ASRock Taichi TC-1650T (ATX v3.1)

Serial Number 2412BT165AEA910012

Lab ID AR16502737

Certification ID 252737

Test Result Report ID: 25PS2737A

Certificate Issue Date: Feb 11, 2025

Scheme: ETA-EMI PSU

115V



230V



Scheme: LAMBDA PSU

115V



230V





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	ASRock
Model	Taichi TC-1650T (ATX v3.1)
OEM/ODM	FSP
Serial Number	2412BT165AEA910012
Product Specifications	
Manufacturer-Provided Information	
Rated Voltage (Vrms)	115-240

Rated Current (Arms)	10-16
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	AR16502737
Date of receipt	Jan 28, 2025
Testing Date	Feb 11, 2025
Report Issued Date	Feb 11, 2025
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 24 pin (600mm)	1	1	16-22AWG	No
4+4 pin EPS12V (650mm)	2	2	16AWG	No
6+2 pin PCIe (675mm+80mm)	2	4	16-18AWG	No
6+2 pin PCIe (675mm)	4	4	16-18AWG	No
12+4 pin PCIe (700mm) (600W)	2	2	16-24AWG	No

SATA (455mm+105mm+105mm)	4	12	18AWG	No
4-pin Molex (455mm+105mm+105mm)	2	6	18AWG	No

Protection Features

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	25	25	137.5	3	0.5
	Watts	130		1650	15	6
Total Max. Power (W)		1650				

Parts Description

General Data	
Manufacturer (OEM)	FSP
PCB Type	Double-Sided
Primary Side	
Transient Filter	4x Y caps, 1x 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
Gate Drivers	2x Texas Instruments UCC21520
APFC Controller	UCC28070
Resonant Controller	Champion CM6901T2X
Topology	Primary side: Bridgeless, APFC, Full-Bridge & LLC Resonant converter Secondary side: Synchronous Rectification & DC-DC converters
Secondary Side	
+12V MOSFETs	12x Champion CMR009N04NS (40V, 150A @ 25°C, Rds(on): 0.9mOhm)
5V & 3.3V	DC-DC Converters: 6x Infineon BSC0902NS (30V, 67A @ 100°C, Rds(on): 2.6mOhm) PWM Controller(s): upi-semiuP3861P
Filtering Capacitors	Electrolytic: 4x Nippon Chemi-Con (@ 105°C, W) 2x Rubycon (6-10,000h @ 105°C,ZLH) 1x Nippon Chemi-Con (4-10,000h (@ 105°C, KY) Polymer: 37x Nippon Chemi-Con, 5x FPCAP
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	Seecos SSD61N06S (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)	91.629%
Average Noise Output (>1450 Load Combinations)	17.94dBA
Average PF (>1450 Load Combinations)	0.982
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.393%
Standby Power Consumption	0.0387W
Non-Accredited	
12V Ripple (Full Load)	39.92mV
5V Ripple (Full Load)	18.75mV
3.3V Ripple (Full Load)	17.51mV
5VSB Ripple (Full Load)	18.93mV
12V Load Regulation	0.30%
5V Load Regulation	0.44%
3.3V Load Regulation	0.54%
5VSB Load Regulation	1.64%
Inrush Current	64.120A

230V

Accredited	
Average Efficiency (>1450 load combinations)	93.437%
Average Noise Output (>1450 Load Combinations)	16.15dBA
Average PF (>1450 Load Combinations)	0.945
Efficiency With 10W (≤500W) or 2% (>500W) Load	71.751%
Standby Power Consumption	0.1296W
Non-Accredited	
12V Ripple (Full Load)	35.97mV
5V Ripple (Full Load)	18.70mV
3.3V Ripple (Full Load)	17.62mV

5VSB Ripple (Full Load)		19.99mV
12V Load Regulation		0.32%
5V Load Regulation		0.46%
3.3V Load Regulation		0.54%
5VSB Load Regulation		1.66%
Inrush Current		123.460A
12V Transient Response (200%)		11.69V
5V Transient Response (200%)		4.833V
3.3V Transient Response (200%)		3.149V
5VSB Transient Response (200%)		4.876V
Hold-Up Time & PWR_OK Signal		26.50ms
AC Loss to PWR_OK Hold Up Time		22.80ms
PWR_OK Inactive to DC Loss Delay		3.70ms
PSU Timings: T1 (20% / 100%)	98.0ms	103.0ms
PSU Timings: T3 (20% / 100%)	123.0ms	122.0ms
12V OCP (24.9°C / 41.1°C)	157.26A (114.38%), 12.033V	151.40A (110.11%), 12.044V
5V OCP (24.9°C / 41.1°C)	30.1A (120.40%), 5.006V	26.8A (107.20%), 5.01V
3.3V OCP (24.9°C / 41.1°C)	31.2A (124.80%), 3.354V	28.5A (114.00%), 3.338V
5VSB OCP (24.9°C / 41.1°C)	5A (166.67%), 4.801V	5A (166.67%), 4.838V
OPP (27.17°C / 43.46°C)	113.07%	110.55%

Hold-Up Time & PWR_OK Signal

Hold-Up Time (ms)	26.5
AC Loss to PWR_OK Hold Up Time (ms)	22.8
PWR_OK Inactive to DC Loss Delay (ms)	3.7

