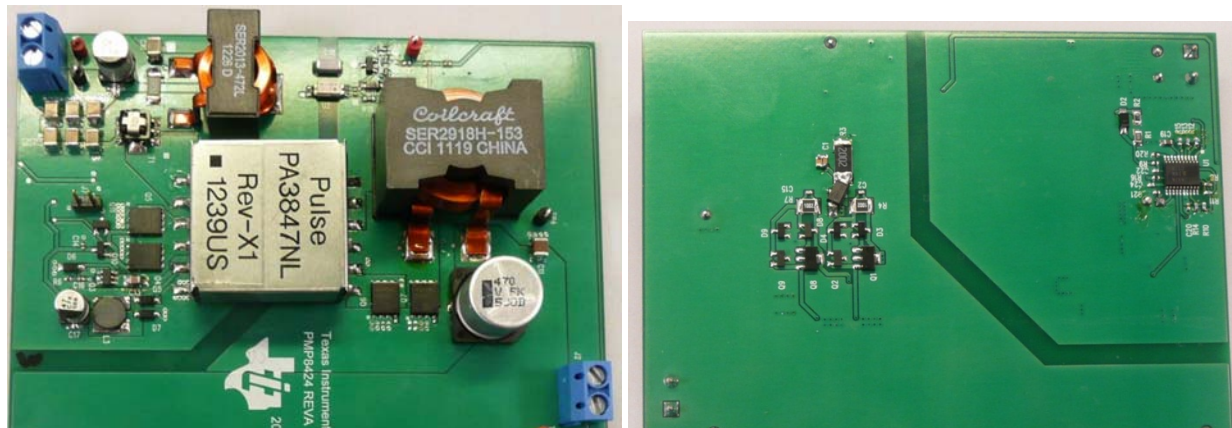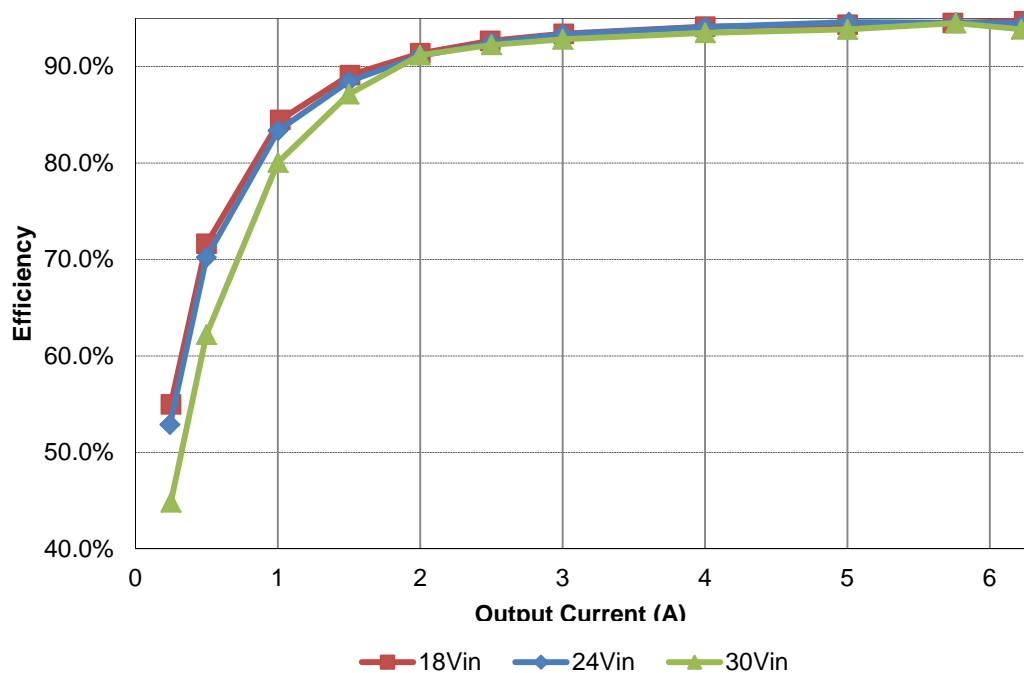# PMP8944 Rev A Test Results

TEXAS INSTRUMENTS

1   Photo

The photographs below show the top and bottom views of the PMP8944 Rev A demo board. The circuit is built on PMP8424 Rev A PCB board.


