Test Data
For PMP7837 Rev2
12/13/2012

Power Specifications

Vin min = 6V

Vin max = 17V

Vout = 24V

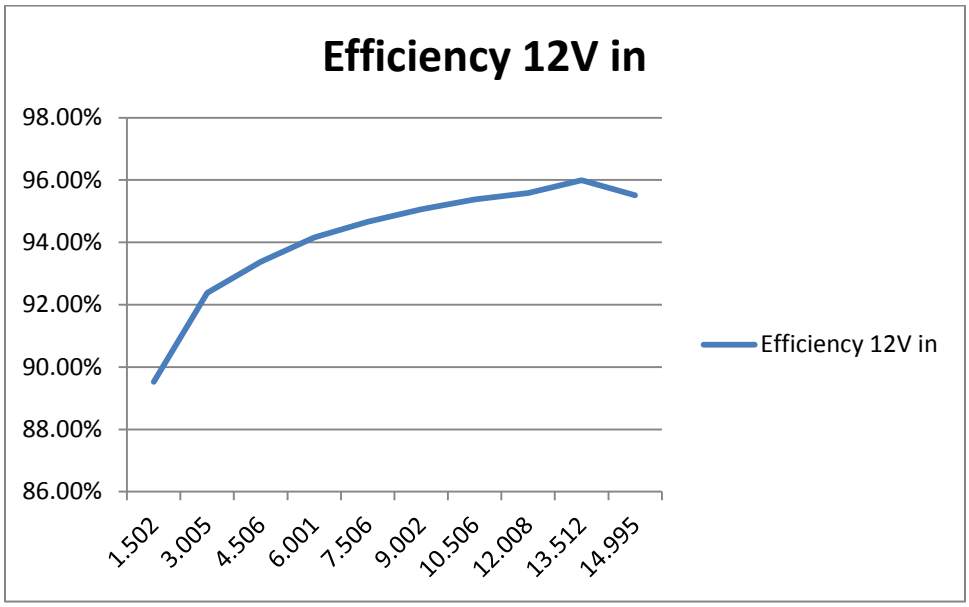
IOut =15A Max

Target Fsw = 1.8MHz

Top Side

Board size is approximately 9”x6”

