

Report NO: 11P0A0017\_I

# FSP060-DBAB1 of AEC-6612-A3M 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  
**08/22/2011**

Approval  
**Jansin Lee**

Test Engineer  
**Sean Hsu**

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**1. Project**

FSP060-DBAB1 AC-DC Adapter for AEC-6612-A3M

**2. Power Manufacturer**

FSP

**3. Team Member**

PM : Godfrey Chang ; PPC H/W : Ares Wu

**4. Test Equipment**

- 4.1. PCB : GENE-LN05 REV.B1.0 BIOS: R0.1 (07/29/2011)
- 4.2. CPU : Intel Atom D525 1.8GHz
- 4.3. Memory : DSL DDR3-1066 4GB
- 4.4. HDD : Seagate , ST980817SM , 80GB
- 4.5. AC Adapter : FSP , Model : FSP060-DBAB1 , O/P : 12V/5A , 60Watt
- 4.6. LCD Monitor : CHIMEI , Model : A170E2-T08
- 4.7. USB Mouse : Logitech , Model : M-BT85
- 4.8. 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

6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	1.7A	1.28A	PASS
6.2. MAX Inrush Current	I/P:115VAC	A	8.5A	-
	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	84.21%	-
	I/P:115VAC O/P:5A	@85%Min	85.25%	PASS
	I/P:230VAC O/P:5A	@85%Min	86.5%	PASS
	I/P:264VAC O/P:5A	@%Min	86.6%	-
6.6. Line Regulation	I/P:90VAC~264VAC	<±1%	0.26%	PASS
6.7. Load Regulation	I/P:115VAC O/P:MIN~FULL LOAD	<±5%	4.17%	PASS
	I/P:230VAC O/P:MIN~FULL LOAD	<±5%	4.2%	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)	6.4A	PASS
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	144%	125%	PASS
	I/P:115VAC O/P:MIN LOAD	144%	128%	PASS
	I/P:230VAC O/P:MIN LOAD	144%	124%	PASS
	I/P:264VAC O/P:MIN LOAD	144%	126%	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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<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	$\leq 150\text{mv}$	95mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	96mv	PASS
<b>6.15. Setup Time</b>	I/P:115VAC O/P:FULL LOAD	4S(MAX)	870ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	845ms	-
<b>6.16. Hold up Time</b>	I/P:115VAC O/P:FULL LOAD	8mS(MIN)	19.2ms	PASS
	I/P:230VAC O/P:FULL LOAD	8mS(MIN)	80.1ms	PASS
<b>6.17. Rise Time</b>	I/P:115VAC O/P:FULL LOAD	mS(MAX)	24.5ms	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	24.6ms	-
<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 of 100~500ms		-	-
<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 ( 50 °C )After 2HR Power On			PASS
<b>6.24. Power Consumption Test With DC Power</b>	No Run Prime95	I/P:9VDC 1.82A 16.38W		PASS
	Run Prime95	I/P:9VDC 2.28A 20.52W		PASS
	No Run Prime95	I/P:30VDC 0.56A 16.8W		PASS
	Run Prime95	I/P:30VDC 0.72A 21.6W		PASS
<b>6.25. System Power Consumption Test</b>	No Run Prime95	I/P:90VAC 0.42A 19.2W	O/P: 12V/1.3A	PASS
	Run Prime95	I/P:90VAC 0.53A 24.0W	O/P: 12V/1.7A	PASS