
Specifications and Test Conditions

Input Voltage = 12V

No. of LED = 1

LED Voltage = 2.6V (Red LED)
= 4V (Blue LED)
= 4.9V (Green LED)

LED Current = 20A

Switching Frequency = 300kHz

Dimming frequency for UDIM and SDIM = 5kHz

Efficiency = 81.5% (Red LED)
= 86.6% (Blue LED)
= 87.8% (Green LED)

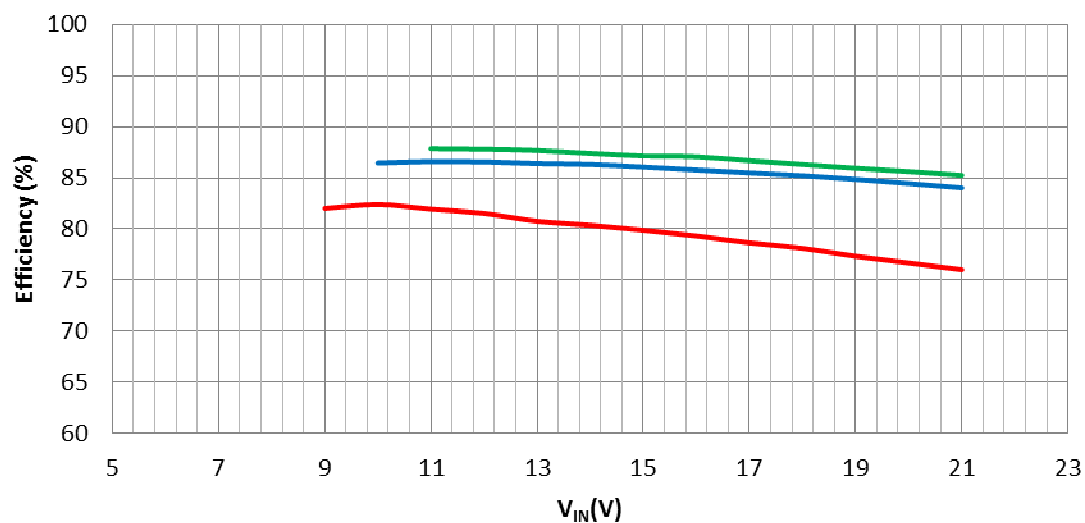
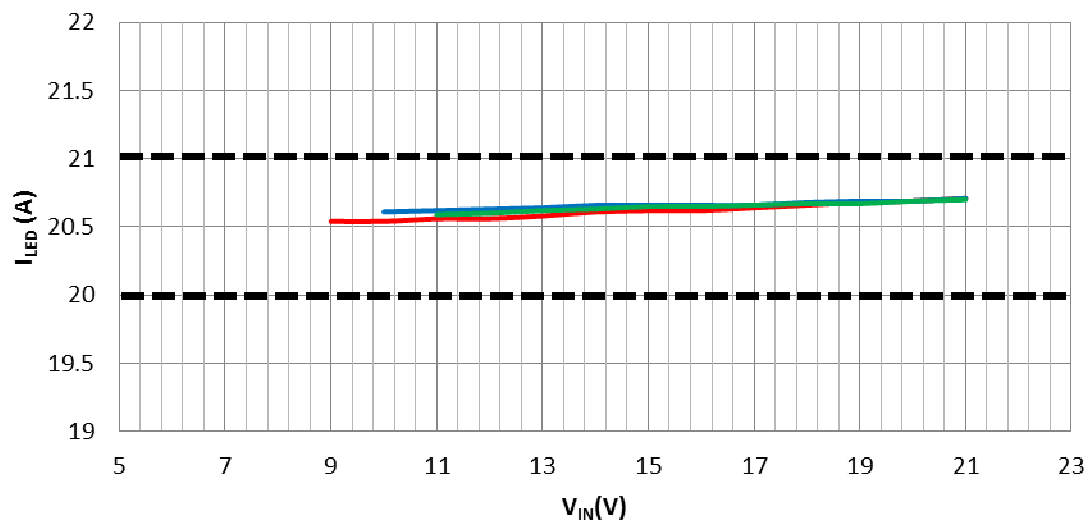
Topology = Synchronous buck