Vampire Power

Tables

115V

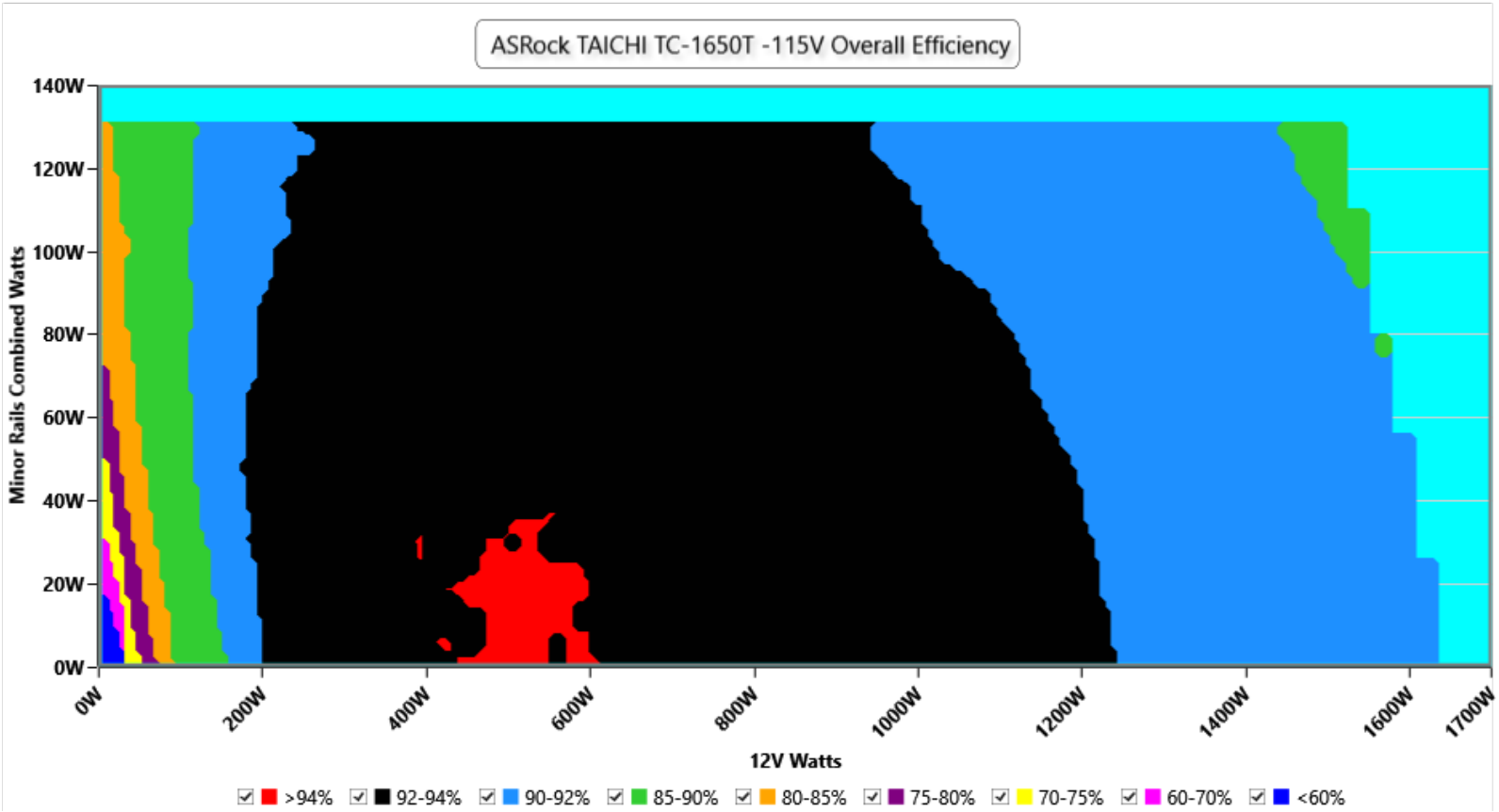
Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	115.06 V	115.02 V	113.85 V	115.10 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.02 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.417	1.416	1.340	1.419	1.490	PASS
Mains Voltage THD:	0.14 %	0.11 %	N/A	0.20 %	2.00 %	PASS
Real Power:	0.039 W	0.021 W	N/A	0.058 W	N/A	N/A
Apparent Power:	10.025 W	9.922 W	N/A	10.128 W	N/A	N/A
Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

230V

Detailed Results						
	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	231.00 V	230.90 V	227.70 V	231.06 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	49.99 Hz	49.50 Hz	50.01 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.417	1.416	1.340	1.419	1.490	PASS
Mains Voltage THD:	0.17 %	0.14 %	N/A	0.26 %	2.00 %	PASS
Real Power:	0.130 W	0.087 W	N/A	0.188 W	N/A	N/A
Apparent Power:	33.664 W	33.462 W	N/A	33.914 W	N/A	N/A
Power Factor:	0.003	N/A	N/A	N/A	N/A	N/A

