

Report NO: 12I0A0001_I

FSP060-DBAB1 of FWS-2200 Power Electronics Test Report

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

Issue date <hr style="width: 80%; margin: 0 auto;"/> 04/09/2012	Approval <hr style="width: 80%; margin: 0 auto;"/> Wayne Chen	Test Engineer <hr style="width: 80%; margin: 0 auto;"/> Sean Hsu
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1. Project

FSP060-DBAB1 AC-DC Adapter for FWS-2200

2. Power Manufacturer

FSP

3. Team Member

PM : Jill Chu ; H/W : Jeff LEE

4. Test Equipment

4.1. CPU Board : FWB-2200 REV.A0.2

4.2. CPU : INTEL D525 1.8GHz

4.3. HDD : WD WD1600BEVT-00A23 160GB

4.4. Memory : Transcend DDR3- 1333 1GB*2

4.5. AC Adapter : FSP , Model : FSP060-DBAB1 , O/P : 12V/5A 60Watt

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. AC Adapter Spec

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

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

6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	1.7A	1.25A	PASS
6.2. MAX Inrush Current	I/P:115VAC	A	8.54A	-
	I/P:230VAC	A	9.26A	-
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 O/P:5A	@%Min	84.178%	-
	I/P:115VAC O/P:5A	@85%Min	85.117%	PASS
	I/P:230VAC O/P:5A	@85%Min	86.70%	PASS
	I/P:264VAC O/P:5A	@%Min	86.50%	-
6.6. Line Regulation	I/P:90VAC~264VAC	<±1%	0.28%	PASS
6.7. Load Regulation	I/P:115VAC O/P:MIN~FULL LOAD	<±5%	4.167	PASS
	I/P:230VAC O/P:MIN~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%	125	PASS
	I/P:115VAC O/P:MIN LOAD	144%	128	PASS
	I/P:230VAC O/P:MIN LOAD	144%	124	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

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6.12. Line Voltage Surge	O/P: FULL LOAD	Surge voltage from 132VAC to 147VAC (0.5sec), back to 132VAC	-	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 198VAC	-	PASS
6.14. Ripple & Noise	I/P:115VAC O/P:FULL LOAD	$\leq 150\text{mv}$	92mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	96mv	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	4S(MAX)	865ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	845ms	PASS
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	8mS(MIN)	18.7ms	PASS
	I/P:230VAC O/P:FULL LOAD	8mS(MIN)	80.3ms	PASS
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	25.2ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	26.4ms	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 of100~500ms		-	-
6.22. Power On In Low Temperature	I/P:115VAC After 2HR Power On			N/A
6.23. Power On In High Temperature	I/P:115VAC After 2HR Power On			N/A
6.24. System Power Consumption Test	No Run Prime95	I/P:90VAC 0.28A 25W	O/P: 12V/1.62A	PASS
	Run Prime95	I/P:90VAC 0.32A 29W	O/P: 12V/1.82A	PASS