

FSP060-DBAB1 of ACD-521R 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	Approval	Test Engineer
10/31/2013	Tom Lin	Sean Hsu

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1. Project

FSP060-DBAB1 AC-DC Adapter for ACD-521R

2. Power Manufacturer

FSP

3. Team Member

PM : Lee Lee ; PPC H/W : Jack Peng

4. Test Equipment

4.1. ACD-521R : AUO M215HW03 21.5", 1920x1080

4.2. Panel : AUO 21.5", 1920x1080, LED

4.3. Gateway : ACG-203-A2

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

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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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	$\leq 150\text{mv}$	97mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	92mv	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	4S(MAX)	870ms	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	862ms	-
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	8mS(MIN)	19.8ms	PASS
	I/P:230VAC O/P:FULL LOAD	8mS(MIN)	81.5ms	PASS
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	24.6ms	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	24.8ms	-
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. Power On In Low Temperature	I/P:115VAC (0°C) After 2HR Power On			-
6.21. Power On In High Temperature	I/P:115VAC (50 °C)After 2HR Power On			-
6.22. System Power Consumption Test	No Run Video	I/P:100VAC 0.16A 6.8W	ACG-203 O/P: 12V/0.48A 5.76W	PASS
	Run Video	I/P:100VAC 0.16A 7W	ACG-203 O/P: 12V/0.5A 6W	PASS
	No Run Video	I/P:100VAC 0.48A 22.8W	ACD-521 O/P: 12V/1.57A 18.84	PASS
	Run Video	I/P:100VAC 0.49A 23.1W	ACD-521R O/P: 12V/1.6A 19.2W	PASS