Efficiency Graph

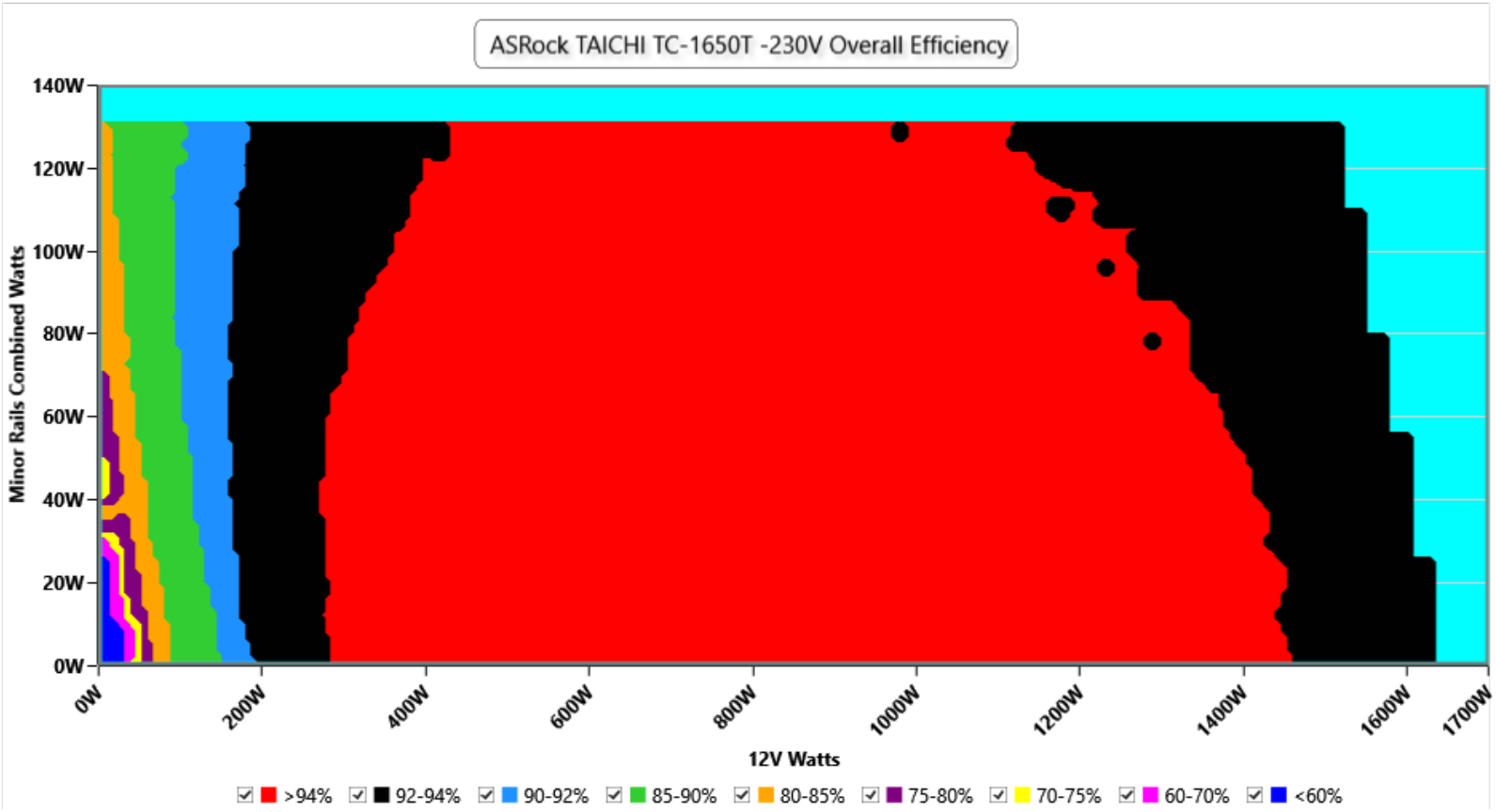
115V



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

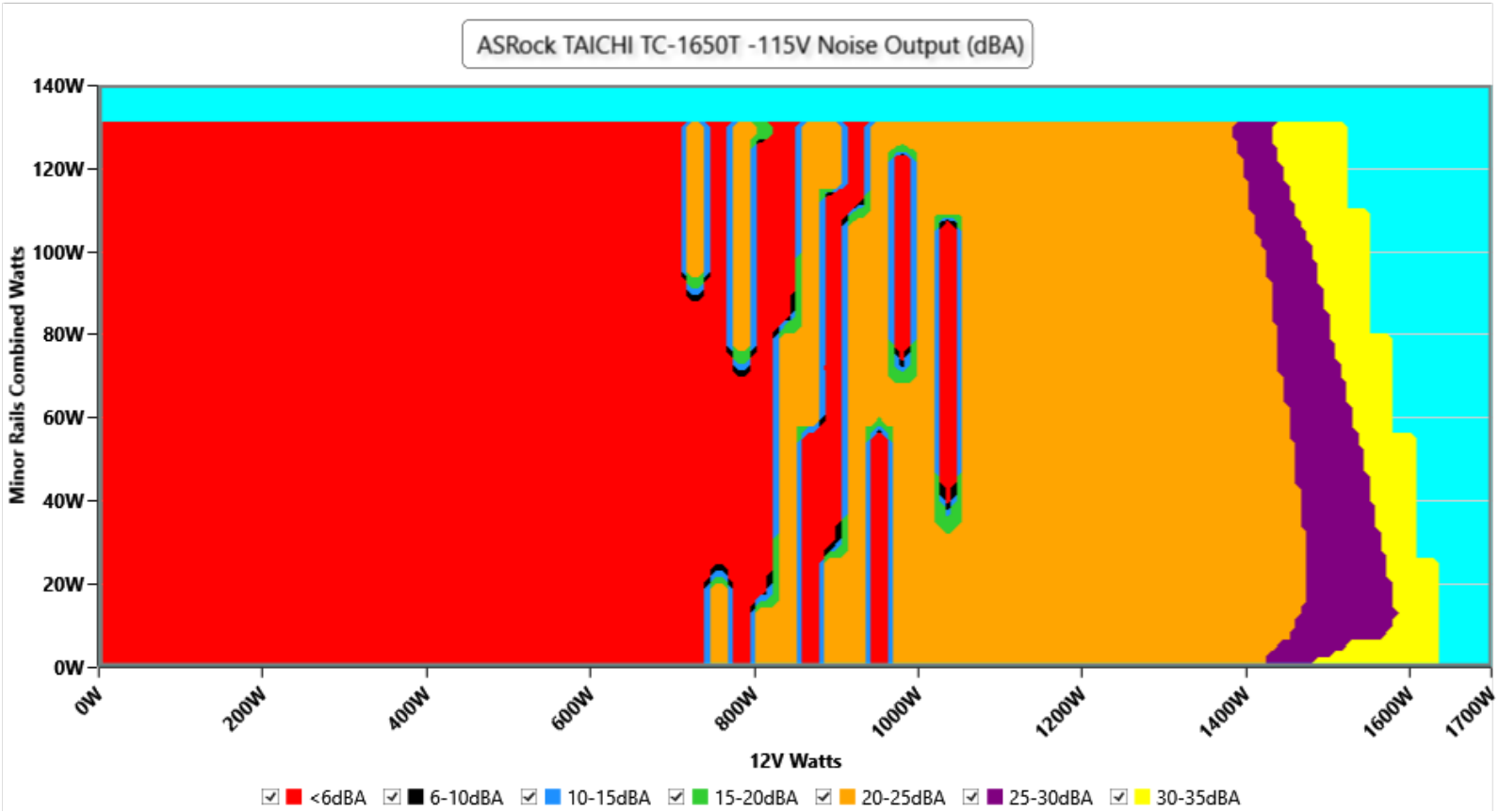


INFO

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

Noise Graph

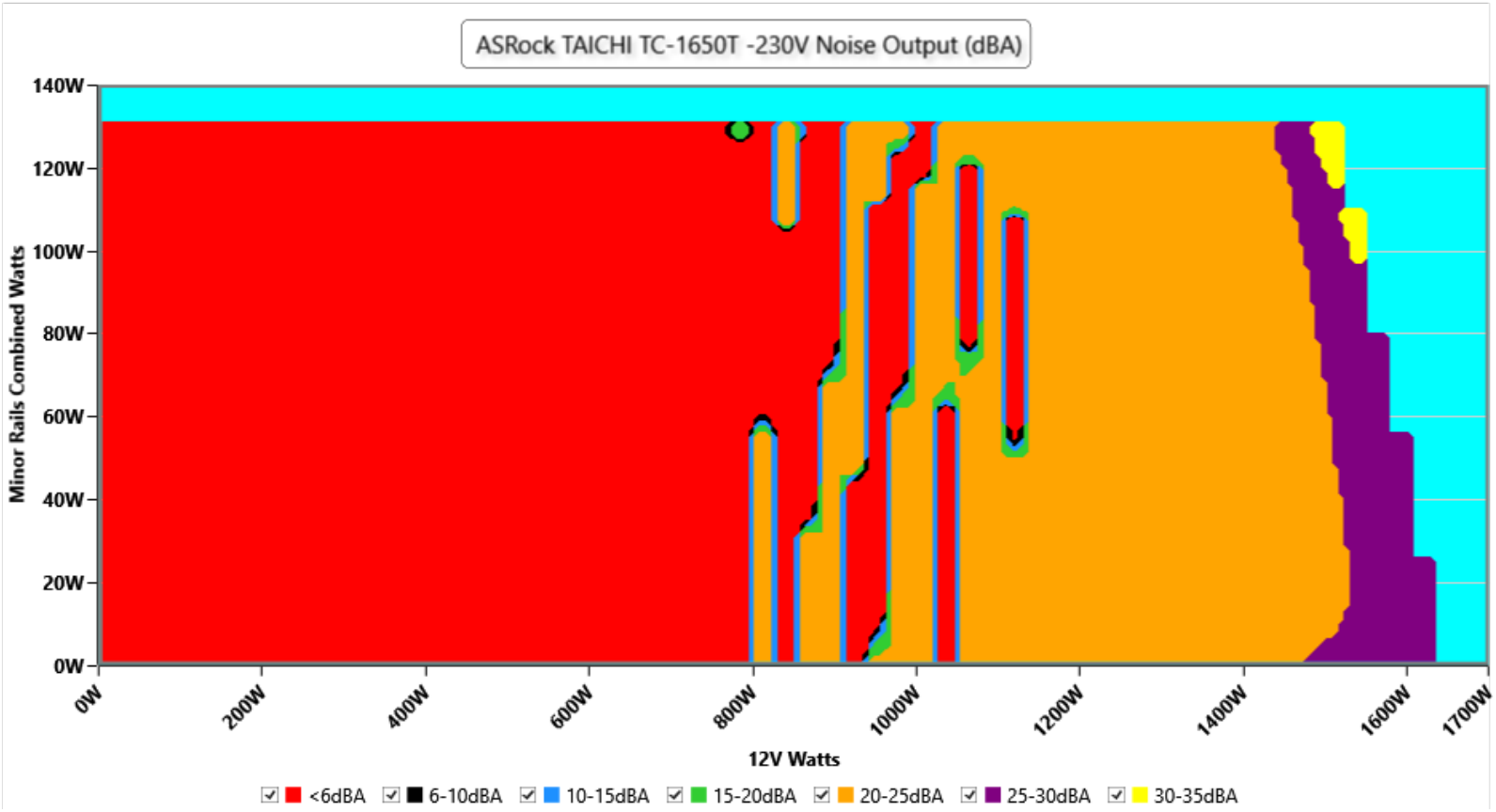
115V



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) · 37.1 °C	0 RPM · <6.0 dB(A) · 48.8 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 37.0 °C	0 RPM · <6.0 dB(A) · 49.1 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 37.0 °C	0 RPM · <6.0 dB(A) · 54.4 °C	fan off in both
100%	937 RPM · 30.4 dB(A) · 30.8 °C	1228 RPM · 37.8 dB(A) · 45.7 °C	**+7.4 dB(A)**

