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Jameco Part Number 1848466

SPECIFICATION

for

SWITCHING POWER SUPPLY

M/N: SNP-0502

Prepared by Product Engineer	梁進屏 5-4-95					
Typed by Document Assistant	林國榮 050395					
Released by Project Manager	梁進屏 5-4-95					

SKYNET ELECTRONIC

LAST REV. NO.

0502-050395



1.0 INTRODUCTIONS

The SNP-0502 is a 5V/2A output, universal input, switching mode power supply. It is specially designed for CD-ROM application. Extra two connectors, one for +12V cooling Fan, one for LED, are included.

2.0 INPUT SPECIFICATIONS

2.1 Input Voltage

The range of input voltage is from 90VAC to 276VAC.

2.2 Input frequency

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

2.3 Input current

The maximum input current is 0.3A at 115VAC or 0.15A at 230VAC.

2.4 Inrush current

The inrush current will not exceed 30A at 115VAC input or 60A at 230V AC input, cold start, 25 °C.

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

output	min. load	rated load	peak load	voltage accuracy
+5V	0A	2A	3A	5.00V to 5.10V

At factory, in 60% rated load condition, the output is checked to between 5.00V and 5.10V. Peak load less than 15 sec.

3.2 Ripple and noise

The peak to peak ripple and noise is less than 50mV. Measuring is done by 15MHz band width limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load, nominal line.

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 +/-1% measuring is done by changing the 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 15mS typ.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

The power supply will go into hiccp mode against short circuit or over load conditions, and will auto-recovery while the faulty conditions are removed.

5.0 ENVIRONMENT SPECIFICATIONS

5.1 Operating temperature

0°C to 50°C

5.2 Storage temperature

-20°C to 85°C

5.3 MTBF

150K hrs , at rated load, 50°C.

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

Designed to meet the following standards :

UL 1950 D3

CSA 22.2 NO. 234

VDE EN 60 950

6.2 EM1 standards

Designed to meet the following conducted limits

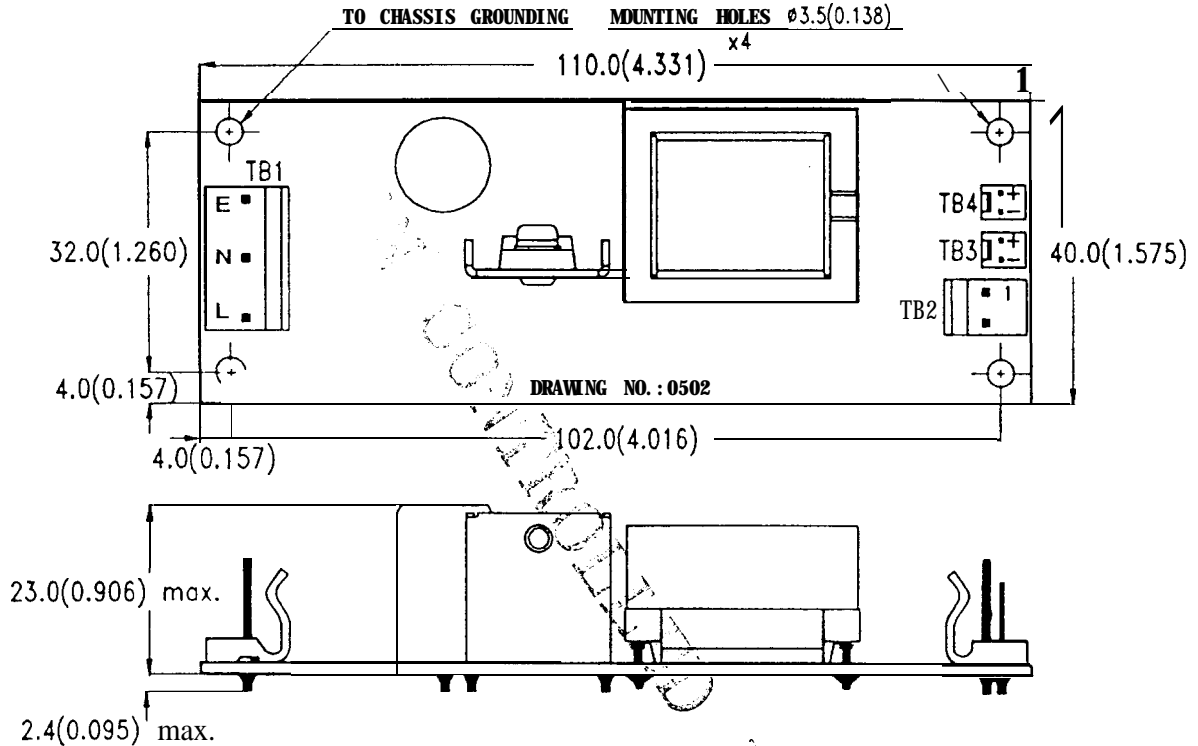
FCC docket 20780 curve "B"

