Rack & Power

Power Shelf Input Power Connector

Will Stewart
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HARTING

Agenda

- HARTING Overview
- Open Rack v2 Power Architecture
- Universal PDU Success Story
- Universal Power Shelf Benefits
- Input Power Connector Concept
- Questions

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Specifications

HARTING Facts & Figures

~$900M
in turnover

worldwide
44 sales companies

13
production plants

Company HQ in
Espelkamp, Germany

about 5,000 employees

founded in
1945

100 %
owned by the Harting family

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Specifications

Open Rack v2 Power Architecture

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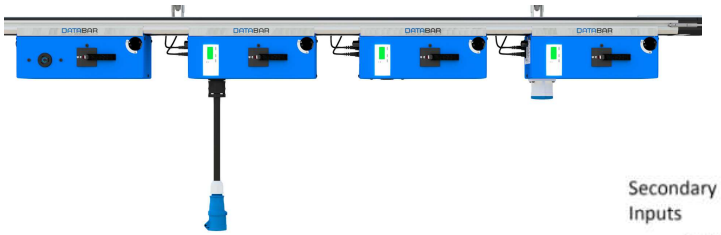
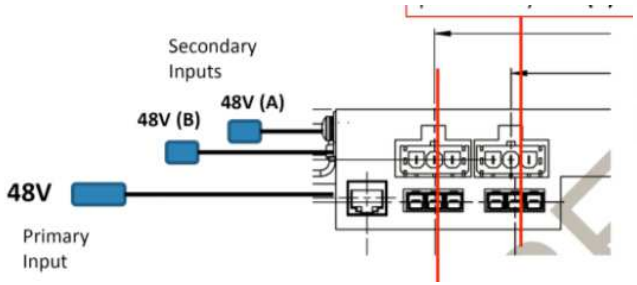
Busway → gPDU → Power Shelf





Specifications

Current Power Architecture

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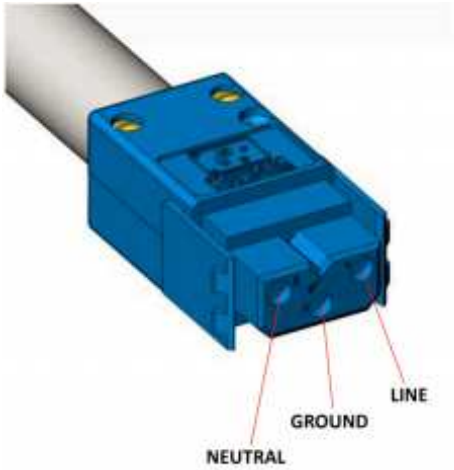
- Proprietary PDU to power shelf connection
- Limited in power capabilities
- Proprietary design, not in alignment with mission of Open Compute
- Prevents global architecture



Specifications

Varying Power Requirements Prevent Global Architecture

- 20A
- 12 AWG
- NEMA L22-20P Plug

- 32A
- 10 AWG
- IEC 60309 Plug

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Specifications

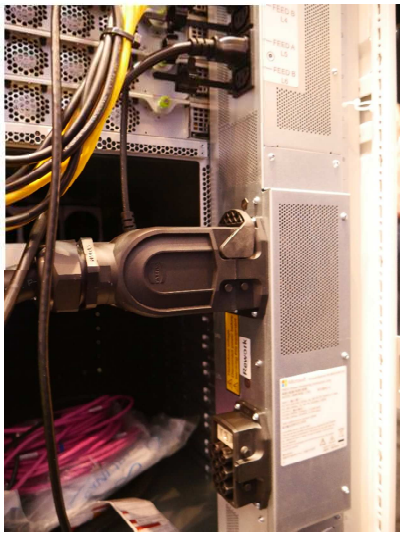
Additional architectures can also be found inside these regions

Connectorization Success Story

Microsoft Project Olympus

- Switched from hardwired rPDU to a Universal rPDU
- Lead time dropped from 6-8 weeks to 2 weeks
- Power cables can be re-used
- Simplified supply chain and optimized inventory

Microsoft



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Power Shelf v3 Proposal

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- Remove gPDU
- Cable drop from bus bar connected directly to power shelf
- Streamline and simplify design
- Create one rack architecture that can be used globally
- NEED: OCP Accepted™ Input Power Connector

Specifications

Benefits

- One rack design used internationally
- Reduce liability in inventory
- Fewer SKUs, faster deployment
- Retain cables during data hall refresh
- Decrease total cost of ownership

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Specifications

What do we need now?

