

August 6, 2021

## **Notice of Issuance of New Shares through Third-Party Allotment by Subsidiary that Manufactures Insulated Heat Dissipating Substrates for Power Semiconductors**

Ferrotec Holdings Corporation (Representative Director: He Xian Han; hereinafter “the Company”) announces that, at the meeting of Board of Directors held today, Ferrotec (Jiangsu) Semiconductor Technology Co., Ltd. (hereinafter “FTSJ”), a subsidiary that manufactures insulated heat dissipating substrates for power semiconductors and is currently preparing to be listed on the Science and Technology Innovation Board (STAR Market) of the Shanghai Stock Exchange, has decided to issue new shares through third third-party allotment in order to increase production capacity and strengthen substrate development and research and development. Details are as follows.

### **1. Reason and background for the third-party allotment**

In recent years, the global market for power semiconductors has been expanding rapidly<sup>(Note)</sup> due to the shift to renewable energy, the shift to EVs, the widespread use of high-speed trains, etc. However, the need to control high electrical power has increased the load placed on devices, and in particular, the amount of heat generated by semiconductor devices has increased as devices have become smaller and lighter, increasing the importance of insulated, highly thermally conductive substrates to efficiently release heat outside. On the other hand, alumina (Al<sub>2</sub>O<sub>3</sub>), the base material for insulated heat dissipating substrates that is currently being used for a wide range of purposes, has a problem of degradation of semiconductor reliability due to thermal stress, while the entire industry has a growing need for highly reliable insulated heat dissipating substrates with high heat dissipation, excellent mechanical properties, and weather resistance.

Under such circumstances, in order to respond to the increasing demand for power semiconductors and the improvement of substrate performance, we have been focusing on the development of new manufacturing methods and substrate peripherals, in addition to investments to increase production. As a result, we have invested in increasing production capacity and have built a system to produce 600,000 DCB substrates per month (on a master card basis), making us one of the top suppliers of insulated heat dissipating substrates for power semiconductors in the world. As for the development of manufacturing methods, we have developed the AMB method and the DPC method in addition to the conventional DCB method, and are now preparing for mass production. In addition, we have established the power semiconductor research institute in Dongtai, Jiangsu Province, to promote the peripheral development of AMB substrates. This continuous investment in increasing production capacity to meet market needs and our proactive stance on manufacturing methods and substrate development have been highly evaluated by our customers, and we are currently unable to meet customer demand enough. Therefore, in order to further increase production capacity and accelerate substrate development and research and development for substrate peripherals, we have decided to issue new shares worth 445 million yuan (approximately 7.57 billion yen) through a third-party allotment (third time). With this capital increase, FTSJ's DCB substrate production capacity will be increased from 600,000 wafers per month to 1 million wafers per month, and the mass production of AMB and DPC substrates will also be attained. As a leading global supplier of insulated heat dissipating substrates for power semiconductors, our corporate group will continue to contribute to the prevention of global warming by saving energy and power through the widespread use of power semiconductors.

Note: The global market for power semiconductors was 2,914.1 billion yen in 2019 and is expected to reach 4,265.2 billion yen by 2030. (Source: Fuji Keizai)

#### <Glossary>

DCB method (Direct Copper Bonding)	A direct bonding (DCB) of a copper circuit board to a ceramic substrate. There is no bonding layer that causes thermal resistance, and it has high thermal conductivity, electric conductivity, and the high insulation properties of a ceramic substrate. It is now a mainstream method for producing insulated heat dissipating substrates for power semiconductors.
AMB method (Active Metal Brazing)	It is a method for brazing the joints between silicon nitride substrates and copper circuit boards using titanium, which is an active metal, and has features that ensure higher reliability and longer life than substrates made by other methods and is attracting attention as a method for manufacturing insulated heat dissipating substrates for next-generation power semiconductors.

DPC method (Direct Plated Copper)	This is a method for joining ceramic substrates and copper circuit boards using a plating method and has the advantage of being able to meet more precise dimensional requirements than DCB substrates due to the miniaturization of elements.
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## 2. Purpose of use of the proceeds to be raised

The proceeds of 445 million yuan (approximately 7.57 billion yen) will be used to invest a total of 321 million yuan (approximately 5.45 billion yen) to increase the production capacity of DCB, AMB, and DPC substrates, and approximately 124 million yuan (approximately 2.12 billion yen) to fund substrate development and R&D related to substrate peripherals.

