# Weekly Report – 26 Feb 2018

## PWM Generation using DSP

### Digital Input / Output

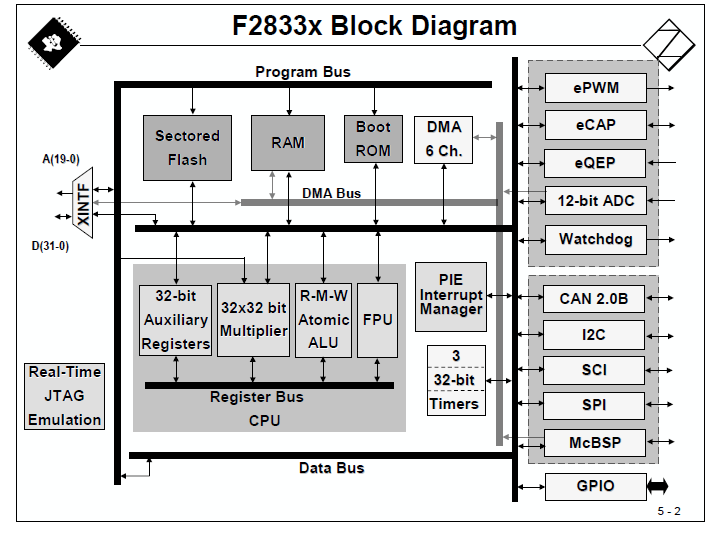


Figure 1: General Block Diagram of uP

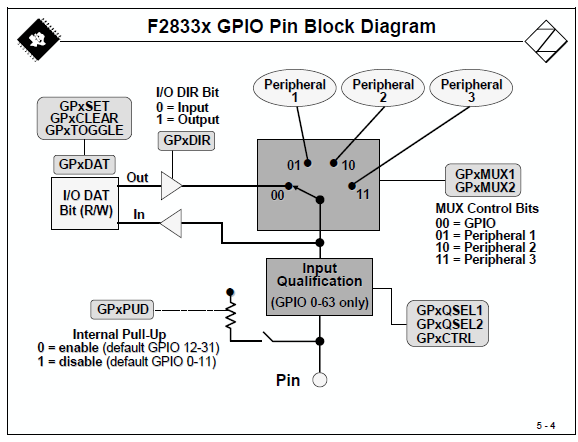


Figure 2: GPIO Pin Block Diagram

### Interrupts

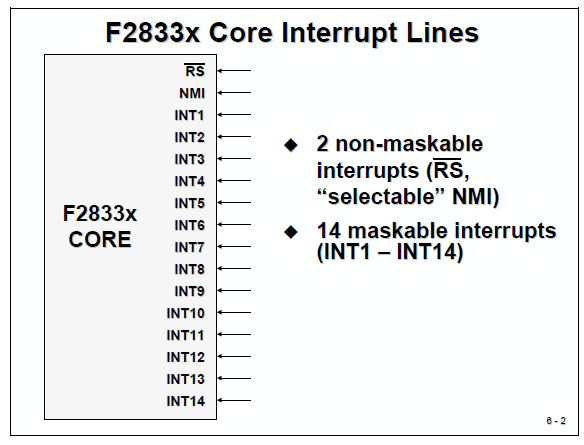


Figure 3: Interrupt Lines

