



Corsair RM850e (ATX v3.0)

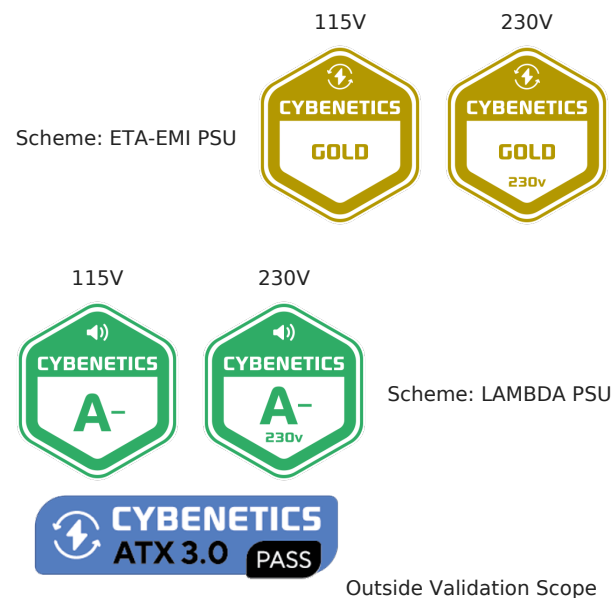
Serial Number C04699660

Lab ID CR85002088

Certification ID 252088

Test Result Report ID: 22PS2088A

Certificate Issue Date: Nov 14, 2022



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General Information

Test Equipment

Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 Chroma 63640-80-80 x10 Chroma 63610-80-20
AC Sources	Chroma 6530, APM SP300VAC4000W-P, GW Instek ASR-3500
Power Analyzers	Rohde & Schwarz HMC8015 & NPA701
Oscilloscopes	Picoscope 4444, Siglent SDS2104X PLUS
Sound Analyzer	Brueel & Kjaer 2270 G4
Microphone	Brueel & Kjaer Type 4955-A
Temperature Logger	Picoscope TC-08
Tachometer	UNI-T UT372
Multimeters	Keysight 34465A
EMI Analyzer	TekBox TBMR-110M-EU
Isolation Transformer	4kVA
UPS	FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA
Testing Methodology	Cybenetics PSU Test Protocol

DUT Information(Non-accredited measurements)

Product Identification Details	
Brand	Corsair
Model	RM850e (ATX v3.0)
OEM/ODM	HEC
Serial Number	C04699660
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5

Rated Frequency (Hz)	47-63
Rated Power (W)	850
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	120mm Rifle Bearing Fan (HA1225H12F-Z)
Semi-Passive Operation	✓
Cybenetics Testing Information	
Lab ID	CR85002088
Date of receipt	Oct 29, 2022
Testing Date	Nov 11, 2022
Report Issued Date	Nov 14, 2022
DUT Notes	CP-9020263
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors(Non-accredited measurements)

Modular Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (600mm)	1	1	18-20AWG	No
4+4 pin EPS12V (640mm)	2	2	18AWG	No
6+2 pin PCIe (590mm+150mm)	1	2	16-18AWG	No

6+2 pin PCIe (590mm)	1	1	16AWG	No
12+4 pin PCIe (650mm) (600W)	1	1	16- 24AWG	No
SATA (500mm+100mm+100mm)	1	3	18AWG	No
SATA (460mm+115mm+115mm+115mm)	1	4	18AWG	No
4 pin Molex (450mm+100mm+100mm+100mm)	1	4	18AWG	No

