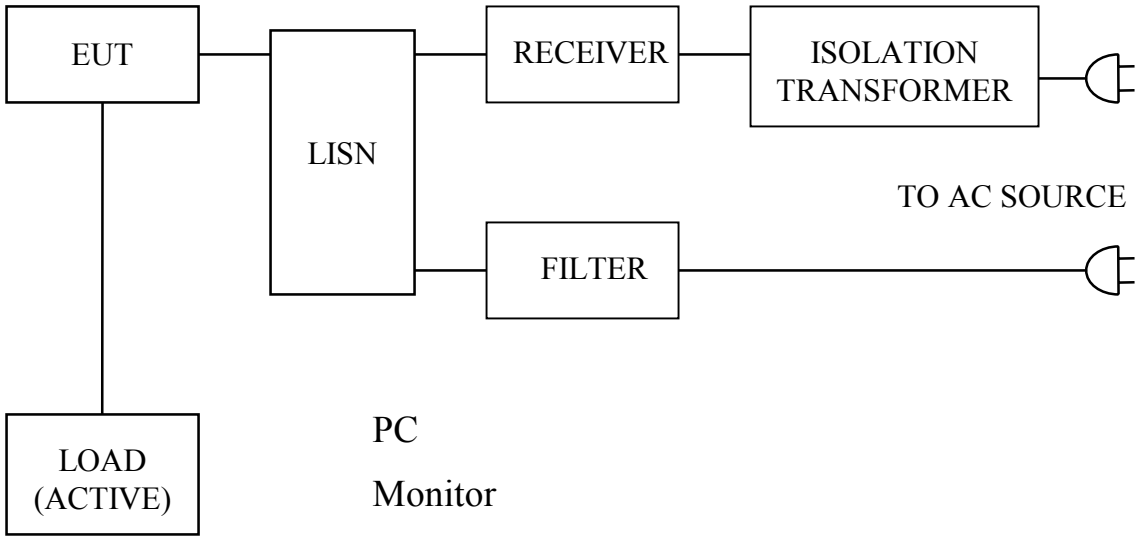
2.6 Cables and peripherals were moved to find the maximum emission levels for each frequency.

3 TEST SETUP

3.1 Typical : Setup Of Conducted Test



3.2 Block Diagram Of Conducted Test



PC

Monitor

Mouse

Key Board

Load

4 CONFIGURATION OF THE EUT

The EUT was configured according to **EN55022**. All I/O ports were connected to the appropriate peripherals. All peripherals and cables are listed below (including internal device) :

4.1 EUT

EUT Type	:	☐Proto Type Engineer Type ☐Mass Production
Condition when received	:	Good ☐Damage :
Connector Type	:	Metal Type ☐Plastic Type
Device	:	VESTA PLASTIC UPS Series
Applicant	:	UIS ABLER
Manufacturer	:	UIS ABLER
Model Number	:	VT625P; VT525P
Serial Number	:	N/A
FCC ID	:	OUAUIS-VT1
Data Cable	:	Un-Shielded, 1.8 m
Power Cord	:	Un-Shielded, 1.8 m

4.2 PERIPHERALS

Host Personal Computer

Manufacturer	:	Chaintech
Model Number	:	6LTL-S101
Serial Number	:	N/A
FCC ID	:	FCC DoC
Data Cable	:	Shielded
Power Cord	:	Shielded, 1.8 m

Monitor		
Manufacturer	:	GVC
Model Number	:	M1448P
Serial Number	:	4PTA730020050
FCC ID	:	DK4M1448
Data Cable	:	Shielded, 1.5 m, Connected to the VGA port
Power Cord	:	Un-Shielded, 1.8 m

Mouse (PSII)		
Manufacturer	:	HP
Model Number	:	M-S34
Serial Number	:	LZA72270727
FCC ID	:	DZL211029
Data Cable	:	Shielded, 1.8 m, Connected to the PSII port
Power Cord	:	N/A