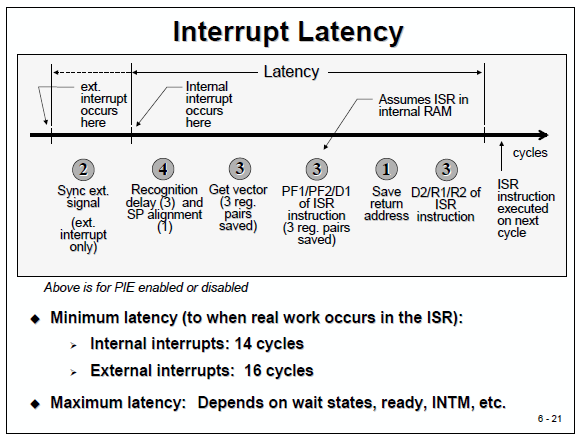


Figure 4: Interrupt Loop

### PWM Generation

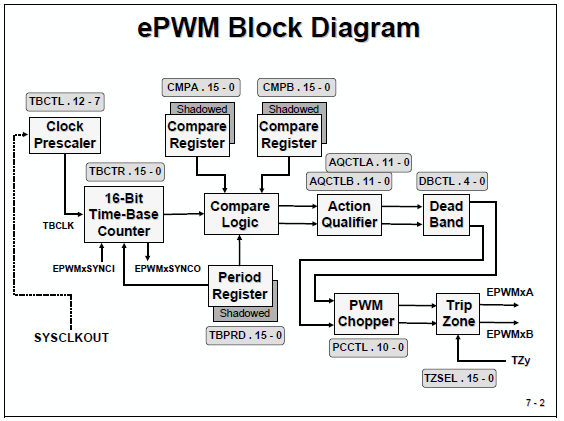


Figure 5: ePWM Block Diagram

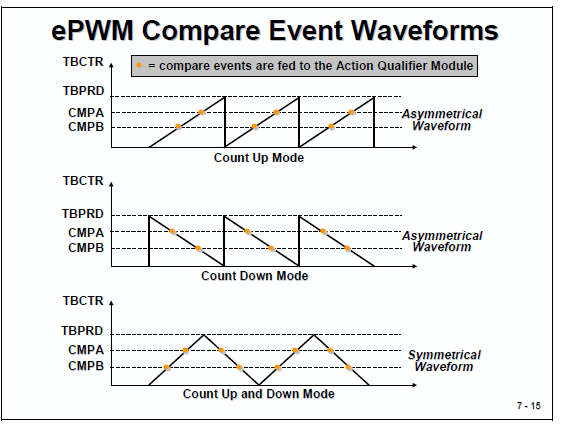


Figure 6: Timer Counter Modes

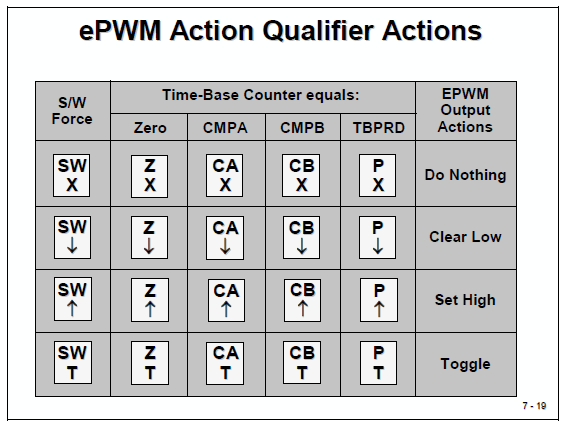


Figure 7: Action Qualifier

