

Chip designers link up on drives

Loongson Technology, Hunan Goke establish strategic partnership

By MA SI
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Two leading Chinese chip designers joined forces on Monday to boost the homegrown semiconductor industry's competence in controllers for solid state drives, a crucial component of data storage devices.

Loongson Technology Corp and Hunan Goke Microelectronics Co Ltd said in Beijing that they had established a strategic partnership. The two sides jointly unveiled the GK 2302 controller series, which are designed with the intellectual properties of Loongson, China's first self-developed general-purpose microprocessor.

The move marks big progress in China's semiconductor industry. Previously, most controllers for solid state disks were designed on the basis of ARM, an architecture

developed by British company Arm Holdings. The partnership is part of a broader effort by Chinese companies to reduce their reliance on foreign chip companies.

Xiang Ping, chairman of Hunan Goke Microelectronics, said controllers are the "heart" of solid state disks and they manage the data stored on memory and communicates with electronic devices.

"The GK 2302 controller can out-compete foreign products in some key performance indicators, and it has lower power consumption while delivering the same performances," Xiang said.

Hunan Goke Microelectronics is a Shenzhen-listed company. It was the first homegrown chip designer to receive investment from China Integrated Circuit Industry Investment Fund Co Ltd, a fund especially established to fund semiconductor com-

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Xiang Ping, chairman of Hunan Goke Microelectronics

panies. The fund is now the second largest shareholder of Hunan Goke Microelectronics.

Hu Weiwu, president of Loongson Technology Corp, said Chinese companies have now mastered some core technologies, and its efforts to develop homegrown IT technologies are now shifting to building an eco-

system in which more players are involved to use indigenous technologies and services.

"We have very close cooperation with Hunan Goke Microelectronics. The research and development staff from the two companies are engaged in a close partnership that can help the two sides advance ahead very quickly," Hu said.

As China's first self-developed general-purpose microprocessor, Loongson is already widely used in the personal computers of government agencies, the army and other sectors. According to Hu, under the partnership, Loongson will use Hunan Goke Microelectronics as the preferred domestic solid state drive supplier for its follow-up motherboard program, and the latter will use the former as the preferred supplier of embedded IP for its future chip products.

The global solid state drive market was estimated to be worth \$26.47 billion in 2017 and \$60.22 billion by 2023, at a compound average growth

rate of 14.68 percent between 2017 and 2023, according to a report released by market research companies including Form Factor.

The growth of this market is mainly driven by the increasing penetration of high-end cloud computing and growing adoption of solid state drives in data centers, the report added.

Shen Changxiang, an academician at the Chinese Academy of Engineering, said controller chips are the heart of the electronics industry. Without competent domestic suppliers of the crucial component, it is very difficult to maintain cybersecurity in the era of the digital economy and big data.

China's indigenous chip sector is working hard to boost its capacity. Last year, the nation's semiconductor industry recorded 653.2 billion yuan (\$97.3 billion) in sales revenue, up 20.7 percent from a year earlier and faster than the global average, data from the Ministry of Industry and Information Technology show.

AIIB chief calls for companies to maintain high-level standards

By JING SHUIYU
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Experts urged Chinese construction contractors to continuously develop high-quality and sustainable infrastructure projects.

Jin Liqun, president of the Asian Infrastructure Investment Bank, said infrastructure investments require high-level standards in all aspects, like standardizing financial management and optimizing the social environment.

Jin called on Chinese construction companies to keep upholding the principle of integrity, to deliver more beneficial and sustainable projects. He said transparency and accountability matter the most.

He said that the growth of AIIB's membership from 57 to 97 countries and regions within three years fully demonstrated that the multilateral development bank is "in line with the needs of the world and meet the requirements of everyone's development".

It also shows that the AIIB is a multilateral institution that meet international standards, Jin added.

Jin made the remarks on Monday at a seminar on standards for high-quality and sustainable infrastructure. Chinese infrastructure investors, representatives from multilateral development banks and other financial institutions attended the event, which was organized by the AIIB and China International Contractors Association.

