FSP Technology Mega TI 1650W

Serial Number S4441000030

Lab ID FS16503009

Certification ID 253009

Test Result Report ID: 25PS3009A

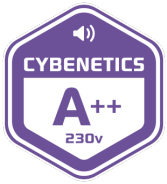
Certificate Issue Date: Oct 27, 2025

Scheme: ETA-EMI PSU



Scheme: LAMBDA PSU







Outside Validation Scope



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	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	FSP Technology
Model	Mega TI 1650W
OEM/ODM	FSP Technology
Serial Number	S4441000030
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	200-240

Rated Current (Arms)	10
Rated Frequency (Hz)	50-60
Rated Power (W)	1650
Operating Temperature (Continuous Full Load) (°C)	
Type	ATX12V
Cable Design	Fully Modular
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
Cooling	135mm Hydro Dynamic Bearing Fan (PLA13525S12M)
Semi-Passive Operation	✓ (selectable)
Cybenetics Testing Information	
Lab ID	FS16503009
Date of receipt	Oct 16, 2025
Testing Date	Oct 24, 2025
Report Issued Date	Oct 27, 2025
DUT Notes	Some protections features need adjustment.
Engineer Name	Georgios Theodoros Sarimpalas
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

Cables and Connectors
(Non-accredited measurements)

Modular Cables				
Description	**Cable Count**	**Connector Count (Total)**	**Gauge**	Cable Type
ATX connector 20+4 pin (600mm)	1	1	16-22AWG	Tinned Copper
4+4 pin EPS12V (700mm)	2	2	16AWG	Tinned Copper
6+2 pin PCIe (650mm)	6	6	16AWG	Tinned Copper
12+4 pin PCIe (700mm) (600W)	2	2	16-24AWG	Tinned Copper

SATA (500mm+150mm+150mm+150mm)	2	8	18AWG	Tinned Copper
SATA (500mm+150mm) / 4-pin Molex (+150mm+150mm)	1	2 / 2	18AWG	Tinned Copper
4-pin Molex (500mm+150mm+150mm+150mm)	1	4	18AWG	Tinned Copper
AC Power cord (1700mm) - C19 Coupler	1	1	16AWG	-

Protection Features

Under Voltage Protection	✓
Over Power Protection	✓
Over Current (+12V) Protection	✓
Over Temperature Protection	✓
Short Circuit Protection	✓
Surge Protection	✓
Inrush Current Protection	✓
Fan Failure Protection	✗

Power Specifications

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	137.5	4	0.3
	Watts	120		1650	20	3.6
Total Max. Power (W)		1650				

Parts Description

General Data	
Manufacturer (OEM)	FSP
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 2x X caps, 2x CM chokes, 1x MOV
Inrush Protection	3x NTC Thermistor SCK-2R515 (2.5 Ohm @ 25°C) & Relay
Rectifier FETs	8x CEL68N60SF (600V, 43A @ 100°C, Rds(on): 37mOhm)
APFC MOSFETs	4x Infineon IPA60R120C7 (650V, 7A @ 100°C, Rds(on): 0.120Ohm)
APFC Boost Diode	2x Infineon IDH10G65C6 (650V, 10A @ 140°C)

Bulk Cap(s)	3x Nippon Chemi-Con (450V, 560uF each or 1680uF combined, 2,000h @ 105°C,KMW)
Main Switchers	4x Cmsemicon CMS6047B
APFC Controller	Texas Instrument UCC28070
Resonant Controller	Champion CM6901T2X
IC Driver	2x Sillumin Semiconductor SLMi8233BD
Topology	Primary side: Bridgeless PFC, Full-Bridge & LLC Resonant converter Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters
Secondary Side	
+12V MOSFETs	12x Cmsemicon CMR009N04NS
5V & 3.3V	DC-DC Converters: 6x Infineon BSC0902NS (30V, 67A @ 100°C, Rds(on): 2.6mOhm) PWM Controller(s):ANPEC APW7159C
Filtering Capacitors	Electrolytic: 2x Nippon Chemi-Con (4-10,000 @ 105°C, KY) 4x Rubycon (4-10,000 @ 105°C, YXJ) Polymer: 41x Nippon Chemi-Con
Supervisor IC	Weltrend WT7527RA (OCP, OVP, UVP, SCP,PG)
Fan Controller	APW9010
Fan Model	Power Logic PLA13525S12M (135mm, 12V, 0.40A, Hydro Dynamic Bearing Fan)
5VSB Circuit	
Rectifier	Secos SSD61N06S-C (60V, 40A @ 100°C, Rds(on): 9mOhm)
Standby PWM Controller	Power Integrations INN3166C

Test Results

Temperature & Compliance Info

Temperature Range (°C /°F)	28-32 / 82.4-89.6
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
ALPM (Alternative Low Power Mode) compatible	✓
ATX v3.1 PSU Power Excursion	✓

Performance Summary

115V

Accredited	
Average Efficiency (>1450 load combinations)	91.300%
Average Noise Output (>1450 Load Combinations)	13.30dBA
Average PF (>1450 Load Combinations)	0.980
Efficiency With 10W (≤500W) or 2% (>500W) Load	69.637%
Standby Power Consumption	0.0637W
Non-Accredited	
12V Ripple (Full Load)	31.75mV
5V Ripple (Full Load)	17.37mV
3.3V Ripple (Full Load)	18.39mV
5VSB Ripple (Full Load)	19.80mV
12V Load Regulation	0.35%
5V Load Regulation	0.46%
3.3V Load Regulation	0.51%
5VSB Load Regulation	2.47%
Inrush Current	-

230V

Accredited	
Average Efficiency (>1450 load combinations)	93.173%
Average Noise Output (>1450 Load Combinations)	11.91dBA
Average PF (>1450 Load Combinations)	0.954
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.821%
Standby Power Consumption	0.1511W
Non-Accredited	
12V Ripple (Full Load)	33.16mV
5V Ripple (Full Load)	20.07mV
3.3V Ripple (Full Load)	18.22mV