VFG 243/199 1

Designed to meet the following radiation :

CISPR22 "B"

7.0 MECHANICAL SPECIFICATION



7.1 Dimensions

Dimensions shown in mm (inch) as above. Tolerance specified is + - 0.4 mm.

7.2 Connectors

TB 1 --AC input : Molex 5273-05 withdraw 2 pins or equivalent

TB2--DC output : Molex 5273-02 or equivalent

TB3--for LED use only : Molex 5045-02 or equivalent

TB4--for FAN use only : Molex 5045-02 or equivalent

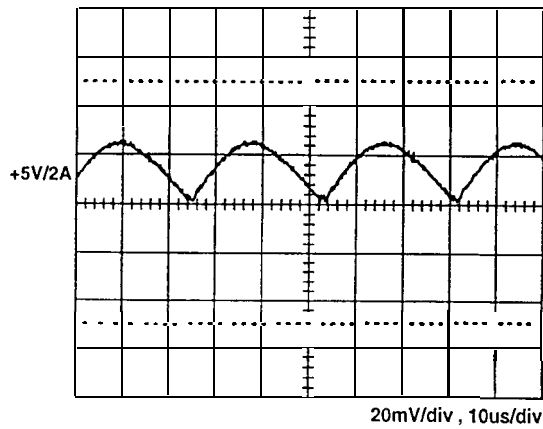
7.3 DC output pin assignment

Pin 1 +5V

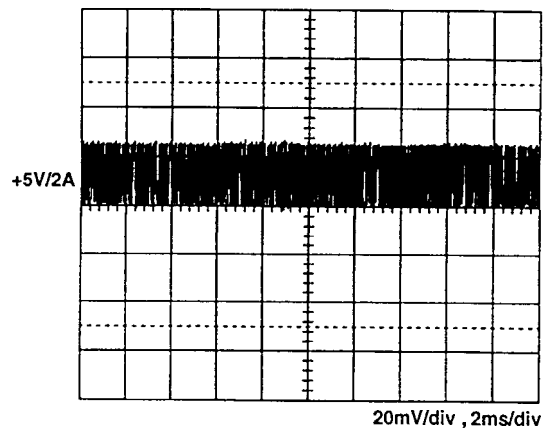
2 GND

8.0 PERFORMANCE

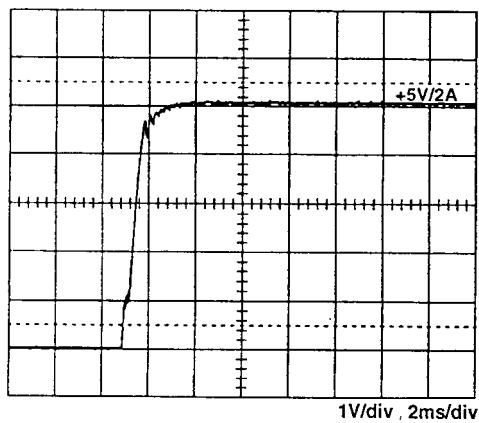
8.1 Switching frequency ripple



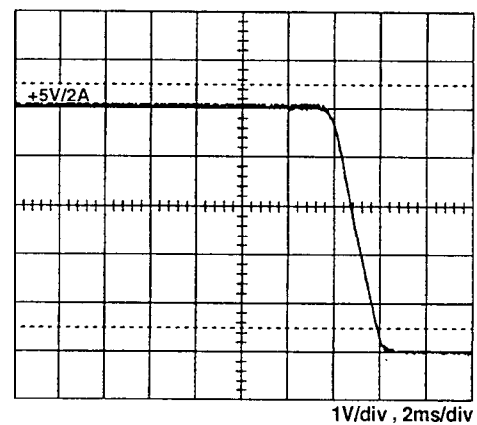
8.2 Line frequency ripple



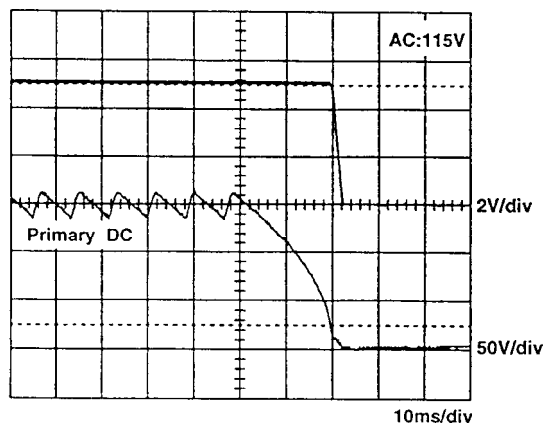
8.3 Output turn on wave form



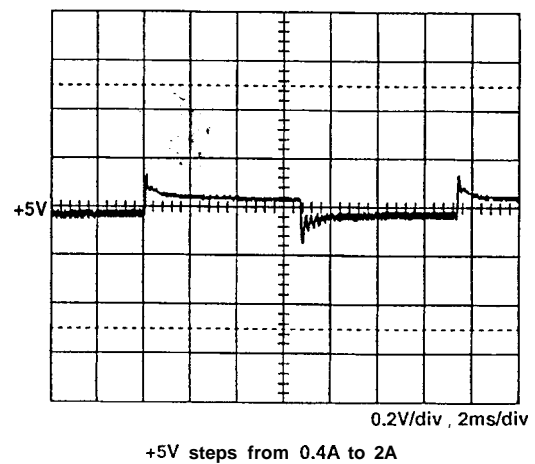
8.4 Output turn off wave form



