

# RGB+DMX board for 220x220mm frame

The RGB board has a single pushbutton that controls all its functioning modes.

Pushbutton operation:

- Short push (less than half a second): start/stop/change
- Long push (over a second): menu selection

## RGB simple mode

With a short push of the button, the board will start or stop the RGB cycle. If the board has just been powered, the cycle will start from red, then will transition to Red → Green → Blue → Red → etc.... If instead the cycle was already started and then stopped, it will restart from where it was last stopped.

In this mode, by disconnecting and reconnecting the power supply the board will always start with the RGB cycle, always from the Red color, and always with a transition time between colors of about 20 seconds.

## Full mode

With a long push of the button, with RGB cycle off, it is possible to access a 6 levels menu to change all the board settings, and also save them into memory to be preserved even when the power supply is disconnected. The menu level is shown with a colored blink WHILE the button is kept pressed. The transition to the next level occurs every about 2 seconds while the button stays pressed. In order to confirm the level selection, just release the button while in the desired level.

NOTE: changing these settings will affect also the “simple mode”.

Menu levels:

- Level 1 (red blink): cycle speed selection
- Level 2 (green blink): cycle mode selection
- Level 3 (blue blink): fixed color selection
- Level 4 (yellow blink): DMX mode selection
- Level 5 (violet blink): DMX slave address selection
- Level 6 (white blink): Save the current settings into memory

Once the button is released, the colored blink will show the current setting for the selected menu level. If the button is not pressed within about 2 seconds, the board will revert to the OFF state saving the current settings. NOTE: the settings will be memorized only while the board is powered. In order to commit to memory the settings, the Level 6 menu must be selected.

To browse the available settings of the selected menu level, use short pushes. Once the correct setting is selected, stop pushing the button and wait for at least 3 seconds. This will confirm the setting and return the board to the OFF state.

NOTE: with the exception of menu Level 5, a long push while inside a menu will be recognized as a short push as soon as the button is released.

Level 1 menu options:

- Transition time 20 seconds (red blink) \*\*\*
- Transition time 60 seconds (green blink)
- Transition time 140 seconds (blue blink)
- Transition time 300 seconds (yellow blink)
- Transition time 600 seconds (violet blink)

(\*\*\* denotes the default software setting)

#### Level 2 menu options:

- RGB mode (yellow blink) \*\*\*  
Red → Red + Green → Green → Green + Blue → Blue → Blue + Red → Red → ...
- Red mode (red blink)  
Red → Red + Green → Red → Red + Blue → Red → ...
- Green mode (green blink)  
Green → Green + Blue → Green → Green + Red → Green → ...
- Blue mode (blue blink)  
Blue → Blue + Red → Blue → Blue + Green → Blue → ...
- RGBW mode (white blink)  
Red → White → Green → White → Blue → White → Red → ...

Example: select RGBW cycle with a transition time of 140 seconds.

- 1) Keep the button pressed until a red blink starts (menu Level 1), then release it;
- 2) Short push twice, until a blue blink starts (140 seconds transition time);
- 3) Wait until the blue blinking ends;
- 4) Keep again the button pressed, until the blink goes red and then green (menu Level 2), then release it;
- 5) Short push four times, until a white blink starts (RGBW mode);
- 6) Wait until the white blinking ends;
- 7) Use a short push to start/stop the cycle.

#### Level 3 menu options:

- Fixed colors. A total of 24 colors plus white are available. In this menu level, once the desired color is selected, it will stay on (this differs with the other levels where, once a setting is selected, the board will go back to the OFF state). The pushbutton can then be used, with a short push, to switch the color ON and OFF as in the RGB cycle mode.

#### Level 4 menu options:

- Stand-alone mode / DMX deactivated (red blink): the board works as stand-alone (or connected with other boards using the side connectors). The DMX bus is not working.
- Master mode (green blink): the board works as in the stand-alone mode, and sends to the DMX bus the same color it is showing, at address 1 (red), 2 (green) e 3 (blue).
- Slave mode (blue blink): the board receives the colors through the DMX bus at the selected address (see Level 5 menu). The color cycle and fixed color modes are disabled. If the button is pressed to enter the menu, the board will stop following the colors from the DMX bus until the end of the setup session, or for about 3 seconds after the last push on the button. NOTE: if the DMX bus is not connected, the board will not show any color.

#### Level 5 menu options:

- DMX address selection: the address is shown with a 3 color blink, red for the units, green for the tens, and blue for the hundreds. The number is repeated thrice, with a longer white pulse to separate the repetitions, then, if the button is not pressed within 3 seconds, the board will save and go back to the OFF state. In order to change the selected digit, use short pushes. To switch digit (units → tens → hundreds → units ...), keep the button pressed for at least 2 seconds and then release it. If the selected digit has value 0, only 3 long white pulses will be shown.

NOTE: the DMX address can be set between 001 and 509, and the board default address is 001. The red, green and blue channels will be assigned to the address (red), address + 1 (green), address +2 (blue). For example, by setting the address to 35, red will receive channel 35, green 36, and blue 37. If the address is mistakenly set to 000 or over 509 (the system allows to set up to 599 due to the digit system), the board will automatically convert it to the closest valid number (001 if 000 is set, 509 if a number greater than 509 is set) when returning to the OFF state.