FSP130-5DD01 of FWS-2300

Power Electronics Test Report

Report NO.: 10I0A0003_I

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Approved By	**Issued By**
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Date	**Date**

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Table of Contents

1. Project 3
2. Power Manufacturer 3
3. Team Member 3
4. Test Equipment 3
5. Photos of Product 3
6. Test Item 4
6.1. DC Input Current 4
6.2. MAX Inrush Current 4
6.3. Input Frequency & Voltage 4
6.4. Switching Test 4
6.5. Efficiency 4
6.6. Line Regulation 4
6.7. Load Regulation 4
6.8. Over-Voltage Protection 4
6.9. Over-Circuit Protection 4
6.10. Over-Load Protection 4
6.11. Short Circuit Protect 4
6.12. Line Voltage Surge 4
6.13. Line Voltage Sag 5
6.14. Ripple & Noise 5
6.15. Setup Time 5
6.16. Hold up Time 5
6.17. Rise Time 5
6.18. Turn on Overshoot 5
6.19. Turn off Undershoot 5
6.20. Remote ON/OFF 5
6.21. Power Good Signal 5
6.22. Power On In Low Temperature 5
6.23. Power On In High Temperature 5
6.24. Room Burn-in test 5
6.25. On/Off Cycling 5
6.26. Power Consumption Test 5
7. Test Result and Observation 5