5VSB Ripple (Full Load)		20.79mV
12V Load Regulation		0.42%
5V Load Regulation		0.60%
3.3V Load Regulation		0.73%
5VSB Load Regulation		2.57%
Inrush Current		-
12V Transient Response (200%)		11.37V
5V Transient Response (200%)		4.936V
3.3V Transient Response (200%)		3.172V
5VSB Transient Response (200%)		4.884V
Hold-Up Time & PWR_OK Signal		28.30ms
AC Loss to PWR_OK Hold Up Time		23.30ms
PWR_OK Inactive to DC Loss Delay		5.00ms
PSU Timings: T1 (20% / 100%)	58.0ms	58.0ms
PSU Timings: T3 (20% / 100%)	121.0ms	121.0ms
12V OCP (28.2°C / 42.5°C)	164.20A (119.42%), 11.974V	161.60A (117.53%), 11.986V
5V OCP (28.2°C / 42.5°C)	26.6A (133.00%), 4.992V	24.5A (122.50%), 5.002V
3.3V OCP (28.2°C / 42.5°C)	27.2A (136.00%), 3.328V	25.9A (129.50%), 3.331V
5VSB OCP (28.2°C / 42.5°C)	4.9A (122.50%), 4.888V* Voltage Drop (2.471V @ 5.6A)	4.9A (122.50%), 4.882V* Voltage Drop (2.476V @ 5.6A)
OPP (25.82°C / 42.40°C)	124.41%	119.56%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	28.3
AC Loss to PWR_OK Hold Up Time (ms)	23.3
PWR_OK Inactive to DC Loss Delay (ms)	5

Tables

115V

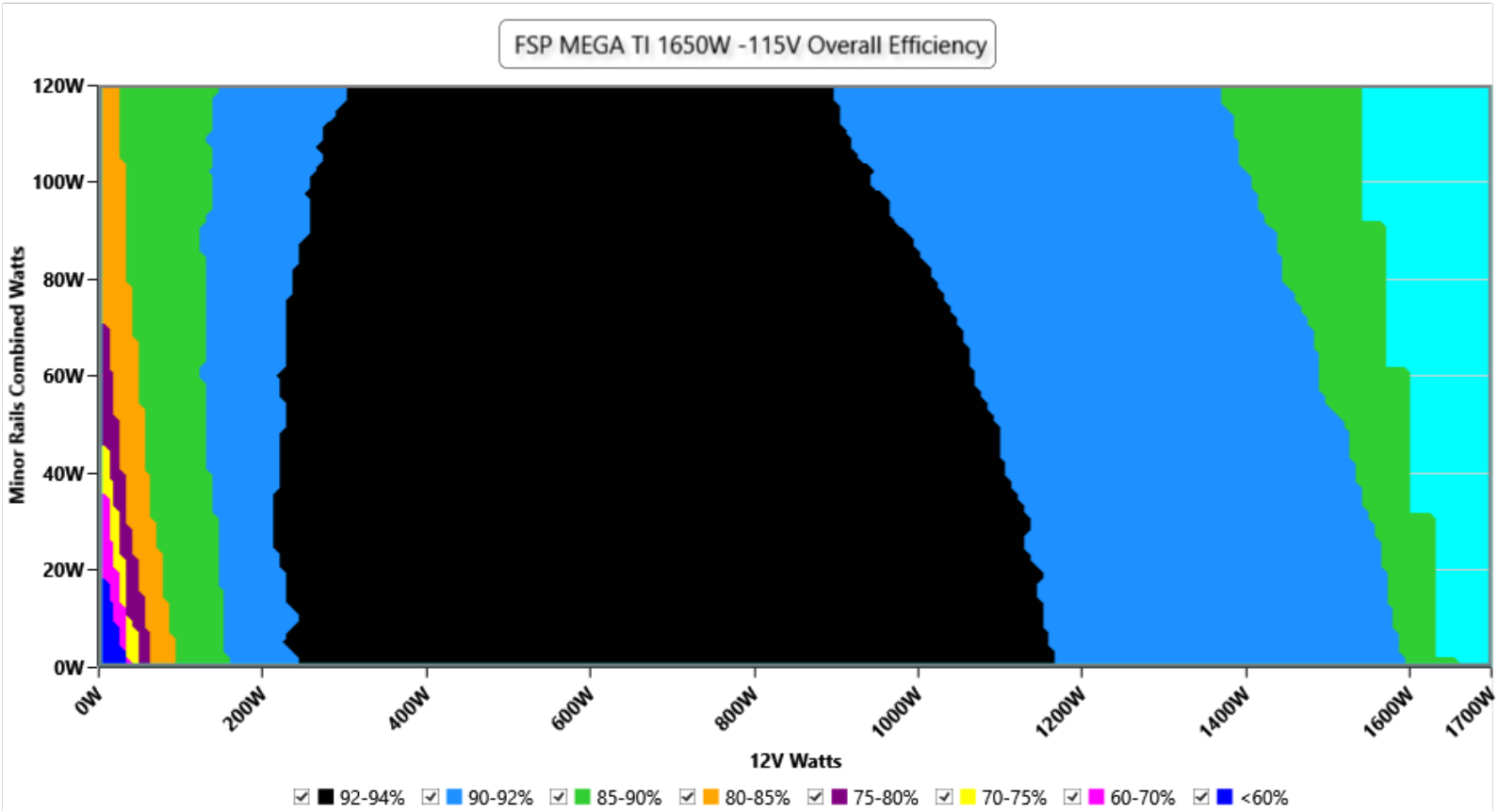
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.01 V	114.97 V	113.85 V	115.07 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.417	1.490	PASS
Mains Voltage THD:	0.13 %	0.10 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.064 W	0.042 W	N/A	0.084 W	N/A	N/A
Apparent Power:	10.389 W	10.367 W	N/A	10.411 W	N/A	N/A
Power Factor:	0.006	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	230.02 V	229.97 V	227.70 V	230.15 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.00 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.415	1.415	1.340	1.416	1.490	PASS
Mains Voltage THD:	0.14 %	0.13 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.151 W	0.099 W	N/A	0.408 W	N/A	N/A
Apparent Power:	32.867 W	32.819 W	N/A	32.949 W	N/A	N/A
Power Factor:	0.004	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

