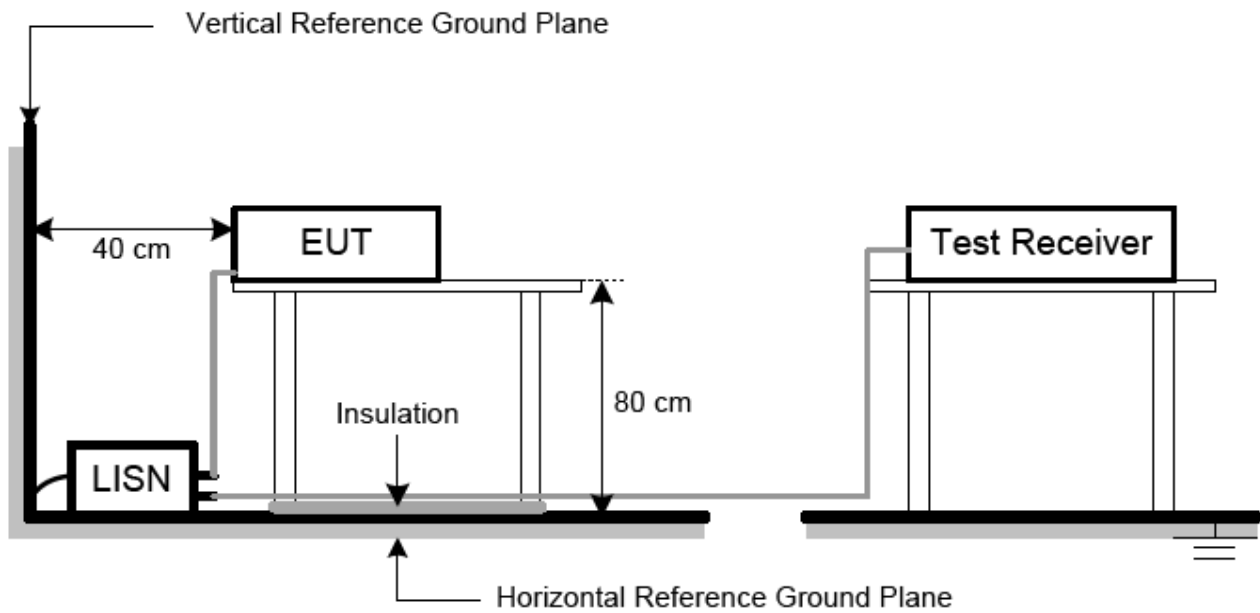


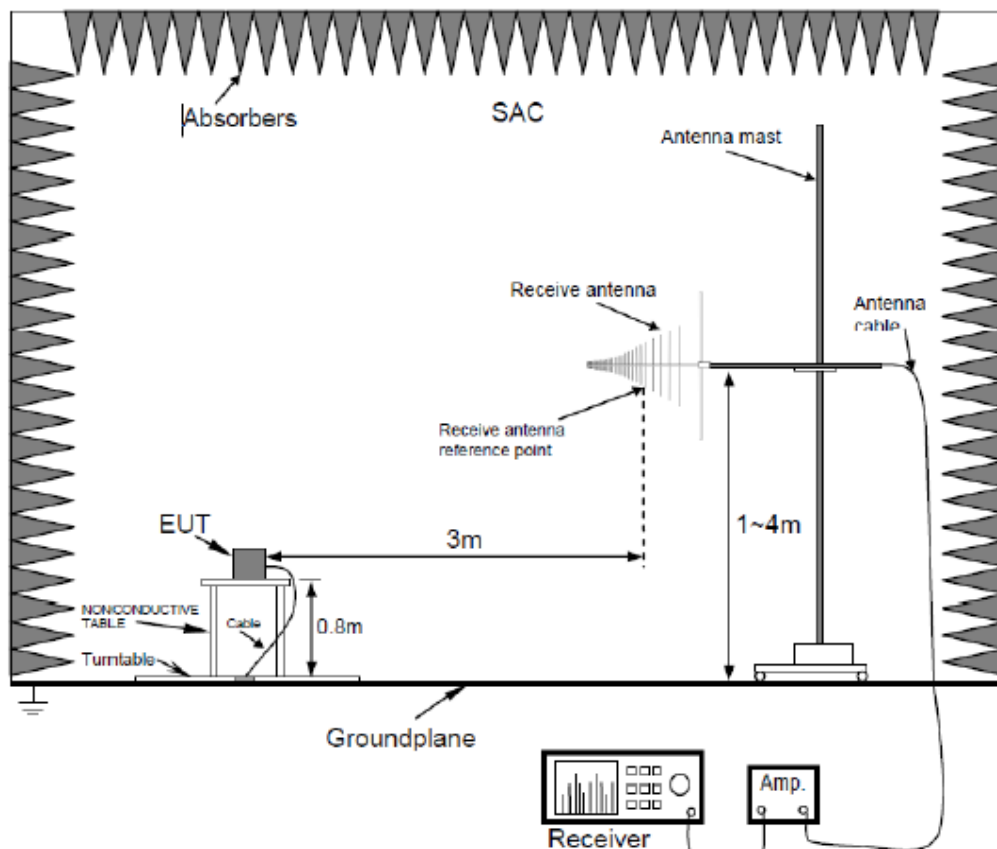
Configuration used for determination 用於特性的配置

EMI 特性 Electro-Magnetic interference characteristics

(1)Conducted Emission



(2)Radiated Emission



