

# PMP7761

## *PMP7761 Test Results*



Literature Number:SNVU013

**Non Sync Buck LED driver**  
**TI reference design number: PMP 7761**  
**(Formerly National Semiconductor design NSC1018)**

**Input: 24V DC**  
**Output: 14V @6A**

**DC-DC Test Results**

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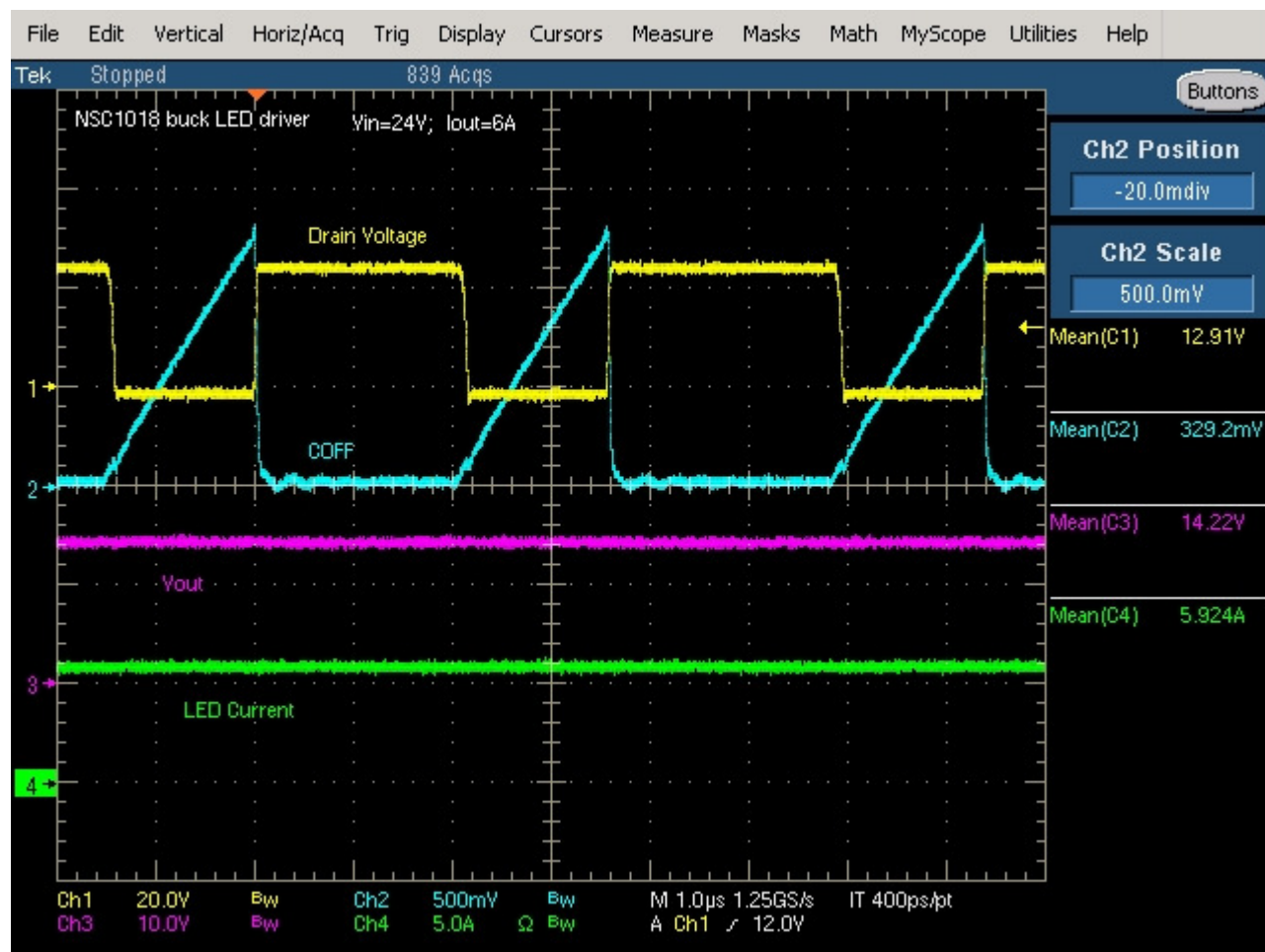
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## 1.0 Circuit Description

It is a High current Non Synchronous buck DC-DC LED driver. The LM3409 uses Constant Off-Time (COFT) control to regulate an accurate constant current without the need for external control loop compensation. Analog and PWM dimming are easy to implement and result in a highly linear dimming range with excellent achievable contrast ratios. Programmable UVLO, low-power shutdown, and thermal shutdown complete the feature set.

