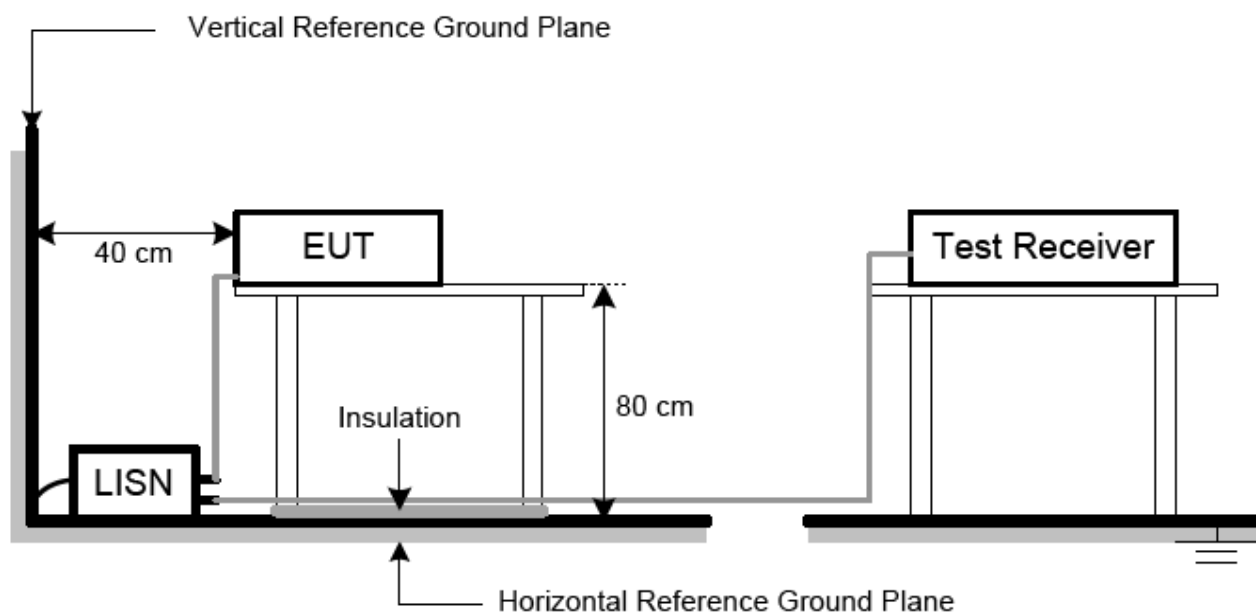
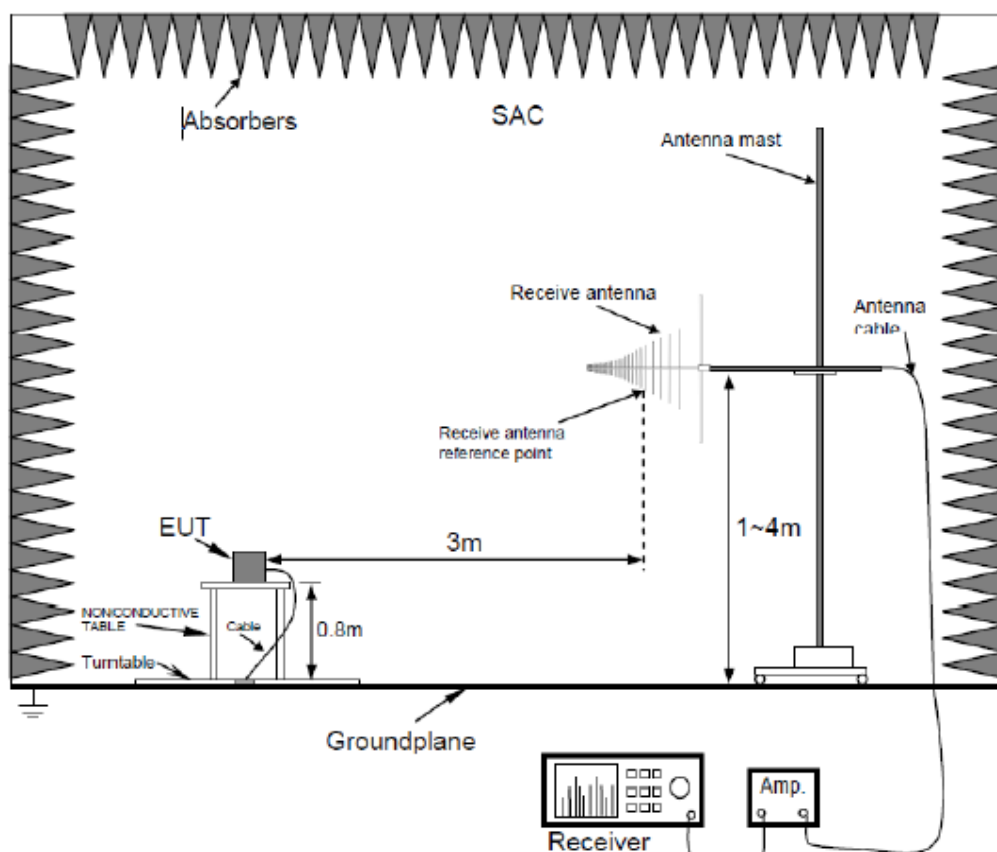


