

Efficiency&Power Factor&Ripple&Energy Star Test Report

MODEL : HP1-S2750GD-F14C

Sample No:S-022-077

Customer:PG-750SM

Test Date:7-Sep-22

Test Item:Efficiency 、 Power Factor 、 Ripple 、 Energy Star

Test Equipment : Chroma6560 、 6630 、 63123A 、 63102A 、 6314A 、 Fluke45 、 Tektronix-DPO3034

Typical Efficiency (50% Load) :90.86%

Average Efficiency :89.67%

80 Plus Compliant :Yes

80 Plus Level :GD

Test Result : PASS

● Specification :

Output Rail :	+5V	+3.3V	+12V1	-12V	+5Vs
Maximum load	20.0 A	20.0 A	62.5 A	0.3 A	3.0 A
Minimum load	0.0 A	0.0 A	0.3 A	0.0 A	0.0 A
Ripple Max	30 mV	30 mV	40 mV	80 mV	40 mV
Regulation	± 2.5 %	± 2.5 %	± 2.5 %	± 10 %	± 3.0 %
Combined Load	100.0 W	750.0 W	3.6 W	15.0 W	
Total Power	750.0 W				



● Test Loading :

Loading	+5V	+3.3V	+12V1	-12V	+5Vsb	Pout
2%	0.21A	0.21A	1.08A	0.01A	0.05A	15.0 W
20%	2.08A	2.08A	10.79A	0.05A	0.52A	150.0 W
50%	5.20A	5.20A	26.98A	0.13A	1.30A	375.0 W
100%	10.40A	10.40A	53.97A	0.26A	2.59A	750.0 W

● Test-1 AC Input:115V/60HZ

Loading	Output Voltage Measure Value					Pin (W)	Power Factor	Eff.	Pout (W)
	+5V	+3.3V	+12V1	-12V	+5Vsb				
0%	5.039V	3.319V	11.980V	11.342V	5.121V	-	-	-	-
2%	5.038V	3.318V	11.978V	11.664V	5.117V	20.8 W	0.7956	72.08%	15.0 W
20%	5.033V	3.316V	12.044V	11.995V	5.083V	168.2 W	0.9892	89.55%	150.6 W
50%	5.024V	3.312V	11.987V	11.531V	5.025V	412.5 W	0.9952	90.86%	374.8 W
100%	5.010V	3.303V	11.948V	11.665V	4.927V	843.2 W	0.9971	88.60%	747.1 W
Regulation	0.78%	0.58%	0.37%	-0.04%	2.42%				
Regulation	0.20%	0.09%	-0.43%	-5.48%	-1.46%				
Ripple	8 mV	9 mV	30 mV	26 mV	13 mV	0% load		Comments :	
Ripple	8 mV	12 mV	27 mV	24 mV	16 mV	2% load		Comments :	
Ripple	10 mV	12 mV	29 mV	17 mV	11 mV	20% load		Comments :	
Ripple	14 mV	14 mV	16 mV	40 mV	13 mV	50% load		Comments :	
Ripple	14 mV	16 mV	18 mV	41 mV	23 mV	100% load		Comments :	

● Energy Star

Test Condition : Test the power supply with normal line and the main outputs off (PS_ON# High state) condition .

Pass/Fail Criteria : The power supply efficiency shall not less than specified limit.

Test Result : PASS

● Test-1

Vin (V)	+5Vs (PS_on# at high state)					Decide
	Current	Voltage	Pin (W)	Efficiency	Require.	
230V/50Hz	0.000A	5.121	0.117	-	< 0.5W	PASS
	0.045A	5.119	0.342	67.4%	≥50%	
	0.090A	5.118	0.615	74.9%	≥55%	
	0.550A	5.097	3.437	81.6%	≥75%	
	1.000A	5.077	6.112	83.1%	≥75%	
	1.500A	5.055	9.103	83.3%	≥75%	
	3.000A	4.988	18.300	81.8%	≥75%	

● T5&T6 TEST

Test Condition :Test the power supply with AC Input 115V/60HZ and 100% load

T5	19.1ms	100% LOAD
T6	1.6ms	100% LOAD

● Output Protection Test

Test Condition :Test the power supply with AC Input 115V/60HZ

Test Item	Test SPEC			Test Value	Test Result
	SPEC	MIN.	MAX.		
OPP	750 W	975 W	1275 W	1094 W	PASS
+12V OCP	62.5 A	81.3 A	106.3 A	94.0 A	PASS
+5V OCP	20.0 A	24.0 A	32.0 A	31.0 A	PASS
+3.3V OCP	20.0 A	24.0 A	32.0 A	28.5 A	PASS
OTP	40 °C	40 °C	-	52 °C	PASS