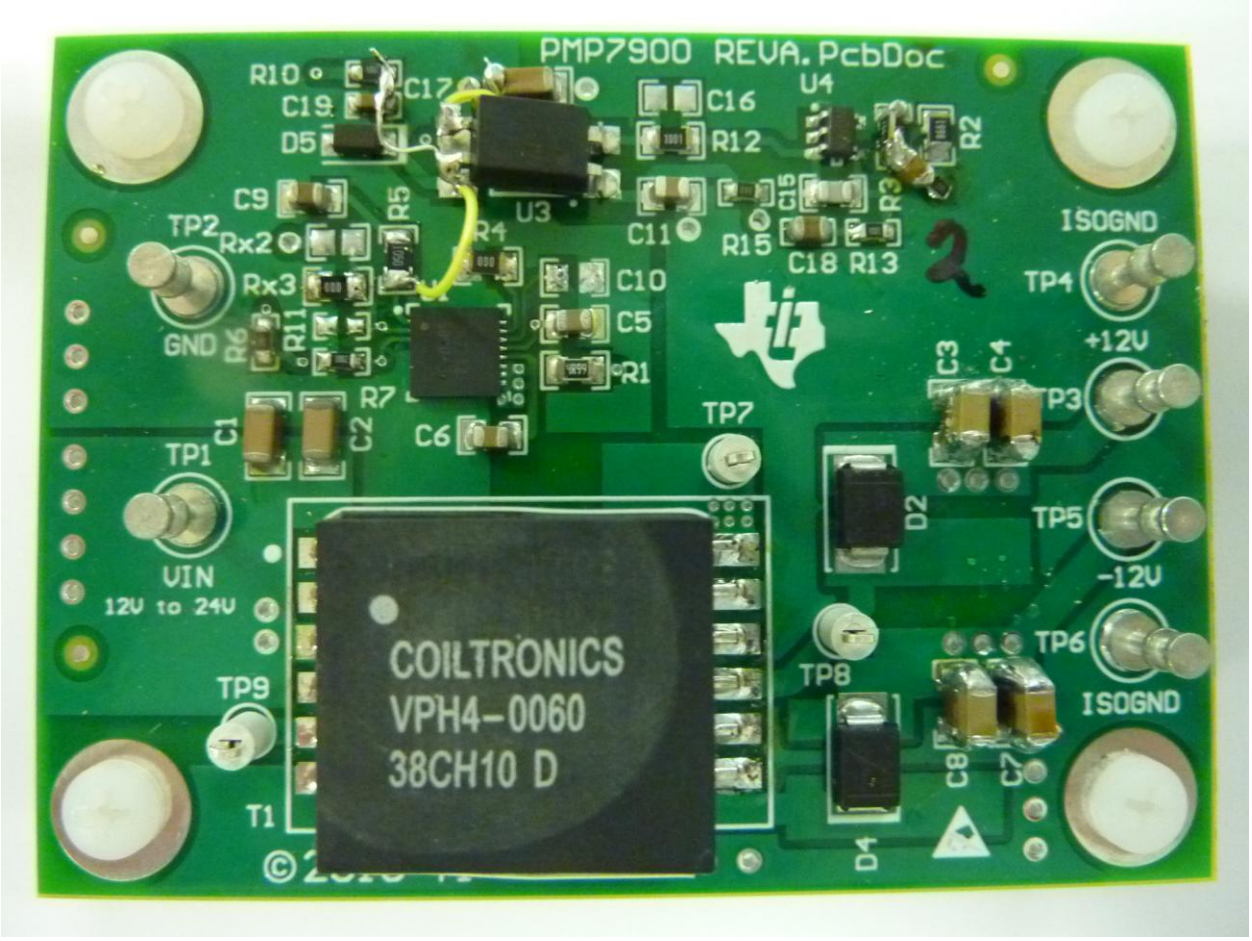
Test Data
For PMP7932
3/25/2013

Test SPECIFICATIONS

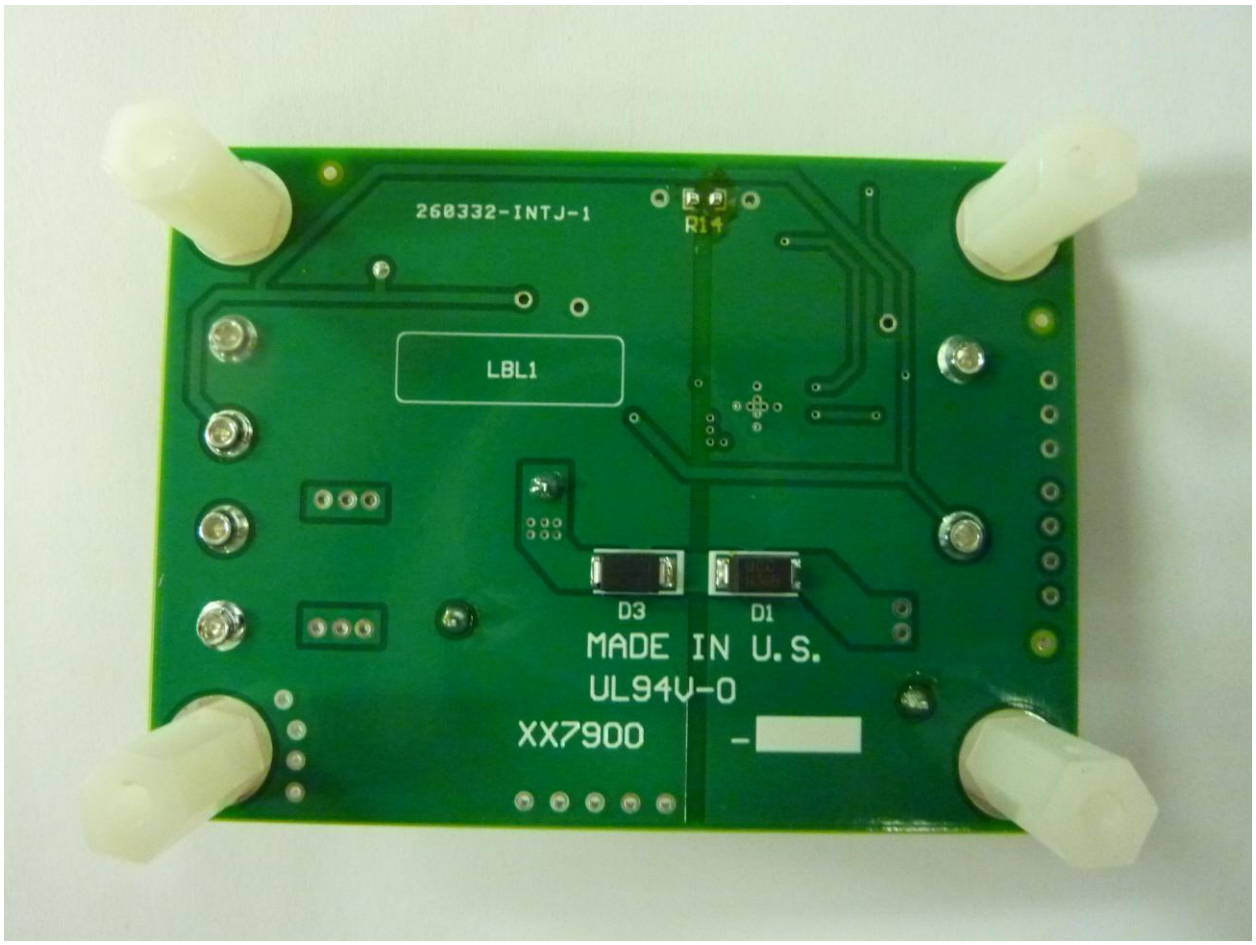
Vin min	**12V**
Vin max	**24V**
Vout	**+12V/-12V Isolated**
Iout	**0.5A Total (0.25A each output)**

FABRICATION

Board Dimensions: 2.65” x 1.95”

