For Immediate Release

Ryosan Company, Limited

Investment in the Silicon Photonics Business with Stake in AIO Core Co., Ltd.

Ryosan Company, Limited (hereinafter referred to as "Ryosan") has acquired a stake in AIO Core Co., Ltd. (hereinafter referred to as "AIO Core"), a developer, manufacturer and vendor of next-generation silicon photonics optical engines (optical input/output (I/O) core).

With the funds from Ryosan's investment, AIO Core plans to invest in a production line for optical I/O core. Plans call for AIO Core to release engineering samples in spring 2018 and begin full-fledged production in fall 2018 (with production volume of tens of thousands of chips per month).

As information and communication technology (ICT) infrastructure expands worldwide, existing electrical circuits are approaching the limits of their capacity for high-speed transmission. The shift to optical interconnection for communications between boards and between LSIs is expected to accelerate. Major carriers have already begun using optical engines for communication in data centers and among servers. As the trend gathers momentum, optical engines are expected to be applied in broadcasting equipment, medical equipment, automobiles and a wide range of other fields.

To respond to these expectations, Ryosan plans to support AIO Core in areas such as market development, sales, and purchasing, while also supplying growth capital. In this way Ryosan is cooperating to advance AIO Core's plans for mass production of the optical engine, making this engine the next-generation de facto standard in on-board fiber optics.

AIO Core was established in April 2017 to commercialize the most compact I/O core, photonic devices which were originally developed by the Photonics Electronics Technology Research Assocation (PETRA) under contract from Japan's Ministry of Economy, Trade and Industry (METI) and New Energy and Industrial Technology Development Organization (NEDO). The foundation of AIO Core marks the first case in

which the intellectual property rights and some of the technologies resulting from research by PETRA were used to spin off a business into a newly established enterprise.

Reference:

•

New Energy and Industrial Technology Development Organization (NEDO)

Press release dated April 17, 2017

PETRA Sets Up a New Company for the Practical Application of Results from a NEDO Project

-Commercializing the world's smallest, fingertip-sized optical transceiver "Optical I/O Core"-

http://www.nedo.go.jp/english/news/AA5en_100214.html