

Buck with coupled inductor

TI reference design number: PMP 7798

Input: 36V to 75V
Outputs: 10V @ 40mA
5V @ 80mA
10V @ 120mA

DC-DC Test Results

Table of Contents

1.0 Circuit Description.....	3
2.0 Load Regulation.....	4
3.0 Waveform	5

1.0 Circuit Description

An isolated bias supply is implemented in this evaluation board with LM5017 Constant-On-Time regulator using a coupled inductor. LM5017 regulator integrates both the high and low side power switches essential for creating isolated converter.

The switching frequency is 750kHz.

Some of the typical applications are:

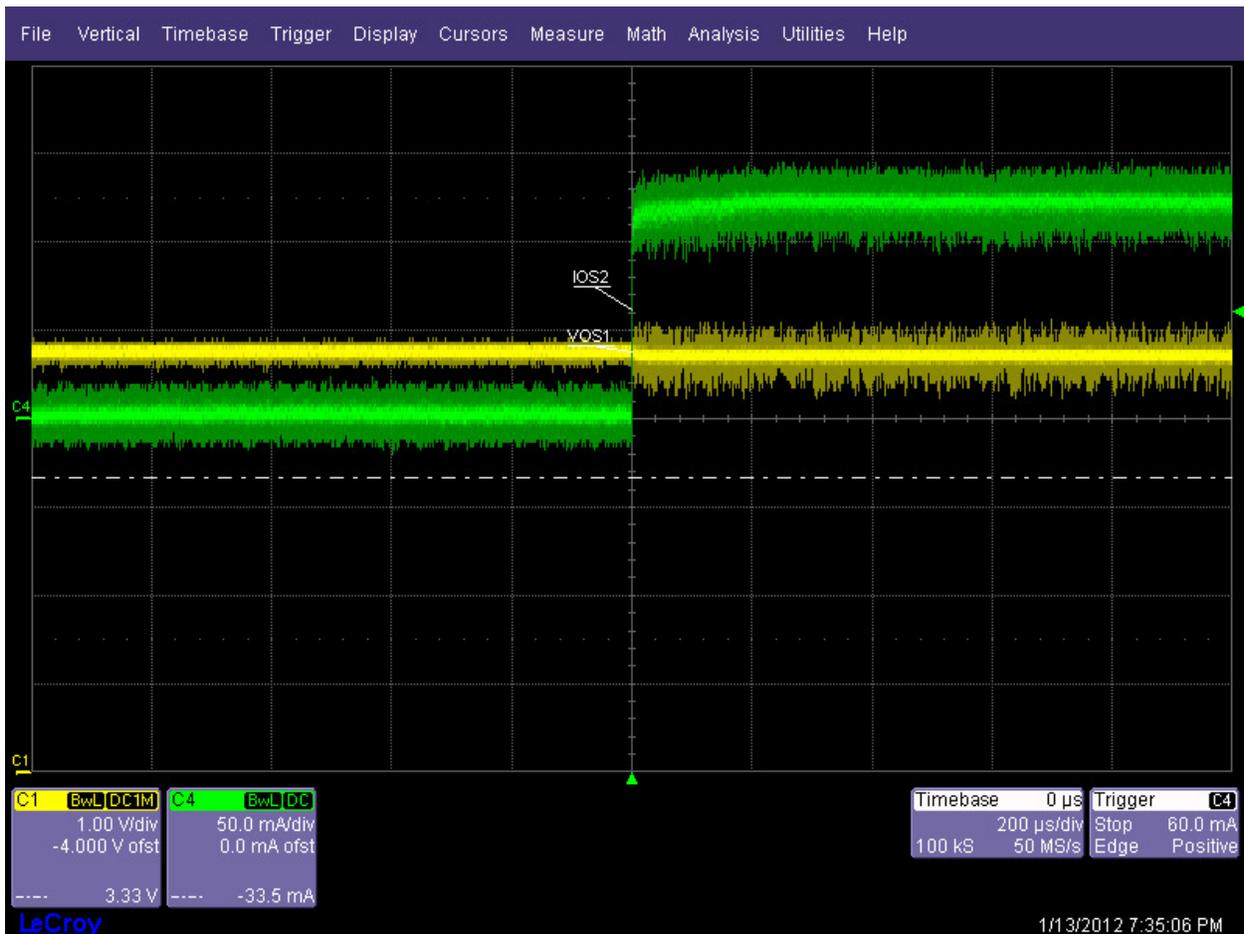
- Smart Power Meters
- Telecommunication Systems
- Automotive Electronics
- Isolated Bias Supply

2.0 Load Regulation

Vin (V)	10V Primary (No Load)	5V Secondary (60 mA)	10V Secondary (No Load)
36	10.26	4.59	9.83
48	10.35	4.64	9.95
75	10.52	4.75	10.14

2.0 Waveform

2.1 Transient Response for $V_{in} = 75V$ with a load step from 0mA to 120mA



■	Output voltage
■	Output current

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