2   Efficiency

PMP8944 Rev A Test Results

TEXAS INSTRUMENTS

Vin	Iin	Vout	Iout	Pout	Losses	Efficiency
17.99	8.75	23.89	6.24	149.0736	8.3389	94.7%
18.02	8.05	23.89	5.74	137.1286	7.9324	94.5%
18.01	7.03	23.89	5	119.45	7.1603	94.3%
18.03	5.63	23.89	4	95.56	5.9489	94.1%
18.02	4.27	23.9	3.007	71.8673	5.0781	93.4%
18	3.569	23.9	2.491	59.5349	4.7071	92.7%
18	2.906	23.9	2	47.8	4.508	91.4%
17.99	2.245	23.9	1.506	35.9934	4.39415	89.1%
17.99	1.598	23.9	1.016	24.2824	4.46562	84.5%
18.02	0.924	23.9	0.499	11.9261	4.72438	71.6%
18.01	0.601	23.9	0.249	5.9511	4.87291	55.0%
18	0.2835	23.9	0	0	5.103	0.0%

Vin	Iin	Vout	Iout	Pout	Losses	Efficiency
24.05	6.56	23.89	6.24	149.0736	8.6944	94.5%
24.02	6.06	23.89	5.76	137.6064	7.9548	94.5%
24.01	5.27	23.89	5.01	119.6889	6.8438	94.6%
24.01	4.23	23.89	4	95.56	6.0023	94.1%
24.02	3.198	23.9	3	71.7	5.11596	93.3%
24.02	2.691	23.9	2.501	59.7739	4.86392	92.5%
24.02	2.181	23.9	1.997	47.7283	4.65932	91.1%
24.02	1.685	23.9	1.498	35.8022	4.6715	88.5%
24.02	1.196	23.9	1.002	23.9478	4.78012	83.4%
24.02	0.707	23.9	0.499	11.9261	5.05604	70.2%
24.03	0.457	23.9	0.243	5.8077	5.17401	52.9%
24.01	0.2249	23.9	0	0	5.399849	0.0%

| Vin	Iin	Vout	Iout	Pout	Losses	Efficiency
30.04	5.27	23.89	6.22	148.5958	9.715	93.9%
30.01	4.85	23.88	5.76	137.5488	7.9997	94.5%
30.02	4.24	23.89	5	119.45	7.8348	93.8%
30	3.407	23.89	4	95.56	6.65	93.5%
30.01	2.573	23.89	3	71.67	5.54573	92.8%
29.99	2.158	23.89	2.499	59.70111	5.01731	92.2%
30.01	1.745	23.9	1.998	47.7522	4.61525	91.2%
29.99	1.37	23.9	1.498	35.8022	5.2841	87.1%
30.03	0.995	23.9	1.001	23.9239	5.95595	80.1%
30	0.639	23.9	0.499	11.9261	7.2439	62.2%
30.04	0.442	23.9	0.249	5.9511	7.32658	44.8%
30.03	0.2513	23.89	0	0	7.546539	0.0%