KeyBoard (PSII)		
Manufacturer	:	SILITEK
Model Number	:	SK-2700
Serial Number	:	N/A
FCC ID	:	GYUR55SK
Data Cable	:	Shielded, 1.5 m, Connected to the PSII port
Power Cord	:	N/A

Load		
Manufacturer	:	HOMETEK
Model Number	:	LD01
Serial Number	:	N/A
FCC ID	:	N/A
Data Cable	:	N/A
Power Cord	:	N/A

4.3 REMARK :

5 EUT OPERATING CONDITION

5.1 Operating condition is according to **EN55022**.

5.2 The oscillator frequency of the EUT were 67 KHz, 4 MHz.

5.3 Turn on the power 110VAC/60Hz of all equipments.

5.4 Test program sent "H" pattern to peripherals as following :

5.4.1 Monitor

5.4.2 Modem

5.4.3 Keyboard

6 LIMIT OF CONDUCTED POWER LINE EMISSION CLASS B :

Frequency Range	Quasi Peak	Average
0.15 ~ 0.5 MHz	66 - 56 dBuV	56 - 46 dBuV
0.5 ~ 5 MHz	56 dBuV	46 dBuV
5 ~ 30 MHz	60 dBuV	50 dBuV

7 RESULT OF CONDUCTED POWER LINE TEST (1)

7.1 The frequency range from 0.15 MHz to 30 MHz was investigated. All readings are quasi-peak values and average.

7.2 IF bandwidth : 9 kHz, Meas Time : 1 sec.

7.3 Temperature : 27 □, Humidity : 75 % RH.

7.4 Deviations from the specifications : None

7.5 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.217	32.52	29.58	62.93
0.439	23.98	24.18	57.08
1.320	9.08	9.86	56.00
4.560	8.62	9.02	56.00
11.750	14.96	15.52	60.00
19.520	15.21	16.29	60.00

7.6 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.304	29.35	29.50	50.13
0.439	23.46	23.78	47.08
1.320	4.64	5.63	46.00
4.560	3.95	4.14	46.00
11.750	11.23	12.52	50.00
19.520	11.98	13.07	50.00

REMARK :

1. Model : VT525P
2. Measuring mode : AC Full Load
3. Uncertainty in conduction emission measured : < ± 2.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

8 RESULT OF CONDUCTED POWER LINE TEST (2)

8.1 The frequency range from 0.15 MHz to 30 MHz was investigated. All readings are quasi-peak values and average.

8.2 IF bandwidth : 9 kHz, Meas Time : 1 sec.

8.3 Temperature : 27 □, Humidity : 75 % RH.

8.4 Deviations from the specifications : None

8.5 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.168	31.42	35.55	65.06
0.438	21.92	24.30	57.10
1.320	9.02	9.50	56.00
4.560	14.67	14.55	56.00
11.375	14.64	16.51	60.00
19.520	18.93	18.91	60.00

8.6 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.168	29.10	29.55	55.06
0.439	21.05	23.64	47.08
1.320	4.39	5.10	46.00
4.760	11.63	11.84	46.00
11.375	10.81	12.05	50.00
19.520	15.94	15.80	50.00

REMARK :

1. Model : VT525P
2. Measuring mode : AC Half Load
3. Uncertainty in conduction emission measured : < ± 2.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

9 RESULT OF CONDUCTED POWER LINE TEST (3)

9.1 The frequency range from 0.15 MHz to 30 MHz was investigated. All readings are quasi-peak values and average.

9.2 IF bandwidth : 9 kHz, Meas Time : 1 sec.

9.3 Temperature : 27 □, Humidity : 75 % RH.

9.4 Deviations from the specifications : None

9.5 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.162	34.95	36.18	55.36
0.441	22.63	23.32	47.04
1.376	17.66	17.27	56.00
4.628	13.33	12.66	56.00
11.324	12.35	25.45	60.00
19.470	17.49	19.85	60.00