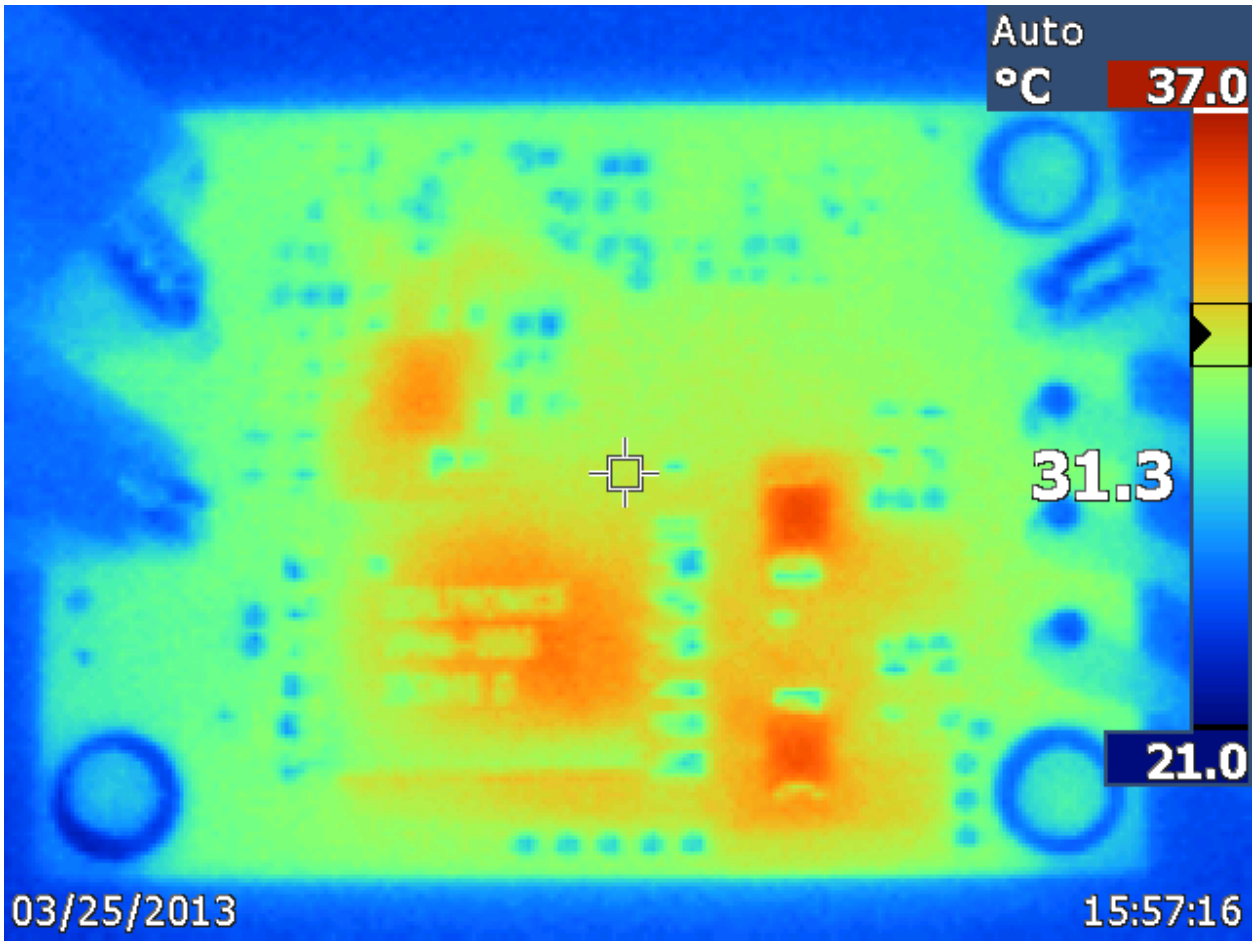


Top Side

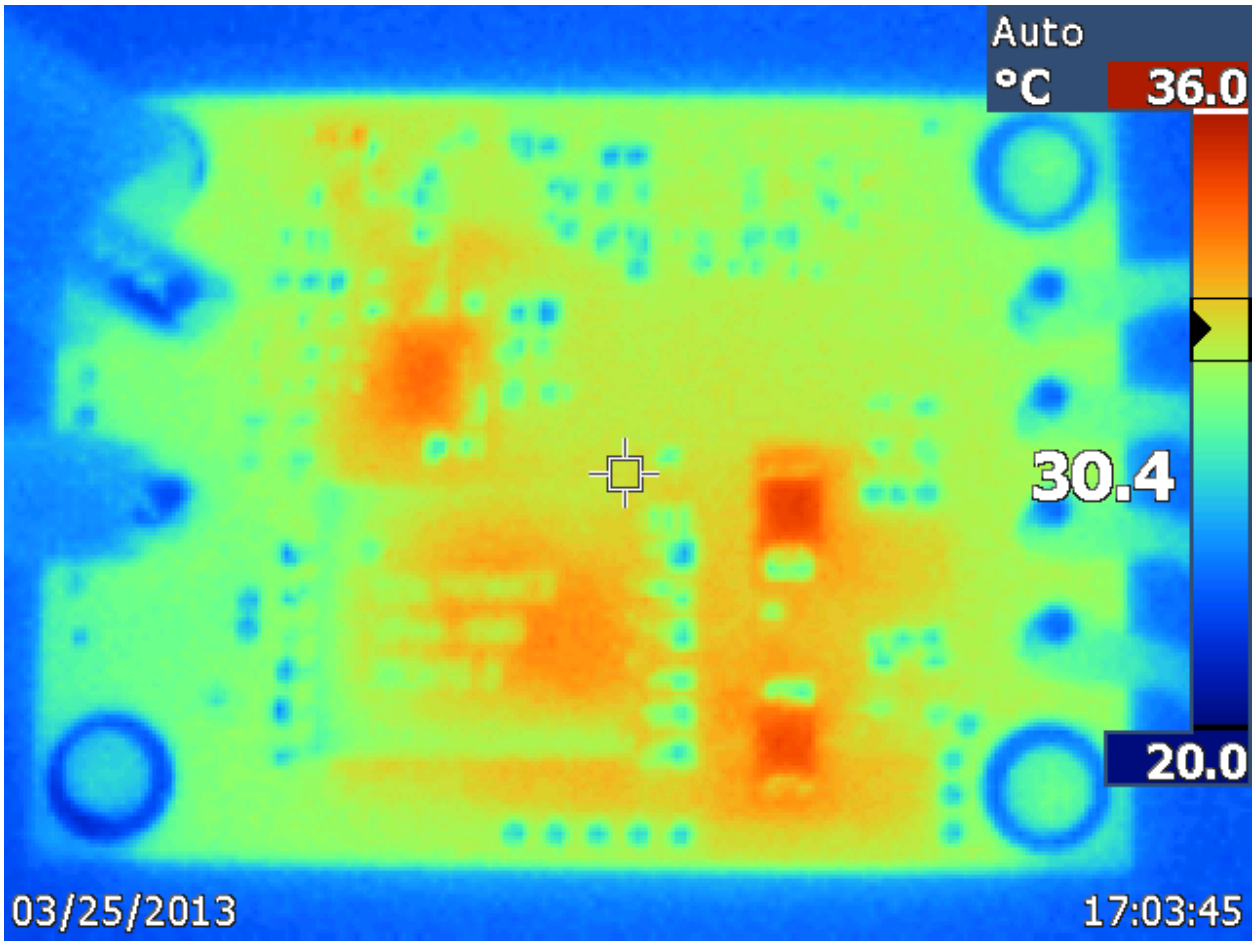


Bottom Side

Thermal Data



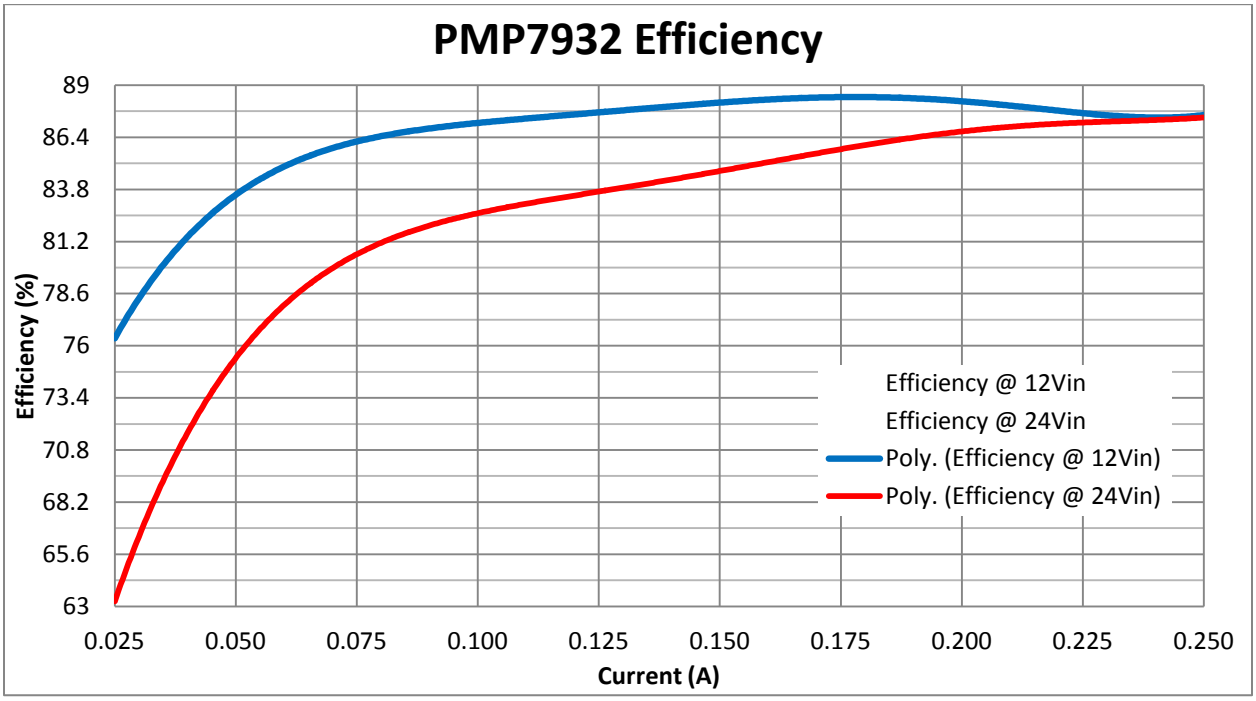
Thermal image of board running at 12Vin and each output channel loaded at 0.25A (thermal equilibrium reached)



