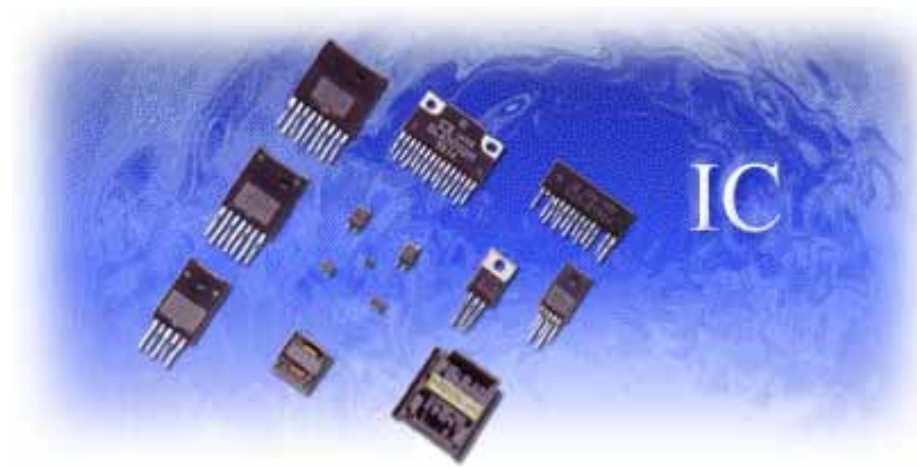


SSC9502S

Proposal Report



Contents	Output: 24V/6A, 12V/3A Input: 282Vac (400Vdc) Pout= 180W
Application	
Master	Sato
Checked by	Wu
Checked by	Chao
Written By	C-Chang
Date	2008 / 06 / 19

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 Shihau east Road, Sec.2, 1

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Efficiency & Temperature Check

Efficiency check

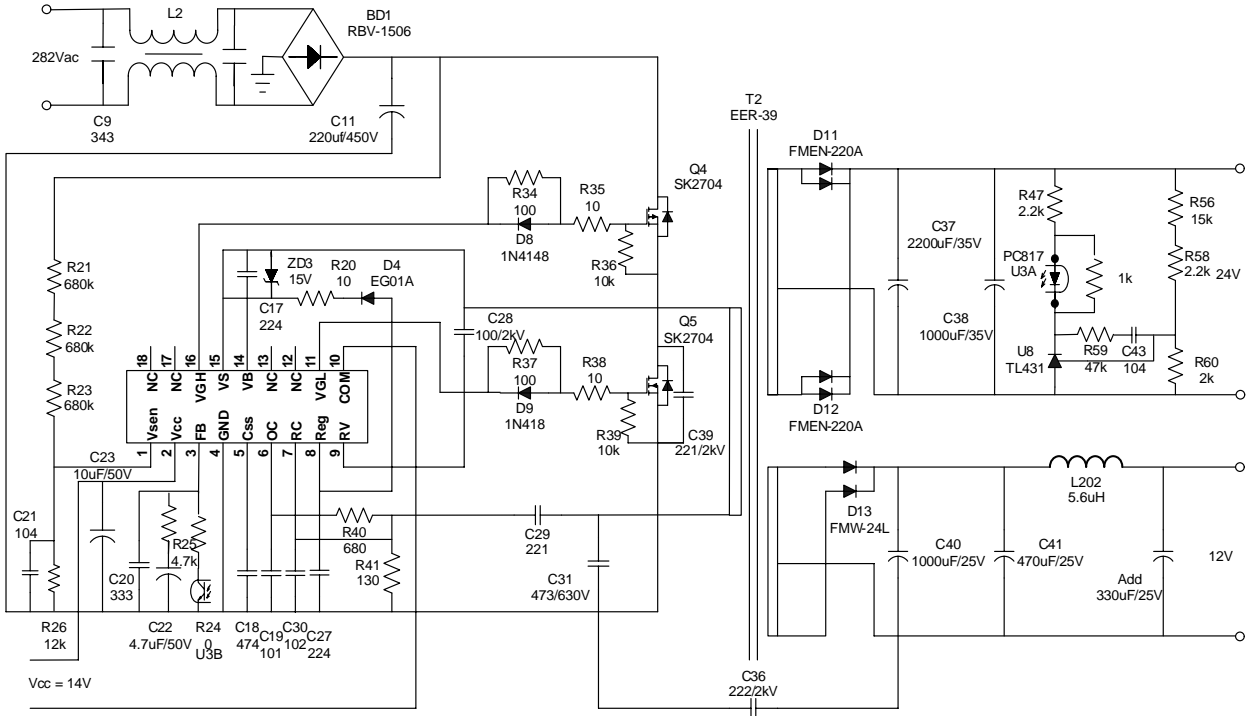
VinAC(V)	VoutDC(V)	Iout (A)	VoutDC(V)	Iout (A)	Pout (W)	Pin (W)	Eff. (%)
	24V		12V				
282	23.99	6	11.73	3	179.13	196.07	91.4

Temperature check

Ta = 25

VinAC(V)		282
Bridge Diode()		55
IC body()		44
High side MOS()		55
Low side MOS()		57
Transformer ()	1st wire	44
	2st wire	49
	core	43
24V Diode ()	D11	53
	D12	48
12V Diode()	D13	37

Circuit diagram



Transformer specification

Hybrid IC: SSC9502S

Input range: 282Vac

Output power: 180W (24V/6A,12V/3A)

Transformer:

