

# FSP060-DBAB1 of ACD-515R-HTT-A2-1010 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>12/21/2011</b>	<b>Jansin Lee</b>	<b>Sean Hsu</b>

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**1. Project**

FSP060-DBAB1 AC-DC Adapter for ACD-515R-HTT-A2-1010

**2. Power Manufacturer**

FSP

**3. Team Member**

PM : LEE LEE ; PPC H/W : Peter Yao

**4. Test Equipment**

4.1. ACD-518R : 15.6" Infotainment Multi-Touch Display

4.2. Panel : AUO 15.6", 1366x768, CCFL

4.3. ACG-204-A2 : Gateway

4.4. AC Adapter : FSP , Model : FSP060-DBAB1 , O/P : 12V/5A , 60Watt

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

4.6. 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

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## 6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	1.7A	1.18A	PASS
6.2. MAX Inrush Current	I/P:115VAC	A	8.55A	-
	I/P:230VAC	A	9.70A	-
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	84.5%	-
	I/P:115VAC O/P:5A	@85%Min	85.158%	PASS
	I/P:230VAC O/P:5A	@85%Min	86.72%	PASS
	I/P:264VAC O/P:5A	@%Min	86.6%	-
6.6. Line Regulation	I/P:90VAC~264VAC	<±1%	0.28%	PASS
6.7. Load Regulation	I/P:115VAC O/P:MIN~FULL LOAD	<±5%	4.25%	PASS
	I/P:230VAC O/P:MIN~FULL LOAD	<±5%	4.05%	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)	7A	PASS
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	144%	140%	PASS
	I/P:115VAC O/P:MIN LOAD	144%	138%	PASS
	I/P:230VAC O/P:MIN LOAD	144%	140%	PASS
	I/P:264VAC O/P:MIN LOAD	144%	139%	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

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<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	$\leq 150\text{mv}$	97mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	92mv	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)	862ms	-
<b>6.16. Hold up Time</b>	I/P:115VAC O/P:FULL LOAD	8mS(MIN)	19.8ms	PASS
	I/P:230VAC O/P:FULL LOAD	8mS(MIN)	81.5ms	PASS
<b>6.17. Rise Time</b>	I/P:115VAC O/P:FULL LOAD	mS(MAX)	24.6ms	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	24.8ms	-
<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. Power On In Low Temperature</b>	I/P:115VAC ( 0°C ) After 2HR Power On		-	-
<b>6.21. Power On In High Temperature</b>	I/P:115VAC ( 50°C ) After 2HR Power On		-	-
<b>6.22. System Power Consumption Test</b>	No Run Video	I/P:100VAC 0.19A 8.0W	ACG-204 O/P: 12V/0.65A	PASS
	Run Video	I/P:100VAC 0.19A 8.6W	ACG-204 O/P: 12V/0.68A	PASS
	No Run Video	I/P:100VAC 0.64A 28.6W	ACD-515R O/P: 12V/2.2A	PASS
	Run Video	I/P:100VAC 0.66A 29.4W	ACD-515R O/P: 12V/2.3A	PASS