Conduction Character (傳導特性)

※Character Condition(特性條件):

1	I/P Voltage(Vac)(輸入電壓)	100Vac
2	I/P Frequency(Hz)(輸入頻率)	60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

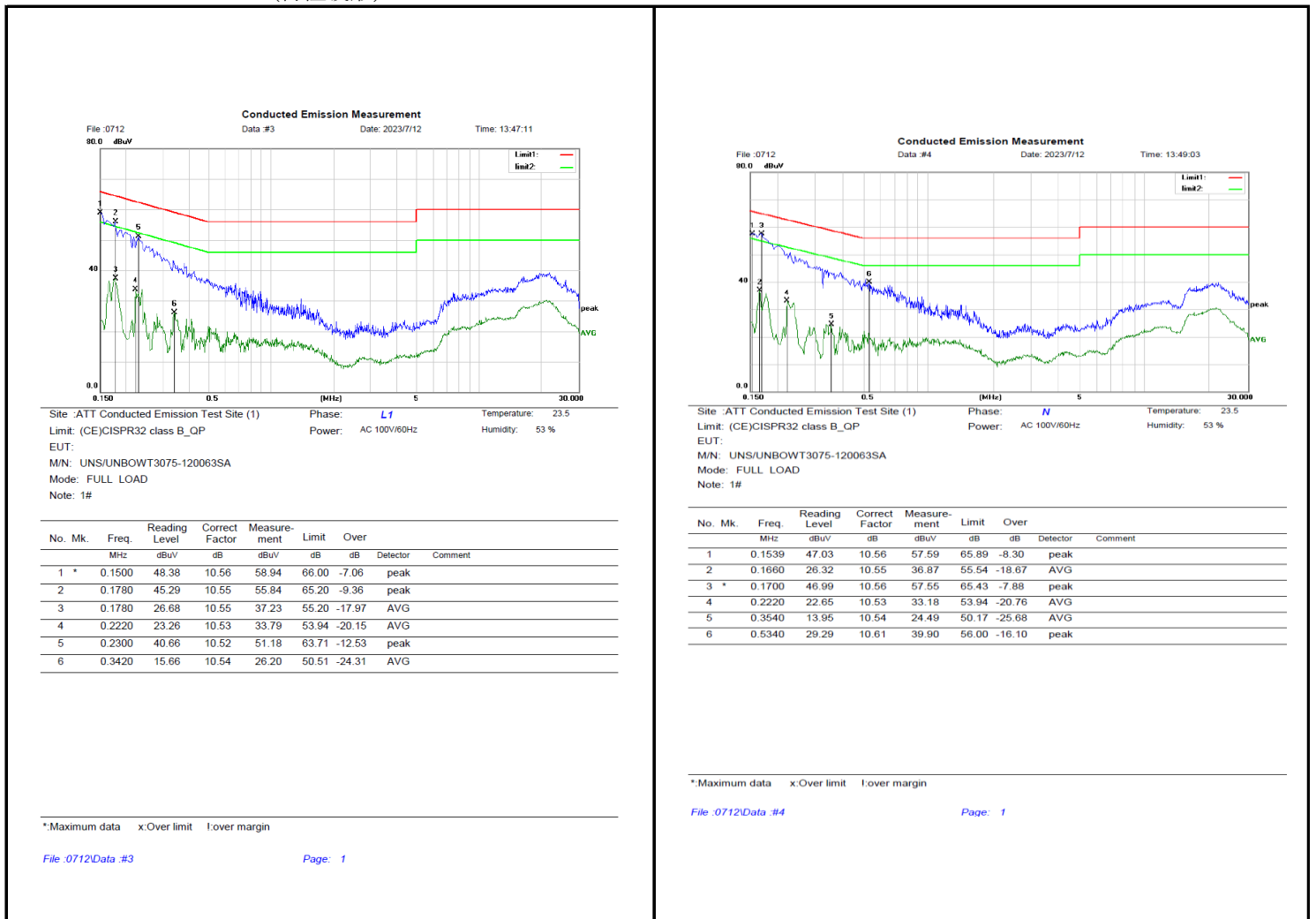
※Character Equipment(特性設備):

