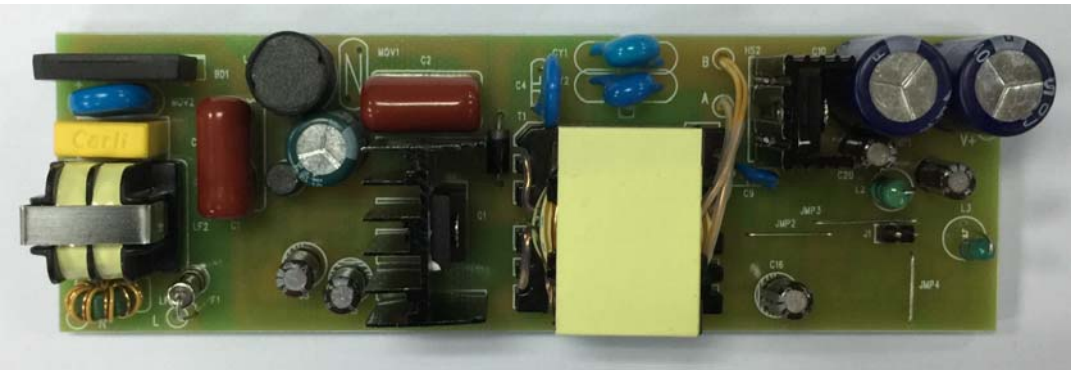
Subject

Dimmable LED Lighting Demo Board Manual

Board Model: LD42V1.5A3338+3Z12A.00

Doc. No.: OB_DOC_DBM_A_3338A1



Key Features

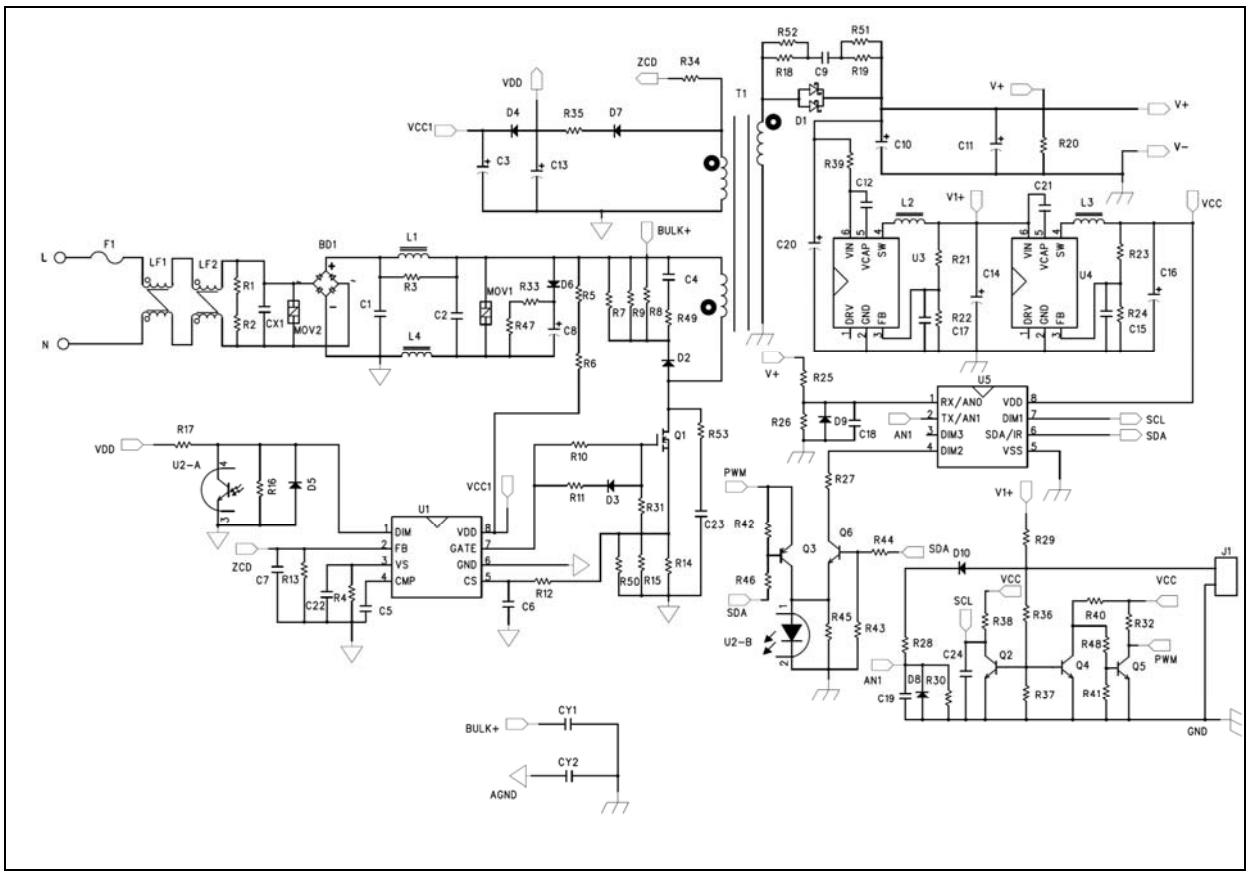
- Self-adaptive with PWM and Analog dimming for LED lighting application
- Isolated and primary-side constant current controller with ±5% current regulation
- Fast startup time 0.522s@100Vac and low standby power 0.474W@285Vac
- Wide current dimming range from 3% to 100%
- Short circuit protection and Open circuit protection
- No visible flicker and audio noise free with dimming
- Meet EN55015 and FCC PART 15 Class B
- Pass 2kV differential mode and 4kV common mode surge

