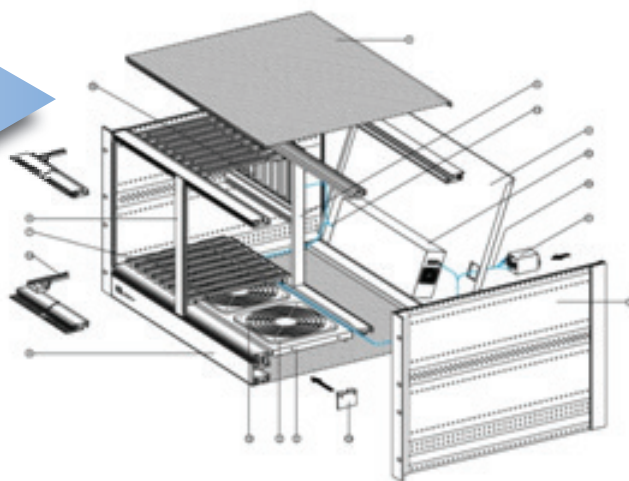# Let a Eurocard Enclosure Reduce Your Development Time and Costs

If you are developing some type of electronics device, instrument, or computing system, you of course need an enclosure to house it, a way to power it, to connect/communicate across all system nodes, and to cool it. Depending on your market, you may have most of that figured out, but require an enclosure to house your device. Many in the industrial marketplace, and by that we mean industrial control, energy/oil & gas, measurement/analysis, communications, and other industries, should consider a Eurocard-based enclosure.

Eurocard is a highly standardized format for PCB and subracks. The height increments increase by units of 1U (1.75"), widths of HP (horizontal pitch) of .20" and typically depths of 100mm with each increment at 60mm (160, 220, 280, etc.) The pluggable boards are 100mm high but the 33.35mm is required for the card guide structure for plugging the boards.

Example of Eurocard Chassis

Benefits

The benefits of Eurocard is the ability to utilize a common PCB and subrack framework to base your design around. Perhaps the largest benefit is using a modular, standardized format that entire industries are familiar with – creating a standard product ecosystem from which to start. The standardization significantly reduces development costs, reduces time to market, and allows a wide range of potential suppliers to offer to standard or "modified-standard" solutions.

3U and 6U size

The modular Eurocard subracks typically use extrusions which can be cut into any length. (Of course, the most common lengths are those that fit the typical heights, depths, and widths of Eurocard). The extrusions may have handle "teeth" that allows cards to be plugged/latched in various pitches and tapped strips where panels or other components can be mounted. They also accept the side panels, covers, mounting screws, etc for a modular design.

Front extruded rail with "teeth" for latching handles

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The most common sizes for Eurocard are 3U and 6U heights for pluggable PCB boards. The boards can be plugged into standard subracks vertically or horizontally, depending on the configuration of the subrack enclosure. Let's take the vertical-mount style first. If you have for example a 3U high board, it can be plugged into modular card guides in the subrack that holds those size boards. With the modular design of the enclosure, the chassis side panels and top and bottom covers can easily be attached to the extrusions.

There are also specific extrusions that have 1HP spaced mounting holes for IEEE and IEC board handles. The handles for your 3U or 6U board can be latched in various spacing, which of course also line up with the modular card guides.

3U and 6U board examples

You may ask, "What if my boards are not a typical .8" pitch or if I have boards with different pitches in my system"?

Board pitches

As touched-on earlier, the tapped strips that fit in the extrusions allow mounting of card guides or screws. The tapped strip holes are 1HP (.2") apart, so you could have .8" pitch boards mounted right next to 1.0" pitch board, next to a 1.6" board without any customization? It is a snap (literally, the guides snap on).

Threaded Insert with tapped holes at 1HP intervals

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Why Pixus?

Pixus combines a superb combination for the best of 3 worlds. We incorporate German design engineering for precise components and creative, modular design. Our manufacturing is in Asia, Europe, and N. America which we utilize depending on the product and most cost-effective solution for you. Our FAEs, sales engineers, and management are among the most knowledgable in the business. This provides you with experienced team members who can help you improve your packaging design, simplify your process, and save you time and money. Overall, you get fast and knowledgable service, a cost-effective price and design, and a quality, reliable product.

Check out Pixus' subrack configuration for design options. Of course, you can contact our knowledgable staff at any time for help and support.

Corporate Headquarters
Pixus Technologies
50 Bathurst Dr.
Waterloo, Ontario N2V 2C5

Phone: 519.885.5775
Fax: 226.444.0225

USA Headquarters
Sacramento, CA
Phone: 916.524.8242

info@pixustechnologies.com
sales@pixustechnologies.com

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