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	頻普接收儀	KH3931
2	AC Source(變頻器)	ALL POWER/APG-1005N
3	Character Standard	EN55032 CLASS B

※Character Data(特性數據):

ITEM	QP	AV
L line	-7.06dB	-17.97dB
N line	-7.88dB	-18.67dB

※Character Waveform (特性波形):



Conduction Character (傳導特性)

※Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	230Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

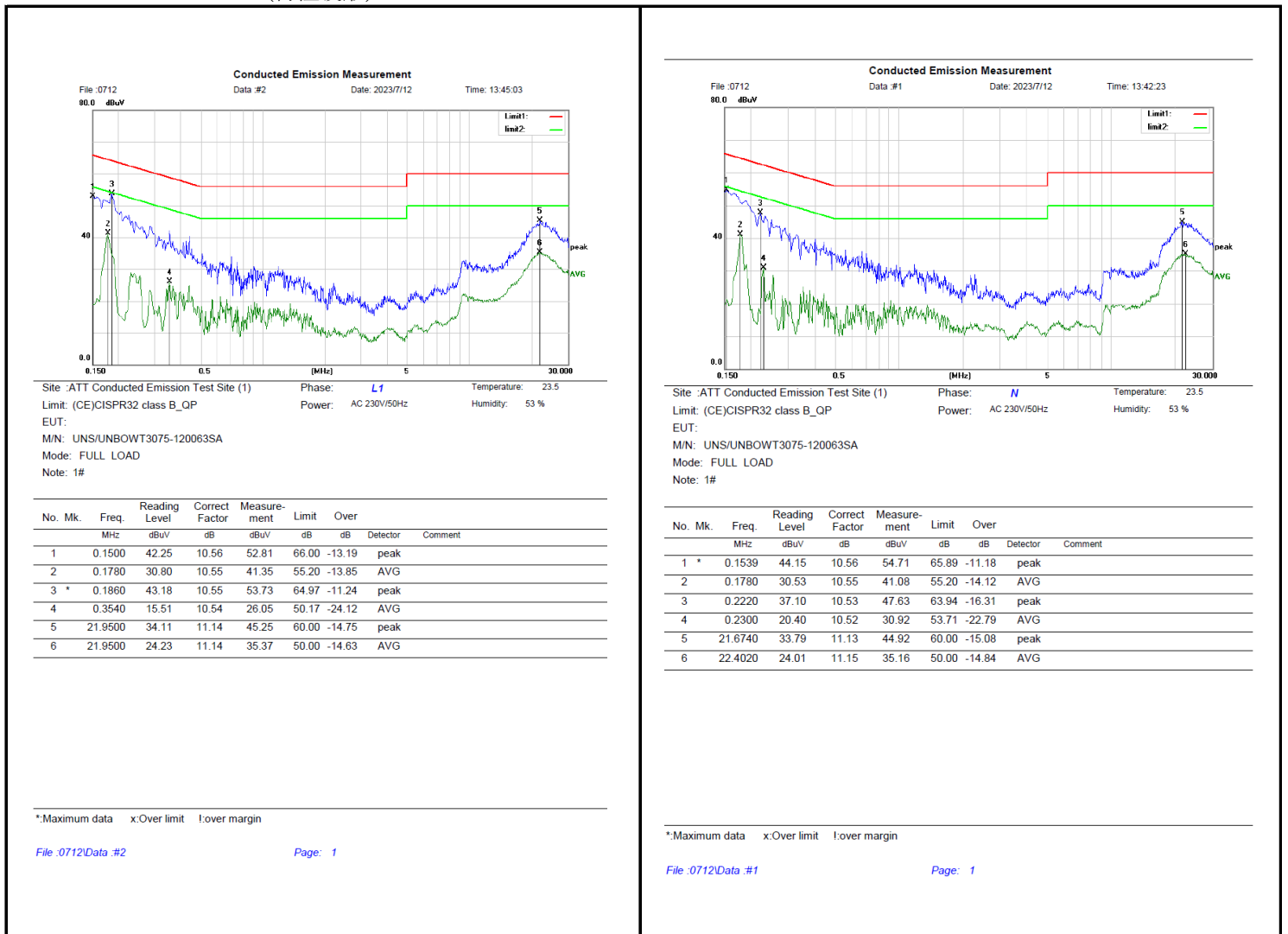
※Character Equipment(特性設備)：

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	頻普接收儀	KH3931