Core: EER-40

Lp : 470uH

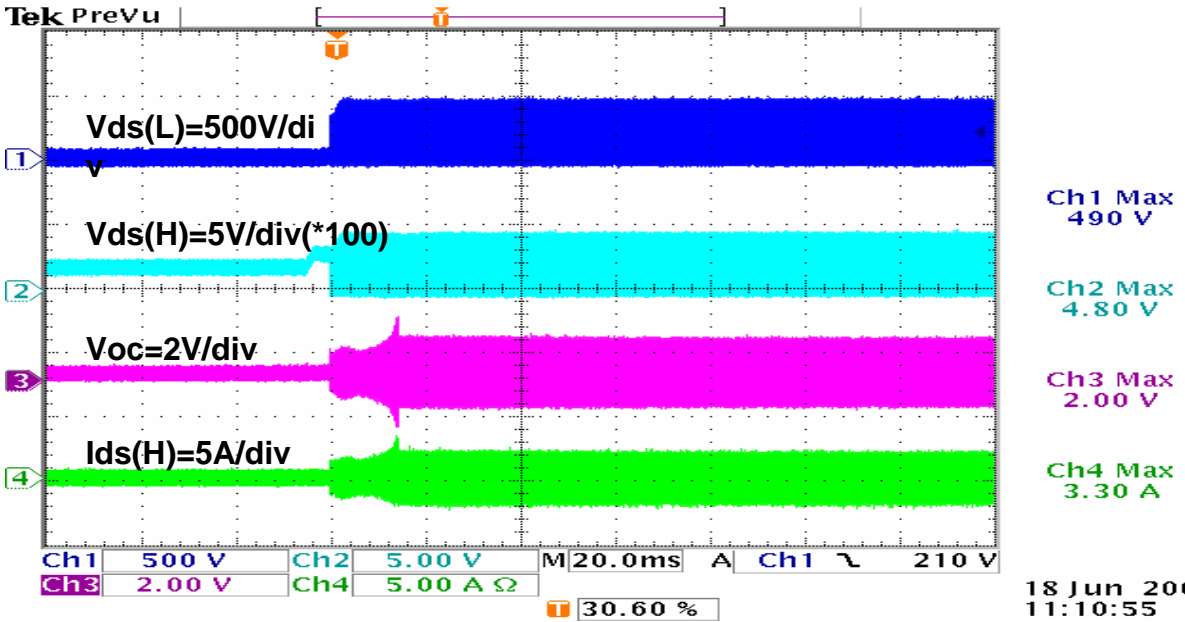
Gap: 0.4mm

Lr : 107uH

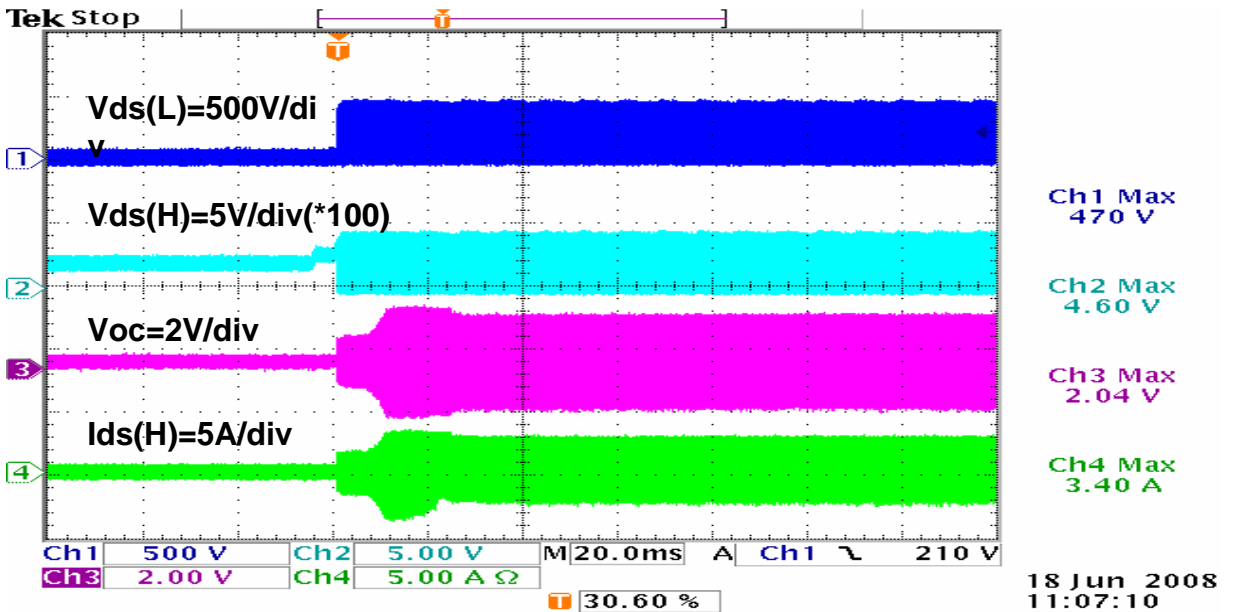
Name		Mark	Turn (T)	Wire (mm)	Winding type
Primary		P1	36	0.1Ø*80	Solenoid
Secondary	24V/6A	S1	4	0.1Ø*120	Solenoid
	12V/3A	S2	4	0.1Ø*80	Solenoid
	24V/6A	S1'	2	0.1Ø*120	Solenoid
	12V/6A	S2'	2	0.1Ø*80	Solenoid

start-up waveforms check

No load (24V/0A,12V/0A)

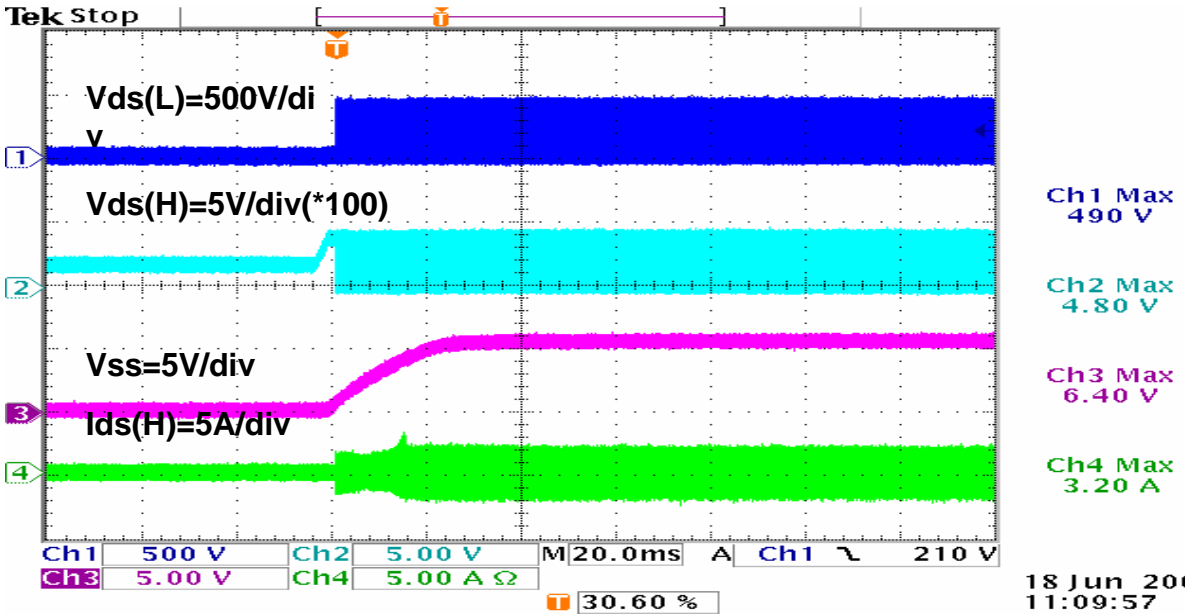


Max load (24V/6A,12V/3A)

