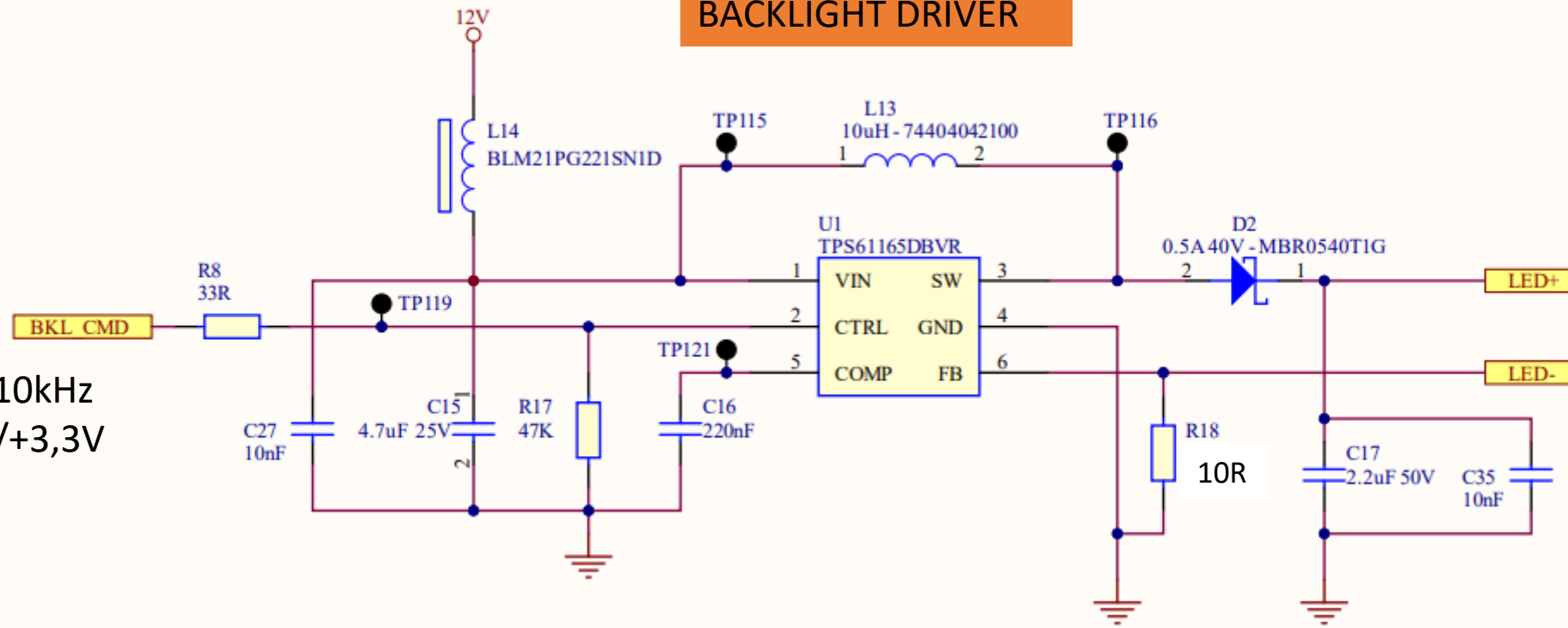
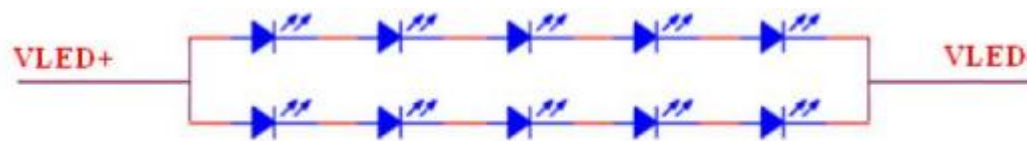


