# Corsair RM750e (ATX v3.0)

Serial Number C04703166

Lab ID CR75002089

Certification ID 252089

Test Result Report ID: 22PS2089A

Certificate Issue Date: Nov 14, 2022

Scheme: ETA-EMI PSU

115V: CYBENETICS PLATINUM

230V: CYBENETICS GOLD 230v

Scheme: LAMBDA PSU

115V: CYBENETICS A-

230V: CYBENETICS A- 230v

CYBENETICS ATX 3.0 PASS

Outside Validation Scope

# General Information

## Test Equipment

| | |
|---|---|
| Electronic Loads | Chroma 63601-5 x2<br>Chroma 63600-2<br>Chroma 63640-80-80 x10<br>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 | Bruel & Kjaer 2270 G4 |
| Microphone | Bruel & 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 | RM750e (ATX v3.0) |
| OEM/ODM | HEC |
| Serial Number | C04703166 |
| Product Specifications | |
| Manufacturer-Provided Information | |
| Rated Voltage (Vrms) | 100-240 |
| Rated Current (Arms) | 10-5 |

| | |
|---|---|
| Rated Frequency (Hz) | 47-63 |
| Rated Power (W) | 750 |
| 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<br>(HA1225H12F-Z) |
| Semi-Passive Operation | ✓ |
| Cybenetics Testing Information | |
| Lab ID | CR75002089 |
| Date of receipt | Oct 29, 2022 |
| Testing Date | Nov 14, 2022 |
| Report Issued Date | Nov 14, 2022 |
| DUT Notes | CP-9020262 |
| 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

| Rail | | 3.3V | 5V | 12V | 5VSB | -12V |
|---|---|---|---|---|---|---|
| Max. Power | Amps | 20 | 20 | 62.5 | 3 | 0 |
| | Watts | 110 | | 750 | 15 | 0 |
| Total Max. Power (W) | | 750 | | | | |

## Parts Description

| | |
|---|---|
| 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-037 (3 Ohm) & Relay |
| Bridge Rectifier(s) | 2x GBU10K (800V, 10A @ 100°C) |
| APFC MOSFETs | 2x Infineon IPA60R120P7 (600V, 16A @ 100°C, Rds(on): 0.12Ohm) |
| APFC Boost Diode | 1x CREE C6D06065A (650V, 6A @ 155°C) |
| Bulk Cap(s) | 1x Teapo (400V, 470uF, 2,000h @ 105°C, LG) |
| 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<br>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)<br>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)<br>Polymer: 4x Elite, 6x Teapo, 10x 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 |