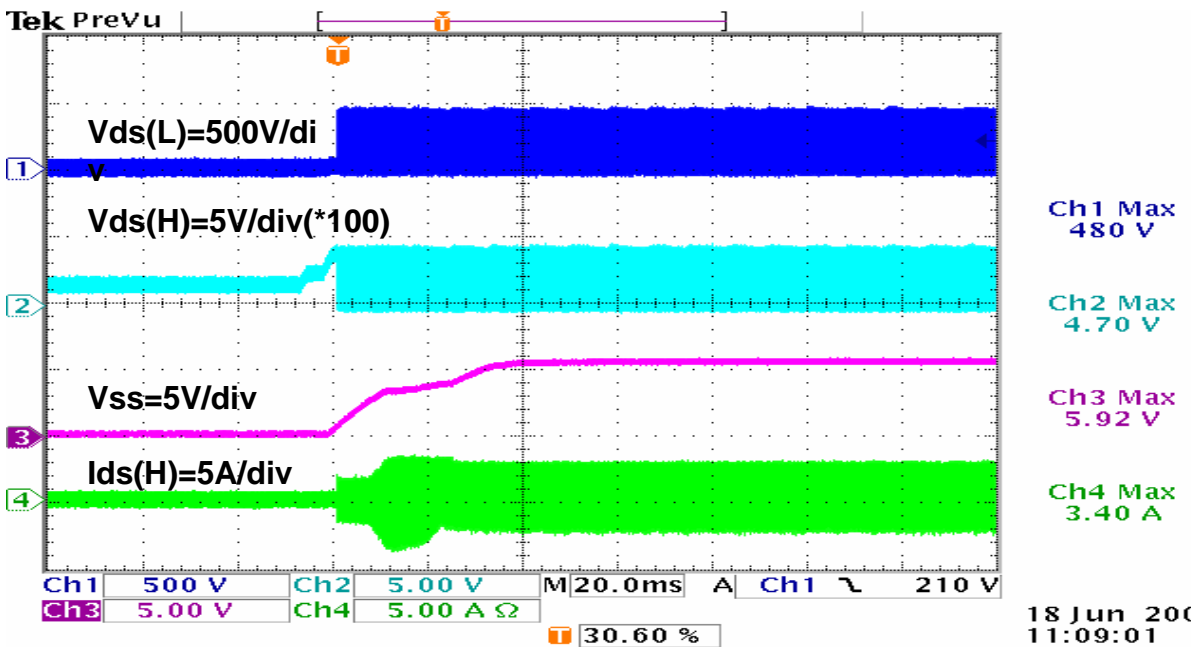


start-up waveforms check

No load (24V/0A,12V/0A)

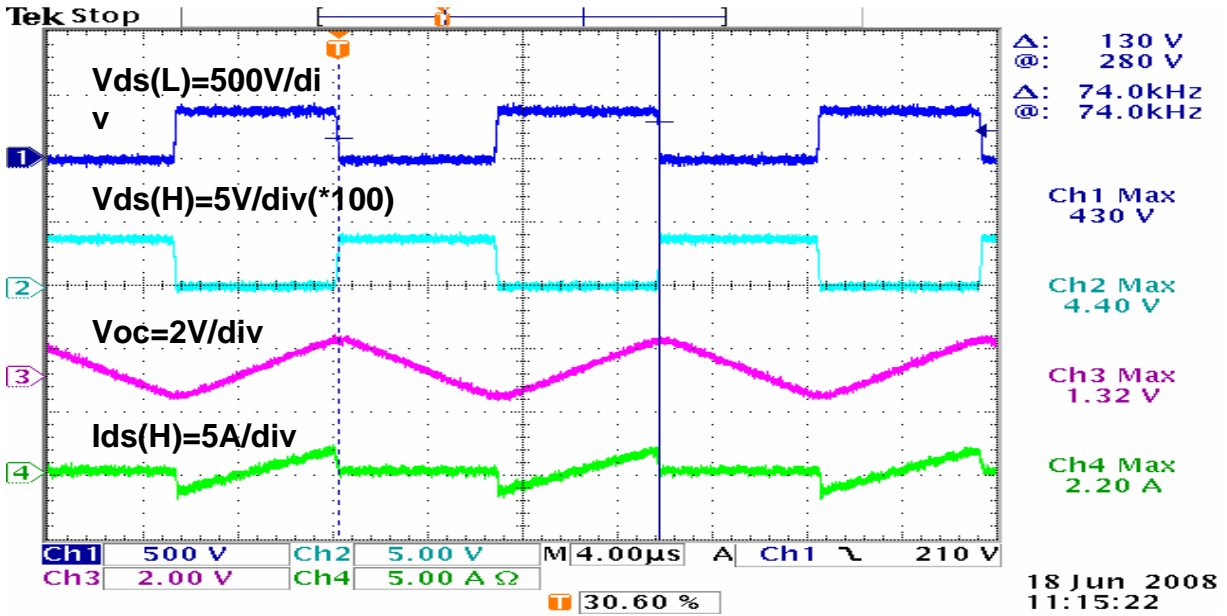


Max load (24V/6A,12V/3A)

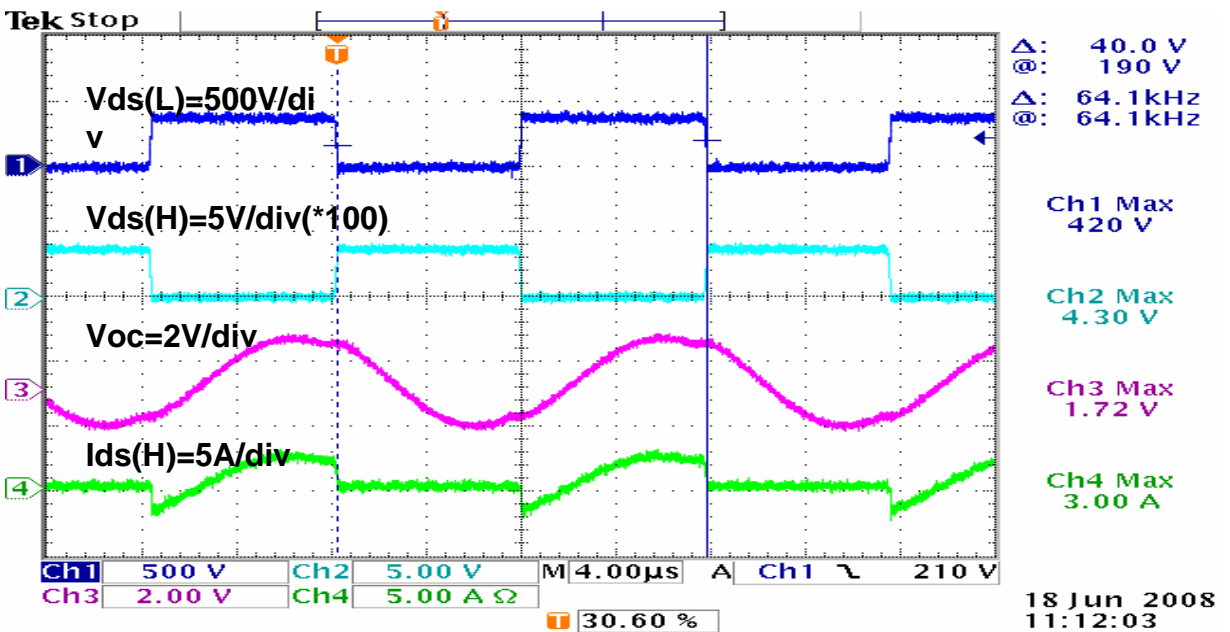


OC pin waveforms check

No load (24V/0A,12V/0A)

