The AP3781 supports wide operating voltage for power tools and small appliances.

- **Accurate Primary Side Regulation**
  Eliminates opto-coupler and 431/CC-CV components, reducing overall BOM size and cost.

- **Low Standby Power (<75mW)**
  Energy saving advantage.

- **Ultra Low Under Voltage Protection**
  Supports wide operating voltage for power tool motor drive.

- **Multiple Segment AM/PFM Control Mode**
  Improves audible noise and efficiency.

- **External adjustable Cable Compensation**
  Compensate voltage drop on the cable.

**Applications**

- Power tools, routers, network adaptors, smart speakers.
Typical Application Schematic

Product Portfolio

<table>
<thead>
<tr>
<th>Part Number</th>
<th>BJT/MOSFET Integrated</th>
<th>Vcc Max (V)</th>
<th>Startup Current (μA)</th>
<th>Operating Current (μA)</th>
<th>UVLO Threshold on/off (V)</th>
<th>Power Rating (W)</th>
<th>Standby Power (mW)</th>
<th>Cable Compensation</th>
<th>Package Outlines</th>
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</thead>
<tbody>
<tr>
<td>AP3781</td>
<td>N.A.</td>
<td>37</td>
<td>1</td>
<td>510</td>
<td>16/6.8</td>
<td>45</td>
<td>75</td>
<td>ADJ</td>
<td>SO-8</td>
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To find out more information: [https://www.diodes.com/part/AP3781](https://www.diodes.com/part/AP3781)

Ordering Information

<table>
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<tr>
<th>Package</th>
<th>Temperature Range</th>
<th>Cable Compensation Voltage</th>
<th>Part Number</th>
<th>Marking ID</th>
<th>Packing</th>
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<tbody>
<tr>
<td>SO-8</td>
<td>-40 to +150°C</td>
<td>ADJ</td>
<td>AP3781S-13</td>
<td>3781</td>
<td>4000/Tape &amp; Reel</td>
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