3   Startup

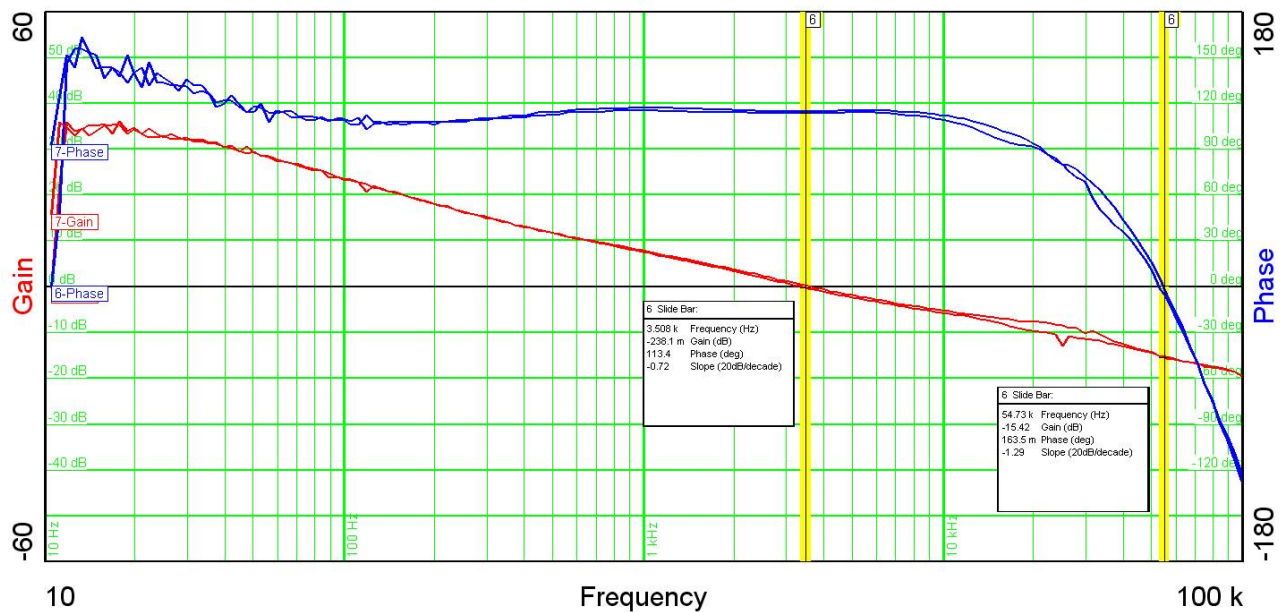The input was 24V and the output was unloaded.
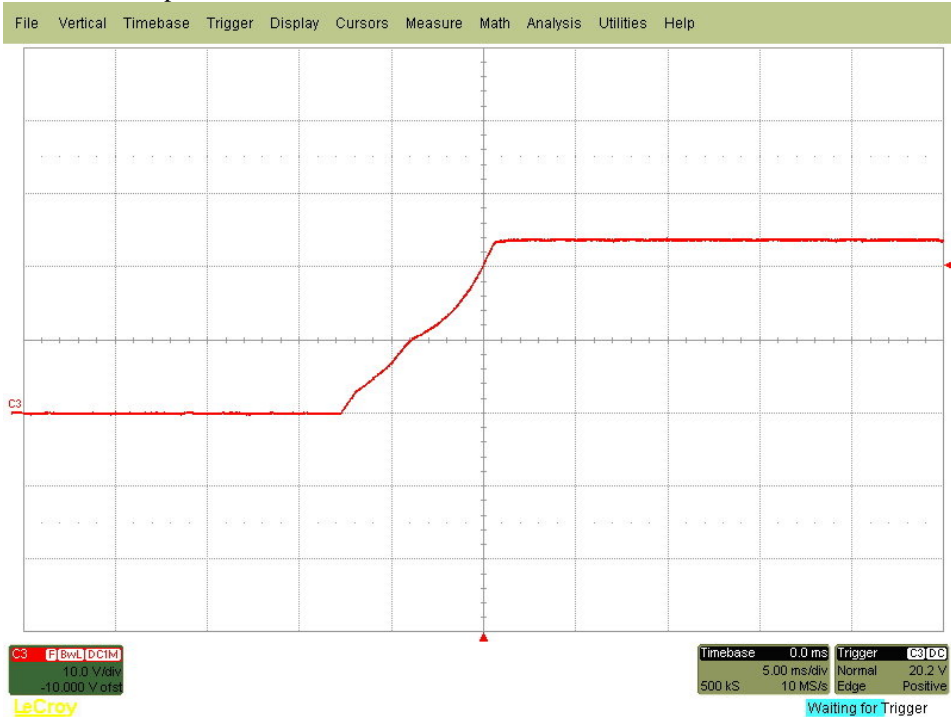
4   Output Ripple Voltage