- Input connector that can handle all power and dimensional requirements
- Industry proven technology leader to innovate and partner for OCP standardization
- OCP Accepted™ product with OCP Specification

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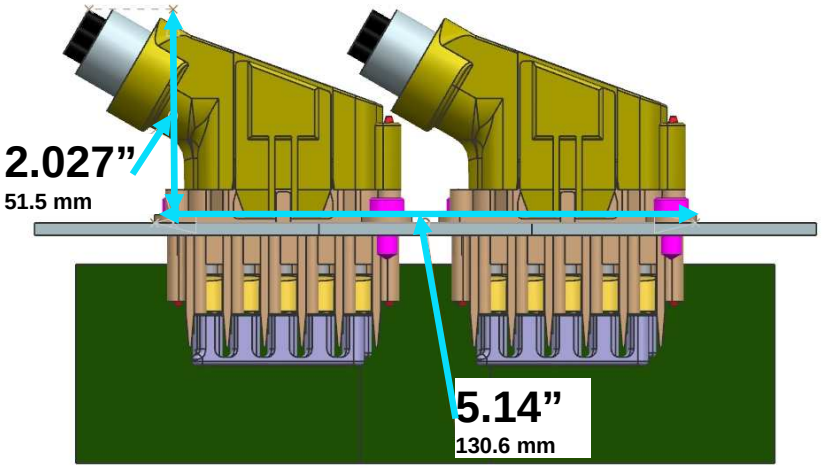
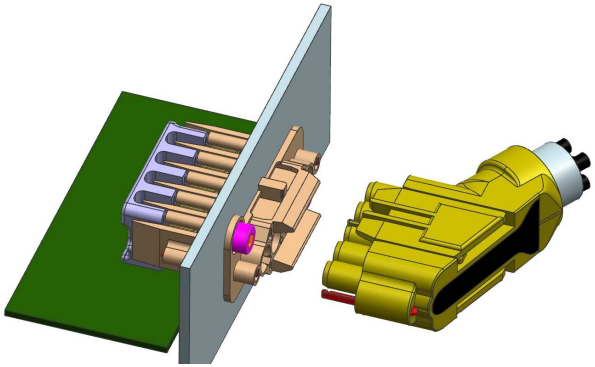
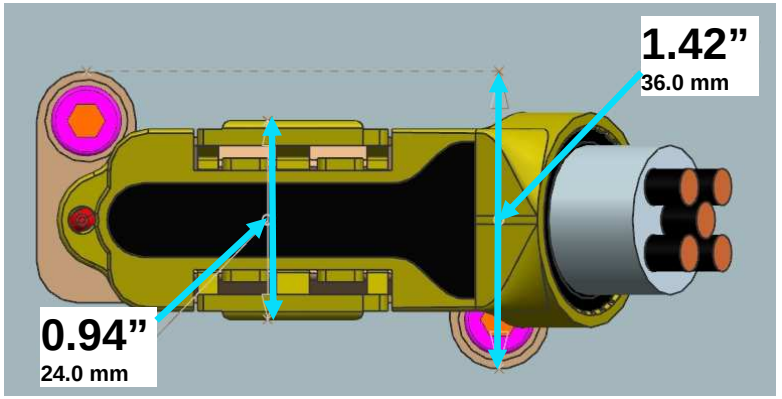
Specifications

Input Connector Concept







Dimensional requirements:

- Height: <1.77” (<45mm)
- Length: <2.56” (<65mm)
- Depth: <2.36” (<60mm)

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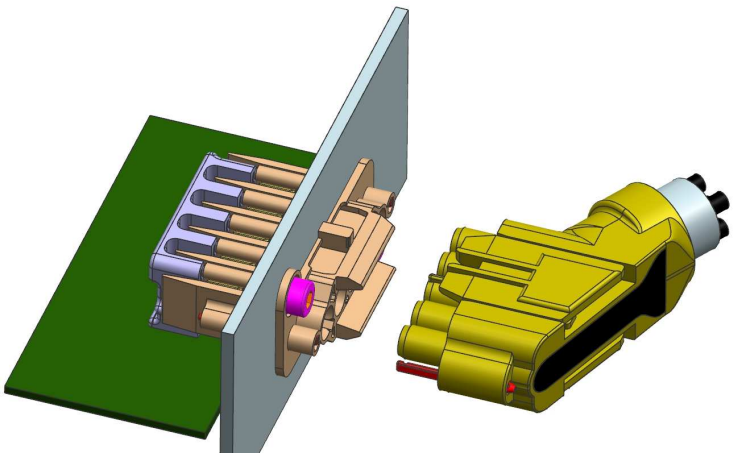
Input Connector Concept



- Finger protected contacts
- 50A/480V
- Positive latch
- Potential coding
- Can fit four connections on one power shelf

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Timeline

March 15

- Receive feedback from OCP on conceptual design

Q2 2019

- Finalize design and specification
- Present to Rack and Power subgroup

Q3 2019

- Present specification to Incubation Committee
- Manufacture samples

Q4 2019

- List OCP Accepted™ power shelf input connector in OCP Marketplace

More Information

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Specifications

Slide 15

SW1 Stewart, William, 3/11/2019


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