

$$L \geq \frac{V_o T_s}{2 I_{o \min}} D (1-D)^2$$

$$D = 1 - \frac{V_{in}}{V_o}$$

$$C \geq \frac{V_o D T_s}{2 \Delta V_{\max}}$$

$$F = 15.983 \text{ kHz}$$

$$D = 0.3055$$

$$V_i = 12.5$$

$$V_o = 18$$

$$L \geq \frac{(18)(15.983 \text{ k})^{-2}}{(2)(0.08)} (0.3055)(0.6945)^2$$

$$L = 1.037 \text{ mH}$$

$$L = \cancel{2 \text{ mH}} 7.43 \text{ mH}$$

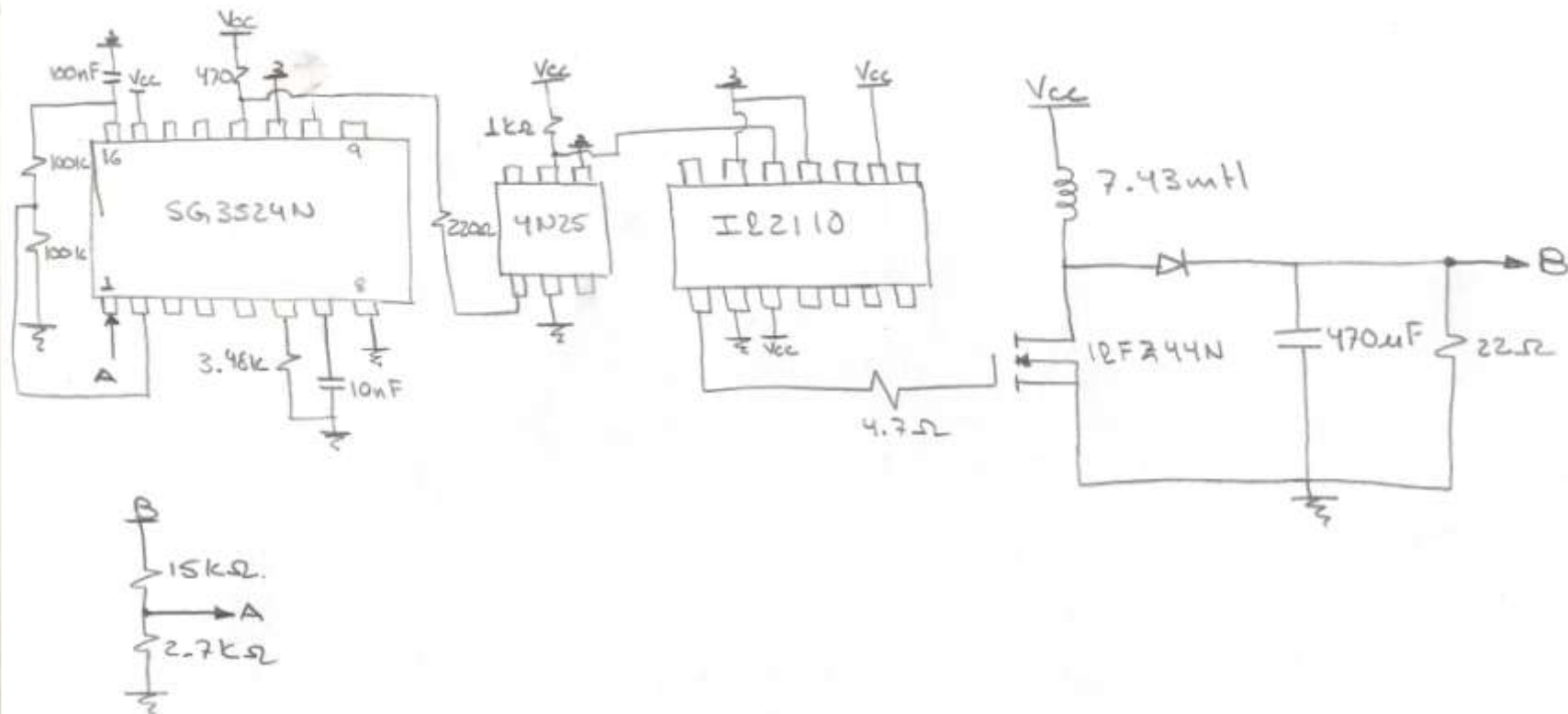
$$\Delta V_{\text{owax}} = .18 \text{ V}$$

