

SNP-A078 SPECIFICATION

SPECIFICATION

for

SWITCHING POWER SUPPLY

M/N: SNP-A078

Check by Product Engineer	梁進浩 08-03-96					
Typed by Document Assistant	林維東 080796					
SKYNET ELECTRONIC			LAST REV. NO. A078-080596			



## 1.0 INTRODUCTIONS

SNP-A078 is single output, 70 watts switching mode adapter. It is designed for general application.

## 2.0 INPUT SPECIFICATIONS

### 2.1 Input Voltage

The range of input voltage is from 90VAC to 270VAC.

### 2.2 Input frequency

The range of input frequency is from 47Hz to 63Hz.

### 2.3 Input current

The maximum input current is 2A at 115VAC or 1A at 230VAC.

### 2.4 Inrush current

The inrush current is less than 30A at 115VAC input or 60A at 230V AC input, at an ambient of 25 °C.

## 3.0 OUTPUT SPECIFICATIONS

### 3.1 Load range

output	min. load	rated load	peak load	voltage accuracy
+15V	0A	5A		14.25Vto 15.75V

At factory, the output is adjusted to 15V +/-1% in 60% rated load conditions.

### 3.2 Ripple and noise

The peak to peak ripple and noise is less than 100mV. Measuring is done by a 15 MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor.

### 3.3 Line regulation

The line regulation is less than +/-1% while measuring at rated load and +/-10% of input voltage changing.

### 3.4 Load regulation

The load regulation is less than +/-5%, measuring is done by changing the measured output load +/-40% from 60% rated load.

## 4.0 GENERAL FEATURES

### 4.1 Efficiency

The efficiency is higher than 70% while measuring at nominal line and rated load.

### 4.2 Hold up time

The hold up time is longer than 16mS at 115VAC input and rated load, which is measured from the end of the last charging pulse to when the main output drops down to 95% output voltage.

### 4.3 Protection

#### 4.3.1 Over voltage protection

For some reasons the power supply might fail to control itself, the build-in over voltage protection circuit will shut down the outputs to prevent damaging external circuits. The trip point of crowbar circuit is around 17.6V to 20.1V.

#### 4.3.2 Short circuit protection

The power supply will go into hiccup mode against short circuit or over load conditions, and will do autorecovery while faulty conditions are removed.

## 5.0 ENVIRONMENT SPECIFICATIONS

### 5.1 Operating temperature

0°C to 40°C

### 5.2 Storage temperature

-20°C to 85°C

### 5.3 Altitude

Will operate properly at any altitude between 0 to 10,000 ft.

## 6.0 INTERNATIONAL STANDARDS

### 6.1 Safety standards

Designed to meet the following standards :

UL 1950

CSA 22.2 NO.234 & No. 950

VDE EN 60 950

### 6.2 EMI standards

Designed to meet the following limits :

FCC docket 20780 curve "B"

EN 55022 Class "B"

