

# Power Consumption

## Major Household Appliances

Appliances here are found in almost every household. Normal usage depicts using the appliance as one would expect. Idle depicts how much power the appliance draws when it is off but left plugged in. Other statuses are captured separately and recorded.

<b>Fridge</b>	<b>Normal</b> 135 W	<b>Door Open</b> 145 W	
<b>Iron</b>	<b>Heating Up</b> 2200 W	<b>Standby</b> 0 W	
<b>Vacuum</b>	<b>Normal</b> 840 W	<b>Carpet*</b> 1005W	<b>Idle</b> 0 W
<b>Microwave</b>	<b>Normal</b> 1060 W	<b>Idle</b> 5 W	
<b>Washing Machine</b>	<b>Spinning</b> 238 W	<b>Not Spinning</b> 6.6 W	<b>Idle</b> 0 W
<b>Rice Cooker (Big)</b>	<b>Cook</b> 600 W	<b>Keep Warm</b> 0.2 W	
<b>Rice Cooker (Small)</b>	<b>Cook</b> 255 W	<b>Keep Warm</b> 0.2 W	
<b>Slow Cooker</b>	<b>High</b> 245 W	<b>Low</b> 168 W	<b>Auto</b> Varies between high and low
<b>Oven Toaster</b>	<b>Normal</b> 611 W	<b>Idle</b> 0 W	

*\*Vacuum has an additional attachment for use on carpet surfaces.*

## Fans

Our household utilizes a wide range of fans. Power consumption was captured for every speed setting. Idle here depicts how much power the appliance draws when it is off but left plugged in.

	<b>Speed 1</b>	<b>Speed 2</b>	<b>Speed 3</b>	<b>Idle</b>
<b>Industrial Fan (Large)</b>	86 W	87 W	94 W	0 W
<b>Industrial Fan (Small)</b>	63 W	66 W	79 W	0 W
<b>Industrial Fan (Desk)</b>	31 W	35 W	50 W	0 W
<b>Standing Fan (Remote Controlled)</b>	44 W	46 W	47 W	0.5 W
<b>Standing Fan (Normal)</b>	42 W	46 W	51 W	0 W

## Lights

All 4 small ornamental lights returned the same result in our tests. The light stand is a floor stander with bright warm lighting aimed to the ceiling.

	<b>Use (Min)</b>	<b>Use (Max)</b>	<b>Idle</b>
<b>Light Stand</b>	177 W	515 W	0 W
<b>Small Ornamental Lights</b>	NA	12 W	0 W

## Chargers

All mobile electronics requiring chargers were tested here. Note that the cordless phone charger also doubles as the base station.

	<b>Charge</b>	<b>Idle</b>
<b>Hand Vacuum</b>	6.7 W	0 W
<b>Hand Phone (HTC One X / Samsung Galaxy SII)</b>	4.5 W	0 W
<b>Cordless Phone</b>	1.7 W	1.1 W
<b>Sony Rechargeable Batteries</b>	4.2 W	0 W

## Production / Gaming PC

This is the most powerful PC our household has. It runs dual monitors and is mainly use for production (video / digital design) and also graphics intensive gaming. Active depicts a state where the device is under use, receiving commands from the user or displaying active content. Non active depicts the state were the device is simply doing nothing. Idle is as aforementioned.

*Tower Components: Intel Core i7 920, MSI X58 Pro, Kingston ValueRAM 6GB, Palit GTX670 2GB Jetstream, Crucial C300 256GB, Samsung F3 1GB. Hitachi DeskStar 1TB, Creative X-Fi Titanium, AeroCool 600W PSU*

	<b>Active</b>	<b>Non Active</b>	<b>Idle</b>
<b>Desktop Tower</b>	150 W - 210 W	105 W	1.7 W
<b>Dell 30" Monitor</b>	94 W	1 W	0 W
<b>Dell 19" Monitor</b>	30 W	0.5 W	0 W
<b>Creative 5.1 Speakers</b>	12 W	4.8 W	2 W
<b>Epson 3590 Scanner</b>	15 W	12 W	11 W
<b>HP 4335 Printer/Copier/Scanner/Fax</b>	11 W	4 W	4 W

## Internet Surfing / Minor Gaming PC

This is our second PC which has lower computing power and gaming capabilities. It serves for simple media consumption such as internet browsing, playing simple games and watching shows. The states here are similar to the section above.

*Tower Components: AMD Athlon II X3 440, Kingston ValueRAM 2GB, Western Digital Blue 500GB, Andyson G 450W PSU*

	<b>Active</b>	<b>Non Active</b>	<b>Idle</b>
<b>Desktop Tower</b>	115 W – 140 W	95 W	4 W
<b>Samsung 27" Monitor</b>	57 W	1.5 W	0 W
<b>Creative 2.1 Speakers</b>	4.5 W	3 W	1 W

## Laptop

This laptop is a production capable mobile PC. It is able to handle heavy CPU tasks and moderately intensive gaming. The focus here is the power draw on the charger.

*Laptop Components: Intel Core i7 Q720, 4GB RAM, AMD ATI Mobility Radeon HD 4530, Crucial C300 128GB, Dell 90W Charger*

	<b>Laptop On + Charge</b>	<b>Laptop Off + Charge</b>	<b>Purely on AC (No battery)</b>	<b>Idle</b>
<b>Dell Studio 1457</b>	90 W	56 W	35 W	0 W

## Network

Our household deploys a simple wireless network with both desktop PCs wired. The wireless network serves the laptop and mobile phones. All devices here are left on 24/7.

	<b>Active</b>	<b>Idle</b>
<b>DLink Wireless N Router 655</b>	7 W	NA
<b>Thompson SpeedTouch ADSL 538</b>	7 W	0 W

## Sound System

We have a moderate enthusiast sound system and a room dedicated and constructed for proper sound staging and reproduction. The devices are warmed up for a few hours before being used / active.

	<b>Active</b>	<b>Warm Up</b>	<b>Idle</b>
<b>Alchemist Forseti APD21A Pre Amplifier &amp; PSU</b>	30 W	28 W	0 W
<b>Alchemist Forseti APD20A Power Amplifier &amp; Harbeth Super HL5 Speakers</b>	75 W	50 W	0 W
<b>Marantz CD-63SE CD Player</b>	9 W	7 W	0 W
<b>Bryston BDA-1 D/A Converter</b>	8 W	7 W	0 W
<b>Sony TC WR635S Cassette Deck</b>	9 W	7 W	0 W
<b>REL Strata Subwoofer</b>	15 W	7.5 W	0 W