

# APPROVAL SHEET

CUSTOMER : 貴中.

MODEL : URA-2405K (Adaptor)

ITEM : ADAPTOR(24V/5A)

PART NO. :

DATE : 2013. 01. 15

DESIGNED BY	CHECKED BY	APPROVED BY
13/01	13/01	13/01

A P P R O V A L

# **C O N T E N T S**

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# 1. REVISION HISTORY

NO	DATE	REV NO	DESCRIPTION	CHANGE BASE ON	CHECK	APPROVED

## 2. ELECTRICAL SPECIFICATION

### 1. General

#### 1-1. Product Description

This specification defines the input performance characteristics environment, noise and safety requirements for a Power Supply.

#### 1-2. Parameter Specification

Unless specification otherwise, all parameters must be met over the limit of temperature load, and input voltage.

### 2. Electrical Specification

#### 2-1. Input Features

##### 2-1-1. AC Input

2-1-1-1. Rated Voltage : AC 220 - 240V

2-1-1-2. Voltage Range : AC 180V - 264V

2-1-1-3. Frequency : 47~63Hz

##### 2-1-2. Input Current

under 3.0 Arms at AC 180V & load max

##### 2-1-3. Inrush Current

under 60 Apeak at AC 180V - 220V

##### 2-1-4. Efficiency

Over than 85% at AC 108V - 220V & load max

##### 2-1-5. Protection

2-1-5-1. OCP(Over Current Protection) : Shutdown or Auto recover

2-1-5-2. OVP(Over Voltage Protection) : Shutdown or Auto recover

2-1-5-3. SCP(Short Circuit Protection) : Shutdown or Auto recover

##### 2-1-6. Hi-pot Test(Dielectric Withstand Voltage)

2-1-6-1. Primary to Secondary : 2.5KVac for 1Min.

Mass Production : 3.0KVac for 3Sec.

2-1-6-2. Primary to GND : 1.5KVac for 1Min.

Mass Production : 1.8KVac for 3Sec.

\*Cut-off current : 10mA.

##### 2-1-7. Leakage Current

The power supply leakage current shall be less than 0.5mA

2-1-8. Lightning Surge Test

- Common Mode Minimum : 3KV pass
- Normal Mode Minimum : 2KV pass

2-1-9. Environment Requirements

2-1-9-1. Temperature

- Operation Temp : 0 ~ 40 °C
- Storage Temp : -20 ~ 75 °C

2-2-9-2. Humidity

- Operation humidity : 30 ~85% RH non-condensing
- Storage humidity : 5 ~ 90% non-condensing