230V

Load	Normal ambient fan · noise · intake	High ambient fan · noise · intake	Noise change
10%	0 RPM · <6.0 dB(A) · 35.0 °C	0 RPM · <6.0 dB(A) · 49.1 °C	fan off in both
20%	0 RPM · <6.0 dB(A) · 37.5 °C	0 RPM · <6.0 dB(A) · 49.8 °C	fan off in both
50%	0 RPM · <6.0 dB(A) · 36.4 °C	0 RPM · <6.0 dB(A) · 52.9 °C	fan off in both
100%	689 RPM · 22.2 dB(A) · 30.3 °C	1210 RPM · 37.2 dB(A) · 45.8 °C	**+15.0 dB(A)**

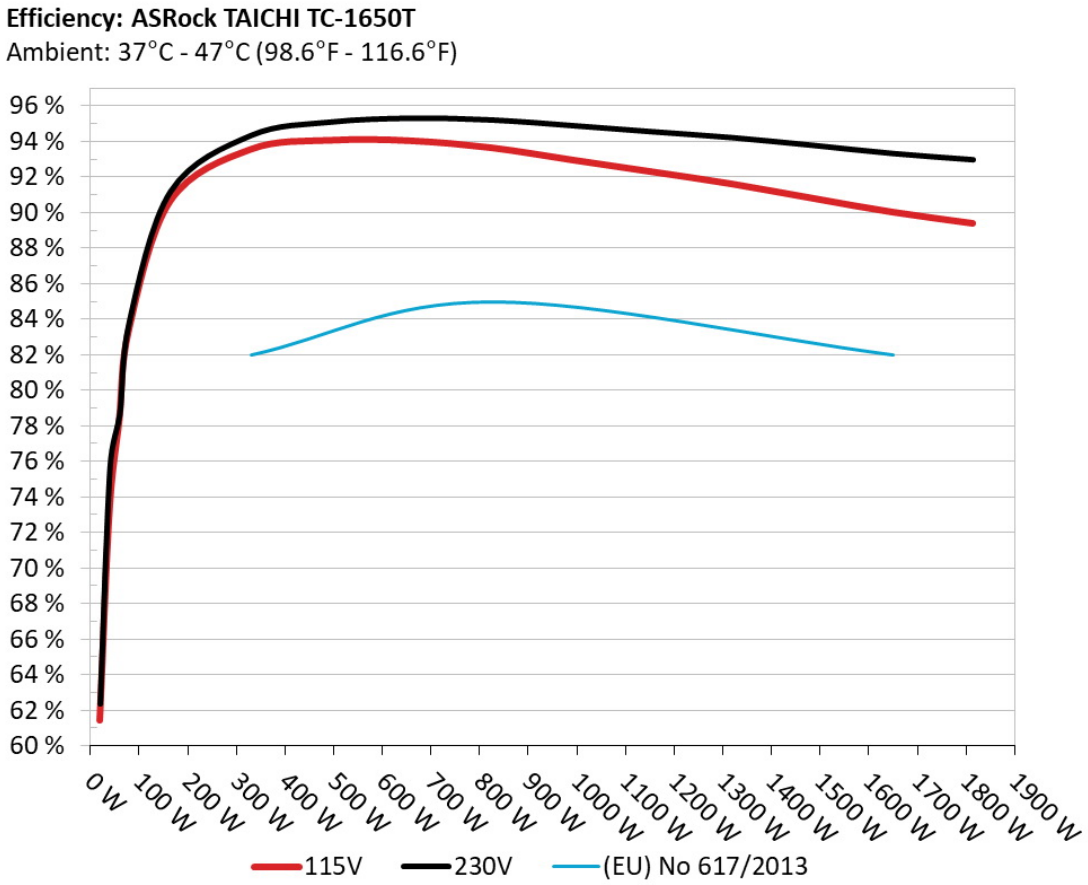
INFO

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.