Configuration used for determination 用於特性的配置
EMI 特性 Electro-Magnetic interference characteristics
(1)Conducted Emission



(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

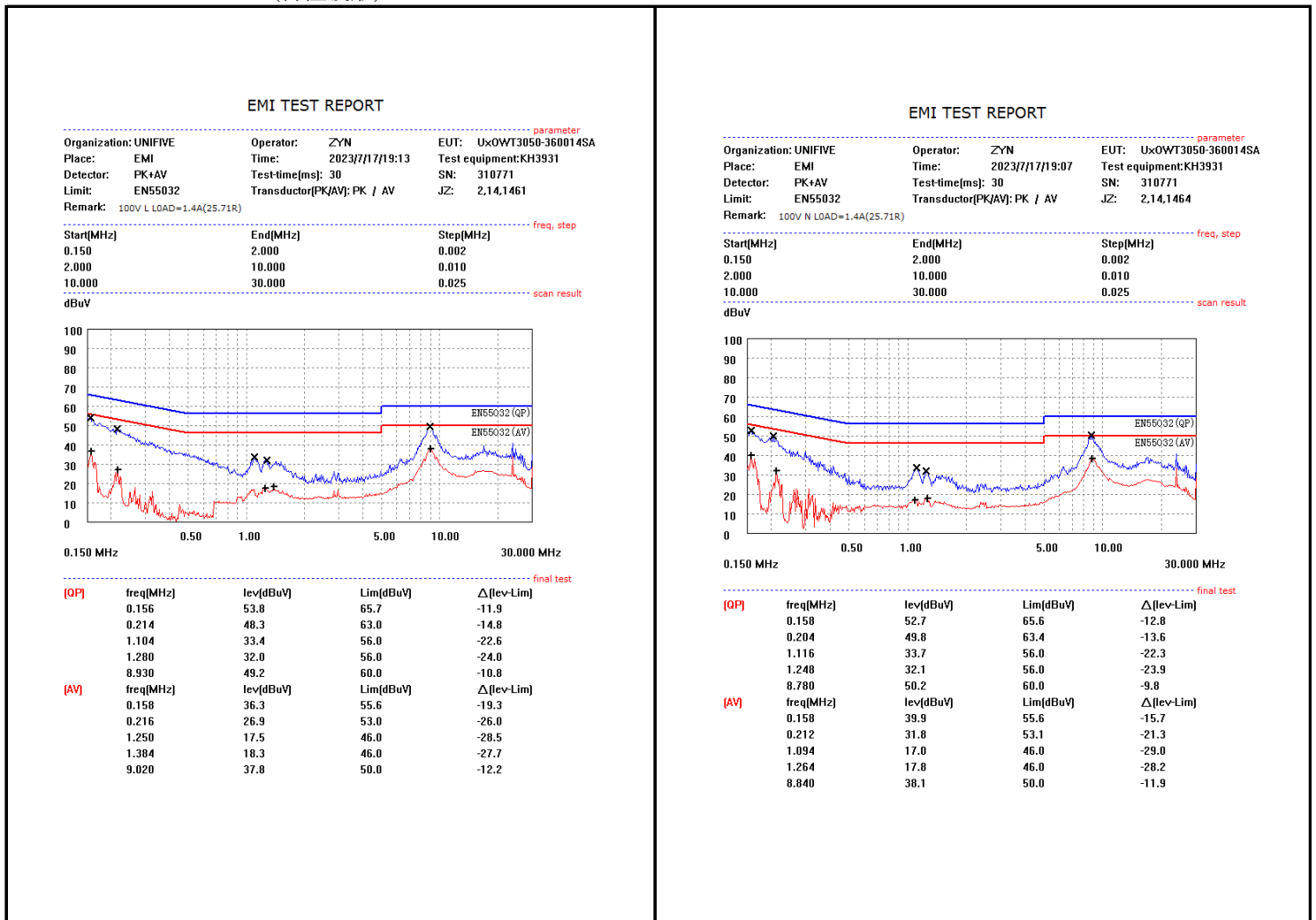
※Character Equipment(特性設備)：

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	-10.8dB	-12.2dB
N line	-9.8dB	-11.9dB

※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):

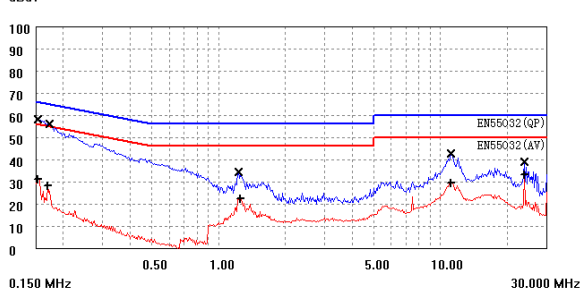
ITEM	QP	AV
Character Result	L line -7.5dB N line -7.0dB	-16.9dB -17.2dB

※Character Waveform (特性波形):

EMI TEST REPORT

Organization: UNIFIVE Operator: ZYN EUT: Ux0WT3050-360014SA
Place: EMI Time: 2023/7/17/19:19 Test equipment: KH3931
Detector: PK+AV Test-time(ms): 30 SN: 310771
Limit: EN55032 Transducer(PK/AV): PK / AV JZ: 2,14,1463
Remark: 230V L LOAD=1.4A(25.71R)

Start[MHz] End[MHz] Step[MHz] freq, step
0.150 2.000 0.002
2.000 10.000 0.010
10.000 30.000 0.025 scan result

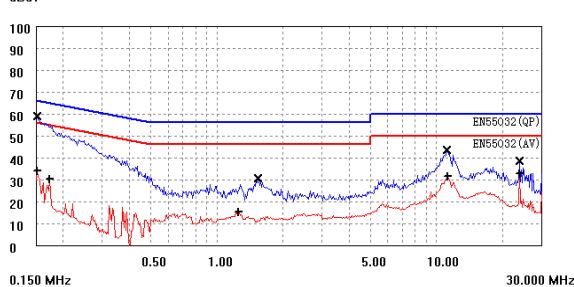


	freq[MHz]	lev[dBuV]	Lim[dBuV]	Δ[lev-Lim]
