Coherent Corp

Takeaways From PhotonLink Follow-Up Discussion With Management

Overweight

COHR, COHR US
Price (12 Oct 26):$288.02

IT Hardware/ Telecom & Networking Equipment

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We attended a follow-up call on PhotonLink, which was announced at ECOC (*see takeaways note here*), hosted by Coherent's EVP of Optical Components and CTO, Dr. Julie Eng, and EVP of Semiconductor Devices, Dr. Beck Mason. *Key takeaways include*:

- **Emphasizes breadth of PhotonLink tech stack and manufacturing scale.** PhotonLink extends beyond the laser, addressing customers' increasing preference for a supplier that can provide the complete architecture and simplify a complicated supply chain. Management highlighted the breadth of its internally controlled technology stack as a key differentiator, spanning ultra-high-power InP CW lasers and GaAs VCSELs, with customer interest in both across NPO and CPO, as well as potentially chip-to-chip applications. Coherent also underscored its existing manufacturing scale, highlighting cumulative shipments of 300 mn+ InP lasers, 700 mn+ GaAs pixels for Datacom alone (*excludes additional Sensing volumes*), and 300 mn+ optical modules. Importantly, management reiterated that CPO and NPO offer largely comparable optical content.
- **400 mW ELS are seeing the greatest demand traction.** Coherent shared that its lead CPO customer and lead NPO customer are both using 400 mW-based ELS today. While other NPO implementations integrate a lower-power laser (*such as 100 mW*) directly into the module, management sees 400 mW as the immediate growth driver. That said, Coherent underscored it may be more likely to supply the silicon photonics to NPO as customers request a higher level of module integration. Ultimately, content remains dependent on the underlying optical architecture, laser technology, and extent of integration provided.
- **VCSEL and InP are both expected to have opportunities in scale-up.** Management provided a rough framework of VCSEL arrays being able to provide very attractive power efficiency below ~30 meters, although substantial InP-based deployment is still expected within individual racks. Some customers may prefer a common optical architecture supporting both in-rack and multi-rack connections, making the longer-wavelength InP approach more attractive. Regarding bandwidth, VCSELs are predominantly around 100G per lane today, with work toward 200G, while long-wavelength single-mode architectures have a roadmap toward 400G per lane and beyond. Lastly, NPO's separately packaged optical engine makes it easier to develop modules using different underlying laser technologies.
- **Supply constraints extend beyond InP lasers to isolators and fiber.** Coherent identified InP lasers as the most constrained area of PhotonLink, followed by isolators, while fiber is also becoming increasingly tight. Management highlighted its internal manufacturing of isolators and polarization-maintaining fiber, with capacity expansion underway across these categories as well as thermoelectric coolers and passive optics. In contrast, VCSELs represent an area of relatively comfortable capacity, with Coherent manufacturing 400 mn+ devices annually and indicating that it could relatively easily double that volume if necessary.

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- **Additional agreements and take-or-pay elements support confidence in InP investment.** Addressing concerns that alternative scale-up architectures could leave InP capacity unneeded, management stated that actual customer commitments do not support that interpretation. For example, while only one long-term agreement has been publicly disclosed, multiple additional agreements have been signed that are not public and contain take-or-pay elements. Management also shared that customers are taking additional product above committed volumes and purchasing at the maximum rate available to them. Overall, the biggest challenge over the next three years is expanding InP capacity to meet the demand already committed to Coherent.

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Coherent Corp (COHR, COHR US) Price Chart



Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends.
Initiated coverage Jul 29, 2019. All share prices are as of market close on the previous business day.

Date	Rating	Price ($)	Price Target ($)
06-Feb-24	OW	49.42	70
07-May-24	OW	57.92	75
12-Aug-24	OW	63.34	85
04-Nov-24	OW	92.28	105
16-Jan-25	OW	96.45	110
05-Feb-25	OW	87.74	120
17-Apr-25	OW	55.45	80
08-May-25	OW	69.62	86
12-Jun-25	OW	81.51	100
17-Jul-25	OW	97.82	127
06-Nov-25	OW	134.63	180
05-Dec-25	OW	177.35	215
04-Feb-26	OW	229.18	245
09-Apr-26	OW	281.79	300
07-May-26	OW	344.67	380
16-Jul-26	OW	299.38	435
13-Aug-26	OW	355.64	465

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