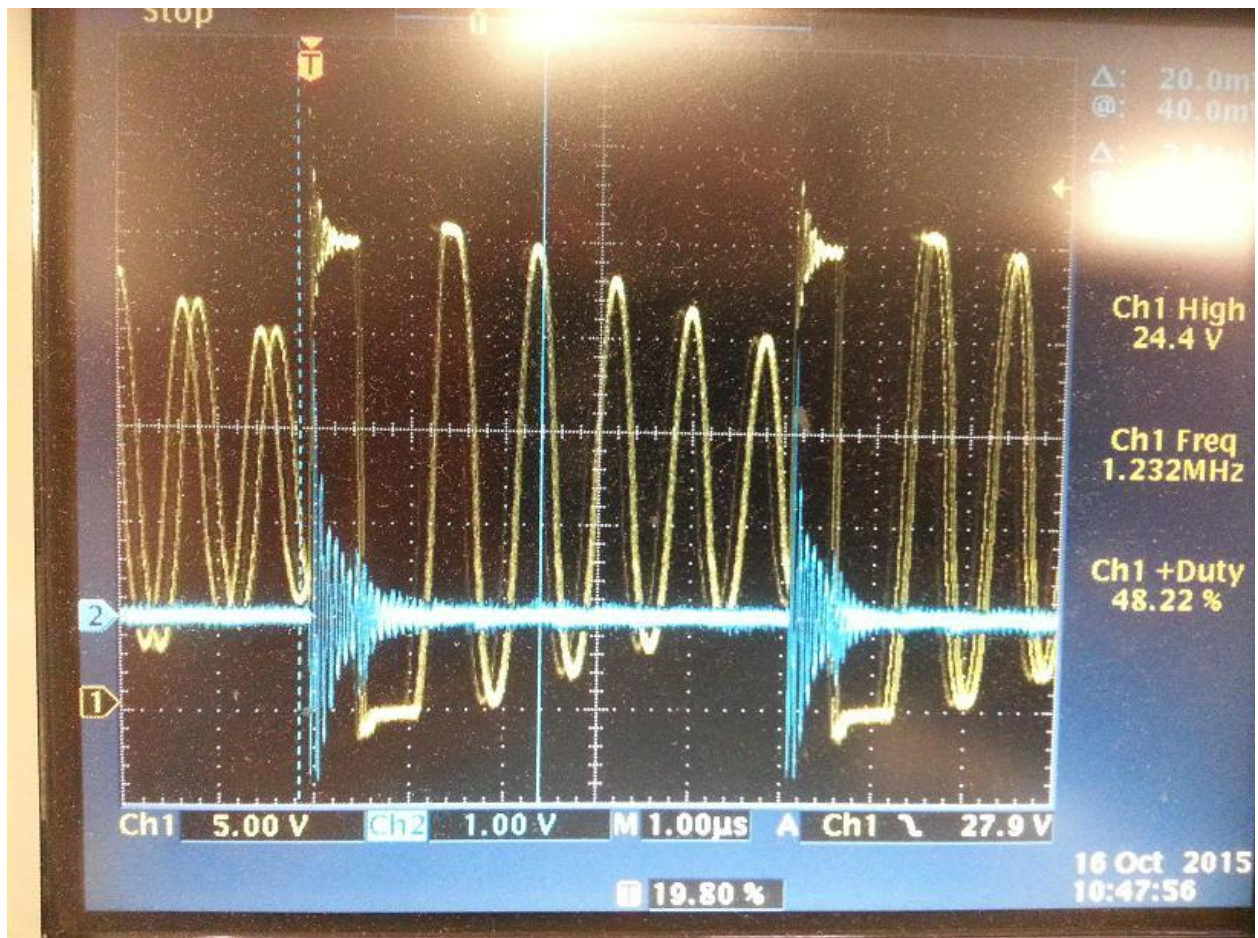


Sub-harmonic Oscillation Issue with LM5116MHX

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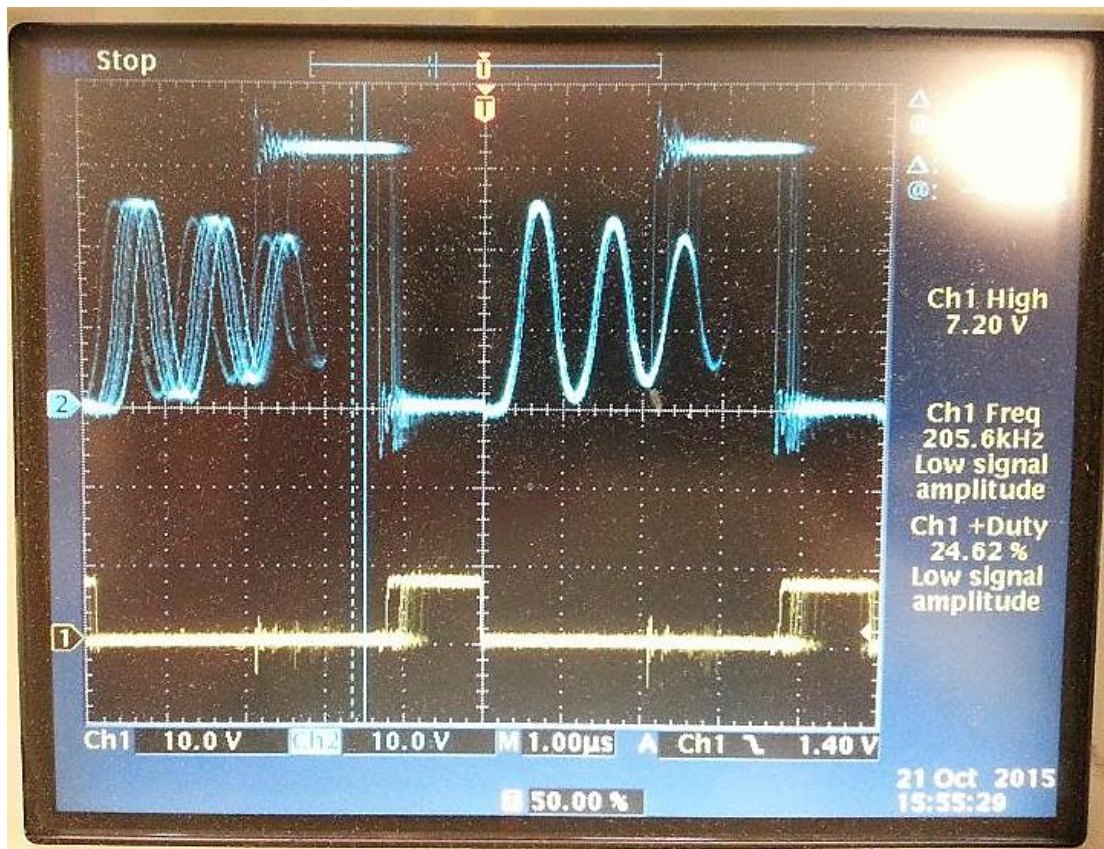
1. Device: LM5116MHX/NOPB
2. Input: 24VDC
3. Output: 12VDC / 10A
4. WEBENCH Design: 1104891/58

<http://webench.ti.com/appinfo/webench/scripts/SD2.cgi?ID=164736::power::dkong@rheosense.com>



<Fig.1 Sub-harmonic oscillation at the switching node and the ringing>

Ch1 – Switch node, Ch2 – GND, $f_{\text{PWM}} = 194.7\text{KHz}$



<Fig.2 Waveforms at the gates of high-side/low-side MOSFET >

Ch1 – Pin#19 (HO): Gate signal of high-side MOSFET

Ch2 – Pin#15 (LO): Gate signal of low-side MOSFET