



Revision history

Version V1.00

Initial software version

Version V1.22

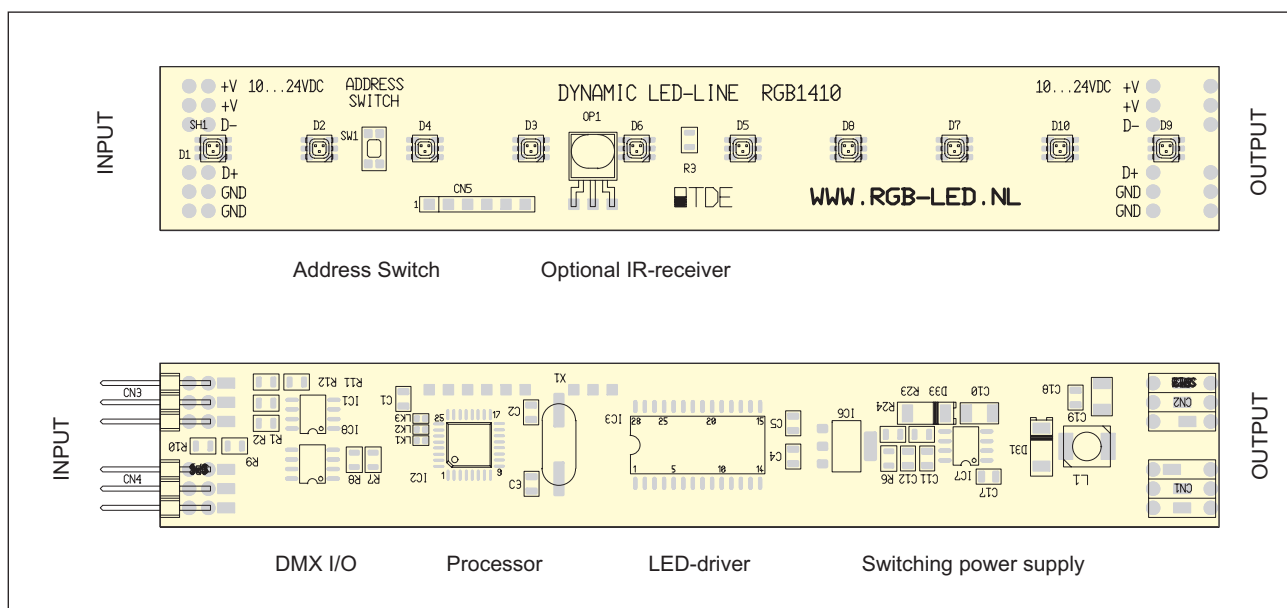
Improved PWM frequency control (270...850Hz)

Version V1.54

PWM frequency control at DMX-channel 512

Added 5 x RGB mode (15 channels) in Master/Slave addressing

Dynamic LED-line array manual



RGB 1410 Dynamic LED-line

RGB 4230

- PCB module size: 420 x 22 mm
- 30 x RGB-LED's per module
- Build in constant current LED-drivers and digital controller
- Easy connection: Only powersupply and a DMX-512 signal
- Up to 8 meters with single ended powersupply (24 VDC)
- Power consumption: 10 watt
- Each RGB-cluster (2 x RGB-LED) can be controlled in color and intensity
- Different RGB-modes
- Adjustable PWM-frequency
- Remote programming possibility
- Fits in TDE aluminum profile with clear or frosted covers

RGB 1410

- PCB module size: 140 x 22 mm
- 10 x RGB-LED's per module
- Build in constant current LED-drivers and digital controller
- Easy connection: Only powersupply and a DMX-512 signal
- Up to 8 meters with single ended powersupply (24 VDC)
- Power consumption: 4 watt
- Each RGB-cluster (2 x RGB-LED) can be controlled in color and intensity
- Different RGB-modes
- Adjustable PWM-frequency
- Remote programming possibility
- Fits in TDE aluminum profile with clear or frosted covers

The Dynamic LED-line is an intelligent LED-line array with **30 RGB LED's** configured as **15 RGB clusters**. Each RGB cluster can be controlled through the DMX-interface in color and intensity. The Dynamic LED-line has on board current controlled LED-drivers and a regulated switching power supply.

To operate just connect a **10...24VDC powersupply** and a standard **DMX-512 signal**. You can connect over 200 Dynamic LED-boards on one DMX-source (enhanced RS485).

The Dynamic LED-line has some advanced features:

- **Easy setup** with the **Address Switch** on the Dynamic LED-board
- **DMX Start-addressing** or **Master/Slave addressing** modes
- **9 different RGB-modes**, configuration of RGB-LED clusters
- **Adjustable PWM-frequency on DMX channel 512**
- **Remote programming of PWM frequency** (for usage in TV-studio environment), **RGB-mode, DMX-startaddress and output curve (maximum output)**
- **Superb bright output** using the latest LED-technology
- **Power consumption: 10 Watt max.** each board (approx. **25 Watts per meter**)

The Dynamic LED-line can be configured with the Address Switch at the left-side of the circuit board or with the optional Light Easy remote programmer. With this Address Switch you setup the DMX-startaddress and the different RGB-modes.

With the Light Easy remote controller, connected on the DMX-line, you can access the remote configuration mode. In this mode the remote controller overrides temporary the current startaddress of each Dynamic LED-line. This is very useful for testing a complete Dynamic-installation and changing parameters like the DMX-startaddress, RGB-mode and PWM-frequency (for minimal interference with studio camera's).