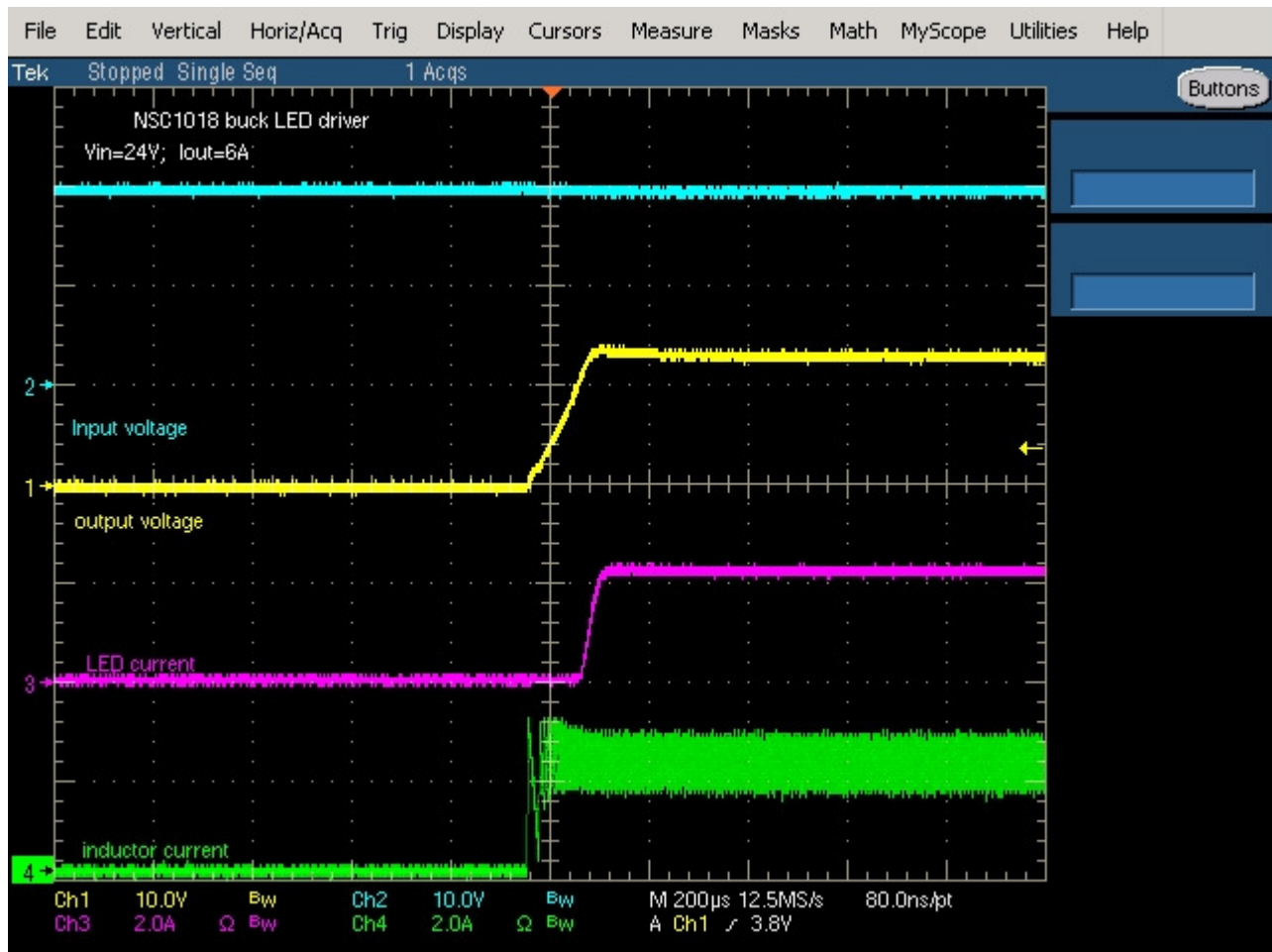
## 2.0 Waveforms

### 2.1 Waveforms for $V_{in} = 24V$ and $I_{out} = 