Revision History

Revise Date	Version	Reason/Issue
2017-4-26	00	First issue
2018-1-23	A0	Update schematic
2021-11-23	A1	Update schematic

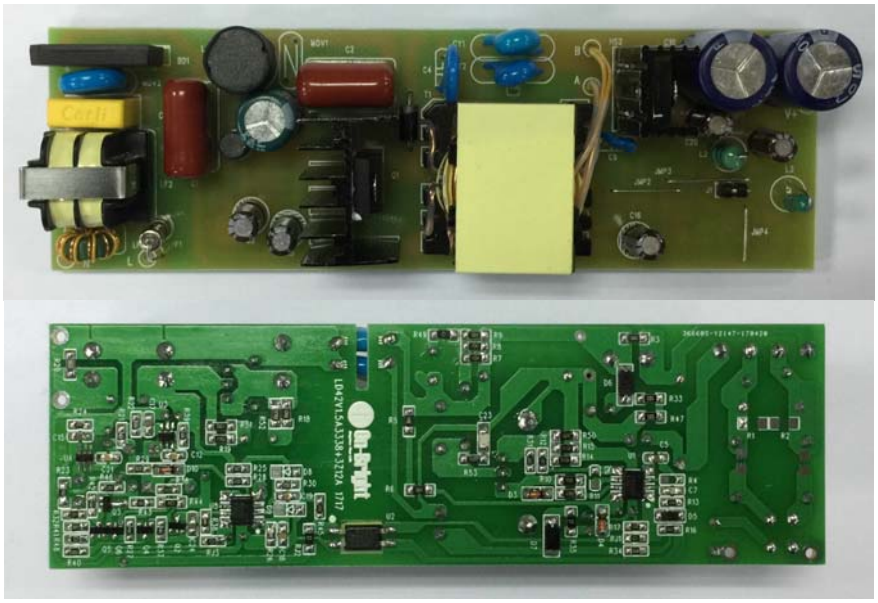
1 LED Lighting Information

2.1 Schematic



NOTE: *The test data in this report is by 13 Series LED array, AC voltage from 100Vac to 285Vac, J1 floating if not otherwise noted.*

2.2 Module Snapshot



Length : width : height=137mm : 43mm : 26mm

2 Performance Evaluation

Performance Highlights

- Efficiency >86%@120Vac/240Vac
- Power factor >0.95@120Vac/240Vac
- THD<10%@120Vac/240Vac
- Startup time <0.6S@100Vac
- 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 @120Vac/240Vac	86.98%/88.24%
2 .Output characteristics	
Current overshoot	0%
3. Power factor	
Power factor @120Vac/240Vac	0.998/0.980
4. THD	
THD@120Vac/240Vac	3.8%/6.7%
5. Time sequence	
Turn on delay time @100Vac	0.522S
6. Protections	
Short Circuit protection	Output shut down with auto-recovery
Open Circuit protection	Output shut down with auto-recovery