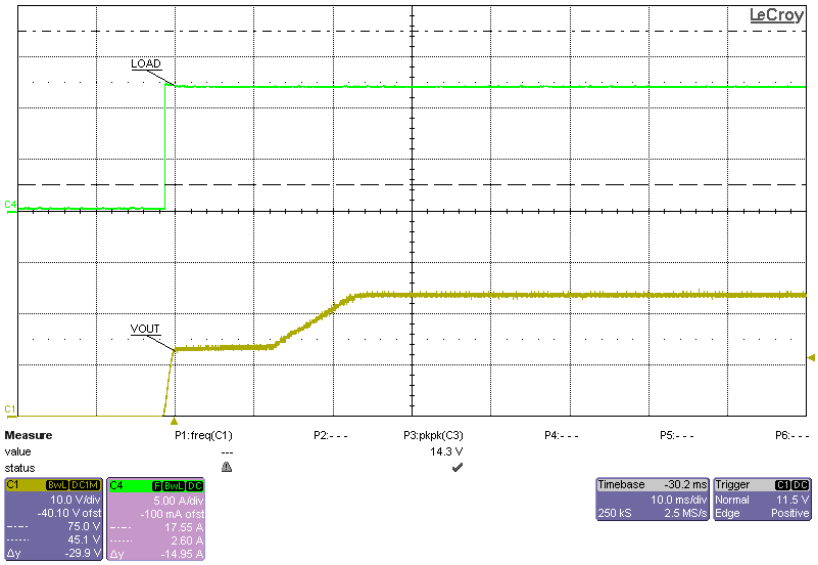
System Efficiency Results



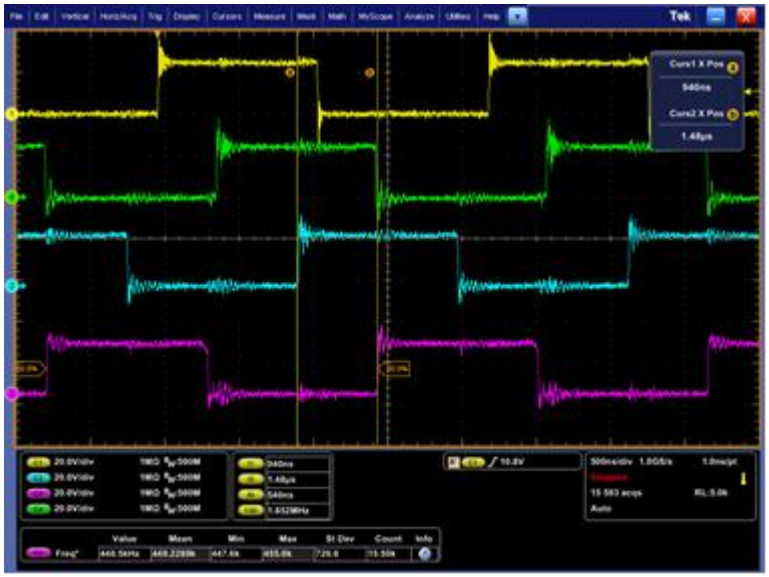
Efficiency Data

Vin	Iin	Vout	Iout	Pin	Pout	Ploss	Eff
11.955	3.297	23.494	1.502	39.415635	35.288	4.128	0.895278942
11.991	6.372	23.488	3.005	76.406652	70.581	5.825	0.923760408
11.988	9.455	23.488	4.506	113.34654	105.84	7.51	0.933746438
11.983	12.493	23.488	6.001	149.70362	140.95	8.752	0.941536944
11.980	15.546	23.487	7.506	186.24108	176.29	9.948	0.946587198
11.980	18.566	23.488	9.002	222.42068	211.44	10.98	0.950626426
11.972	21.610	23.488	10.506	258.71492	246.76	11.95	0.953810194
11.968	24.656	23.489	12.008	295.08301	282.06	13.03	0.955852775
11.964	27.637	23.490	13.512	330.64907	317.4	13.25	0.959920685
11.856	31.112	23.495	14.995	368.86698	352.31	16.56	0.955107237

