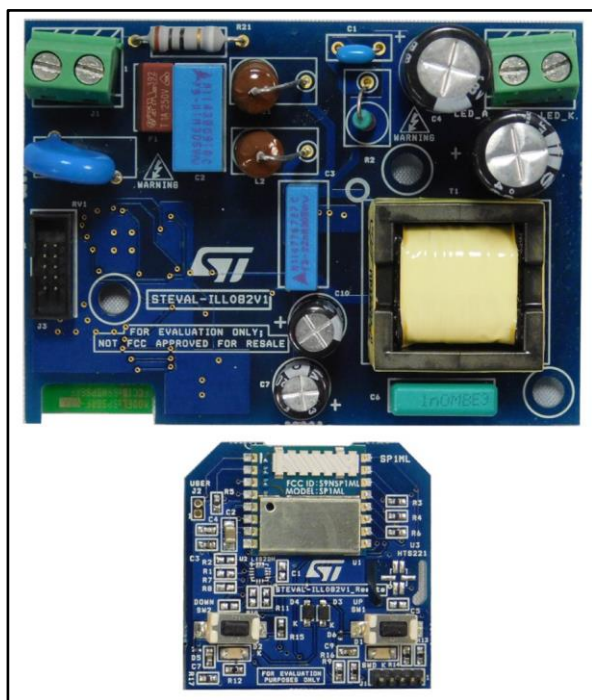


## Smart home lighting based on HVLED815PF and SPSGRF

Data brief



### Description

The STEVAL-ILL082V1 is based on the HVLED815PF off-line LED driver. It consists of a LED driver board with a connectivity module and the STM32L0 microcontroller, which manages wireless communication and LED brightness control. The microcontroller and connectivity module are supplied by the LED driver through an auxiliary winding.

STEVAL-ILL082V1 can be operated in standalone mode through the communication with the bundled STEVAL-ILL082V1\_Remote controller based on SP1ML to help to reduce development and certification time.

The board can also be rendered visible to cloud applications with the addition of a wireless bridge.

### Features

- Primary side regulation, no optocoupler required
- High power ( $> 0.95$ ) and low ( $< 18\%$ ) over the entire voltage range
- Quasi resonant operation
- High efficiency ( $> 84\%$ )
- Open/short LED management
- Up to 15 W operation
- Remote on/off and five steps dimming down to 2.5% using the STEVAL-ILL082V1\_Remote controller
- Low standby power consumption:  $< 0.5$  W
- RoHS compliant

# 1 Schematic diagrams

Figure 1: STEVAL-ILL082V1 circuit schematic (1 of 2)