97
number of countries and region that joined AIIB

The event came before the second Belt and Road Forum on International Cooperation that is scheduled this week in Beijing. The Belt and Road Initiative, proposed in 2013, has infrastructure and connectivity as one of its top priorities.

Fang Qiuchen, chairman of CHINCA, said international infrastructure construction projects involving Chinese contractors have accounted for a 23.7 percent market share of international contractors' global infrastructure investment.

"Chinese contractors not only need to work closely with financial institutions to ease the financing bottleneck, but need to fully consider the interests of various stakeholders and pay attention to the ecological environment," he said.

Fang said his association will continue to deepen cooperation with member companies and the AIIB in building sustainable infrastructure.

The Sustainable Development Goals set out in the 2030 Agenda for Sustainable Development, are a universal call to action. A rising number of Chinese international contractors have made efforts to fulfill these goals during their construction projects.

China Civil Engineering Construction Corp was the contractor of Ethiopia-Djibouti Railway Project, which was completed in 2016. According to the company, during the construction period, local purchasing amounted for more than 35 percent of the total amount.

The project has greatly improve traffic and logistics efficiency in Ethiopia and Djibouti, and laid a sound foundation for the two countries' industrial development, the contractor said.

According to a survey by CHINCA, over half of the surveyed companies said they had conducted SDG-related benchmarking or surveys. All respondents agreed that the SDGs are conducive to addressing economic, environmental and social problems.

The survey said there is still room for construction contractors to improve, in terms of their implementation and evaluation mechanism.

Cargill to boost Jilin corn processing unit

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Cargill Inc, the US-based agricultural conglomerate, will invest \$112 million to expand the capacity of its corn processing facility in Songyuan in northeastern China's Jilin province, its global head said on Monday.

The move is also a part of its joint initiative with the local government to build the Sino-US Cargill Biotech Industrial Park, featuring a food safety and technology center in Jilin, said Dave MacLennan, the group's chairman and CEO.

"China is a crucial market with amazing vitality. We will continue to work as partners with China to build sustainable agriculture and invest in rural areas," said MacLennan, adding that China's multiple measures to diversify the supply of quality products and services will effectively drive its economic growth.



Dave MacLennan, chairman and CEO of Cargill Inc

He said Cargill hopes to double its investment in China over the next five years, especially in areas such as poultry, soybean crushing and animal protein production, in addition to bio-industry related business and the training of farmers.

The park is designed to facilitate both corn processing and trading, with an annual processing capacity of up to two million metric tons by 2020. According to its plan, warehouses will also be built for commodities such as corn and starches.

Cargill's food safety and technology center will focus on testing, research and training in the

area of food safety, as well as process improvement and product development for the corn processing and food ingredient industries.

AIPU Food Industry Co is one of the companies that has established a presence in the park. As one of the key partners of Cargill in China, the Shanghai-based company is constructing a 50,000-ton project to produce caramel pigment, leveraging products and services from Cargill and the park.

"The park welcomes companies along the corn processing and trading value chain," said Liu Jun, president of Cargill China. "They will enjoy convenient services and easy access to resources at the park, including a supply chain to connect their products with domestic and overseas market."

Attracted by the Chinese market's size and encouraging government policies, the Minnesota-headquartered company invested \$40 million last month in Yichun, Jiangxi province, to build an animal nutrition plant with an annual production capacity of 120,000 metric tons of premix and 60,000 metric tons per year of specialty animal feed, and in February opened its first beauty care lab and office in Shanghai supporting the Asia-Pacific region.

Foreign direct investment is often a strategy to tackle issues such as logistics solution, labor and materials cost and trade hurdles, said Guo Xin, a marketing professor at Beijing Technology and Business University.

"The high investment volume certainly indicates the growing demand for various food products such as meat, edible oil, dairy and beverages in the Chinese market," she said.

FDI into China totaled 242.28 billion yuan in the first quarter of this year, up 6.5 percent year-on-year, the Ministry of Commerce said on Thursday. Investment in China from South Korea, the United States and Germany meanwhile increased 79.6 percent, 71.3 percent and 86.1 percent year-on-year, respectively.