EN 60555-2

### 6.3 EMS standards

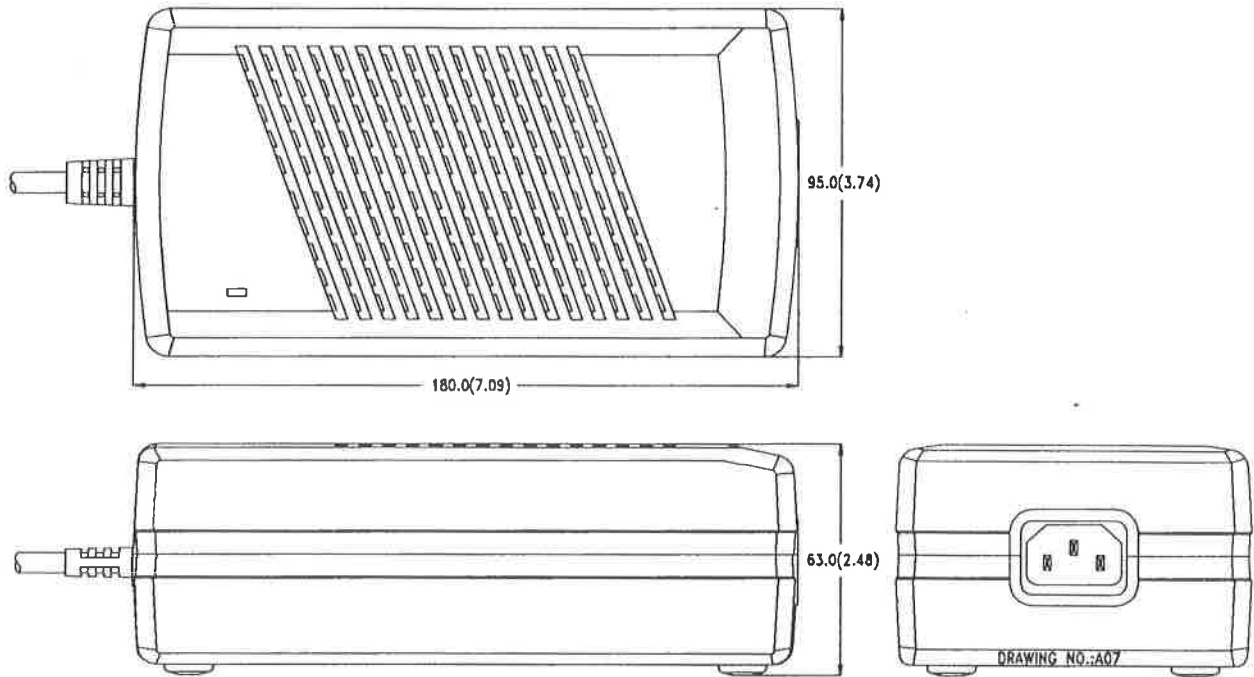
IEC-801-2 8KV air dis charge

IEC-801-3 3V/M

IEC-801-4 2KV

IEC-801-5 2KV

7.0 MECHANICAL SPECIFICATION



7.1 Dimensions

Dimensions shown in mm ( inch ) as above.  
Tolerance specified is +/- 1 mm (Excluding DC wire).

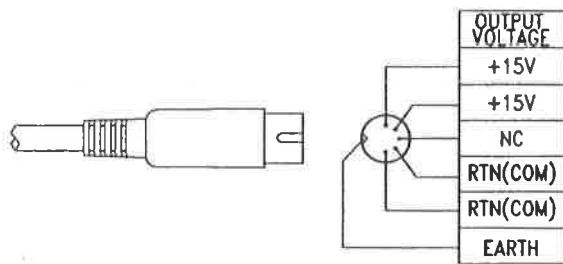
7.2 Connectors

AC Inlet: IEC 320 Inlet  
DC Output: DC power plug with a cable of 180+/-5cm length

