Quick Start Guide for Demo Board DC377B-A

The DC377B-A demo board features the LTC3716 IC, an IMVP2 compatible 2-phase power supply for Intel P3-M processor (Tualatin). The input is 8 to 21V. The output is programmed by the IMVP2 5-bit VIDs (jumpers on the board). The maximum output current is 25A.

Jumper Assignments

The jumpers on the demo board are listed below with their corresponding settings. The quick start procedure below also provides specific jumper settings—be sure to follow the instructions carefully.

	Jumper Position	
Function	**On**	**Off**
VID0	VID0=0	VID0=1
VID1	VID1=0	VID1=1
VID2	VID2=0	VID2=1
VID3	VID3=0	VID3=1
VID4	VID4=0	VID4=1
VRON	high	low
DSPLP#	high	low
DPRSLPVR	high	low
GMUXSEL	high	low
DLC ON	Dynamic Load Test Circuit shut off	Dynamic Load Test Circuit turned on

Function	**Jumper Position**		
	Leftmost	**Rightmost**	**Left Off**
VBIAS	Onboard 3.3V bias is used	External 3.3V bias is used	Do not leave off!
FCB	FCB=0	FCB=2V	FCB=5V

Quick Start Procedure

Refer to Figure 1 for proper measurement equipment setup and follow the procedure below:

1. Set the jumpers on the board as follows:

VRON	DPSLP#	DPRSLPVR	GMUXSEL
OFF	ON	OFF	ON

VID0	VID1	VID2	VID3	VID4
OFF	OFF	OFF	ON	ON

   DLC ON
   ON

   VBIAS
   E

   FCB
   L

2. Apply input voltage 7~24V across the VIN+ and VIN– terminals.
3. Apply +3.3V logic voltage across +3.3V and SGND terminals.
4. Apply 5V across EXTVCC and SGND terminals if needed.
5. Select VID code using the jumpers VID0–VID4.
6. Select the GMUXSEL/DPRSLPVR/DPSLP# combination using the appropriate jumpers.
7. Replace the VRON jumper
8. Apply the test load across VCC+ and VCC–. Do not exceed a 25A load.

Transient Test

This demo board has a built-in dynamic load test circuit. To test load transients, review Figure 1 and follow this procedure:

1. Shut down the converter by removing the VRON jumper.
2. Apply ±12V supply to the +12V, PGND and –12V terminals.
3. To monitor load current waveforms, connect an oscilloscope to J5 (BNC terminal).
4. Replace the VRON jumper.
5. Remove the DLC ON (Dynamic Load Circuit) jumper.
6. Tune R41, R43 and R39 to program the step amplitude, up-slope and down-slope of the load step, respectively.

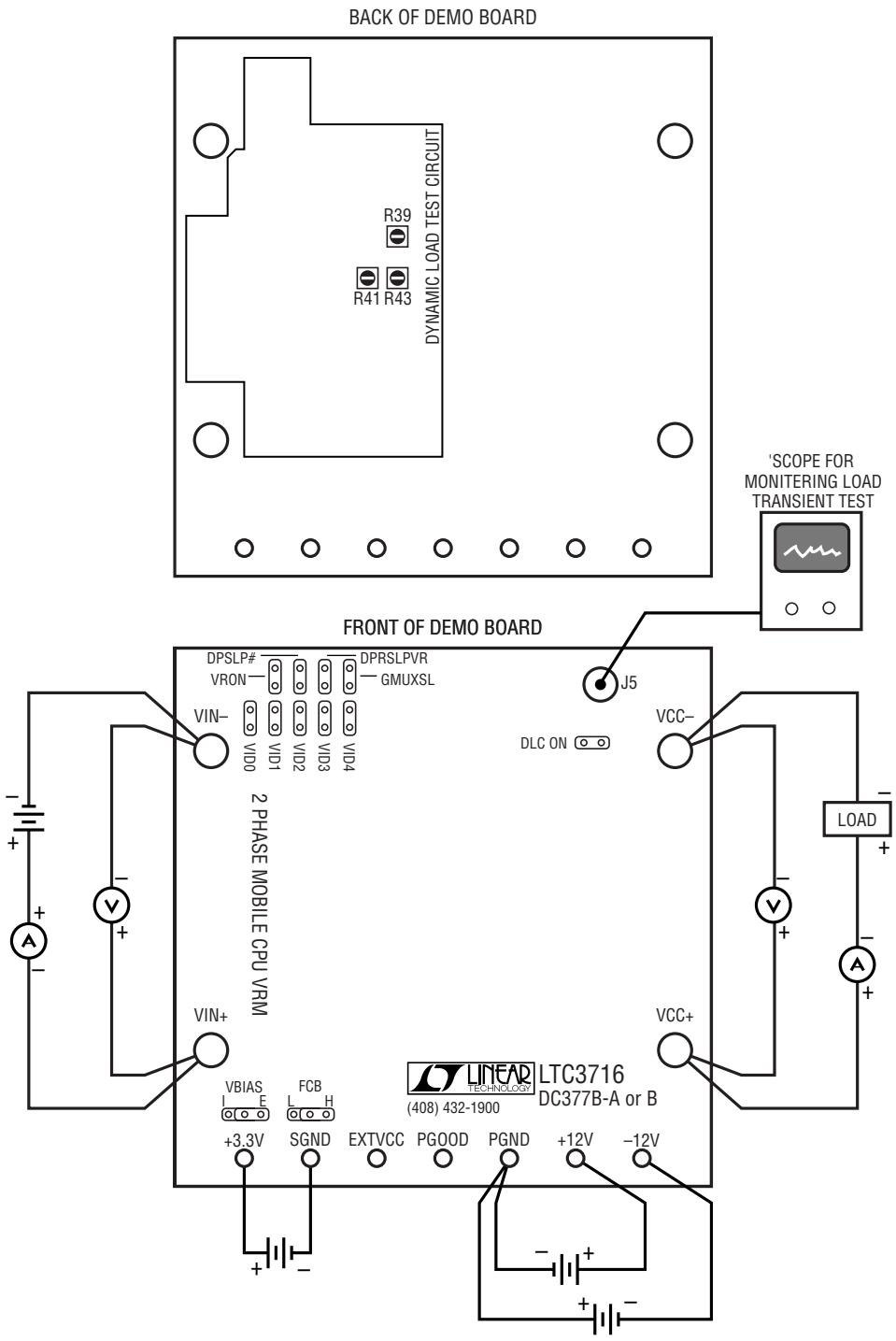

Figure 1. Proper Measurement Equipment Setup

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Analog Devices Inc.:

DC377B-A