

FSP040-DGAA1 of AHP-1070 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

09/09/2010

Approval

Jansin Lee

Test Engineer

Sean Hsu

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1. Project

FSP040-DGAA1AC-DC Power for AHP-1070

2. Power Manufacturer

FSP GROUP INC.

3. Team Member

PM : Boris Chen : PPC H/W : Peter Yao

4. Test Equipments

- 4.1. CPU : TI OMAP 600MHz
- 4.2. System Memory : 128MB DDR onboard
- 4.3. Storage Memory : 256MB NAND-FLASH
- 4.4. AC Adapter : FSP040-DGAA1 O/P: 12V/3.33A
- 4.5. Operating System Name : WinCE 6.0

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	$\leq 120\text{mv}$	118 mv	PASS
	I/P:230VAC O/P:FULL LOAD	$\leq 120\text{mv}$	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	-
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. Remote ON/OFF	Simulate TTL signal to test this function		-	-
6.21. Power Good Signal	Shall go high level with a delay of 100~500ms		-	-
6.22. Power On In Low Temperature	I/P:115VAC (0°C) After 2HR Power On		-	-
6.23. Power On In High Temperature	I/P:115VAC (50 °C)After 2HR Power On		-	-
6.24. Room Burn-in test	I/P:115VAC O/P: FULL LOAD TA:25 °C BURN-IN DURATION : 2 hour		-	PASS
6.25. On/Off Cycling	Times / on: 20 sec / off: 10 sec		-	-
6.26. Adapter Power Consumption Test	No Run Media Play	I/P:90VAC 0.17A 6.8W	O/P: 12V/0.2A	PASS
	Run Media Play	I/P:90VAC 0.19.A 7.5W	O/P: 12V/0.3A	PASS