

EA1050A-120 of AEC-6620  
**Power Electronics Test Report**

Report NO.: 10P0A0006\_I

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**Approved By**

Mar.01.2010

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**Date**

*Sean Hsu*

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**Issued By**

Mar.01.2010

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**Date**

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**1. Project**

EA1050A-120 AC-DC Adapter for AEC-6620

**2. Power Manufacturer**

EDACPOWER ELEC.

**3. Team Member**

PM : Linux Wang ; RD : David Lin

**4. Test Equipment**

- 4.1. CPU Board : EPIC-9457REV.1.0-A BIOS REV 1.1(06/24/2009)
- 4.2. CPU : Intel Atom N270 / 1.6GHz
- 4.3. Memory : DSL 2GB DDR2 667MHZ / SEC K4T1G084QQ
- 4.4. CFD : Transcend 4GB
- 4.5. AC/DC Power Supply : EDACPOWER , M/N : EA1050A-120 60Watt O/P : 12V/5A
- 4.6. LCD Monitor : CHIMEI , Model : A170E2-T08
- 4.7. USB Mouse : Logitech , Model : M-BT85
- 4.8. USB Keyboard : Logitech , Model : Y-BL49

**5. Photos of Product**

Fig.5.1. —Inside



## 6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:90VAC	A	1.38A	PASS
6.2. MAX Inrush Current	I/P:115VAC	A	9.06A	PASS
	I/P:230VAC	A	9.69A	PASS
6.3. Input Frequency & Voltage	I/P:90VAC/47HZ	■ON □ OFF	-	PASS
	I/P:90VAC/63HZ	■ON □ OFF	-	PASS
	I/P:264VAC/47HZ	■ON □ OFF	-	PASS
	I/P:264VAC/63HZ	■ON □ OFF	-	PASS
6.4. Switching Test	Switching Time: 0.5 Sec MIN Load / Full Load	@90VAC ■ON □ OFF	-	PASS
	Switching Time: 0.5 Sec MIN Load / Full Load	@115VAC ■ON □ OFF	-	PASS
	Switching Time: 0.5 Sec MIN Load / Full Load	@230VAC ■ON □ OFF	-	PASS
	Switching Time: 0.5 Sec MIN Load / Full Load	@264VAC ■ON □ OFF	-	PASS
6.5. Efficiency	I/P:90VAC FULL LOAD	78@%Min	86.369%	PASS
	I/P:115VAC FULL LOAD	78@%Min	87.905%	PASS
	I/P:230VAC FULL LOAD	78@%Min	88.857%	PASS
	I/P:264VAC FULL LOAD	78@%Min	87.224%	PASS
6.6. Line Regulation	I/P:90VAC~264VAC	<±1%	0.167%	PASS
6.7. Load Regulation	I/P:115VAC O/P:MINLOAD~FULL LOAD	<±5%	4.89	PASS
	I/P:230VAC O/P:MINLOAD~FULL LOAD	<±5%	4.67	PASS
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1 : (MAX)	-	-
6.9. Over-Circuit Protection	O/P: 12V	A(MAX)	6.4A	-
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	%	128	-
	I/P:115VAC O/P:MIN LOAD	%	127	-
	I/P:230VAC O/P:MIN LOAD	%	126	-
	I/P:264VAC O/P:MIN LOAD	%	128	-
6.11. Short Circuit Protect	I/P:115VAC O/P:MIN LOAD	12V&GND Short	-	PASS
	I/P:230VAC O/P:MIN LOAD	12V&GND Short	-	PASS
6.12. Line Voltage Surge	O/P: FULL LOAD	Surge voltage from 132VAC to 147VAC (0.5sec), back to 132VDC	-	PASS
	O/P: FULL LOAD	Surge voltage from 264VAC to 293VAC (0.5sec), back to 264VAC	-	PASS
6.13. Line Voltage Sag	O/P: FULL LOAD	Sag voltage from 108VAC to 80VAC (0.5sec), back to 108VAC	-	PASS
	O/P: FULL LOAD	Sag voltage from 198VAC to 161VAC (0.5sec), back to 198VDC	-	PASS
6.14. Ripple & Noise	I/P:115VAC O/P:FULL LOAD	≤ 144mv	7.8	PASS
	I/P:230VAC O/P:FULL LOAD	≤ 144mv	13.4	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	3.05S	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	1.22S	-
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	mS(MIN)	12.75	-
	I/P:230VAC O/P:FULL LOAD	mS(MIN)	65.2	-
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS (MAX)	5.35	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	5.32	-
6.18. Turn on Overshoot	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	PASS
	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	PASS

6.19. Turn off Undershoot	Turn off undershoot shall not exceed 10% over nominal voltages		-	PASS
	Turn off undershoot shall not exceed 10% over nominal voltages		-	PASS
6.20. Remote ON/OFF	Simulate TTL signal to test this function			-
6.21. Power Good Signal	Shall go high level with a delay of 100~500ms		-	-
6.22. Power On In Low Temperature	I/P: 115VAC ( 0℃ ) After 2HR Power On			-
6.23. Power On In High Temperature	I/P: 115VAC ( 40℃ ) After 2HR Power On			-
6.24. Room Burn-in test	I/P: 115VAC O/P: FULL LOAD TA: 25℃ BURN-IN DURATION : 2 hour			PASS
6.25. On/Off Cycling	Times / on: 20 sec / off: 10 sec			-
6.26. Power Consumption Test	No Run Prime95	I/P: 100VAC 0.35A 17.2W	O/P: 12V/1.28A	PASS
	Run Prime95	I/P: 100VAC 0.39A 20.4W	O/P: 12V/1.48A	PASS

## 7. Test Result and Observation

No fault was found during the test