2	AC Source(變頻器)	ALL POWER/APG-1005N
3	Character Standard	EN55032 CLASS B

※Character Data(特性數據)：

ITEM	QP	AV
L line	-11.24dB	-13.85dB
N line	-11.18dB	-14.12dB

※Character Waveform (特性波形)：



Radiation Character (輻射特性)

※Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	100Vac
2	I/P Frequency(Hz)(輸入頻率)	60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

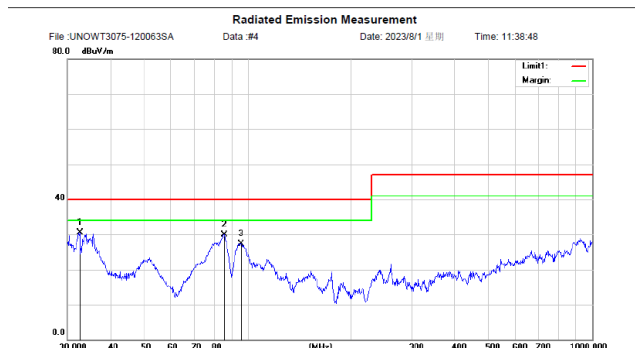
※Character Equipment(特性設備)：

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	頻普接收儀	外面實驗室
2	AC Source(變頻器)	外面實驗室
3	Character Standard	EN55032 CLASS B