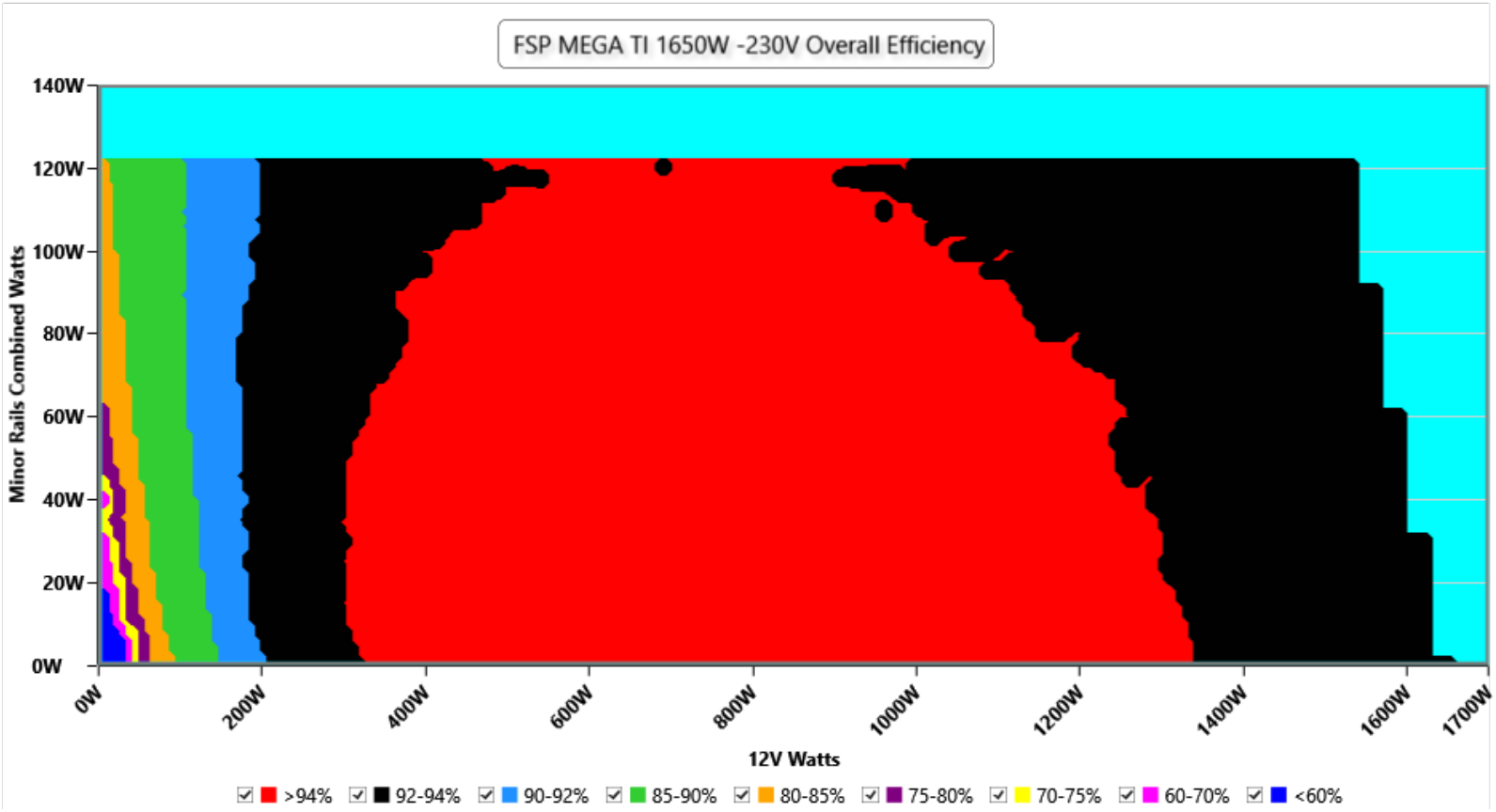
115V



INFO

This graph depicts the PSU`s efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

230V



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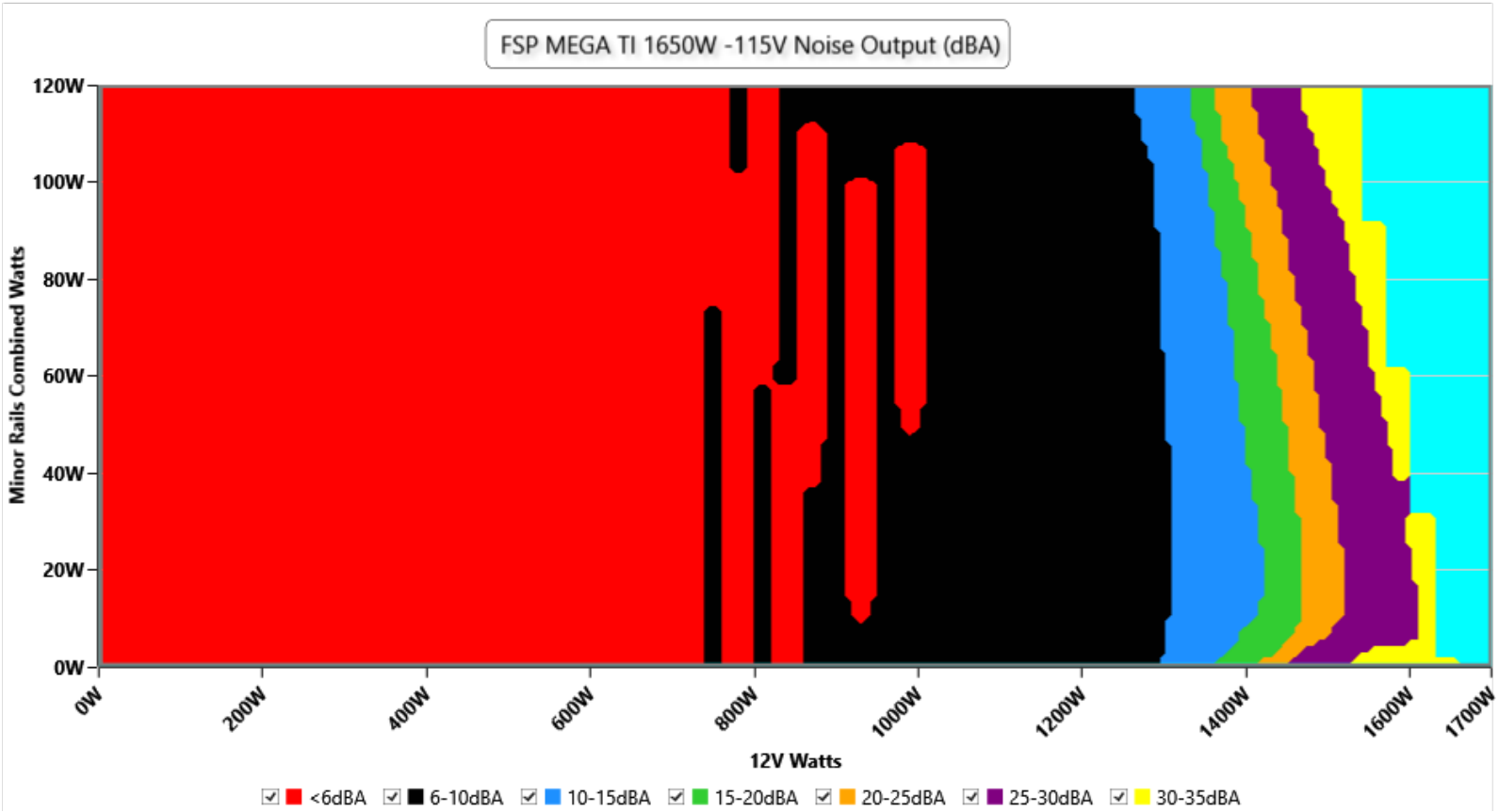
Noise Graph