Ambient Temperature ~ 25°C

Dimming frequency for UDIM and SDIM = 5kHz

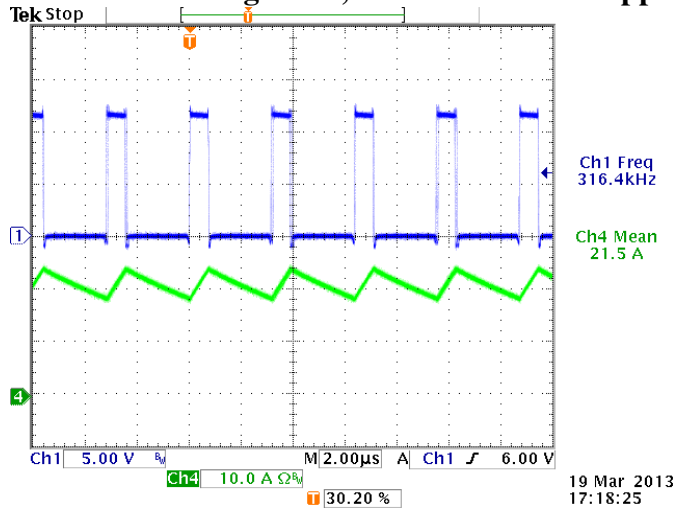
Electrical Performance

VIN (V)	IIN (A)	VSNS (V)	VLED (V)	ILED (A)	Efficiency (%)	LED Color
12.0	4.87	0.2056	2.319	20.56	81.5	RED
12.0	7.96	0.2063	4.008	20.63	86.6	BLUE
12.0	8.69	0.206	4.445	20.62	87.8	GREEN

