

# 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-ITX90 (V2.04)  
MODEL NO. OF G-ALANTIC

簽認章  
AUTHORIZED SIGNATURE

簽認章 AUTHORIZED SIGNATURE		

## Subject: 90W DC to DC CONVERTER Specification. Rev. B

Model No: DD-ITX90

Customer :

### 1.Input Characteristics

1.1 Input Voltage Range ----- 11.4Vdc To 12.6Vdc,

1.2 Input Dc Current ( Max ) ----- 9A Max. Full Load.

### 2.Output Characteristics

#### 2.1 Static Output Characteristics.

	Output Voltage	Load Range		Regulation		Ripple	Ripple & Noise
		Min	Max	Min	Max	Max mV	Max mV P.P.
1.	+3.3	0.1 A	5.0 A	- 5 %	+ 5 %	50	100 mV
2.	+5.0	1.0 A	5.0 A	- 5 %	+ 5 %	50	100 mV
3.	+12.0	0.5 A	3.0 A	- 5 %	+ 5 %	100	150 mV
4.	-5.0	NON	NON	NON	NON	NON	NON mV
5.	-12.0	0.0 A	0.1 A	- 10 %	+10 %	150	200 mV
6.	SB +5.0	0.0 A	1.0 A	- 5 %	+ 5 %	50	100 mV

Note:

1. Noise Test ----- Noise Bandwidth Is From Dc To 20MHz.
2. Ripple Frequencies Greater Than 1 MHz Shall Be Attenuated By the Measurement System.
3. Add 0.1uF / 10uF Capacitor At Output Connector Terminals For Ripple & Noise Measurements.
4. Combined Total Power From +3.3V And +5V Rails Shall Not Exceed 50W.
5. The Total Output Power Shall Not Exceed 90W.

#### 2.2 Dynamic Output Characteristics:

2.2.1 Rise Time ---- 100 ms Max. At Nominal Line Full Load.

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**2.2.2 Turn-on Delay Time ----- 600mS Max. At Nominal Line Full Load.**

**2.2.3 Hold-up Time ----- 1 ms Min. For + 5V Output At Nominal Line Full Load.**

**2.2.4 Transient Overshoot ----- 10% Max. Of Delay State After Load Change Of 25% Within The Range Of 50% To 100% Of Full Load.**

**2.2.5 Temperature Coefficient ----- 0.03% Per °C Max.**

### **3. Protections**

**3.1 Over Voltage Protection --- Standard On  
+5.0V Output Set At 6.5Vdc MAX**

**3.2 Short Circuit Protection --- A Short Circuit Placed Between Dc Return And Output Shall Cause No Damage And The Power Supply Shall Shutdown.**

**3.3 Over Power Protection --- The Power Supply Can Use Electronic Circuit To Limit The Output. Power Against Excessing +160% Of Full Load. Or Protected against Excessive Power Delivery Due To Short Circuit Of Any Output Or Over Total Power.**

**3.4 No load Operation --- No Parts Damaged On Power Supply.**

### **4. Environment**

**4.1 Operation Temperature ----- Air Temperature 0 °C To 40 °C.**

**4.2 Operation Relative Humidity ----- 20% To 90%.**

**4.3 Storage Temperature ----- Air Temperature -20 °C To 60 °C.**

**4.4 Storage Relative Humidity ----- 5% To 95%.**

**4.5 Altitude ----- Operate Properly At Any Altitude Between 0 To 100,000 Feet. Storage 40,000 Feet.**

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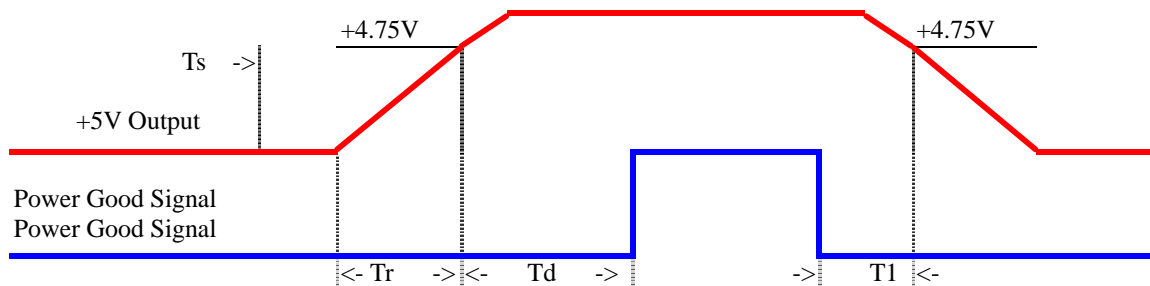
**4.6 Vibration ----- 0.38mm. 5-55-5Hz, 1 Minutes Per Cycle;  
30 Minutes For Each Axis ( X,Y,Z ).**

**5.Burn-In**

**5.1 Burn-In ----- At 40 °C, Max. Load, 2 Hours.**

**6.Mean Time Between Failure ----- 100 KHrs Minimum At Full Load For  
25 °C Ambient Temperature.**

**7.Power-Good Signal**



**Note:  $Tr \leq 100 \text{ ms}$ ,  $T1 \geq 1 \text{ ms}$ ,  $Td = 100 - 500 \text{ ms}$ .**

**8.Dimension**

**8.1 W x H x D ----- 160.0 x 45.0 x 15.0 ( mm )**

**END**

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