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1. Project

FSP130-5DD01 FOR FWS-2300

2. Power Manufacturer

FSP

3. Team Member

PM：Taylor Wang；ISD H/W：Ray Huang

4. Test Equipment

4.1. PCB：FWB-7300 REV A1.0

4.2. CPU：Intel Pentium M 2.0GHz

4.3. Memory：DSL DDR2 667 1GB /ES108AJBG-6E-E*2

4.4. SATA HDD：Seagate，M/N：ST8020823AS，120GB

4.5. AC Adapter：FSP Model：FSP096-AHA O/P：96W

4.6. DC-DC Power ：FSP130-5DD01 O/P：130W

4.7. LCD Monitor：CHIMEI，Model：A170E2-T08

4.8. USB Mouse：Logitech，Model：M-BT85

4.9. USB Keyboard：Logitech，Model：Y-BL49

5. Photos of Product

Fig.5.1. —EUT

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6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. DC Input Current	I/P:12VDC	13A	12.149A	PASS
6.2. MAX Inrush Current	I/P:11.6VDC	A	A	-
	I/P:12.6VDC	A	A	-
6.3. Input Frequency & Voltage	I/P:11.6VDC	■ON □ OFF	-	PASS
	I/P:12VDC	■ON □ OFF	-	PASS
	I/P:12.6VDC	■ON □ OFF	-	PASS
6.4. Switching Test	Switching Time: 0.5 Sec MIN Load / Full Load	@115VAC □ON □ OFF	-	-
	Switching Time: 0.5 Sec MIN Load / Full Load	@115VAC □ON □ OFF	-	-
	Switching Time: 0.5 Sec MIN Load / Full Load	@115VAC □ON □ OFF	-	-
	Switching Time: 0.5 Sec MIN Load / Full Load	@115VAC □ON □ OFF	-	-
6.5. Efficiency	I/P:11.6VDC FULL LOAD	@%Min	88.500%	PASS
	I/P:12VDC FULL LOAD	@88%Min	89.054%	PASS
	I/P:12.6VDC FULL LOAD	@%Min	88.716%	PASS
6.6. Line Regulation	I/P:11.6VDC~12.6VDC	<±1%(3.3V)	0.0%	PASS
		<±1%(5V)	0.2%	PASS
		<±9%(12V)	8.416%	PASS
		<±1%(-12V)	0.5%	PASS
		<±1%(5VSB)	0.0%	PASS
6.7. Load Regulation	I/P:11.6VDC O/P:MINLOAD~FULL LOAD	<±5%(3.3V)	0/-1.213	PASS
		<±5%(5V)	2.4/2	PASS
		<±5%(12V)	-3.33/-4.17	PASS
		<±10%(-12V)	1.25/1.33	PASS
		<±5%(5VSB)	2.4/2	PASS
	I/P:12VDC O/P:MINLOAD~FULL LOAD	<±5%(3.3V)	0/-0.91	PASS
		<±5%(5V)	2.4/2	PASS
		<±5%(12V)	0/-1.16	PASS
		<±10%(-12V)	1.25/1.33	PASS
		<±5%(5VSB)	2.4/2	PASS
	I/P:12.6VDC O/P:MINLOAD~FULL LOAD	<±5%(3.3V)	0/-0.91	PASS
		<±5%(5V)	2.4/2	PASS
		<±5%(12V)	4.92/3.583	PASS
		<±10%(-12V)	1.25/1.33	PASS
		<±5%(5VSB)	2.4/2	PASS
6.8. Over-Voltage Protection	I/P:12VDC O/P:MIN LOAD	V1：3.76~4.3	4	PASS
		V2：5.74~7	5.9	PASS
		V3：13.4~15.6	14.6	PASS
6.9. Over-Circuit Protection	O/P: 3.3V	12A~25A(MAX)	15.8A	PASS
	O/P: 5V	10A~25A(MAX)	10.6A	PASS
	O/P: 12V		-	-
	O/P: -12V	0.2A~0.5A(MAX)	0.26A	PASS
	O/P: 5VSB	2.2A~3.5A(MAX)	2.6A	PASS
6.10. Over-Load Protection	I/P:11.6VDC O/P:MIN LOAD		-	-
	I/P:12VDC O/P:MIN LOAD		-	-
	I/P:12.6VDC O/P:MIN LOAD		-	-
6.11. Short Circuit Protect	I/P:12VDC O/P:MIN LOAD	3.3V&GND Short		PASS
	I/P:12VDC O/P:MIN LOAD	5V&GND Short		PASS
	I/P:12VDC O/P:MIN LOAD	12V&GND Short		PASS
	I/P:12VDC O/P:MIN LOAD	-12V&GND Short		PASS
	I/P:12VDC O/P:MIN LOAD	5VSB&GND Short		PASS
6.12. Line Voltage Surge	O/P: FULL LOAD	Surge voltage from 11.6VDC to 12VDC (0.5sec), back to 11.6VDC	-	PASS
	O/P: FULL LOAD	Surge voltage from 12VDC to 12.6VDC (0.5sec), back to 12VDC	-	PASS

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6.13. Line Voltage Sag	O/P: FULL LOAD	Sag voltage from 12VDC to 11.6VDC (0.5sec), back to 12VDC	-	PASS
	O/P: FULL LOAD	Sag voltage from 12.6VDC to 12VDC (0.5sec), back to 12.6VDC	-	PASS
6.14. Ripple & Noise	I/P:12VDC O/P:FULL LOAD	≦100mv(3.3V)	57.5	PASS
		≦100mv(5V)	47.6	PASS
		≦120mv(12V)	98.6	PASS
		≦120mv(-12V)	40.5	PASS
		≦100mv(5VSB)	33.8	PASS
6.15. Setup Time	I/P:12VDC O/P:FULL LOAD	mS(MAX)	47.7mS (5V)	PASS
6.16. Hold up Time	I/P:12VDC O/P:FULL LOAD	1mS(MAX)	3.7mS (5V)	PASS
6.17. Rise Time	I/P:12VDC O/P:FULL LOAD	20mS(MAX)	1.72mS (5V)	PASS
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 of100~500ms		290mS	PASS
6.22. Power On In Low Temperature	I/P:12VDC (0℃) After 2HR Power On			PASS
6.23. Power On In High Temperature	I/P:12VDC (40 ℃)After 2HR Power On			PASS
6.24. Room Burn-in test	I/P:12VDC O/P: FULL LOAD TA:25 ℃ BURN-IN DURATION : 2 hour			PASS
6.25. On/Off Cycling	Times / on: 20 sec / off: 10 sec			-
6.26. Power Consumption Test	No Run Burnin 5.3	I/P: 100 VAC 0.40A 35.68 W	O/P: 3.3V/2.55A 5V/2.26A 12V/0.95A -12V/0.02A 5VSB/0.05A	PASS
	Run Burnin 5.3	I/P: 100 VAC 0.43A 40.1 W	O/P: 3.3V/2.65A 5V/1.48A 12V/1.45A -12V/0.02A 5VSB/0.06A	PASS

7. Test Result and Observation

No faults was found during the test

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