9.6 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.237	29.77	35.11	55.36
0.441	22.63	23.32	47.04
1.676	14.53	13.94	46.00
3.089	12.38	12.66	46.00
7.361	10.19	7.32	50.00
15.591	22.85	22.75	50.00

REMARK :

1. Model : VT525P
2. Measuring mode : DC Full Load
3. Uncertainty in conduction emission measured : < ± 2.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

10 RESULT OF CONDUCTED POWER LINE TEST (4)

10.1 The frequency range from 0.15 MHz to 30 MHz was investigated. All readings are quasi-peak values and average.

10.2 IF bandwidth : 9 kHz, Meas Time : 1 sec.

10.3 Temperature : 27 □, Humidity : 75 % RH.

10.4 Deviations from the specifications : None

10.5 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.169	43.54	39.37	65.01
0.439	38.55	34.09	57.08
1.320	20.76	18.30	56.00
4.960	14.79	15.43	56.00
11.375	18.50	18.93	60.00
20.000	17.83	17.99	60.00

10.6 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.169	43.64	39.32	55.01
0.438	38.51	34.14	47.10
1.320	19.49	16.87	46.00
4.960	12.33	13.15	46.00
11.375	14.50	14.56	50.00
19.520	14.58	13.75	50.00

REMARK :

1. Model : VT625P
2. Measuring mode : AC Full Load
3. Uncertainty in conduction emission measured : < ± 2.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

11 RESULT OF CONDUCTED POWER LINE TEST (5)

11.1 The frequency range from 0.15 MHz to 30 MHz was investigated. All readings are quasi-peak values and average.

11.2 IF bandwidth : 9 kHz, Meas Time : 1 sec.

11.3 Temperature : 27 □, Humidity : 75 % RH.

11.4 Deviations from the specifications : None

11.5 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.217	39.83	45.23	62.93
0.463	27.63	33.69	56.64
1.320	13.58	19.90	56.00
4.400	8.70	9.15	56.00
11.750	21.90	20.55	60.00
19.520	19.84	14.96	60.00

11.6 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.169	36.77	40.46	55.01
0.439	26.83	33.51	47.08
1.320	11.01	19.21	46.00
4.200	3.69	4.25	46.00
11.750	19.48	17.05	50.00
19.520	17.60	10.53	50.00

REMARK :

1. Model : VT625P
2. Measuring mode : AC Half Load
3. Uncertainty in conduction emission measured : < ± 2.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

12 RESULT OF CONDUCTED POWER LINE TEST (6)

12.1 The frequency range from 0.15 MHz to 30 MHz was investigated. All readings are quasi-peak values and average.

12.2 IF bandwidth : 9 kHz, Meas Time : 1 sec.

12.3 Temperature : 27 □, Humidity : 75 % RH.

12.4 Deviations from the specifications : None

12.5 Quasi-Peak :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.156	46.52	41.50	65.67
0.417	40.62	33.65	57.51
1.358	46.44	40.97	56.00
3.491	32.68	32.54	56.00
10.220	27.91	23.99	60.00
18.072	22.12	23.48	60.00

12.6 Average :

Frequency (MHz)	Line 1 (dBuV)	Line 2 (dBuV)	Limit (dBuV)
0.156	46.52	48.08	65.67
0.312	50.42	43.98	59.92
1.697	44.87	40.97	46.00
3.491	32.68	35.15	46.00
6.794	32.89	29.43	50.00
18.072	22.12	20.10	50.00

REMARK :

1. Model : VT625P
2. Measuring mode : DC Full Load
3. Uncertainty in conduction emission measured : < ± 2.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

13 PHOTO OF CONDUCTED POWER LINE TEST
Model : VT625P, Test Mode : AC Full Load

(photo file :con front.jpg)

Front View

(photo file :con rear.jpg)