Indicative Performance

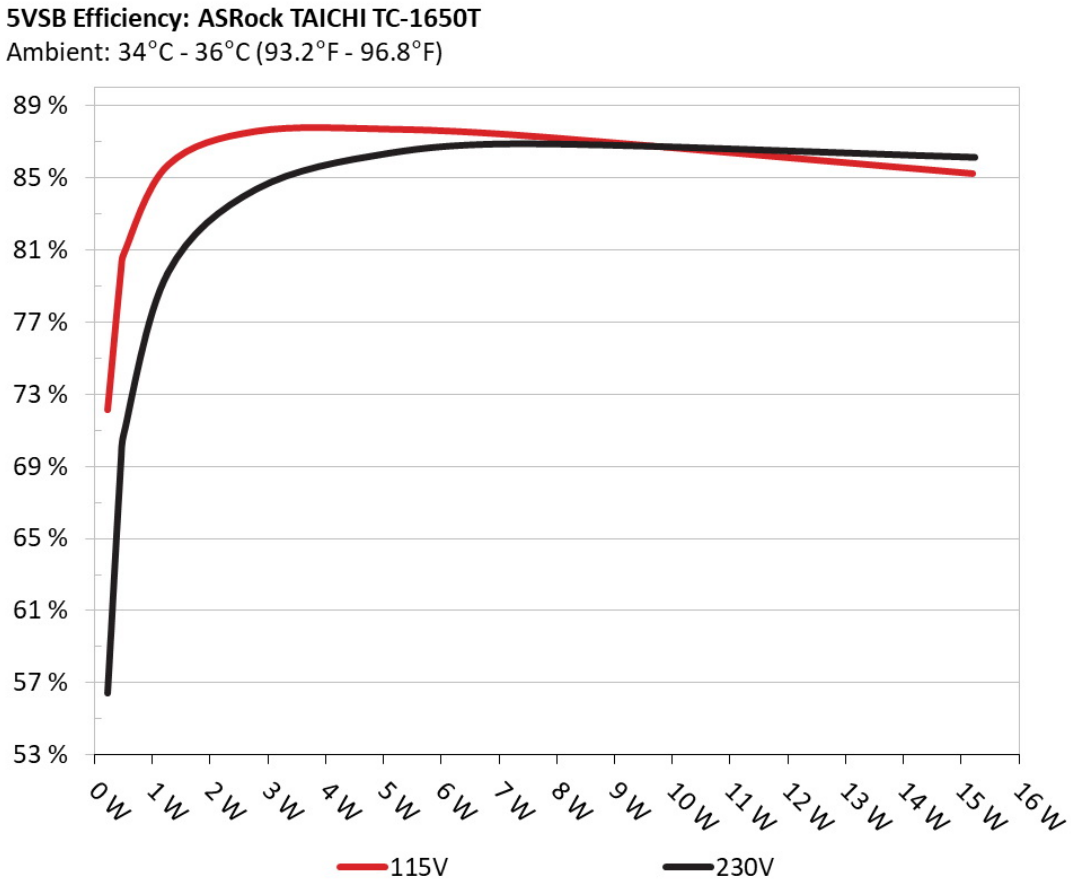
Efficiency under high ambient temperature



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**	0.23W	72.132%	0.031
	5.115V	0.318W		114.86V
2	**0.09A**	0.459W	79.81%	0.056
	5.094V	0.575W		114.85V
3	**0.55A**	2.801W	87.607%	0.254
	5.091V	3.197W		114.84V
4	**1A**	5.098W	87.72%	0.36
	5.097V	5.813W		114.85V
5	**1.5A**	7.642W	87.311%	0.417
	5.094V	8.753W		114.85V
6	**3.001A**	15.19W	85.253%	0.501
	5.062V	17.819W		114.85V

230V

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	**0.045A**	0.23W	56.446%	0.012
	5.114V	0.408W		229.83V
2	**0.09A**	0.459W	69.22%	0.02
	5.098V	0.663W		229.83V
3	**0.55A**	2.801W	84.383%	0.094
	5.091V	3.319W		229.82V
4	**1A**	5.095W	86.381%	0.158
	5.094V	5.899W		229.82V
5	**1.5A**	7.645W	86.901%	0.218
	5.095V	8.798W		229.82V
6	**3.001A**	15.239W	86.154%	0.327
	5.079V	17.688W		229.83V

Protection Features

OCP (Normal @ 24.9°C)	12V: 157.26A (114.38%), 12.033V 5V: 30.1A (120.4%), 5.006V 3.3V: 31.2A (124.8%), 3.354V 5VSB: 5A (166.67%), 4.801V
OCP (Hot @ 41.1°C)	12V: 151.4A (110.11%), 12.044V 5V: 26.8A (107.2%), 5.01V 3.3V: 28.5A (114%), 3.338V 5VSB: 5A (166.67%), 4.838V
OPP (Normal @ 27.2°C)	1865.71W (113.07%)
OPP (Hot @ 43.5°C)	1824.05W (110.55%)
OTP	✓ (120°C @ Heat Sink)
SCP	12V to Earth: ✓ 5V to Earth: ✓ 3.3V to Earth: ✓ 5VSB to Earth: ✓ -12V to Earth: ✓
PWR_OK	Proper Operation
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%	**11.859A**	**1.987A**	**1.981A**	**0.982A**	164.948	90.64%	0	<6.0	48.82°C	0.969
	12.088V	5.032V	3.332V	5.091V	181.984				40.34°C	114.78V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20%	**24.748A**	**2.979A**	**2.971A**	**1.18A**	329.952	93.53%	0	<6.0	49.05°C	0.962
	12.084V	5.034V	3.332V	5.084V	352.768				40.75°C	114.73V
30%	**37.937A**	**3.477A**	**3.468A**	**1.379A**	494.347	94.041%	0	<6.0	50.96°C	0.97
	12.080V	5.032V	3.331V	5.076V	525.675				41.61°C	114.68V
40%	**51.200A**	**3.976A**	**3.966A**	**1.579A**	659.562	94.012%	0	<6.0	52.42°C	0.98
	12.077V	5.03V	3.329V	5.067V	701.576				41.92°C	114.63V
50%	**64.136A**	**4.974A**	**4.96A**	**1.78A**	824.902	93.619%	0	<6.0	54.44°C	0.984
	12.074V	5.027V	3.327V	5.058V	881.122				42.17°C	114.57V
60%	**77.005A**	**5.972A**	**5.956A**	**1.981A**	989.394	92.941%	0	<6.0	57.91°C	0.989
	12.072V	5.024V	3.325V	5.048V	1064.544				42.75°C	114.51V
70%	**89.958A**	**6.972A**	**6.954A**	**2.183A**	1154.744	92.273%	664	21.4	43.48°C	0.991
	12.068V	5.02V	3.322V	5.039V	1251.454				61.63°C	114.45V
80%	**102.942A**	**7.972A**	**7.951A**	**2.285A**	1319.572	91.588%	667	21.5	43.84°C	0.993
	12.062V	5.017V	3.32V	5.032V	1440.784				61.83°C	114.39V
90%	**116.317A**	**8.475A**	**8.437A**	**2.389A**	1484.978	90.785%	909	29.8	44.83°C	0.994
	12.057V	5.014V	3.318V	5.023V	1635.709				61.41°C	114.31V
100%	**129.452A**	**8.977A**	**8.956A**	**2.995A**	1649.773	90.005%	1228	37.8	45.67°C	0.995
	12.051V	5.012V	3.316V	5.009V	1832.986				56.52°C	114.26V
110%	**142.458A**	**9.98A**	**10.051A**	**2.998A**	1814.364	89.376%	1372	38.7	42.11°C	0.996
	12.046V	5.01V	3.312V	5.004V	2030.015				57.14°C	114.2V
CL1	**0.116A**	**15.6A**	**15.499A**	**0A**	131.301	83.408%	0	<6.0	54.44°C	0.965
	12.088V	5.019V	3.329V	5.082V	157.416				42.2°C	114.79V
CL2	**0.115A**	**24.941A**	**0A**	**0A**	126.26	80.983%	0	<6.0	55.37°C	0.965
	12.090V	5.007V	3.329V	5.083V	155.912				40.22°C	114.79V
CL3	**0.115A**	**0A**	**24.664A**	**0A**	83.877	77.79%	0	<6.0	531.3°C	0.96
	11.953V	5.026V	3.345V	5.064V	107.822				40.71°C	114.82V
CL4	**136.878A**	**0A**	**0A**	**0A**	1649.531	90.494%	1035	33.7	44.9°C	0.995
	12.051V	5.018V	3.316V	5.024V	1822.82				56.75°C	114.26V

