Report NO: 12I0A0006_I

FSP084-DMAA1
of
AIS-E2
Power Electronics Test Report

Summary	☑ **Passed** ☐ **Failed** ☐ **Passed 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
08/24/2012	**Tom Lin**	**Sean Hsu**

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1. Project

FSP084-DMAA1 AC-DC Adapter of AIS-E2
CPU：INTEL Core I7-3610QE 2.3GHz

2. Power Manufacturer

FSP

3. Team Member

PM：Randy Chen；EE：Jason Chen；ME：TB Fan

4. Test Equipment

4.1. CPU Board：EMB-QM77 REV.A1.0，BIOS Rev：R0.2，ASE2AT02(07/24/2012)
4.2. CPU：INTEL Core I7-3610QE 2.3GHz
4.3. HDD：WD，M/N：WD1600BVDT，160GB
4.4. Memory：Transcend，DDR3 1600 8GB *2
4.5. LCD Monitor：CHIMEI，Model：A170E2-T08
4.6. Power Supply：FSP，Model：FSP084-DMAA1，O/P：12V/7A，84Watt
4.7. USB Keyboard：Logitech，Model：Y-BL49
4.8. 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	0.95A	Passed
6.2. MAX Inrush Current	I/P:115VAC	A	4.68A	-
	I/P:230VAC	A	6.40A	-
6.3. Input Frequency & Voltage	I/P:90VAC/47HZ	■ON □ OFF	-	Passed
	I/P:90VAC/63HZ	■ON □ OFF	-	Passed
	I/P:264VAC/47HZ	■ON □ OFF	-	Passed
	I/P:264VAC/63HZ	■ON □ OFF	-	Passed
6.4. Switching Test	Switching Time: 0.5 Sec MIN Load / Full Load	@90VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@115VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@230VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@264VAC ■ON □ OFF	-	Passed
6.5. Efficiency	I/P:90VAC O/P:5A	@83%Min	86.25%	Passed
	I/P:115VAC O/P:5A	@83%Min	87.46%	Passed
	I/P:230VAC O/P:5A	@83%Min	87.20%	Passed
	I/P:264VAC O/P:5A	@83%Min	86.80%	Passed
6.6. Line Regulation	I/P:90VAC~264VAC	<%	0.043%	-
6.7. Load Regulation	I/P:115VAC O/P:MIN~FULL LOAD	<%	1.92%	-
	I/P:230VAC O/P:MIN~FULL LOAD	<%	2.045%	-
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)	8.5A	Passed
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	135%	120%	Passed
	I/P:115VAC O/P:MIN LOAD	135%	121%	Passed
	I/P:230VAC O/P:MIN LOAD	135%	123%	Passed
	I/P:264VAC O/P:MIN LOAD	135%	124%	Passed
6.11. Short Circuit Protect	I/P:115VAC O/P:MIN LOAD	12V&GND Short	-	Passed
	I/P:230VAC O/P:MIN LOAD	12V&GND Short	-	Passed

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6.12. Line Voltage Surge	O/P: FULL LOAD	Surge voltage from 132VAC to 147VAC (0.5sec), back to 132VAC	-	Passed
	O/P: FULL LOAD	Surge voltage from 264VAC to 293VAC (0.5sec), back to 264VAC	-	Passed
6.13. Line Voltage Sag	O/P: FULL LOAD	Sag voltage from 108VAC to 80VAC (0.5sec), back to 108VAC	-	Passed
	O/P: FULL LOAD	Sag voltage from 198VAC to 161VAC (0.5sec), back to 198VAC	-	Passed
6.14. Ripple & Noise	I/P:115VAC O/P:FULL LOAD	≦150mv	120.9mv	Passed
	I/P:230VAC O/P:FULL LOAD	≦150mv	96.8mv	Passed
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	3S(MAX)	745ms	Passed
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	520ms	Passed
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	20mS(MIN)	35.6ms	Passed
	I/P:230VAC O/P:FULL LOAD	mS(MIN)	87.5ms	Passed
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	4.86ms	Passed
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	5.86ms	Passed
6.18. Turn on Overshoot	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	Passed
	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	Passed
6.19. Turn off Undershoot	Turn off undershoot shall not exceed 10% over nominal voltages		-	Passed
	Turn off undershoot shall not exceed 10% over nominal voltages		-	Passed
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 0.3A 13.8W	O/P: 12V/1.0A	Passed
	Run Prime95	I/P:100VAC 0.69A 69.9W	O/P: 12V/5.2A	Passed

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