

Report NO: 10P0A0012\_I

# FSP084-DMAA1 of AHP-1152 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

**08/25/2010**

Approval

**Jansin Lee**

Test Engineer

**Sean Hsu**

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**1. Project**

FSP084-DMAA1 AC-DC Adapter for AHP-1152

**2. Power Manufacturer**

FSP

**3. Team Member**

PM : Boris Chen ; PPC H/W : Jack Peng

**4. Test Equipment**

- 4.1. PCB : GENE-LN05 REV.A0.2 BIOS: 0.4 (07/28/2010)
- 4.2. CPU : Intel Atom D510 1.6GHz
- 4.3. Memory : DSL DDR2-667 1GB / ELPIDA E1108AFSE-8E-F
- 4.4. HDD : Toshiba , M/N : MK1665GSX , 160GB
- 4.5. AC Adapter : FSP , Model : FSP084-DMAA1 , O/P : 12V/7A , 84Watt
- 4.6. PS2 Keyboard : COMPAQ , Model : KB-9963
- 4.7. PS2 Mouse : Logitech , M/N : M-CAA43

**5. AC Adapter Spec**

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

DC Output : 12Vdc Min Load : 0A Full Load : 7A / 84W

## 6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
<b>6.1. AC Input Current</b>	I/P:115VAC	1.3A	0.991A	PASS
<b>6.2. MAX Inrush Current</b>	I/P:115VAC	A	4.57A	-
	I/P:230VAC	A	6.32A	-
<b>6.3. Input Frequency &amp; Voltage</b>	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
<b>6.4. Switching Test</b>	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
<b>6.5. Efficiency</b>	I/P:90VAC O/P:5A	@83%Min	86.007%	PASS
	I/P:115VAC O/P:5A	@83%Min	87.355%	PASS
	I/P:230VAC O/P:5A	@83%Min	87.029%	PASS
	I/P:264VAC O/P:5A	@83%Min	86.674%	PASS
<b>6.6. Line Regulation</b>	I/P:90VAC~264VAC	<%	0.042%	-
<b>6.7. Load Regulation</b>	I/P:115VAC O/P:MIN~FULL LOAD	<%	1.975	-
	I/P:230VAC O/P:MIN~FULL LOAD	<%	2.042	-
<b>6.8. Over-Voltage Protection</b>	I/P:230VAC O/P:MIN LOAD	V1 : 17 (MAX)	-	-
<b>6.9. Over-Circuit Protection</b>	O/P: 12V	9.4A(MAX)	8.4A	PASS
<b>6.10. Over-Load Protection</b>	I/P:90VAC O/P:MIN LOAD	135%	120%	PASS
	I/P:115VAC O/P:MIN LOAD	135%	122%	PASS
	I/P:230VAC O/P:MIN LOAD	135%	120%	PASS
	I/P:264VAC O/P:MIN LOAD	135%	121%	PASS
<b>6.11. Short Circuit Protect</b>	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 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	$\leq 150\text{mv}$	110.9mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	93.8mv	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	3S(MAX)	729ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	505ms	PASS
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	20mS(MIN)	32.6ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MIN)	84.5ms	PASS
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	4.76ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	5.76ms	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 of 100~500ms		-	-
6.22. Power On In Low Temperature	I/P:115VAC ( 0°C ) After 2HR Power On			PASS
6.23. Power On In High Temperature	I/P:115VAC ( 50°C ) After 2HR Power On			PASS
6.24. System Power Consumption Test	No Run Prime95	I/P:90VAC 0.69A 30.7W	O/P: 12V/2.16A	PASS
	Run Prime95	I/P:90VAC 0.74A 34.0W	O/P: 12V/2.42A	PASS