

Re: Buck converter, controller riding on the switch node

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*Source:* <http://sci.tech-archive.net/Archive/sci.electronics.design/2009-01/msg03533.html>

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- *From:* MooseFET <kensmith@xxxxxxxxxx>
  - *Date:* Sat, 17 Jan 2009 08:07:10 -0800 (PST)
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On Jan 17, 7:30 am, Joerg <notthisjoerg...@xxxxxxxxxxxxxxxxxxxxxxxx> wrote:

MooseFET wrote:

On Jan 16, 6:06 am, Klaus Kragelund <klausk...@xxxxxxxxxxxx> wrote:

Hi

Well, a typical buck converter with current mode control has a PWM controller referenced to output ground, a current sense transformer to bring down the current sense signal and a pulse transformer to level shift the gate signal.

Another approach is the one from Fairchild with an integrated solution riding on the switch node:

[http://www.electronicdesign.dk/tmp/AN2544\\_ViperInBuckMode3.pdf](http://www.electronicdesign.dk/tmp/AN2544_ViperInBuckMode3.pdf)

To be independant on single source parts, I would like to do the same with the standard PWM controllers like the SG3524, UC1843 etc as shown in the scematics below:

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<http://www.electronicdesign.dk/tmp/HighSideBuck.pdf>