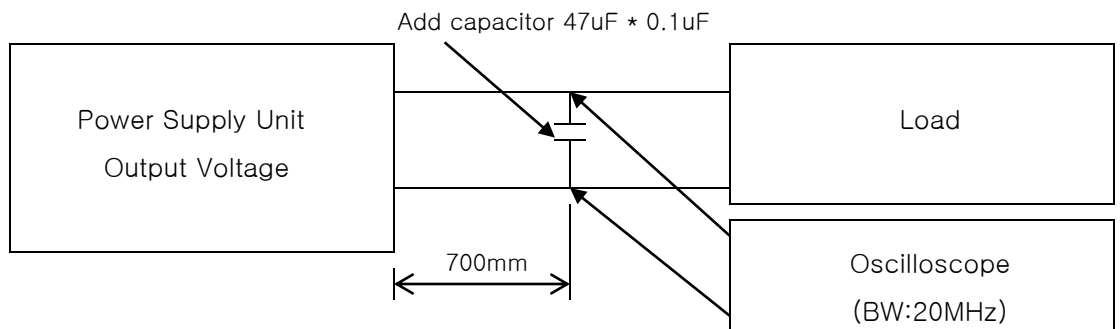
2-2. Output Features

2-2-1. Output Specification

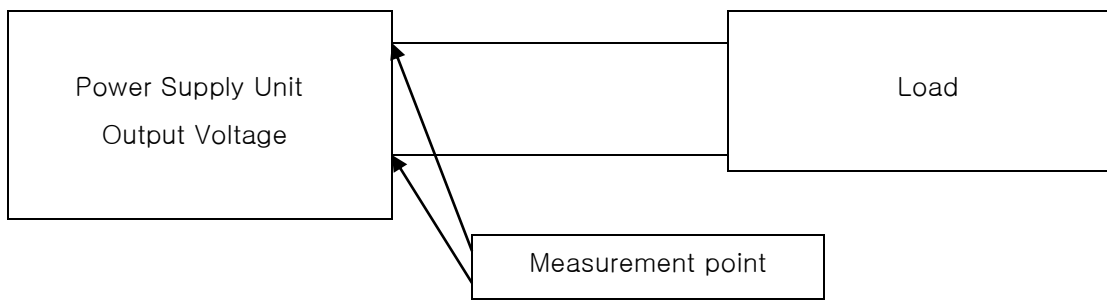
Power Output Name	Voltage Tolerance [Vrms]	Output Current [Arms]			Ripple Noise [mVp-p]
		Min	Max	Peak (60sec)	
24V	22.8V – 25.2V	0.05A	5A	5.5A	400

※ Comment

\* 1 : Ripple Noise Measurement Method



\* 2 : Output Voltage Measurement Method



3. Cooling

Cooling shall be will natural convection cooling.

Storage : 5% to 90% non-condensing

4. Reliability

4-1. Mean Time Between Failure (MTBF)

The power supply shall be designed and produced to have a mean Time between failure(MTBF) of 30,000 operating hours at 90% Confidence-level while operating under the following condition.

- a. AC input voltage : AC 220V – AC 264V
- b. Duty cycle : 6 Hours ON, 2Hours OFF.
- c. Ambient TEMP : 25°C ± 2°C
- d. Humidity : Prevailing Conditions

4-2. Life / Power ON Hours

The power supply must be designed to operate for 25,000 power on Hours, about 3years at an ambient temperature of 25°C.

5. Burn – in Condition

More then 2Hours at 40°C (± 10°C), nominal input voltage.

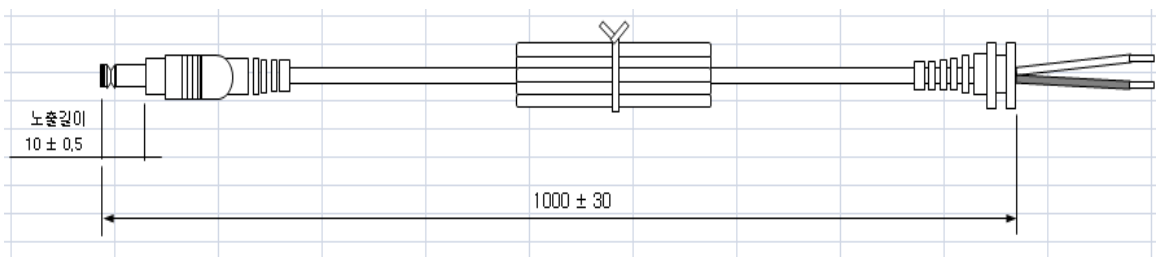
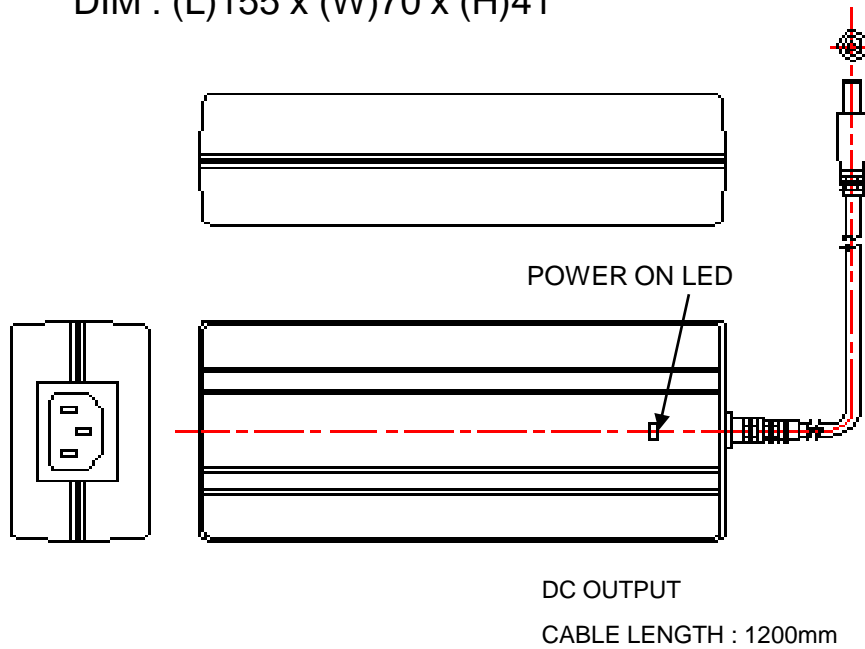
AC on/off must be test 1 time after burn-in

