

Conclusion

Conclusion / Call to Action

Conclusion Demos

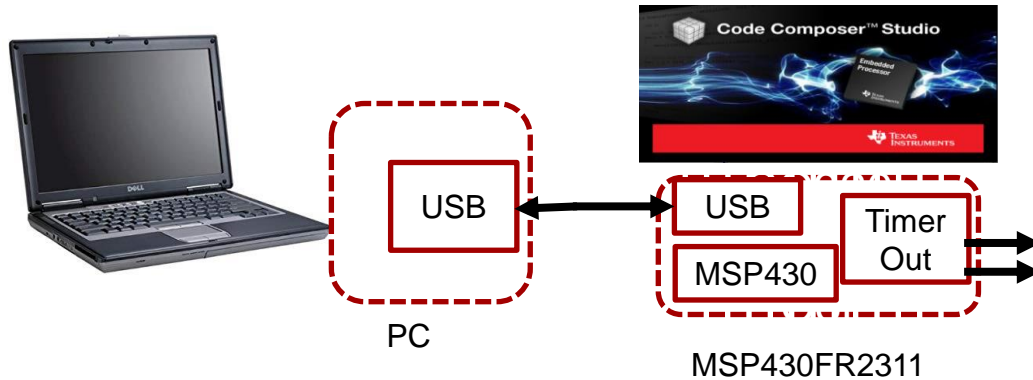
- (Simple) Drive [UCC28070](#) PFC Controller
MSP430 (Revisit Square Wave)
- (Complex) Neopixel controlled wirelessly from
iPad (Fun)

Joe George, Northeast Digital Field Applications

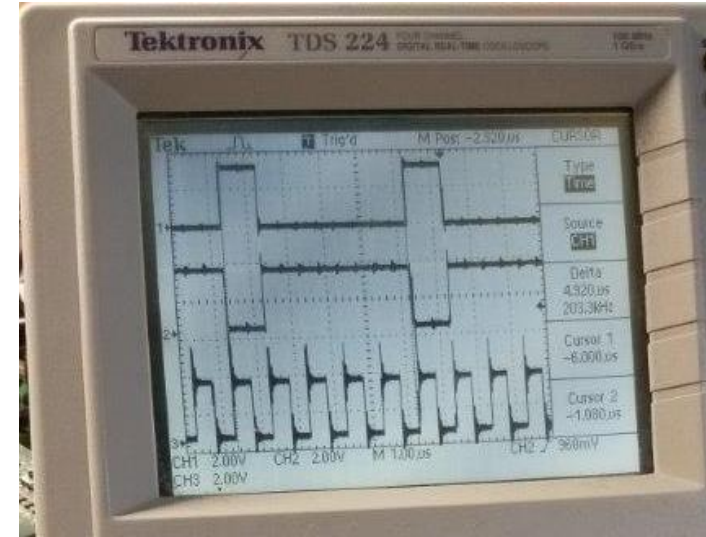
Texas Instruments

Americas Sales and Marketing

Simple Demo - Block Diagram



- Revisit Square Wave
- (Simple) Drive [UCC28070](#) PFC Controller with [MSP430](#) [Programmable Clock Source](#) + [Timer PWM](#) (from [MSP 25f25c](#) 25 Functions for \$0.25)

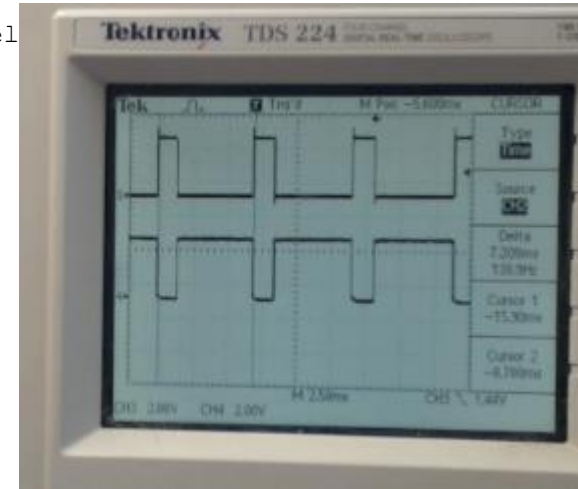
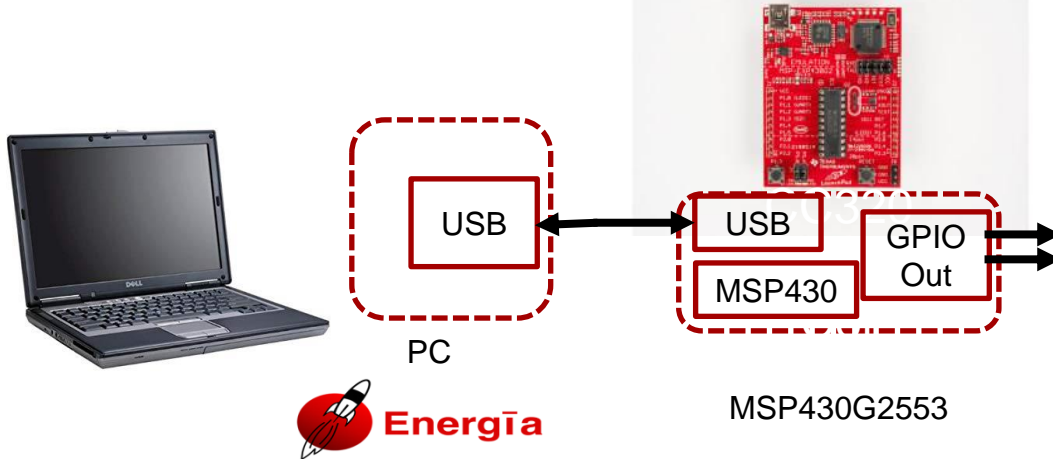