Thermal image of board running at 24Vin and each output channel loaded at 0.25A (thermal equilibrium reached)

TYPICAL PERFORMANCE

EFFICIENCY

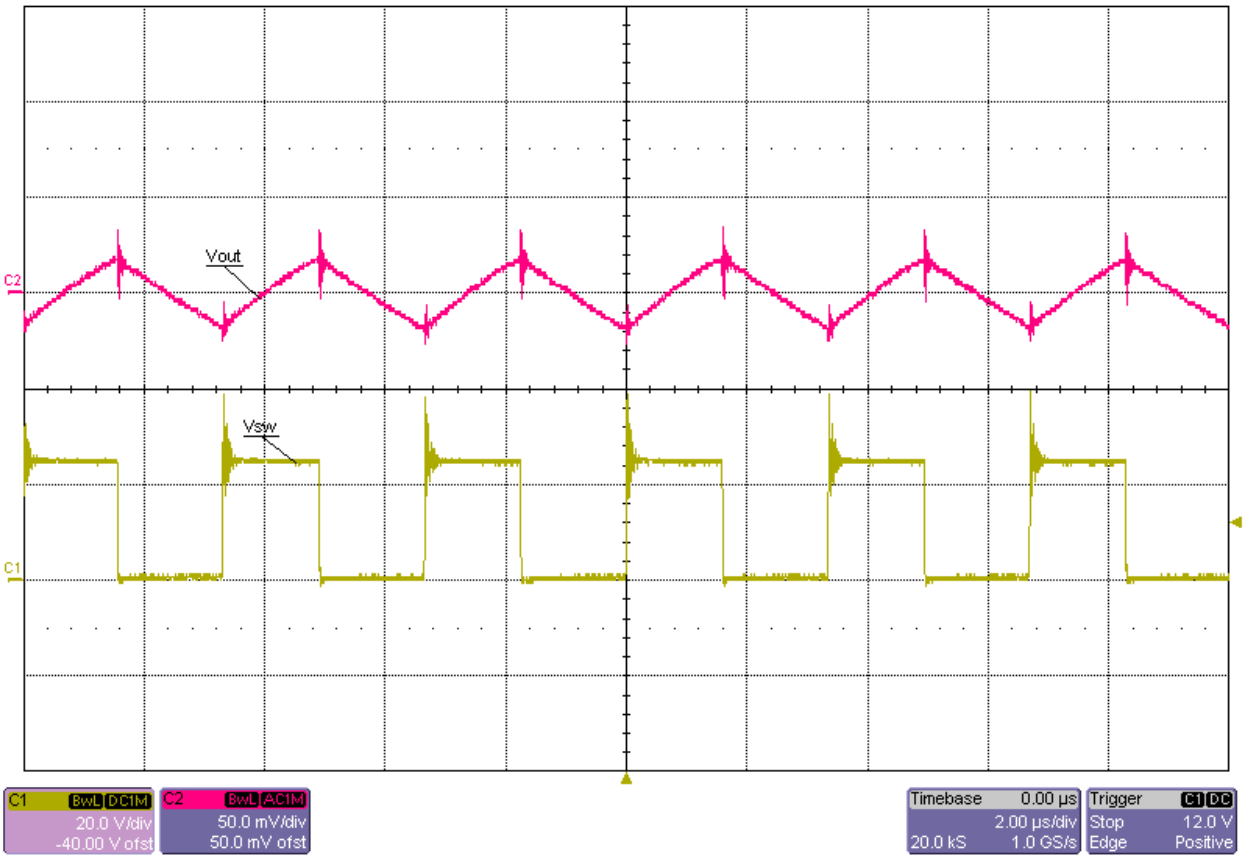


12Vinput			Regulated Output			Unregulated Output				
Vin (V)	Iin (A)	Pin (W)	Vout1 (V)	Iout1 (A)	Pout1 (W)	Vout2 (V)	Iout2 (A)	Pout2 (W)	Total Pout (W)	Efficiency (%)
12	0.06497	0.77964	11.9028	0.025	0.29757	11.8834	0.025	0.297085	0.5947	76.3
12	0.11795	1.4154	11.902	0.050	0.5951	11.8643	0.05	0.593215	1.1883	84.0
12	0.17334	2.08008	11.9013	0.075	0.8925975	11.8529	0.075	0.8889675	1.7816	85.6
12	0.2271	2.7252	11.9003	0.100	1.19003	11.854	0.1	1.1854	2.3754	87.2
12	0.2815	3.378	11.8998	0.125	1.487475	11.859	0.125	1.482375	2.9699	87.9
12	0.33686	4.04232	11.8993	0.150	1.784895	11.8644	0.15	1.77966	3.5646	88.2
12	0.39287	4.71444	11.8984	0.175	2.08222	11.8706	0.175	2.077355	4.1596	88.2
12	0.4499	5.3988	11.8979	0.200	2.37958	11.8771	0.2	2.37542	4.7550	88.1
12	0.5078	6.0936	11.897	0.225	2.676825	11.883	0.225	2.673675	5.3505	87.8
12	0.5666	6.7992	11.8954	0.250	2.97385	11.8881	0.25	2.972025	5.9459	87.4

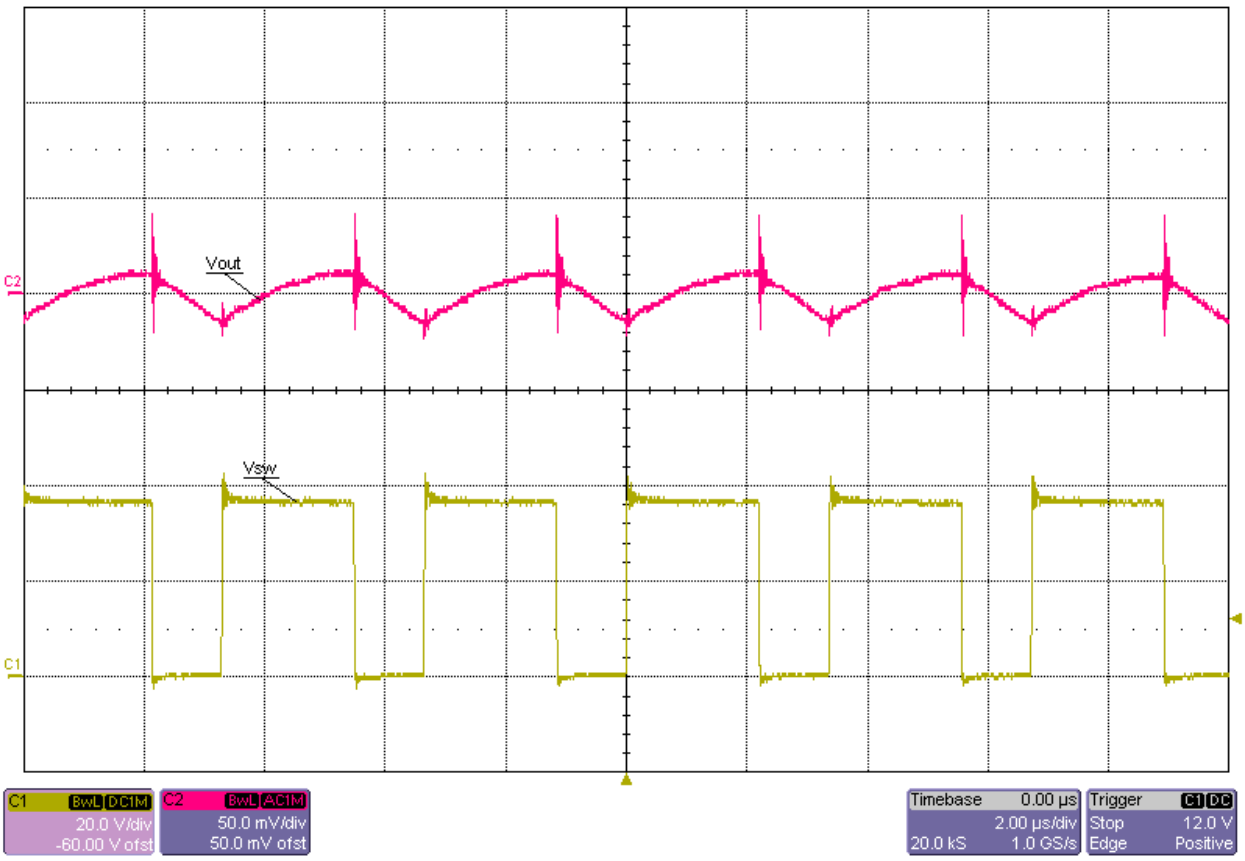
24Vinput			Regulated Output			Unregulated Output				
Vin (V)	Iin (A)	Pin (W)	Vout1 (V)	Iout1 (A)	Pout1 (W)	Vout2 (V)	Iout2 (A)	Pout2 (W)	Total Pout (W)	Efficiency (%)
24	0.03906	0.93744	11.8967	0.025	0.2974175	11.8857	0.025	0.2971425	0.5946	63.4
24	0.06643	1.59432	11.8972	0.050	0.59486	11.8756	0.05	0.59378	1.1886	74.6
24	0.09065	2.1756	11.8975	0.075	0.8923125	11.8735	0.075	0.8905125	1.7828	81.9
24	0.121	2.904	11.8974	0.100	1.18974	11.8583	0.1	1.18583	2.3756	81.8
24	0.1481	3.5544	11.8972	0.125	1.48715	11.8494	0.125	1.481175	2.9683	83.5
24	0.17474	4.19376	11.8968	0.150	1.78452	11.8475	0.15	1.777125	3.5616	84.9
24	0.2014	4.8336	11.8963	0.175	2.0818525	11.8483	0.175	2.0734525	4.1553	86.0
24	0.22848	5.48352	11.8959	0.200	2.37918	11.85	0.2	2.37	4.7492	86.6
24	0.2557	6.1368	11.8954	0.225	2.676465	11.8526	0.225	2.666835	5.3433	87.1
24	0.283	6.792	11.8949	0.250	2.973725	11.8558	0.25	2.96395	5.9377	87.4