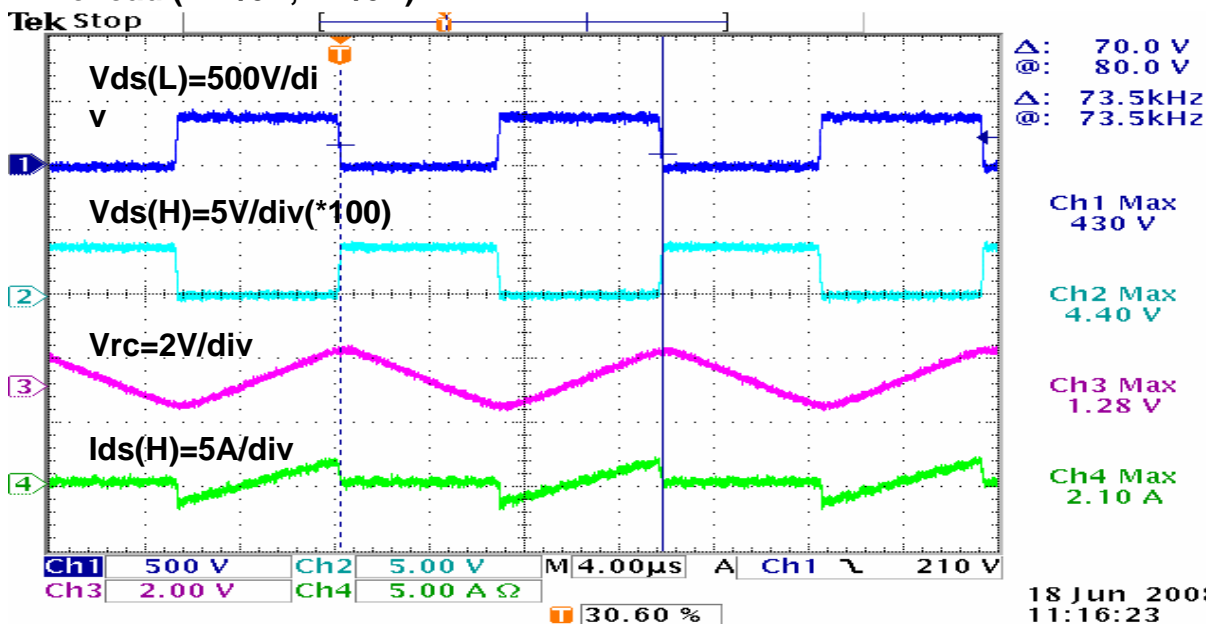


Max load (24V/6A,12V/3A)

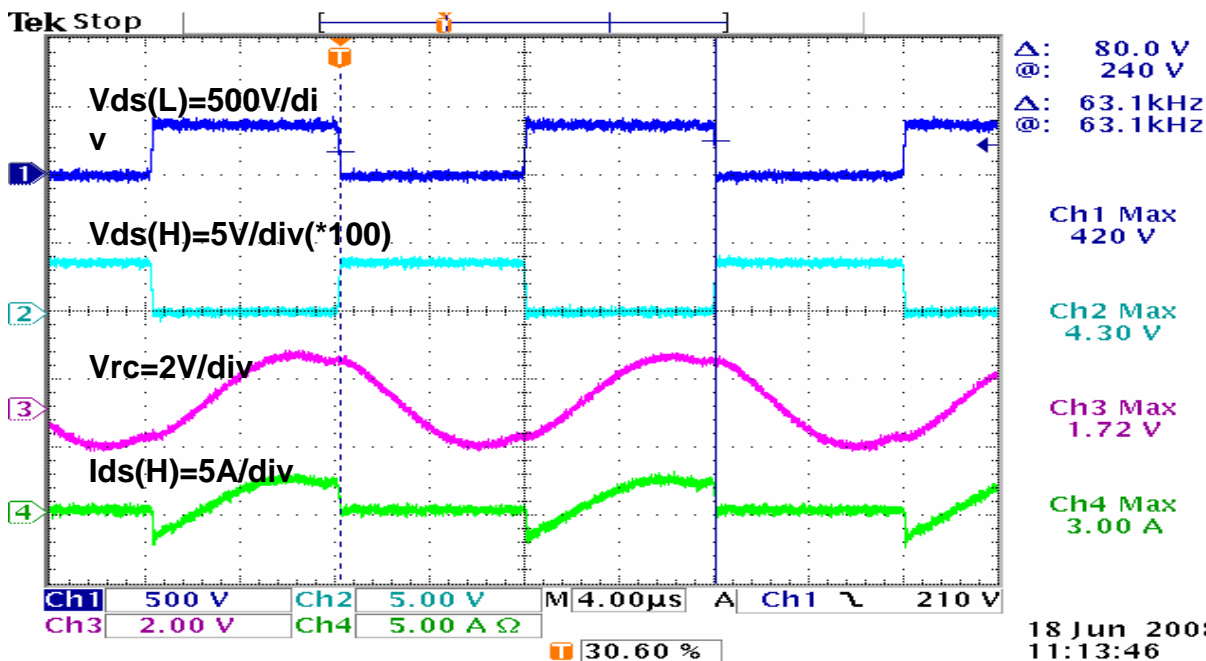


RC pin waveforms check

No load (24V/0A,12V/0A)

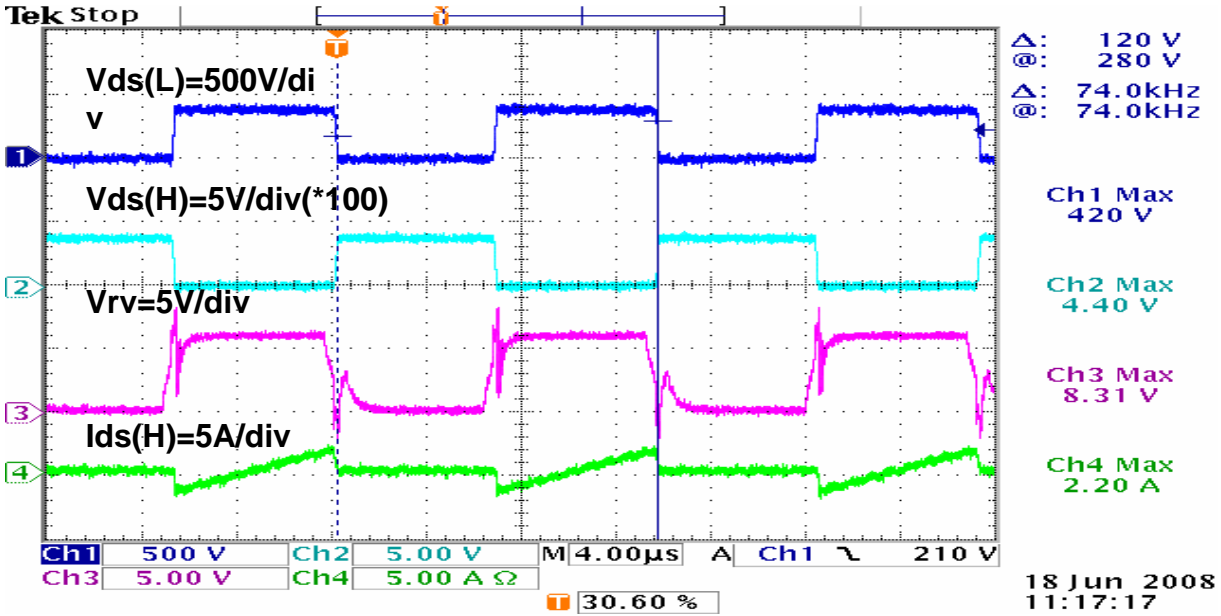


Max load (24V/6A,12V/3A)