※Character Data(特性數據)：

ITEM		peak	QP
Character Result	V line	-9.4dB	/
	H line	-14.29dB	/

※Character Waveform (特性波形)：

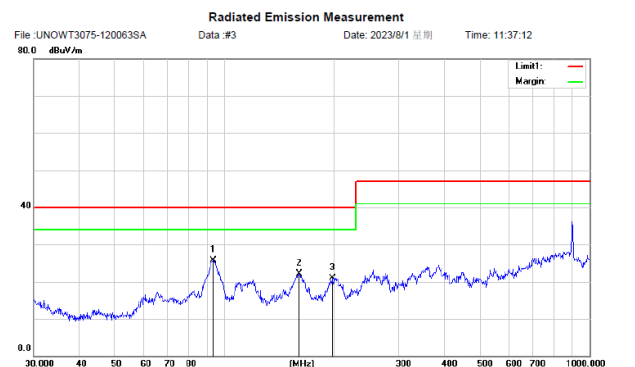


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 Site :ATT Radiated Emission Chamber 2 Polarization: **Vertical** Temperature: 23
 Limit: (RE)CISPR32 class B 3m Power: AC 100V/60Hz Humidity: 52 %
 EUT:
 M/N: UNOWT3075-120063SA
 Mode: FULL LOAD
 Note: 5#

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
1	*	32.6340	41.81	-11.21	30.60	40.00	-9.40	peak		
2		85.5977	41.19	-11.22	29.97	40.00	-10.03	peak		
3		95.7622	40.96	-13.59	27.37	40.00	-12.63	peak		

*:Maximum data x:Over limit !:over margin

File :UNOWT3075-120063SA\Data :#4 Page: 1



File :UNOWT3075-120063SA Data :#3 Date: 2023/8/1 星期 Time: 11:37:12
 Site :ATT Radiated Emission Chamber 2 Polarization: **Horizontal** Temperature: 23
 Limit: (RE)CISPR32 class B 3m Power: AC 100V/60Hz Humidity: 52 %
 EUT:
 M/N: UNOWT3075-120063SA
 Mode: FULL LOAD
 Note: 5#

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
1	*	93.1132	43.07	-17.36	25.71	40.00	-14.29	peak		
2		160.3456	36.71	-14.64	22.07	40.00	-17.93	peak		
3		197.8928	31.51	-10.51	21.00	40.00	-19.00	peak		

*:Maximum data x:Over limit !:over margin

File :UNOWT3075-120063SA\Data :#3 Page: 1

Radiation Character (輻射特性)

※Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	230Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

