

Report NO: 1410A0012_I

FSP100-50LG with FWS-7250 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

08/28/2014

Approval

Tom Lin

Test Engineer

Sean Hsu

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1. Project

FSP100-50LG AC-DC Adapter for FWS-7250

2. Power Manufacturer

FSP

3. Team Member

PM : Wayne Hou ; H/W : Damon Chang

4. Test Equipment

4.1. PCB : FWB-7250 A0.1 BIOS REV.R0.0 (K725AM00 (8/08/2014)

4.2. CPU : INTEL Celeron J1900 2.4GHz

4.3. Memory : ADATA DDR3-1600 4GB

4.4. HDD : TOSHIBA , MK2576GSXZ , 250GB

4.5. AC Adapter : FSP , Model : FSP100-50LG , O/P : 100Watt

4.6. LCD Monitor : CHIMEI , Model : 22SH-L

4.7. USB Mouse : Logitech , Model : M-BT85

4.8. USB Keyboard : Logitech , Model : Y-BL49

5. AC Adapter Spec

AC Input : 100VAC~240VAC / 47Hz~63Hz

DC Output : 100W

6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	3A	1.15A	PASS
	I/P:230VAC	1.5A	0.6A	PASS
6.2. 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
6.3. Efficiency	I/P:115VAC FULL LOAD	@70%Min	74.152%	PASS
	I/P:230VAC FULL LOAD	@70%Min	76.443%	PASS
6.4. Line Regulation	I/P:90VAC~264VAC O/P: FULL LOAD	<±5%(3.3V)	0.09%	PASS
		<±5%(5V)	0.1%	PASS
		<±5%(12V)	0.192%	PASS
		<±10%(-12V)	0.33%	PASS
		<±5%(5VSB)	0%	PASS
6.5. Load Regulation	I/P:115VAC O/P:MINLOAD	<±5%(3.3V)/0.3A	3.325/0.75%	PASS
		<±5%(5V)/0.3A	4.935/-1.3%	PASS
		<±5%(12V)/1A	11.902/-0.82%	PASS
		<±10%(-12V)/0A	-11.800/-1.66%	PASS
		<±5%(5VSB)/0A	5.030/0.6%	PASS
	I/P:230VAC O/P:MINLOAD	<±5%(3.3V)/0.3A	3.325/0.75%	PASS
		<±5%(5V)/0.3A	4.932/-1.36%	PASS
		<±5%(12V)/1A	11.900/-0.833%	PASS
		<±10%(-12V)/0A	-11.797/-1.69%	PASS
		<±5%(5VSB)/0A	5.0275/0.55%	PASS
	I/P:115VAC O/P: FULL LOAD	<±5%(3.3V)/6A	3.27/-0.91%	PASS
		<±5%(5V)/6.04A	4.77/-4.6%	PASS
		<±5%(12V)/3.03A	12.05/-0.42%	PASS
		<±10%(-12V)/0.3A	-11.48/-4.3%	PASS
		<±5%(5VSB)/2A	4.97/-0.6%	PASS
	I/P:230VAC O/P: FULL LOAD	<±5%(3.3V)/6A	3.28/-0.61%	PASS
		<±5%(5V)/6.04A	4.77/-4.6%	PASS
		<±5%(12V)/3.03A	12.05/-0.42%	PASS
		<±10%(-12V)/0.3A	-11.47/-4.42%	PASS
		<±5%(5VSB)/2A	4.97/-0.6%	PASS
6.6. Over-Voltage Protection	O/P: 3.3V	4.3V(MAX)	-	N/A
	O/P: 5V	6.5V(MAX)	-	N/A
	O/P: 12V	15.3V(MAX)	-	N/A
6.7. Over-Power Protection	I/P:115V	120%~160%(MAX)	150.4%	PASS
	I/P:230V	120%~160%(MAX)	148%	PASS

6.8. Short Circuit Protect	I/P:115VAC O/P:MIN LOAD	5V&GND Short	-	PASS
	I/P:230VAC O/P:MIN LOAD	5V&GND Short	-	PASS
6.9. Ripple & Noise	I/P:115VAC O/P:FULL LOAD	≤ 50mv(3.3V)	40.6mv	PASS
		≤ 50mv(5V)	45.6mv	PASS
		≤ 120mv(12V)	100.6mv	PASS
		≤ 120mv(-12V)	72.5mv	PASS
		≤ 50mv(5VSB)	49.4mv	PASS
6.10. Turn-On Delay Time	I/P:115VAC O/P:FULL LOAD	2S(MAX)(5V)	125.75ms	PASS
6.11. Hold up Time	I/P:115VAC O/P:FULL LOAD	17mS(MIN) (5V)	36.6ms	PASS
	I/P:230VAC O/P:FULL LOAD	17mS(MIN) (5V)	37.2ms	PASS
6.12. Rise Time	I/P:115VAC O/P:FULL LOAD	20mS(MAX) (5V)	14.85ms	PASS
6.13. Power Good Signal	Shall go high level with a delay of 100~500ms		280ms	PASS
6.14. Power FAIL Signal	Shall go high level with a delay of 1ms min		10ms	PASS
6.15. 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
6.16. 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
6.17. System Power Consumption Test	No Run Prime95	I/P:100VAC 0.21A 20.4W	O/P: 3.3V/1.05A 5V/0.83A 12V/0.73A -12V/0.05A 5VSB/0.05A 17.225W	PASS
	Run Prime95	I/P:100VAC 0.26A 24.1W	O/P: 3.3V/1.14A 5V/1.16A 12V/0.93A -12V/0.05A 5VSB/0.05A 21.572W	PASS
	Sleep Mode	I/P:100VAC 0.07A 2.4W		PASS
	Off Mode	I/P:100VAC 0.07A 2.1W		PASS