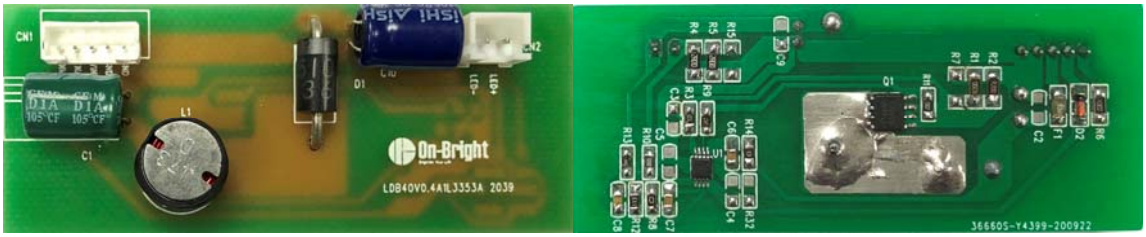


Subject **1-String LED Demo Board Manual**	Board Model: LDB40V0.4A1L3353A.00 Doc. No.: OB_DOC_DBM_3353A00

Description:

The performance of LED backlight power supply for LCD monitor backlight application is presented. It is designed with OB3353A, a boost LED driver. The detailed block diagram, schematic, BOM, PCB layout and test data are also described.

The test data in this report is by 13Series 1 Parallel White LED array.

Revision History

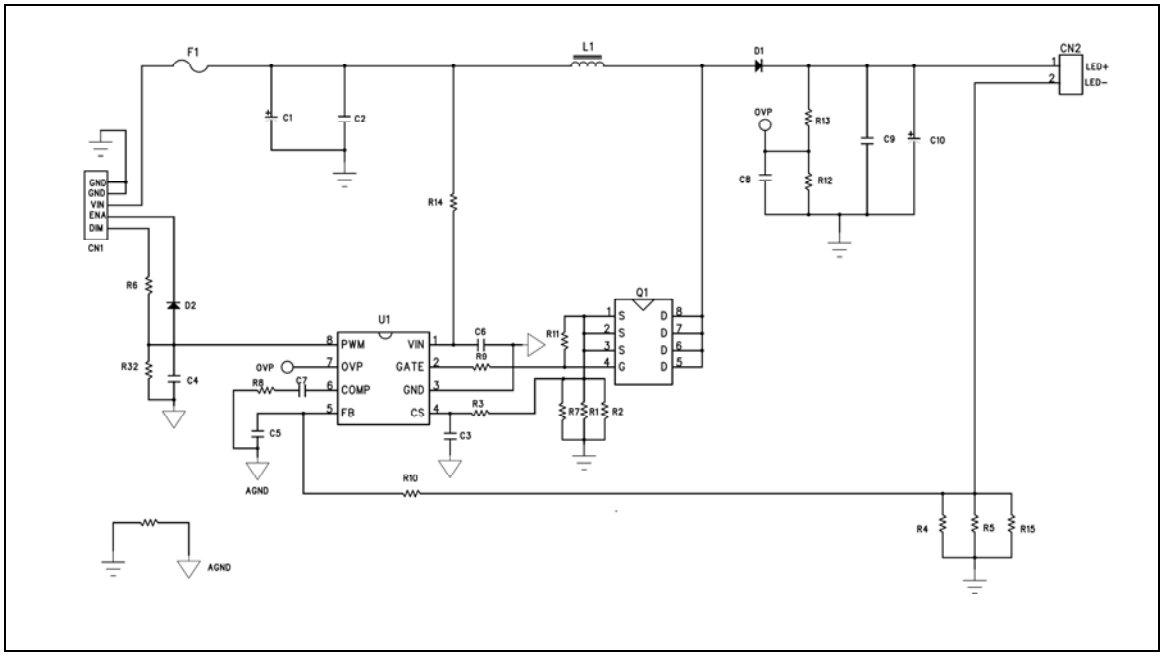
Revise Date	Version	Reason/Issue
2020-12-28	00	First Issue

1. Board Information

1.1. Features

- Current mode PWM Controller with good dynamic response
- Cost effective LED solution
- Output over voltage protection, cycle by cycle Over Current Protection, VDD under voltage lockout
- Diode short Protection, inductor short Protection, LED Cathode short GND Protection
- Support PWM to analog dimming mode
- Wide dimming range from 1% to 100%

1.2. Electrical Schematic



2. Test Data & Waveform

2.1. Test Data Summary

2.1.1. Key Item Overview

Item	Symbol	Test result				Spec	Unit	Remark
		LED						
LED Current	I_{OUT}	396.1				380~420	mA	**Pass**
LED Array voltage	V_P	39.6				-	V	--
	L1 (Core)		**Q1**		**D1**	**Spec**	**Remark**	
Thermal	67.3		53.4		51.0	<75℃	**Pass**	
	V_{IN}（V）	**I_{IN}(A)**	**P_{IN}(W)**	**P_{OUT}(W)**	**Efficiency**	**Spec**	**Remark**	
Efficiency	12.00	1.430	17.16	15.686	91.41%	>85%	**Pass**	

Note: VIN=12V, under 25℃ ambient with 13S1P white LED array.