Rear View

RADIATED EMISSION TEST

1 TEST INSTRUMENTS & FACILITIES

The following test Instruments was used during the radiated emission test :

Item	Instruments /facilities	Specification	Manufacturer	Model # / S/N#	Location	Date of Cal.
1	OPEN AREA TEST SITE	☐ OATS 1 OATS 2				NOV/99 JUN/99
2	EMI TEST RECEIVER	20MHz ~ 5GHz	ROHDE & SCHWARZ	ESBI 845636/007	Open Site I	SEP/99
3	PRE-AMPLIFIER	0.1MHz ~ 1.3 GHz	HP	8447D 1937A02095	Open Site II	MAY/99
4	EMI TEST RECEIVER	20Hz ~ 26.5GHz	ROHDE & SCHWARZ	ESMI 845442/006	Open Site II	APR/99
5	PRE-AMPLIFIER	20MHz ~ 7GHz	ROHDE & SCHWARZ	ESMI-Z7 664126/008	Open Site I	SEP/99
6	ANTENNA (BI-LOG)	25MHz ~ 2GHz	SCHAFFNER	CBL6112B S/N : 2614	Open Site II	JUN/99
7	ANTENNA (BI-LOG)	25MHz ~ 2GHz	SCHAFFNER	CBL6112B S/N : 2611	Open Site I	JUN/99
8	CABLES	30MHz ~ 1GHz		No. 2, No. 4 No. 1, No. 3	OATS 1 OATS 2	NOV/99 JUN/99
9	ANTENNA (DIPOLE)	30 ~ 300MHz	ROHDE & SCHWARZ	HZ-12 842899/08		JUL/99
10	ANTENNA (DIPOLE)	300 ~ 1000MHz	ROHDE & SCHWARZ	HZ-13 842007/0004		JUL/99
11	EMIVM	30 ~ 1000MHz	AUDIX	A582445 A582443	OATS 1 OATS 2	N/A

Note : 1. Items 1 ~ 8 upon which need to calibrated are with period of 1 year, except item 9-10.