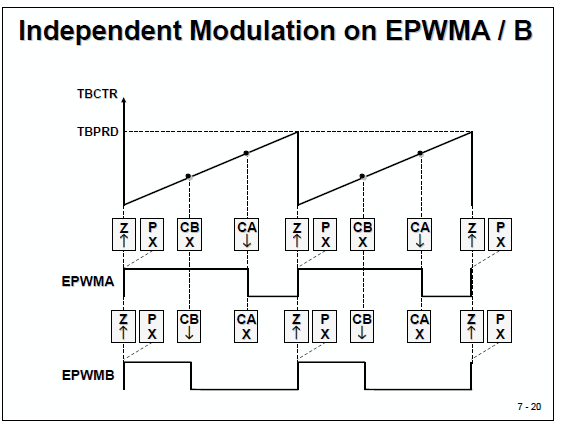


Figure 8: How action qualifier works

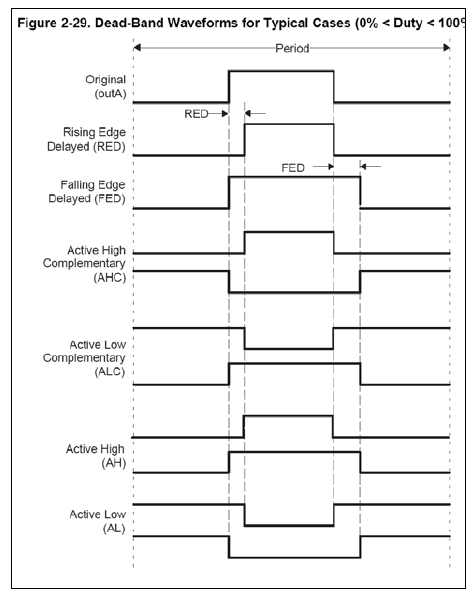


Figure 9: Dead Time

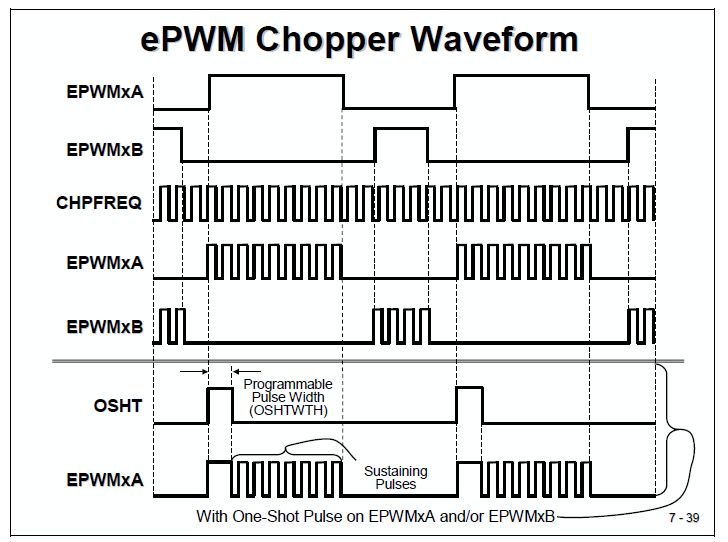


Figure 10: PWM Chopper

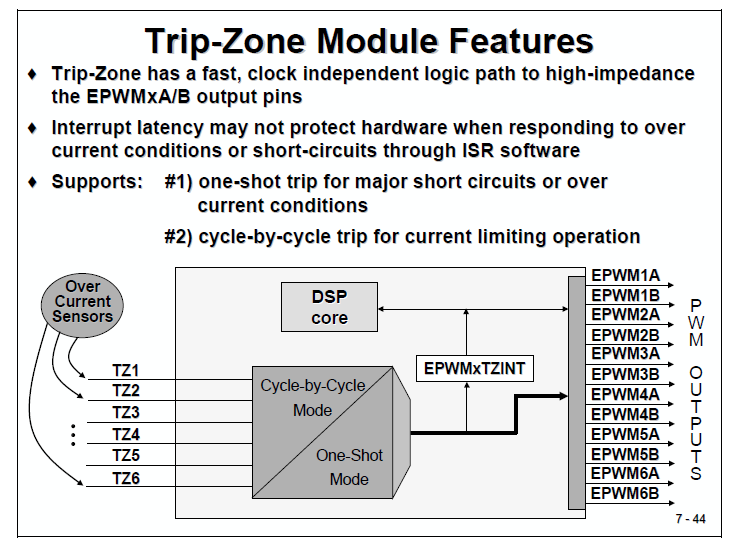


Figure 11: Trip Zone

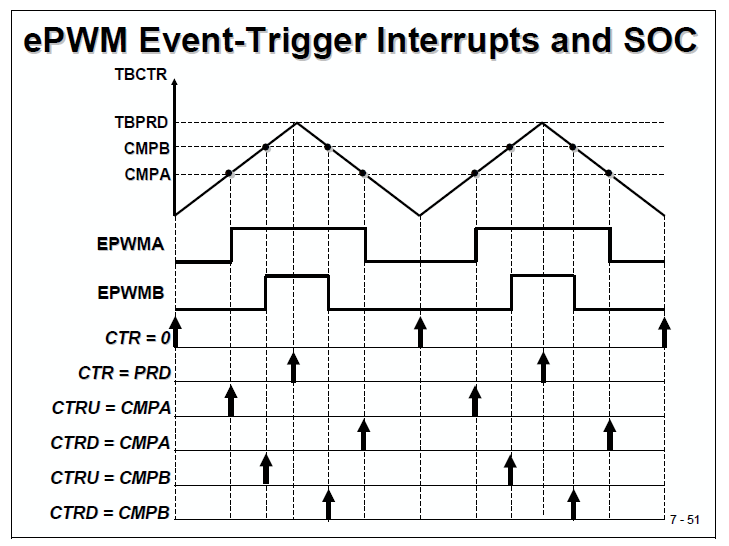


