

19-inch network cabinet column hole spacing

Article Overview

Standard 19-inch racks use a vertical hole spacing of 1.75 inches per rack unit (U) with a three-hole set pattern, and horizontal rail spacing of 17.75 inches between mounting rails.

Vertical Hole Spacing

The vertical mounting holes on a 19-inch rack are arranged according to the EIA-310 standard. Each rack unit (1U) measures 1.75 inches (44.45 mm) in height. Within each 1U, the holes are grouped in a three-hole set with the following center-to-center spacing:

- o Bottom hole to middle hole: 0.625 inches (15.9 mm)
- o Middle hole to top hole: 0.625 inches (15.9 mm)
- o Top hole to next U: 0.5 inches (12.67 mm) This pattern repeats for each rack unit, ensuring consistent alignment for rack-mounted equipment ().

Horizontal Hole Spacing

The horizontal distance between the vertical columns of mounting holes (the front rails) is 17.75 inches (451 mm) internally. The overall front panel width of the rack is 19 inches (482.6 mm), allowing for handles or bezels on equipment (). The holes themselves typically have a diameter of 0.28 inches (7.1 mm) to accommodate standard screws ().

Additional Notes

- o The three-hole set design allows for half-unit (0.5U) spacing in some racks, improving ventilation and flexibility ().
- o Both square and round holes follow the same center-to-center spacing, so equipment designed for either type will fit properly.
- o For four-post racks, the distance between front and rear rails varies depending on depth, typically 23 to 30 inches, to accommodate rear mounting brackets (). Understanding these measurements ensures proper installation of servers, switches, and other rack-mounted devices while maintaining compliance with industry standards.

Because of their origin as mounting systems for railroad signaling relays, they are still sometimes called relay racks,



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Most server racks follow the 19-inch rack standard, which defines the horizontal space available for mounting

Standard 19-in. four-post EIA cabinet or rack, with mounting posts that conform to English universal hole spacing per section 1 of

The front rack opening must be 451 mm wide + 0.75 mm (17.75 in. + 0.03 in.), and the rail-mounting holes must be 465 mm + 0.8

This specification standardizes several important features of 19" racks, such as the Rack Unit (RU or U), vertical hole spacing,

Explore 19 inch rack specifications, cabinet designs, and mounting standards to find the right server

Explore our comprehensive guide on 19-inch server rack sizes. Learn everything you need

A minimum of 2.5 inches (6.4 cm) of clear space should exist between the side edge of the chassis and the side wall of the cabinet.

Here are Standard EIA openings for 19 inch light duty, medium duty, and heavy duty racks offered by A & J Manufacturing Company.

Discover the essential guide to 19-inch rack sizes and dimensions for servers and rackmount PCs. Learn about

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Rack cabinets that meet EIA-310 standards have an alternating pattern of three holes per rack unit. For the front and

Server Rack Depth Illustration of rack depth Unlike height, server rack depth is commonly measured in inches and

A 19-inch rack is the standard enclosure or frame size for mounting electronic equipment, and it gets its name from the width of the

Front-column to mid- and rear-column spacing should be adjustable and is critical to easing the mounting of computers. Always order

ANSI/EIA RS-310-D: The North American Benchmark Published by the Electronic Industries Association



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(EIA), RS-310

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