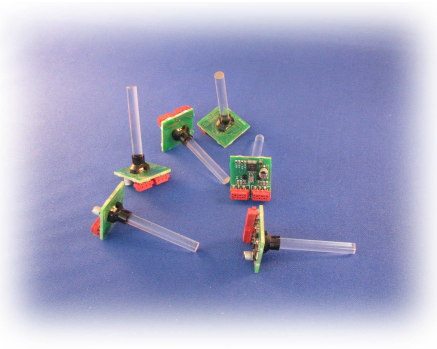


Twinkler: versatile RGB LED with controller

Do you need special lighting effects in a scale model? In a project table? On a map on a wall? Animated as a video screen? Under control of a workstation or personal computer? Or instead independently as a self-contained unit running on a few battery cells?

If you answered “yes” to any of these questions, you may want to look at what the “Twinkler” can provide. The Twinkler is a low-power RGB LED mounted on a small board together with a controller and a provision for a light pipe. A Twinkler can run stand-alone, playing a schedule stored in its non-volatile memory, or be driven by a personal computer (or other system). An arbitrary number of Twinklers can be chained together on a single serial bus, allowing a single PC to control hundredths of Twinklers.



A handful of Twinklers with straight light pipes

Summary of features

- The Twinkler can run stand-alone, or under control of a workstation/computer or as a mixture of these two. When running in stand-alone mode, the Twinklers run a programmed schedule, but allow the schedule to be restarted on a switch.
- An arbitrary number of Twinklers can be chained together. All Twinklers that are connected on a (serial) bus, synchronize their internal clocks and their schedules. Even when chained together, each Twinkler is individually controllable.
- The Twinklers are easily mounted behind a map or (thin) wall, or below a table by using light pipes. The surface of the table or wall stays flat.
- A single cable to the Twinklers carries both data (for lighting control) and power. This eases the cabling of many projects.
- The Twinkler has an RGB LED and allows each channel to be dimmed with six levels (a palette of 216 colours). Fading and blinking is handled by the Twinkler itself.
- The Twinkler's design is optimized for reliability. It operates under a large temperature range. All input and output pins are EMC filtered; the power line is also EMC filtered. The device is compliant to EMC and ESD regulations, as well as RoHS-conforming. Each Twinkler has an internal power regulator, which ensures that all Twinklers on a chain are equally bright (within the tolerances of the LED luminance).

Specifications (summary)

- LED luminous intensity (typical): 230 mcd (red), 480 mcd (green), 110 mcd (blue).
- LED wave lengths: 626 nm (red), 525 nm (green), 470 nm (blue).
- LED viewing angle: 120°.
- Operating voltage: 5.5 V to 9 V DC.
- Current consumption: 45 mA max. (LED is full on).
- Refresh frequency: 76 Hz.
- Serial line: 5 V TTL levels, 9600 and 115200 bps.
- Operating temperature: -40 °C to +125 °C .

For more information

ITB CompuPhase
Eerste Industriestraat 19-21
NL1401VL, Bussum, The Netherlands

info@compuphase.com
<http://www.compuphase.com>
+31 (0)35 6939261 (voice)