$$C \geq \frac{(18)(.3055)(15.983 \text{ k})^{-1}}{(22)(.18)}$$

$$C \geq 86.88 \text{ } \mu\text{F}$$

63.3-2012-2013

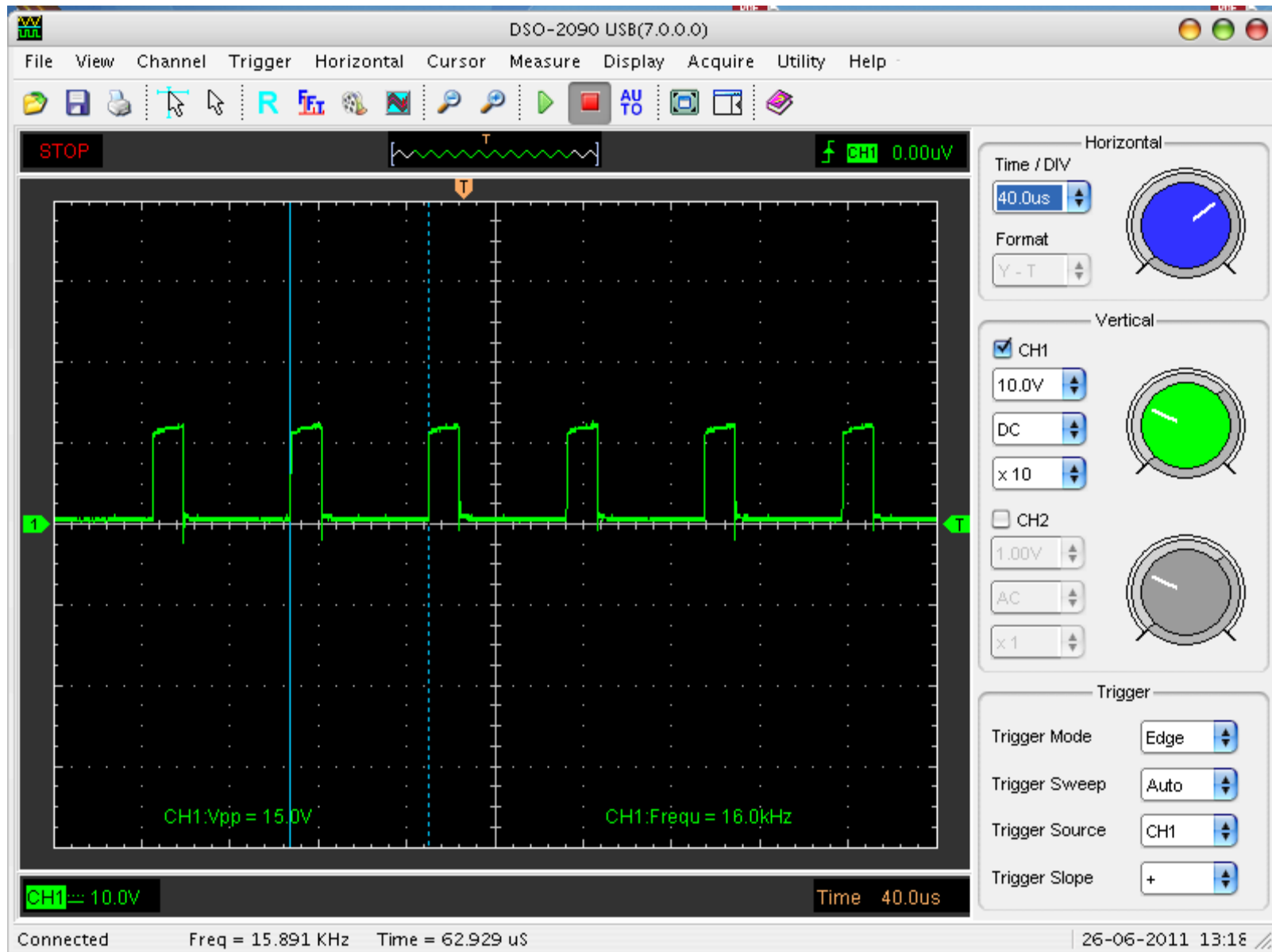
