

Report NO: 15P0A0002_I

FSP084-DMAA1

With

AHP-1154

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
03/03/2015	KJ Wang	Sean Hsu

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1. Project

FSP084-DMAA1 AC-DC Adapter for AHP-1154

2. Power Manufacturer

FSP

3. Team Member

PM : Tim Lin ; RD : Peter Yao

4. Test Equipment

4.1. CPU Board : GENE-BT05 BIOS: R0.1

4.2. CPU : INTEL , ATOM J1900 2GHz

4.3. HDD : Toshiba , 100GB , M/N : MK1060GSC

4.4. MEMORY : DSL , 2GB , M/N : D3SS5608XL12AA

4.5. DC-DC Power Board : PER-P17D REV.B1.0

4.6. Panel : MITSUBISHI , M/N: AC150XA02 1024*768

4.7. Power Supply : FSP , Model : FSP084-DMAA1 , O/P : 12V/7A , 84Watt

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

4.9. USB Mouse : Logitech , Model : M-BT85

5. AC Adapter Spec

AC Input : 100VAC~240VAC / 47Hz~63Hz

DC Output : 12Vdc Min Load : 0A Full Load : 7A / 84W

6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:115VAC	1.3A	0.99A	Passed
6.2. MAX Inrush Current	I/P:115VAC	A	4.62A	-
	I/P:230VAC	A	6.46A	-
6.3. Input Frequency & Voltage	I/P:90VAC/47HZ	■ON □ OFF	-	Passed
	I/P:90VAC/63HZ	■ON □ OFF	-	Passed
	I/P:264VAC/47HZ	■ON □ OFF	-	Passed
	I/P:264VAC/63HZ	■ON □ OFF	-	Passed
6.4. Switching Test	Switching Time: 0.5 Sec MIN Load / Full Load	@90VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@115VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@230VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@264VAC ■ON □ OFF	-	Passed
6.5. Efficiency	I/P:90VAC O/P:5A	@83%Min	86.03%	Passed
	I/P:115VAC O/P:5A	@83%Min	87.35%	Passed
	I/P:230VAC O/P:5A	@83%Min	87.18%	Passed
	I/P:264VAC O/P:5A	@83%Min	86.72%	Passed
6.6. Line Regulation	I/P:90VAC~264VAC	<%	0.042%	-
6.7. Load Regulation	I/P:115VAC O/P:MIN~FULL LOAD	<%	1.975	-
	I/P:230VAC O/P:MIN~FULL LOAD	<%	2.042	-
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1 : 17 (MAX)	-	-
6.9. Over-Current Protection	O/P: 12V	9.4A(MAX)	8.6A	Passed
6.10. Over-Load Protection	I/P:90VAC O/P:MIN LOAD	135%	123%	Passed
	I/P:115VAC O/P:MIN LOAD	135%	122%	Passed
	I/P:230VAC O/P:MIN LOAD	135%	124%	Passed
	I/P:264VAC O/P:MIN LOAD	135%	126%	Passed
6.11. Short Circuit Protect	I/P:115VAC O/P:MIN LOAD	12V&GND Short	-	Passed
	I/P:230VAC O/P:MIN LOAD	12V&GND Short	-	Passed

6.12. Line Voltage Surge	O/P: FULL LOAD	Surge voltage from 132VAC to 147VAC (0.5sec), back to 132VAC	-	Passed
	O/P: FULL LOAD	Surge voltage from 264VAC to 293VAC (0.5sec), back to 264VAC	-	Passed
6.13. Line Voltage Sag	O/P: FULL LOAD	Sag voltage from 108VAC to 80VAC (0.5sec), back to 108VAC	-	Passed
	O/P: FULL LOAD	Sag voltage from 198VAC to 161VAC (0.5sec), back to 198VAC	-	Passed
6.14. Ripple & Noise	I/P:115VAC O/P:FULL LOAD	$\leq 150\text{mv}$	120.9mv	Passed
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	96.8mv	Passed
6.15. Setup Time	I/P:115VAC O/P:FULL LOAD	3S(MAX)	740ms	Passed
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	516ms	Passed
6.16. Hold up Time	I/P:115VAC O/P:FULL LOAD	20mS(MIN)	34.7ms	Passed
	I/P:230VAC O/P:FULL LOAD	mS(MIN)	87.5ms	Passed
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	mS(MAX)	4.56ms	Passed
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	5.86ms	Passed
6.18. Turn on Overshoot	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	Passed
	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	Passed
6.19. Turn off Undershoot	Turn off undershoot shall not exceed 10% over nominal voltages		-	Passed
	Turn off undershoot shall not exceed 10% over nominal voltages		-	Passed
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 Consumption Test With DC Power	No Run Prime95	I/P:9VDC 1.72A 15.48W		Passed
	Run Prime95	I/P:9VDC 2.11A 18.99W		Passed
	No Run Prime95	I/P:30VDC 0.539A 16.17W		Passed
	Run Prime95	I/P:30VDC 0.66A 19.8W		Passed
6.23. System Power Consumption Test	No Run Prime95	I/P:100VAC 0.35A 16.7W	O/P: 12V/1.21A 14.52W	Passed
	Run Prime95	I/P:100VAC 0.45A 22W	O/P: 12V/1.63A 19.56W	Passed
	Sleep Mode(S3)	I/P:100VAC 0.03A 1.5W	O/P: 12V/0.085A 1.02W	Passed
	Standby Mode	I/P:100VAC 0.03A 1.4W	O/P: 12V/0.078A 0.936W	Passed