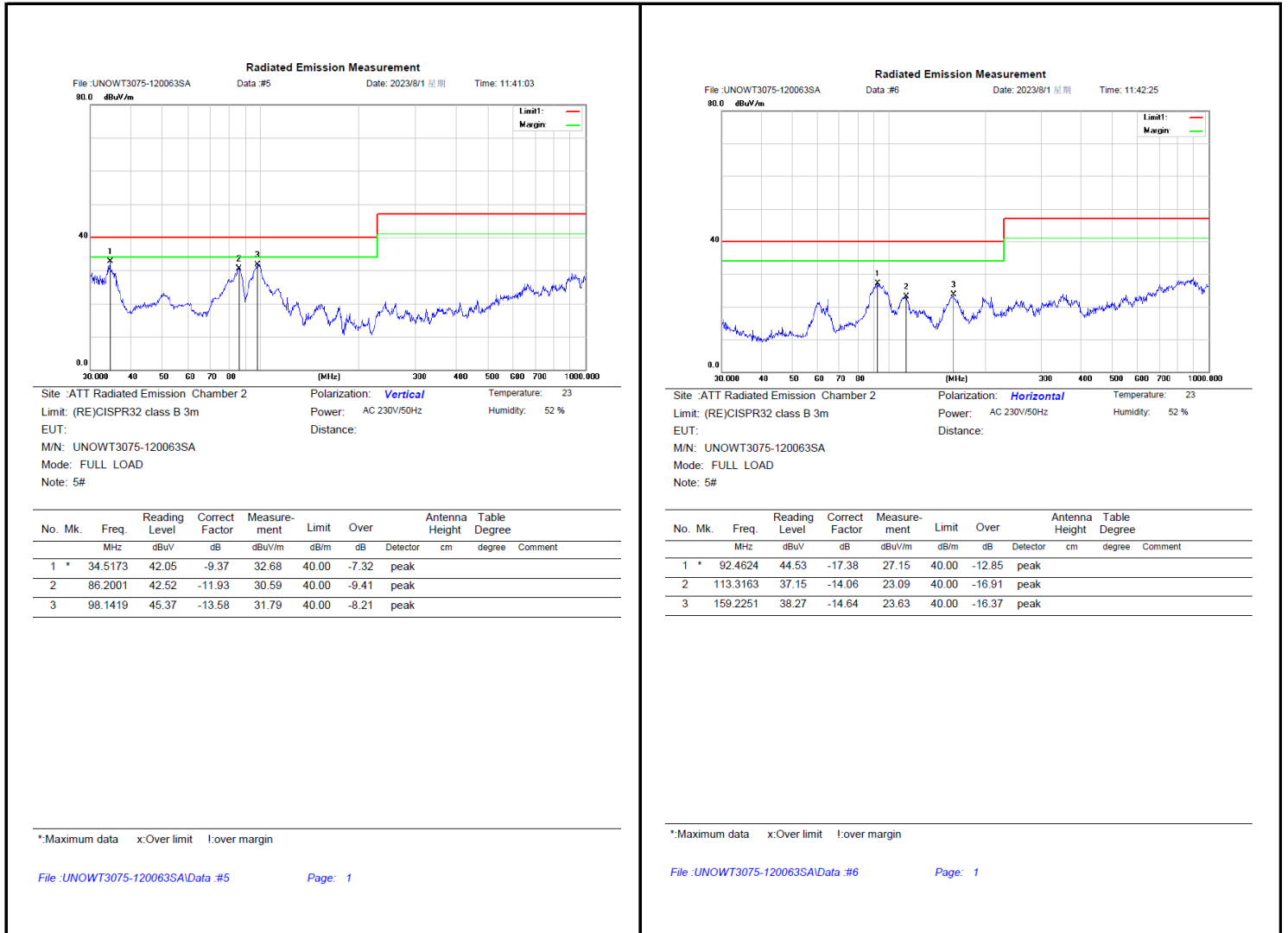
※Character Equipment(特性設備)：

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	頻普接收儀	外面實驗室
2	AC Source(變頻器)	外面實驗室
3	Character Standard	CISPR32 CLASS B

※Character Data(特性數據)：

ITEM	peak	QP
Character Result		
V line	-7.32dB	/
H line	-12.85dB	/

※Character Waveform (特性波形)：



EFT Character (電子脈衝群干擾特性)

※Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	100Vac/230Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz / 60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

※Character Equipment(特性設備) :

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	BEST EMC SOLUTION	EMCSOSIN / EFT-S4
2	AC Source(變頻器)	ALL POWER/APG-1005N

※Character Standard(特性標準) :

1	Character Standard	IEC 61000-4-4
EFT Character		
	Spec.	1KV
	O/P	Full Load
	I/P	100Vac/60Hz & 230Vac/50Hz
	Burst	15ms/300ms
	Character Duration	1 min
	Pulse Rate:	5KHz/100KHz

※Character Data(特性數據) 產品類別: Class I

Power Line	Pulse Polarity	Character Voltage	Required Criteria	Complied To Criteria(A,B,C)	Judgement
L	"+" / "-"	1.0KV	Criteria B	Criteria A	PASS
N	"+" / "-"	1.0KV	Criteria B	Criteria A	PASS
L-N	"+" / "-"	1.0KV	Criteria B	Criteria A	PASS
PE	"+" / "-"	1.0KV	Criteria B	Criteria A	PASS
L-PE	"+" / "-"	1.0KV	Criteria B	Criteria A	PASS
N-PE	"+" / "-"	1.0KV	Criteria B	Criteria A	PASS
L-N-PE	"+" / "-"	1.0KV	Criteria B	Criteria A	PASS