$V_{CC} = 12V$



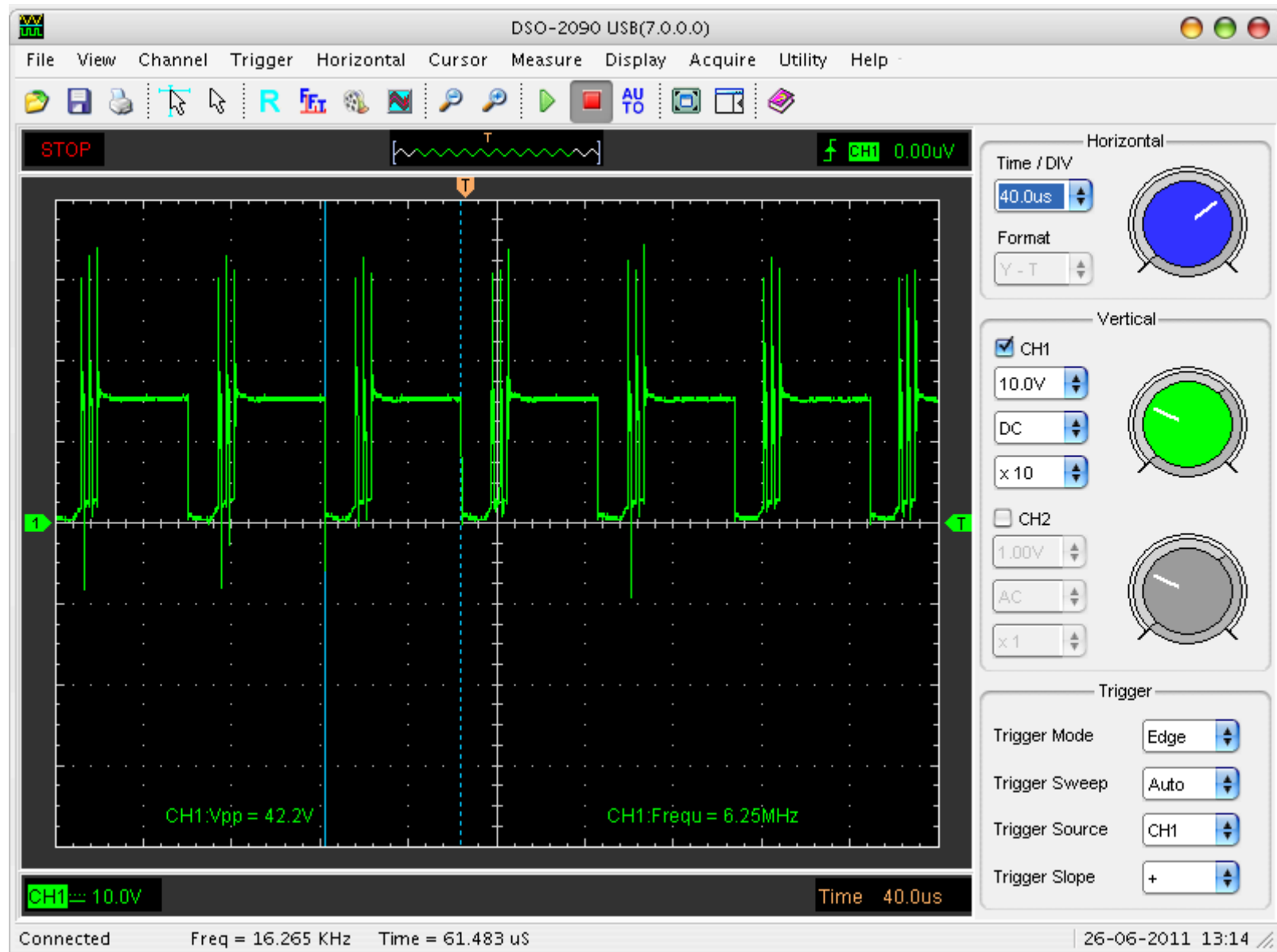
## D – S sin boost



## Gate sin boost



## D – S con boost



## Gate con boost