Efficiency vs V_{IN}  **I_{LED} vs V_{IN}** 

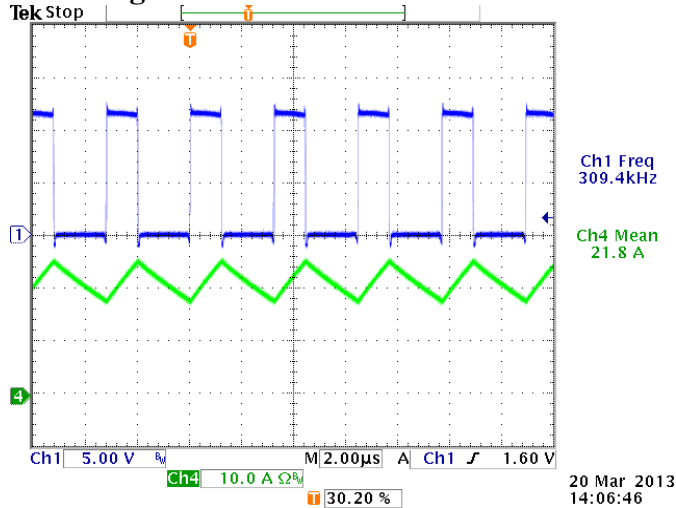
Switching Waveforms – RED LED

BLUE : Switching node , Green : Inductor ripple current



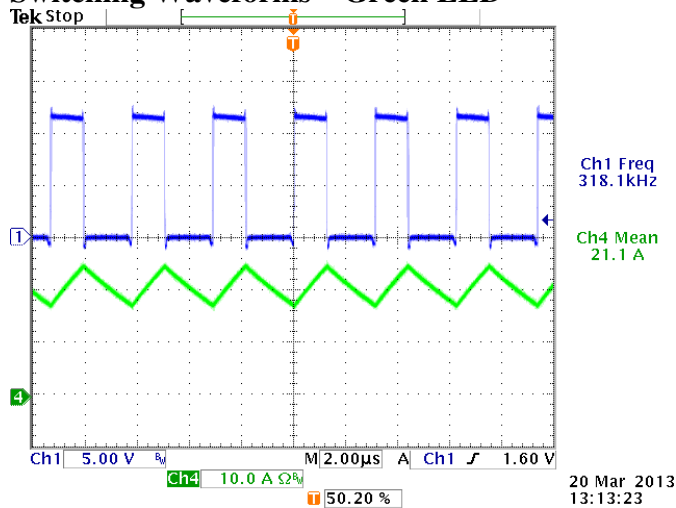
19 Mar 2013
17:18:25

Switching Waveforms – Blue LED



20 Mar 2013