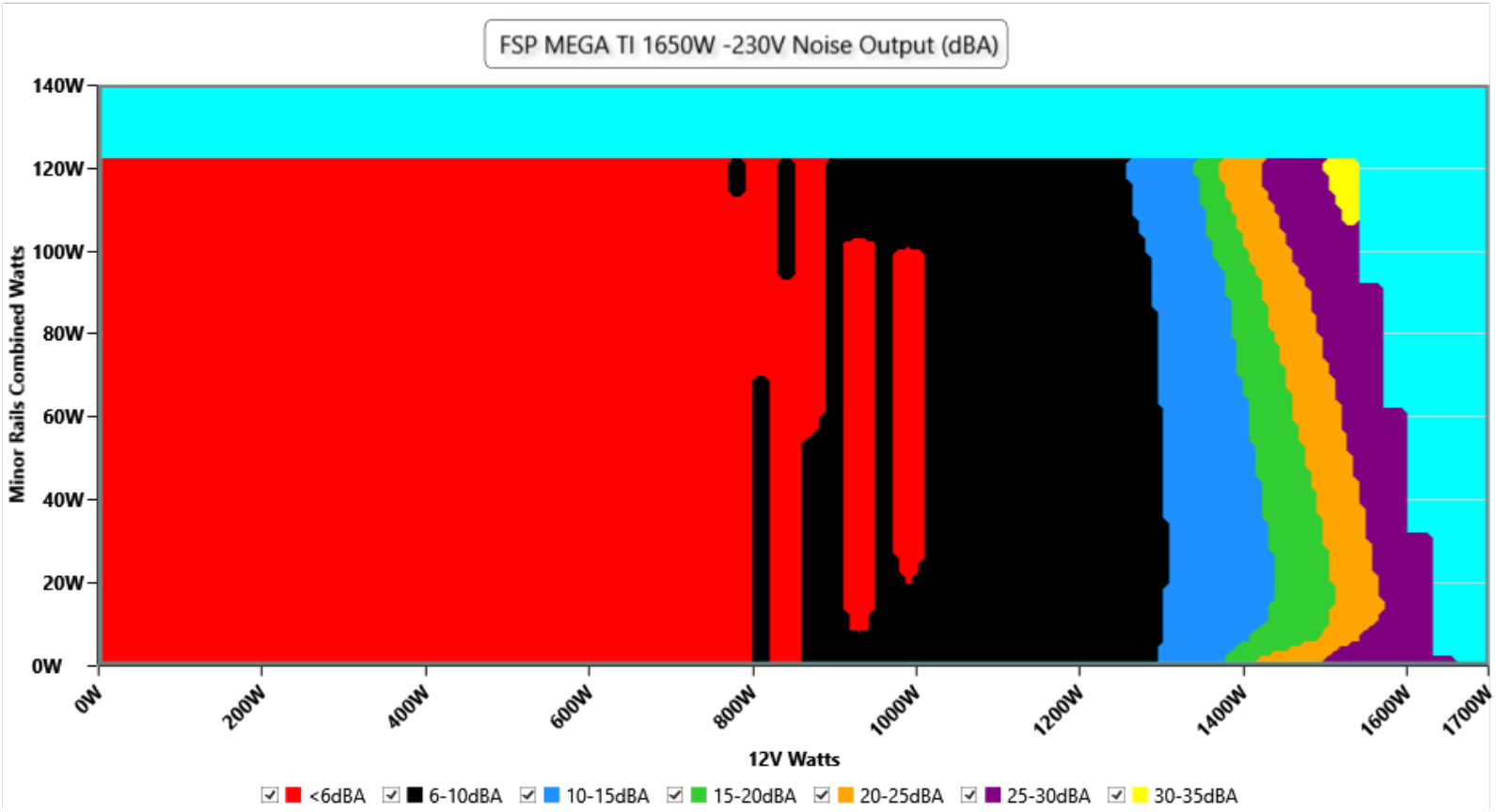
115V



INFO

The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

230V



INFO

The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

Noise under high ambient temperature (indicative)

115V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 31.9 °C	0 RPM · <6.0 dB(A) · 45.9 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 31.6 °C	0 RPM · <6.0 dB(A) · 46.2 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 32.3 °C	0 RPM · <6.0 dB(A) · 47.7 °C	fan off in both
100%	524 RPM · 10.6 dB(A) · 30.4 °C	1426 RPM · 40.0 dB(A) · 45.7 °C	**+29.4 dB(A)**

