Report No: 16R0A0002_I

FSP065-REBN2
with
RTC-1000B
Power Electronics Test Report

Summary	☒ Pass ☐ Fail ☐ Pass with Deviation Comment:			
Test Results Category				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date	QE manager	Test Engineer
07/25/2016	**KJ Wang**	**Mike Lee**

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1. Project

FSP065-REBN2 AC-DC Adapter for RTC-1000B

2. Power Manufacturer

FSP

3. Team Member

PM：Tony Huang；H/W：Webber Chang

4. Test Equipment

4.1. LVDS：Litemax，Model：10.2" TFT-LCD / 16:9

4.2. PCB Board：AAEON，RTC-1000B Rev A0.1

4.3. CPU：Intel® Atom™ Processor E3825 (1M Cache, 1.33 GHz)

4.4. HDD：m-SATA / Transcend TS64GMSA370/ 64GB

4.5. Memory：D3SH12081XL12AA DDR3L-1600 4GB

5. AC Adapter Spec

AC Input：90VAC~264VAC / 47Hz~63Hz

DC Output：19VDC Min Load：0A　Full Load：3.42A / 64.98W

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6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	A	1.28A	-
	I/P:230VAC	A	0.83A	-
6.2. MAX Inrush Current	I/P:115VAC	A	8.44A	-
	I/P:230VAC	A	8.75A	-
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 O/P:3.42A	@88%Min Average Efficiency(for full load)	88.770%	PASS
	I/P:230VAC O/P:3.42A	@88%Min Average Efficiency(for full load)	89.493%	PASS
6.6. Line Regulation	I/P:90VAC~264VAC	1%(MAX)	-0.063%	PASS
6.7. Load Regulation	I/P:115VAC O/P:MIN~FULL LOAD	5%(MAX)	-2.395%	PASS
	I/P:230VAC O/P:MIN~FULL LOAD	5%(MAX)	-2.463%	PASS
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1：21(MIN)~25(MAX)	-	-
6.9. Over-Current Protection	O/P: 19V	5.5A(MAX)	4.6A	PASS
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	161%	126%	PASS
	I/P:115VAC O/P:MIN LOAD	161%	135%	PASS
	I/P:230VAC O/P:MIN LOAD	161%	132%	PASS
	I/P:264VAC O/P:MIN LOAD	161%	132%	PASS
6.11. Short Circuit Protect	I/P:115VAC O/P:MIN LOAD	19V&GND Short	-	PASS
	I/P:230VAC O/P:MIN LOAD	19V&GND Short	-	PASS

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6.12. Ripple & Noise	I/P:115VAC O/P:FULL LOAD	300mv(MAX)	93.1mv	PASS
	I/P:230VAC O/P:FULL LOAD	300mv(MAX)	90.6mv	PASS
6.13. Turn-On Delay	I/P:115VAC O/P:FULL LOAD	3S(MAX)	647ms	PASS
6.14. Hold up Time	I/P:115VAC O/P:FULL LOAD	5mS(MIN)	12.4ms	PASS
6.15. Rise Time	I/P:115VAC O/P:FULL LOAD	2mS(MIN) 50mS(MAX)	17.7ms	PASS
	I/P:230VAC O/P:FULL LOAD	2mS(MIN) 50mS(MAX)	18.2ms	PASS
6.16. Turn on Overshoot	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	PASS
6.17. Turn off Undershoot	Turn off undershoot shall not exceed 10% over nominal voltages		-	PASS
6.18. Power Consumption Test with AC Adapter	No Run Prime95	I/P:100VAC 0.43A 18.5W	O/P：19V/0.85A 16.15W	PASS
	Run Prime 95	I/P:100VAC 0.67A 28.4W	O/P：19V/1.31A 24.89W	PASS

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