2. Items 2 (for Site 1) is used for the final measurement.

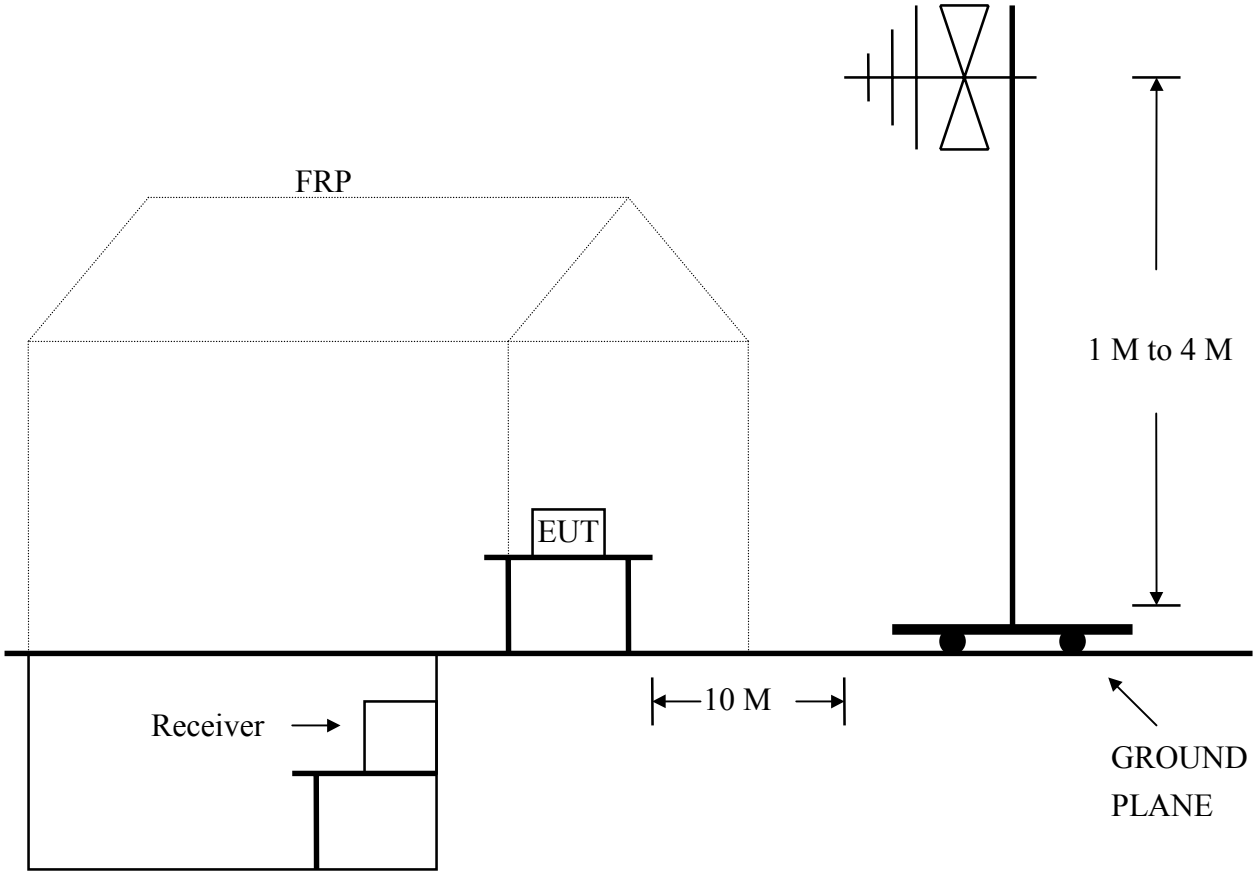
2 TEST PROCEDURE

2.1 The EUT was test according to **EN55022**.

2.2 The radiated test was performed at HomeTek Lab's Open Site I.

2.3 The frequency range from 30 MHz to 1 GHz, the measurement were made at 10 meters, with a BI-log antenna.

3 TEST SETUP



4 CONFIGURATION OF THE EUT

Same as "Conducted Power Line test", section 4

5 EUT OPERATING CONDITION

5.1 Same as "Conducted Power Line test", section 5

5.2 The radiated emission in the frequency range from 30 MHz - 1000 MHz was test in a horizontal and vertical polarization at HomeTek Lab's open site I.

6 LIMIT OF RADIATED EMISSION CLASS B :

Frequency (MHz)	Measurement Distance	Limit (dBuV/m)
30 - 230	10 (M)	30
230 - 1000	10 (M)	37

7 RESULT OF RADIATED EMISSION TEST (1)

7.6 The frequency range from 30 MHz to 1 GHz was investigated. All readings are quasi-peak values with resolution bandwidth of 120 kHz.

7.7 The measurements above 1 GHz with a resolution bandwidth of 1 MHz are peak reading at 10 meters.

7.8 The measurements were made at 10 meters of HomeTek Lab's open site I.

7.9 Temperature : 27 □, Humidity : 75 % RH.

7.10 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
38.34	8.32	13.02	0.85	22.19	30
50.38	13.40	7.40	1.01	21.81	30
112.05	8.24	11.48	1.43	21.15	30
160.42	7.77	9.20	1.83	18.80	30
289.01	12.26	12.66	2.91	27.83	37
299.14	13.16	12.98	3.15	29.29	37
440.32	7.67	16.32	4.09	28.08	37
649.75	5.55	19.16	5.40	30.11	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 649.75 MHz .
- Corrected Reading : (5.55) + (19.16) + (5.40) = 30.11 . (Emission Level)