7.3 Color

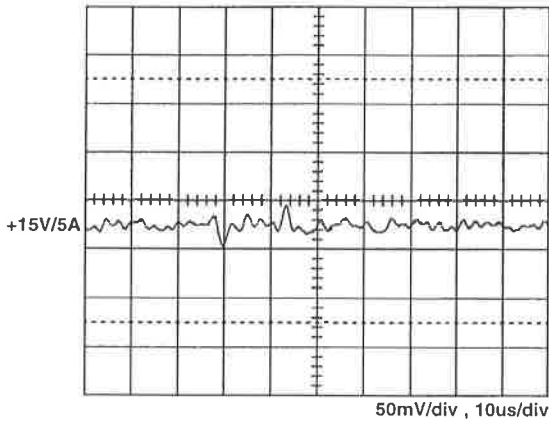
Black

7.4 DC output power jack pin assignment :

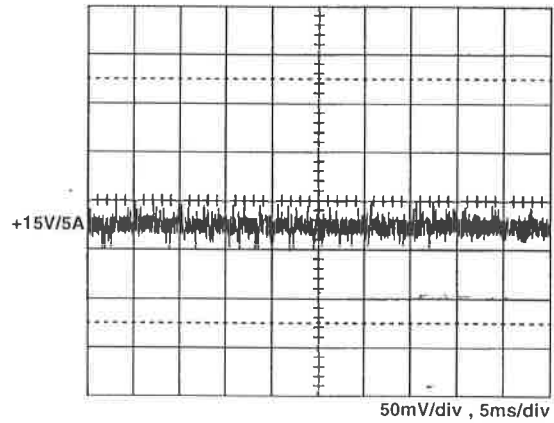


8.0 PERFORMANCE (input voltage is 115VAC, unless others specified.)

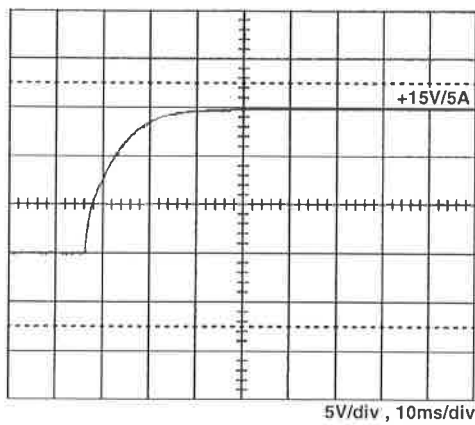
8.1 Switching frequency ripple



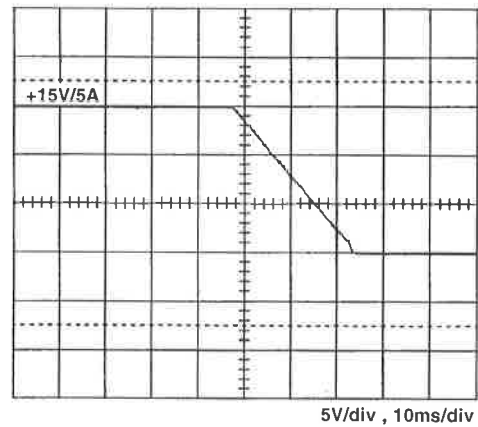
8.2 Line frequency ripple



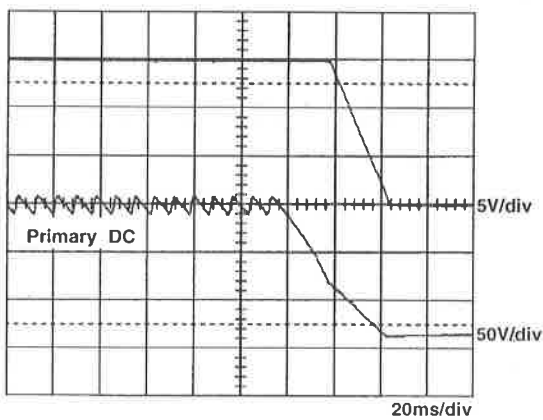
8.3 Output turn on wave form



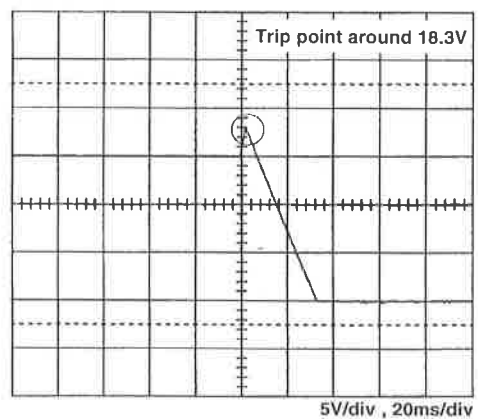
