Workplace Distribution Unit for a Tidy Desk
The **Workplace Distribution Unit** by Fraunhofer IISB provides an innovative solution for supplying office equipment on desks from a uniform socket. It eliminates the numerous AC line adapters necessary today.

Each appliance is powered with its individually necessary supply voltage via a POL DC/DC converter in the distribution unit. The voltage coding is done via a resistor in the equipment-specific supply cable. Each channel features comprehensive protection functions and zero standby power consumption.

The distribution unit can be directly powered from a Safety Extra Low Voltage (SELV) DC grid or from a 380 V LVDC grid via an isolating DC/DC-converter, mounted e.g. in a floor socket.

Basically there is no limitation in the number of output channels. The standard office desk distribution unit provides three channels each with a current of 4.5 A (i.e. 100 W @ 24 V).

### Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of channels</td>
<td>3</td>
</tr>
<tr>
<td>Output voltage range</td>
<td>5 V – 22 V</td>
</tr>
<tr>
<td>Maximum output power per channel</td>
<td>100 W</td>
</tr>
<tr>
<td>Input voltage</td>
<td>24 V</td>
</tr>
<tr>
<td>Efficiency per channel</td>
<td>up to 96%</td>
</tr>
<tr>
<td>Dimensions</td>
<td>198 mm x 85 mm x 88 mm</td>
</tr>
</tbody>
</table>

### Features

- Output voltage individually programmable for each socket by a resistor mounted inside the cable connector
- Compatible with existing office equipment
- Automatic shutdown of an output channel if no load is connected
- Redundant over temperature protection
- Overcurrent protection
- Directly accessible from the desk

### Efficiency for various output voltages

![Graph showing efficiency for various output voltages](image)

**Fraunhofer Institute for Integrated Systems and Device Technology IISB**

Schottkystrasse 10
91058 Erlangen, Germany

Contact

Fabian Fersterra
Tel.: +49 9131 761-473
fabian.fersterra@iisb.fraunhofer.de

www.iisb.fraunhofer.de