Our commitment to sustainability

At Microsoft Devices, sustainability is integral to our mission to build products that create magical experiences while empowering every person and organization to achieve more. From product design through sourcing, manufacturing, delivery, and product end-of-life, we are driven to make a difference with our products both in how our customers create with them and in the impact their development has on our environment.

Physical features

<table>
<thead>
<tr>
<th>DEVICE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>284 g</td>
</tr>
</tbody>
</table>
| Dimensions | Open: 145.2 mm x 184.5 mm x 5.5 mm  
                Close: 145.2 mm x 92.1 mm x 11.0 mm |

<table>
<thead>
<tr>
<th>PACKAGING</th>
<th>RETAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>272 g</td>
</tr>
<tr>
<td>Dimensions</td>
<td>16.2 cm x 10.8 cm x 4.7 cm</td>
</tr>
<tr>
<td>Volume</td>
<td>822 cm³</td>
</tr>
<tr>
<td>Materials</td>
<td>Folding carton, greyboard, molded pulp, plastic</td>
</tr>
</tbody>
</table>
## Environmental impact

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global warming potential</td>
<td>88.2 kg CO₂-equivalent</td>
</tr>
<tr>
<td>Primary energy demand from non-renewable resources</td>
<td>1263 MJ</td>
</tr>
<tr>
<td>Primary energy demand from renewable resources</td>
<td>239 MJ</td>
</tr>
<tr>
<td>Water consumption</td>
<td>508 kg</td>
</tr>
<tr>
<td>Acidification potential</td>
<td>0.4 kg SO₂-equivalent</td>
</tr>
<tr>
<td>Eutrophication potential</td>
<td>0.02 kg N-equivalent</td>
</tr>
<tr>
<td>Particulate matter</td>
<td>0.03 kg PM2.5-equivalent</td>
</tr>
<tr>
<td>Smog formation potential</td>
<td>4.1 kg O₃-equivalent</td>
</tr>
</tbody>
</table>

These figures represent the estimated environmental impact across the product's life cycle. The calculations are based on the 8GB DRAM, 256 GB LTE Surface Duo 2 and include the device, power supply unit, and packaging. Other accessories are not included.

The environmental impact figures are based on a Life Cycle Assessment (LCA) in accordance with ISO 14040 and ISO 14044. The Life Cycle Inventory (LCI) data is based on our own measurements, collected from suppliers, and content supplied by Sphera (copyright 2021) and ecoinvent, along with other internationally available LCI databases.

The system boundaries include production (extraction of raw materials, upstream materials preparation, electronic component manufacturing, subassembly manufacturing and assembly, final assembly), distribution to customer, three years of product use, and end-of-life treatment.

Software and hardware design impacts are captured in our corporate carbon footprint and excluded from the individual product LCA calculations.

### Global warming potential by life cycle stage
- Production (61 kg CO₂eq)
- Product use (24 kg CO₂eq)
- Distribution (3 kg CO₂eq)
- End of life (<1 kg CO₂eq)

### Global warming potential in Production stage by key component
- Display (11 kg CO₂eq)
- Mechanicals (2 kg CO₂eq)
- PWBs (6 kg CO₂eq)
- PCB Components (37 kg CO₂eq)
- PSU (2 kg CO₂eq)
- Other Production (3 kg CO₂eq)
Energy efficiency

This device meets U.S. Department of Energy and Natural Resources Canada regulations for battery charger efficiency. The U.S. Department of Energy regulatory method gives an estimated annual energy consumption of 4.9 kWh/year.


Materials used

Through careful material selection we aim to reduce the environmental impact of our products. The chart shows the estimated proportions of the materials used to create this device.

- Metal parts (13.3%)
- Power supply unit (8.8%)
- Battery (11.7%)
- Circuit boards (6.4%)
- Display (11.2%)
- Plastic Parts (9.5%)
- Packaging (39%)
- Other (<1%)

Restricted substances

We take a precautionary approach to substance management. We follow legislative developments and research regarding chemical impacts on health and environment and update our specifications with new product and manufacturing substance restrictions to address risks.

All our products comply with global substance restrictions and with Microsoft policies in cases where restrictions are set that go beyond the regulatory requirement.

This product fully complies with all relevant global regulations, including, but not limited to:

- Management Methods on the Prevention and Control of Pollution caused by Electronic Information Products commonly known as “China RoHS”
- European Union’s Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation 2006/1907/EC
- The Montreal Protocol on Substances that Deplete the Ozone Layer
- California (USA) Proposition 65 (Device does not contain chemicals that would trigger notification)
Packaging

Integrating sustainability into our packaging designs and material selection is a priority. We improve the sustainability of our packaging by using less material, selecting more sustainable materials, and optimizing manufacturing processes. We are committed to designing and delivering packaging materials that achieve measurable sustainability gains while ensuring products are adequately protected.

Microsoft has a “paper first” strategy for our packaging. We favor paper as a packaging material because it is renewable, biodegradable and highly recycled. We are focused on minimizing the use of plastics in our packaging. When required, we strive to use plastics with recycled content and resins that are accepted for use in recycling systems. The retail packaging materials for this product contains 55 percent post-consumer recycled materials and it is 99 percent recyclable by weight. Recycled content in wood-based fiber packaging: 55% or higher.

Our packaging does not contain hazardous or restricted substances, such as polyvinyl chloride (PVC), and is fully compliant with the European Union Packaging and Packaging Waste Directive 1994/62/EC, as amended, and CEN packaging standards EN 13427:2005 as well as US Toxics in Packaging legislation.

Recycling

Microsoft complies with global electronics recycling laws, including the EU Waste Electronic and Electrical Equipment (WEEE) Directive 2002/96/EC and its Recast 2012/19/EU and other recycling laws in Asia, Latin America and North America. We fulfill recycling obligations and meet information and labelling requirements for covered Microsoft products.

The crossed-out wheeled bin symbol marked on this product signifies that it must not be disposed of with regular household waste and needs to be taken instead to an appropriate collection point.

To help prevent uncontrolled waste disposal and promote the recycling or recovery of materials, always return your used electronic products, batteries, and packaging materials to a dedicated recycling or recovery collection point, if available in your area.

1 Weight of device only, not including power supply unit or any accessories. Weight and dimensions might vary depending on product variant.
2 The results of a life cycle assessment (LCA) depend on the calculation method, scoping and assumptions used, and they reflect our understanding at the time when published. The results are therefore not directly comparable with those conducted by other parties or at other times.
3 Configuration: 115 V 60 Hz
4 Percentage is based on average content by weight. Recycling facilities for these packaging materials may not exist in your area.