

# What types of RGB 4-pin interfaces are available LC



## Overview

□□ Retail Display Lighting: A T-shaped connector paired with an RGB 4-pin jumper allows one strip to branch into two directions with synchronized colors. An RGB header on a motherboard is a dedicated connector that powers and controls LED lighting on PC components, available as a 4-pin 12V standard RGB header or a 3-pin 5V ARGB addressable header. What Is an RGB Header on a Motherboard?

What is the RGB header on the motherboard for?

How do I find. RGB runs on 12 volts with a 4-pin connector. Do I need fan splitters?

?

And if I do, where do I put them, and my mobo. 3-pin RGB lines are for addressable RGB, allowing for control over individual LEDs. Electrically speaking, on 3-pin RGB strips, each LED acts like a shift register or similar, where data on what color it is is passed down each LED. On 4-pin RGB. The table below outlines the pin assignments and functions for three common LED-strip connector types: Data source: IEC Connector Pinout Standard PDF Key takeaway: 3-pin strips use a simple VCC-Data-Ground interface for addressable control, 4-pin RGBW strips employ a +12 V rail with separate R, G. In LED strip installations, connectors are not only electrical interfaces but also the “turning points” and “bridges” in lighting design. Choosing the right connector ensures smooth light.

## Article Content

Mar 02, 2026

How RGB LEDs work and how to control color

Common Anode RGB LED In a common anode RGB LED, the anode of the internal LEDs are all connected to the external anode lead. To control each

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2-Pin vs 4-Pin LED Connectors: Voltage, RGB & Wiring

Expert guide comparing 2-pin vs 4-pin LED strip connectors, covering RGB control, waterproofing, voltage specs, and manufacturing standards.

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How to Use RGB LED: Four Pin (Common Cathode):

Learn how to use the RGB LED: Four Pin (Common Cathode) with detailed documentation, including pinouts, usage guides, and example projects. Perfect

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Addressable vs Non-Addressable RGB: What's the

What is the difference between Addressable vs Non-Addressable RGB LED lighting (RGB vs ARGB)? What is 5V vs 12V? What are 3-pin vs 4-pin

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Whats the difference between 4-pin system fan connectors, 4-pin

As for LED connectors, there are 2 types. 4-pin 12v RGB and 3-pin 5v aRGB (or RAINBOW on your motherboard). 4-pin RGB means all the LED on the components will light the same color (you can't

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L7: RGB LEDs | Physical Computing

In this tutorial, we will use an RGB LED (RGB stands for Red, Green, Blue) to flash through a sequence of colors and learn about the difference between a Common

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ARGB VS RGB: How to choose the right lighting for your

RGB vs. ARGB: ARGB offers more control over lighting effects. Connectors: RGB uses 4-pin to control all LEDs, while ARGB uses 3-pin for

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### Understanding LED Strip Connector Types: A

Explore our in-depth guide to LED strip connectors. Learn about pin configurations, shapes, compatibility, and troubleshooting tips to choose the

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### Understanding the Role of LED Connectors for 4-Pin

Pin Configuration: The pin configuration is a defining aspect when selecting compatible components. Most commonly used in RGB LED lighting

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### 6 Most Common Types of Display Interfaces You Should

6 types of display interfaces are commonly used to transfer the signal of the master controller to LCD modules: MCU, SPI, TTL, LVDS, DSI, and EDP.

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### How to Connect an LCD Display - Interface Types and

A complete guide to LCD display connection methods, including SPI, I2C, RGB, MIPI, LVDS interfaces and physical mounting options. Learn how to

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### How to Use LED RGB: Examples, Pinouts, and Specs

Learn how to use the LED RGB with detailed documentation, including pinouts, usage guides, and example projects. Perfect for students, hobbyists, and

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### 4-Pin vs 5-Pin LED Strip | RGBW & RGB+CCT

Discover the key differences between 4-pin RGBW and 5-pin RGB+CCT LED strips, view wiring diagrams, and learn when to use adapters for

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### RGB Header on Motherboard: Types & Pinouts | SunbeamTech

Learn everything about the RGB header on motherboard: 4-pin 12V vs 3-pin ARGB types, pinouts, and how to connect RGB cables without frying your LEDs.

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### Different Types of Connectors and Their Application

For example, in kitchen cabinet lighting, single-color strips can be paired with an 8mm 2-pin connector; while RGB ambient lighting is best matched

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ARGB vs RGB: What's the Difference? (3-Pin vs 4-Pin Explained)

ARGB, D-RGB, Digital RGB, and Addressable RGB are all the same thing. Different brands and manufacturers use different marketing terms but they all refer to 5V individually

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PCMENA » Motherboard RGB Header Types: 4-Pin vs.

Learn about the key differences between 4-pin and 3-pin RGB headers on motherboards. Understand how they affect your RGB lighting setup.

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Everything you need to know about the RGB Interface

When working with LCD displays, you'll need to know what an RGB interface is, especially if you're aiming for more accurately colored screens. RGB

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LCD Interface Types Explained with Details

The commonly used interfaces of TFT-LCD, including TTL (RGB), LVDS, EDP, and MIPI. Here roughly talk about the basic principles of the signal

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3-pin RGB lines are for addressable RGB, allowing for control over individual LEDs. 4-pin RGB lines do not have individual LED control. Electrically speaking, on 3-pin RGB strips,...

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Understanding LCD Display Interface Pin Definitions -

This article provides a comprehensive overview of the common pin definitions found in TFT LCD interfaces, focusing on key aspects such as

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How to Control an RGB LED with Arduino: A Step-by

Master RGB LED control with Arduino: Step-by-step guide, wiring instructions, and code examples. Create vibrant lighting effects effortlessly!

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## Understanding Common LCD Screen Interfaces: A Comprehensive

Explore common LCD screen interfaces, their characteristics, advantages, disadvantages, and application scenarios to optimize performance and reliability in various devices.

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## How to Use RGB LED: Four Pin: Examples, Pinouts,

Learn how to use the RGB LED: Four Pin with detailed documentation, including pinouts, usage guides, and example projects. Perfect for students, hobbyists, and

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## How To Connect 3-Pin, 4-Pin PWM, RGB and ARGB Cables to Your

How To Connect 3-Pin, 4-Pin PWM, RGB and ARGB Cables to Your Motherboard's Headers... The PC Expert Amateur™ (TPCEA™) 961 subscribers [Subscribe](#)

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## How do RGB LEDs work?

RGB LEDs are a combination of 3 LEDs in just one package: Red, Green and Blue. The colors that the LED produces are made combining these

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## How To Connect RGB Fans To Motherboard: Complete

To connect RGB fans to your motherboard: Match the fan type to the correct header (3-pin ARGB to 5V headers, 4-pin RGB to 12V headers), connect

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## 3-Pin vs 4-Pin LED Strip | RGB, RGBW & ARGB

Learn the difference between 3-pin RGB and 4-pin RGBW/ARGB LED strips, see wiring diagrams, and discover when to use adapters for seamless

## Contact Us

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