## 3. Outline of FTSJ as of August 5, 2021

(1)	Name	Ferrotec (Jiangsu) Semiconductor Technology Co., Ltd.		
(2)	Address	18 Hongda Road, Chengdong New District, Dongtai City, Jiangsu Province, China		
(3)	Title and name of representative	He Xian Han, Representative Director		
(4)	Contents of business	Manufacture and sale of power semiconductor substrates		
(5)	Capital	281,960,300 yuan (4.79 billion yen) *1 Chinese yuan = 17.0 yen		
(6)	Date of establishment	March 16, 2018		
(7)	Major shareholders and shareholding ratio	Shareholder	Current shareholding ratio	After third-party allotment
		Shanghai Shenhe Thermo-Magnetics Electronics Co., Ltd. (abbr.: FTS)	71.12%	66.68%
(8)	Relationship between FTSJ and the company	Capital relationship	FTSJ is a subsidiary 71.12% of whose voting rights are owned by FTS, a consolidated subsidiary of the Company.	
		Personnel relationship	One director of the Company concurrently serves as the director of FTSJ.	
		Business relationship	Nothing is applicable.	

## 4. Overview of the third-party allotment

(1)	Issue price per share	7.0932 yuan/yuan of capital (approx.120.58 yen) *1 Chinese yuan = 17.0 yen	
(2)	Total contribution amount	445,000,000 yuan (approx. 7.57 billion yen)	
(3)	Settlement date	In August 2021 (date being arranged)	
(4)	Increased capital	62,736,200 yuan (approx. 1.07 billion yen)	
(5)	Registered capital after third-party allotment	344,696,400 yuan (approx. 5.86 billion yen)	
(6)	Ownership ratio of each allocatee	No. 1 Shanghai Shenhe Thermo-Magnetics Electronics Co., Ltd. (our consolidated subsidiary)	8.51%
		No. 2 Gongqingcheng Xingcheng Dongying Semiconductor Industry Investment Partnership	1.43%
		No. 3 Jiaxing LinYang Equity Investment Partnership,L.P.	1.02%
		No. 4 Shanghai Haiwang IP Equity Investment Fund, L.P.	0.41%
		No. 5 Jiaxing Shenmaoluhao Equity Investment Partnership Enterprise	0.41%
		No. 6 Jiaxing Bohan Piaoqi Equity Investment Partnership,L.P.	0.41%
		No. 7 Shanghai Yuda enterprise management center,L.P.	0.82%
		No. 8 SME Development (Shaoxing) Venture Fund, LLP	0.82%
		No. 9 Shanghai Tongqi Investment Management Co., Ltd.	0.49%
		No. 10 Huzhou Ruixin Venture Capital Partnership,L.P.	0.41%
		No. 11 Fuzhou Gulou Fuleide Venture Capital Partnership,L.P.	0.20%
		No. 12 Qingdao Chaofeng Equity Investment Partnership,L.P.	0.20%

No. 13 Shanghai Jinguan New Energy Development Fund,L.P.	0.29%
No. 14 Shanghai Xinyu Enterprise Management Partnership,L.P.	0.20%
No. 15 Jiaxing Yibai Venture Capital Partnership,L.P.	0.41%
No. 16 Xiamen Kunlun Bank Asset Management Co., Ltd.	0.41%
No. 17 Zhuji Zhihe Enterprise Management Partnership,L.P.	0.94%
No. 18 Lanxi Puhua Haoyang Equity Inverstment Partnership,L.P.	0.41%
No. 19 Jiaxing Linying Equity Investment Partnership,L.P.	0.41%

\*The issue price was determined based on an evaluation of the stock's fair value by a third-party organization that is independent from the Company and allottees, and then the shares were allotted.

