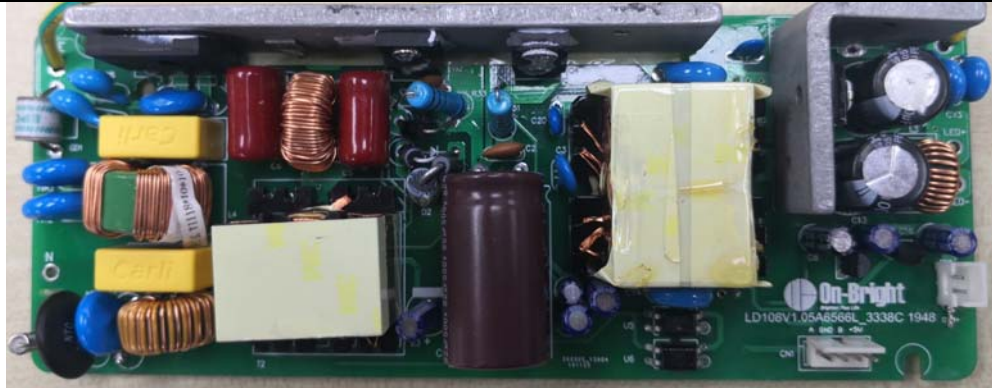


**Subject**

**Dimmable LED Lighting Demo Board Manual**

Board Model: LD108V1.05A6566L\_3338C

Doc. No.: OB\_DOC\_DBM\_3338C+6566L01



**Key Features**

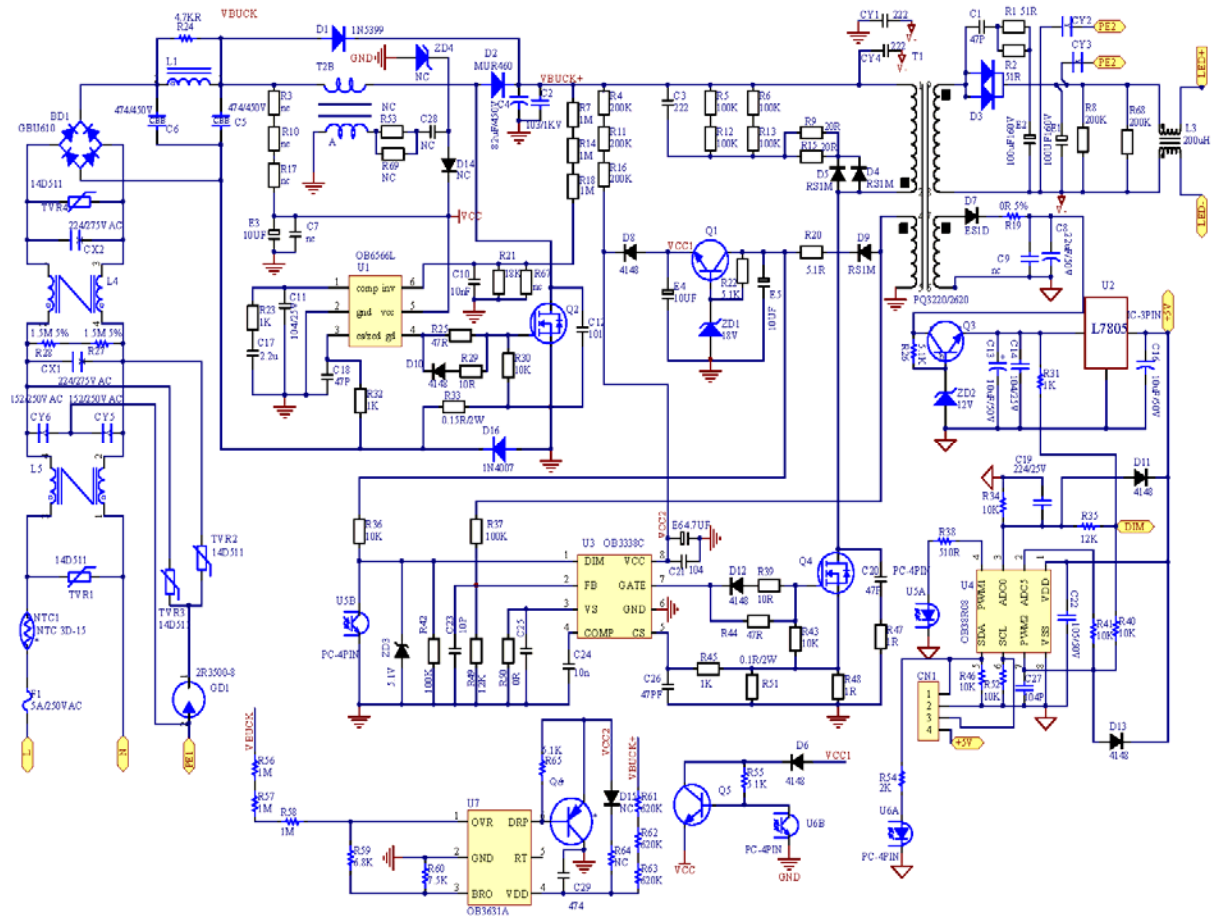
- Self-adaptive with PWM and Analog dimming for LED lighting application
- Isolated and primary-side constant current controller with  $\pm 3\%$  current regulation
- Fast startup time 0.56s@170Vac and low standby power 0.96W@277Vac
- Wide current dimming range from 5% to 100%
- Short circuit protection and Open circuit protection
- Input voltage brownout protection when  $V_{IN} < 150V$
- Input over voltage protection when  $V_{IN} > 300V$
- No visible flicker and audio noise free with dimming
- Meet EN55015
- Pass 3kV differential mode and 6kV common mode surge