7.6 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
35.33	8.44	14.67	0.81	23.92	30
52.02	13.49	6.50	1.03	21.02	30
109.14	9.87	11.38	1.42	22.67	30
159.73	12.29	9.21	1.82	23.32	30
289.61	7.53	12.66	2.91	23.10	37
299.16	10.91	12.98	3.15	27.04	37
441.73	5.97	16.32	4.09	26.38	37
498.68	8.85	17.40	4.39	30.64	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 498.68 MHz .
- Corrected Reading : (8.85) + (17.40) + (4.39) = 30.64 . (Emission Level)

REMARK :

1. Model : VT525P
2. Measuring mode : AC Full Load
3. Uncertainty in radiated emission measured : < ± 4.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

8 RESULT OF RADIATED EMISSION TEST (2)

8.1 The frequency range from 30 MHz to 1 GHz was investigated. All readings are quasi-peak values with resolution bandwidth of 120 kHz.

8.2 The measurements above 1 GHz with a resolution bandwidth of 1 MHz are peak reading at 10 meters.

8.3 The measurements were made at 10 meters of HomeTek Lab's open site I.

8.4 Temperature : 27 □, Humidity : 75 % RH.

8.5 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
44.53	12.62	9.53	0.94	23.09	30
56.78	14.75	5.64	1.06	21.45	30
70.64	14.82	5.33	1.20	21.35	30
133.98	9.78	11.00	1.62	22.40	30
288.63	11.52	12.62	2.90	27.04	37
450.27	11.90	16.50	4.18	32.58	37
518.42	10.54	17.40	4.74	32.68	37
653.26	3.43	19.15	5.42	28.00	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 653.26 MHz .
- Corrected Reading : (3.43) + (19.15) + (5.42) = 28.00 . (Emission Level)

8.6 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
35.05	6.34	14.81	0.81	21.96	30
50.14	13.63	7.50	1.01	22.14	30
125.50	11.61	11.58	1.54	24.73	30
289.53	11.08	12.66	2.91	26.65	37
316.10	12.09	13.40	3.17	28.66	37
441.36	11.30	16.32	4.09	31.71	37
598.43	4.63	18.69	5.40	28.72	37
729.95	3.79	19.90	5.83	29.52	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 729.95 MHz .
- Corrected Reading : (3.79) + (19.90) + (5.83) = 29.52 . (Emission Level)

REMARK :

1. Model : VT525P
2. Measuring mode : AC Half Load
3. Uncertainty in radiated emission measured : < ± 4.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

9 RESULT OF RADIATED EMISSION TEST (3)

9.1 The frequency range from 30 MHz to 1 GHz was investigated. All readings are quasi-peak values with resolution bandwidth of 120 kHz.

9.2 The measurements above 1 GHz with a resolution bandwidth of 1 MHz are peak reading at 10 meters.

9.3 The measurements were made at 10 meters of HomeTek Lab's open site I.

9.4 Temperature : 27 □, Humidity : 75 % RH.

9.5 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
33.55	7.40	15.70	0.79	23.89	30
45.56	10.93	9.05	0.95	20.93	30
60.55	16.53	5.08	1.10	22.71	30
115.21	9.81	11.60	1.45	22.86	30
157.88	12.04	9.24	1.81	23.09	30
286.66	13.47	12.54	2.88	28.89	37
477.55	8.16	17.30	4.44	29.90	37
512.22	6.35	17.40	4.63	28.38	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 512.22 MHz .
- Corrected Reading : (6.35) + (17.40) + (4.63) = 28.38 . (Emission Level)

9.6 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
31.63	5.71	16.74	0.76	23.21	30
39.72	8.15	12.16	0.88	21.19	30
55.00	13.36	6.00	1.05	20.41	30
78.26	16.09	6.43	1.22	23.74	30
111.53	12.58	11.47	1.43	25.48	30
157.60	13.11	9.24	1.81	24.16	30
282.55	11.35	12.50	2.84	26.69	37
471.97	8.06	17.07	4.37	29.50	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 471.97 MHz .
- Corrected Reading : (8.06) + (17.07) + (4.37) = 29.50 . (Emission Level)

REMARK :

1. Model : VT525P
2. Measuring mode : DC Full Load
3. Uncertainty in radiated emission measured : < ± 4.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

10 RESULT OF RADIATED EMISSION TEST (4)

10.1 The frequency range from 30 MHz to 1 GHz was investigated. All readings are quasi-peak values with resolution bandwidth of 120 kHz.