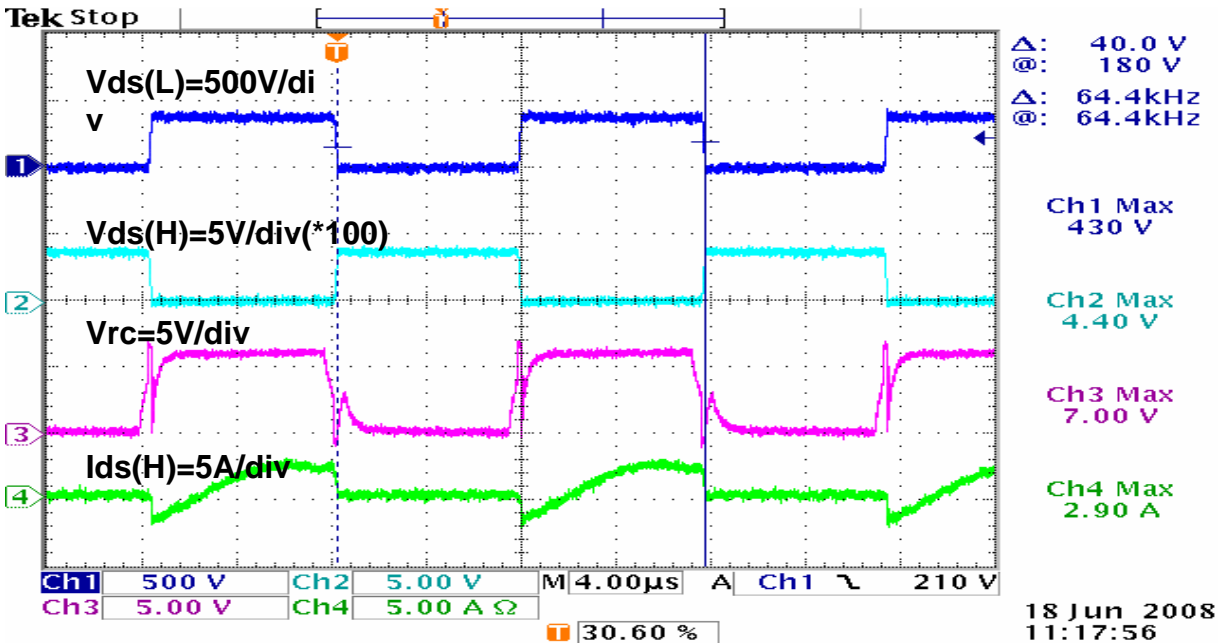


RV pin Waveforms check

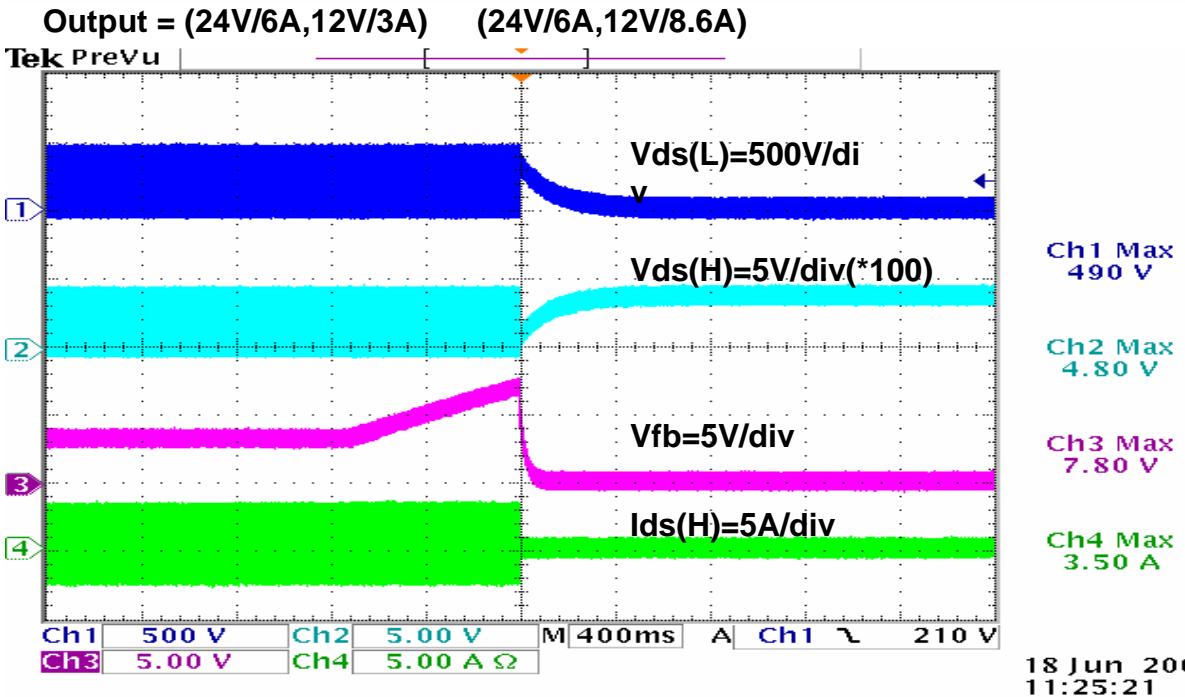
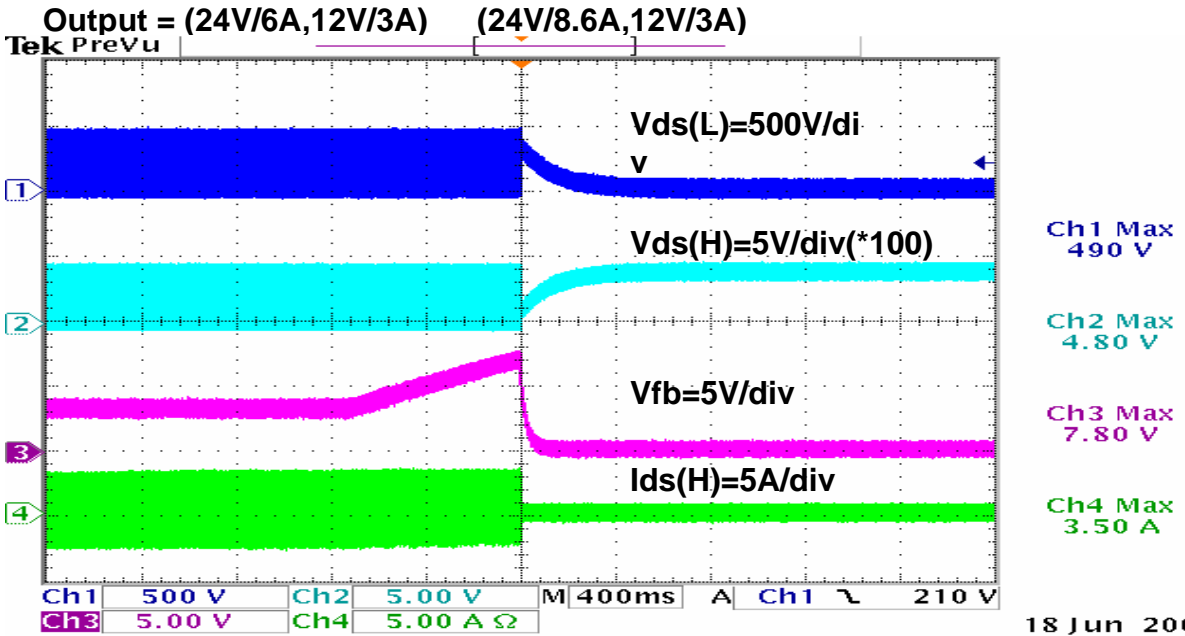
No load (24V/0A,12V/0A)



