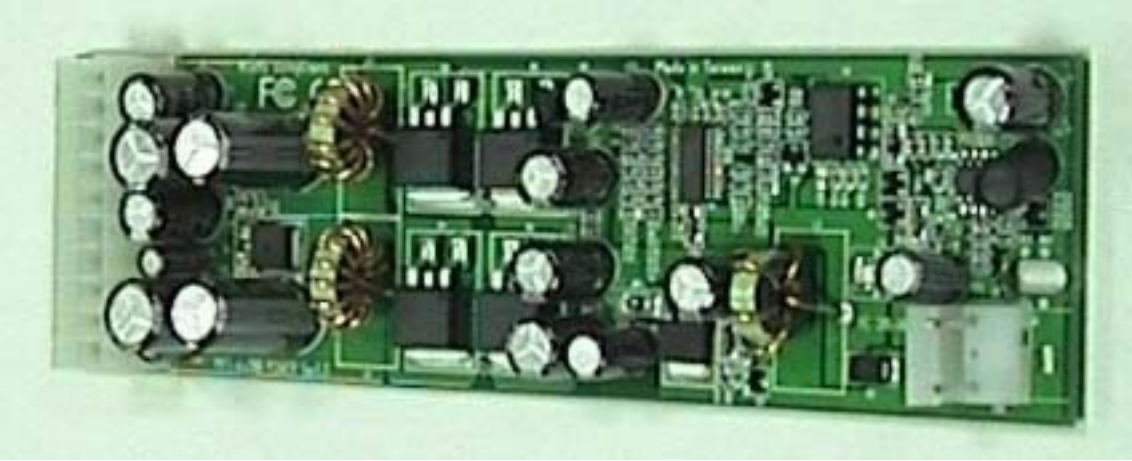
Technica House Incorporation

MFI-itx90 power DC to DC converter SPECIFICTION



Contents

1. Input Characteristics:

1.1. Input Voltage --------- 10V~14V DC

1.2. Input Frequency -------- DC

1.3. Input Current -------- 8A Max + 10A pass through.

1.4. Efficiency --------- 80% Min, At nominal line input, full load.

2. Output Characteristics:

The DC output voltages shall remain within the regulation ranges shown in Table 2 when measured at the load end of the output connectors under all line, load, and environmental conditions.

2.1 Static Output Characteristics.

	Output Voltage	Load Range Min.	Load Range Max.	Regulation Min.	Regulation Max.	Ripple Max mV P-P		Ripple & Noise Max. mV P-P	
1.	+5V	2.0 A	5.0 A	- 5 %	+ 5 %	50	mV	100	mV
2.	+3.3V	0.5A	5.0A	- 5 %	+ 5 %	50	mV	60	mV
3.	+12V	0.5 A	3 A	- 5 %	+ 5 %	120	mV	150	mV
4	-5V	0A	0.5A	- 10 %	+ 10 %	130	mV	200	mV
5	-12V	0A	0.8A	-10 %	+10 %	150	mV	200	mV
6	+5VSB	0.1 A	1 .0A	- 5 %	+ 5 %	50	mV	100	mV

Note:

I. Noise Test ----- Ripple and noise are defined as periodic or random signals over a frequency band of 10 Hz. to 20 MHz. Measurements shall be made with an oscilloscope with 20 MHz bandwidth.

II. Add 0.1uF / 10uF capacitors at output connector terminals for ripple & noise measurements.

III. Peak load of +12VDC output≤4A, @ 5 Seconds maximum.

IV. The +5 & +3.3 Volt total output shall not exceed 50 Watts.

V. The +5 , +3.3 & +12 Volt total output shall not exceed 90Watts.

2.2. Dynamic Output Characteristics:

2.2.1. Initial Delay Time ----- 1000mS max.

2.2.2. Rise Time ---------- 50 mS max. At nominal line full load.

2.2.3. Turn-On Delay Time ----- 600mS max. At nominal line full load.

2.2.3. Transient Overshoot --- 10% max. of delay state after load change of 25% within the range of 50% to 100% of full load.

2.2.6. Temperature Coefficient ----- 0.03% Per °C max.

3. Protections:

3.1. Over voltage Protection --- Standard on +3.3V output set at 3.7Vdc – 4.1Vdc,
+5.0V output set At 5.7Vdc – 6.5Vdc.
+12.0V output set at 13.3Vdc – 14.3Vdc.

3.2. Short circuit Over Power Protection --- The power supply use electronic circuit to limit the output. Power against excessing +120% to 160% of full load. or protected against excessive power delivery due toshort circuit of any outputor over totalpower.

3.3. No load Operation -------- No parts damaged on power supply.

4. Environment:

4.1. Operation Temperature ---------- Air temperature 0 °C To 50 °C.

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

4.3. Storage Temperature ---------- Air temperature -20 °C To 70 °C.

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

4.5. Altitude ---------- Operate properly at any altitude between 0 To 100,000 feets. Storage 40,000 feets

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4.6. Vibration ---------- 0.38mm. 55Hz, 1 minutes per cycle; 30 minutes for each axis (X,Y,Z).

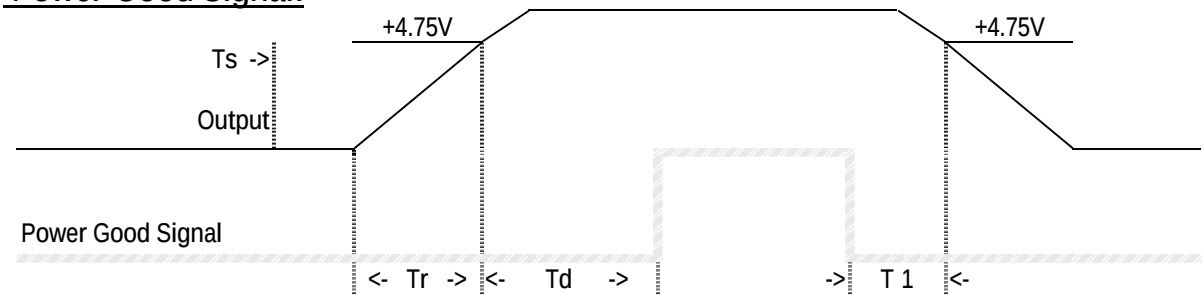
5. Burn-In

5.1. Burn-In ---------- Max. load, 24 Hours, @ 40 °C ± 5 °C,

6. Mean Time Between Failure :

6.1. 100 KHrs Minimum at 75% load for 25 °C ambient temperature.

7. Power-Good Signal:



Note: Tr ≤ 100 ms, T1 ≥ 1 ms, Td = 100 - 500 ms.

Figure 1. Power good signal.

8. Dimension

8.1. W x H x D ---------- 155mm (L) x 45mm (W) x 22mm (H)

9. Weight

9.1 Weight ---------- 70g