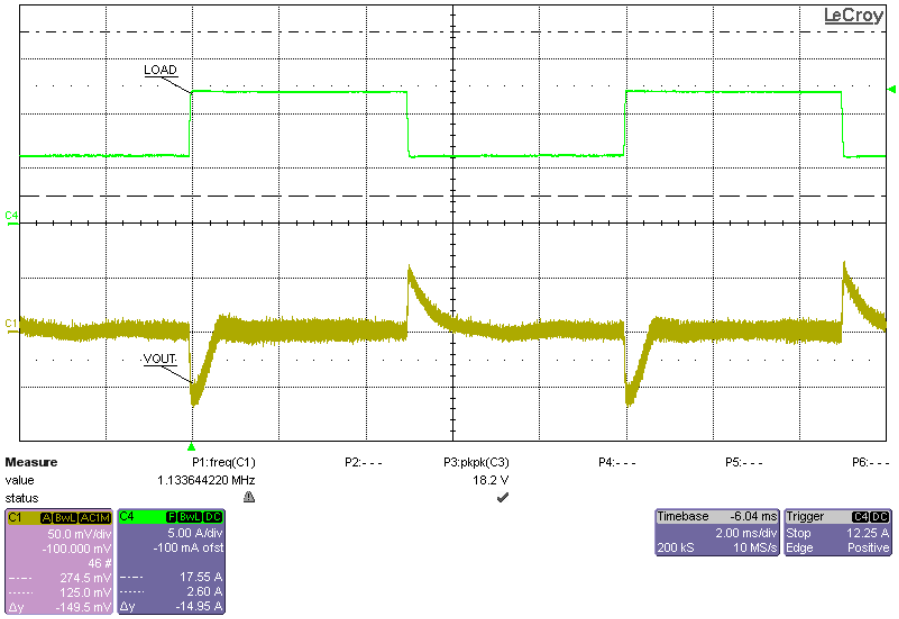
Waveforms



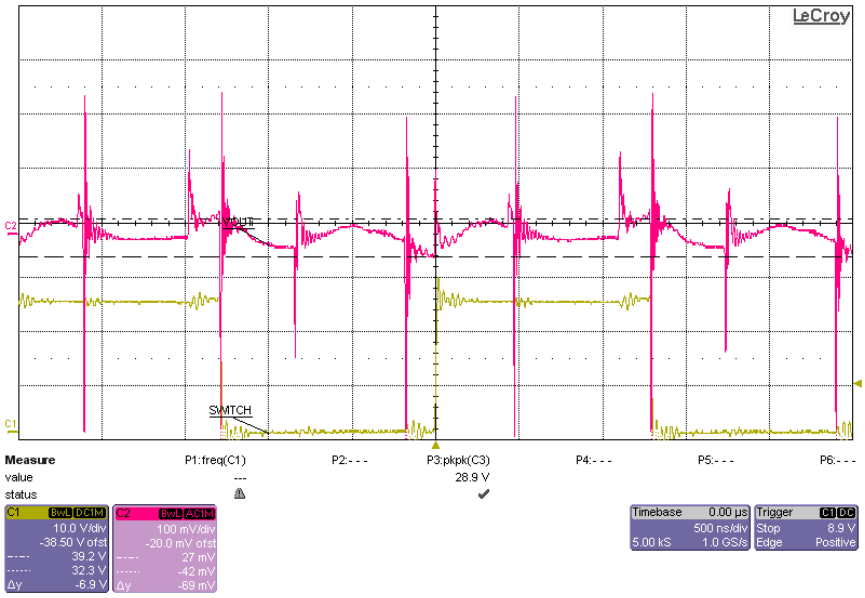
Start Up Full Load 12V in



12Vin VSwitch Full load 16Aout (effective Fsw =1.8MHz)