10.2 The measurements above 1 GHz with a resolution bandwidth of 1 MHz are peak reading at 10 meters.

10.3 The measurements were made at 10 meters of HomeTek Lab's open site I.

10.4 Temperature : 27 □, Humidity : 75 % RH.

10.5 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
45.92	13.04	8.95	0.96	22.95	30
74.48	17.20	5.89	1.21	24.30	30
82.56	12.33	7.26	1.24	20.83	30
249.21	16.02	11.74	2.65	30.41	37
332.35	16.11	13.72	3.24	33.07	37
398.84	12.05	15.88	3.76	31.69	37
509.61	7.20	17.40	4.54	29.14	37
732.87	1.85	19.92	5.90	27.67	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 732.87 MHz .
- Corrected Reading : (1.85) + (19.92) + (5.90) = 27.67 . (Emission Level)

10.6 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
33.66	8.12	15.63	0.79	24.54	30
51.18	13.60	6.90	1.02	21.52	30
75.08	15.14	5.96	1.21	22.31	30
109.28	8.04	11.38	1.42	20.84	30
159.68	8.51	9.21	1.82	19.54	30
294.78	12.74	12.86	3.02	28.62	37
444.70	6.23	16.36	4.12	26.71	37
651.01	4.86	19.16	5.40	29.42	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 651.01 MHz .
- Corrected Reading : (4.86) + (19.16) + (5.40) = 29.42 . (Emission Level)

REMARK :

1. Model : VT625P
2. Measuring mode : AC Full Load
3. Uncertainty in radiated emission measured : < ± 4.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

11 RESULT OF RADIATED EMISSION TEST (5)

11.1 The frequency range from 30 MHz to 1 GHz was investigated. All readings are quasi-peak values with resolution bandwidth of 120 kHz.

11.2 The measurements above 1 GHz with a resolution bandwidth of 1 MHz are peak reading at 10 meters.

11.3 The measurements were made at 10 meters of HomeTek Lab's open site I.

11.4 Temperature : 27 □, Humidity : 75 % RH.

11.5 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
37.13	10.56	13.66	0.84	25.06	30
42.96	9.22	10.36	0.92	20.50	30
59.76	12.13	5.10	1.09	18.32	30
110.27	11.23	11.43	1.43	24.09	30
158.95	10.57	9.22	1.82	21.61	30
291.21	13.23	12.74	2.95	28.92	37
441.60	11.35	16.32	4.09	31.76	37
550.00	8.01	18.69	4.94	31.64	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 550.00 MHz .
- Corrected Reading : (8.01) + (18.69) + (4.94) = 31.64 . (Emission Level)

11.6 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
31.27	7.14	16.98	0.75	24.87	30
47.68	13.27	8.40	0.98	22.65	30
57.61	14.88	5.44	1.07	21.39	30
114.01	9.62	11.55	1.44	22.61	30
195.78	11.58	8.91	2.10	22.59	30
291.24	10.56	12.74	2.95	26.25	37
446.94	7.37	16.42	4.14	27.93	37
752.68	2.77	20.00	6.01	28.78	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 752.68 MHz .
- Corrected Reading : (2.77) + (20.00) + (6.01) = 28.78 . (Emission Level)

REMARK :

1. Model : VT625P
2. Measuring mode : AC Half Load
3. Uncertainty in radiated emission measured : < ± 4.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

12 RESULT OF RADIATED EMISSION TEST (6)

12.1 The frequency range from 30 MHz to 1 GHz was investigated. All readings are quasi-peak values with resolution bandwidth of 120 kHz.

