



# AirPort Express

## Environmental Report



### Date introduced

June 11, 2012

### Model MC414

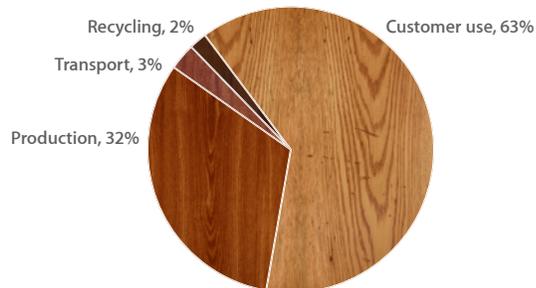
## Apple and the Environment

Apple believes that improving the environmental performance of our business starts with our products. The careful environmental management of our products throughout their life cycles includes controlling the quantity and types of materials used in their manufacture, improving their energy efficiency, and designing them for better recyclability. The information below details the environmental performance of AirPort Express as it relates to climate change, energy efficiency, material efficiency, and restricted substances.

## Climate Change

Greenhouse gas emissions have an impact on the planet's balance of land, ocean, and air temperatures. Most of Apple's corporate greenhouse gas emissions come from the production, transport, use, and recycling of its products. Apple seeks to minimize greenhouse gas emissions by setting stringent design-related goals for material and energy efficiency. The chart below provides the estimated greenhouse gas emissions for AirPort Express over its life cycle.<sup>1</sup>

### Greenhouse Gas Emissions for AirPort Express



Total greenhouse gas emissions: 90 kg CO<sub>2</sub>e

### Environmental Status Report



AirPort Express is designed with the following features to reduce environmental impact:

- Brominated flame retardant-free
- PVC-free<sup>2</sup>

Meets ENERGY STAR® for Small Network Equipment, Version 1.0 requirements



## Energy Efficiency

Because one of the largest portions of product-related greenhouse gas emissions results from actual use, energy efficiency is a key part of each product's design. Apple products use power-efficient components and software that can intelligently power them down during periods of inactivity. The result is that the AirPort Express is energy efficient right out of the box.

AirPort Express outperforms the stringent requirements of the ENERGY STAR Program Requirements for Small Network Equipment (SNE) Version 1.0. The following table details the power consumed in different use modes.

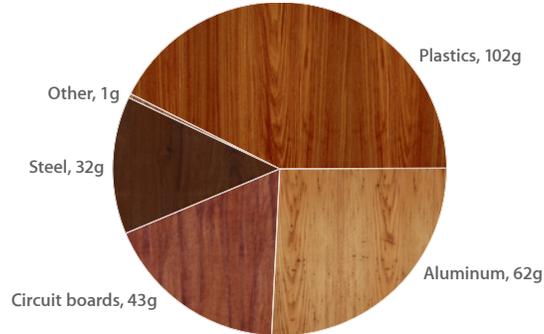
### Power Consumption for AirPort Express

Mode	100V	115V	230V
Idle	2.0W	2.0W	2.1W
Active	2.1W	2.2W	2.2W
Power supply average efficiency	80%	80%	80%

## Material Efficiency

Apple's ultracompact product and packaging designs lead the industry in material efficiency. Reducing the material footprint of a product helps maximize shipping efficiency. It also helps reduce energy consumed during production and material waste generated at the end of the product's life. The chart below details the materials used in AirPort Express.

### Material Use for AirPort Express



The retail packaging for AirPort Express has been optimized to increase the number of units per airline shipping container by 15 percent.

### Packaging

The packaging for AirPort Express uses corrugated cardboard made from a minimum of 33 percent recycled content. In addition, the packaging is extremely material efficient, allowing 15 percent more units than the previous generation of AirPort Express to fit in each airline shipping container. The following table details the materials used in its packaging.

#### Packaging for AirPort Express (U.S. Configurations)

Material	Retail box	Retail and shipping box
Paper (corrugate, paperboard)	71g	201g
Plastics	4g	4g

### Restricted Substances

Apple has long taken a leadership role in restricting harmful substances from its products and packaging. As part of this strategy, all Apple products comply with the strict European Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, also known as the RoHS Directive. Examples of materials restricted by RoHS include lead, mercury, cadmium, hexavalent chromium, and the brominated flame retardants (BFRs) PBB and PBDE. AirPort Express goes even further than the requirements of the RoHS Directive by incorporating the following more aggressive restrictions:

- BFR-free
- PVC-free<sup>2</sup>



## Recycling

Through ultra-efficient design and the use of highly recyclable materials, Apple has minimized material waste at the product's end of life. In addition, Apple offers and participates in various product take-back and recycling programs in 95 percent of the regions where Apple products are sold. All products are processed in the country or region in which they are collected. For more information on how to take advantage of these programs, visit [www.apple.com/recycling](http://www.apple.com/recycling).

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## Definitions

**Greenhouse gas emissions:** Estimated emissions are calculated in accordance with guidelines and requirements as specified by ISO 14040 and ISO 14044. Calculation includes emissions from the following life-cycle phases contributing to Global Warming Potential (GWP 100 years) in CO<sub>2</sub> equivalency factors (CO<sub>2</sub>e):

- **Production:** Includes the extraction, production, and transportation of raw materials, as well as the manufacture, transport, and assembly of all parts and product packaging.
- **Transport:** Includes air and sea transportation of the finished product and its associated packaging from the manufacturing site to continental distribution hubs. Transport of products from distribution hubs to the end customer is not included.
- **Use:** User power consumption assumes a four-year period. Product use scenarios are modeled on data that reflects intensive 24-hour-per-day use of the product. Geographic differences in the power grid mix have been accounted for at a continental level.
- **Recycling:** Includes transportation from collection hubs to recycling centers and the energy used in mechanical separation and shredding of parts.

**Energy efficiency terms:** The energy values in this report are based in part on the ENERGY STAR Program Requirements for Small Network Equipment Version 1.0. For more information, visit [www.energystar.gov](http://www.energystar.gov). All energy values include WAN connection to the Internet and clients connected using Wi-Fi.

- **Idle:** AirPort Express is powered on with no client activity.
- **Active:** Client computer playing an iTunes HD movie while downloading from the Internet.
- **Power supply efficiency:** Average of the power supply's measured efficiency when tested at 20 percent, 50 percent, and 100 percent of the power supply's rated output current.

**Restricted substances:** Apple defines a material as BFR-free and PVC-free if it contains less than 900 parts per million (ppm) of bromine and of chlorine.

1. Greenhouse gas emissions were updated in April 2014 to include more Apple-specific production data.  
2. PVC-free worldwide except in India and South Korea, where PVC-free AC power cords are not available.