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%	**11.858A**	**1.987A**	**1.98A**	**0.982A**	164.948	91.21%	0	<6.0	49.12°C	0.904
	12.089V	5.032V	3.333V	5.091V	180.843				40.15°C	229.81V
20%	**24.746A**	**2.98A**	**2.97A**	**1.18A**	329.953	94.349%	0	<6.0	49.8°C	0.926
	12.085V	5.034V	3.334V	5.084V	349.709				40.71°C	229.78V
30%	**37.938A**	**3.478A**	**3.467A**	**1.379A**	494.36	95.107%	0	<6.0	51.12°C	0.933
	12.081V	5.032V	3.332V	5.076V	519.788				41.06°C	229.75V
40%	**51.202A**	**3.977A**	**3.964A**	**1.579A**	659.575	95.319%	0	<6.0	50.56°C	0.942
	12.077V	5.029V	3.33V	5.067V	691.963				41.64°C	229.73V
50%	**64.138A**	**4.974A**	**4.958A**	**1.78A**	824.925	95.221%	0	<6.0	52.94°C	0.95
	12.074V	5.026V	3.328V	5.057V	866.328				42.01°C	229.7V
60%	**77.008A**	**5.973A**	**5.954A**	**1.981A**	989.429	94.908%	0	<6.0	55.22°C	0.961
	12.072V	5.023V	3.326V	5.048V	1042.539				42.86°C	229.68V
70%	**89.965A**	**6.973A**	**6.951A**	**2.183A**	1154.777	94.561%	662	21.4	43.08°C	0.966
	12.067V	5.02V	3.324V	5.039V	1221.172				53.49°C	229.65V
80%	**102.953A**	**7.974A**	**7.948A**	**2.285A**	1319.599	94.227%	664	21.4	43.83°C	0.97
	12.061V	5.016V	3.321V	5.032V	1400.472				53.62°C	229.61V
90%	**116.336A**	**8.476A**	**8.435A**	**2.389A**	1485.004	93.794%	809	27.4	44.11°C	0.974
	12.056V	5.014V	3.319V	5.023V	1583.244				53.95°C	229.59V
100%	**129.468A**	**8.979A**	**8.953A**	**2.996A**	1649.802	93.333%	1210	37.2	45.76°C	0.977
	12.050V	5.011V	3.317V	5.008V	1767.64				51.86°C	229.56V
110%	**142.472A**	**9.982A**	**10.057A**	**3.001A**	1814.276	92.983%	1176	34.9	42.68°C	0.979
	12.044V	5.009V	3.311V	5V	1951.205				53.11°C	229.53V
CL1	**0.116A**	**15.606A**	**15.502A**	**0A**	131.296	83.803%	0	<6.0	48.03°C	0.896
	12.092V	5.017V	3.328V	5.079V	156.677				40.29°C	229.81V
CL2	**0.115A**	**24.947A**	**0A**	**0A**	126.261	81.389%	0	<6.0	48.19°C	0.895
	12.091V	5.005V	3.328V	5.08V	155.134				40.16°C	229.81V
CL3	**0.115A**	**0A**	**24.686A**	**0A**	83.878	78.178%	0	<6.0	47.5°C	0.855
	11.951V	5.027V	3.342V	5.064V	107.299				40.71°C	229.85V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
CL4	**136.872A**	**0A**	**0A**	**0A**	1649.54	93.689%	1069	34.6	44.18°C	0.977
	12.051V	5.018V	3.315V	5.022V	1760.659				52.98°C	229.56V

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	**1.230A**	**0.497A**	**0.495A**	**0.197A**	19.997	61.456%	0	<6.0	41.87°C	0.896
	12.076V	5.034V	3.334V	5.083V	32.514				36.21°C	114.82V
40W	**2.706A**	**0.695A**	**0.693A**	**0.295A**	39.998	73.322%	0	<6.0	45.04°C	0.936
	12.076V	5.033V	3.334V	5.083V	54.55				38.16°C	114.81V
60W	**4.184A**	**0.894A**	**0.891A**	**0.394A**	59.998	78.352%	0	<6.0	46.7°C	0.95
	12.078V	5.033V	3.334V	5.083V	76.578				38.56°C	114.81V
80W	**5.654A**	**1.092A**	**1.089A**	**0.492A**	79.936	83.429%	0	<6.0	47.72°C	0.956
	12.079V	5.033V	3.333V	5.083V	95.81				39.28°C	114.81V