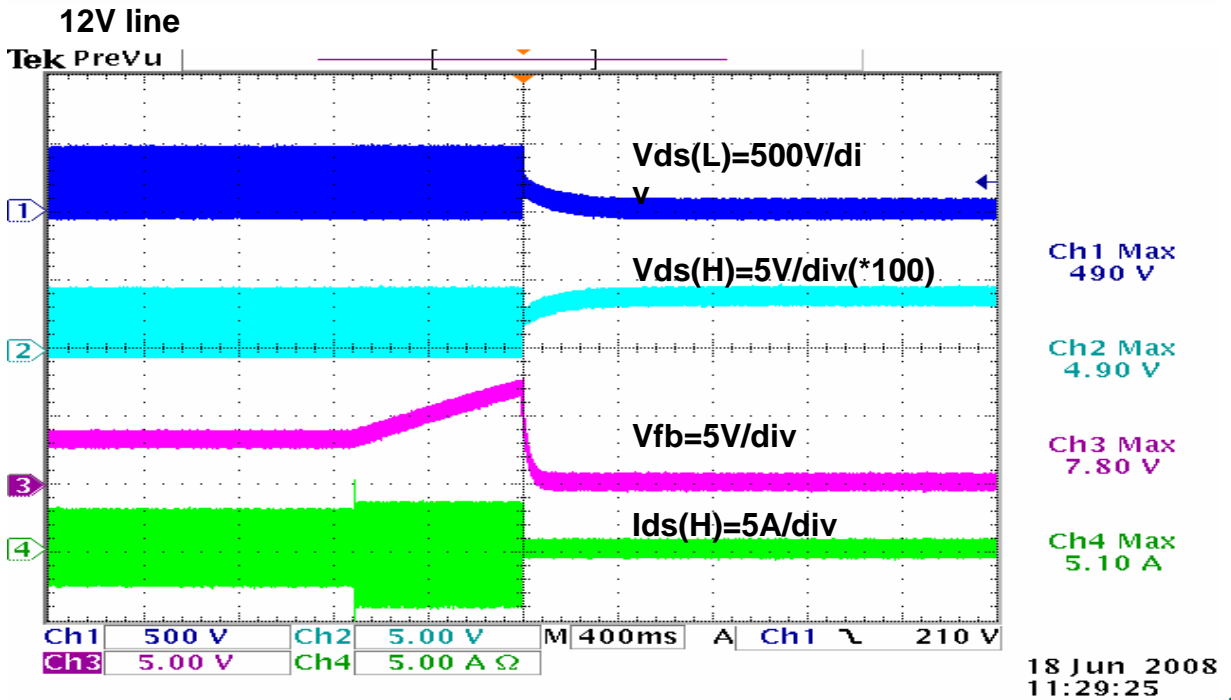
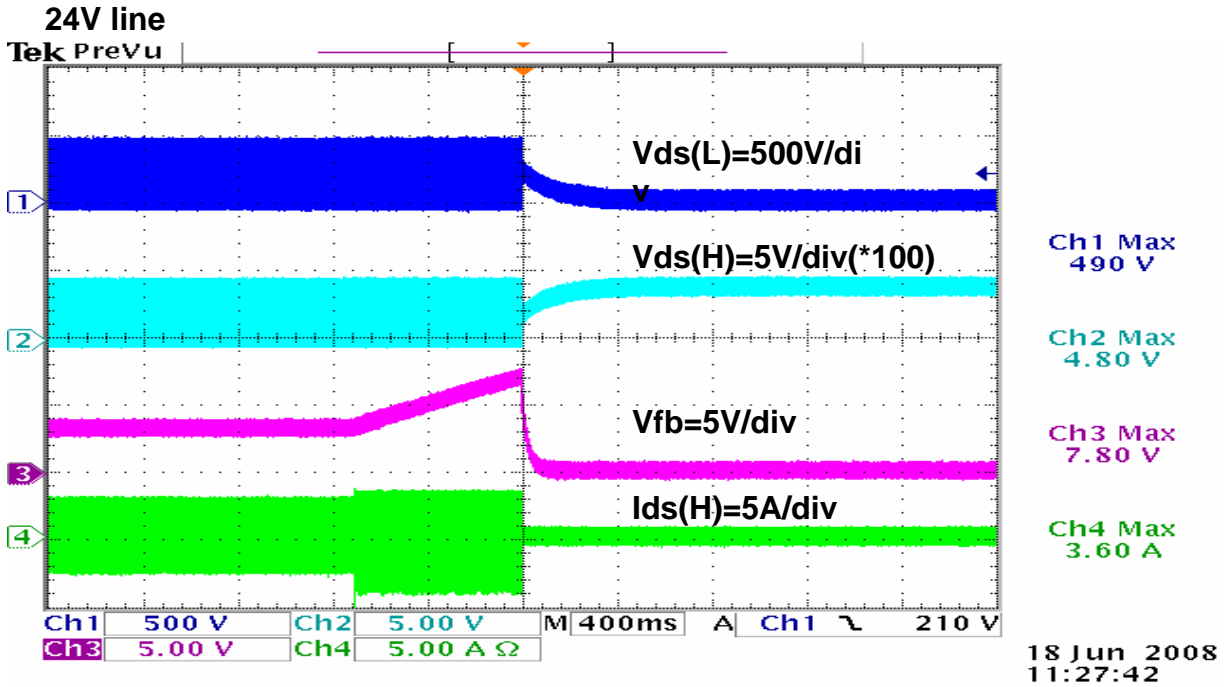
Max load (24V/6A,12V/3A)



