

PW-060B-1Y12 of AOP-9120HT-A1
Power Electronics Test Report

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Wenyuan Yang

Approved By

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Date

Sean Hsu

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1. Project

PW-060B-1Y12 AC-DC Adapter for AOP-9120HT-A1

2. Power Manufacturer

POWER-WIN

3. Team Member

PM : Owen Huang ; PPC H/W : Jack Peng

4. Test Equipment

- 4.1. CPU Board : EMB-9459T , Rev.A1.0 BIOS Rev.0.1 (07/24/2009)
- 4.2. CPU: Intel ATOM N270 1.6GHz
- 4.3. Memory : DSL , 512MB , DDR2-533 , M/N : E5108AJBG-6E-E
- 4.4. HDD : Fujitsu , 40GB , M/N : MHZ2040BH
- 4.5. AC/DC Power Supply : POWER-WIN , Model : PW-060B-1Y12 O/P : 12V/5A
- 4.6. Panel : TFT LCD.12" Hydis M/N : HT12X13-100
- 4.7. PS2 Keyboard : COMPAQ , Model : KB-9963
- 4.8. PS2 Mouse : Logitech , M/N : M-CAA43

5. Photos of Product

Fig.5.1. —Panel PC



6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	1.5A	1.33A	PASS
6.2. MAX Inrush Current	I/P:115VAC	A	9.84A	PASS
	I/P:230VAC	50A	9.38A	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	80@%Min	83.87%	PASS
	I/P:115VAC FULL LOAD	80@%Min	85.298%	PASS
	I/P:230VAC FULL LOAD	80@%Min	85.857%	PASS
	I/P:264VAC FULL LOAD	80@%Min	86.241%	PASS
6.6. Line Regulation	I/P:90VAC~264VAC	<±1%	-0.042%	PASS
6.7. Load Regulation	I/P:115VAC O/P:MINLOAD~FULL LOAD	<±3%	0.942	PASS
	I/P:230VAC O/P:MINLOAD~FULL LOAD	<±3%	1	PASS
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1 : 15.6(MAX)	-	-
6.9. Over-Circuit Protection	O/P: 12V	8.25A(MAX)	7.6A	PASS
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	165%	127.4	PASS
	I/P:115VAC O/P:MIN LOAD	165%	152.0	PASS
	I/P:230VAC O/P:MIN LOAD	165%	151.4	PASS
	I/P:264VAC O/P:MIN LOAD	165%	144.8	PASS
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	≤ 150mv	90.6	PASS
	I/P:230VAC O/P:FULL LOAD	≤ 150mv	87.6	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	256	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	266.5	PASS
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	10mS(MIN)	19.95	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MIN)	85.1	PASS
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	8.77	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	8.75	PASS
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°C) After 2HR Power On			PASS
6.23. Power On In High Temperature	I/P: 115VAC (50°C) After 2HR Power On			PASS
6.24. Room Burn-in test	I/P: 115VAC O/P: FULL LOAD TA: 25°C BURN-IN DURATION : 2 hour			PASS
6.25. On/Off Cycling	Times / on: 20 sec / off: 10 sec			-
6.26. Power Consumption Test To AC Adapter	No Run Prime95	I/P: 100VAC 0.43A 21.9W	O/P: 12V/1.48A	PASS
	Run Prime95	I/P: 100VAC 0.44A 22.2W	O/P: 12V/1.54A	PASS

7. Test Result and Observation

No fault was found during the test