



POET – SANAN IC PROPOSED JV | FAQs

What is the intended objective of the Joint Venture (JV)?

POET and SANAN IC intend to establish a joint venture company in Xiamen, PRC (JV) for the design, assembly, test, marketing and sale of 100G/200G/400G Optical Engines based on the POET Optical Interposer™ (POET OI) for applications in the fields of data communications and telecommunications.

How large is the market for Ethernet transceivers today and how much is it expected to grow to over the next five years?

Based on the number of Ethernet ports shipped and optical transceiver modules sold¹, the Total Available Market (TAM) for 100G/200G/400G optical transceivers is estimated by the Company to be about \$2.5 billion this year, growing to about \$7 billion in 2025. The JV's Serviceable Available Market (SAM) is estimated to be 50% of TAM, or \$1.5 billion in 2020 and \$3.5 billion in 2025. Both the TAM and the SAM are growing at approximately 20% on a compounded basis.

Which segments of the Ethernet market will the JV target and what type of customers will the JV serve?

The JV will target customers who build and/or use 100G, 200G and 400G transceiver modules with several variants of POET OI-based Optical Engines. Customers for optical engines include companies that build transceiver modules, along with system integrators and data center operators, who often specify the suppliers and components that make up an optical transceiver module.

What do you believe the ultimate revenue potential of the JV is, and what is it based on?

POET believes that the revenue potential of the JV is in the range of \$200 - \$250 million or more annually, which is achievable within five years of formation. The Company has built its forecast for the JV based on its estimate that the Optical Engine will be priced from 25% to 50% of the price of a full optical transceiver module, depending on the speed, format, components and time of sale.

Will POET be required to contribute significant cash to the JV?

POET's cash contribution for the first five years of the JV will be limited to its share of the initial capital required to form the company, approximately US\$135,000. POET will be contributing primarily Intellectual Property (IP) and know-how related to the assembly and testing of Optical Engines based on the POET OI.

When will the JV realize revenue and when do you expect that the JV will become a profitable venture?

The JV expects product revenue to begin in mid-2021. During the approximately 12 months between the formation of the JV and mid-2021, the JV will purchase equipment, recruit staff and complete the required qualifications needed for product introduction. The JV expects the operation to be profitable within 12-18 months after the introduction of products into the market, or about 24-30 months after the formation of the JV.

¹Based on various industry sources and internal estimates.

What Intellectual Property does POET plan to license and/or transfer to the proposed JV, and will it include any POET Optical Interposer IP?

Once formed under a definitive agreement, the JV will receive appropriate licenses from both parties to allow it to assemble, package and test Optical Engines based on the POET OI. The JV will not be licensed to make POET Optical Interposers and the JV will not be exposed to any fundamental POET Optical Interposer IP or any know-how related to the basic design and processing of the POET OI.

Will the JV have any exclusive rights?

The JV will have the exclusive rights to assemble and sell 100G/200G Optical Engines globally and exclusive rights to assemble and sell 400G Optical Engines within the Greater China territory (PRC, Taiwan, Hong Kong and Macau) in the fields of data and telecommunications applications. POET may independently assemble and sell 400G Optical Engines outside of the Greater China territory, based on customer requirements.

What will be the ownership, control and governance model of the JV?

The JV will be formed under a definitive JV agreement subject to the laws of the PRC in Xiamen, PRC. The combined contributions of working capital and value of intellectual property will exceed US\$50M once the products of the JV begin to be produced in volume. At that point, the JV will be 53% owned by SANAN IC and 47% owned by POET. The JV will be governed and operated as a true joint venture and not on the basis of equity ownership.

What are Optical Engines and what do they consist of?

Optical Engines include passive devices, such as waveguides, multiplexers and demultiplexers that are built into the POET OI platform. Active devices, such as lasers, modulators and photodetectors are placed onto the platform. Also included are features to connect to other electronic devices and to optical fibers within the transceiver module. In other words, all of the components required to generate, direct, transmit and detect light. The flexibility of the POET OI allows for other critical electronic components to be included on the POET OI as required by transceiver module, system integrator or data center customers.

