

# 承認書

## APPROVAL SHEET

客戶名稱： E-PRO ITX

CUSTOMER

承認書編號： \_\_\_\_\_

NO. of APPROVAL SHEET

品名：DD POWER SUPPLY

DESCRIPTION

客戶產品型號： \_\_\_\_\_

MODEL NO. OF CUSTOMER

宥展產品型號：DD-ITX120 (V2.01)

MODEL NO. OF G-ALANTIC

簽認章

AUTHORIZED SIGNATURE

簽認章 AUTHORIZED SIGNATURE		

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## Model No. DD-ITX120

This specification describes the requirements of 120 watts switching power supply .

### 1.0 INPUT REQUIREMENTS

#### 1.1 DC input requirements

The input voltage, requirements for continuous operation are stated below.

Table 1 DC Input Line Requirements

Parameter	Min	Nom.	Max	Unit
Input voltage	15	19	24	VDC

12 A @ 15V

### 2.0 OUTPUT REQUIREMENTS

#### 2.1 Static load:

Output	Voltage	Minimum load	Nominal load	Maximum load
1	+5V	0A	5A	7A
2	+12V	0A	6A	8A
3	-12V	0A	0.2A	0.2A
4	3.3V	0A	5A	7A
5	+5VSB	0A	1.5A	2A

#### 2.2 Output voltage:

The output voltage shall be statically regulated for all combinations of load, line and environment including cross regulation as shown.

Output	Voltage	Range	Tolerance
1	+5V	+4.75V~5.25V	+/-5%
2	+12V	+11.4V~12.6V	+/-5%
3	-12V	-11.4V~-12.6V	+/-5%
4	3.3V	+3.14~+3.47V	+/-5%
5	+5VSB	+4.75V~5.25V	+/-5%

#### \*2.3 Ripple and Noise

Output	Voltage	Maximum peak to peak ripple & Noise
1	+3.3V	50m Vp-p
2	+5V	50m Vp-p
3	+12V	120m Vp-p
4	-12V	120m Vp-p
5	+5VSB'	50m Vp-p

**2.4 Standard Voltage**

Standard Voltage: 19V±1 DC

**2.5 Efficiency**

1. Power supply efficiency minimum 80% at normal AC main voltage and full load .
- 2.No load input current :DC 100mA max

When the logic level "PS-ON" is low, the DC outputs are to be enablec  
 When the logic level is high or open collector, the DC outputs are to be disable

**2.7: Power good signal turn on delay time (100ms~500ms)**

**2.8: Turn-On SEQUENCE:**

The main DC output of 3.3V/5V/12V should be turn on ≤ 20ms

**2.9: Rise Time:**

At 15Vdc or 24Vdc, DC output rise time from 10% to 90% of Vo. ≤ 20ms

**3.0 PROTECTION REQUIREMENT**

**3.1: SHORT CIRCUIT PROTECTION**

With input power source at 165W max. power limiting,when shorting at 3.3V 5V&5VSB,it should not have any component damage for indefinitely period of tin  
 The power supply shall shut down

**3.2: OVER CURRENT PROTECTION**

Available at 3.3V, 5V at 110-350% of output max, current rating  
 The power supply shall shut down and no damag

**4.0 ENVIRONMENT**

**4.1 Operation**

Temperature	0 to 40 °C	
Relative Humidity	20 to 80%RH	

**4.2 Shipping and Storage**

Temperature	-20 to 80 °C	
Relative Humidity	10 % to 90%RH	

**5.0 MTBF ( MEAN-TIME-BETWEEN FAILURES ) CALCULATION**

The demonstrated MTBF shall be 40,000 hours of continuous operation at 25 °C, Full load. 80% confidence limit and nominal line.The MTBF of the power supply shall be calculated in accordance with MIL-STD-217F.