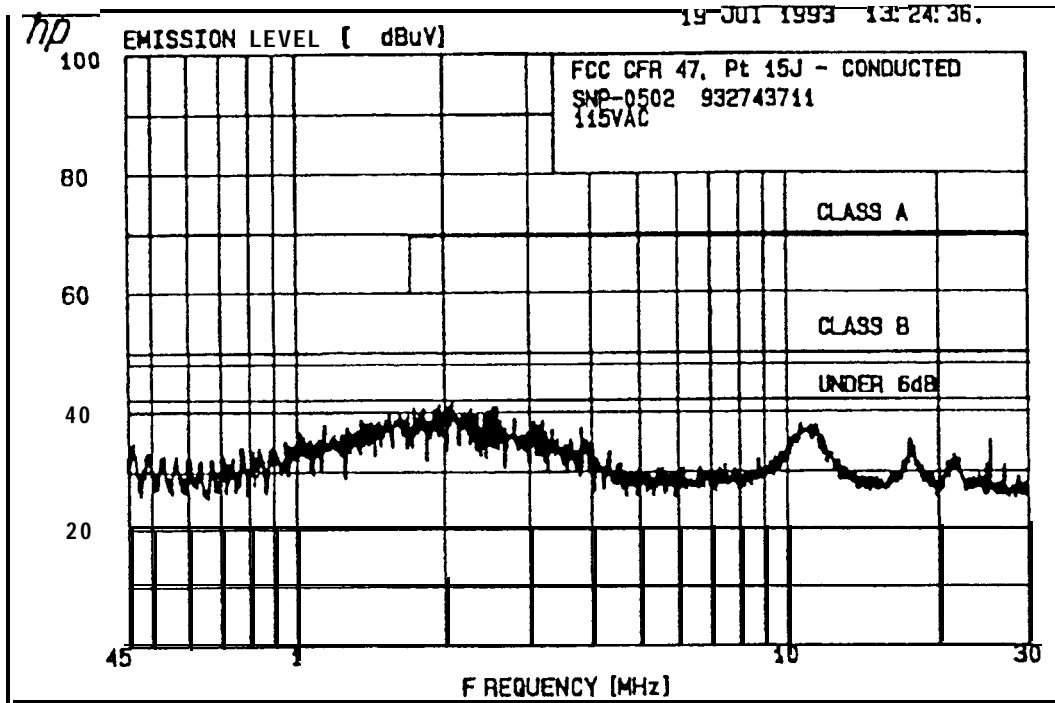
8.5 Hold-up time



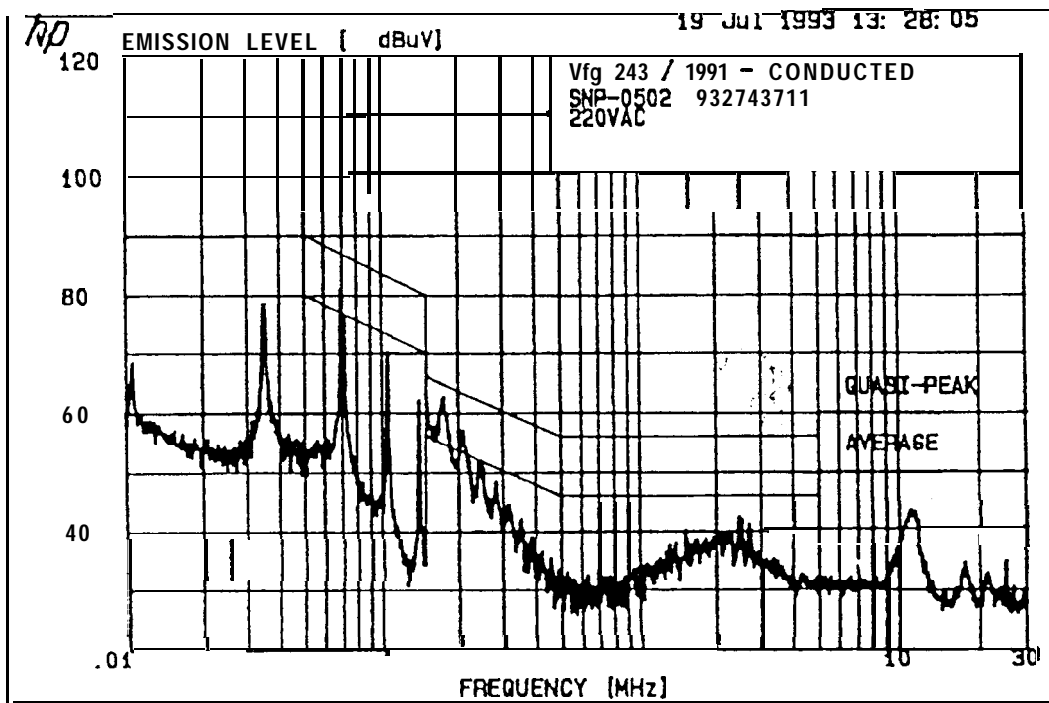
8.6 +5V step response



8.7 FCC B performance

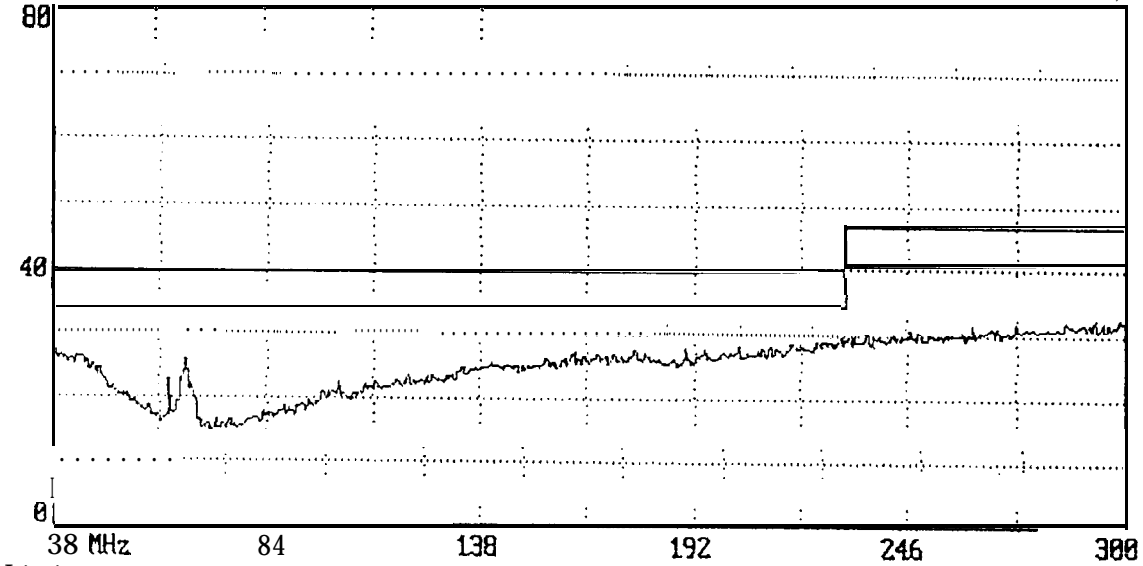


8.8 Vfg 243



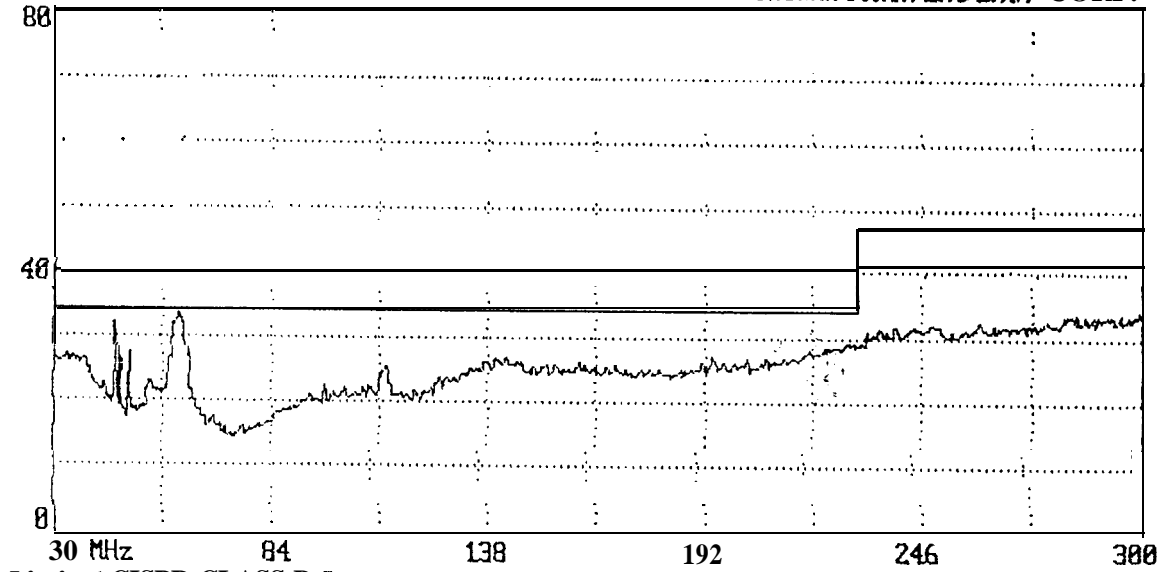
8.9 Performance of EMI (Radiation)

Page#: 15 SP File#: SKYNET.EI Date: 84-26-1995 Time: 18:03:26
dBµV/m ANECHON I C CHAMBER TAIWAN TOKIN EMC ENG. CORP.



Limit : CISPR CLASS-B 3m
 EUT : S.P.S M/N:SNP-0502
 Margin: 6dB Standard : 0
 Memo :
 Probe: BBA9186(CHAMBER) HORIZONTAL
 Power: 230Vac:50Hz
 Trace: 15, 0, 0, 0, 0

Page#: 16 SP File#: SKYNET.EI Date: 84-26-1995 Time: 18:07:17
dBµV/m ANECHONIC CHAMBER TAIWAN TOKIN EMC ENG. CORP.



Limit : CISPR CLASS-B 3m
 EUT : S.P.S M/N:SNP-0502
 Margin: 6dB Standard : 0
 Memo :
 Probe: BBA9186(CHAMBER) VERTICAL
 Power: 230Vac:50Hz
 Trace: 16, 0, 0, 0, 0