Output Voltage	+24V	24V
Load(70%)	3.5A	5A

# 3.MECHANICAL REQUIREMENT

## 3-1. PHYSICAL DIMENSIONS

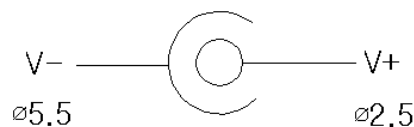
DIM : (L)155 x (W)70 x (H)41



### 3-1. AC Input Connector

IEC 320 Type AC Input receptacle

### 3-2. DC Output Connector : : 2.5 ϕ x 5.5 ϕ 10mm FORK / LOCK TYPE



2.5 ϕ x 5.5 ϕ DC PLUG

3-3. LABEL

## UNIROAD AC/DC ADAPTER

MODEL : URA-2405K  
 INPUT : 220-240V~,50/60Hz 1.2A  
 OUTPUT : 24V === 5A

제품명칭 : 직류전원장치  
 모 델 명 : URA-2405K  
 정격입력 : 220-240V~  
           50/60Hz 1.2A  
 정격출력 : DC 24V === 5A  
 제 조 원 : 유니로드(주)  
 판 매 원 : 유니로드(주)  
 제품문의 : 판매처 문의      KCC-REM-UNI-URA-2405K  
           031-480-5907      전자파장해/내성시험필

KCC

HH10263-13001A

**주의사항**

- 본 제품은 AC 220V 전용입니다.
- 습기가 많은 장소에서 사용하지 마세요.
- 제품을 분해 및 개조 하지 마세요.
- 실내에서만 사용하십시오.