[QP]	0.154	58.3	65.8	-7.5
	0.174	56.0	64.8	-8.7
	1.226	34.3	56.0	-21.7
	11.150	42.6	60.0	-17.4
	24.000	39.0	60.0	-21.0
[AV]	freq[MHz]	lev[dBuV]	Lim[dBuV]	Δ[lev-Lim]
	0.154	31.1	55.8	-24.7
	0.170	28.2	55.0	-26.8
	1.252	22.2	46.0	-23.8
	11.100	29.5	50.0	-20.5
	24.000	33.1	50.0	-16.9

EMI TEST REPORT

Organization: UNIFIVE Operator: ZYN EUT: Ux0WT3050-360014SA
Place: EMI Time: 2023/7/17/19:25 Test equipment: KH3931
Detector: PK+AV Test-time(ms): 30 SN: 310771
Limit: EN55032 Transducer(PK/AV): PK / AV JZ: 2,14,1462
Remark: 230V N LOAD=1.4A(25.71R)

Start[MHz] End[MHz] Step[MHz] freq, step
0.150 2.000 0.002
2.000 10.000 0.010
10.000 30.000 0.025 scan result



	freq[MHz]	lev[dBuV]	Lim[dBuV]	Δ[lev-Lim]
[QP]	0.152	58.9	65.9	-7.0
	1.538	30.4	56.0	-25.6
	11.150	43.6	60.0	-16.4
	24.000	38.5	60.0	-21.5
	24.000	38.5	60.0	-21.5
[AV]	freq[MHz]	lev[dBuV]	Lim[dBuV]	Δ[lev-Lim]
	0.152	33.9	55.9	-22.0
	0.174	30.2	54.9	-24.6
	1.252	15.3	46.0	-30.7
	11.300	31.3	50.0	-18.7
	24.000	32.8	50.0	-17.2