6A$



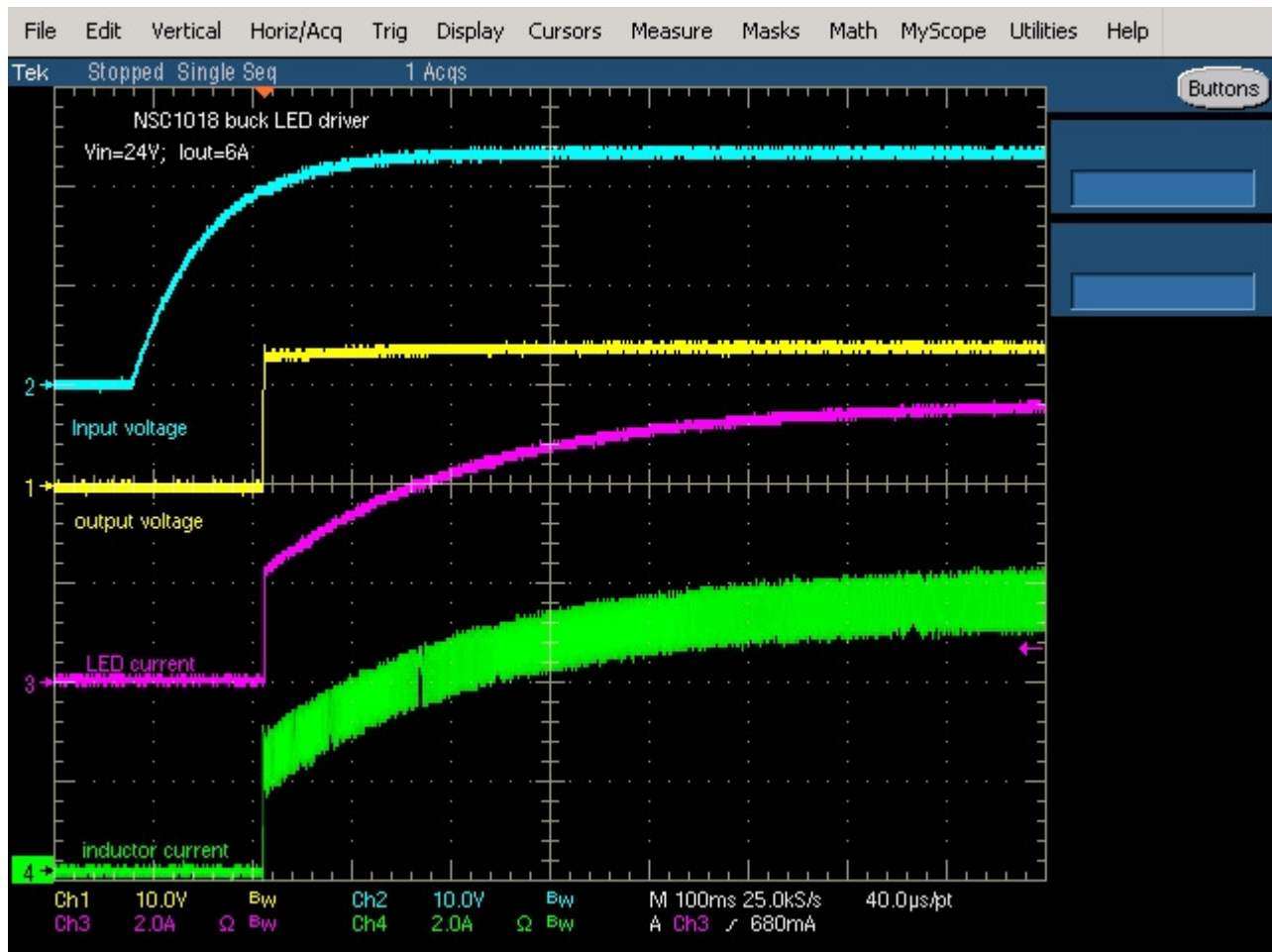
- Drain voltage
- Cut off voltage
- Output voltage
- LED current