Waveforms

Output Voltage Ripple and Switch Node Voltage

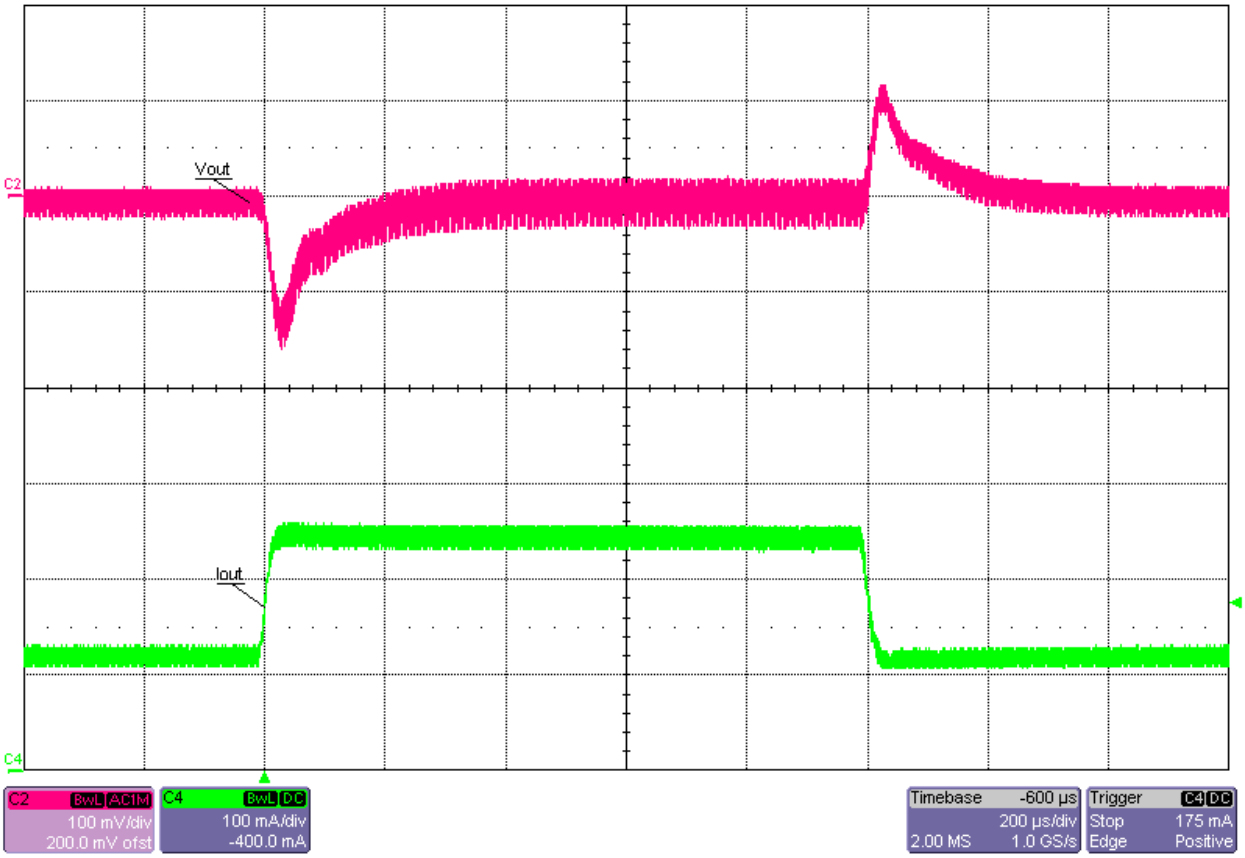


Output Voltage Ripple and Switch Node Voltage at 12Vin 0.25A load on each output (Vripple ≈ 40mVp-p)

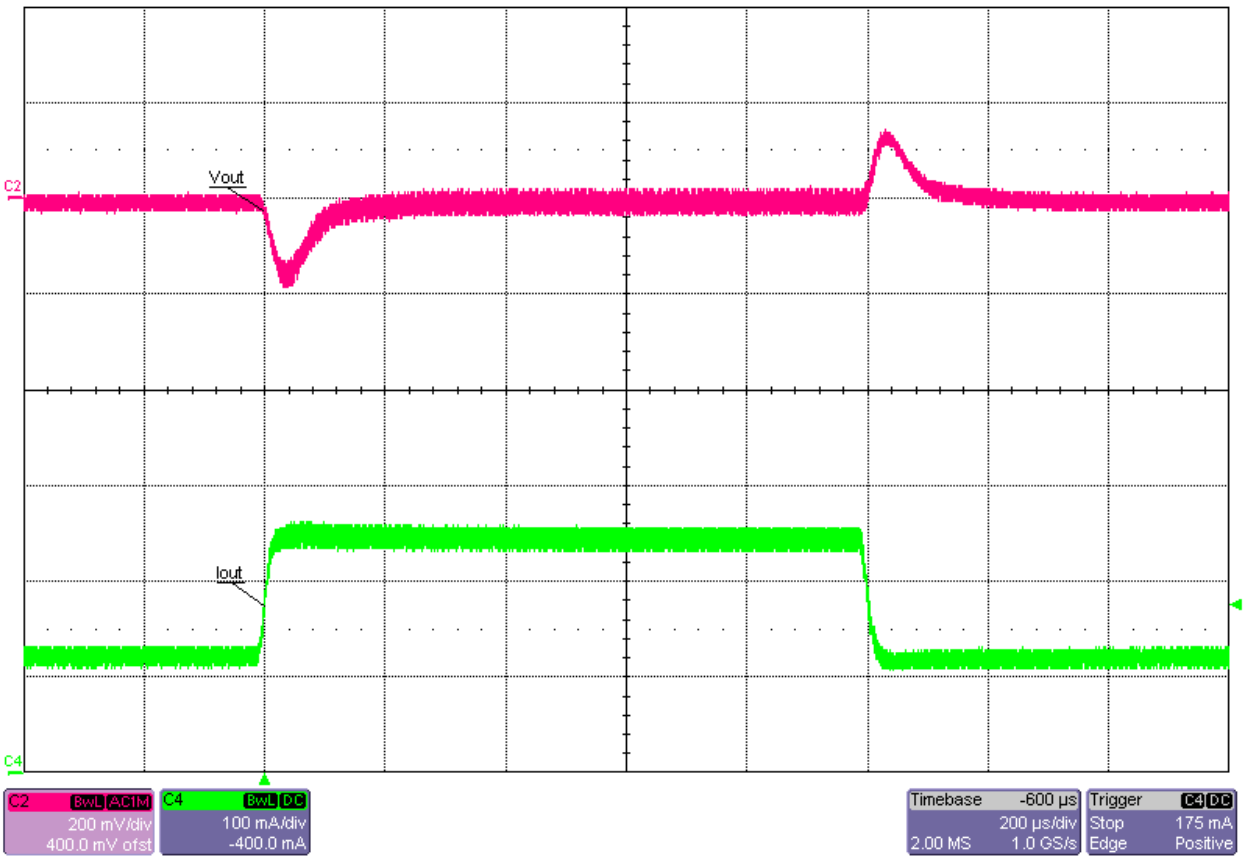


Output Voltage Ripple and Switch Node Voltage at 24Vin 0.25A load on each output (Vripple ≈ 25mVp-p)