## Revision History

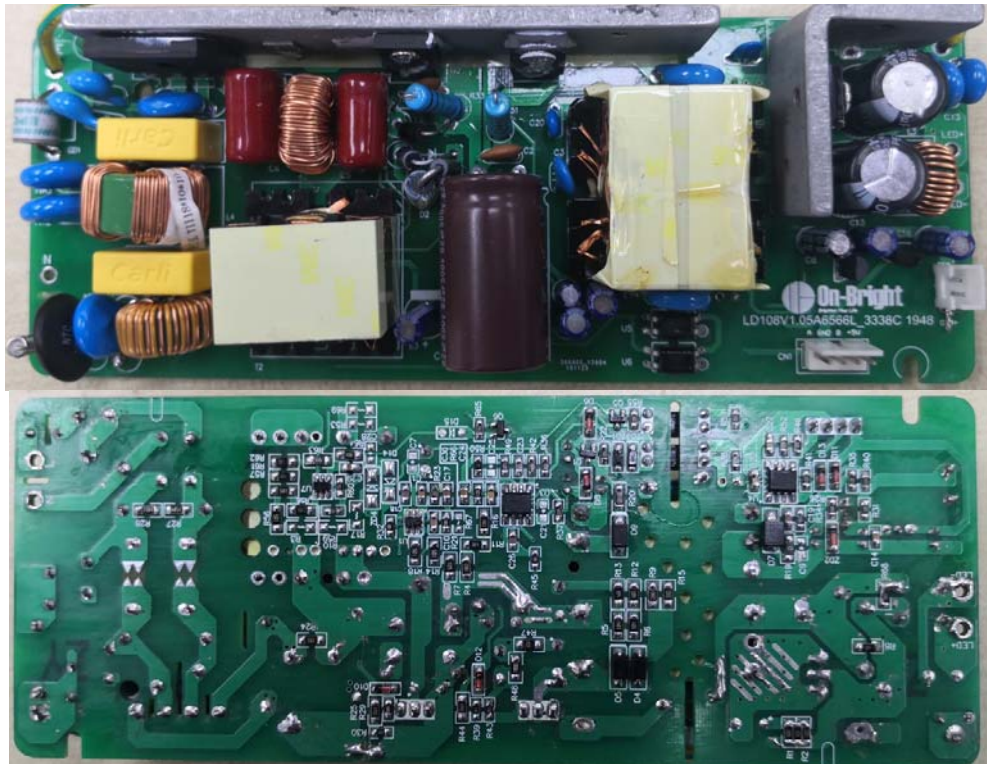
Revise Date	Version	Reason/Issue
2019-12-26	00	First issue
2020-4-10	01	Update BOM

# 1 LED Lighting Information

## 2.1 Schematic



## 2.2 Module Snapshot



Length : width : height=173mm : 66mm : 26mm

## 3 Performance Evaluation

### Performance Highlights

- Efficiency >90%@230Vac
- Power factor >0.95@170Vac/277Vac
- THD<7%@230Vac
- Startup time <0.56S@170Vac
- EMI passed EN55015 test with more than 6dB margin.

### Characterization Results Summary

Test Item	Test result
<b>1. Input characteristics</b>	
Efficiency @230Vac	90%
<b>2. Output characteristics</b>	
Current overshoot	0%
<b>3. Power factor</b>	
Power factor @230Vac/277Vac	0.98/0.96
<b>4. THD</b>	
THD@230Vac/277Vac	6.2%/12.8%
<b>5. Time sequence</b>	
Turn on delay time @170Vac	0.56S
<b>6. Protections</b>	
Short Circuit protection	Output shut down with auto-recovery
Open Circuit protection	Output shut down with auto-recovery
Input voltage brown out protection	Output shut down with lockout
Input over voltage protection	Output shut down with lockout

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