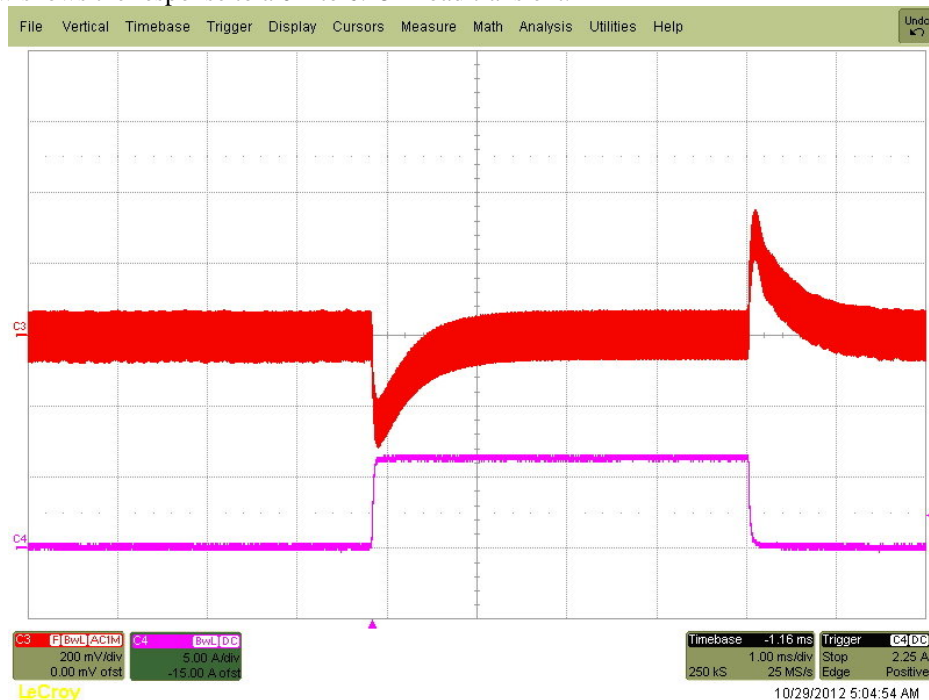The input was 24V and the output was loaded with 6.25A.
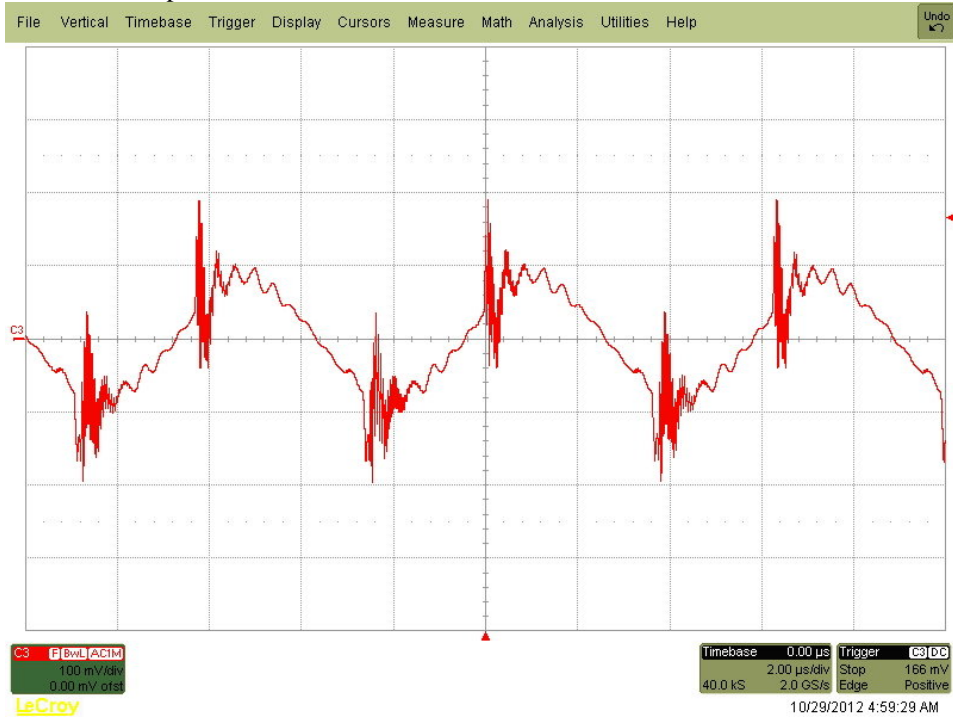
5   Frequency Response

The output was loaded with 6.25A. Curve 6 is the frequency response with 18V as input voltage, and Curve 7 is the frequency response with 30V as input voltage.