Square Waves (200 kHz) with Reference Clock

Simple Demo – GPIO – Square waves for PFC

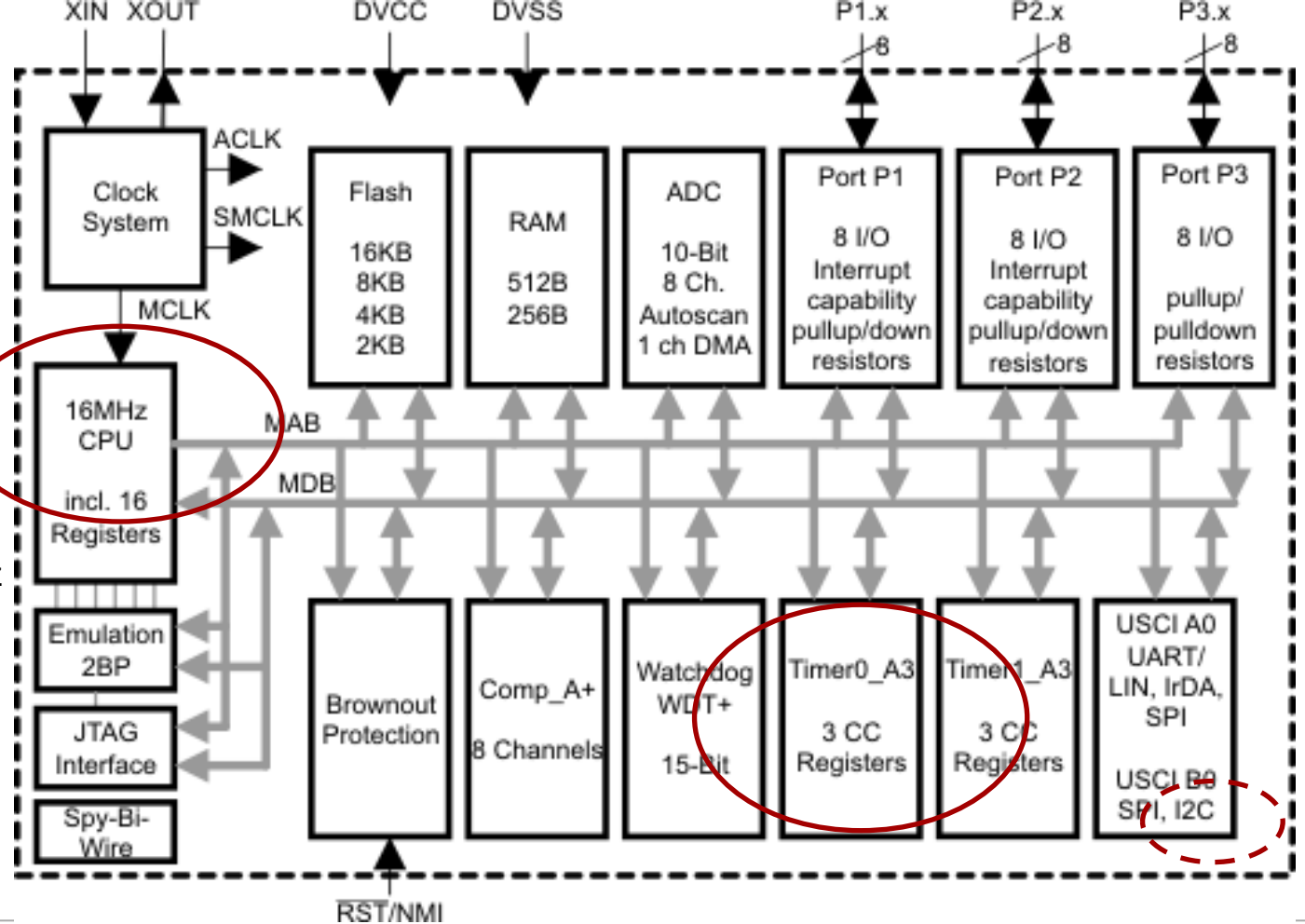
- Step-by-step Functionality (Demo) - PFC (Power Factor Correction) Controller
 - GP Output (“Blinky” is just General Purpose Input) – Energia Blink (square wave)
 - P1.0 ->RED_LED, P1.6 ->GREEN_LED

```
digitalWrite(RED_LED, HIGH); // turn the LED on (HIGH is the voltage level)
digitalWrite(GREEN_LED, LOW); // turn the LED off (LOW is the voltage level)
delay(5); // wait for 5 milliseconds (long pulse)
digitalWrite(RED_LED, LOW); // turn the LED on (HIGH is the voltage level)
digitalWrite(GREEN_LED, HIGH); // turn the LED on (HIGH is the voltage level)
delay(1); // wait for 1 millisecond (short pulse)
```



Square Waves with Energia (130 Hz)

MSP430 G2553 Device



- Clock Speed
 - (I2C 83 kHz)
 - CPU ~130 Hz
 - Timer0 ~100 kHz