

# FSP040-DGAA1 of AGD-312D 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
06/23/2011	Jansin Lee	Matthew Chi

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## 1. Project

FSP040-DGAA1AC-DC Power for AGD-312D

## 2. Power Manufacturer

FSP

## 3. Team Member

PM : Maiya Cheng ; PPC H/W : Peter Yao

## 4. Test Equipment

- 4.1. Panel : AUO 12.1" XGA 500 nits LED backlight
- 4.2. USB Mouse : Logitech , Model : M-BT85
- 4.3. USB Keyboard : Logitech , Model : Y-BL49
- 4.4. AD Board : S2523BVL DV
- 4.5. Power Board : PER-P17D Rev: B1.0
- 4.6. Mini USB contact touch Board : PER-T219 Rev: A0.1
- 4.7. Power Supply : FSP040-DGAA1 AC-DC Power for AGD-312D
- 4.8. DVI&D-SUB System : AEC-6625

## 5. AC Adapter Spec

AC Input : 90VAC~264VAC / 47Hz~63Hz

DC Output : 12Vdc Min Load : 0A Full Load : 3.33A / 40W

## 6. Test Item

Test Item	Test Condition / Specification		Measured	Result
6.1. AC Input Current	I/P:90VAC	1.3A	0.8A	PASS
6.2. MAX Inrush Current	I/P:115VAC	A	9.62A	-
	I/P:230VAC	A	9.69A	-
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:115VAC FULL LOAD	@82%Min	83.616%	PASS
	I/P:230VAC FULL LOAD	@82%Min	84.488%	PASS
6.6. Line Regulation	I/P:90VAC~264VAC	<±%	0.025%	-
6.7. Load Regulation	I/P:115VAC O/P:MINLOAD~FULL LOAD	<±%	2.18%	-
	I/P:230VAC O/P:MINLOAD~FULL LOAD	<±%	2.208%	-
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1 : 22V(MAX)	-	-
6.9. Over-Circuit Protection	O/P: 12V	5.5A(MAX)	4.3A	PASS
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	165%	129%	PASS
	I/P:115VAC O/P:MIN LOAD	165%	129%	PASS
	I/P:230VAC O/P:MIN LOAD	165%	128.5%	PASS
	I/P:264VAC O/P:MIN LOAD	165%	130%	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
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	≤ 120mv	118 mv	PASS
	I/P:230VAC O/P:FULL LOAD	≤ 120mv	115mv	PASS
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	4S(MAX)	1.3275S	PASS
	I/P:230VAC O/P:FULL LOAD	S(MAX)	86.25mS	-
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	5mS(MIN)	12.5mS	PASS
	I/P:230VAC O/P:FULL LOAD	mS(MIN)	86.25mS	-
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	8.7mS	-
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	6.7mS	-

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<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 ( -20℃ ) After 2HR Power On			-
<b>6.23. Power On In High Temperature</b>	I/P:115VAC ( 60℃ )After 2HR Power On			-
<b>6.24. Power Consumption Test With DC Power</b>	No Run Video(VGA)	I/P:9VDC 1.48A 13.1W		PASS
	Run Video(VGA)	I/P:9VDC 1.49A 13.3W		PASS
	No Run Video (DVI)	I/P:9VDC 1.52A 13.7W		PASS
	Run Video (DVI)	I/P:9VDC 1.55A 13.9W		PASS
	No Run Video(VGA)	I/P:30VDC 0.46A 13.9W		PASS
	Run Video (VGA)	I/P:30VDC 0.47A 14.1W		PASS
	No Run Video (DVI)	I/P:30VDC 0.49A 14.6W		PASS
	Run Video (DVI)	I/P:30VDC 0.49A 14.7W		PASS
<b>6.25. Power Consumption Test With AC Adapter</b>	No Run Video(VGA)	I/P:100VAC 0.34A 15.1W	O/P: 12V/1.07A	PASS
	Run Video(VGA)	I/P:100VAC 0.35A 15.2W	O/P: 12V/1.13A	PASS
	No Run Video(DVI)	I/P:100VAC 0.36A 15.6W	O/P: 12V/1.10A	PASS
	Run Video(DVI)	I/P:100VAC 0.37A 15.9W	O/P: 12V/1.14A	PASS