230V

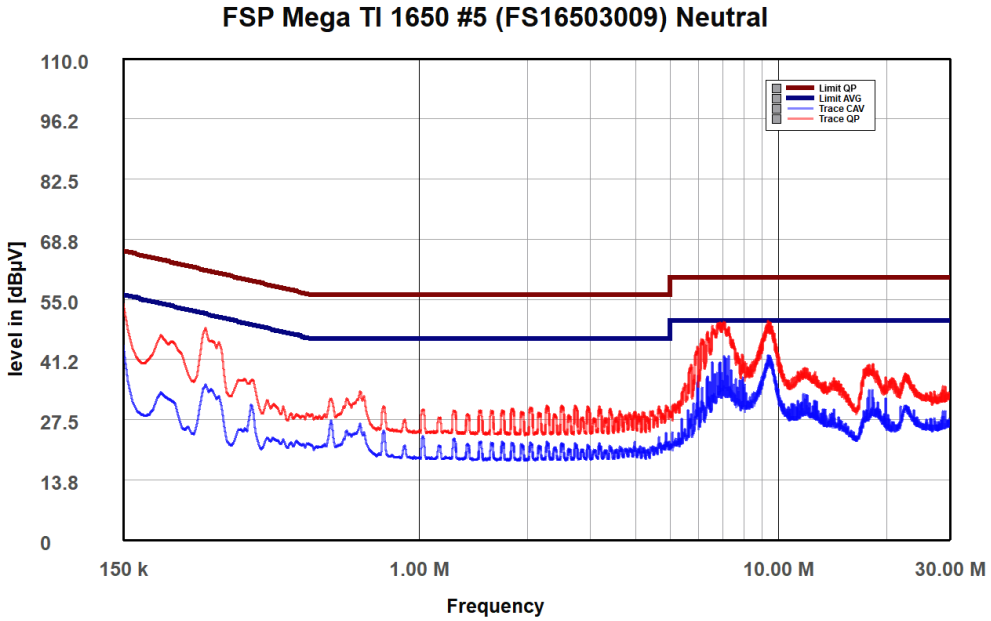
Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 34.6 °C	0 RPM · <6.0 dB(A) · 41.2 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 34.8 °C	0 RPM · <6.0 dB(A) · 41.7 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 32.5 °C	0 RPM · <6.0 dB(A) · 44.4 °C	fan off in both
100%	511 RPM · 9.9 dB(A) · 30.7 °C	1364 RPM · 38.6 dB(A) · 45.5 °C	**+28.7 dB(A)**

INFO

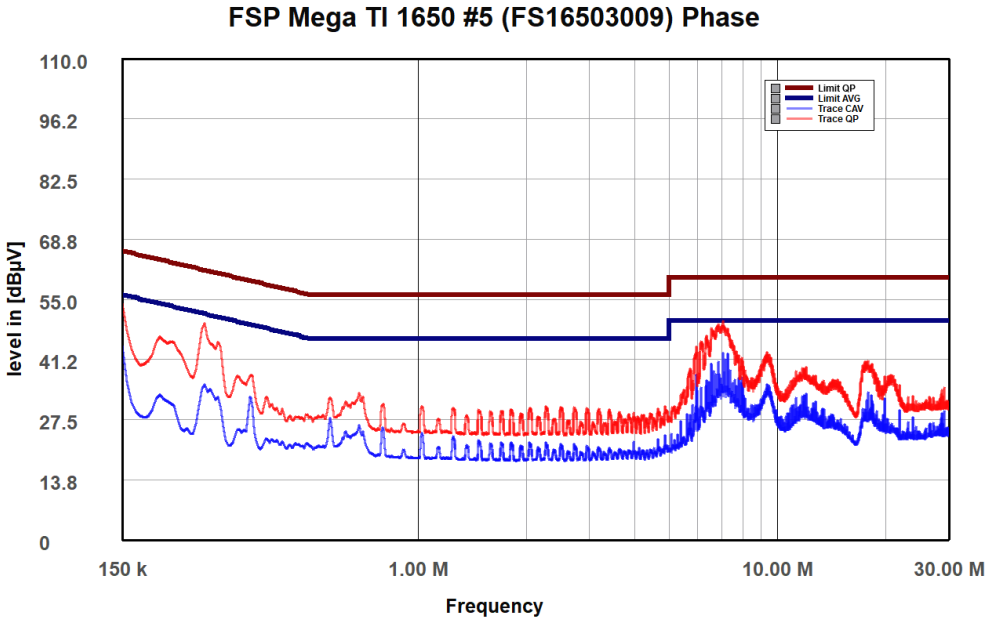
Fan speed, noise and the measured intake temperature at 10, 20, 50 and 100 % load, from the two load regulation tests: at normal ambient (about 30-32 °C) and at high ambient (about 40-47 °C). These are stabilized readings at fixed loads, not averages over the certification sweep, so they are indicative of how the fan behaves when it is hot. "<6.0" is the floor of our sound meter: the fan is stopped or too quiet to measure (the fan speed column says which); with the fan stopped, the intake sensor can read higher than the chamber air.

Informational. Not part of the ETA or LAMBDA rating.

