PMP20777 Rev B
28V/3A Flyback
36Vdc-72Vdc Input

Test Results

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1 Photos

The photographs below show the PMP20777 Rev B prototype assembly. This circuit was built using PMP20777PCB Rev A.
2 Efficiency

2.1 Efficiency Chart

![Efficiency Chart](image)

**LM5020 28V, 3A Flyback Controller Efficiency**

<table>
<thead>
<tr>
<th>Load Current (A)</th>
<th>Efficiency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>74</td>
</tr>
<tr>
<td>0.5</td>
<td>78</td>
</tr>
<tr>
<td>1</td>
<td>80</td>
</tr>
<tr>
<td>1.5</td>
<td>82</td>
</tr>
<tr>
<td>2</td>
<td>84</td>
</tr>
<tr>
<td>2.5</td>
<td>86</td>
</tr>
<tr>
<td>3</td>
<td>88</td>
</tr>
</tbody>
</table>

Vin = 36.0V, Vin = 48.0V, Vin = 72.0V
2.2 Power Loss Chart

LM5020 28V, 3A Flyback Controller Power Dissipation

Power dissipation (W)

Load Current (A)

- Vin = 36.0V
- Vin = 48.0V
- Vin = 72.0V
3 Thermal Images

Temperature measured at 48Vin, 3A load 25°C ambient approximately 250 LFM forced air flow
4 Startup

4.1 Startup – 48Vin, No Load

4.2 Startup – 48Vin, 3A Load
5 Output Ripple Voltage

5.1 48V Input, 3A Load

6 Loop Response

6.1 36V Input, 3A Load
6.2 48V Input, 3A Load

6.3 72V Input, 3A Load
7 Load Transients

7.1 48Vin, 0.75A to 2.25A
8 Switching Waveforms

8.1 Secondary – 36V Input, 3A Load

8.2 Secondary – 72V Input, 3A Load
8.3 Primary – 36V Input, 3A Load

8.4 Primary – 72V Input, 3A Load
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