Report NO: 12P0A0015_I

FSP084-DMAA1
of
AEC-6646
Power Electronics Test Report

Summary	☑ **Pass** ☐ **Fail** ☐ **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	Approval	Test Engineer
11/22/2012	**Tom Lin**	**Sean Hsu**

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1. Project

FSP084-DMAA1 AC-DC Adapter for AEC-6646
CPU：INTEL Core I3-2120 3.3GHz

2. Power Manufacturer

FSP

3. Team Member

PM：Jackie Huang；RD：Howard Kuo

4. Test Equipment

4.1. CPU Board：EMB-H61A REV.A1.0 BIOS Rev：R1.3 H61AAM13(06/01/2012)
4.2. HDD：Fujitsu MHV2080BH 80GB
4.3. Memory：DSL DDR3-1333 4GB*2
4.4. LCD Monitor：CHIMEI，Model：A170E2-T08
4.5. Power Supply：FSP，Model：FSP084-DMAA1，O/P：12V/7A，84Watt
4.6. USB Keyboard：Logitech，Model：Y-BL49
4.7. USB Mouse：Logitech，Model：M-BT85

5. AC Adapter Spec

AC Input：100VAC~240VAC / 47Hz~63Hz
DC Output：12Vdc Min Load：0A　Full Load：7A / 84W

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6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	1.3A	0.995A	PASS
6.2. MAX Inrush Current	I/P:115VAC	A	4.70A	-
	I/P:230VAC	A	6.48A	-
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	@83%Min	86.26%	PASS
	I/P:115VAC O/P:5A	@83%Min	87.43%	PASS
	I/P:230VAC O/P:5A	@83%Min	87.18%	PASS
	I/P:264VAC O/P:5A	@83%Min	86.72%	PASS
6.6. Line Regulation	I/P:90VAC~264VAC	<%	0.043%	-
6.7. Load Regulation	I/P:115VAC O/P:MIN~FULL LOAD	<%	1.96%	-
	I/P:230VAC O/P:MIN~FULL LOAD	<%	2.042%	-
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1 ： 17 (MAX)	-	-
6.9. Over-Circuit Protection	O/P: 12V	9.4A(MAX)	8.6A	PASS
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	135%	123%	PASS
	I/P:115VAC O/P:MIN LOAD	135%	122%	PASS
	I/P:230VAC O/P:MIN LOAD	135%	124%	PASS
	I/P:264VAC O/P:MIN LOAD	135%	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	≦150mv	118.9mv	PASS
	I/P:230VAC O/P:FULL LOAD	≦150mv	97.8mv	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	3S(MAX)	752ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	526ms	PASS
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	20mS(MIN)	34.6ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MIN)	88.5ms	PASS
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	4.88ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	5.87ms	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. System Power Consumption Test	No Run Prime95	I/P:100VAC 0.32A 15.2W	O/P: 12V/1.2A 14.4W	PASS
	Run Prime95	I/P:100VAC 0.96A 61.2W	O/P: 12V/4.71A 56.52W	PASS

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