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

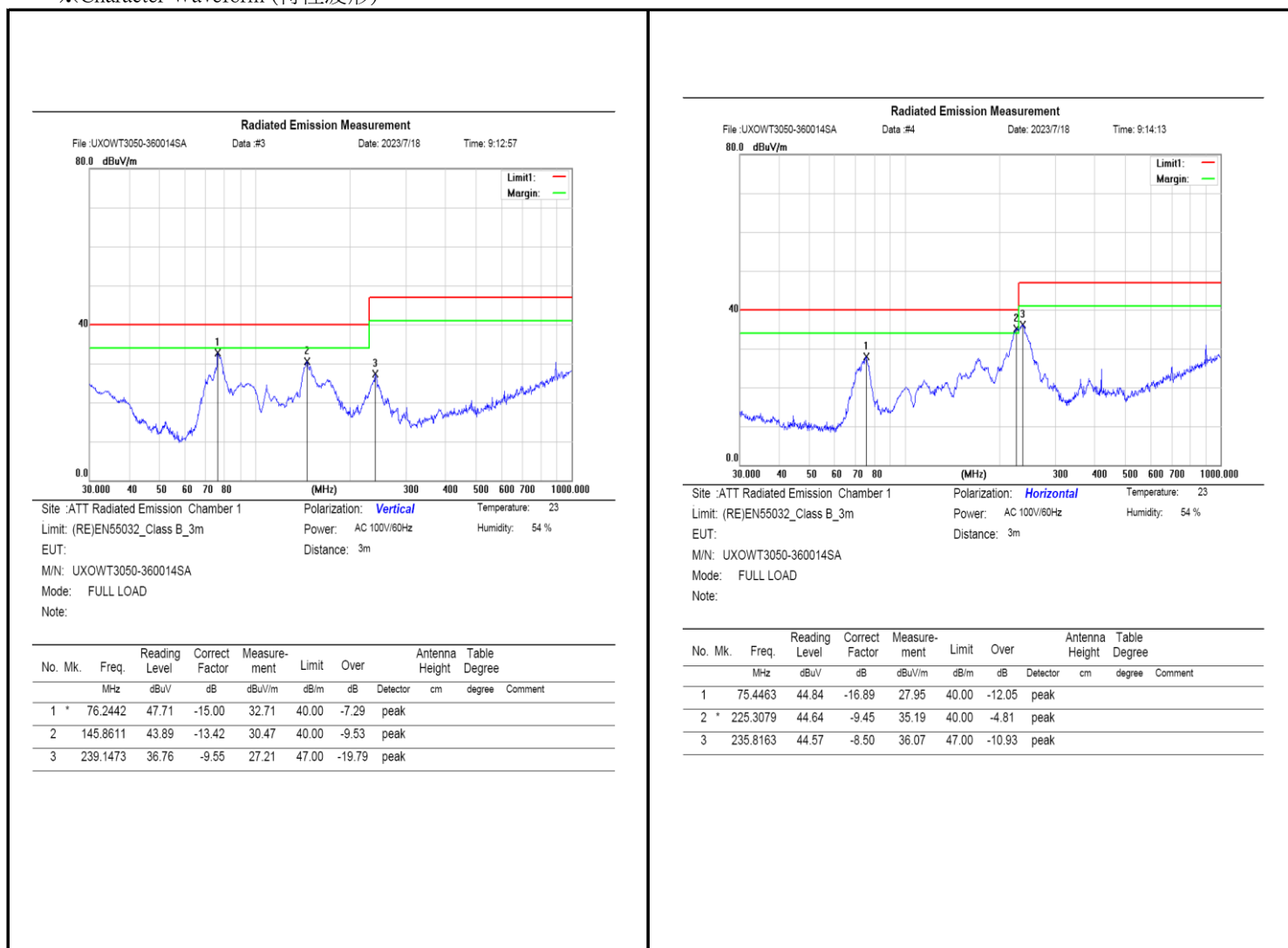
※Character Equipment(特性設備):