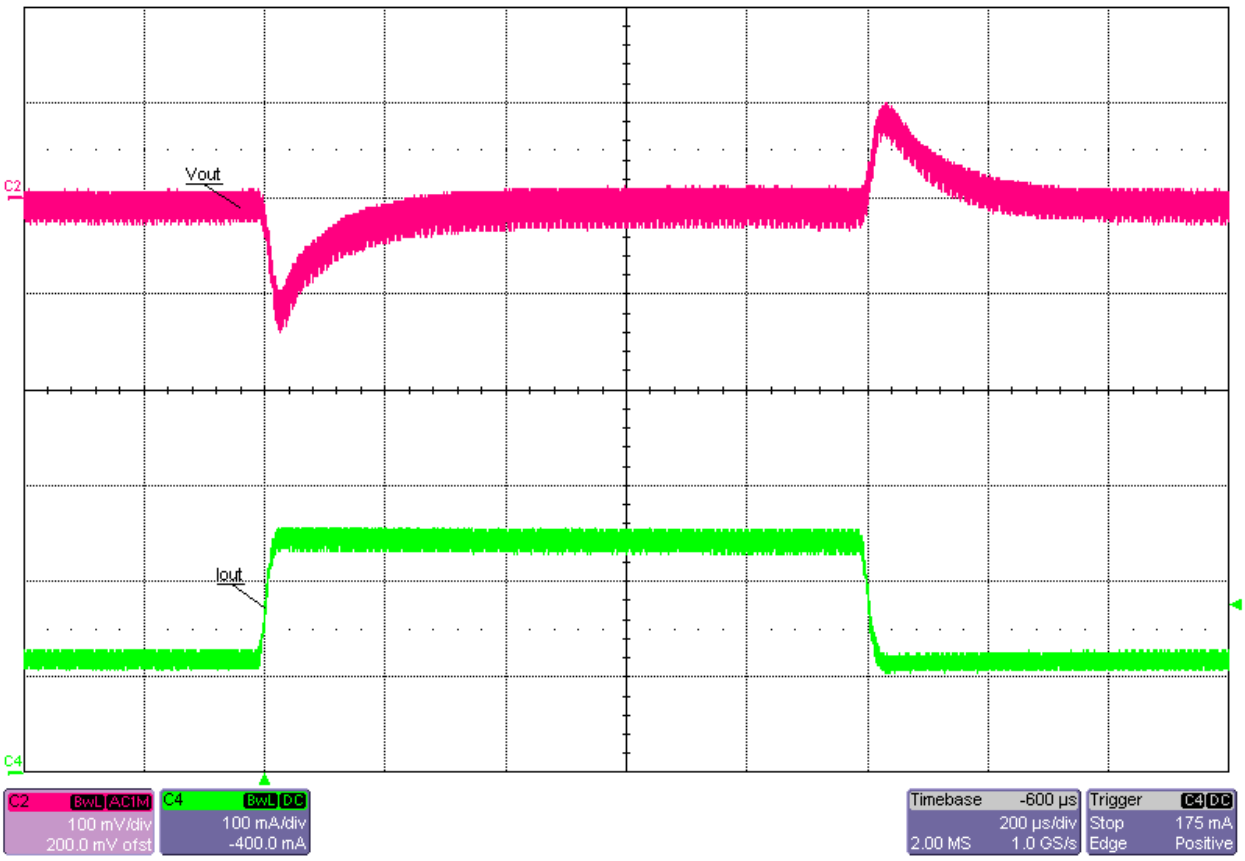
Load Transient Response



Transient at 12Vin 50%-to-100% Load Step (0.125A-to-0.25A) on Regulated Output, while having unregulated output (-12Vout) at No Load



Transient at 12Vin 50%-to-100% Load Step (0.125A-to-0.25A) on Regulated Output, while having unregulated output (-12Vout) continuously loaded at 0.25A