There are different ways to configure the Dynamic LED-lines:

[1] Stand-alone DMX start-addressing with RGB-modes 1...4

You have to set the DMX start-address and RGB-mode for **each** connected Dynamic LED-line on a DMX-line with the Address Switch.

[2] Master/Slave addressing with RGB-modes 5...9

You only have to setup the first connected Dynamic LED-line as MASTER.

All other connected LED-lines are automatically addressed as SLAVES.

In this mode each slave will receive specified address and mode information automatically.

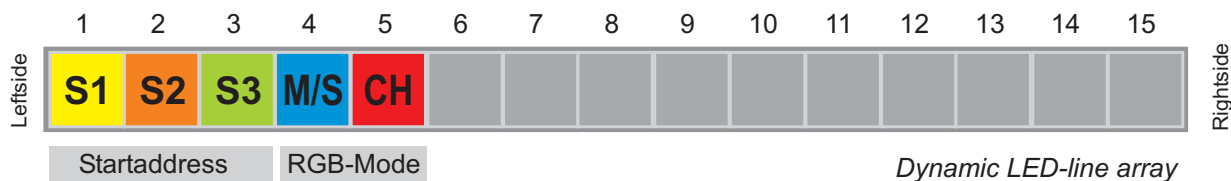
The **Master/Slave addressing** method is the most common to use. In this mode the incoming DMX-signal is not fed through to the LED-line connections.

This is because each connected LED-line modifies the incoming data for automatic addressing of LED-lines.

In the Stand-alone addressing mode the incoming DMX-signal is not modified and every Dynamic LED-line receives the same DMX-signal.

| RGB-mode | DMX channels | Configuration |
|---------------------------------------|--------------|--------------------------|
| Start addressing mode | | |
| 1 | M/S CH | 3 ch / board 1 x RGB |
| 2 | M/S CH | 3 ch / board 1 x RGB |
| 3 | M/S CH | 9 ch / board 3 x RGB |
| 4 | M/S CH | 15 ch / board 5 x RGB |
| Master / Slave addressing mode | | |
| 5 | M/S CH | 3 ch / linearray 1 x RGB |
| 6 | M/S CH | 3 ch / board 1 x RGB |
| 7 | M/S CH | 9 ch / board 3 x RGB |
| 8 | M/S CH | 45 ch / board 15 x RGB |
| 9 | M/S CH | 15 ch / board 5 x RGB |

The Dynamic LED-line can easily be configured with the small Address Switch located at the left-side of the circuit-board. When you press the switch once, the Dynamic LED-line will display the configuration as follows:



The first 3 LED-clusters [S1-S2-S3] displays the DMX startaddress in colorcode. The fourth and fifth LED-clusters [M/S-CH] displays the RGB-mode in colorcode. When you press and hold the Address Switch you will enter the configuration setup. Shortly pressing the Address Switch will exit the configuration mode.

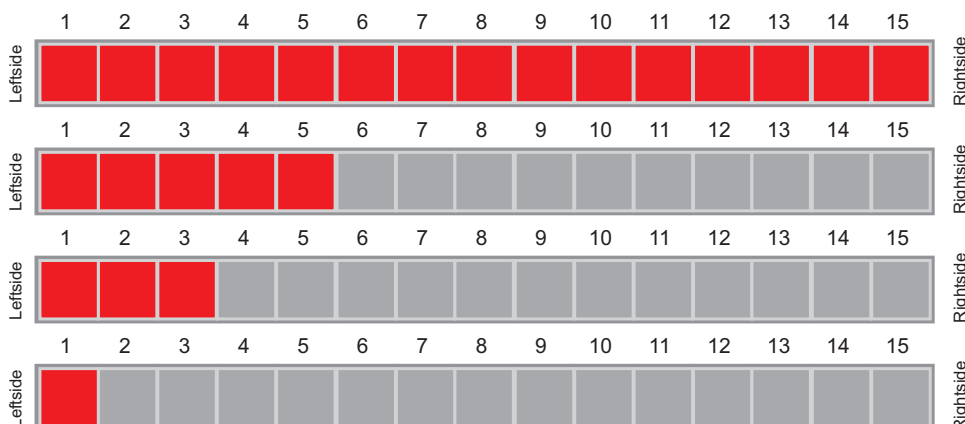
Easy setup the Dynamic LED-line:

- 1 Install the Dynamic LED-line and connect the powersupply
- 2 **Press shortly** the Address Switch on the left
<The LED-line will show his current DMX-address and RGB-mode>
- 3 **Press and hold** the Address Switch to make the first selection
Release the Address Switch when the first selection starts blinking
<S1 will start blinking>
- 4 **Press shortly** to select the requested color from the colorcode table
- 5 **Press and hold** the Address Switch for the next selection
<Sequential will blink startaddress S1, S2, S3 and RGB-mode M/S, CH in a loop>
Release the Address Switch when the next selection starts blinking

Repeat step 4 and 5 for complete setup

The new configuration will automatically be stored after 5 seconds. To check the new configuration press shortly the Address Switch. The LED-line will display for 10 sec. the current configuration and will stop displaying when pressing the Address Switch again.

The different RGB-modes:



Channels per board

RGB-mode 1, 5, 6
(3 channels / 1 x RGB)

RGB-mode 2, 7
(9 channels / 3 x RGB)

RGB-mode 3, 9
(15 channels / 5 x RGB)

RGB-mode 4, 8
(45 channels / 15 xRGB)

Note that in RGB-mode 5 you have 1 x RGB for the all connected Dynamic LED-lines

This table is the color lookup table for the DMX-startaddress. The colorcode is displayed pressing the Address Switch shortly, or when you power up whitout a DMX-signal.

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