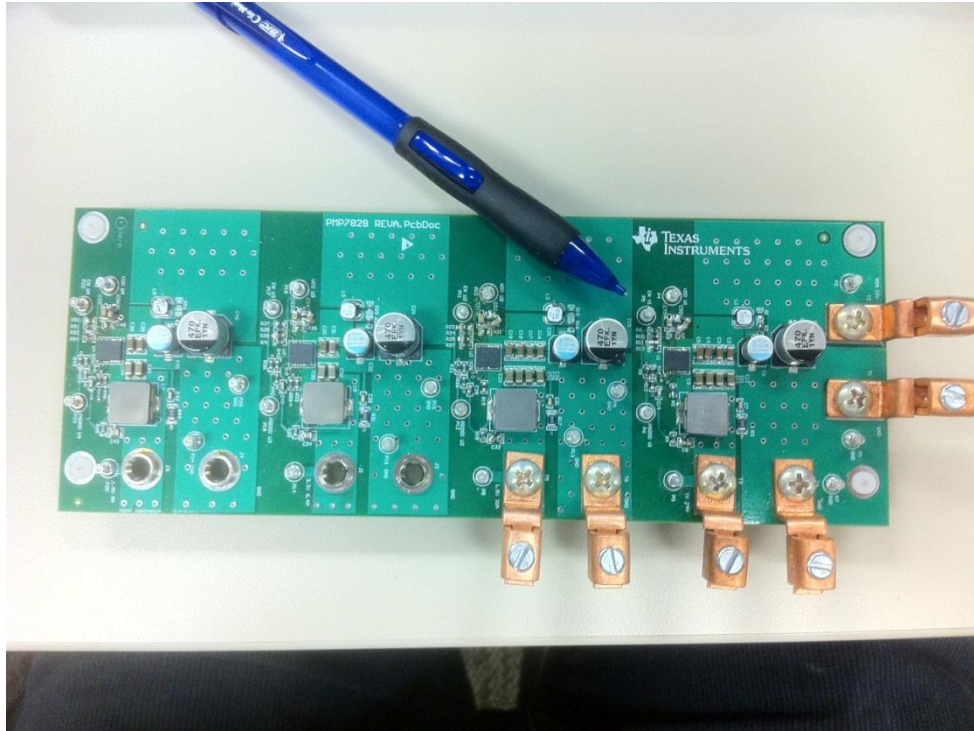


**Test Data
For PMP7828
05/15/2012**



Photo



Board size is approximately 8"x3"

System Efficiency

Vin	Iin	Vout 3.3	Iout 3.3	Vout 1	Iout 1	Vout 1.8	Iout 1.8	Vout 1.5	Iout 1.5	Pin	Pout	Ploss	Eff
12.02	10.408	3.43	6.44	0.957	24.024	1.832	8	1.538	30	125.1042	105.8762	19.22799	0.846304

Steady State Thermal Data (C) Air flow measured on bench to be approximately 100LFM.

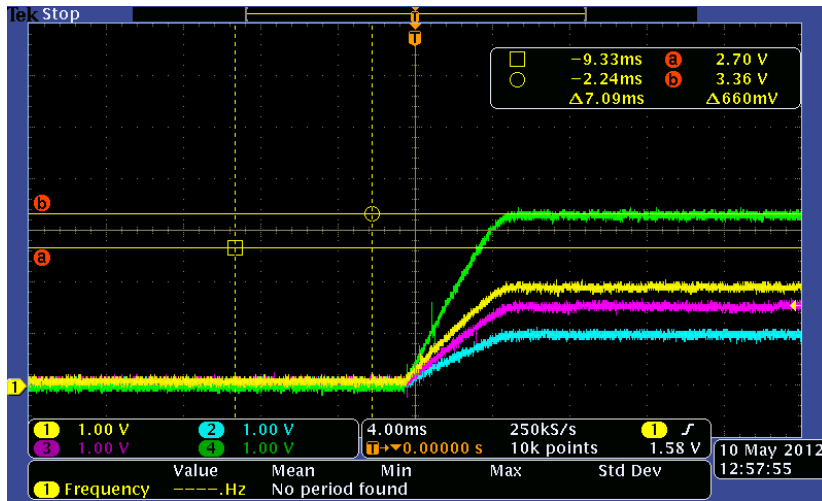
Half Load	AF~100LFM				
	1.8V	3.3	1.5	1	
Iout	4A	3.2A	15A	12A	
IC		33	33	46	38
Lbuck		36	36	37	33
Cin		31	33	39	33
Input filter L		30	32	35	30

3/4 Load	1.8V	3.3V	1.5V	1V
Iout	6A	4.8A	22.5A	18A
IC	38	47	70	56
Lbuck	36	47	58	48
Cin	34	47	56	38
Input filter L	31	43	44	38