## BACKLIGHT DRIVER

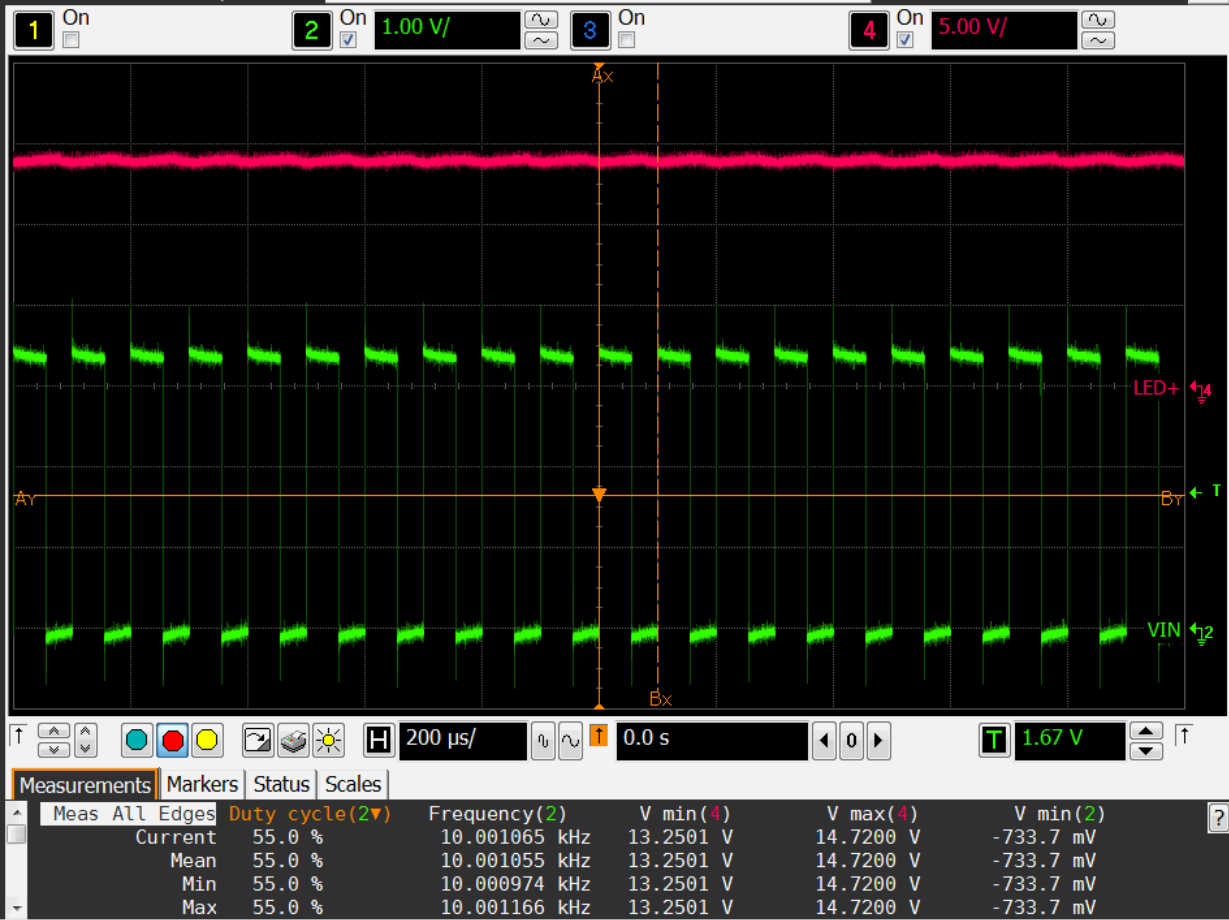


PWM  $f = 10\text{kHz}$   
Level = 0/+3,3V

BACKLIGHT



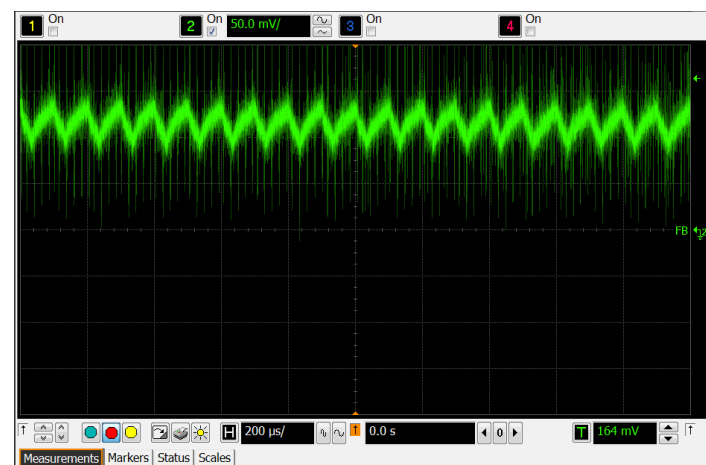
Item	Symbol	MIN	TYP	MAX	Unit
Forward Current	$I_F$	--	40	50	mA
Forward Voltage	$V_F$	-15	16	18	V