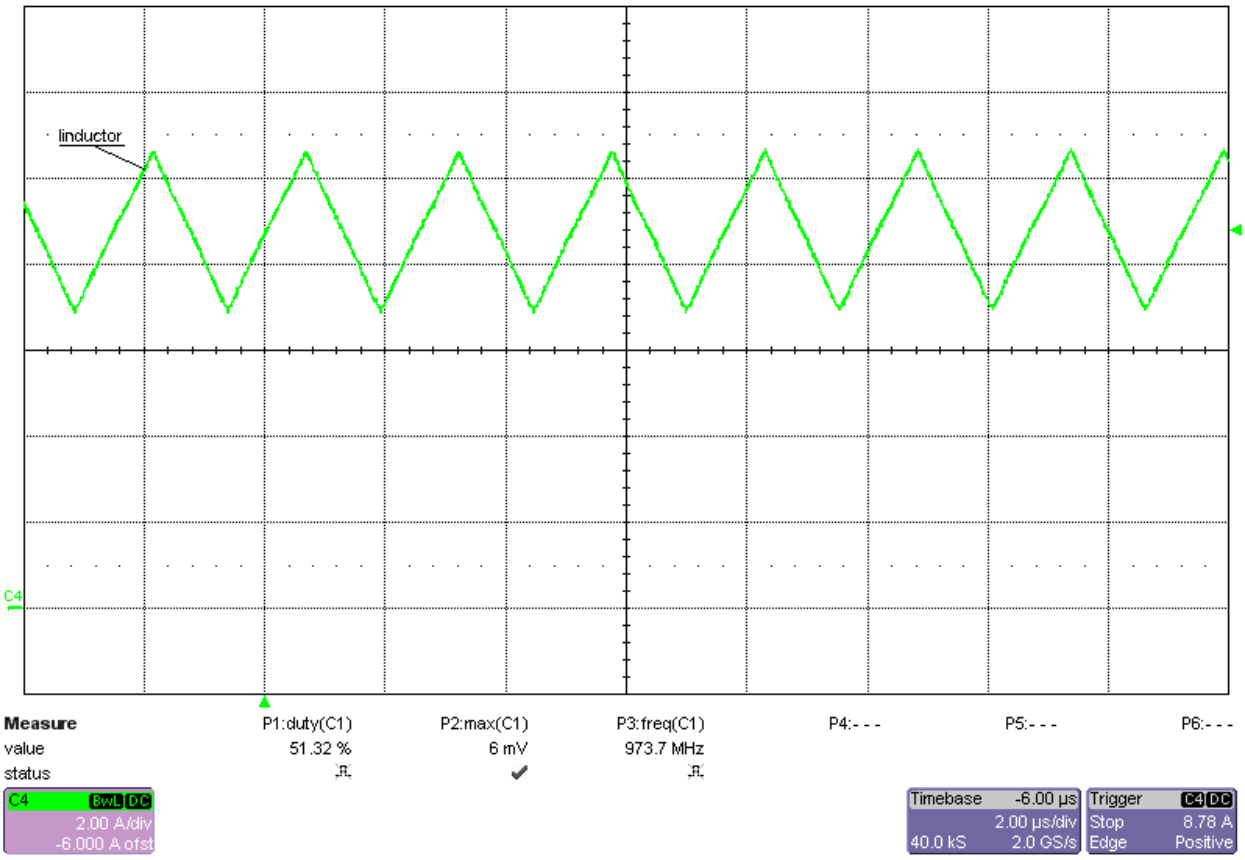


Transient Response 12V, 6to 12A

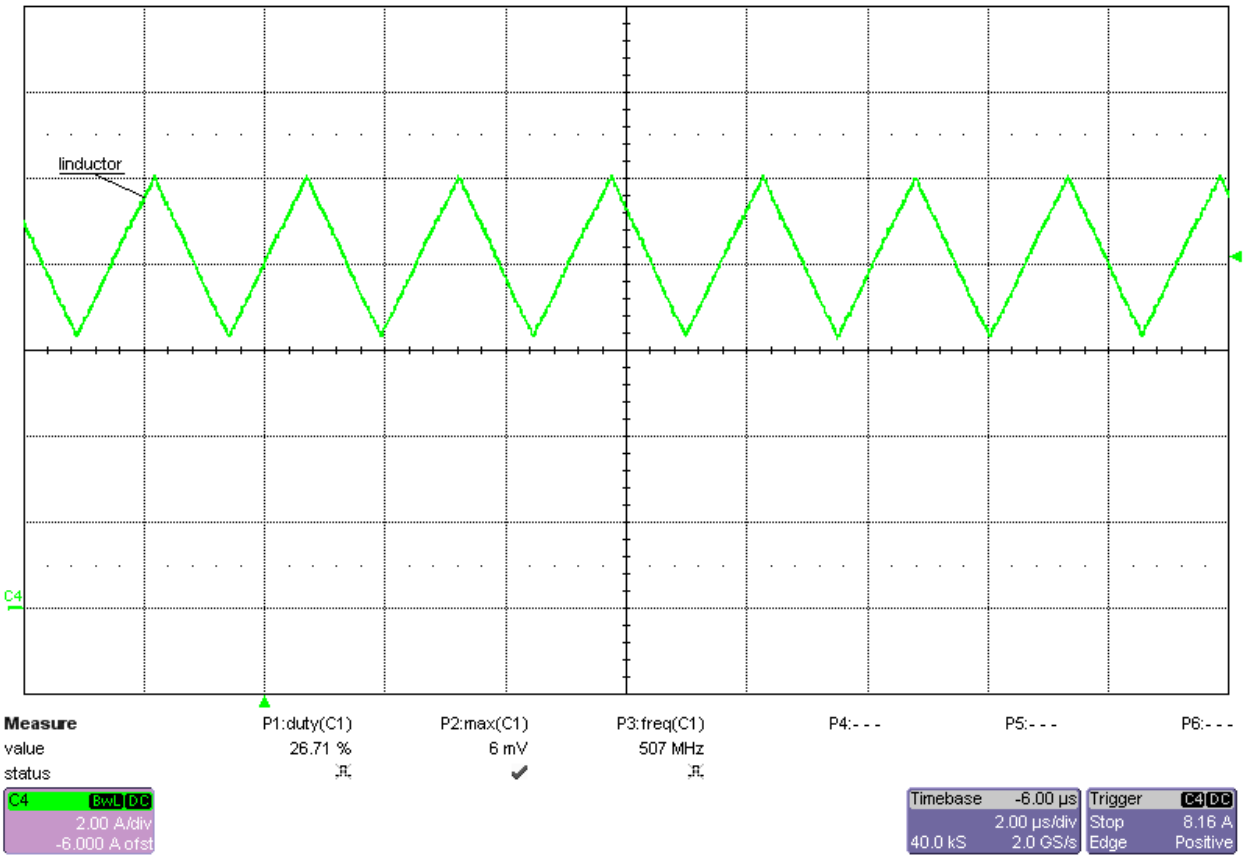