Conducted Emissions EN 55032 & CISPR 32



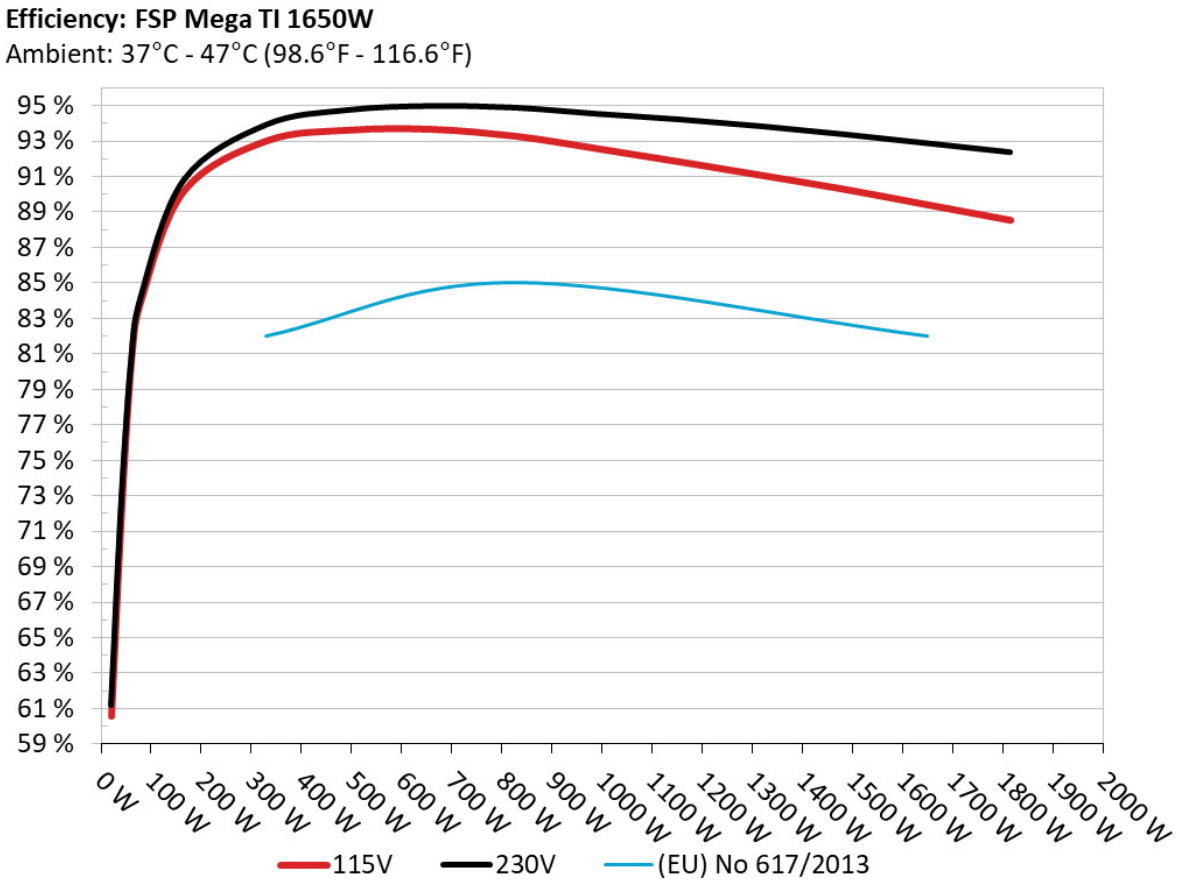
NEUTRAL



PHASE

Indicative Performance

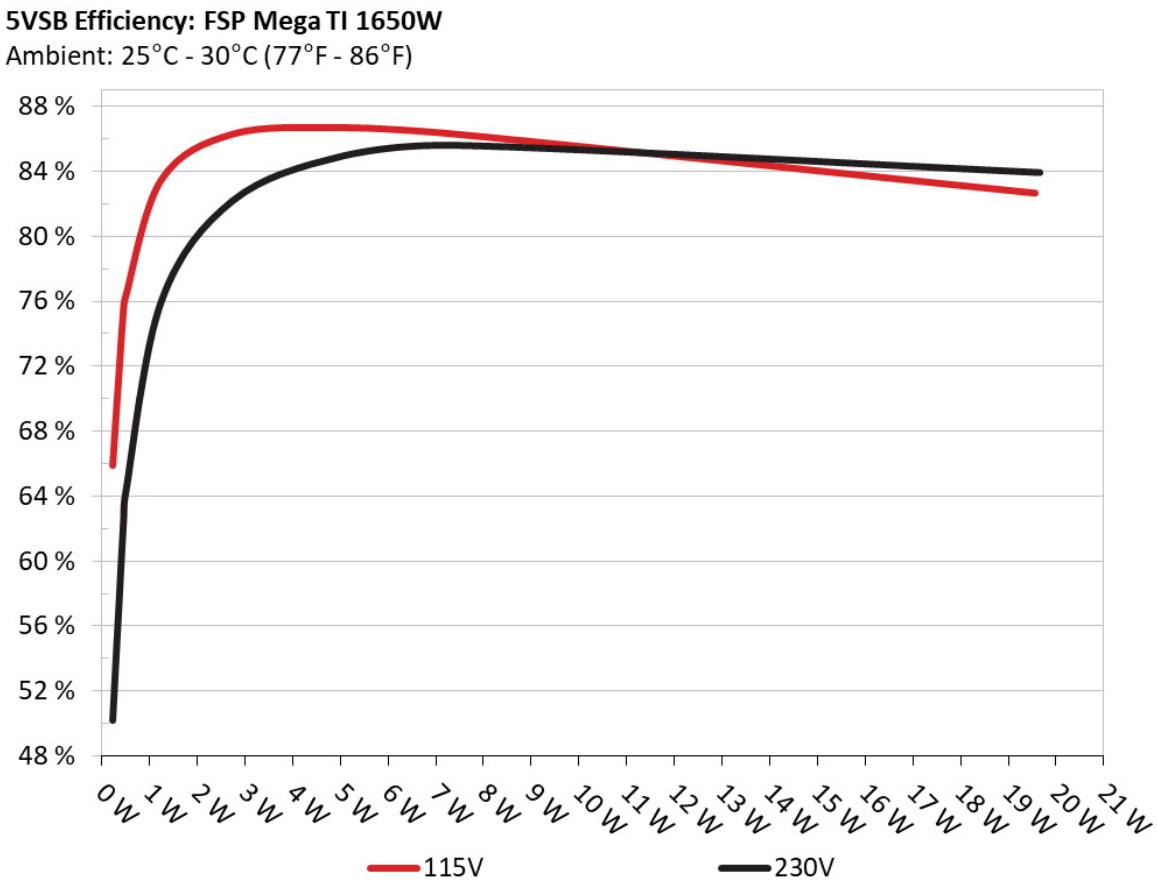
Efficiency under high ambient temperature



INFO

The PSU`s efficiency under high ambient temperatures with 115V and 230V input. For this graph the results of the 10-110% load regulation table are used

5VSB Efficiency



INFO

This graph depicts the efficiency levels of the 5VSB rail with 115V and 230V input

5VSB Efficiency (ERP LOT 3/6 & CEC)

115V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.226W	65.885%	0.033
	5.02V	0.343W		114.87V
2	**0.09A**	0.45W	75.437%	0.057
	4.994V	0.597W		114.88V
3	**0.55A**	2.743W	86.282%	0.25
	4.986V	3.179W		114.87V
4	**1A**	4.984W	86.678%	0.358
	4.984V	5.75W		114.87V
5	**1.5A**	7.471W	86.259%	0.417
	4.98V	8.661W		114.87V
6	**4A**	19.554W	82.648%	0.538
	4.888V	23.659W		114.86V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.226W	50.198%	0.013
	5.021V	0.457W		229.89V
2	**0.09A**	0.45W	62.353%	0.021
	4.996V	0.722W		229.88V
3	**0.55A**	2.743W	82.226%	0.092
	4.987V	3.336W		229.89V
4	**1A**	4.984W	84.925%	0.154
	4.984V	5.869W		229.89V
5	**1.5A**	7.472W	85.627%	0.213
	4.981V	8.726W		229.89V
6	**4A**	19.65W	83.955%	0.371
	4.912V	23.406W		229.89V