## 2.2 Waveforms for $V_{in}=24V$ and $I_{out}=6A$



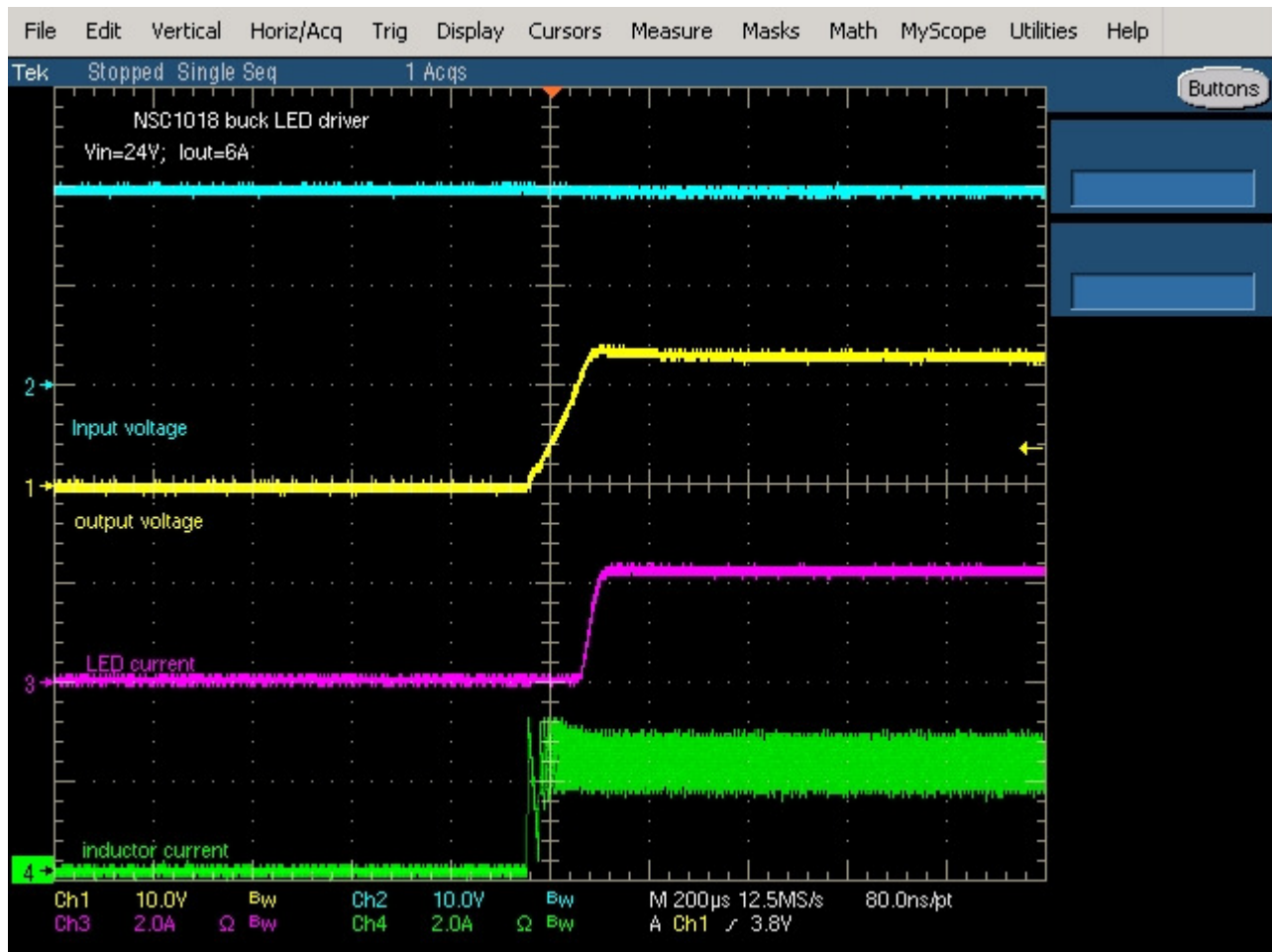
■	Output voltage
■	Input voltage
■	LED current
■	Inductor current