Vout Ripple 12V in 15A out

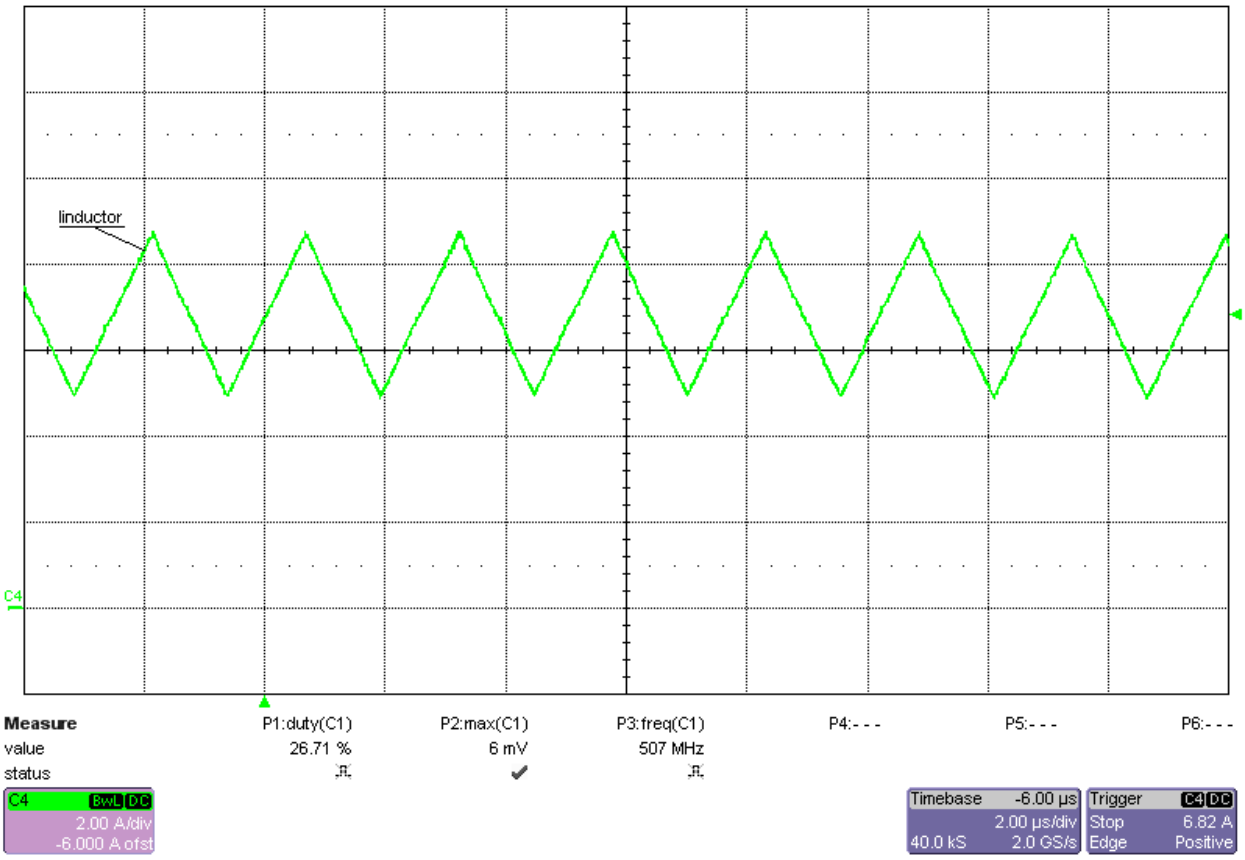
<u>Current Sharing Results</u>