8.4 Output turn off wave form



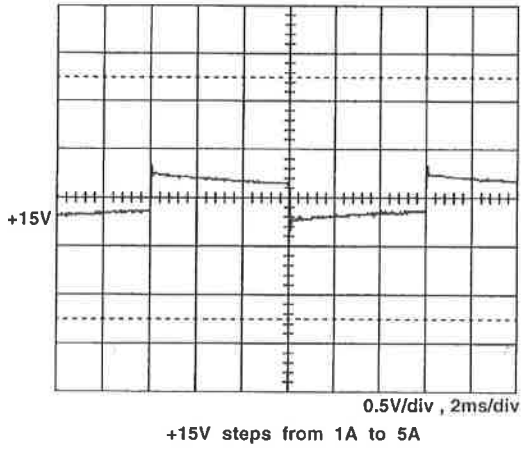
8.5 Hold-up time



8.6 Over voltage protection

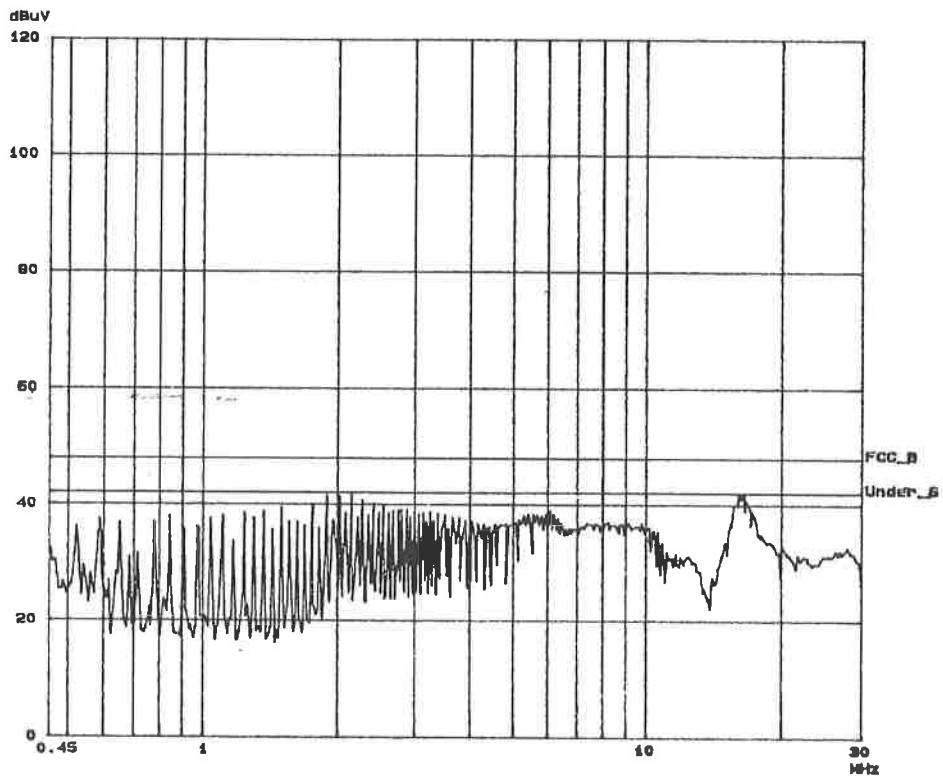


8.7 +15V step response

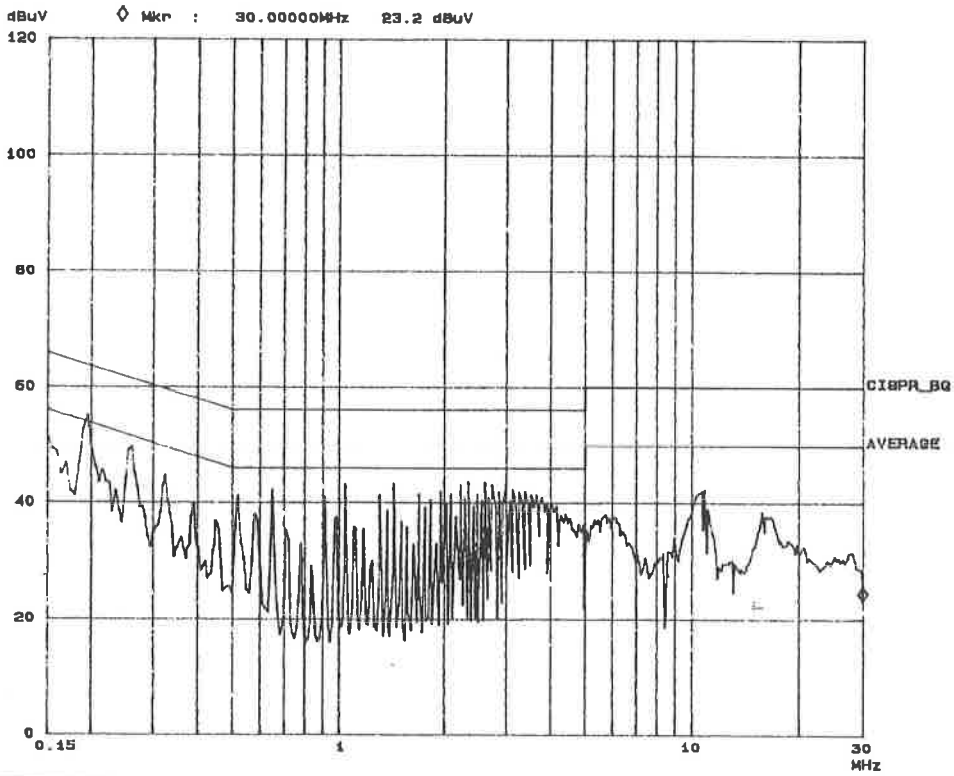


+15V steps from 1A to 5A

### 8.8 FCC B performance

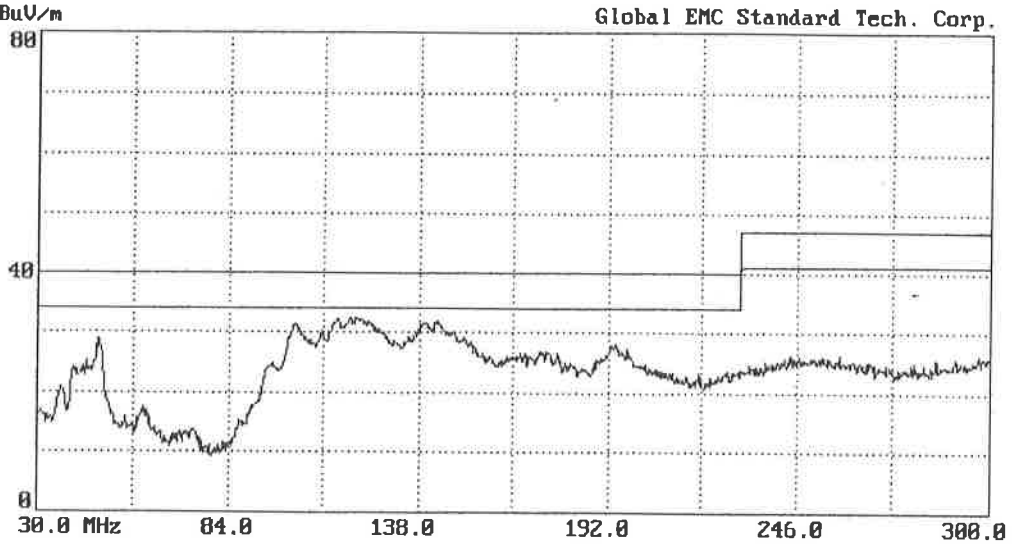


### 8.9 CISPR 22 class B

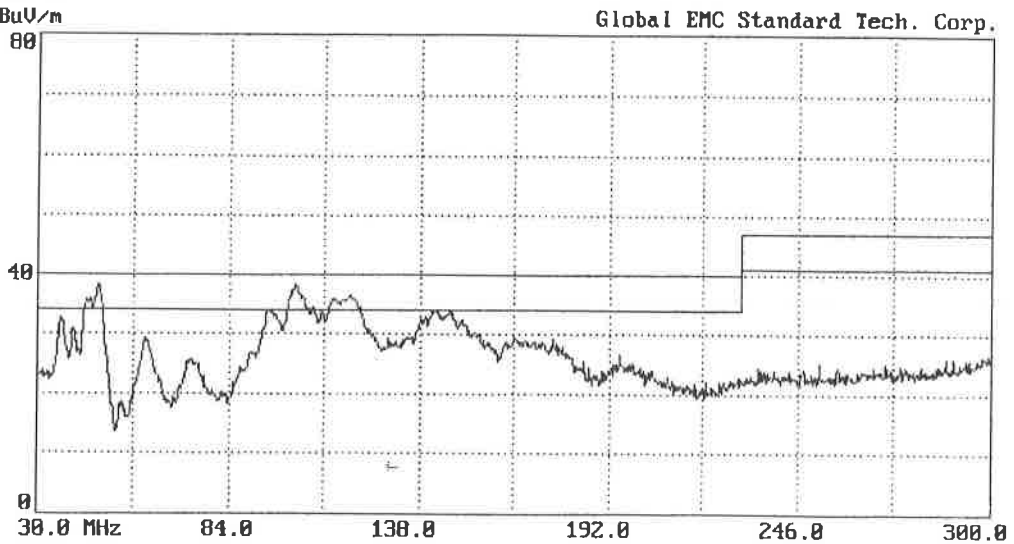


8.10 Performance of EMI (Radiation)

File#: STEUCHEN.EI - 254    Sweep    Date : 06-14,1996 Fri Time: 09:05:08 am  