6   Load Transient Response

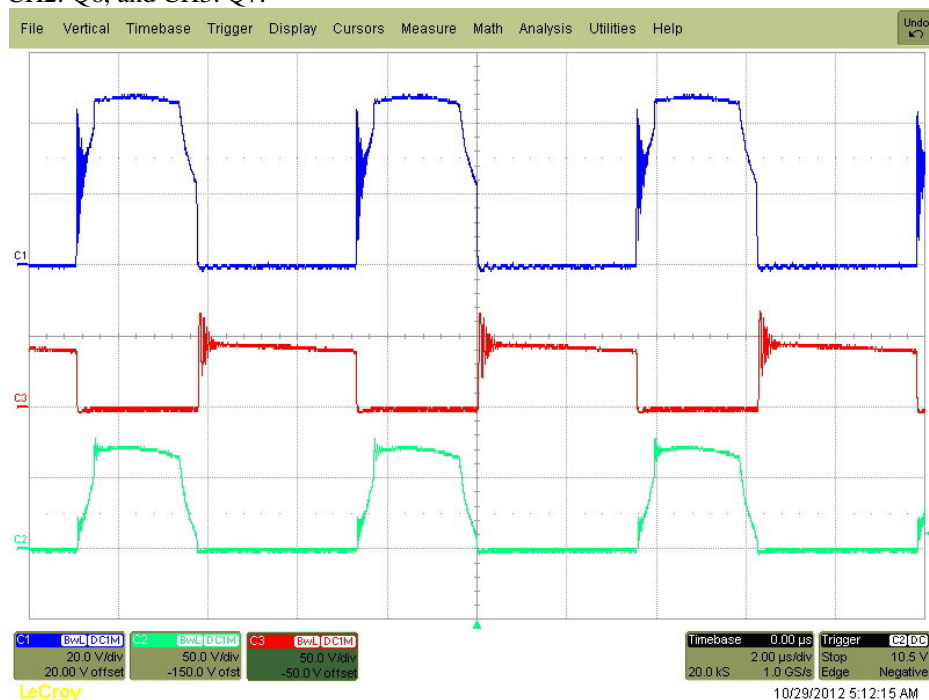The image below shows the response to a 0A to 6.25A load transient.

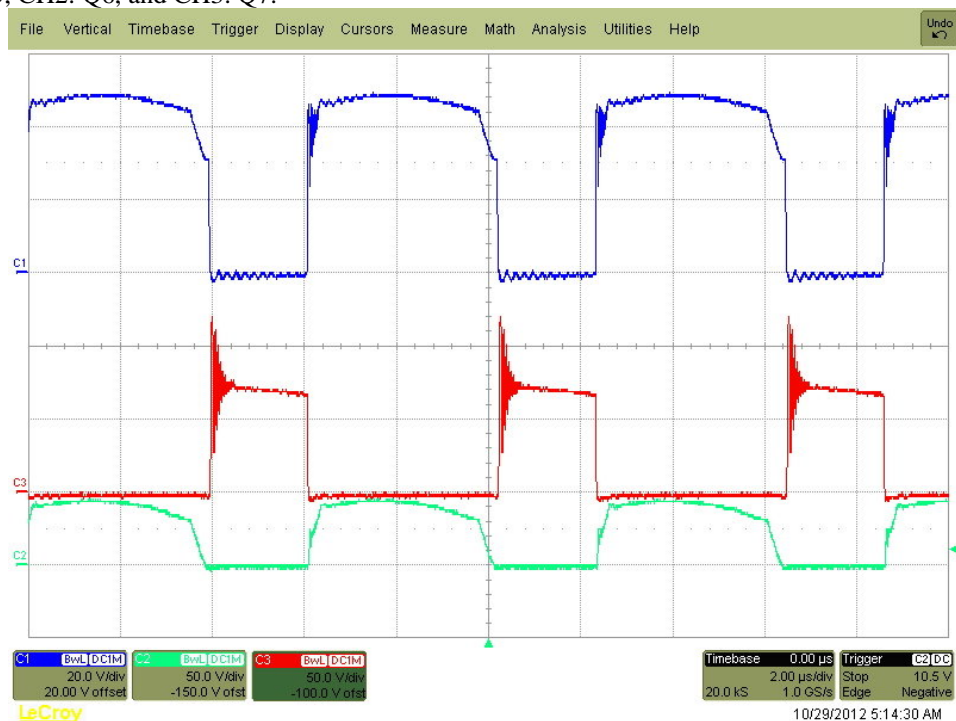# 7   Switching waveforms

The outputs were unloaded in this measurement.

7.1   18Vin

CH1: Q4 & Q5, CH2: Q6, and CH3: Q7.

7.2 30Vin

CH1: Q4 & Q5, CH2: Q6, and CH3: Q7.

IMPORTANT NOTICE AND DISCLAIMER