

1u Chassis Design Standards



Overview

A rack unit (abbreviated U or RU) is a unit of measure defined as $1\frac{3}{4}$ inches (44.45 mm). It is most frequently used as a measurement of the overall height of, as well as the height of equipment that mounts in these frames, whereby the height of the frame or equipment is expressed as multiples of rack units. For example, a typical full-size rack cage is 42U high, while equipment is typically 1.

AI Overview

A 1U chassis is standardized to 1.75 inches (44.45 mm) in height and 19 inches (482.6 mm) in width, with mounting and depth specifications guided by EIA-310-D and IEC 60297 standards. Physical Dimensions A 1U rack unit (RU) is defined as 1.75 inches (44.45 mm) tall and 19 inches (482.6 mm) wide, measured between the outer edges of the vertical mounting rails. In practice, front panels are often slightly shorter (1.72–1.74 inches) to allow clearance and prevent binding during installation. Depth is not standardized and typically ranges from 17 to 21 inches, depending on the chassis type and application. Mounting Standards 1U chassis are designed to fit 19-inch racks and follow the EIA-310-D standard, which specifies vertical spacing, mounting hole patterns, and rail alignment. Each rail has three consecutive threaded or tapped holes spaced at 0.625 inches (15.875 mm), with a total vertical distance of 1.25 inches across three holes, leaving 0.5 inches of clearance for alignment. This ensures interoperability across different manufacturers' equipment. International Standards The IEC 60297-3-100 standard provides guidance for 1U chassis in terms of rack/cabinet dimensions, front panel mounting, weight loading, and service accessibility. It defines interface dimensions for various chassis types, allowing designers to plan for cooling, airflow, and serviceability. While IEC 60297 specifies height and mounting interfaces, it does not regulate depth, front-panel cutout shape...

Article Content

1U Chassis

The 1U chassis support multiple configurations include SATA hard drives, rackmount chassis and redundant power supply that fulfill server-grade IPC standard. The 1U chassis series with the cooling

MGX Accelerated Computing Rack and Trays Specification Revision

The busbar chassis / U-channel must connect to the rack electrically to maintain a common ground potential. This is done with a connection at the top and the bottom of the rack.

How to choose the rackmount case for your workstation or server

Building a workstation in a rackmount chassis Building a rackmount workstation or server can be annoying and difficult. Rackmount chassis need to fit a certain size standard in order to be

Enterprise Core Systems Engineering Reference Manual: 1U

PRODUCT IDENTIFICATION The 1U Rackmount Form Factor represents the foundational hardware chassis standard for high-density telecommunications, enterprise data center, and carrier-grade

1U Rackmount Case and Chassis

Types of 1U Rackmount Case and Chassis 19 Inch Rack Mount Enclosure 1U This enclosure provides a sturdy housing for electronic equipment, ensuring efficient use of space in standard 19-inch racks.

Download the Essential 1U Industrial Control Chassis Drawing Free Now

Download this professional-grade 1U Industrial Control Chassis Drawing today and accelerate your project deployment with confidence and precision. Key Features: Standard 1U

Server Chassis 1U: The Best Options for Compact Server Solutions

The server chassis 1U is specifically designed for compact server solutions, featuring a space-saving design that fits easily into any rackmount or mounting setup.

CDS REV14 2022-02-09

The requirements in this document are meant for preliminary design purposes, and are written conservatively to allow for the best chances of compatibility with any launch vehicle.

IEC 60297-3-105:2008

IEC 60297-3-105:2008 specifies the dimensions for 1U chassis mounted into IEC 60297-3-100 compliant racks/cabinets where dimensions, loaded weight and accessibility require differing assembly methods.

Enterprise Core Systems Engineering Reference Manual: 1U

standard for high-density telecommunications, enterprise data center, and carrier-grade network deployments. This specification defines the external dimensions, mounting interf structural

1U Chassis -19 Inch Rack Mount

1U chassis is one of the best selling case for 19inch rack mount chassis, we not only have 1U/2U/3U/4U server case, but can manufacture different sizes according to customer's requirement. Contact us for

How to Choose the Perfect Rack mount Server Case: Understanding 1U

The "U" in 1U, 2U, 3U, and 4U rackmount chassis refers to a standard unit of measurement (1.75 inches or 44.45 millimeters) that defines the height of the server case.

Rack unit

A rack unit (abbreviated U or RU) is a unit of measure defined as 1+3/4 inches (44.45 mm). It is most frequently used as a measurement of the overall height of 19-inch and 23-inch rack frames, as well as the height of equipment that mounts in these frames, whereby the height of the frame or equipment is expressed as multiples of rack units. For example, a typical full-size rack cage is 42U high, while equipment is typically 1

1U Rackmount Chassis / InWin / IW-RA100

1U appliance chassis with 15" depth for space-sensitive applications Utilizing space for HDD deployment to optimized HDD storage design Outstanding thermal exhaust efficiency supports 40 x 28mm PWM

INTERNATIONAL STANDARD

This part of IEC 60297 will give guidance and provide for dimensional requirements for 1U chassis based on weight loading, physical size and service accessibility.

1U Chassis Images

1u (1 3/4") Heavy-Duty Rack-Mount Chassis Introducing the STRONGBOX® 1 3/4" high (1 rack unit) by 19" wide, heavy-duty rack-mount chassis. SBx-1 chassis are available in depths of 9 1/2", 12", 15",

Rack Mount Enclosures: The Ultimate Guide to Cabinets & Chassis

EIA Standards: 19-inch racks typically adhere to EIA standards (specifically EIA-310), which define the dimensions and specifications for rack mounting. Rack Units (U): The height of 19

Understanding Rack Units (U) in Server Racks [July 2026]

A “Rack Unit” (U) is a standard height measure for mounting equipment in a server rack. One U = 1.75 in (44.45 mm). This article explains definition, planning, installation tips, and trends.

Choosing the Right Server Case: 1U, 2U, 3U, and 4U for Your Server

Identify the most suitable case for your server by comprehending the distinction between 1U, 2U, 3U, and 4U server cases in terms of your server's requirements and performance.

Server Rack Sizes: The Complete Guide to Standard,

Below is a comprehensive, fully detailed guide covering all standard server rack sizes, form factors, height considerations, depth classifications, and

1U vs 2U vs 4U Servers: What “U” Means & How to Choose in 2026

Learn what a rack unit (U) is, how 1U/2U/4U differ, and how to pick the right chassis height for disks, PCIe/GPU, noise, power, rails, and airflow. ☐☐ Checklist included.

OCP ORv3 IT Gear Design Guide Rev. 02

A 3D model of the reference chassis design with simplified valve models, chassis shell, and injector mechanisms are provided for reference in the collateral with this document.

Contact Us

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