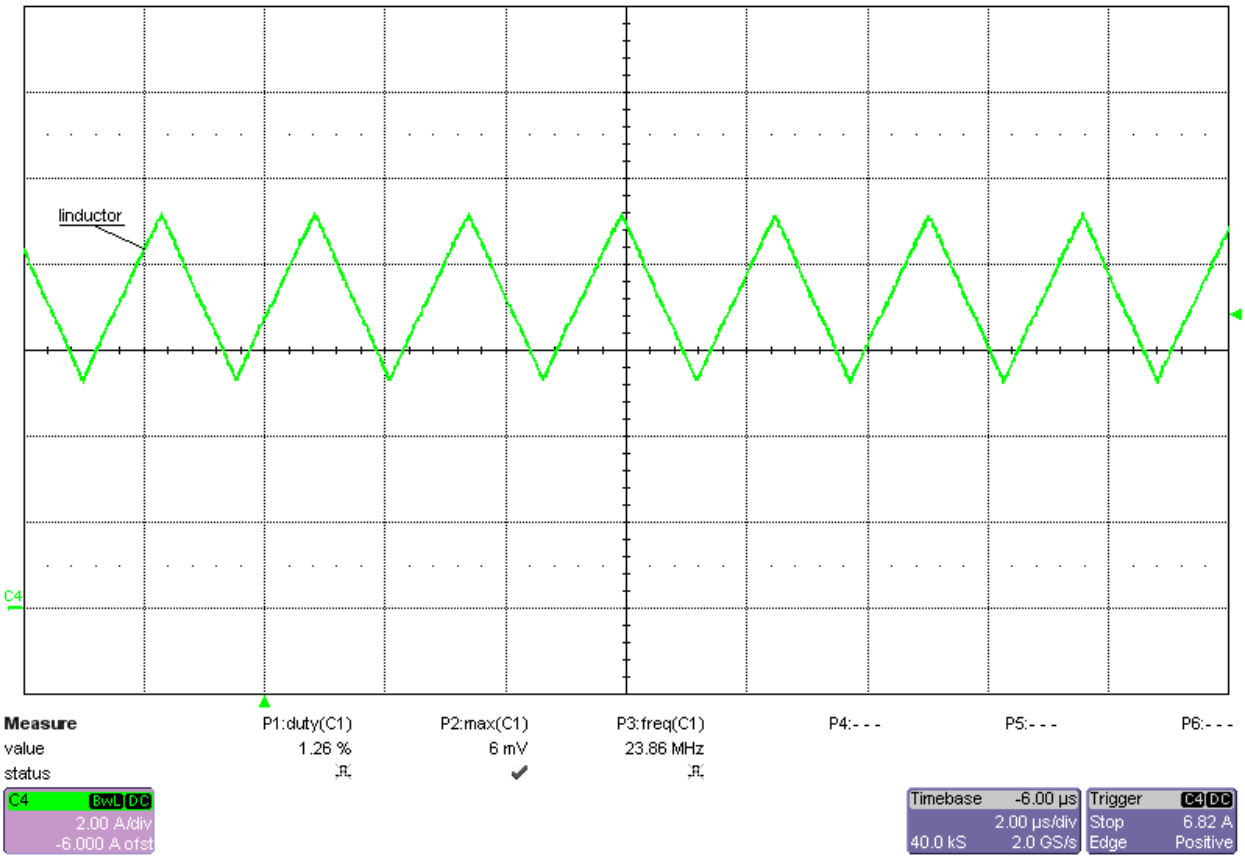
Current Shared by Master (U1) at 15A Iout Total; Iavg. ≈ 8.7A



