

# FSP060-DBAB1 of ACP-5152 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	Approval	Test Engineer
<b>04/20/2011</b>	<b>Jansin Lee</b>	<b>Sean Hsu</b>

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## 1. Project

FSP060-DBAB1 AC-DC Adapter for ACP-5152

## 2. Power Manufacturer

FSP

## 3. Team Member

PM : Boris Chen ; PPC H/W : Peter Yao

## 4. Test Equipment

4.1. PCB : GENE-LN05 REV.A1.0 BIOS: 1.0 (02/14/2011)

4.2. CPU : Intel Atom D510 1.6GHz

4.3. Memory : DSL DDR2-667 1GB

4.4. HDD : Fujitsu , M/N : MHZ2080BH , 80GB

4.5. AC Adapter : FSP , Model : FSP060-DBAB1 , 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 : 90VAC~264VAC / 47Hz~63Hz

DC Output : 12Vdc Min Load : 0A Full Load : 5A / 60W

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**6. Test Item**

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
<b>6.1. AC Input Current</b>	I/P:115VAC	1.7A	1.30A	PASS
<b>6.2. MAX Inrush Current</b>	I/P:115VAC	A	8.68A	-
	I/P:230VAC	A	9.15A	-
<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	@%Min	84.211%	-
	I/P:115VAC O/P:5A	@85%Min	85.110%	PASS
	I/P:230VAC O/P:5A	@85%Min	86.670%	PASS
	I/P:264VAC O/P:5A	@%Min	86.492%	-
<b>6.6. Line Regulation</b>	I/P:90VAC~264VAC	<±1%	0.27%	PASS
<b>6.7. Load Regulation</b>	I/P:115VAC O/P:MIN~FULL LOAD	<±5%	4.21	PASS
	I/P:230VAC O/P:MIN~FULL LOAD	<±5%	4.25	PASS
<b>6.8. Over-Voltage Protection</b>	I/P:230VAC O/P:MIN LOAD	V1 : 13~18 (MAX)	-	-
<b>6.9. Over-Circuit Protection</b>	O/P: 12V	7.2A(MAX)	6.38A	PASS
<b>6.10. Over-Load Protection</b>	I/P:90VAC O/P:MIN LOAD	144%	125	PASS
	I/P:115VAC O/P:MIN LOAD	144%	126	PASS
	I/P:230VAC O/P:MIN LOAD	144%	125	PASS
	I/P:264VAC O/P:MIN LOAD	144%	126	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

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<b>6.12. Line Voltage Surge</b>	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
<b>6.13. Line Voltage Sag</b>	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
<b>6.14. Ripple &amp; Noise</b>	I/P:115VAC O/P:FULL LOAD	$\leq 150\text{mv}$	99.5mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	98.6mv	PASS
<b>6.15. Setup Time</b>	I/P:115VAC O/P:FULL LOAD	4S(MAX)	865ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	845ms	PASS
<b>6.16. Hold up Time</b>	I/P:115VAC O/P:FULL LOAD	8mS(MIN)	18.8ms	PASS
	I/P:230VAC O/P:FULL LOAD	8mS(MIN)	79.6ms	PASS
<b>6.17. Rise Time</b>	I/P:115VAC O/P:FULL LOAD	mS(MAX)	24.2ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	24.4ms	PASS
<b>6.18. Turn on Overshoot</b>	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
<b>6.19. Turn off Undershoot</b>	Turn off undershoot shall not exceed 10% over nominal voltages		-	PASS
	Turn off undershoot shall not exceed 10% over nominal voltages		-	PASS
<b>6.20. Remote ON/OFF</b>	Simulate TTL signal to test this function		-	-
<b>6.21. Power Good Signal</b>	Shall go high level with a delay of100~500ms		-	-
<b>6.22. Power On In Low Temperature</b>	I/P:115VAC ( 0°C ) After 2HR Power On			PASS
<b>6.23. Power On In High Temperature</b>	I/P:115VAC ( 40 °C )After 2HR Power On			PASS
<b>6.24. Power Consumption Test With AC Adapter</b>	No Run Prime95	I/P:100VAC 0.73A 33.4W	O/P: 12V/2.47A	PASS
	Run Prime95	I/P:100VAC 0.80A 37.6W	O/P: 12V/2.78A	PASS