

FSP120-AAB of AEC-6911
Power Electronics Test Report

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Approved By

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1. Project

FSP120-AAB AC-DC Adapter for AEC-6911

2. Power Manufacturer

FSP

3. Team Member

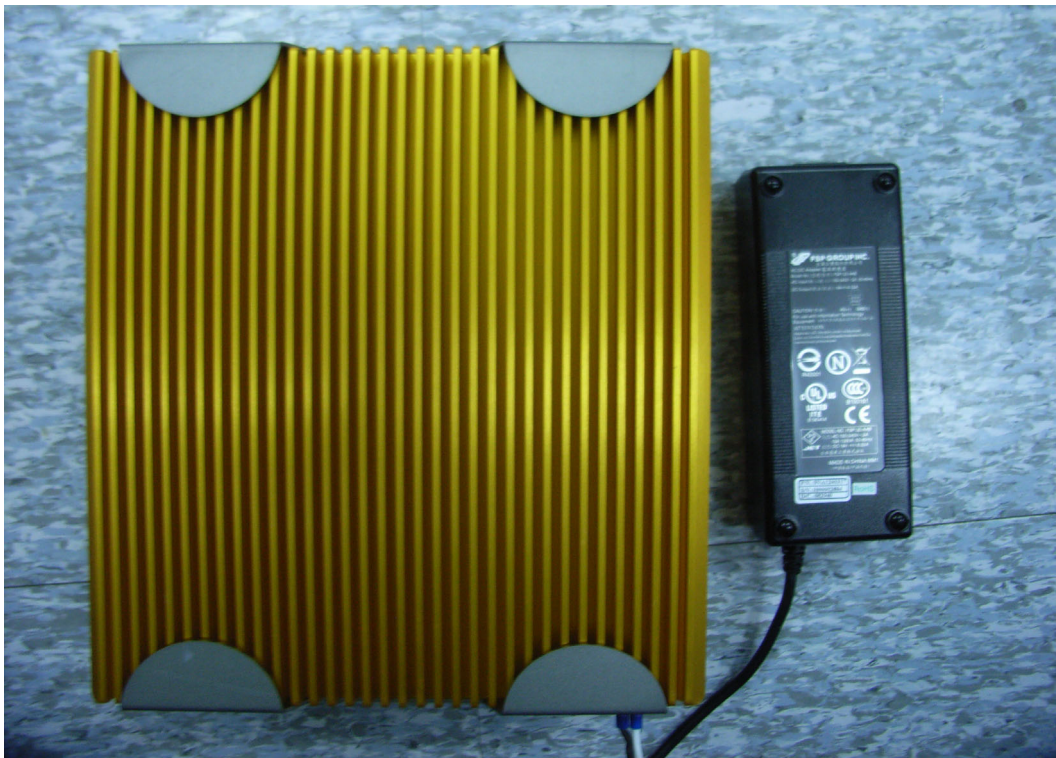
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4. Test Equipment

- 4.1. CPU Board : COM-945GSE REV.A1.2 BIOS:0.4(01/08/2009)
- 4.2. CPU : Intel Atom N270 1.6GHz
- 4.3. Memory : InnoDisk 1GB DDR-667 /M2SJ-1GPC6W05-C
- 4.4. HDD : Fujitsu MHV2040AC 40GB
- 4.5. AC Adapter : FSP120-AAB O/P: 19V/6.32A

5. Photos of Product

Fig.5.1. —Photos



6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:90VAC	A	1.53A	-
6.2. MAX Inrush Current	I/P:115VAC	A	11.7A	-
	I/P:230VAC	A	18.3A	-
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	@86%Min	86.678%	PASS
	I/P:115VAC FULL LOAD	@86%Min	88.115%	PASS
	I/P:230VAC FULL LOAD	@86%Min	89.422%	PASS
	I/P:264VAC FULL LOAD	@86%Min	89.106%	PASS
6.6. Line Regulation	I/P:90VAC~264VAC	<±1%	0.421%	PASS
6.7. Load Regulation	I/P:115VAC O/P:MINLOAD~FULL LOAD	<±5%	1.105	PASS
	I/P:230VAC O/P:MINLOAD~FULL LOAD	<±5%	1.473	PASS
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1 : (MAX)	-	-
6.9. Over-Circuit Protection	O/P: 19V	A(MAX)	8.58A	-
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	%	136.008	-
	I/P:115VAC O/P:MIN LOAD	%	134.58	-
	I/P:230VAC O/P:MIN LOAD	%	150.416	-
	I/P:264VAC O/P:MIN LOAD	%	152.00	-
6.11. Short Circuit Protect	I/P:115VAC O/P:MIN LOAD	19V&GND Short	-	PASS
	I/P:230VAC O/P:MIN LOAD	19V&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	≤300mv	121.9	PASS
	I/P:230VAC O/P:FULL LOAD	≤300mv	106.3	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	175	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	176.75	-
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	8mS(MIN)	31.1	PASS
	I/P:230VAC O/P:FULL LOAD	8mS(MIN)	29.8	PASS
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	12.8	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	12.6	-
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			-
6.23. Power On In High Temperature	I/P: 115VAC (50°C) After 2HR Power On			-
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. System Power Consumption Test TO DC INPUT	No Run Prime95	I/P: 9VDC 1.55A 13.95W		PASS
	No Run Prime95	I/P: 30VDC 0.62A 18.6W		PASS
	Run Prime95	I/P: 9VDC 1.91A 17.19W		PASS
	Run Prime95	I/P: 30VDC 0.69A 20.7W		PASS
6.27. Power Consumption Test TO AC Adapter	No Run Prime95	I/P: 90VAC 0.22A 20W	O/P: 19V/0.83A	PASS
	Run Prime95	I/P: 90VAC 0.26A 22.2W	O/P: 19V/0.95A	PASS

7. Test Result and Observation

No fault was found during the test