 Site : Skynet    Probe : 3110B Horizontal  
 Limit: CISPR CLASS-B 3m    Margin: 6 dB  
 EUT :    Std :  
 Power:    Trace :  
 Note :  
 dBuV/m



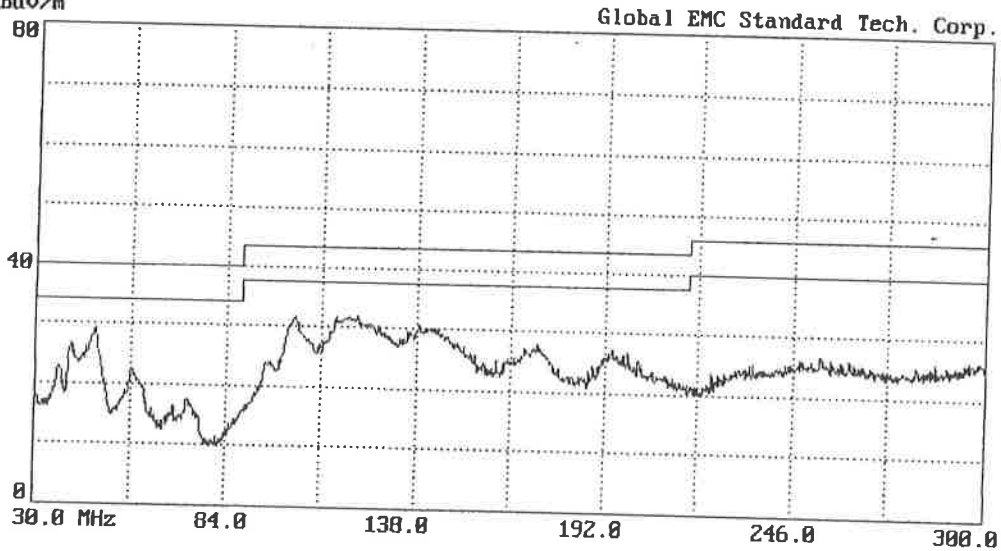
File#: STEUCHEN.EI - 255    Sweep    Date : 06-14,1996 Fri Time: 09:06:28 am  
 Site : Skynet    Probe : 3110B Vertical  
 Limit: CISPR CLASS-B 3m    Margin: 6 dB  
 EUT :    Std :  
 Power:    Trace :  
 Note :  
 dBuV/m





8.11 Performance of EMI (Radiation)

File#: STEUCHEN.EI - 261      Sweep      Date : 06-14,1996 Fri Time: 10:00:04 am  
Site : Skynet      Probe : 3110B Horizontal  
Limit: FCC CLASS-B 3m      Margin: 6 dB  
EUT :      Std :  
Power:      Trace :  
Note :  
dBuV/m



File#: STEUCHEN.EI - 262      Sweep      Date : 06-14,1996 Fri Time: 10:09:23 am  
Site : Skynet      Probe : 3110B Vertical  
Limit: FCC CLASS-B 3m      Margin: 6 dB  
EUT :      Std :  
Power:      Trace :  
Note :  
dBuV/m