모델명 : URA-2405K  
최저소비효율기준 만족제품

**CAUTION**

- FOR INDOOR USE ONLY  
- FOR USE WITH INFORMATION TECHNOLOGY EQUIPMENT

**WARNING**

- RISK OF ELECTRIC SHOCK DO NOT OPEN

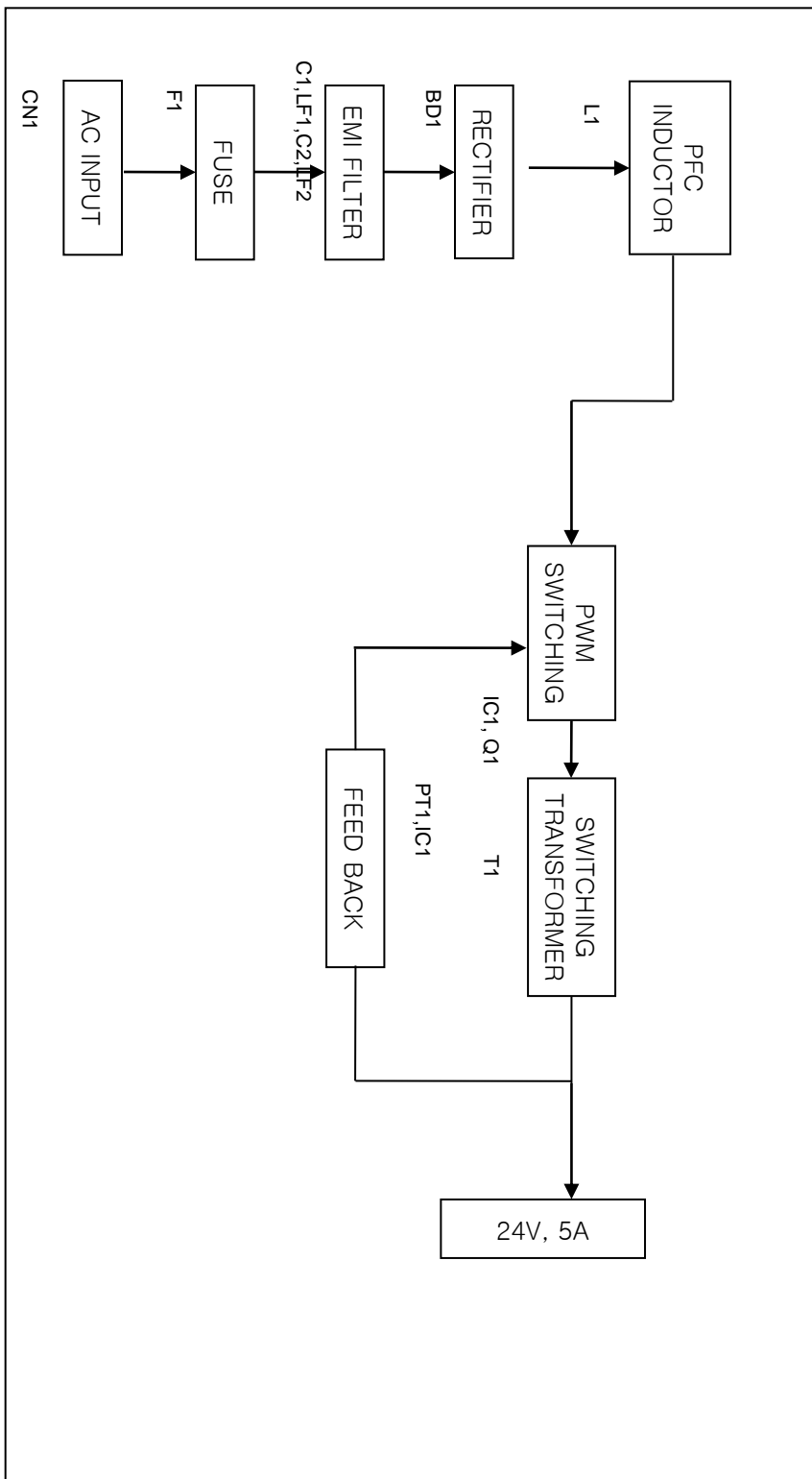
1	2	3	4	5	6	7	8	9	10	11	12

MADE IN KOREA

