

General
TMS320F28335PGFA
CA-65COYSW
XCLKIN = 30mHz
SYSCLOCKOUT=150mHz
VDDIO=VDDA2=VDDAIO = 3.3V
VDD=VDD1A18=VDD2A18 = 1.9V

PWM Interrupt
MOV @ETSEL2, #0Ch
MOV @ETPS2, #1h

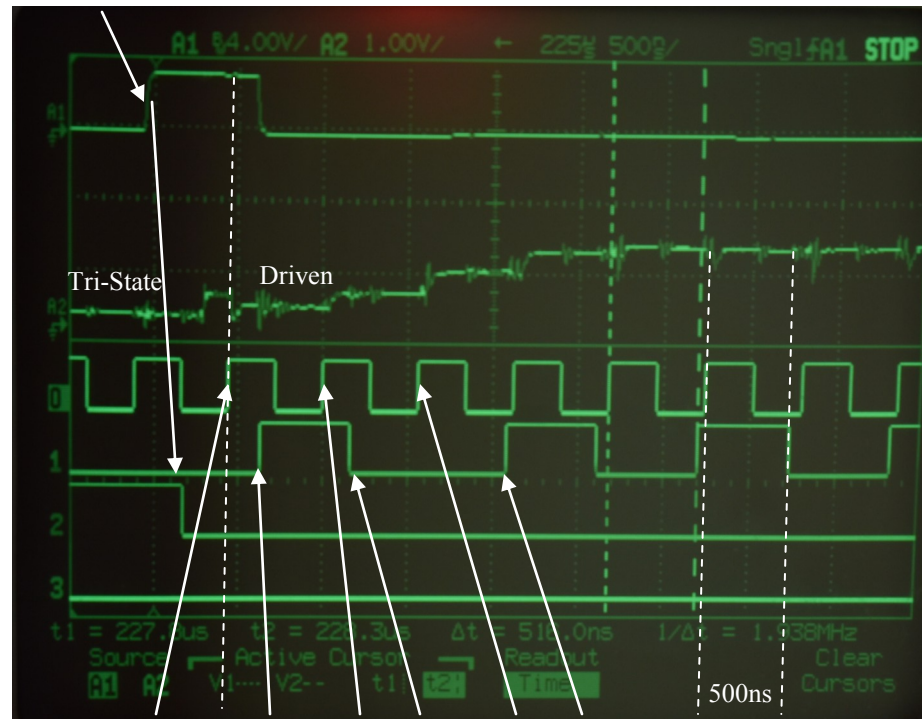
ePWM2, sensor readout start enable

A0 input, sensor output

ePWM1, sensor pixel clock

GPIO test point transition = Polled A/D Done Flag Set
TBIT @ADCST, #0

GPIO test point transition =
Sequencer and Done Flag reset
TSET @ADCTRL2, #14
TSET @ADCST, #4
A/D SOC from ePWM1 enabled
TSET @ETSEL1, #11



General ADC
ADC, Bandgap and Reference are always powered.
Internal reference selected.
ADC_MAXCONV = 0
CONT_RUN = 0

Pixel 1 SOC
readout start
Early A/D completion
incorrect value pixel 1 (often FFF)
pixel 2 SOC
Early A/D completion
incorrect value pixel 2 (often FFF)
pixel 3 SOC
Normal A/D completion
Correct value pixel 3 and on
ePWM SOC
A/D Complete

HSPCP = 0h = /1
ADCTRL3 = E6h = /6
ACCTRL1 = 2000h : Acqps = 0, CPS = 0
Tc = 40ns
Td(sh) = 2.5Tc = 100ns
Tsh = (1+0)Tc = 40ns
Td(schx_n) = 4Tc = 160ns
Total Conv Time (datasheet) = 300ns
Total Conv Time (actual) = 500ns