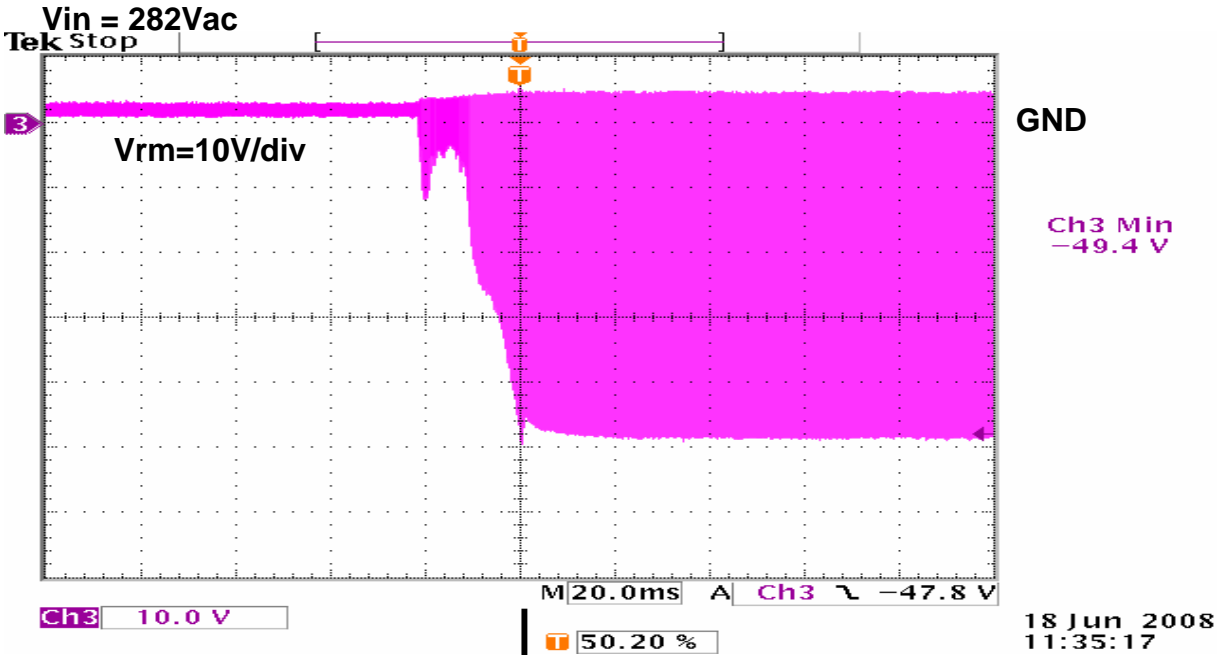
OLP Waveforms check



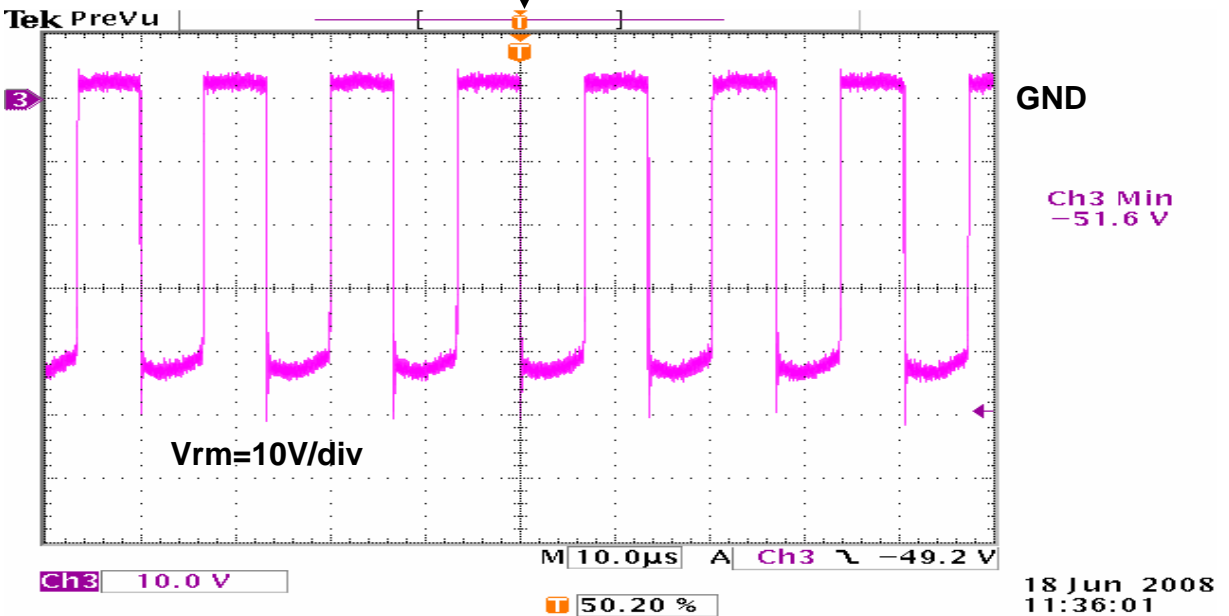
2nd Capacitor short Waveforms check



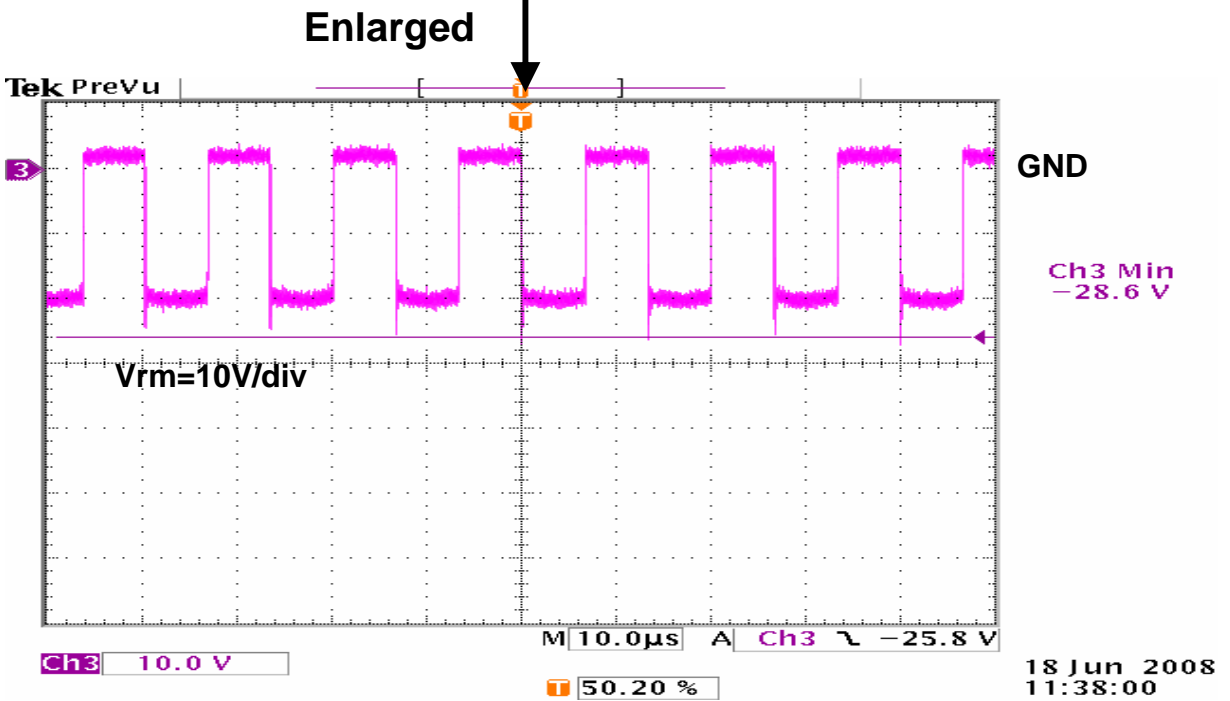
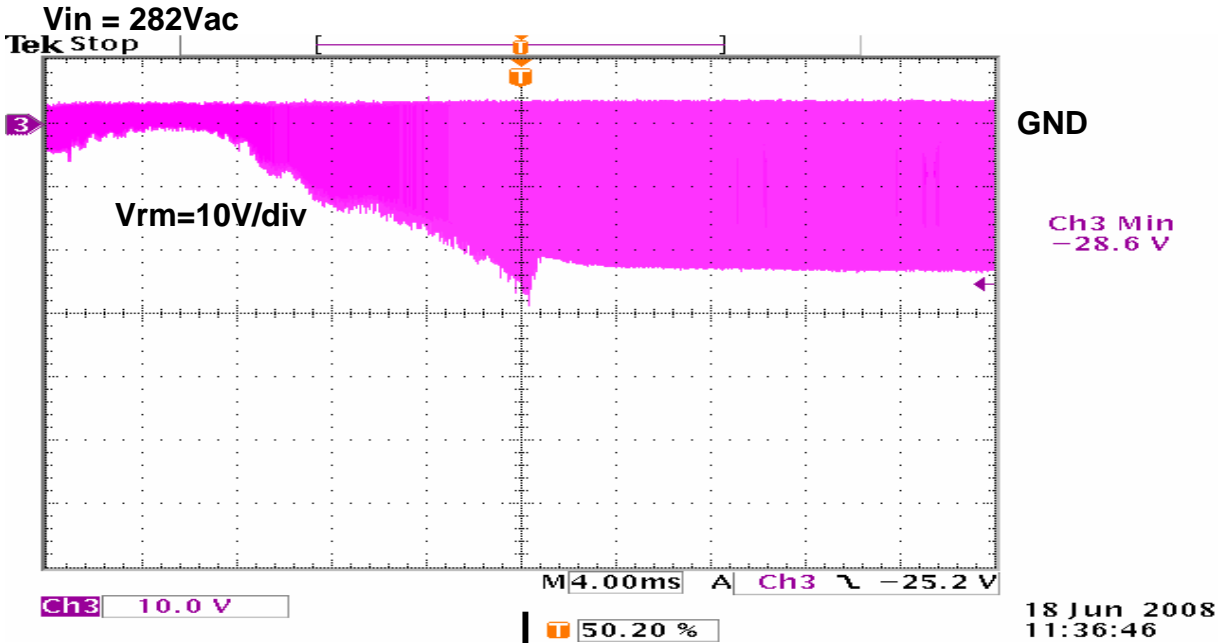
24V Vrm Waveforms check