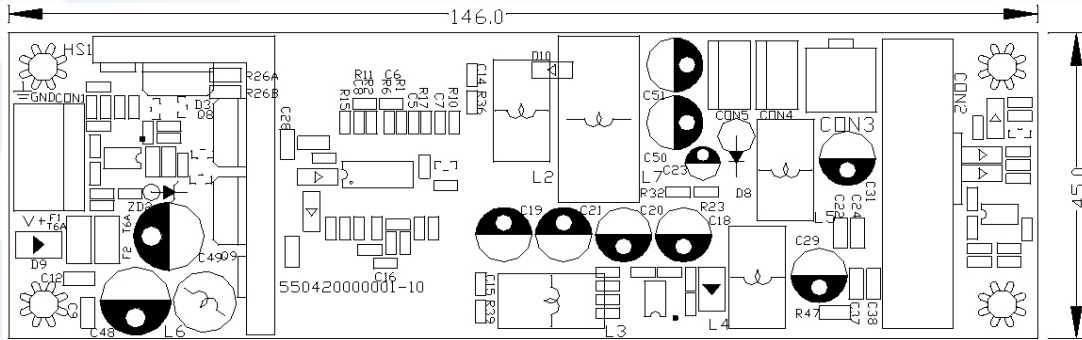
**6.0 MECHANICAL REQUIREMENTS**

**6.1 Physical Dimension**

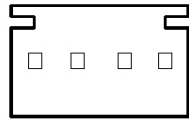
146\*45\*35mm

**6.2 Weight**

240g



CON1 : Input Connector Assign



GND      V+

**DD-ITX120 DC/DC power supply**

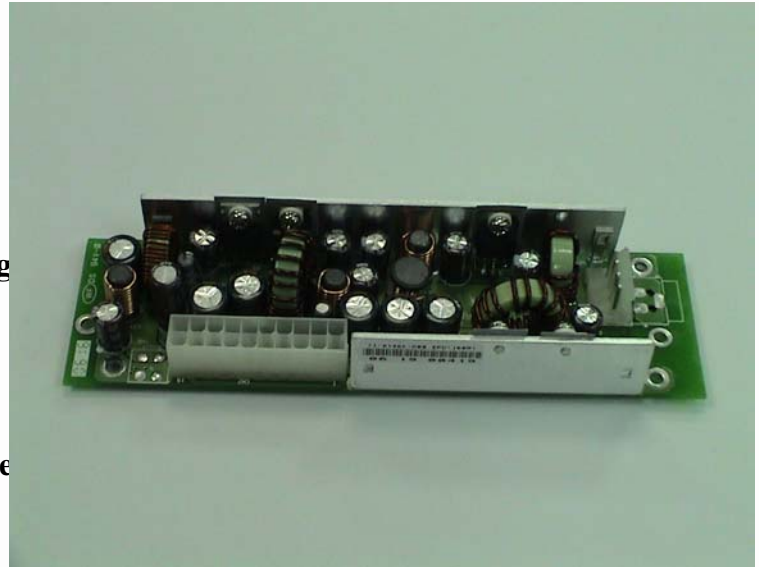
**ELECTRICAL SPECIFICATIONS :**

**INPUT**

Input voltage : 12V  
 Input Frequency : DC  
 Input power : 130W  
 Efficiency : >80% at Full Load

**OUTPUT**

Output Power : 120W max. at convection cooling  
 Output Voltage : see rating chart  
 Output current : see rating chart  
 Line Regulation : 1%  
 Load Regulation : 5%  
 Ripple & Noise : 2% for 5VSB/-12V, 1% for other



**PROTECTION**

Over Voltage Protection : 110% for 3.3V/5V  
 Short circuit Protection : 3.3V & 5V

EMI/RFI:Meets limits

FCC part 15 CLASS B .  
 CISPR 22 CLASS B .

DIMENSION : 155X45X28mm

APPLICATION : For ITX PC mother board

**Model Rating Table :**

Model No.	Output Voltage				5VSB	Power OK	PS-ON
	3.3V	5V	12V	-12V			
EPD-155	5A	5A	6A	0.2A	2A	100-500mS	TTL Low