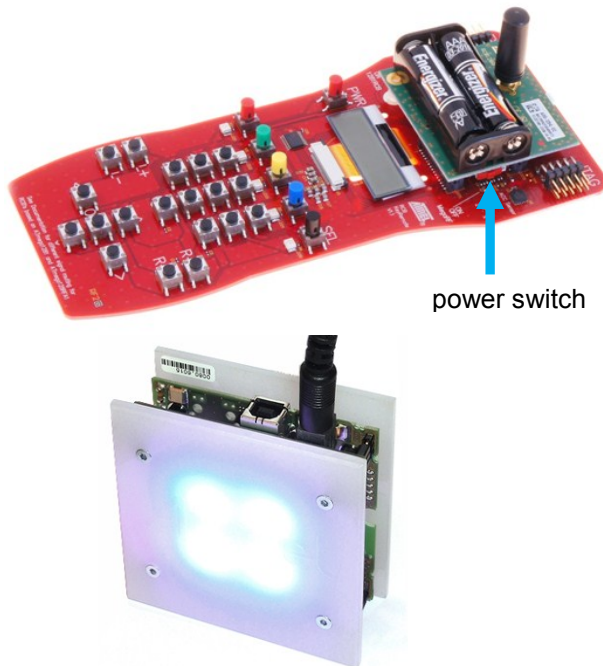


Kit purpose

The Kit demonstrates Atmels certified BitCloud ZLL stack with a residential lighting application based on Atmels low-power ATmega128RFA1 SoC. The key remote control operates as ZLL color scene controller for the 3 LED lights. The showcase demonstrates ZLL features like Touchlink pairing, color control and light clustering.

Hardware setup

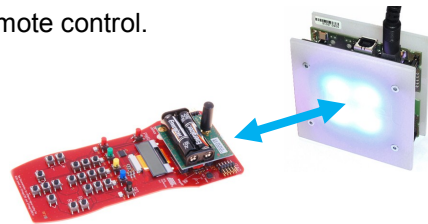


1. Connect the SMA stub antenna to the connector on the RCB128RFA1 board.
2. Insert AAA batteries, polarity is marked on battery holder.
3. Plug RCB128RFA1 board onto the key remote control.
4. Apply power to the RCB128RFA1 by turning the power switch.
5. Connect the AC adapter to the LED light and the main supply.

Touchlink pairing

For any operation LED lights need to be paired with the key remote control.

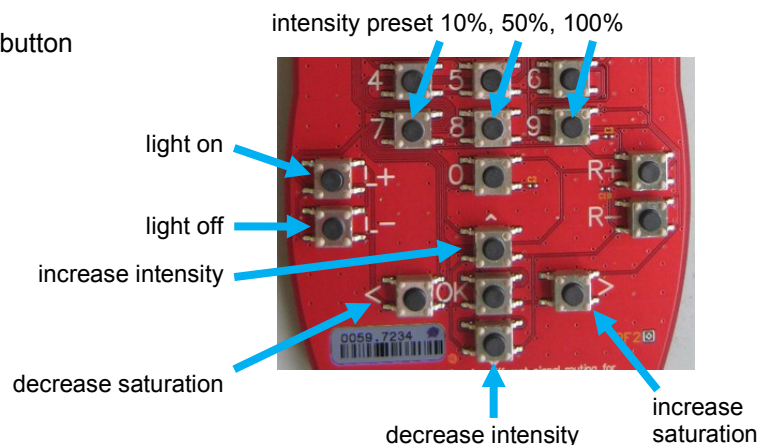
6. Place a LED light in close proximity to key remote control.
7. Press **PWR** button for 3 seconds to select LED light (selected LED light flashes).
8. For pairing hold **PWR** button for additional 3 seconds.
9. After successful pairing LED light emits green light.



Basic light control

Use **red**, **blue**, **green** and **yellow** button to apply color preset.

Please note: All settings are stored in NVRAM and will be activated after power on reset.



Add more lights

10. Connect an AC adapter to another LED light.
11. Place this LED light close to the key remote control while other LED lights are as far as possible.
12. Repeat Touchlink Pairing steps 7-9.

Please note: always the LED light with the strongest RF signal will be selected for pairing. Wrong selections can be reverted by releasing **PWR** button after step 7.

Identify LED lights

Press button **5** to identify powered LED lights. Selected LED lights will be identified by flashing. Use the **SELECT** button to change selection.

Light scenes

Up to 3 individual light setups (light scenes) can be stored/recalled on light scene buttons **1**, **2** and **3**.

save a light scene:

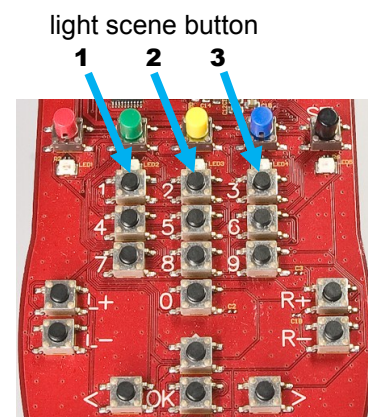
13. Change light settings as you like.
14. Press desired light scene button for more than 3 seconds to store the scene.

recall a light scene:

15. Press desired light scene button for less than 3 seconds.

delete a light scene:

16. Press button **R+** and **R-** and the desired light scene button.



Reset LED light to factory new state

17. Place the LED light in close proximity to key remote control.
18. Press and hold **PWR** and **R+** and **R-** buttons for more than 3 seconds.
19. LED light responds with turning on all lights followed by power down.

Reset key remote control to factory new state

20. Press and hold **PWR** and **R-** buttons for more than 3 seconds.

Resources

Additional resources like user manuals, datasheets and software resources can be found on the USB stick delivered with this development kit.

Further information are available online: <http://www.dresden-elektronik.de>



Safety advice: Super-bright LEDs can pose a hazard to the human eye. Avoid direct eye exposure.

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