**5. Overview of the allottees**

	No. 1	No. 2
(1) Company name	Shanghai Shenhe Thermo-Magnetics Electronics Co., Ltd.	Gongqingcheng Xingcheng Dongying Semiconductor Industry Investment Partnership
(2) Capital	1,497 million yuan (25.45 billion yen)	1,063.5 million yuan (18.08 billion yen)
(3) Date of establishment	May 17, 1995	August 7, 2020
(4) Major shareholders and shareholding ratio	The Company: 100%	Fujian Province Jiangquan Venture Capital Investment Partnership (L.P.): 19.98% Gongqingcheng Zigui Investment Partnership Corporation: 15.99% Li Jian: 8.46% Fuzhou Mingyuan Foodstuff Processing Co., Ltd.: 5.27%
(5) Representative	He Xian Han, Representative Director	GP: Gongqingcheng Xincheng Equity Investment Partnership (Representative: Chen Xiao Fei)
(6) Contents of business	Semiconductor equipment-related business Electronic device business	Investment in semiconductor industry Investment in shares Project investment Investment in businesses
(7) Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8) Contribution amount	208 million yuan (3.54 billion yen)	35 million yuan (595 million yen)

\*1 Chinese yuan = 17.0 yen

	No. 3	No. 4
(1) Company name	Jiaxing LinYang Equity Investment Partnership,L.P.	Shanghai Haiwang IP Equity Investment Fund, L.P.
(2) Capital	10 million yuan (170 million yen)	475 million yuan (8.08 billion yen)
(3) Date of establishment	April 13, 2021	December 9, 2016
(4) Major shareholders and shareholding ratio	Chen Dan Yu: 99.95% Shanghai Core Investment Management Co., Ltd.: 0.05%	Su Shou Chun: 21.05% Jiaxing Bohan Piaoqi Equity Investment Partnership,L.P.: 21.05% Shanghai Yuda enterprise management center,L.P.: 14.74% Kang Min: 10.53% Shanghai Zhangjiang Torch Investment and Development Co., Ltd: 10.53%

			Xiamen Shanglai Tianyi Technology Partnership, L.P.: 8.42%
(5)	Representative	GP: Shanghai Core Investment Management Co., Ltd. (Representative: Li Ya Jun)	GP: Shanghai Haiwang IP Equity Investment Fund, L.P. (Representative: Jin Wen Zhong)
(6)	Contents of business	Investment in shares Investment in businesses	Investment in shares
(7)	Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8)	Contribution amount	25 million yuan (425 million yen)	10 million yuan (170 million yen)

\*1 Chinese yuan = 17.0 yen

		No. 5	No. 6
(1)	Company name	Jiaying Shenmaoluhao Equity Investment Partnership Enterprise	Jiaying Bohan Piaoqi Equity Investment Partnership, L.P.
(2)	Capital	50.01 million yuan (850 million yen)	100 million yuan (1.7 billion yen)
(3)	Date of establishment	September 6, 2016	March 1, 2021
(4)	Major shareholders and shareholding ratio	Yangtze River Delta (Jiashan) Equity Investment Partnership Enterprise: 99.98% Shanghai Free Trade Zone Equity Investment Fund Management Co., Ltd.: 0.02%	Lei Ming Kuan: 99.99% Hangzhou Borhan Assets Management Co., Ltd.: 0.01%
(5)	Representative	GP: Shanghai Free Trade Zone Equity Investment Fund Management Co., Ltd. (Representative: Wu Jian Ping)	GP: Hangzhou Borhan Assets Management Co., Ltd. (Representative: Yao Yi Zhe)
(6)	Contents of business	Investment in shares Investment management	Investment in shares Consultation services
(7)	Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8)	Contribution amount	10 million yuan (170 million yen)	10 million yuan (170 million yen)

\*1 Chinese yuan = 17.0 yen

		No. 7	No. 8
(1)	Company name	Shanghai Yuda enterprise management center, L.P.	SME Development (Shaoxing) Venture Fund, LLP
(2)	Capital	10 million yuan (170 million yen)	885.6 million yuan (15.06 billion yen)
(3)	Date of establishment	July 8, 2021	December 23, 2020
(4)	Major shareholders and shareholding ratio	Liu Tong: 90.00% Lu Zi Ye: 10.00%	China IC Capital (Ningbo) Co., Ltd: 95.94% CFT High Tech Investment Fund, L.P.: 4.07%
(5)	Representative	GP: Lu Zi Ye	GP: CFT High Tech Investment Fund, L.P.
(6)	Contents of business	Corporate management Various consultation services Marketing Exhibition services	Investment in shares Investment in business establishment
(7)	Relationship between	There are no capital, personnel, or	There are no capital, personnel, or