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	**1.229A**	**0.497A**	**0.495A**	**0.197A**	19.991	62.346%	0	<6.0	43.96°C	0.565
	12.076V	5.034V	3.335V	5.084V	32.056				36.12°C	229.84V
40W	**2.706A**	**0.695A**	**0.693A**	**0.295A**	39.994	75.653%	0	<6.0	45.55°C	0.719
	12.077V	5.033V	3.335V	5.084V	52.017				37.38°C	229.83V
60W	**4.182A**	**0.894A**	**0.89A**	**0.393A**	59.995	78.621%	0	<6.0	47.9°C	0.811
	12.080V	5.033V	3.335V	5.083V	76.32				38.23°C	229.84V
80W	**5.654A**	**1.093A**	**1.088A**	**0.492A**	79.932	83.86%	0	<6.0	49.73°C	0.844
	12.080V	5.033V	3.335V	5.084V	95.313				39.71°C	229.82V

The results above are not used in the certification process

Ripple Measurements

115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	23.78mV	17.25mV	16.57mV	13.65mV	Pass
20% Load	26.19mV	17.55mV	18.93mV	12.01mV	Pass
30% Load	25.06mV	17.35mV	17.55mV	12.52mV	Pass
40% Load	23.78mV	18.17mV	17.14mV	12.62mV	Pass
50% Load	21.84mV	17.35mV	17.08mV	14.31mV	Pass
60% Load	21.28mV	17.35mV	17.14mV	13.90mV	Pass
70% Load	22.50mV	18.42mV	16.68mV	18.06mV	Pass
80% Load	21.63mV	19.71mV	18.57mV	15.96mV	Pass
90% Load	23.58mV	18.63mV	18.06mV	15.96mV	Pass
100% Load	39.92mV	18.75mV	17.51mV	18.93mV	Pass
110% Load	39.31mV	20.61mV	18.33mV	19.33mV	Pass
Crossload1	42.40mV	19.34mV	17.35mV	10.69mV	Pass
Crossload2	20.71mV	21.66mV	17.18mV	9.85mV	Pass
Crossload3	0.00mV	0.00mV	0.00mV	0.00mV	Pass
Crossload4	35.76mV	20.26mV	18.29mV	12.00mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	22.86mV	16.68mV	16.68mV	13.44mV	Pass
20% Load	29.72mV	17.91mV	17.55mV	11.70mV	Pass
30% Load	27.31mV	18.58mV	16.88mV	12.57mV	Pass
40% Load	23.01mV	17.91mV	17.18mV	12.67mV	Pass
50% Load	24.60mV	18.37mV	17.29mV	15.85mV	Pass
60% Load	22.04mV	18.88mV	18.83mV	13.03mV	Pass

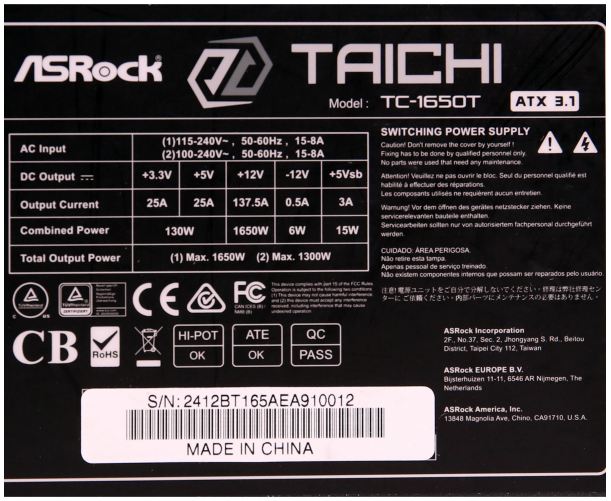
Test	12V	5V	3.3V	5VSB	Pass/Fail
70% Load	22.66mV	17.50mV	17.44mV	17.80mV	Pass
80% Load	24.55mV	18.27mV	17.75mV	15.85mV	Pass
90% Load	24.34mV	17.50mV	17.55mV	16.32mV	Pass
100% Load	35.97mV	18.70mV	17.62mV	19.99mV	Pass
110% Load	37.67mV	19.28mV	18.31mV	19.70mV	Pass
Crossload1	50.57mV	18.53mV	16.87mV	11.20mV	Pass
Crossload2	38.36mV	20.89mV	17.96mV	10.98mV	Pass
Crossload3	0.00mV	0.00mV	0.00mV	0.00mV	Pass
Crossload4	37.36mV	21.31mV	19.64mV	13.64mV	Pass

The results above are not used in the certification process

ASRock Taichi TC-1650T (ATX v3.1)



Top side



Power specifications label

All data and graphs included in this test report can be used by any individual on the following conditions:

› It should be mentioned that the test results are provided by Cybenetics

› The link to the original test results document should be provided in any case

Cybenetics runs voluntary certification programs for power supplies - ETA for efficiency, LAMBDA for noise and SAFE for safety and correct operation - and for cooling products, with DELTA for chassis soundproofing and PHI for fan airflow and static pressure. THETA rates cooler performance on AMD AM5 and Intel LGA1851 outside ISO 17065 and accreditation scope

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