## 2.3 Waveforms for $V_{in} = 24V$ and $I_{out} = 6A$



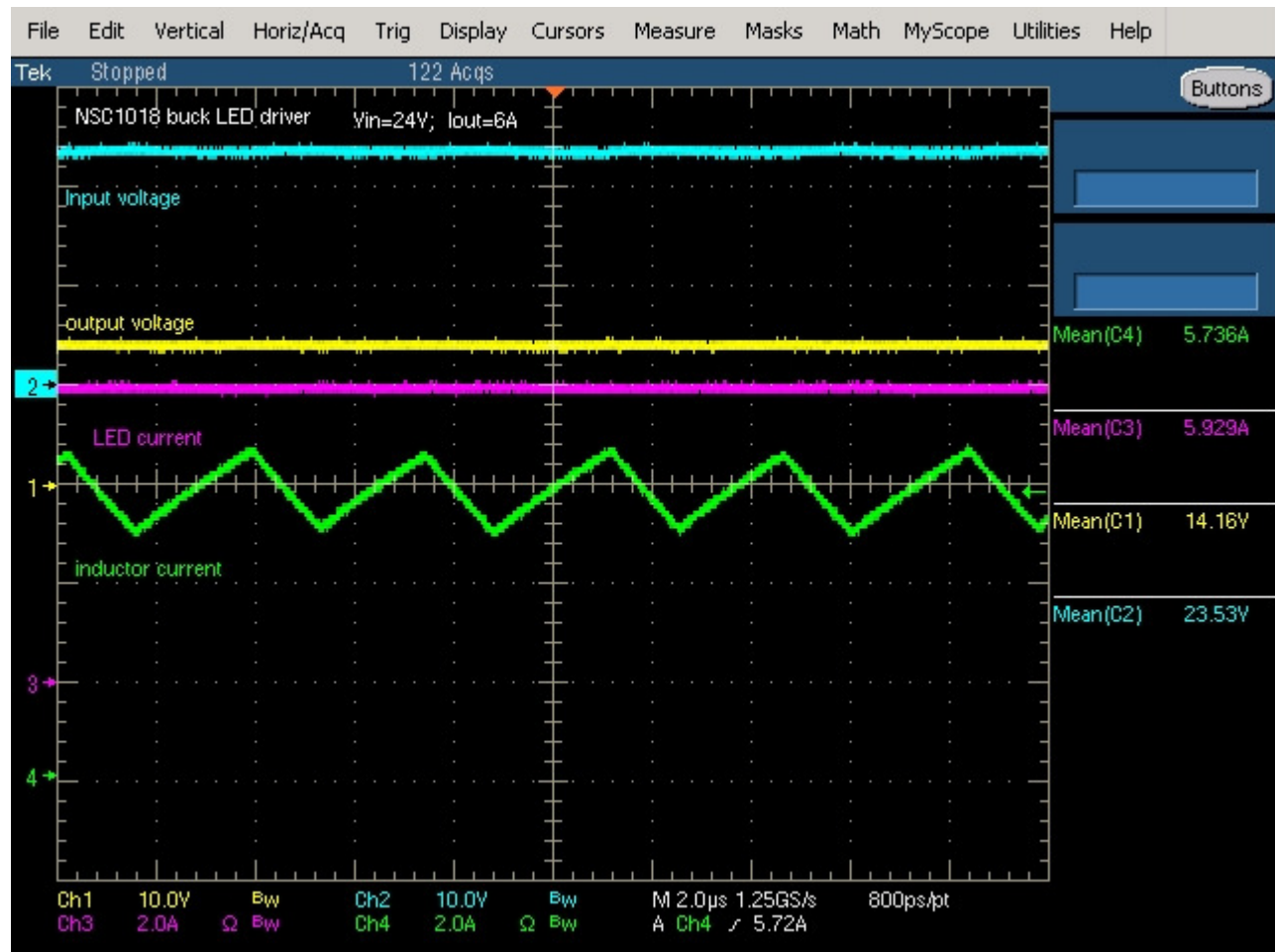
■	Output voltage
■	Input voltage
■	LED current
■	Inductor current

## 2.4 Waveforms for $V_{in} = 24V$ and $I_{out} = 6A$



- Output voltage
- Input voltage
- LED current
- Inductor current



**2.5 Waveforms for  $V_{in} = 24V$  and  $I_{out} = 6A$** 

Output voltage
Input voltage
LED current
Inductor current

### 3.0 Efficiency results

Vin	I in	Pin	Vout	I out	Pout	Eff.
23.475	3.668	86.106	13.802	5.921	81.722	95%
<b>Temperature</b>						
<b>Components</b>		<b>Temp.°C</b>				
Q1		60				
Q2		62				
Q3		72				
D1		53				
L1		49				

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