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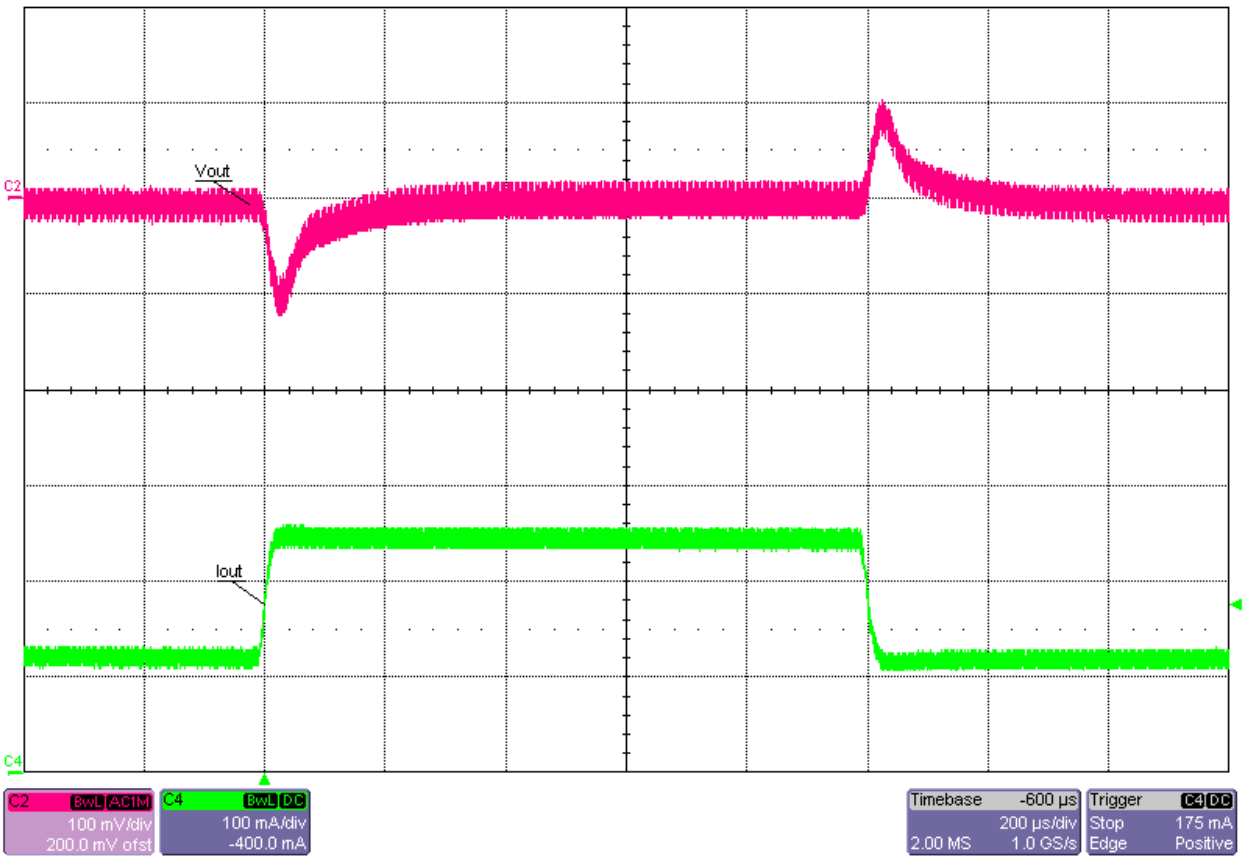
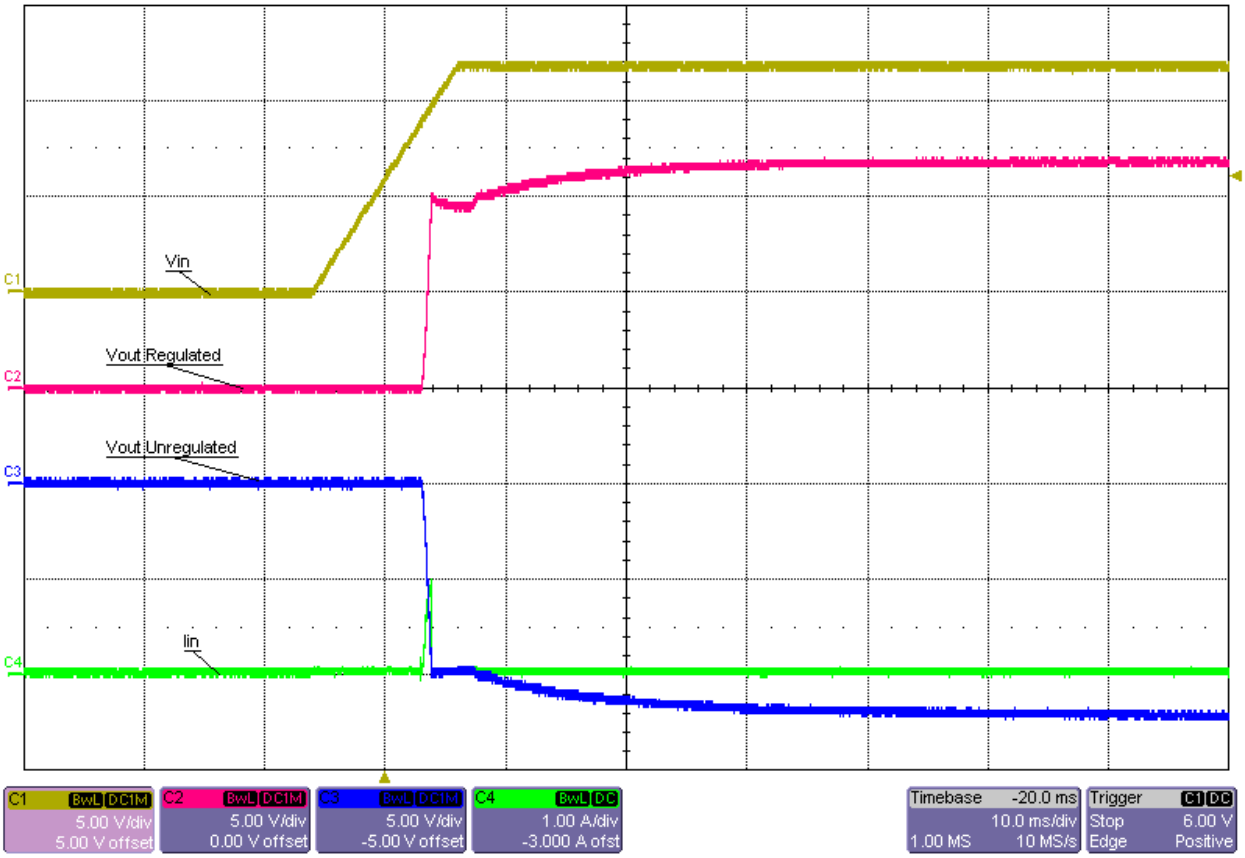
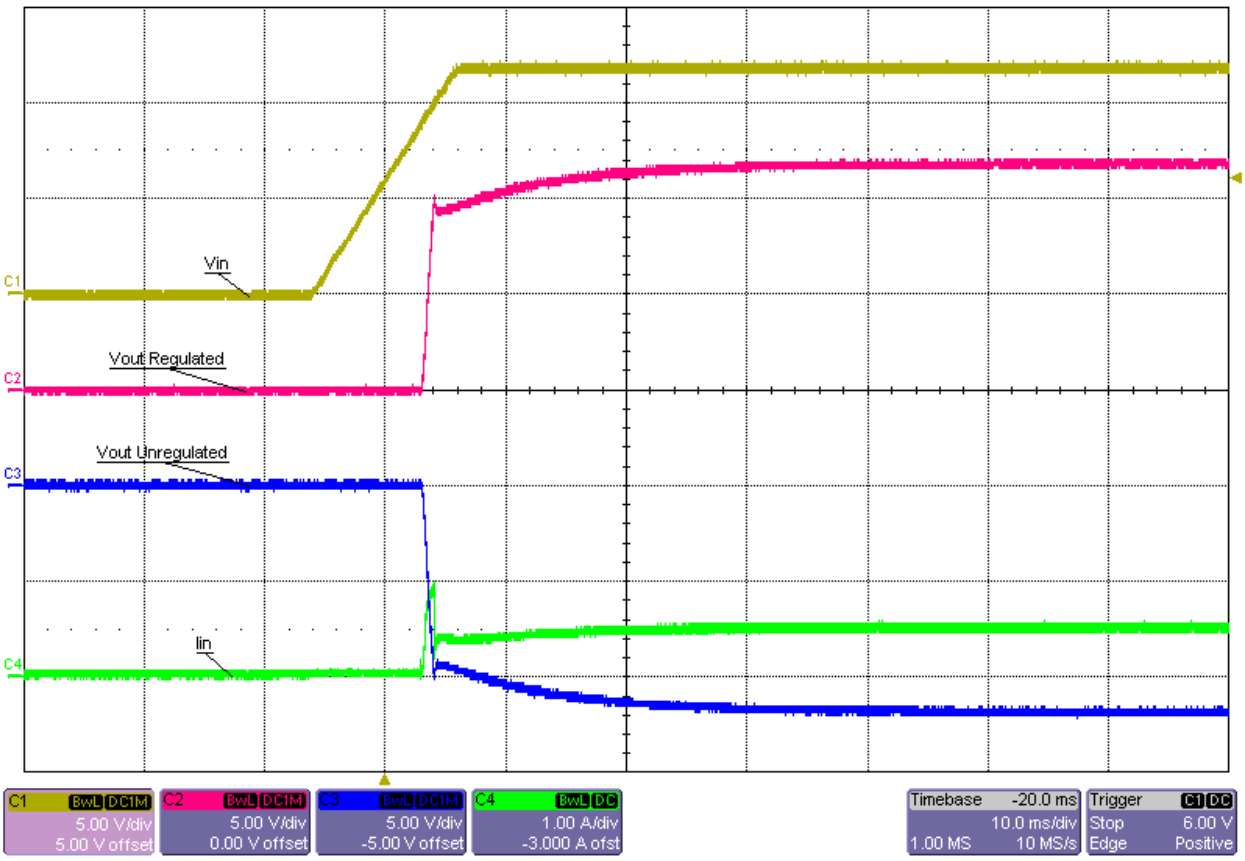


Transient at 24Vin 50%-to-100% Load Step (0.125A-to-0.25A) on Regulated Output, while having unregulated output (-12Vout) continuously loaded at 0.25A

