

Report No: 16I0A0001\_I

# EFRP-G2657H of FWS-8500 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	QE manager	Test Engineer
<b>01/26/2016</b>	<b>KJ Wang</b>	<b>Mike Lee</b>

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## 1. Project

EFRP-G2657H AC-DC Power Supply for FWS-8500  
P/N: 1255306501

## 2. Power Manufacturer

ETASIS

## 3. Team Member

PM : Fredy Hsu ; H/W : Jason Chen

## 4. Test Equipment

4.1. PCB: FWB-8500 Rev A1.0

4.2. CPU: Genuine Intel ® CPU @1.40GHz

4.3. Memory: innodisk DDR4 32GB 2133 REG DIMM - SEC 507 K4A8G04 5WBBCPB x2

4.4. SATA HDD: WD 3.5" SATA HDD 500GB - WD5000AAKX

4.5. LCD Monitor: CHIMEI CMV736A

### 5. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
5.1. AC Input Current	I/P:100VAC	10A	5.41A	PASS
	I/P:264VAC	5A	2.26A	PASS
5.2. 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
5.3. Efficiency	I/P:115VAC FULL LOAD	@80%Min	-	-
5.4. Line Regulation	I/P:90VAC~264VAC O/P: FULL LOAD	<±1%(3.3V)	0%	PASS
		<±1%(5V)	0%	PASS
		<±1%(12V)	0%	PASS
		<±1%(-12V)	0%	PASS
		<±1%(5VSB)	0.04%	PASS
5.5. Load Regulation	I/P:115VAC O/P:MINLOAD	<±5%(3.3V)	3.398/2.97%	PASS
		<±5%(5V)	5.145/2.9%	PASS
		<±5%(12V)	12.142/1.183%	PASS
		<±5%(-12V)	-11.930/-0.583%	PASS
		<±5%(5VSB)	5.148/2.96%	PASS
	I/P:230VAC O/P:MINLOAD	<±5%(3.3V)	3.398/2.97%	PASS
		<±5%(5V)	5.145/2.9%	PASS
		<±5%(12V)	12.142/1.18%	PASS
		<±5%(-12V)	-11.927/-0.61%	PASS
		<±5%(5VSB)	5.148/2.96%	PASS
	I/P:115VAC O/P: FULL LOAD	<±5%(3.3V)	3.313/0.39%	PASS
		<±5%(5V)	4.963/-0.74%	PASS
		<±5%(12V)	11.862/-1.15%	PASS
		<±5%(-12V)	-12.015/0.125%	PASS
		<±5%(5VSB)	4.950/-1%	PASS
	I/P:230VAC O/P: FULL LOAD	<±5%(3.3V)	3.315/0.45%	PASS
<±5%(5V)		4.963/-0.74%	PASS	
<±5%(12V)		11.860/-1.17%	PASS	
<±5%(-12V)		-12.012/0.1%	PASS	
<±5%(5VSB)		4.953/-0.94%	PASS	
5.6. Short Circuit Protect	I/P:115VAC O/P:MIN LOAD	5V&GND Short	-	PASS
	I/P:230VAC O/P:MIN LOAD	5V&GND Short	-	PASS
5.7. Ripple & Noise	I/P:115VAC O/P:FULL LOAD	≤ 60mv(3.3V)	53.6mv	PASS
		≤ 60mv(5V)	32.8mv	PASS
		≤ 120mv(12V)	72.8mv	PASS
		≤ 120mv(-12V)	55.2mv	PASS
		≤ 60mv(5VSB)	58.4mv	PASS
5.8. Turn-On Delay Time	I/P:115VAC O/P:FULL LOAD	2500mS(MAX)(5V)	396ms	PASS
5.9. Hold up Time	I/P:115VAC O/P:FULL LOAD	17mS(MIN) (5V)	42ms	PASS
5.10. Rise Time	I/P:115VAC O/P:FULL LOAD	20mS(MAX) (3.3V)	8.517ms	PASS
	I/P:115VAC O/P:FULL LOAD	20mS(MAX) (5V)	8.77ms	PASS
	I/P:115VAC O/P:FULL LOAD	25mS(MAX) (5VSB)	12.30ms	PASS
5.11. Turn on Overshoot	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	PASS
5.12. Turn off Undershoot	Turn off undershoot shall not exceed 10% over nominal voltages		-	PASS

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<b>5.13. System Power Consumption Test</b>	No Run Prime95	I/P:100VAC 1.12A 108.8W	O/P: 3.3V/1.86A 5V/3.42A 12V/2.68A -12V/0.02A 5VSB/0.11A 56.2W	PASS
	Run Prime95	I/P:100VAC 2.26A 223.9W	O/P: 3.3V/1.94A 5V/3.43A 12V/12.84A -12V/0.03A 5VSB/0.13A 178.6W	PASS
	Off Mode	I/P:100VAC 0.33A 14.6W		PASS