Subject	
BUCK Dimmable LED Lighting Demo Board Manual	Board Model: LD42V1A3337.00 Doc. No.: OB_DOC_DBM_A_333700

Key Features

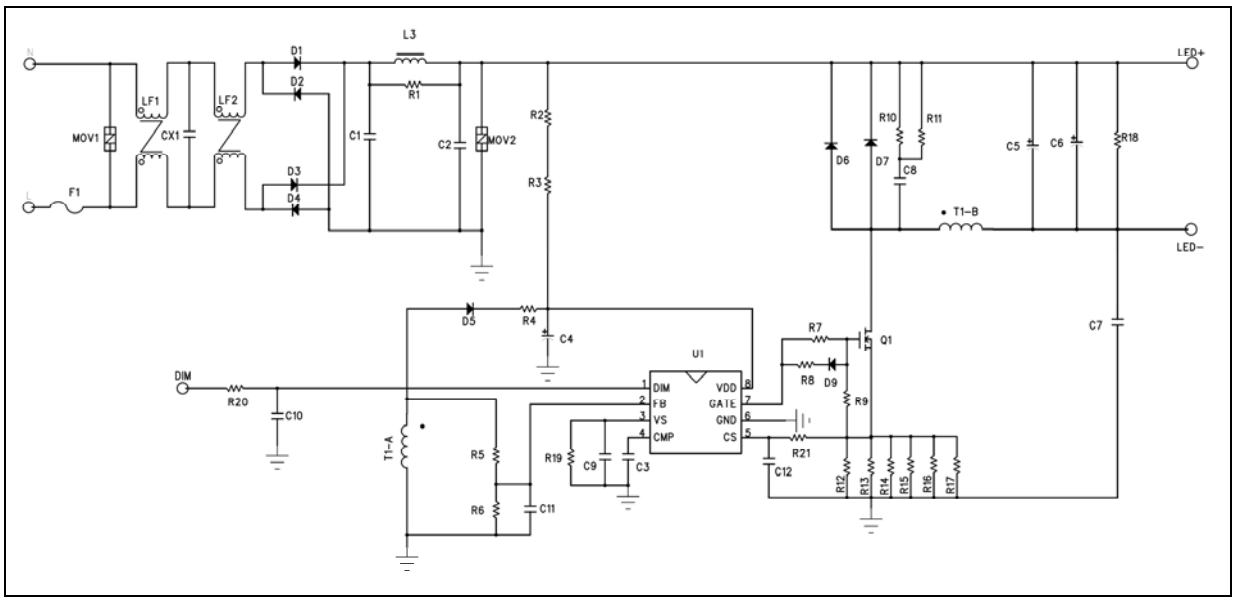
- PWM to Analog dimming for LED lighting application
- Non-isolated constant current controller with ±5% current regulation
- Fast startup time 0.463s@90Vac and low standby power 0.328W@264Vac
- Wide current dimming range from 5% to 100%
- Short circuit protection and Open circuit protection
- No visible flicker and audio noise free with dimming
- Meet EN55015 and FCC PART 15 Class B
- Pass 2.5kV differential mode surge

Revision History

Revise Date	Version	Reason/Issue
2020-7-27	00	First issue

1 LED Lighting Information

2.1 Schematic



NOTE: *The test data in this report is by 13 Series LED array, AC voltage from 90Vac to 264Vac.*

2.2 Module Snapshot

2 Performance Evaluation

Performance Highlights

- Efficiency >89%@115Vac/230Vac,full load
- Power factor >0.94@115Vac/230Vac,full load
- THD<20%@115Vac/230Vac,full load
- Startup time <0.5S@90Vac,full load
- EMI passed EN55015 and FCC PART 15 Class B test with more than 6dB margin.

Characterization Results Summary

Test Item	Test result
1. Input characteristics	
Efficiency @115Vac/230Vac,full load	90.90%/90.09%
2 .Output characteristics	
Current overshoot	0%
3. Power factor	
Power factor @115Vac/230Vac,full load	0.991/0.959
4. THD	
THD@115Vac/230Vac,full load	13.8%/17.9%
5. Time sequence	
Turn on delay time @90Vac,full load	0.463S
6. Protections	
Short Circuit protection	Output shut down with auto-recovery
Open Circuit protection	Output shut down with auto-recovery

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