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 OFF	DPSLP# ON	DPRSLPVR OFF	GMUXSEL ON	
VID0 OFF	VID1 OFF	VID2 OFF	VID3 ON	VID4 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 $\pm 12V$ 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.