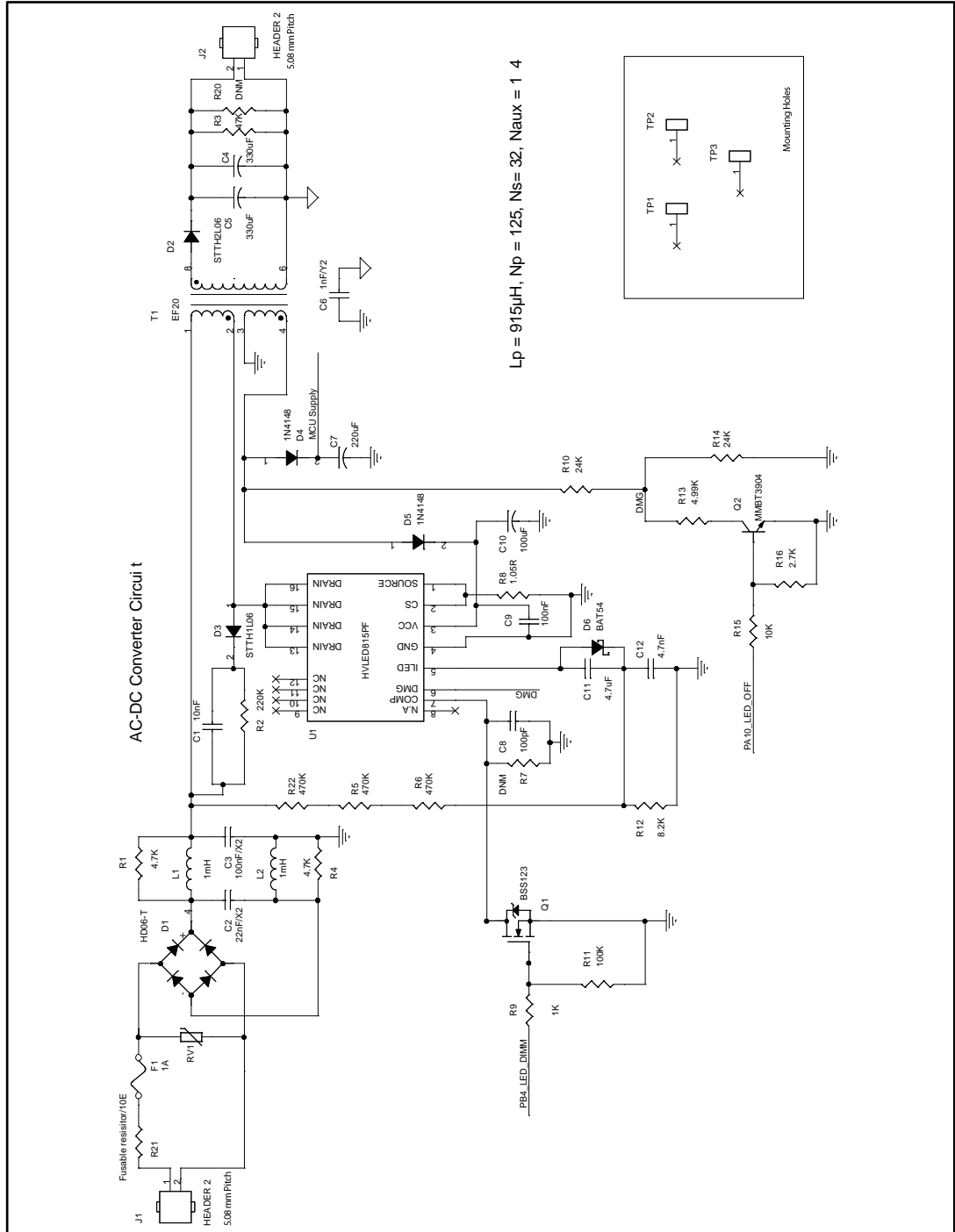


Figure 2: STEVAL-ILL082V1 circuit schematic (2 of 2)

