

# OPEN POSSIBILITIES.

## OCP NIC: What's now and the future

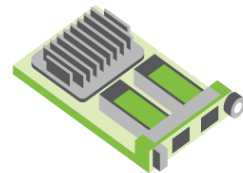


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NOVEMBER 9-10, 2021



SERVER



NIC3.0

# OCP NIC: What's now and the future

Damien Chong, OCP NIC sub-group lead

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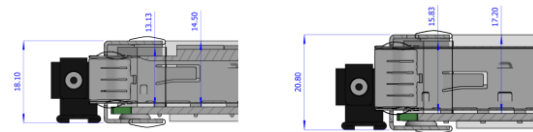
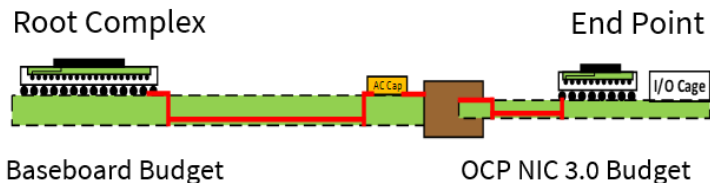
# A year in review

## OCP TECH WEEK

A VIRTUAL EVENT

November 9-10 & 12-13, 2020 (PST)

CONNECT.  
COLLABORATE.  
ACCELERATE.



17.8mm Optimization Leverages All Stack Up Height

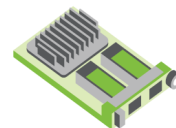


November 2020: OCP Tech Week

October 2020: OCP NIC alignment on PCIe Gen5 loss budget

October 2020: Start new form factor investigation with 3 candidates (17.8mm, 18.1mm & 20.1mm)

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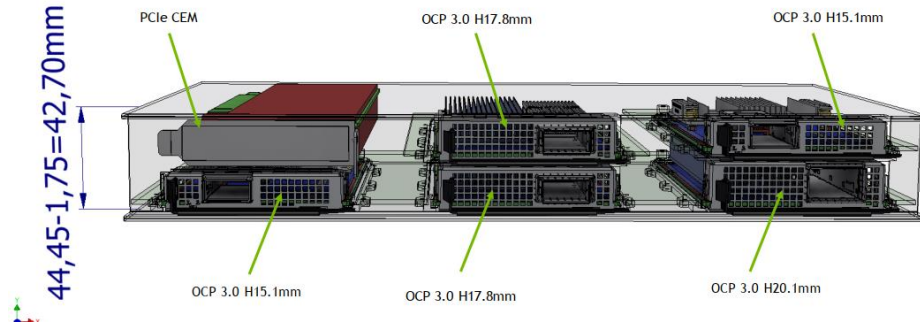


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# A year in review

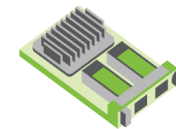
## 1U STACK CHECK



November 2020: Narrow down to two new form factor (17.8mm) & ETSFF (20.1mm)

November, 2020: OCP NIC 3.0 rev 1.1 specification released

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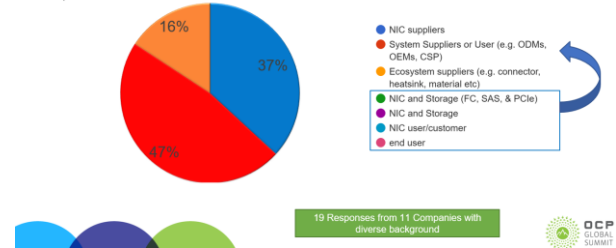
# A year in review

Side View (TSFF)



## 2021 Community Survey

Which of the following best describe your organization?  
19 responses



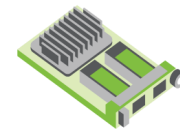
March 2021: Narrow down to one TSFF 17.8mm