Current Shared by Slave1 (U3) at 15A Iout Total; Iavg. ≈ 8.2A

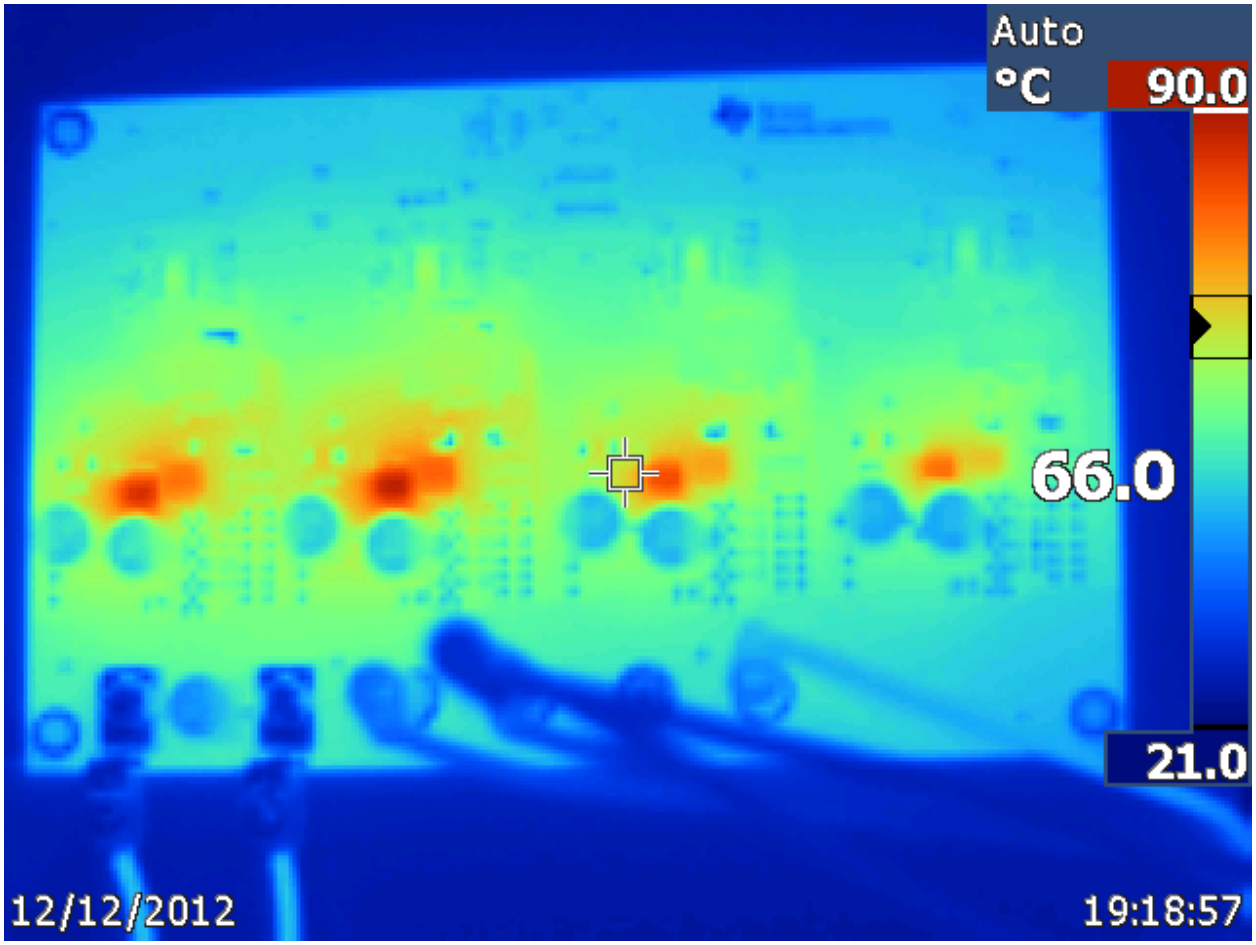


Current Shared by Slave2 (U4) at 15A Iout Total; Iavg. ≈ 7A



Current Shared by Slave3 (U7) at 15A Iout Total; Iavg. ≈ 7.2A

Thermal Data



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