

Report NO: 10I0A0005\_I

# FSP060-DBAB1 of FES-6110 Power Electronics Test Report

Summary	<input checked="" type="checkbox"/> <b>Pass</b> <input type="checkbox"/> <b>Fail</b> <input type="checkbox"/> <b>Pass with Deviation</b> <b>Comment:</b> _____			
	<b>Test Result Summary</b>			
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date

**04/01/2010**

Approval

**Jansin Lee**

Test Engineer

**Sean Hsu**

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**1. Project**

FSP060-DBAB1 AC-DC Adapter for FES-6110

**2. Power Manufacturer**

FSP

**3. Team Member**

PM : Sean Lin ; PPC H/W : Enzo Chen

**4. Test Equipment**

- 4.1. PCB : IMBE-945G REV.A1.0 BIOS: 1.0 (11/06/2009)
- 4.2. CPU : Intel Atom N270 1.6GHz
- 4.3. Memory : DSL DDR2-6671GB / ELPIDA E5108AJBG-6E-E
- 4.4. HDD : Fujitsu , M/N : MHZ2080BH , 80GB
- 4.5. AC Adapter : FSP , Model : FSP060-DBAB1 , O/P : 12V/5A , 60Watt
- 4.6. LCD Monitor : CHIMEI , Model : A170E2-T08
- 4.7. PS2 Keyboard : COMPAQ , Model : KB-9963
- 4.8. PS2 Mouse : Logitech , M/N : M-CAA43

**5. AC Adapter Spec**

AC Input : 90VAC~264VAC / 47Hz~63Hz

DC Output : 12Vdc Min Load : 0A ; Max Load : 5A / 60W

## 6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	1.7A	1.22A	PASS
6.2. MAX Inrush Current	I/P:115VAC	A	8.44A	-
	I/P:230VAC	A	9.06A	-
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	@%Min	84.188%	-
	I/P:115VAC FULL LOAD	@85%Min	85.107%	PASS
	I/P:230VAC FULL LOAD	@85%Min	86.695%	PASS
	I/P:264VAC FULL LOAD	@%Min	86.496%	-
6.6. Line Regulation	I/P:90VAC~264VAC	<±1%	0.25%	PASS
6.7. Load Regulation	I/P:115VAC O/P:MINLOAD~FULL LOAD	<±5%	4.167	PASS
	I/P:230VAC O/P:MINLOAD~FULL LOAD	<±5%	4.00	PASS
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1 : 13~18 (MAX)	-	-
6.9. Over-Circuit Protection	O/P: 12V	7.2A(MAX)	6.35A	PASS
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	144%	124	PASS
	I/P:115VAC O/P:MIN LOAD	144%	127	PASS
	I/P:230VAC O/P:MIN LOAD	144%	123	PASS
	I/P:264VAC O/P:MIN LOAD	144%	125	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	98	PASS
	I/P:230VAC O/P:FULL LOAD	≤ 150mv	94	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	4S(MAX)	862ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	840ms	PASS
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	8mS(MIN)	18.7	PASS
	I/P:230VAC O/P:FULL LOAD	8mS(MIN)	79.3	PASS
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	24.2	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	24.4	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

<b>6.20. Remote ON/OFF</b>	Simulate TTL signal to test this function			-
<b>6.21. Power Good Signal</b>	Shall go high level with a delay of 100~500ms		-	-
<b>6.22. Power On In Low Temperature</b>	I/P: 115VAC ( 0°C ) After 2HR Power On			PASS
<b>6.23. Power On In High Temperature</b>	I/P: 115VAC ( 45 °C ) After 2HR Power On			PASS
<b>6.24. System 4 Corner test</b>	I/P: 90VAC ( 0°C ) BURN-IN DURATION : 2 hour I/P: 90VAC ( 45°C ) BURN-IN DURATION : 2 hour I/P: 264VAC ( 0°C ) BURN-IN DURATION : 2 hour I/P: 264VAC ( 45°C ) BURN-IN DURATION : 2 hour		-	PASS
<b>6.25. System Power Consumption Test</b>	No Run Prime95	I/P: 90VAC 0.28A 12.1W	O/P: 12V/0.908A	PASS
	Run Prime95	I/P: 90VAC 0.34A 15.1W	O/P: 12V/1.077A	PASS