

# FSP060-DBAB1 of AEC-6511 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

**12/19/2011**

Approval

**Jansin Lee**

Test Engineer

**Sean Hsu**

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**1. Project**

FSP060-DBAB1 AC-DC Adapter for AEC-6511

**2. Power Manufacturer**

FSP

**3. Team Member**

PM : Barnabas Chen ; PAA H/W : IKO Huang

**4. Test Equipment**

- 4.1. PCB : GENE-9455 B1.0 REV.R0.1AM65AA01 (10/11/2011)
- 4.2. CPU : Intel AtomN2701.6GHz
- 4.3. Memory : Transcend DDR2-667 2GB
- 4.4. HDD : Seagate , ST9160412AS , 160GB
- 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 : 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
<b>6.1. AC Input Current</b>	I/P:115VAC	1.7A	1.23A	PASS
<b>6.2. MAX Inrush Current</b>	I/P:115VAC	A	8.54A	-
	I/P:230VAC	A	9.51A	-
<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	84.190%	-
	I/P:115VAC O/P:5A	@85%Min	85.117%	PASS
	I/P:230VAC O/P:5A	@85%Min	86.70%	PASS
	I/P:264VAC O/P:5A	@%Min	86.5%	-
<b>6.6. Line Regulation</b>	I/P:90VAC~264VAC	<±1%	0.26%	PASS
<b>6.7. Load Regulation</b>	I/P:115VAC O/P:MIN~FULL LOAD	<±5%	4.177%	PASS
	I/P:230VAC O/P:MIN~FULL LOAD	<±5%	4.12%	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)	6.45A	PASS
<b>6.10. Over-Load Protection</b>	I/P:90VAC O/P:MIN LOAD	144%	129%	PASS
	I/P:115VAC O/P:MIN LOAD	144%	128%	PASS
	I/P:230VAC O/P:MIN LOAD	144%	127%	PASS
	I/P:264VAC O/P:MIN LOAD	144%	129%	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	$\leq 150\text{mv}$	99mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	95mv	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)	842ms	-
<b>6.16. Hold up Time</b>	I/P:115VAC O/P:FULL LOAD	8mS(MIN)	18.5ms	PASS
	I/P:230VAC O/P:FULL LOAD	8mS(MIN)	79.9ms	PASS
<b>6.17. Rise Time</b>	I/P:115VAC O/P:FULL LOAD	mS(MAX)	24.1ms	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	24.3ms	-
<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 ( 50 °C )After 2HR Power On			PASS
<b>6.24. System Power Consumption Test</b>	No Run Prime95	I/P:100VAC 0.26A 13.2W	O/P: 12V/1.063A	PASS
	Run Prime95	I/P:100VAC 0.34A 18.0W	O/P: 12V/1.406A	PASS