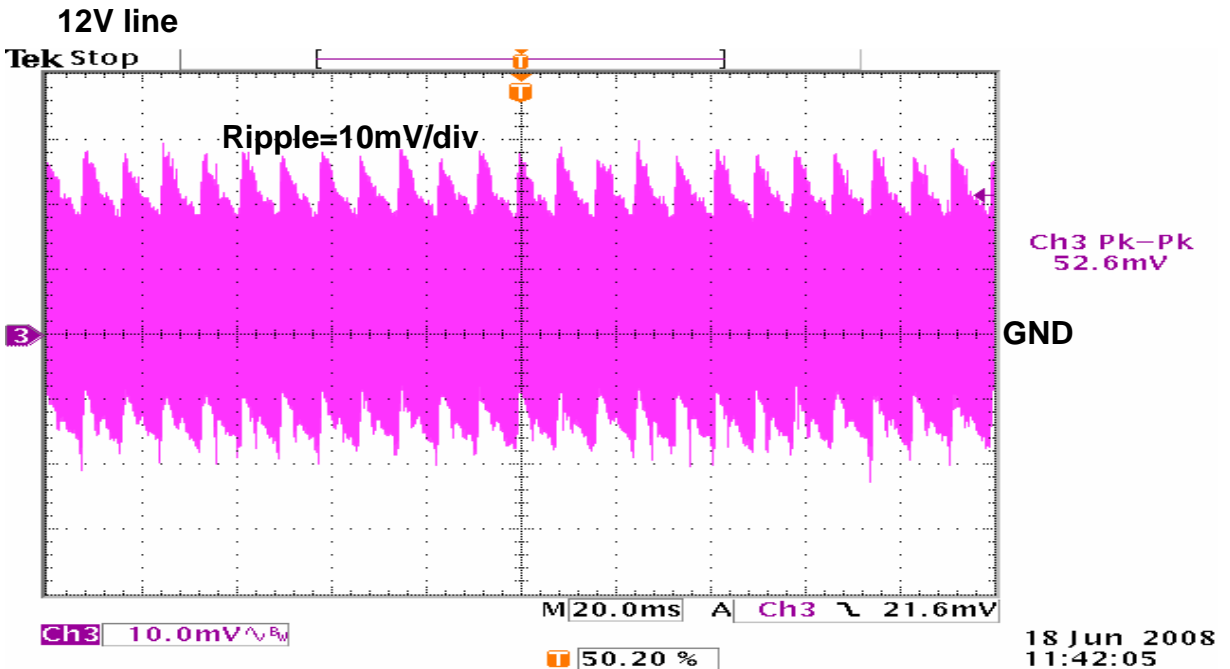
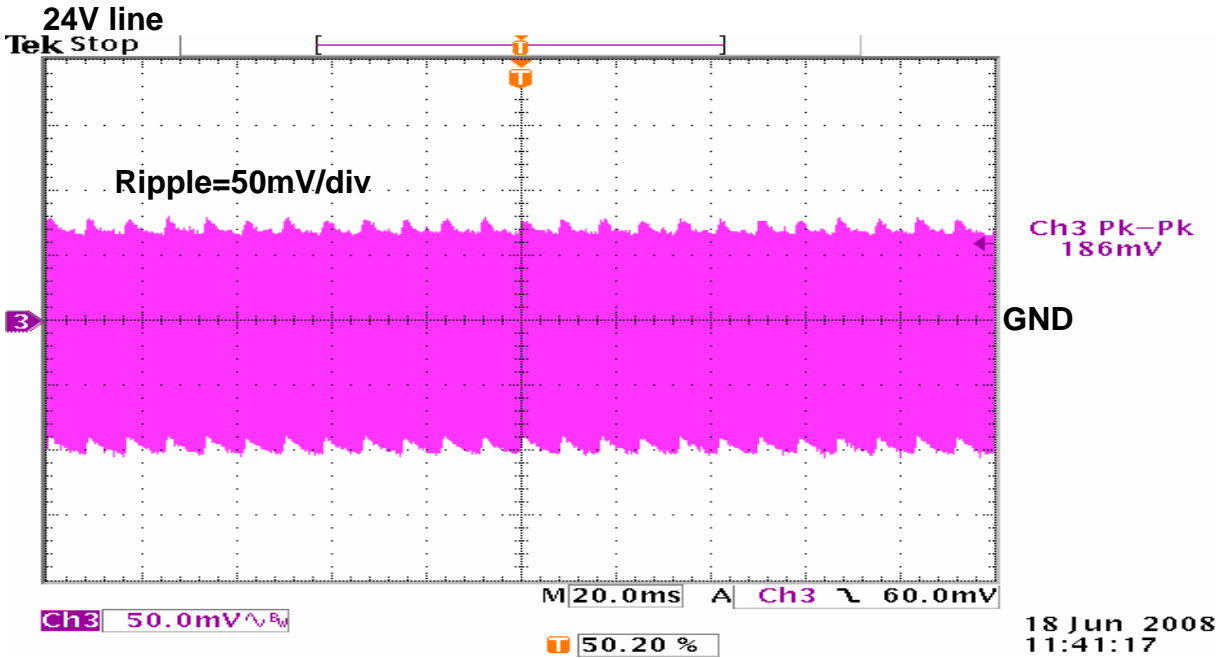
Enlarged



12V Vrm Waveforms check



Output ripple check at Max load



Test condition: 20MHz band width, a 10uF capacitor in parallel with a 0.1uF capacitor.