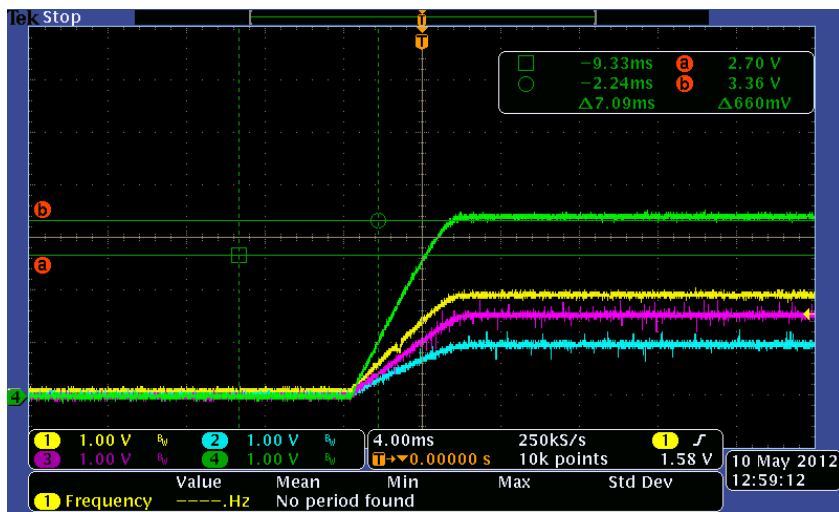
Full Load	1.8V	3.3V	1.5V	1V
Iout	8A	6.4A	30A	24A
IC	46	55	101	75
Lbuck	43	60	77	60
Cin	37	60	78	51
Input filter L	38	53	65	43

The temperature rise at full load for the 30A TPS5355 is 78C. The max ambient for this board is 47C. For improved performance suggest that the copper thickness be increased from 1 oz copper to 2oz copper and the copper area connected to the DAP underneath the part be increased to improve thermal performance.