※Character Performance & Result :

- ☒ Criteria A: The apparatus continues to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance.
- ☐ Criteria B: The apparatus continues to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- ☐ Criteria C: Temporary loss of function is allowed, provided the function self recoverable or can be restored by the operation of controls

ESD Character (靜電干擾特性)

※Character Condition(特性條件) :

1	I/P Voltage(Vac)(輸入電壓)	100Vac/230Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz / 60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

※Character Equipment(特性設備) :

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	EMC-PARTNER	PRIMA /ESD61002TB
2	AC Source(變頻器)	ALL POWER/APG-1005N

※Character Standard(特性標準) :

1	Character Standard	IEC 61000-4-2:2001
ESD Character		
Spec.	Air: $\pm 8.0KV$	Contact: $\pm 4.0KV$
O/P	Full Load	
I/P	100Vac/60Hz & 230Vac/50Hz	
Description of Observation:	NO Abnormal Issue	
Performance Criterion:	Manufacturer (According to Standard/Manufacturer)	

※Character Data(特性數據) :

Item	Amount of Discharge	Voltage	Required Criteria	Complied To Criteria(A,B,C)	Judgement
Air Discharge	Mini 10/Point	$\pm 8.0KV$	Criteria B	Criteria A	PASS
Contact Discharge	Mini 25/Point	$\pm 4.0KV$	Criteria B	Criteria A	PASS
Indirect Discharge(HCP)	Mini 25/Point	$\pm 4.0KV$	Criteria B	Criteria A	PASS
Indirect Discharge(VCP Front)	Mini 25/Point	$\pm 4.0KV$	Criteria B	Criteria A	PASS
Indirect Discharge(VCP Left)	Mini 25/Point	$\pm 4.0KV$	Criteria B	Criteria A	PASS
Indirect Discharge(VCP Back)	Mini 25/Point	$\pm 4.0KV$	Criteria B	Criteria A	PASS
Indirect Discharge(VCP Right)	Mini 25/Point	$\pm 4.0KV$	Criteria B	Criteria A	PASS

※Character Performance & Result :

- ☒ Criteria A: The apparatus continues to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance.
- ☐ Criteria B: The apparatus continues to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- ☐ Criteria C: Temporary loss of function is allowed, provided the function self recoverable or can be restored by the operation of controls

Light Surge Character (雷擊特性)

※Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	100Vac/230Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz / 60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

※Character Equipment(特性設備)：

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	EMC-PARTNER	Prima/ SUG61005TAX
2	AC Source(變頻器)	ALL POWER/APG-1005N

※Character Standard(特性標準)：

1	Character Standard	IEC 61000-4-5:1995+ A1:2001
SURGE Character		
Spec.	Line to Line $\pm 1KV$; Line to FG $\pm 2KV$	
O/P	Full load	
I/P	100Vac/60Hz & 230Vac/50Hz	
REP.RATE	60 sec	
Description of Observation:	NO Abnormal Issue	
Performance Criterion:	Manufacturer (According to Standard/Manufacturer)	

※Character Data(特性數據) 產品類別: Class I

Character Point	Character Voltage	Polarity	Phase Angle				Required Criteria	Complied To Criteria(A,B,C)	Judgement
			0°	90°	180°	270°			
L-N	1KV	+	OK	OK	OK	OK	Criteria B	Criteria A	PASS
		-	OK	OK	OK	OK	Criteria B	Criteria A	PASS
L-GND	2KV	+	OK	OK	OK	OK	Criteria B	Criteria A	PASS
		-	OK	OK	OK	OK	Criteria B	Criteria A	PASS
N-GND	2KV	+	OK	OK	OK	OK	Criteria B	Criteria A	PASS
		-	OK	OK	OK	OK	Criteria B	Criteria A	PASS
L,N-GND	2KV	+	OK	OK	OK	OK	Criteria B	Criteria A	PASS
		-	OK	OK	OK	OK	Criteria B	Criteria A	PASS

Class II Type : Character L-N Only.