12.2 The measurements above 1 GHz with a resolution bandwidth of 1 MHz are peak reading at 10 meters.

12.3 The measurements were made at 10 meters of HomeTek Lab's open site I.

12.4 Temperature : 27 □, Humidity : 75 % RH.

12.5 Radiated Emission data : **Horizontal**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
31.25	8.47	16.98	0.75	26.20	30
42.25	9.35	10.75	0.91	21.01	30
78.55	14.14	6.47	1.22	21.83	30
110.22	7.23	11.43	1.43	20.09	30
144.22	8.90	10.35	1.72	20.97	30
329.41	10.28	13.68	3.22	27.18	37
449.15	6.82	16.46	4.16	27.44	37
720.52	0.26	19.80	5.59	25.65	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 720.52 MHz .
- Corrected Reading : (0.26) + (19.80) + (5.59) = 25.65 . (Emission Level)

12.6 Radiated Emission data : **Vertical**

Frequency (MHz)	Reading Level (dBuV)	ANT factor (dB/m)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)
44.12	16.01	9.78	0.93	26.72	30
52.54	16.49	6.43	1.03	23.95	30
109.99	8.91	11.42	1.42	21.75	30
155.89	10.77	9.29	1.80	21.86	30
289.55	13.28	12.66	2.91	28.85	37
320.65	12.56	13.50	3.17	29.23	37
441.25	8.96	16.32	4.09	29.37	37
660.25	3.38	19.11	5.48	27.97	37

- Emission Level = Reading Level + ANT Factor + Cable Loss.
- Sample Calculation for 660.25 MHz .
- Corrected Reading : (3.38) + (19.11) + (5.48) = 27.97 . (Emission Level)

REMARK :

1. Model : VT625P
2. Measuring mode : DC Full Load
3. Uncertainty in radiated emission measured : < ± 4.0dB.
4. " * ", means this data is worse case emission level.
5. Result : **PASSED**

13 PHOTO OF RADIATED EMISSION TEST
Model : VT625P, Test Mode : AC Full Load

(photo file :os front.jpg)

Front View

(photo file :os rear.jpg)

Rear View

PHOTO OF FCC ID LABEL

(photo file :8k022 id.jpg)

SAMPLE OF FCC ID LABEL :

FCC ID : OUAUIS-VT1

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. And (2) this device must accept any interference that may cause undesired operation.

PHOTOS OF EUT

(photo file :eut front.jpg)

EUT Front View

(photo file :eut rear.jpg)

EUT Rear View

PHOTOS OF EUT

(photo file :eut insied l.jpg)

EUT Left Inside View

(photo file :eut front r.jpg)

EUT Right Inside View

PHOTOS OF EUT

(photo file :case inside.jpg)

EUT Case Inside View

PHOTOS OF EUT

Model : VT625P

(photo file :mb b comp.jpg)

Main Board Component Side View

PHOTOS OF EUT

Model : VT625P

(photo file :mb b solder.jpg)

Main Board Solder Side View

PHOTOS OF EUT

Model : VT525P

(photo file :mb component.jpg)

Main Board Component Side View

PHOTOS OF EUT

Model : VT525P

(photo file :mb solder.jpg)

Main Board Solder Side View

PHOTOS OF EUT

(photo file :control board comp.jpg)

Control Board Component Side View

(photo file :control board rear.jpg)

Control Board Solder Side View

PHOTOS OF EUT

Model : VT625P

(photo file :transformer b front.jpg)

Transformer Front View

(photo file :transformer b rear.jpg)

Transformer Rear View

PHOTOS OF EUT

Model : VT525P

(photo file :transformer front.jpg)

Transformer Front View

(photo file:.transformer rear.jpg)

Transformer Rear View

PHOTOS OF EUT

(photo file :front rear.jpg)

Battery Front View

(photo file :bat rear.jpg)

Battery Rear View