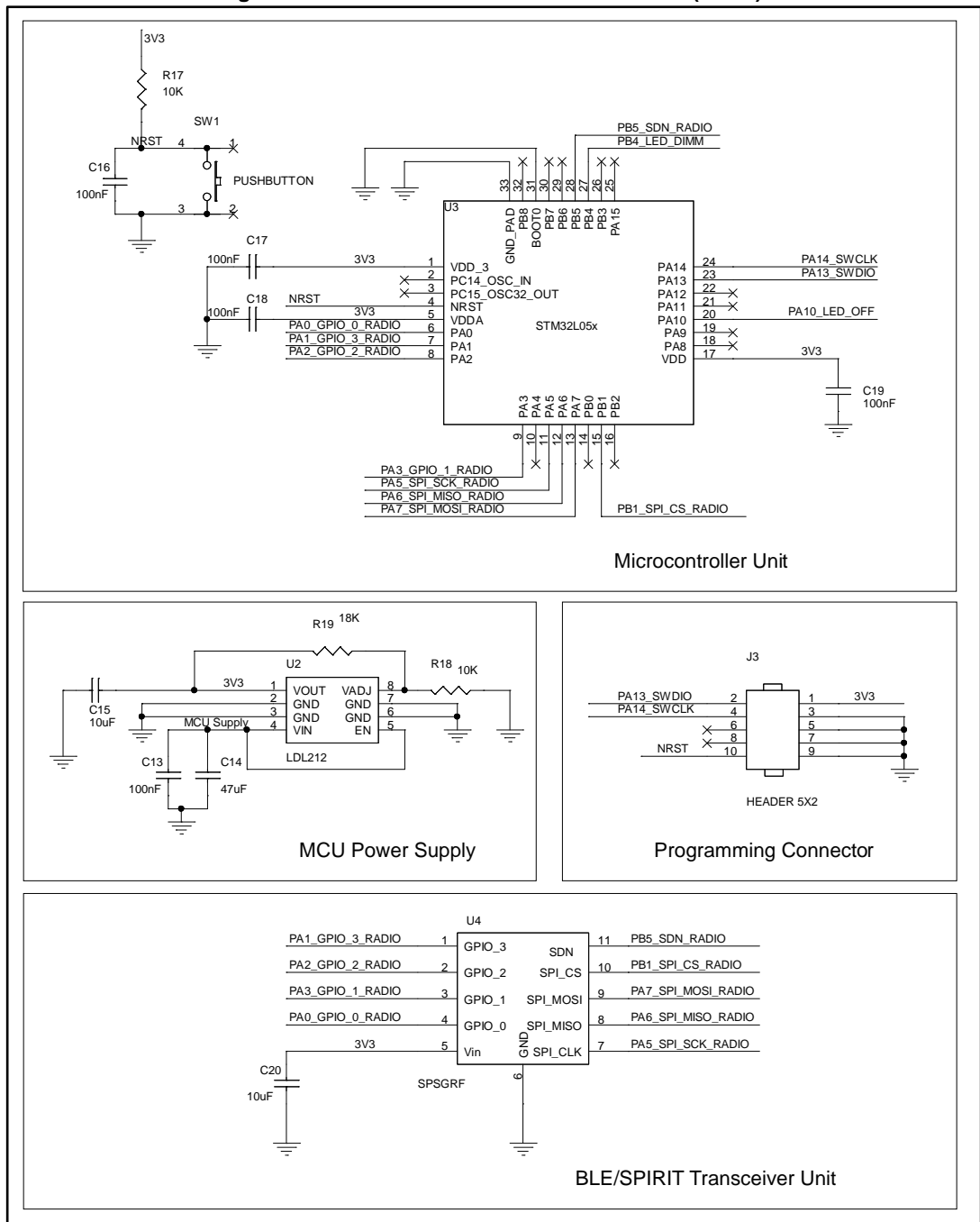
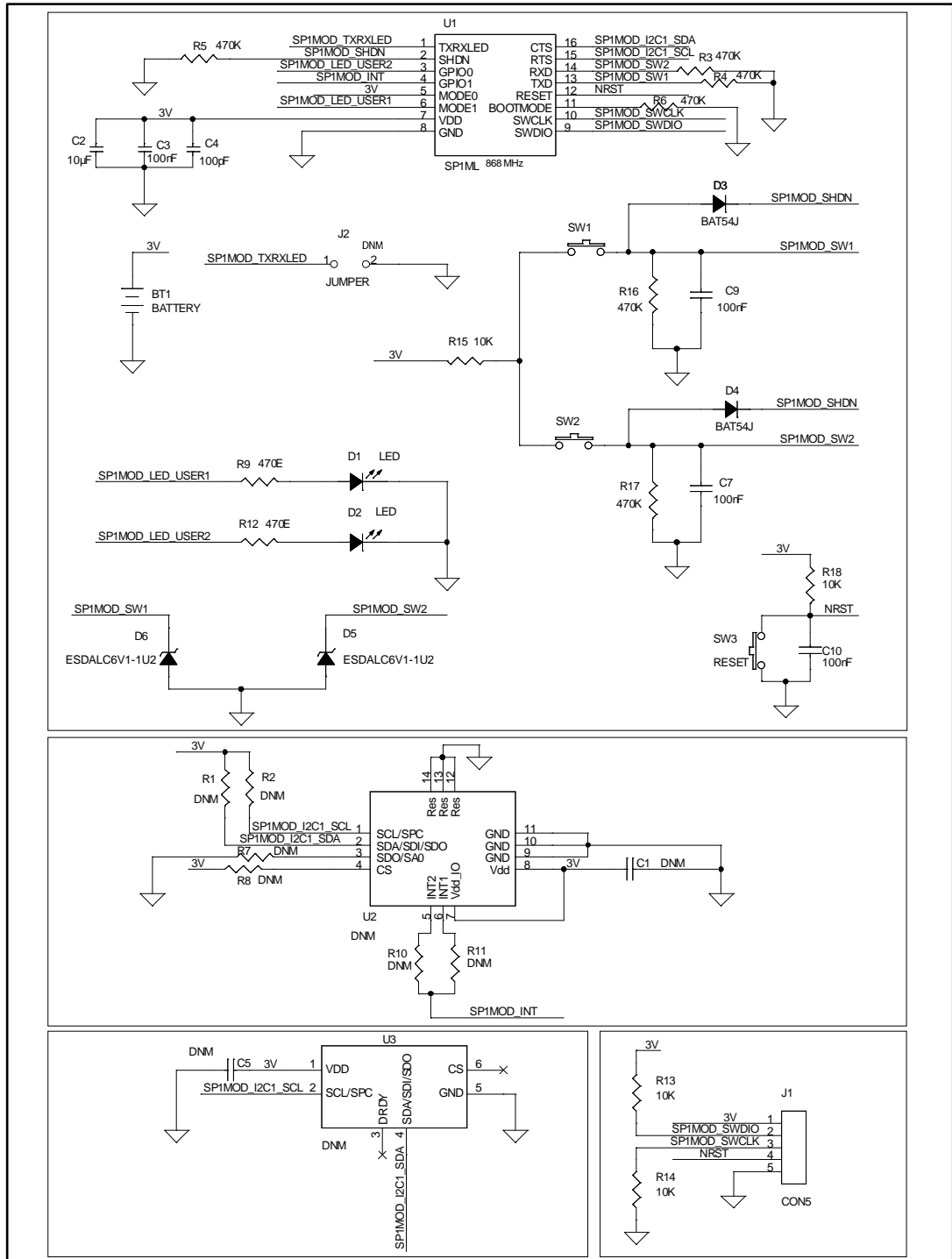


Figure 3: STEVAL-ILL082V1\_Remote circuit schematic



## 2 Revision history

Table 1: Document revision history

Date	Version	Changes
07-Feb-2017	1	Initial release.

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