Figure 12: ePWM Interrupt

## GaN Test

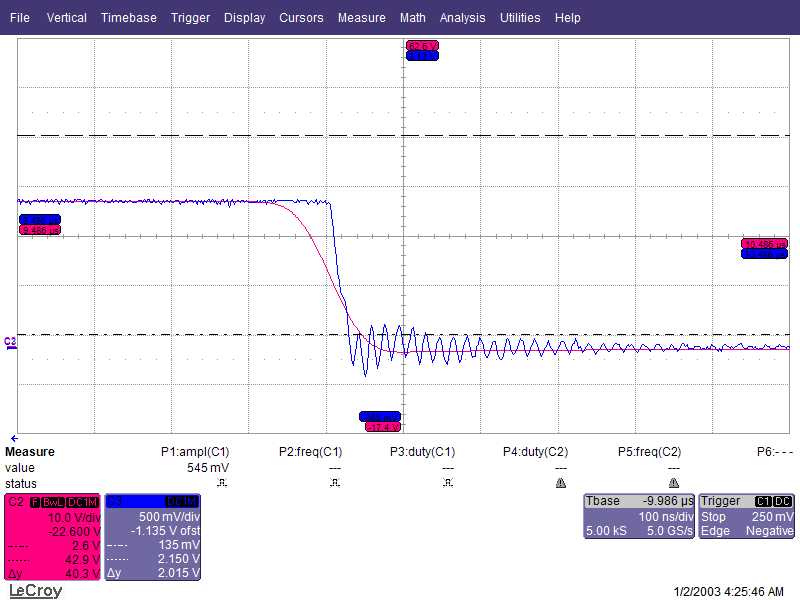


Figure 13: Blue and Red are both Vds of Bottom Switch

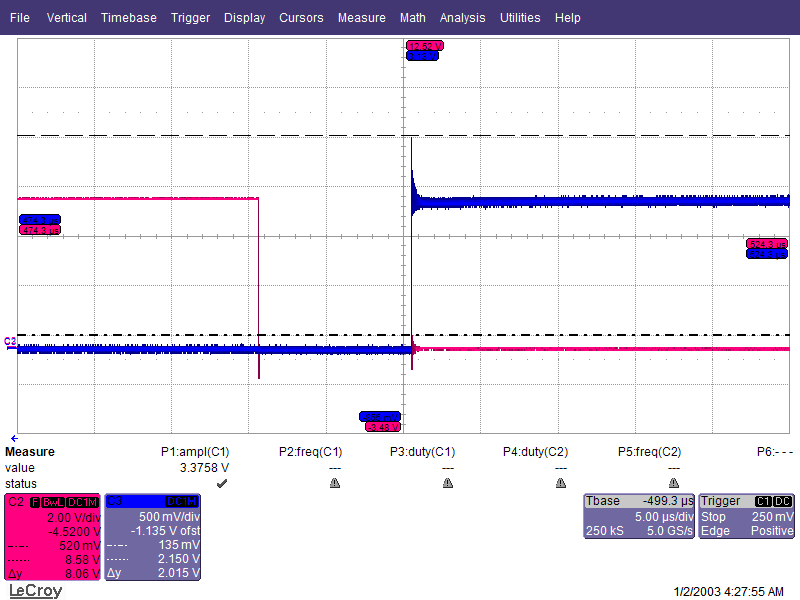


Figure 14: Dead Time View - Red -> Vgs, Blue -> Vds

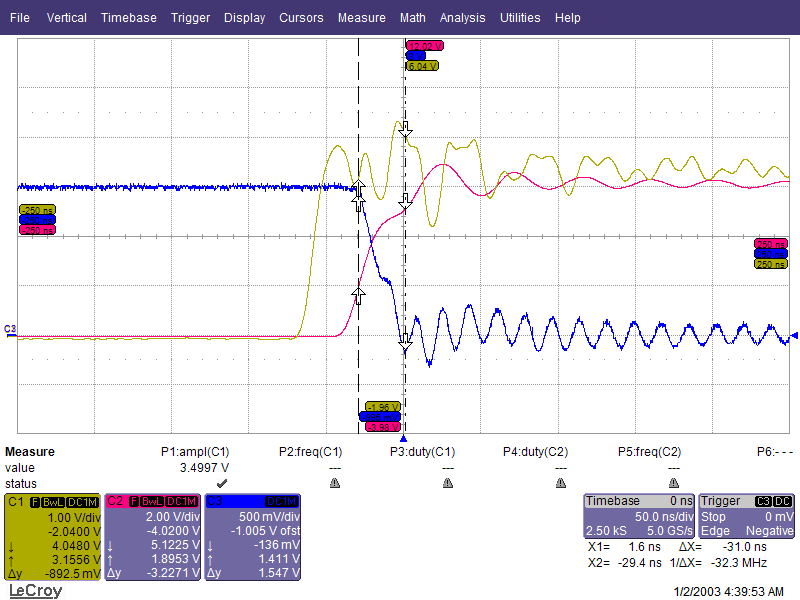


Figure 15: Blue > Vds, Red-> Vgs and Yellow -> Applied PWM