March 2021: 1<sup>st</sup> mechanical fit test fixture

March 2021: Community survey

April 2021: Community alignment to pursue TSFF

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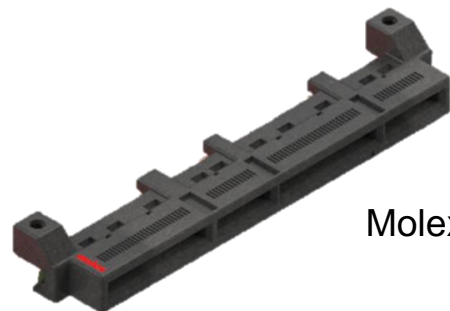
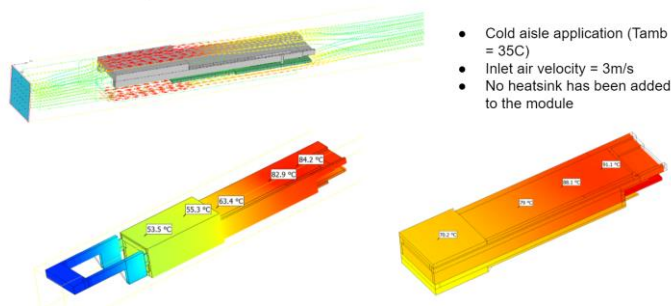


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# A year in review

## Thermal comparison - Results

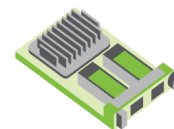


Molex

May 2021: Thermal workgroup rejuvenate

June, 2021: Molex joined as Contributor

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# A year in review



Rev1.2



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Compute Project

OCP NIC 3.0 Design Specification  
Version 1.2.0

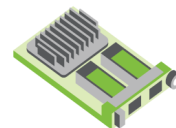
Author: OCP Server Workgroup, OCP NIC subgroup

July, 2021: 2<sup>nd</sup> mechanical fit test fixture

July, 2021: OCP NIC 3.0 rev 1.1.1 release candidate

Sept, 2021: OCP NIC 3.0 rev 1.2 specification released

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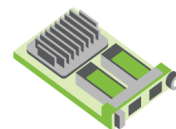


# Beyond NIC initiative



- Utilizing OCP NIC 3.0 form factor in non-NIC use-case
- Some connector such as miniSAS-HD popular in retimer, unable to fit SFF 15.1mm height constraints. Roadblock un gated with TSFF 17.8mm definition
- OCP NIC form factor suitable for high bandwidth, high density and/or external cable application

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# What's next?

## Speed

- PCIe host interface
- Out-of-band interface
- Network serdes interface

## Management

- Self protection
- Security

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# Gather feedback throughout the year

Provide your feedback at:

<https://tinyurl.com/feedback2ocpnic>

### Feedback for current & next-gen OCP NIC

We would love to hear your thoughts or feedback on how we can improve your experience!

**Email \***  
Valid email

This form is collecting emails. [Change settings](#)

**Feedback Type \***

- Bug Report
- Comment
- Improvement suggestion
- New feature request
- Other...

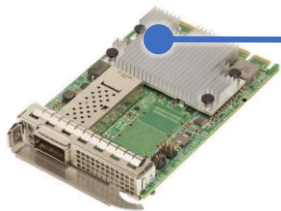
**Feedback \***  
Long answer text

**Name (to be contacted for discussion if needed) \***  
Short answer text

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# OCP Experience Lab Demo



**Multi-Host** Connectivity and Manageability

Broadcom

**Device Attestation** Using SPDM

Broadcom & Meta

**Zion-Ex Platform:** with 12x NIC slots

Meta



Mechanical Fit **Test Fixture**

NIC Sub-Group

Fibre Channel **HBA**

NIC Sub-Group

400GbE NIC in **Tall-SFF**

NVIDIA

**Interface Sandbox** with SFF Slots

TE Connectivity

**ODSA** ODA board with **OCP NIC**

ODSA & NIC Sub-Group



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# Call to Action

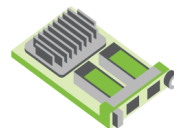
- Join OCP NIC sub-group monthly call 1<sup>st</sup> Wednesday of the month
- Join us in the journey to define OCP NIC specification
- Provide us any feedback thru feedback form at <https://tinyurl.com/feedback2ocpnic>

Project Wiki with latest specification : <https://www.opencompute.org/wiki/Server/Working>

Project meeting schedule: <http://opencompute.org/projects/projects-calendar/>

Mailing list sign-up : <https://ocp-all.groups.io/g/OCP-NIC>

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Thank you!



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