AC Power Cord (1380mm) - C13 coupler	1	1	18AWG	-																																														
Power Specifications <table><tr><td colspan="2">Rail</td><td>3.3V</td><td>5V</td><td>12V</td><td>5VSB</td><td>-12V</td></tr><tr><td rowspan="2">Max. Power</td><td>Amps</td><td>20</td><td>20</td><td>70.8</td><td>3</td><td>0</td></tr><tr><td>Watts</td><td colspan="2">150</td><td>850</td><td>15</td><td>0</td></tr><tr><td colspan="2">Total Max. Power (W)</td><td colspan="5">850</td></tr></table>					Rail		3.3V	5V	12V	5VSB	-12V	Max. Power	Amps	20	20	70.8	3	0	Watts	150		850	15	0	Total Max. Power (W)		850																							
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Parts Description <table><tr><td>General Data</td><td>-</td></tr><tr><td>Manufacturer (OEM)</td><td>HEC</td></tr><tr><td>PCB Type</td><td>Double Sided</td></tr><tr><td>Primary Side</td><td>-</td></tr><tr><td>Transient Filter</td><td>4x Y caps, 3x X caps, 2x CM chokes, 1x MOV, 1x Power Integrations CAP200DG (Discharge IC)</td></tr><tr><td>Inrush Protection</td><td>NTC Thermistor SCK-056 (5 Ohm) & Relay</td></tr><tr><td>Bridge Rectifier(s)</td><td>2x MCC GBU15KL (800V, 15A @ 100°C)</td></tr><tr><td>APFC MOSFETs</td><td>2x GP36S60YERD</td></tr><tr><td>APFC Boost Diode</td><td>1x CREE C6D08065A (650V, 8A @ 155°C)</td></tr><tr><td>Bulk Cap(s)</td><td>1x Teapo (400V, 470uF, 2,000h @ 105°C, LS)</td></tr><tr><td>Main Switchers</td><td>2x Infineon IPA60R120P7 (600V, 16A @ 100°C, Rds(on): 0.12Ohm)</td></tr><tr><td>APFC Controller</td><td>Champion CM6500UN & CM03AX</td></tr><tr><td>Resonant Controller</td><td>Champion CM6901T6X</td></tr><tr><td>Topology</td><td>Primary side: APFC, Half-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters</td></tr><tr><td>Secondary Side</td><td>-</td></tr><tr><td>+12V MOSFETs</td><td>no info</td></tr><tr><td>5V & 3.3V</td><td>DC-DC Converters: 8x Potens Semiconductor PDD3906 (30V, 51A @ 100°C, Rds(on): 6mOhm) PWM Controller(s): 2x APEC APW7073</td></tr><tr><td>Filtering Capacitors</td><td>Electrolytic: 11x Teapo (1-3,000h @ 105°C, SC), 1x Nichicon (4-10,000h @ 105°C, HE) Polymer: 4x Elite, 6x Teapo, 12x no info</td></tr><tr><td>Supervisor IC</td><td>Weltrend WT7527RT (OCP, OVP, UVP, SCP, PG)</td></tr><tr><td>Fan Model</td><td>Hong Hua HA1225H12F-Z (120mm, 12V, 0.58A, Rifle Bearing Fan)</td></tr><tr><td>5VSB Circuit</td><td>-</td></tr><tr><td>Rectifier</td><td>1x PS1060L SBR (60V, 10A)</td></tr><tr><td>Standby PWM Controller</td><td>Power Integrations TNY290PG</td></tr></table>					General Data	-	Manufacturer (OEM)	HEC	PCB Type	Double Sided	Primary Side	-	Transient Filter	4x Y caps, 3x X caps, 2x CM chokes, 1x MOV, 1x Power Integrations CAP200DG (Discharge IC)	Inrush Protection	NTC Thermistor SCK-056 (5 Ohm) & Relay	Bridge Rectifier(s)	2x MCC GBU15KL (800V, 15A @ 100°C)	APFC MOSFETs	2x GP36S60YERD	APFC Boost Diode	1x CREE C6D08065A (650V, 8A @ 155°C)	Bulk Cap(s)	1x Teapo (400V, 470uF, 2,000h @ 105°C, LS)	Main Switchers	2x Infineon IPA60R120P7 (600V, 16A @ 100°C, Rds(on): 0.12Ohm)	APFC Controller	Champion CM6500UN & CM03AX	Resonant Controller	Champion CM6901T6X	Topology	Primary side: APFC, Half-Bridge & LLC converter Secondary side: Synchronous Rectification & DC-DC converters	Secondary Side	-	+12V MOSFETs	no info	5V & 3.3V	DC-DC Converters: 8x Potens Semiconductor PDD3906 (30V, 51A @ 100°C, Rds(on): 6mOhm) PWM Controller(s): 2x APEC APW7073	Filtering Capacitors	Electrolytic: 11x Teapo (1-3,000h @ 105°C, SC), 1x Nichicon (4-10,000h @ 105°C, HE) Polymer: 4x Elite, 6x Teapo, 12x no info	Supervisor IC	Weltrend WT7527RT (OCP, OVP, UVP, SCP, PG)	Fan Model	Hong Hua HA1225H12F-Z (120mm, 12V, 0.58A, Rifle Bearing Fan)	5VSB Circuit	-	Rectifier	1x PS1060L SBR (60V, 10A)	Standby PWM Controller	Power Integrations TNY290PG
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