SN : UR13 000001



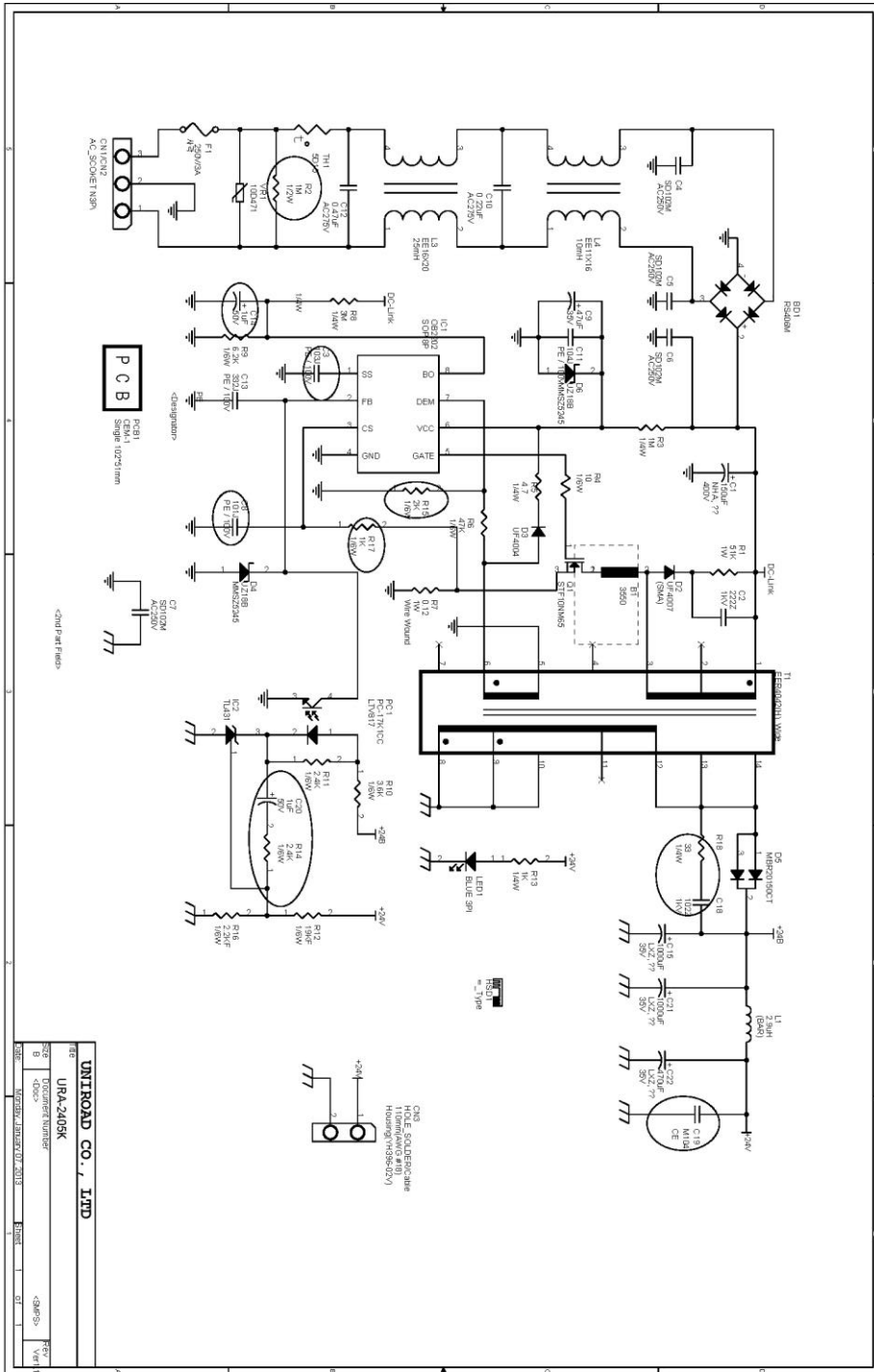
# 4. BLOCK DIAGRAM



Block Diagram

Model : URA-2405K

# 5. CIRCUIT DRAWING

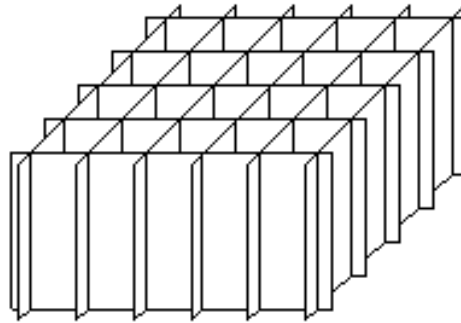


# 5. PACKING

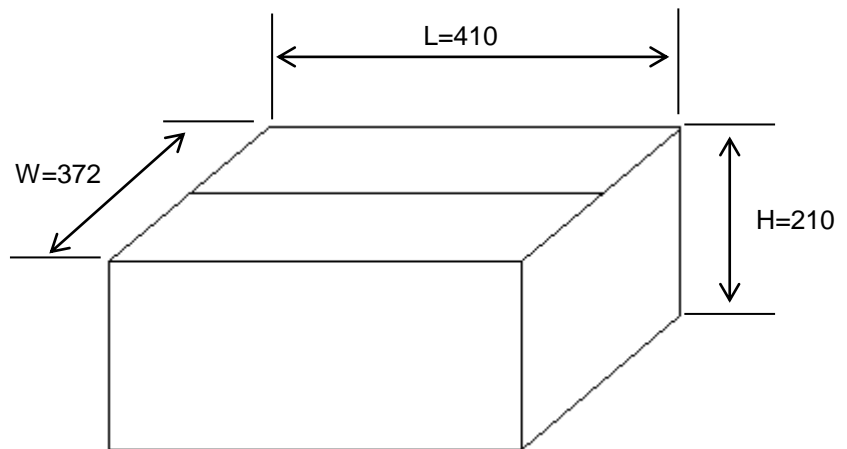
5-1 SIZE (Unit :mm)