14:06:46

Switching Waveforms – Green LED



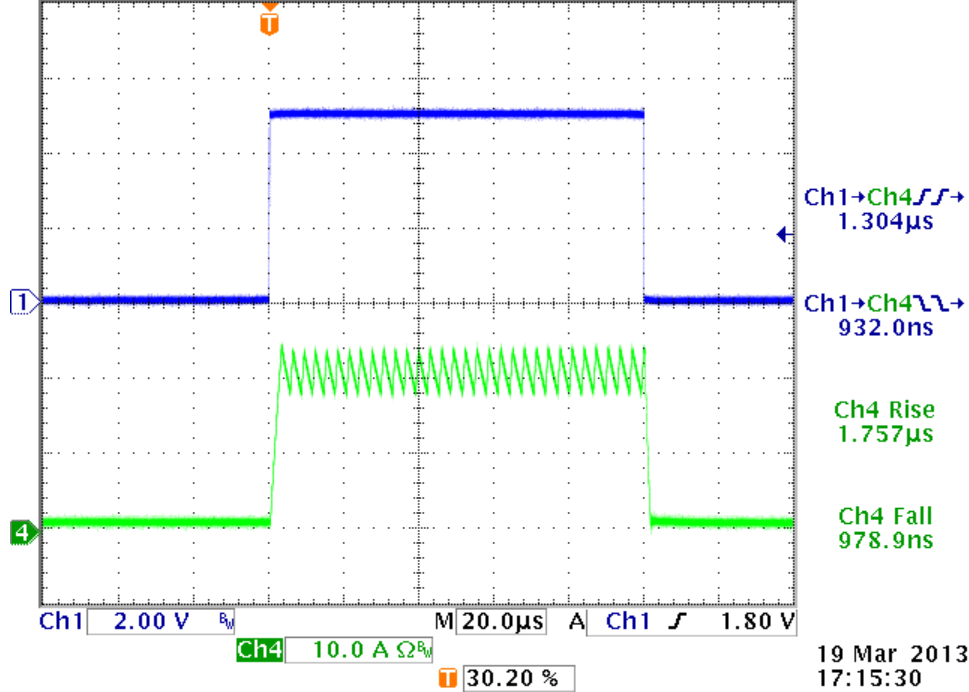
20 Mar 2013
13:13:23

PWM Dimming via UDIM Pin

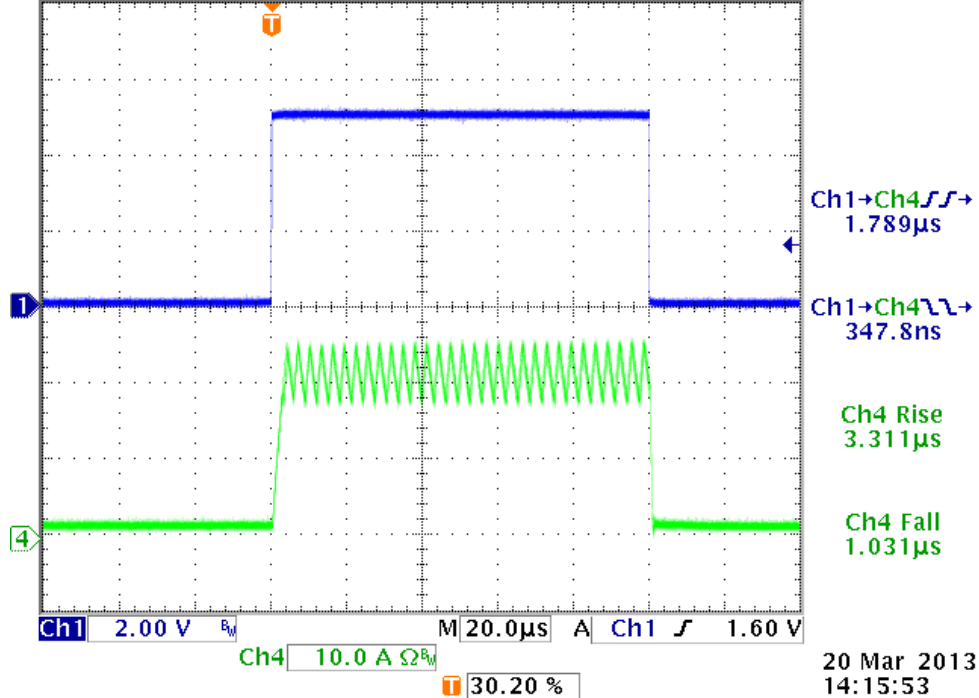
Blue: VEN_UDIM, Green: ILED

Red LED

Tek Stop

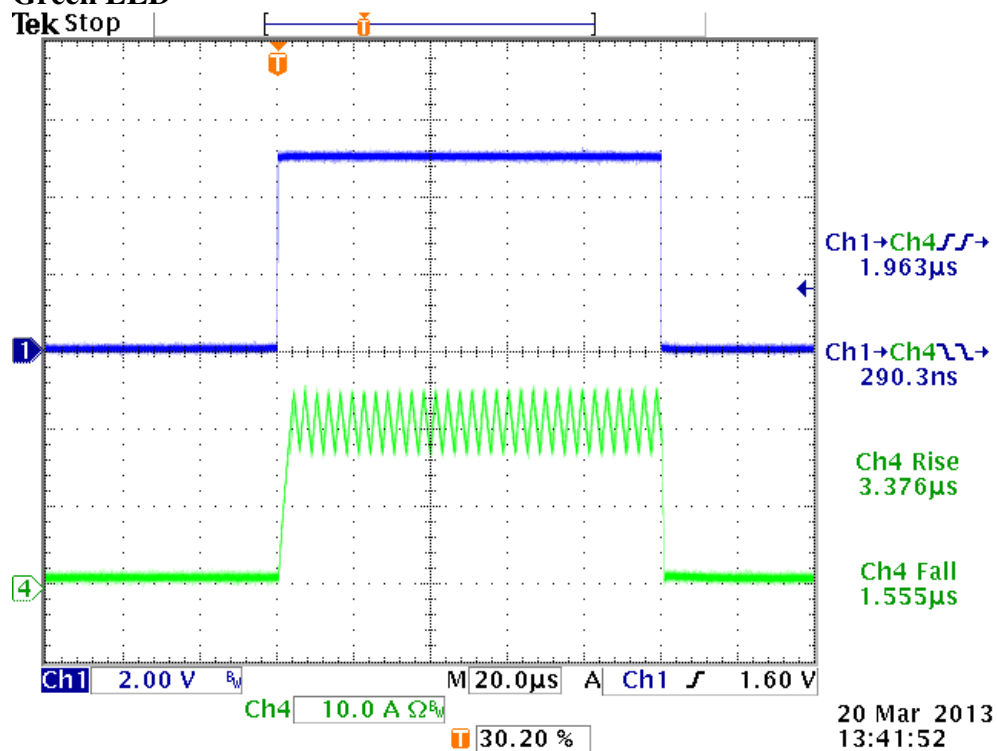
**Blue LED**

Tek Stop



