1 Photo
The photograph below shows the top view of the PMP6943 Rev A demo board. The circuit is built on a PMP4963 Rev C PWB.

2 Efficiency
The efficiency data is shown in the tables and graphs below.
### 3 Thermal Images

The thermal images below show a top view of the board, with an ambient temperature of 25°C, with no forced air flow. The output was loaded with 2.5A. Sustained loads over 2.5A require forced air cooling.

#### 3.1 18V Input

![Thermal Image](image-url)
3.2 36V Input

4 Startup

4.1 18V Input – No Load
4.2 36V Input – No Load

4.3 18V Input – 3.6A Load
4.4 36V Input – 3.6A Load

The output ripple voltage is shown in the plots below. The output was loaded with 3.6A.

5 Output Ripple Voltage

The output ripple voltage is shown in the plots below. The output was loaded with 3.6A.

5.1 18V Input
5.2 36V Input

6 Frequency Response

The frequency response of the feedback loop is shown below. For the gain/phase plot #1, the input was set to 18V. For the gain/phase plot #2, the input was set to 36V. The output was loaded with 3.6A.
7 Load Transients
The response to a load step from 1.5A to 3A is shown in the images below. Channel 1: Vout (ac coupled); Channel 4: Iout.

7.1 18V Input

7.2 24V Input

Figure 1
8 Switching Waveforms
The images below show the drain-to-source voltage waveforms on the switching MOSFETs. The output was loaded with 3.6A. Channel 1: D3 anode; Channel 2: Q1 & Q2 Vds.

8.1 18V Input
8.2 36V Input
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