Protection Features

OCP (Normal @ 28.2°C)	12V: 164.2A (119.42%), 11.974V 5V: 26.6A (133%), 4.992V 3.3V: 27.2A (136%), 3.328V 5VSB: 4.9A (122.5%), 4.888V* Voltage Drop (2.471V @ 5.6A)
OCP (Hot @ 42.5°C)	12V: 161.6A (117.53%), 11.986V 5V: 24.5A (122.5%), 5.002V 3.3V: 25.9A (129.5%), 3.331V 5VSB: 4.9A (122.5%), 4.882V* Voltage Drop (2.476V @ 5.6A)
OPP (Normal @ 25.8°C)	2052.71W (124.41%)
OPP (Hot @ 42.4°C)	1972.73W (119.56%)
OTP	✓ (135°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
UVP (Full Load @ 90V)	✓
UVP (No Damage @ 80V)	✓
Conducted Emissions EN55032 & CISPR 32	✓
NLO	✓
Fan Failure Protection	✗
SIP	Surge: MOV Inrush: NTC & Bypass Relay

Supplementary Tests (For Reference)

Typical Load Tests

115V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
10%	**11.920A**	**1.992A**	**1.983A**	**1.004A**	164.977	90.216%	0	<6.0	45.93°C	0.967
	12.027V	5.021V	3.328V	4.982V	182.864				40.34°C	114.82V
20%	**24.876A**	**2.989A**	**2.977A**	**1.206A**	330.002	93.034%	0	<6.0	46.18°C	0.955
	12.023V	5.018V	3.326V	4.976V	354.707				40.72°C	114.76V
30%	**38.140A**	**3.489A**	**3.474A**	**1.409A**	494.47	93.637%	0	<6.0	45.81°C	0.968
	12.019V	5.017V	3.325V	4.968V	528.071				41.26°C	114.71V
40%	**51.474A**	**3.988A**	**3.972A**	**1.614A**	659.662	93.682%	0	<6.0	46.44°C	0.978
	12.015V	5.015V	3.324V	4.958V	704.144				41.86°C	114.65V
50%	**64.480A**	**4.988A**	**4.967A**	**1.819A**	825.015	93.301%	0	<6.0	47.66°C	0.984
	12.011V	5.013V	3.322V	4.948V	884.256				42.36°C	114.59V
60%	**77.418A**	**5.988A**	**5.963A**	**2.001A**	989.384	92.591%	511	9.9	42.87°C	0.989
	12.009V	5.011V	3.321V	4.937V	1068.566				53.44°C	114.54V
70%	**90.440A**	**6.991A**	**6.962A**	**2.234A**	1154.844	91.844%	524	10.6	43.24°C	0.991
	12.005V	5.008V	3.319V	4.925V	1257.401				66.49°C	114.47V
80%	**103.481A**	**7.993A**	**7.96A**	**2.339A**	1319.64	91.077%	583	13.8	43.94°C	0.993
	12.000V	5.004V	3.316V	4.917V	1448.921				68.52°C	114.41V
90%	**116.927A**	**8.497A**	**8.447A**	**2.444A**	1485.032	90.289%	982	29.9	44.75°C	0.994
	11.995V	5.001V	3.315V	4.911V	1644.758				66.96°C	114.33V
100%	**129.733A**	**9.002A**	**8.965A**	**4.114A**	1650.013	89.416%	1426	40	45.7°C	0.995
	11.989V	4.999V	3.312V	4.862V	1845.302				65.2°C	114.27V
110%	**142.813A**	**10.009A**	**10.058A**	**4.12A**	1814.608	88.55%	1871	47.9	46.81°C	0.996
	11.983V	4.995V	3.31V	4.856V	2049.262				61.16°C	114.18V
CL1	**0.117A**	**14.434A**	**14.362A**	**0A**	121.312	83.352%	0	<6.0	45.21°C	0.965
	12.040V	5.002V	3.321V	4.982V	145.543				42.23°C	114.82V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL2	**0.116A**	**19.946A**	**0A**	**0A**	101.35	80.89%	0	<6.0	44.85°C	0.965
	12.042V	5.011V	3.321V	4.983V	125.29				40.07°C	114.84V
CL3	**0.115A**	**0A**	**19.793A**	**0A**	67.388	75.746%	0	<6.0	43.42°C	0.959
	12.042V	5.018V	3.334V	4.981V	88.961				40.17°C	114.84V
CL4	**137.577A**	**0A**	**0A**	**0A**	1649.546	89.948%	1345	38.2	45.74°C	0.995
	11.990V	5.018V	3.322V	4.938V	1833.915				65.24°C	114.29V