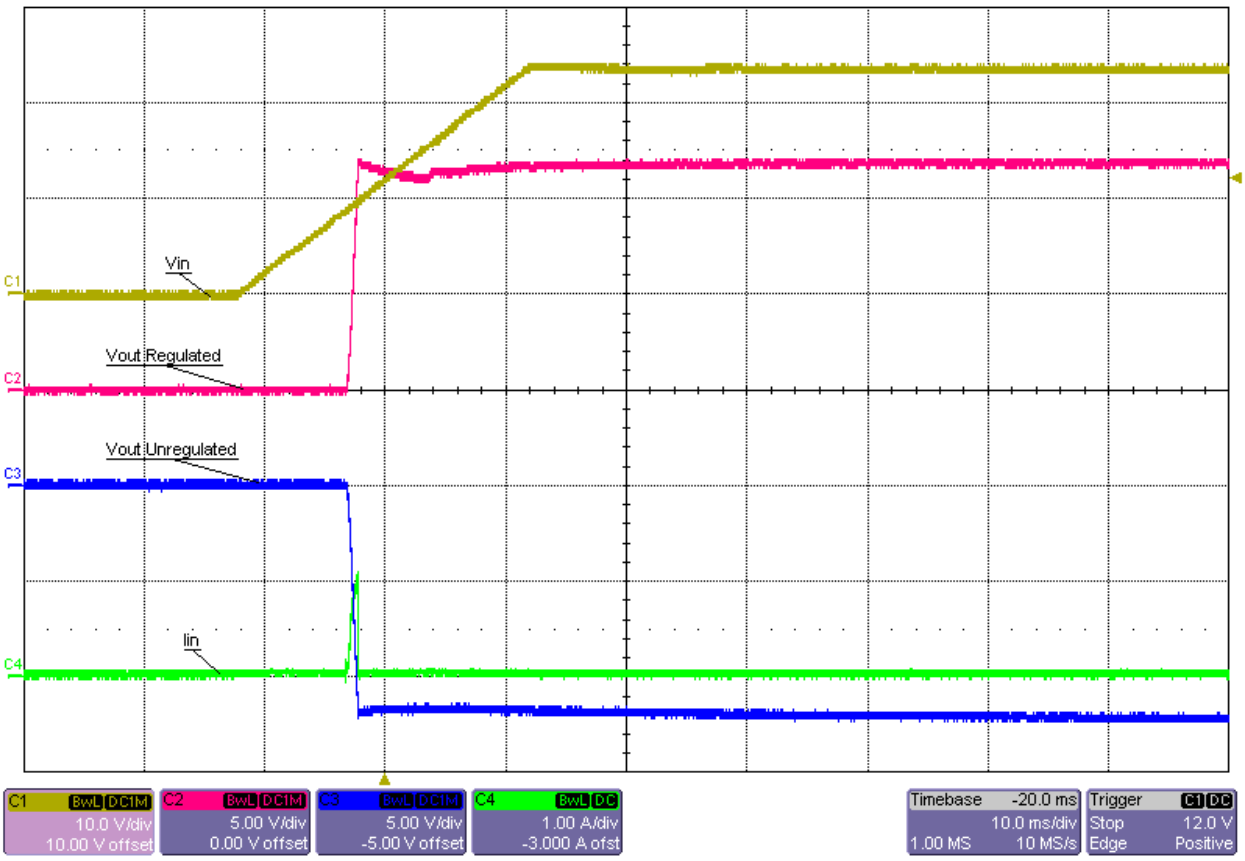
Startup



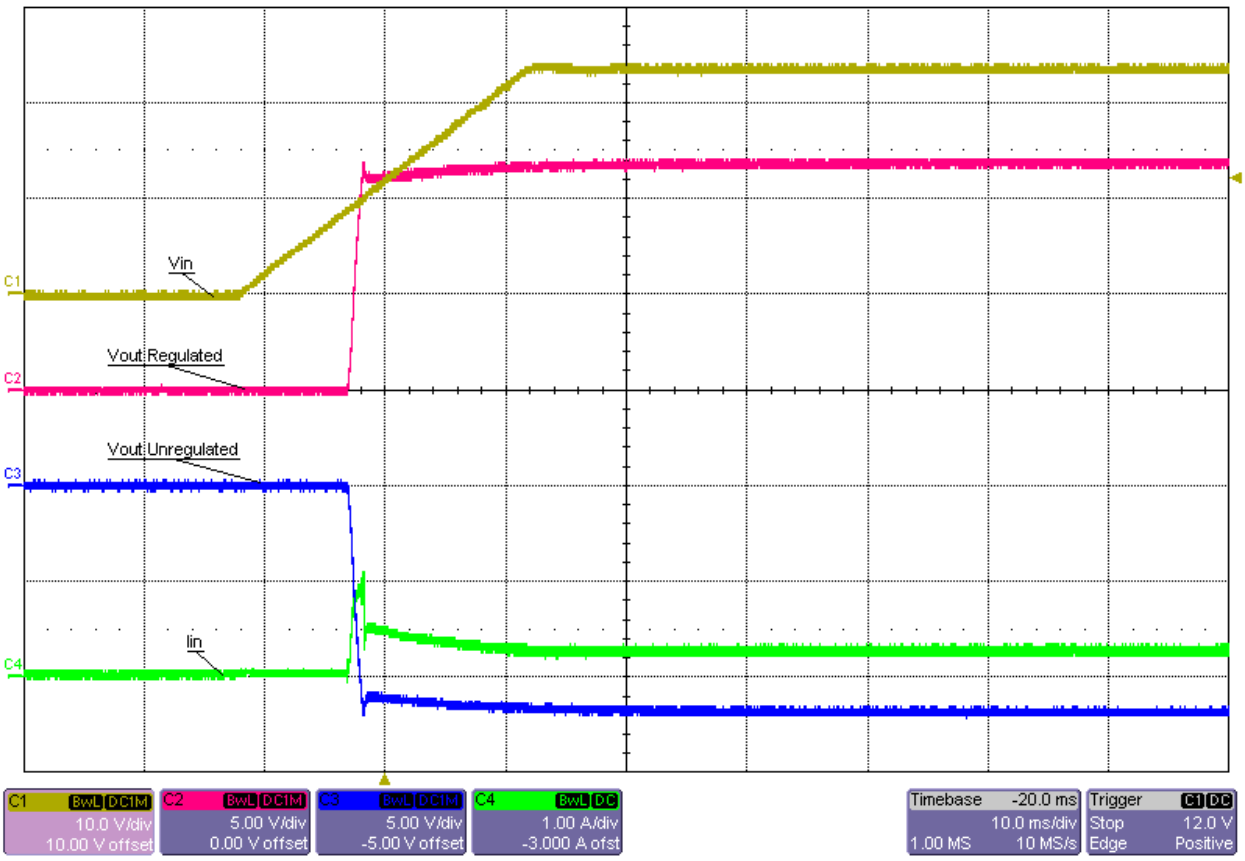
Startup into No Load (12Vin)



Startup into 0.25A Load on each output (12Vin)

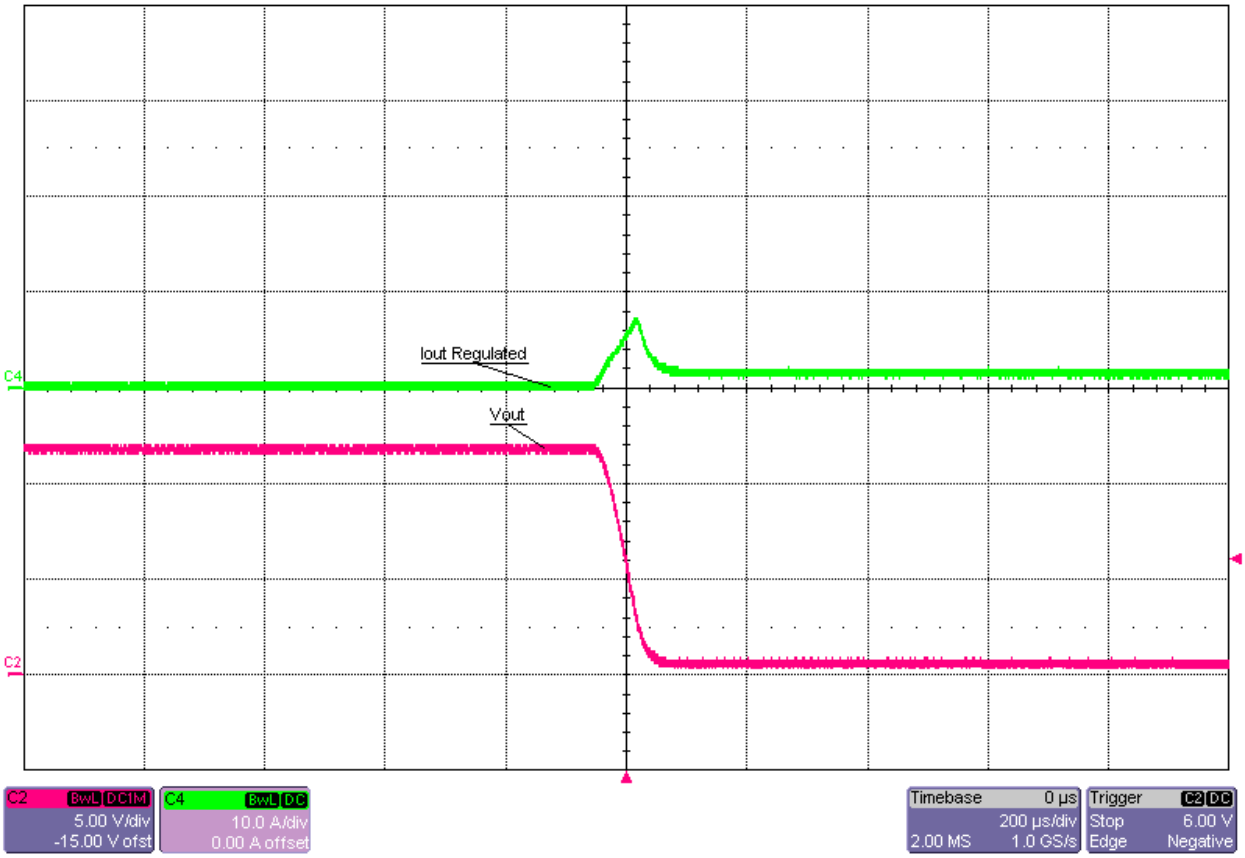


Startup into No Load (24Vin)