※Character Performance & Result：

- ☒ Criteria A: The apparatus continues to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance.
- ☐ Criteria B: The apparatus continues to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.
- ☐ Criteria C: Temporary loss of function is allowed, provided the function self recoverable or can be restored by the operation of controls

DIPS Character(周波跌落特性)

※Character Condition(特性條件):

1	I/P Voltage(Vac)(輸入電壓)	100~230Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz/60Hz
3	Output load(輸出負載)	Full load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS
6		

※Character Parameters(特性參數):

DIPS Character	
Condition :	According EN61000-4-11 (full load and high line)
	Voltage Dips 100% Redaction 10ms/20ms ; 60% Redaction 200ms/240ms ; 30% Redaction 500 ms/600ms Voltage Interruption : ≥95% ; Redaction 5000ms/6000ms

※Character Data(特性數據):

Character Level	% UT	Reduction (%)	Duration (Periods)	Perform Criteria	Results	Judgement
0		100	0.5/1	B	Criteria A	PASS
40		60	10/12	C	Criteria B	PASS
70		30	25/30	C	Criteria B	PASS
0		100	250/300	C	Criteria B	PASS

※Character Performance & Result :

Criteria A: The apparatus continues to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance.

Criteria B: The apparatus continues to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. In some cases the performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.

Criteria C: Temporary loss of function is allowed, provided the function self recoverable or can be restored by the operation of controls

Radiated Radio-Frequency Electromagnetic Field Immunity Character (IEC61000-4-3) (RS特性)

※Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	100Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

※Character Equipment(特性設備)：

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	頻普接收儀	廠外部實驗室
2	AC Source(變頻器)	廠外部實驗室

※Character Standard(特性標準)：

RS TEST DATA						
Freq.Range(MHz)	RF Field Position	R.F. Field Strength	Azimuth	Perform Criteria	Results	Judgment
80MHz-1000MHz	Vertical/Horizontal	1V(rms) AM Modulated 1000Hz, 80%	Front	A	A	PASS
			Back			
			Left			
			Right			

Conducted Disturbances Induced by Radio-Frequency Field Immunity Character (IEC61000-4-6) (CS特性)

※Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	100Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

※Character Equipment(特性設備)：

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	頻普接收儀	廠外部實驗室
2	AC Source(變頻器)	廠外部實驗室

※Character Standard(特性標準)：

CS TEST DATA					
Test Ports (Mode)	Freq.Range(MHz)	Field Strength	Perform Criteria	Results	Judgment
Input/Output AC. Power Port	0.15-80MHz	3V(rms) AM Modulated 1000Hz, 80%	A	A	PASS

Power Frequency Magnetic Field Immunity Character (IEC61000-4-8) (PFMF特性)

※Character Condition(特性條件)：

1	I/P Voltage(Vac)(輸入電壓)	100Vac
2	I/P Frequency(Hz)(輸入頻率)	50Hz/ 60Hz
3	Output Load(輸出負載)	Full Load
4	Ambient Temp.(°C)(環境溫度)	25°C
5	Sample Size(取樣數)	1PCS

※Character Equipment(特性設備)：

ITEM	Equipment Item(設備)	Model No. / Manufacturer(製造商和型號)
1	頻普接收儀	廠外部實驗室
2	AC Source(變頻器)	廠外部實驗室

※Character Standard(特性標準)：

Magnetic Field Immunity					
Test Ports (Mode)	Frequency(Hz)	Field Strength	Perform Criteria	Results	Judgment
X Orientation	50/60	1A/m	A	A	PASS
Y Orientation			A	A	PASS
Z Orientation			A	A	PASS