Can you elaborate on the competitive advantages of Optical Engines based on the POET OI?

Optical Engines based on the POET OI are fabricated, assembled, tested and packaged entirely at wafer-scale. Optical Engines offered by the JV should have a significant sustained (25% to 40%) manufacturing cost advantage over the competition. Wafer-scale assembly also offers the ability to scale production at lower capital cost relative to the other methods of producing optical transceiver modules. The flexibility of the POET OI platform allows rapid design improvements and the ability to extend over multiple generations of products with little or no changes to the basic design, which also saves cost.

Are the competitive advantages offered by the POET OI sufficient to enable the JV to rapidly gain meaningful share as a new entrant into the established 100G portion of the optical Ethernet transceiver market?

The ability to produce reliably in high volumes and at the price customers demand is the most important determinant of success in the optical transceiver market. History has repeatedly shown very rapid growth for successful companies based on this premise, and very rapid declines for unsuccessful ones. The JV establishes a

reliable source of high-quality manufacturing capability, the ability to rapidly scale to high-volume production and the wafer-scale cost advantage of the POET OI.

Why did POET choose SANAN IC for the JV? Similarly, why does SANAN IC believe POET was the right partner?

As one of the world's leading manufacturers of compound semiconductor wafers and chips for LED and RF devices, SANAN IC has a well-deserved global reputation for manufacturing prowess. It also has a history of seeking partners for related products. POET has a highly respected R&D organization with significant talent and know-how, along with a strategy to enter established and emerging markets with a high-value integration platform. Together, the two companies combine in the JV to offer leading-edge technology with the ability to rapidly scale to meet customer demand.

In what way(s) does the JV have the potential to accelerate adoption of the POET Optical Interposer platform?

The JV will allow POET to commercialize its POET OI platform across larger market opportunities and customers sooner than the Company could realistically pursue on its own without the engagement of a proven high-volume manufacturing partner able to make the investment required to scale rapidly.

What other agreements will need to be completed in order to establish and operate the JV?

The Non-binding LOI anticipates that a series of agreements will be needed to establish and operate the JV, including a JV Agreement, a Shareholder's Agreement, Articles of Association, License and Supply Agreements and any other agreements that may be needed to form the JV.

When do POET and SANAN IC expect to reach a definitive agreement on the JV?

Although there is no guarantee that a mutually agreeable definite agreement will ultimately be reached, currently both parties are working diligently toward drafting a series of associated agreements with the goal of executing a multi-part agreement on the JV by the beginning of Q4 2020.

Does the JV require the approval of POET's shareholders?

The formation and operation of the JV does not require the approval of POET shareholders. The execution of the definitive agreements only requires approval by the POET Board of Directors.

Does the JV require the approval of regulators in Canada or China?

To the best of the Company's current knowledge and belief, the proposed JV does not require approval by any government agency, except for the formation of the JV company itself, which requires approval of the local Xiamen authorities, similar to requirements in other countries for establishing a corporate entity.

What impact will the proposed JV have on POET's current and future relationship with Denselight?

POET invested in Denselight for several years, both in production capacity and the development of active devices customized for the POET OI. POET expects to maintain a close relationship with Denselight as a key supply partner.

Has POET considered the potential difficulty in getting POET's capital out of China and what are the potential exit strategies for the JV?

The Company has investigated the process for repatriating capital and believes it can do so without undue difficulty. There are multiple exit strategies for a successful venture, among them a scenario of taking the JV public on the Shanghai stock exchange. Over the short-term, the priority is to avoid structures or policies that would preclude any specific exit strategy.

More generally, and not specific to the LOI, to what degree has COVID had an impact on POET's business operations and/or visibility in your target markets?

The major impact of COVID has been to highlight the need for more and better high-speed connectivity globally. The POET OI is a major advance that will facilitate the deployment of higher speed transceivers for data and telecommunications. In addition, there are vast areas of other applications in which the POET OI can be deployed. Now that it is on a path to commercial products, the Company believes that its visibility among data center operators, networking companies and others will be materially improved, and looks forward to weaving the threads of light and electrons into the fabric of the POET Optical Interposer across as many application areas as possible.