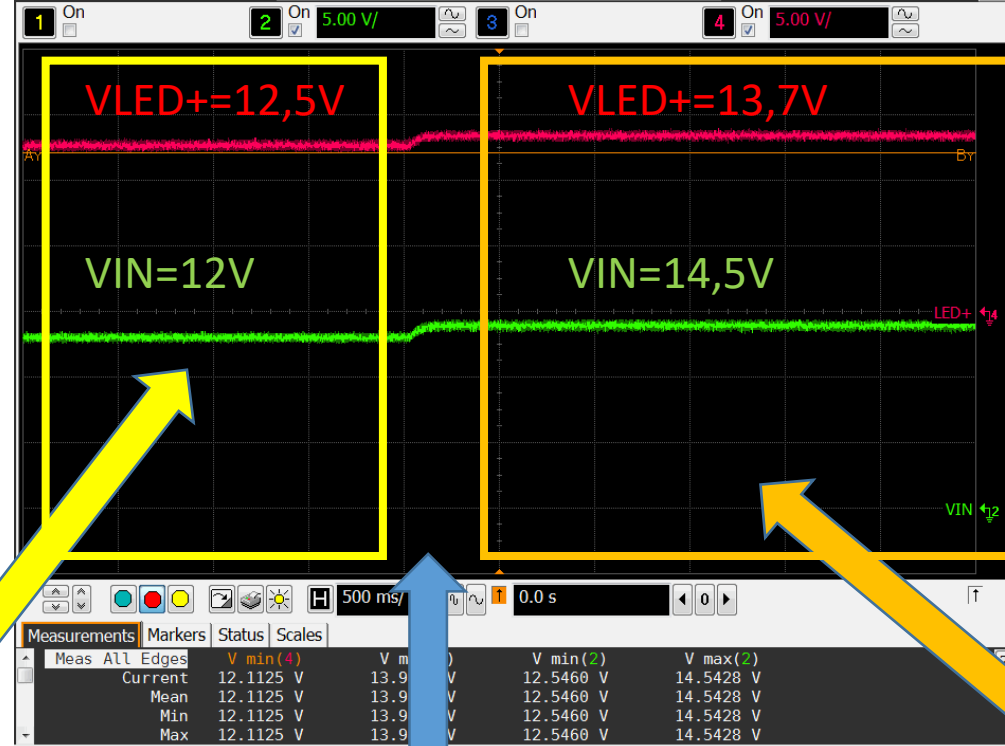


CH2: PWM 55%  
 CH4: V LED+ =14,0  
 LED Driver works



VH2: VIN=12,36  
 CH4: V LED+ =14,0  
 LED Driver works

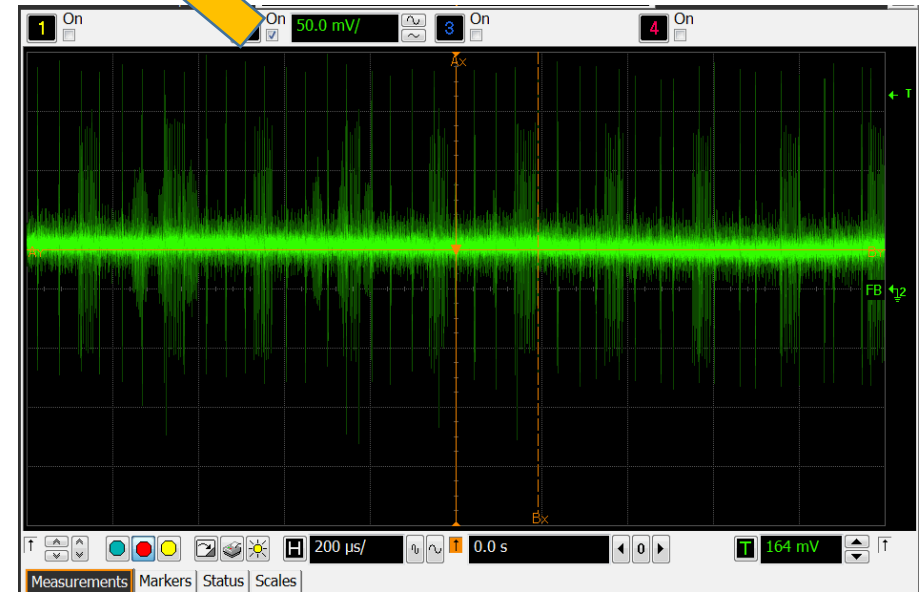




PWM 4% → I LED=1mA

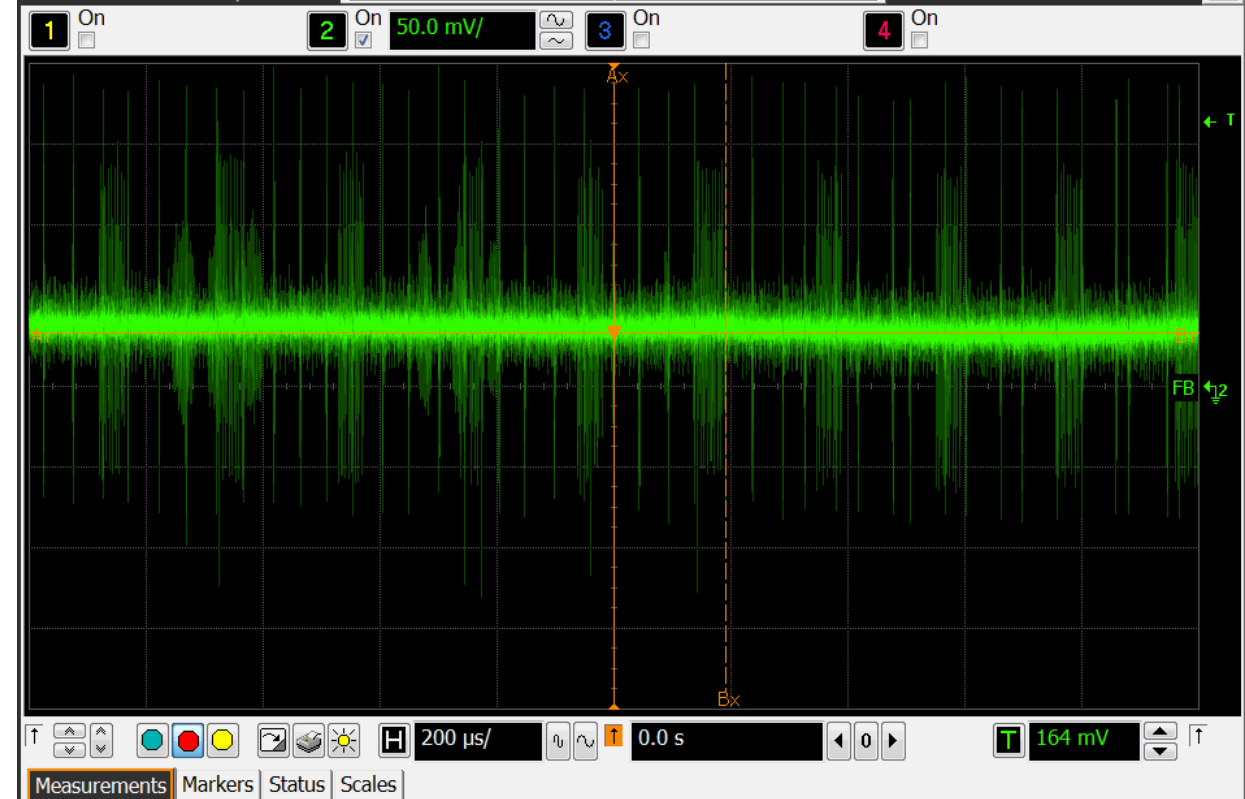
PWM=4% but I LED is 4mA  
We need 1mA for low consumption

STANDBY  
(VIN goes UP)





$V_{IN} = 14,5 \text{ V}$   
 $V_{LED+} = 13,7 \text{ V}$   
 $PWM = 0\%$



$V_{FB} = 30/40 \text{ mV}$   
 $I_{LED} = 0,04/10R = 4 \text{ mA}$   
 $PWM = 0\%$

We need  $I_{LED} = 0 \text{ mA}$  ( $PWM 0\% = TFT \text{ OFF}$ ) but  $I_{LED}$  is  $4 \text{ mA}$