A Cargill sign is seen during an international import expo in Shanghai. REUTERS



A ship unloading LNG in Zhoushan, Zhejiang province. YAO FENG / FOR CHINA DAILY

ExxonMobil inks deal with Zhejiang Energy for 1m tons of LNG annually

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US-based ExxonMobil Corp announced a sales and purchase agreement with Zhejiang Provincial Energy Group for liquefied natural gas supply on Monday, under which Zhejiang Energy is expected to receive 1 million metric tons of LNG annually over 20 years.

"This sales and purchase agreement represents an important milestone and provides a solid foundation for our strategic partnership with Zhejiang Provincial Energy Group and ExxonMobil shares Zhejiang Energy's vision in developing a major LNG gateway in the Ningbo-Zhoushan region," said Peter Clarke, senior vice-president of LNG at ExxonMobil.

"We look forward to continuing our support for Zhejiang Energy during the construction, commissioning and operation of its Wenzhou LNG receiving terminal."

This is also part of Zhejiang province's efforts to further expand its LNG terminal receiving capacity, cooperating with foreign oil and gas companies, to help quench the nation's growing thirst for clean fuel amid green push.

China imported more than 53 million tons of LNG last year, reaching a new historic high by accounting for 60 percent of total natural gas imports, Zhang Jianhua, head of the National Energy Administration, said earlier. The country has also been stepping up construction of its LNG infrastructure facilities in recent years.

Analyst said terminals, being a core infrastructure of the LNG import trade, have attracted many private companies in recent years amid China's rising demand for the cleaner fuel.

“Zhoushan LNG receiving terminal, serving as an important hub for connecting the domestic market and international resources, eyes to create an LNG value chain in Zhoushan and is responsible for LNG receiving, unloading, storage, send-out, diversion, sea and river intermodal transport, LNG bunkering, and cold energy utilization.”

Zhang Yesheng, ENN Chief Executive Officer

foreign players as oil and gas infrastructure and pipelines are undergoing reform.

The chances are high that there will be more privately owned and operated LNG import terminals, in addition to the current LNG importing receiving terminals, mostly dominated by the State-owned companies including China National Offshore Oil Corp, China Petroleum and Chemical Corp and China National Petroleum Corp, she said.

ENN is already looking for other opportunities in other coastal areas in addition to the Zhoushan receiving terminal.

She said that of all the LNG terminals in Zhejiang province, the Zhoushan terminal, backed by the Yangtze River Delta market, along

with its sea route and access to inland provinces, will play a significant role in China's LNG receiving capacity, and more private and foreign companies will be gearing up to meet that growth.

The region is expected to leverage its location advantage to further expand its transaction volume, she said.

Compared with other terminals throughout in the country, mostly dominated by the country's State-owned oil and gas majors, the Zhoushan LNG receiving terminal, the first LNG receiving terminal funded by a domestic private enterprise — ENN Group — will be very attractive for foreign oil and gas companies as it represents new opening-up opportunities for foreign players, she added.

"With new opportunities, diversified players, the region is believed to be a 'core battlefield' for the marketization of LNG trade in the country."

The Zhoushan LNG receiving terminal will start construction of its submarine pipelines this year. The first phase of the receiving terminal has a handling capacity of 3 million tons, and will expand to 10 million tons in 2022, according to ENN Chief Executive Officer Zhang Yesheng.

"Zhoushan LNG receiving terminal, serving as an important hub for connecting the domestic market and international resources, eyes to create an LNG value chain in Zhoushan and is responsible for LNG receiving, unloading, storage, send-out, diversion, sea and river intermodal transport, LNG bunkering, and cold energy utilization," said Zhang.

Its first phase involves an investment of 5.8 billion yuan (\$863 million), and the second phase has an investment of 2.4 billion yuan

China has built 21 LNG receiving terminals across the nation, with an annual receiving capacity of 80 million tons, according to CNOOC Chairman Yang Hua.