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
10%	**11.913A**	**1.991A**	**1.983A**	**1.003A**	164.974	90.777%	0	<6.0	41.17°C	0.926
	12.034V	5.023V	3.329V	4.988V	181.735				40.36°C	229.86V
20%	**24.862A**	**2.988A**	**2.977A**	**1.204A**	329.981	93.902%	0	<6.0	41.69°C	0.954
	12.029V	5.02V	3.326V	4.983V	351.412				40.93°C	229.84V
30%	**38.119A**	**3.487A**	**3.474A**	**1.407A**	494.398	94.733%	0	<6.0	44.2°C	0.945
	12.024V	5.018V	3.325V	4.975V	521.885				41.14°C	229.81V
40%	**51.448A**	**3.987A**	**3.972A**	**1.611A**	659.585	94.959%	0	<6.0	44.58°C	0.95
	12.019V	5.017V	3.323V	4.967V	694.6				41.93°C	229.78V
50%	**64.454A**	**4.986A**	**4.969A**	**1.816A**	824.964	94.865%	0	<6.0	44.36°C	0.957
	12.016V	5.014V	3.321V	4.956V	869.612				42.2°C	229.76V
60%	**77.400A**	**5.988A**	**5.967A**	**2A**	989.361	94.516%	522	10.5	42.83°C	0.965
	12.012V	5.011V	3.319V	4.947V	1046.756				59.16°C	229.72V
70%	**90.433A**	**6.992A**	**6.969A**	**2.23A**	1154.814	94.2%	525	10.7	43.26°C	0.97
	12.005V	5.007V	3.315V	4.935V	1225.911				59.73°C	229.7V
80%	**103.472A**	**7.995A**	**7.97A**	**2.336A**	1319.655	93.81%	600	14.6	43.98°C	0.974
	12.001V	5.003V	3.312V	4.925V	1406.702				61.24°C	229.67V
90%	**116.932A**	**8.5A**	**8.46A**	**2.441A**	1485.044	93.354%	979	29.9	44.99°C	0.978
	11.994V	5V	3.309V	4.918V	1590.764				59.5°C	229.64V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
100%	**129.732A**	**9.005A**	**8.98A**	**4.114A**	1650.024	92.854%	1364	38.6	45.47°C	0.981
	11.988V	4.997V	3.307V	4.863V	1777.007				57.94°C	229.61V
110%	**142.815A**	**10.012A**	**10.077A**	**4.118A**	1814.615	92.354%	1815	47.4	45.38°C	0.983
	11.982V	4.994V	3.304V	4.857V	1964.86				55.06°C	229.58V
CL1	**0.117A**	**14.439A**	**14.399A**	**0A**	121.312	83.908%	0	<6.0	44.18°C	0.911
	12.040V	5V	3.312V	4.984V	144.58				42.16°C	229.87V
CL2	**0.116A**	**19.956A**	**0A**	**0A**	101.349	81.426%	0	<6.0	43.87°C	0.896
	12.042V	5.008V	3.321V	4.985V	124.467				42.17°C	229.88V
CL3	**0.115A**	**0A**	**19.863A**	**0A**	67.386	76.113%	0	<6.0	43.5°C	0.846
	12.042V	5.018V	3.322V	4.983V	88.533				40.92°C	229.88V
CL4	**137.570A**	**0A**	**0A**	**0A**	1649.534	93.321%	1184	34.8	44.84°C	0.981
	11.990V	5.018V	3.322V	4.941V	1767.594				57.17°C	229.61V

The results above are not used in the certification process

Light Load Tests

115V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20W	**1.236A**	**0.498A**	**0.496A**	**0.2A**	19.995	60.559%	0	<6.0	44.98°C	0.901
	12.016V	5.021V	3.327V	4.979V	33.018				36.77°C	114.88V
40W	**2.720A**	**0.697A**	**0.694A**	**0.301A**	40.003	72.102%	0	<6.0	44.33°C	0.942
	12.021V	5.022V	3.328V	4.98V	55.479				37.46°C	114.85V
60W	**4.200A**	**0.896A**	**0.892A**	**0.402A**	60.004	80.695%	0	<6.0	43.67°C	0.952
	12.029V	5.022V	3.329V	4.98V	74.357				38.11°C	114.85V
80W	**5.680A**	**1.095A**	**1.091A**	**0.502A**	79.954	84.114%	0	<6.0	46.34°C	0.96
	12.030V	5.022V	3.329V	4.979V	95.056				39.75°C	114.84V

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20W	**1.235A**	**0.497A**	**0.495A**	**0.2A**	20.004	61.169%	0	<6.0	40.4°C	0.569
	12.030V	5.027V	3.331V	4.985V	32.701				36.8°C	229.89V
40W	**2.718A**	**0.696A**	**0.693A**	**0.301A**	40.006	72.482%	0	<6.0	40.83°C	0.734
	12.030V	5.026V	3.331V	4.985V	55.244				37.38°C	229.88V
60W	**4.198A**	**0.895A**	**0.892A**	**0.401A**	60.006	80.563%	0	<6.0	42.71°C	0.81
	12.038V	5.026V	3.331V	4.985V	74.481				38.04°C	229.88V
80W	**5.676A**	**1.094A**	**1.09A**	**0.502A**	79.956	84.258%	0	<6.0	42.34°C	0.855
	12.038V	5.025V	3.33V	4.985V	94.905				39.26°C	229.88V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	29.77mV	18.12mV	16.47mV	15.29mV	Pass
20% Load	35.54mV	17.55mV	17.19mV	14.93mV	Pass
30% Load	35.09mV	17.19mV	15.85mV	14.37mV	Pass
40% Load	32.43mV	18.22mV	16.52mV	15.24mV	Pass
50% Load	29.97mV	18.73mV	17.70mV	16.98mV	Pass
60% Load	34.63mV	18.58mV	19.19mV	16.32mV	Pass
70% Load	33.65mV	17.96mV	17.91mV	22.27mV	Pass
80% Load	32.48mV	19.35mV	18.42mV	20.37mV	Pass
90% Load	31.40mV	18.37mV	18.27mV	19.09mV	Pass
100% Load	31.75mV	17.37mV	18.39mV	19.80mV	Pass
110% Load	33.20mV	19.84mV	19.07mV	19.85mV	Pass
Crossload1	31.35mV	17.96mV	18.54mV	10.84mV	Pass
Crossload2	39.54mV	22.68mV	16.42mV	12.57mV	Pass

Test	12V	5V	3.3V	5VSB	Pass/Fail
Crossload3	88.33mV	17.55mV	21.19mV	11.39mV	Pass
Crossload4	32.45mV	17.13mV	15.91mV	11.94mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	28.69mV	19.14mV	17.39mV	16.52mV	Pass
20% Load	35.44mV	19.50mV	19.14mV	15.91mV	Pass
30% Load	38.66mV	19.09mV	17.65mV	15.29mV	Pass
40% Load	34.22mV	20.12mV	19.03mV	16.42mV	Pass
50% Load	31.61mV	19.71mV	18.93mV	17.65mV	Pass
60% Load	35.44mV	19.40mV	18.73mV	16.98mV	Pass
70% Load	33.91mV	20.07mV	19.34mV	22.06mV	Pass
80% Load	33.45mV	20.22mV	20.01mV	19.91mV	Pass
90% Load	36.06mV	20.94mV	20.21mV	18.21mV	Pass
100% Load	33.16mV	20.07mV	18.22mV	20.79mV	Pass
110% Load	33.74mV	19.72mV	19.25mV	22.65mV	Pass
Crossload1	30.22mV	19.38mV	18.67mV	12.66mV	Pass
Crossload2	45.11mV	23.15mV	17.08mV	12.37mV	Pass
Crossload3	91.34mV	18.73mV	22.06mV	12.41mV	Pass
Crossload4	32.14mV	17.62mV	17.48mV	12.84mV	Pass

The results above are not used in the certification process

FSP Technology Mega TI 1650W



Top side



Power specifications label



Fan



PSU Internals