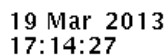
Green LED

Tek Stop

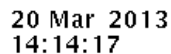


Blue: VEN_UDIM, Green: ILED

Tek Stop

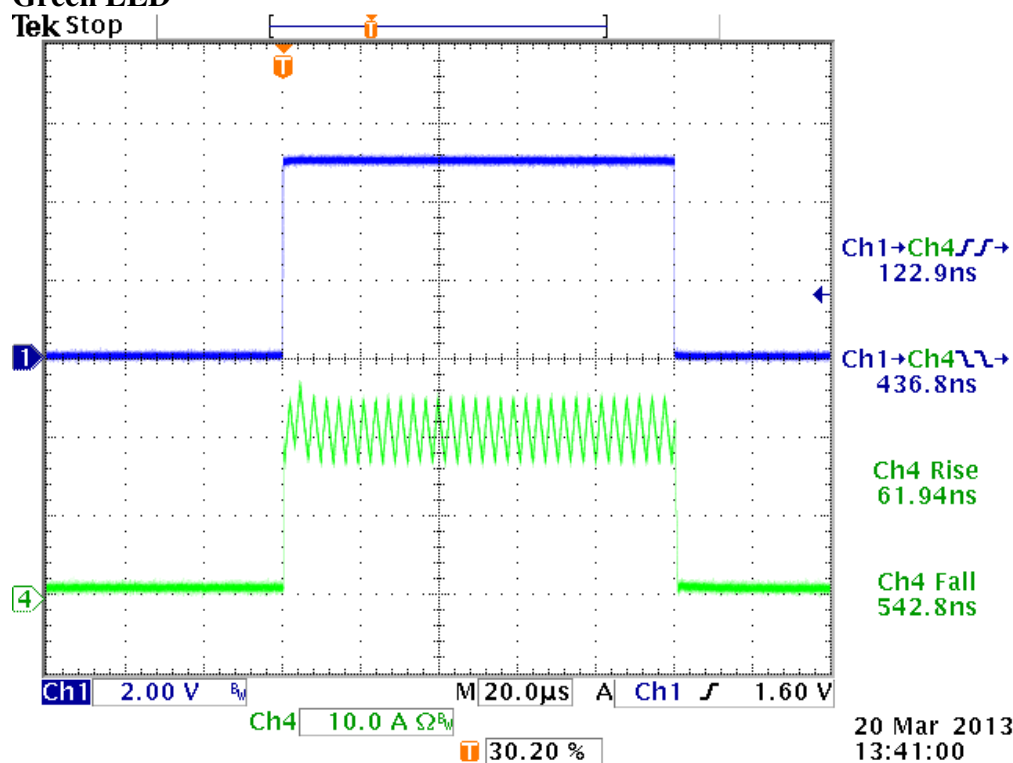


Tek Stop



Green LED

Tek Stop

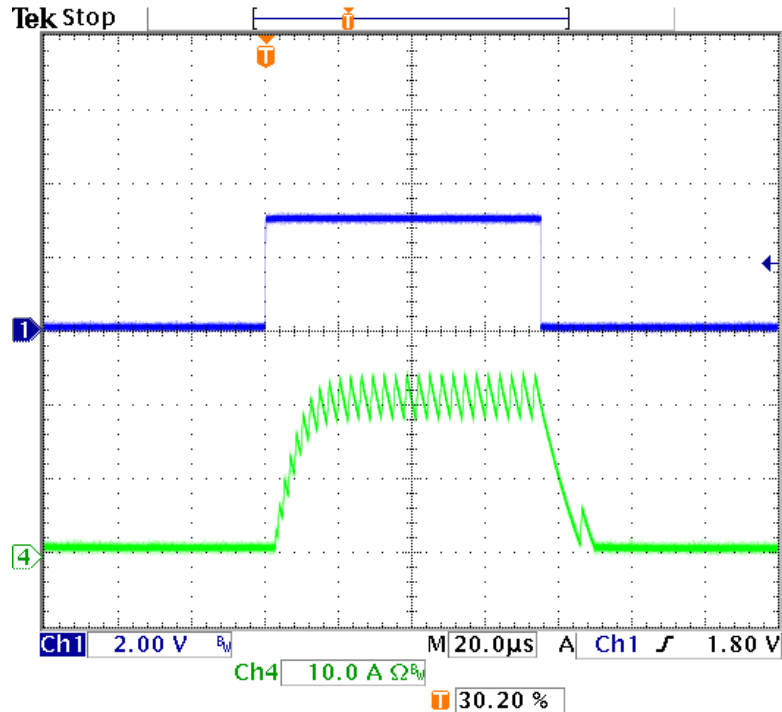


Analog dimming via IADJ Pin