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	-7.29dB	/
	H line	-4.81dB	/

※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)	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

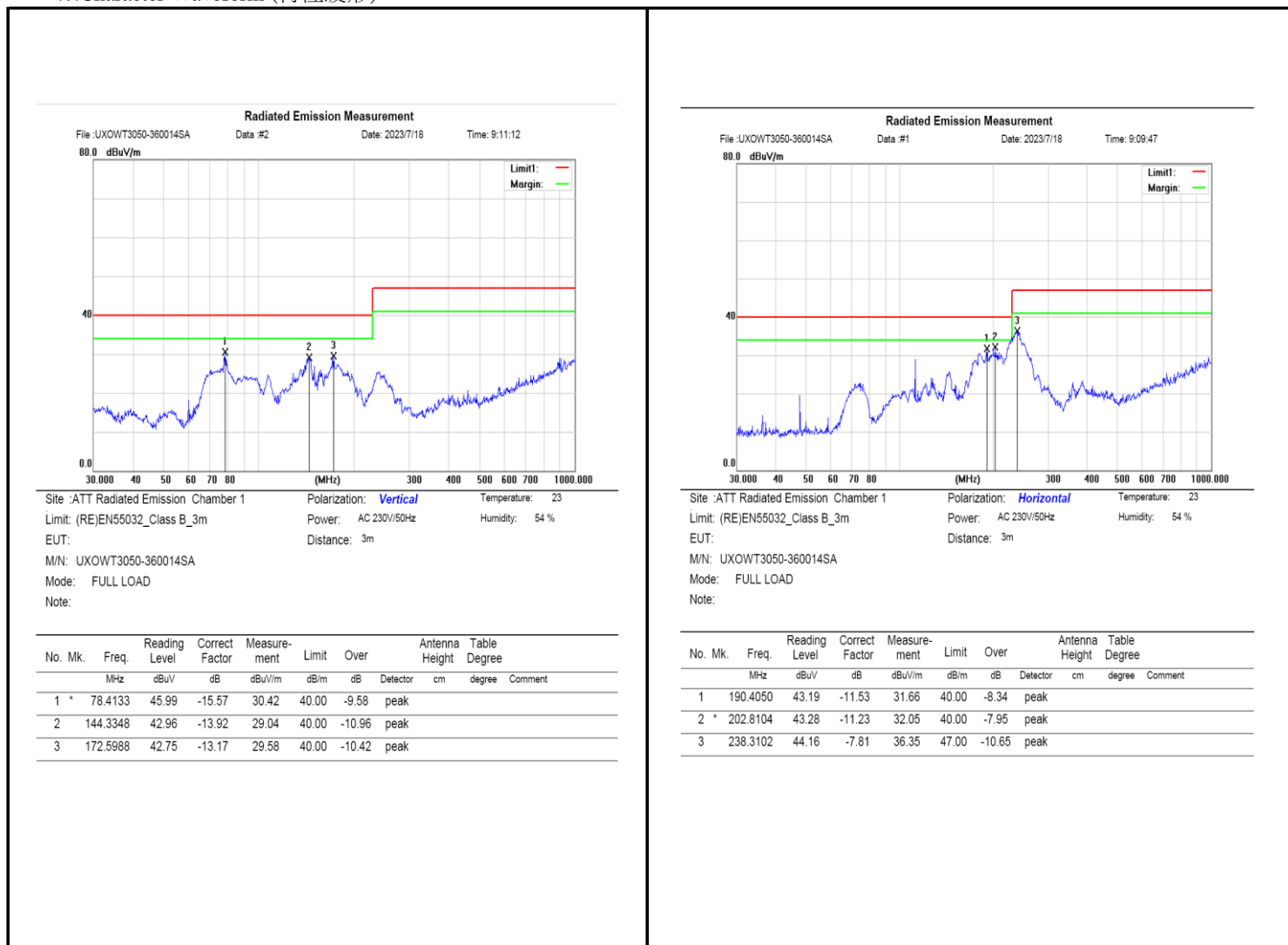
※Character Equipment(特性設備) :

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	EN55032 CLASS B

※Character Data(特性數據) :

ITEM	peak	QP
Character Result		
V line	-9.58dB	/
H line	-7.95dB	/

※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 $\pm 1\text{KV}$; Line to FG $\pm 2\text{KV}$	
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 A	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