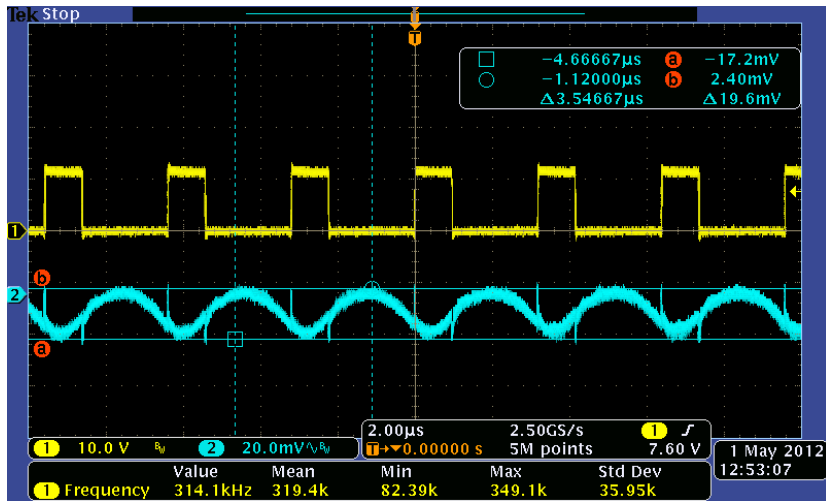
Waveforms



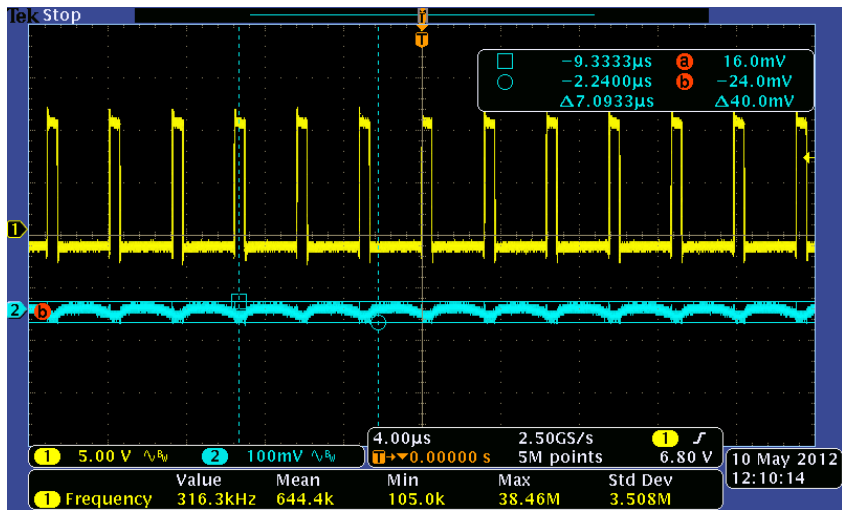
Start Up All Rails No Load



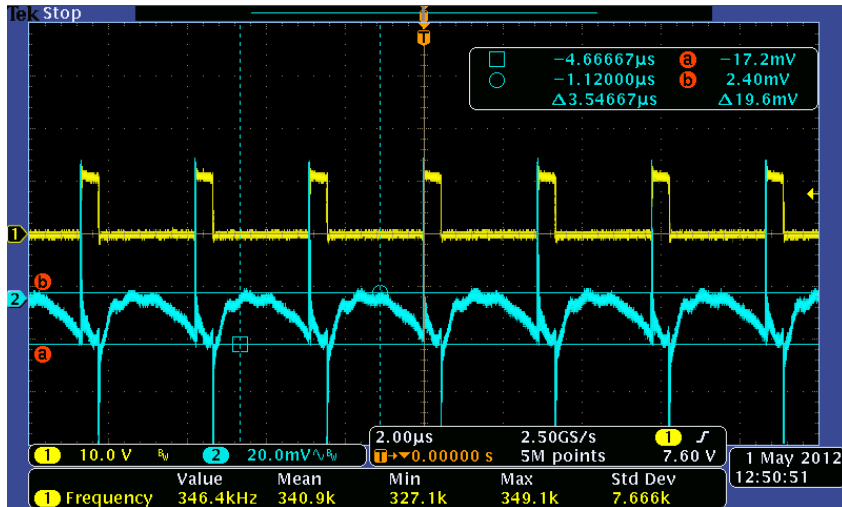
Full Load Start up



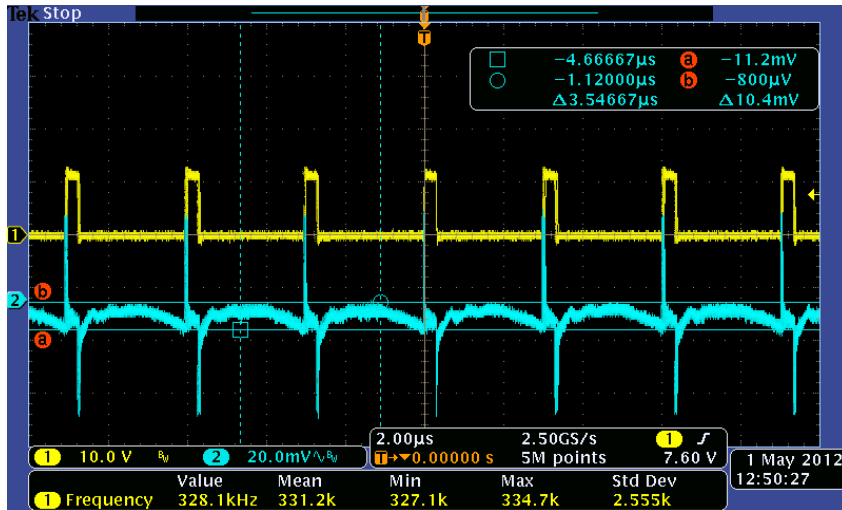
3.3V Vswitch and 3.3V ripple 6.4A Full load – 19mV peak to peak



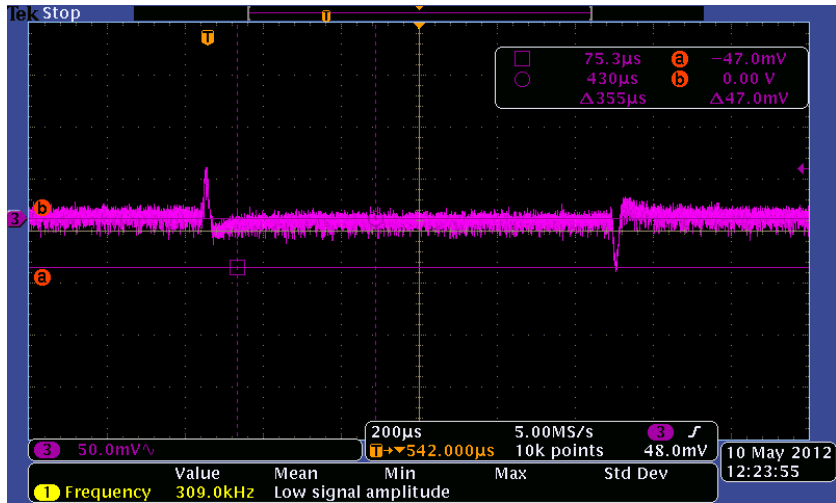
1.8V Vswitch and Vout Ripple 8A Full load – 40mV peak to peak.