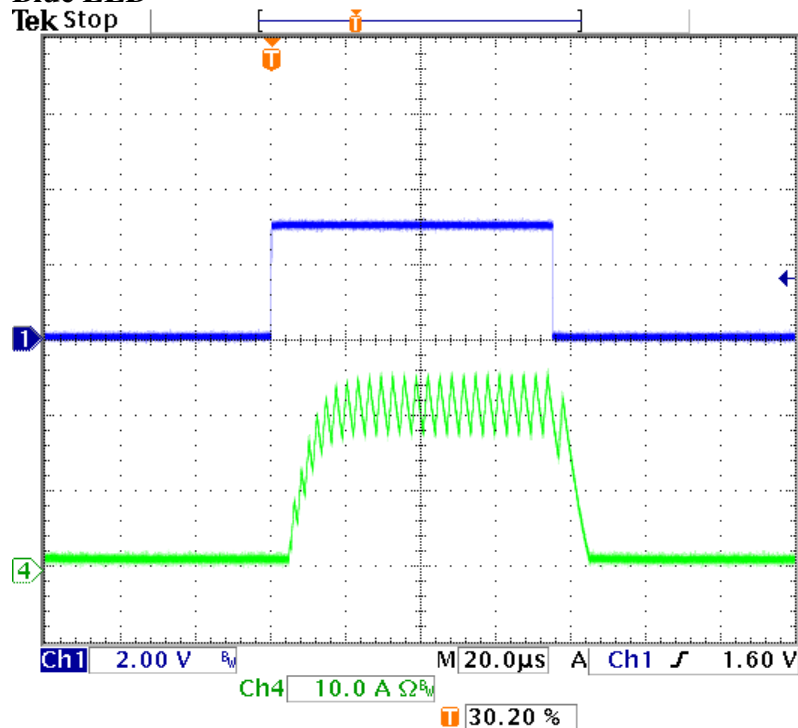
Blue: VEN_3V_VIADJ, Green: ILED

Red LED

Tek Stop

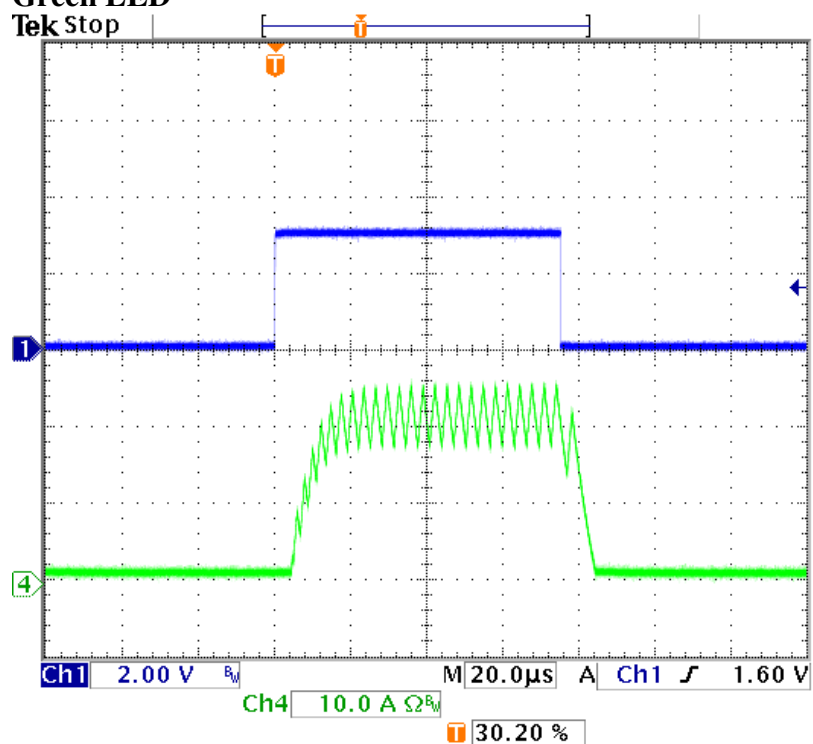
19 Mar 2013
17:09:54**Blue LED**

Tek Stop

20 Mar 2013
14:02:33

Green LED

Tek Stop

20 Mar 2013
13:44:56

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