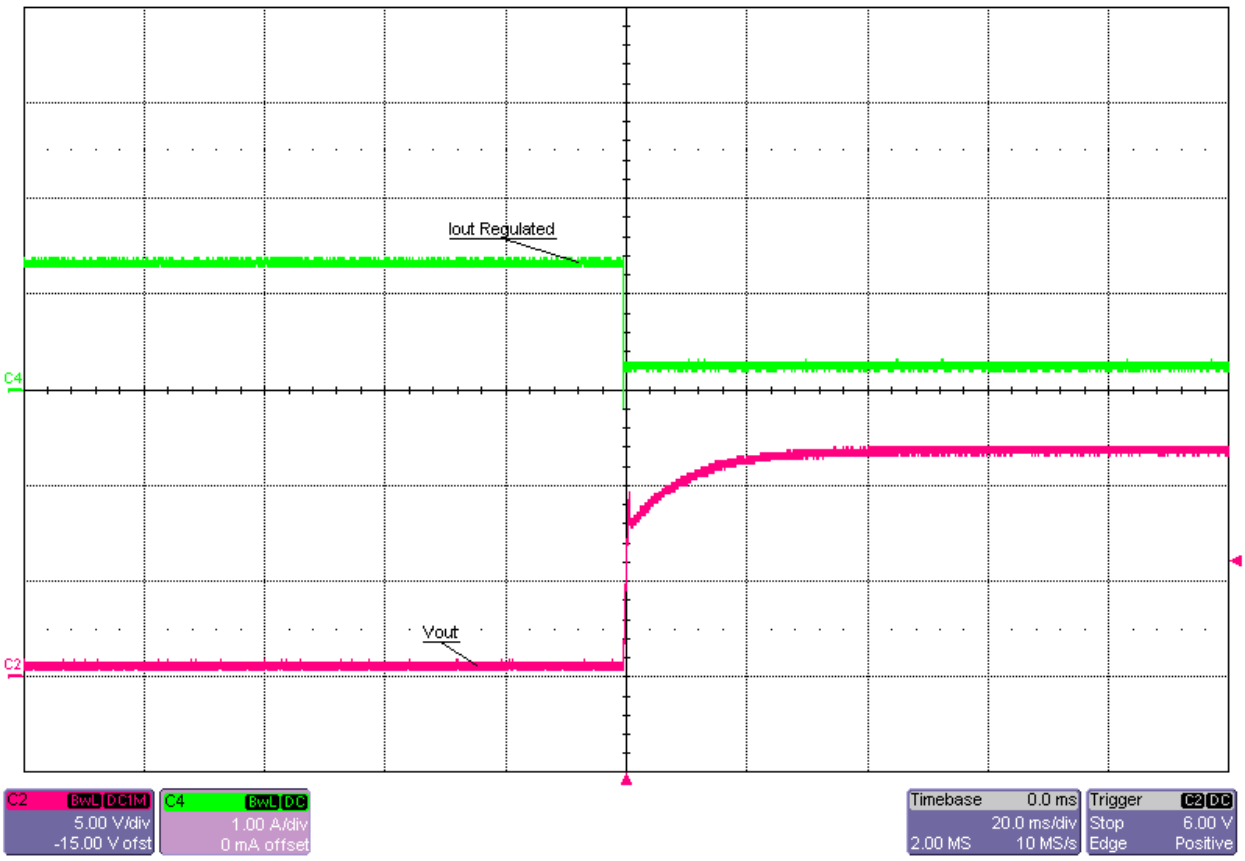


Startup into 0.25A Load on each output (24Vin)

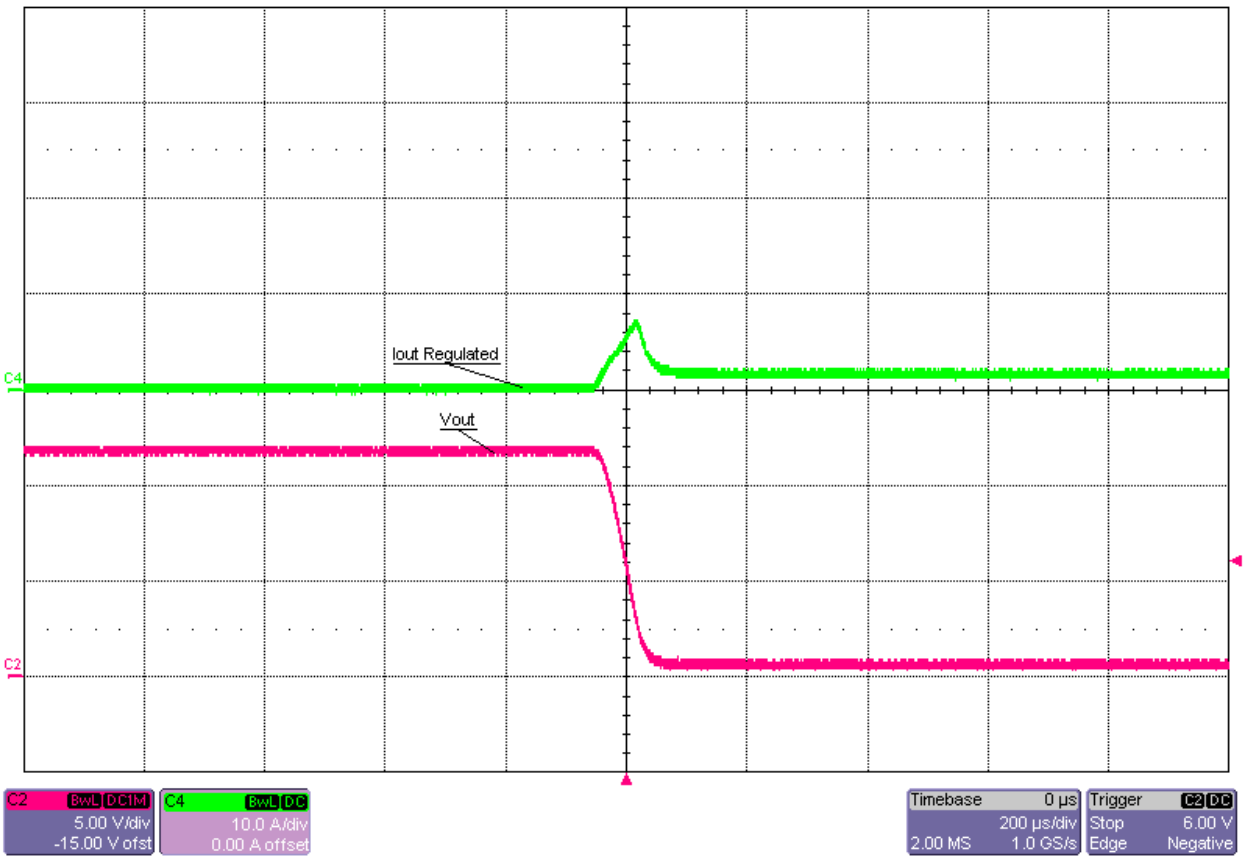
Short Circuit Test



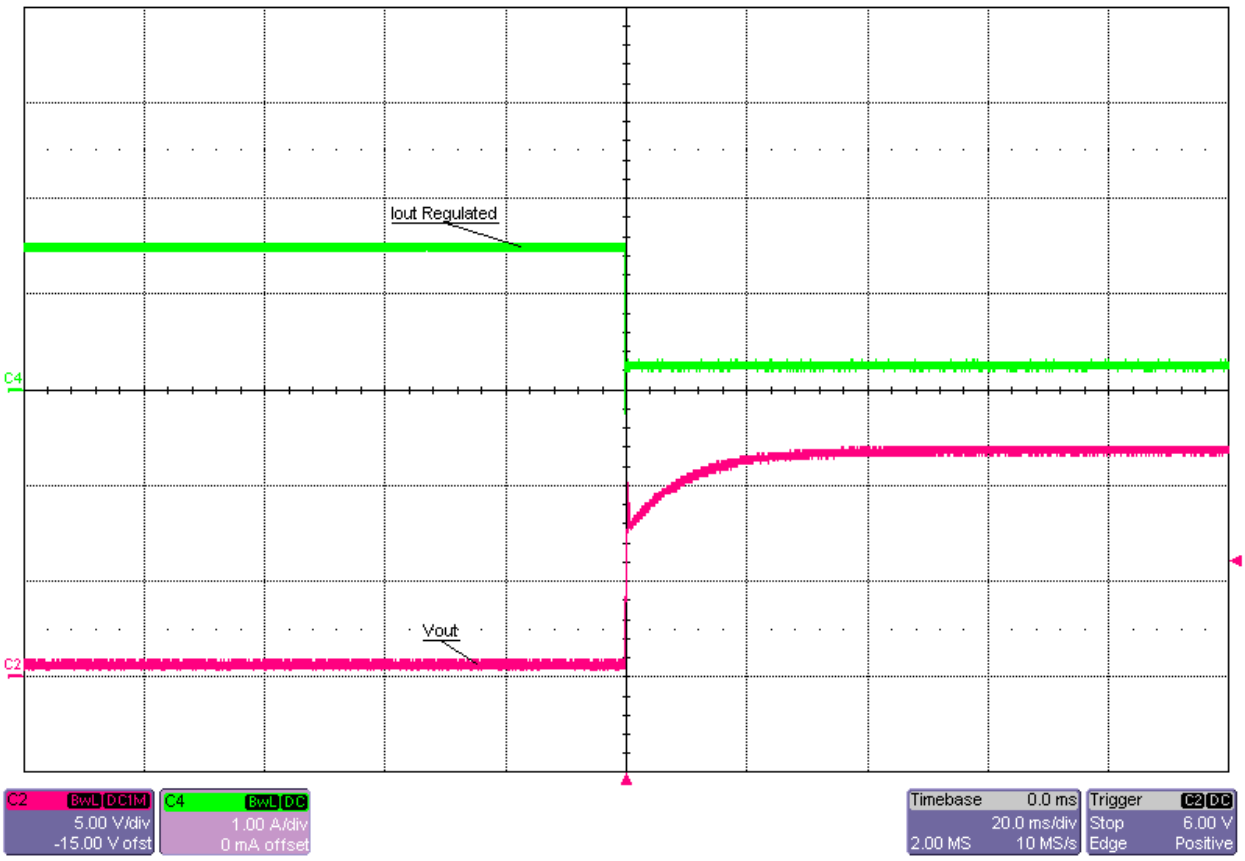
12Vin Short Circuit Applied



12Vin Short Circuit Recovery



24Vin Short Circuit Applied



24Vin Short Circuit Recovery

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