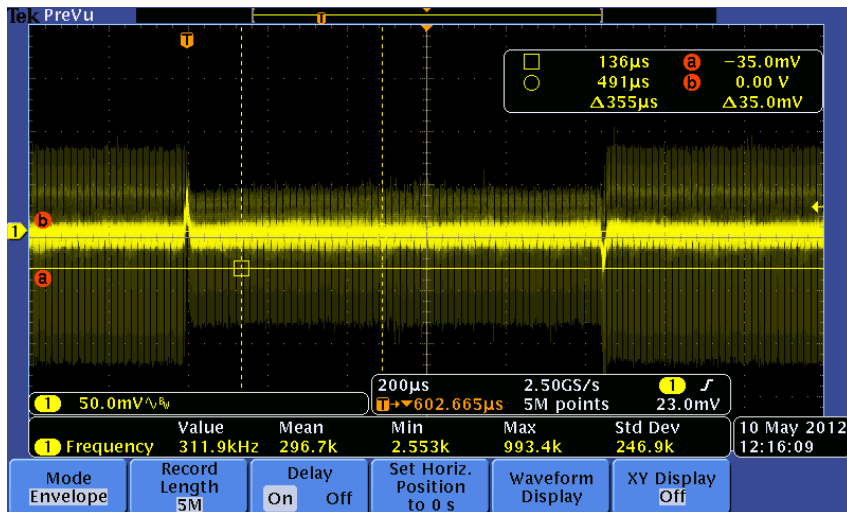
1.5V VSwitch and Vout Ripple 30A load - 20mV peak to peak



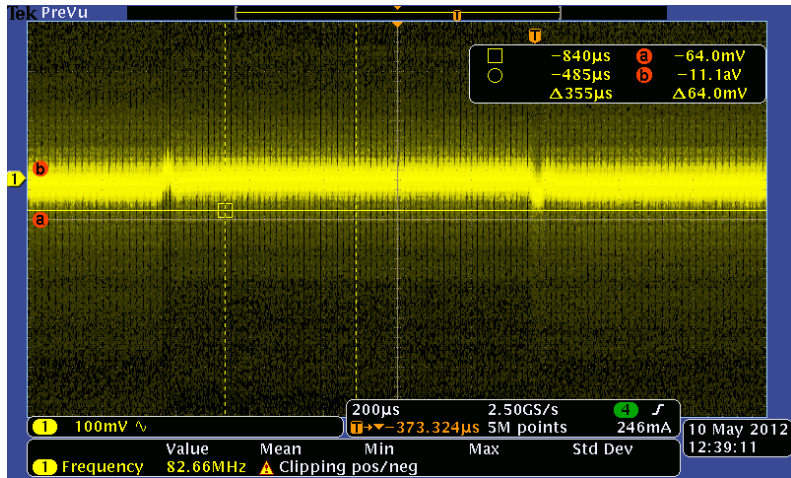
1.0V VSwitch and Vout Ripple 24A Full load - 10mV peak to peak



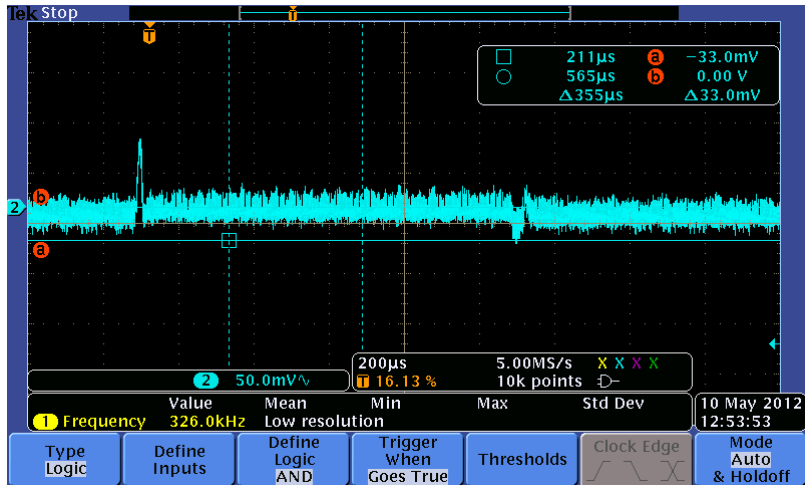
Transient Response 3.3V 3A to 6A at 600mA / us -50mV Droop



Transient Response 1.8V 4A to 8A 600mA/us 35mV Droop



Transient Response 1.5V 15A to 30A 1000mA/us – 65mV Droop



Transient Response 1.0V 12A to 24A 1000mA/us – 35mV Droop

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