## Efficiency

![PMP20129 Rev B Efficiency, 48V Input](image)

<table>
<thead>
<tr>
<th>J1</th>
<th>J1</th>
<th>J1</th>
</tr>
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<tbody>
<tr>
<td>Iout</td>
<td>Vout</td>
<td>Iin</td>
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<td>3.333</td>
<td>0.025</td>
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<td>0.354</td>
</tr>
<tr>
<td>5.00</td>
<td>3.324</td>
<td>0.393</td>
</tr>
</tbody>
</table>
Ripple and Noise

Output Ripple (C12), 20mV/div, 2usec/div  
Measured 53.3mVpp:

Input Ripple (J1), 20mV/div, 2usec/div  
Measured 21.3mVpp:

Dynamic Loading

Output response to load step  
2.5A to 5A load step  
50mV/div, 2A/div, 200usec/div  
Slew Rate = 500mA/usec  
Measured 198mVpp across C12:
**Turn On Response**

5A load, 1msec/div
CH1: Vin, 20V/div; CH3: Vout, 1V/div:

0A load, 1msec/div, 1V/div:
CH1: Vin, 20V/div; CH3: Vout, 1V/div:

**Waveforms**

Drain to source, Q3, 60V input, 5A load
20V/div, 2usec/div
Measured 120V peak:
Drain to source, Q1, 60V input, 5A load
10V/div, 2usec/div
Measured 21V peak:

Drain to source, Q1, 60V input, 0A load
10V/div, 2usec/div
Measured 31.7V peak:

**Loop Stability**

48V input, 5A load:

Bandwidth= 9.5 kHz  Phase Margin=65 degrees  Gain Margin=15dB
Thermal Plot

48V input, 5A load
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