

Report NO: 13P0A0002_I

FSP060-DBAE1

of

AHP-1083

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
04/10/2013

Approval
Tom Lin

Test Engineer
Sean Hsu

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1. Project

FSP060-DBAE1 AC-DC Adapter for AHP-1083 BIOS: R1.0

2. Power Manufacturer

FSP

3. Team Member

PM : Alan Chou ; H/W : VC Chang

4. Test Equipment

4.1. PCB : GENE-CV05 REV.A1.0

4.2. CPU : Intel Atom D2550 1.86GHz

4.3. Memory : DSL , DDR3-1066 4GB

4.4. HDD : Toshiba , MK1060GSC 100GB

4.5. AC Adapter : FSP , Model : FSP060-DBAE1 , O/P : 12V/5A , 60Watt

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

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

5. AC Adapter Spec

AC Input : 100VAC~240VAC / 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	8.45A	-
	I/P:230VAC	A	9.1A	-
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	84.188%	-
	I/P:115VAC O/P:5A	@85%Min	85.107%	PASS
	I/P:230VAC O/P:5A	@85%Min	86.695%	PASS
	I/P:264VAC O/P:5A	@%Min	86.496%	-
6.6. Line Regulation	I/P:90VAC~264VAC	<±1%	0.25%	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%	124	PASS
	I/P:115VAC O/P:MIN LOAD	144%	127	PASS
	I/P:230VAC O/P:MIN LOAD	144%	123	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

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	$\leq 150\text{mv}$	98mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	94mv	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	4S(MAX)	862ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	840ms	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)	79.3ms	PASS
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	24.2ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	24.4ms	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 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. Power Consumption Test With AC Adapter	No Run Prime95	I/P:100VAC 0.35A 15.6W	O/P: 12V/1.13A 13.56W	PASS
	Run Prime95	I/P:100VAC 0.42A 18.8W	O/P: 12V/1.38A 16.56W	PASS