1) INNER BOX

$5 \times 4 = 20$



2) OUT BOX



5-2 포장수량 및 무게

구분	수량	무게(Kg)	비고
1단	20EA	약10kg	1set 무게 (510g)

[별지 제2호서식]



접수번호 : 20130111 - 0001

**전기용품안전인증서**  
Electrical Appliances Safety Certificate

안전인증번호: HH10263-13001A  
(Certificate No.)  
 제조업자명: 유니로드(주)  
(Manufacturer)  
 대표자명: 조치현  
(President)  
 제조공장의소재지: 경기 안산시 상록구 일동 752 안산1대학창업보육센터 403,404  
(Factory Address)  
 제품명: 직류전원장치  
(Product)  
 기본모델명: URA-2405K  
(Basic Model)  
 정격: AC 220-240 V, 50/60 Hz, 1.2 A (O/P: 24 Vdc, 5 A)  
(Rating)  
 파생모델명 (Series Model):  
 URA-2405K2

적용기준: K 60950-1(2006-12)  
(Standard)

「전기용품안전 관리법 시행규칙」 제6조제2항에 따라 위의 전기용품에 대하여 안전인증서를 발급합니다.  
 We issue this Electrical Appliances Safety Certificate for the above electrical appliance in accordance with the Article 6(2) of the Enforcement Rule of the Electrical Appliances Safety Control Act.



2013 년 2 월 18 일  
(Year) (Month) (Day)

**한국기계전기전자시험연구원**  
Korea Testing Certification



※ 본 인증서는 「전기용품안전 관리법」에 따른 전기제품 안전성확인에 한정된 것이며, 그 밖의 다른 법률이 적용되는 제품의 경우에는 해당 법률에 따라 추가적으로 인증·허가 등을 받아야 합니다.

- 첨부서류 1. 안전관리부품 및 재질목록 (List of Critical Components)  
 2. 기본모델·파생모델의 내용 (General Descriptions of Certified Products)  
 3. 전기용품안전인증의 변경현황 (Status of Certificate Revisions)

안전인증서의 조건 : 동 제품의 생산 시 자체검사를 실시하고 안전인증 시 등록된 부품누락 및 임의 변경하지 말 것.  
 Conditions of Safety Certification : In the production of this product, conduct a self-test and do not miss and change the registered components.

48D6-855E-C3E4-68EE

## 방송통신기자재등의 적합등록 필증

*Registration of Broadcasting and Communication Equipments*

상호 또는 성명 <i>Trade Name or Registrant</i>	유니로드주식회사
기기 명칭 <i>Equipment Name</i>	직류전원장치
기본모델명 <i>Basic Model Number</i>	URA-2405K
파생모델명 <i>Series Model Number</i>	URA-2405K2
등록번호 <i>Registration No.</i>	KCC-REM-UNi-URA-2405K
제조사/제조(조립)국가 <i>Manufacturer/Country of Origin</i>	유니로드주식회사 / 한국
등록연월일 <i>Date of Registration</i>	2013-01-22
기타 <i>Others</i>	

위 기기는 「전파법」 제58조의2 제3항에 따라 등록되었음을 증명합니다.  
It is verified that foregoing equipment has been registered under the Clause 3, Article 58-2 of Radio Waves Act.

2013년(Year) 01월(Month) 22일(Date)

국립전파연구원장



*Director General of Radio Research Agency  
Korea Communications Commission Republic of Korea*

\* 적합등록 방송통신기자재는 반드시 "적합성평가표시"를 부착하여 유통하여야 합니다.  
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