



## Product Description

Electronic devices for connecting computers or other devices to networks. Includes, but is not limited to, modems, routers, and mesh router. Does not include cables or computers.

## Mission

The mission of The Sustainability Consortium (TSC) is to improve the sustainability of products when they are made, purchased, and used, with a focus on manufacturers and the retail buyers who decide what products to carry in stores. The information in this document is drawn from our detailed research on known and potential social and environmental impacts across product life cycles. TSC acknowledges that other issues exist, but we have included here those that are most relevant to the decision making of retail buying teams and manufacturers. The topics are listed alphabetically for ease of reading; the order does not represent prioritization or other criteria.



## Managing the Supply Chain

### Supply Chain Transparency

Chain-of-custody and other data-sharing systems and initiatives can help improve transparency about the materials used in electronics and the chemicals and processes used to manufacture those materials. Manufacturers and suppliers can work together to create and implement solutions to common challenges related to materials in electronics such as energy requirements to produce them, potentially hazardous chemicals used in manufacturing, and efficient exchange of information across the supply chain.



## Use of Resources

### Climate and Energy

Component manufacturing and final product assembly can consume significant amounts of electricity and energy, leading to greenhouse gas emissions. Manufacturers can help abate these impacts by measuring, tracking, and reporting energy use and greenhouse gas emissions, with a focus on reduction. They can also perform preventative maintenance on equipment, replace inefficient equipment, use renewable energy sources, and encourage efficient energy behaviors throughout their operations.

### Disposal and End-of-Life

Electronics peripherals and accessories no longer useful to their owners need to be collected and disposed of responsibly, to ensure that the product and valuable components and materials are available for further reuse or recycling. Manufacturers should participate in product stewardship programs and engage downstream partners to ensure that products are responsibly managed at the end of their useful life.

### Fluorinated Greenhouse Gases

Fluorinated gases, which are used in many electronics manufacturing processes and to clean manufacturing equipment, are potent greenhouse gases that contribute to climate change. Manufacturers should work with their component suppliers to implement emissions controls in manufacturing facilities.

## Packaging

Packaging design should be optimized to ensure that packaging performs its essential functions of containment and protection while minimizing use of materials, energy resources, and environmental impacts across the life cycle of the packaged product. Under-packaging and over-packaging can both lead to increased impacts. These impacts may be mitigated by using more energy-efficient manufacturing, creating packaging materials from renewable resources, designing packaging to be recyclable, and encouraging consumer recycling.

## Product Efficiency

Operating an electronics peripheral or accessory requires a significant amount of electricity. Manufacturers should design electronics peripherals and accessories to be energy-efficient in power charging and operation and have power management features where appropriate.



## Workers and Communities

### Conflict Minerals

Electronic devices contain minerals, including gold and ores of tantalum, tin and tungsten, that may be mined in areas where groups responsible for human rights abuses control and profit from mining operations. Manufacturers should ensure that materials in their products are sourced responsibly and are not from these areas, and should try to help improve stability and quality of life for miners and their communities.

### Workers

Workers may be exposed to hazards in the workplace. In some parts of the world, they may be subject to forced labor conditions, and their rights to freedom of association, equal opportunity and treatment, and fair wages may not be protected. To help ensure worker health, safety, and labor rights, final product manufacturers should have a documented health and safety management plan, including a chemical management plan where needed, and provide safety training and personal protective equipment to workers. Manufacturers should procure materials from suppliers that address worker health and safety and labor rights transparently and should perform audits when needed.