	FTSJ and the companies	business relationships, and the company does not belong to related parties.	business relationships, and the company does not belong to related parties.
(8)	Contribution amount	20 million yuan (340 million yen)	20 million yuan (340 million yen)

\*1 Chinese yuan = 17.0 yen

		No. 9	No. 10
(1)	Company name	Shanghai Tongqi Investment Management Co., Ltd.	Huzhou Ruixin Venture Capital Partnership,L.P.
(2)	Capital	20 million yuan (340 million yen)	10.5 million yuan (178 million yen)
(3)	Date of establishment	March 6,2014	July 15, 2021
(4)	Major shareholders and shareholding ratio	Ling Fei Fei: 80% Huang Jian Chen: 20%	Chen Jian Ling: 30.00% Gong Hang Jun: 20.00% Miao Lan Juan: 20.00% Tu Ji Min: 20.00% He Wei Jun: 10.00%
(5)	Representative	GP: Ling Fei Fei	Tu Ji Min
(6)	Contents of business	Investment and asset management Investment in businesses Real estate management	Investment in business establishment
(7)	Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8)	Contribution amount	12 million yuan (200 million yen)	10 million yuan (170 million yen)

\*1 Chinese yuan = 17.0 yen

		No. 11	No. 12
(1)	Company name	Fuzhou Gulou Fuleide Venture Capital Partnership,L.P.	Qingdao Chaofeng Equity Investment Partnership,L.P.
(2)	Capital	Undisclosed	100 million yuan (1.7 billion yen)
(3)	Date of establishment	June 21, 2021	February 26, 2021
(4)	Major shareholders and shareholding ratio	Qian Yi Chen: 99.95% Haixia Capital Management Co., Ltd.: 0.05%	Yan Xie Fang: 38.80% Wu Hong Fu: 12.00% Liu Ze Hao: 10.00% Wang Li: 6.00% He Yong Gen: 5.00% Mo Luo Jiang: 4.00%
(5)	Representative	GP: Haixia Capital Management Co., Ltd. (Representative: Lu Bo)	GP: Shanghai Ruixia Investment Management Co.,Ltd. (Representative: Yuan Li)
(6)	Contents of business	Investment in business establishment Investment through private placement funds Investment management Asset management	Investment in business establishment Investment through private placement funds Investment management Asset management Consultation on finance
(7)	Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8)	Contribution amount	5 million yuan (85 million yen)	5 million yuan (85 million yen)

\*1 Chinese yuan = 17.0 yen

	No. 13	No. 14
(1) Company name	Shanghai Jinguan New Energy Development Fund,L.P.	Shanghai Xinyu Enterprise Management Partnership,L.P.
(2) Capital	10.1 million yuan (170 million yen)	10 million yuan (170 million yen)
(3) Date of establishment	June 28, 2018	October 20, 2020
(4) Major shareholders and shareholding ratio	Wang Zhi Xiang: 99.01% Shanghai Jinguan Investment Management Co., Ltd.: 0.99%	Qian Hui Xing: 66.67% Gu Jia Cheng: 33.33%
(5) Representative	Wang Zhi Xiang Shanghai Jinguan Investment Management Co., Ltd.	Qian Hui Xing
(6) Contents of business	Solar power and wind power generation Wind power generation technology services Solar power generation technology services New energy source technology application services	Various consultation services Exhibition services Marketing
(7) Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8) Contribution amount	7 million yuan (120 million yen)	5 million yuan (85 million yen)

\*1 Chinese yuan = 17.0 yen

	No. 15	No. 16
(1) Company name	Jiaxing Yibai Venture Capital Partnership,L.P.	Xiamen Kunlun Bank Asset Management Co., Ltd.
(2) Capital	31 million yuan (530 million yen)	10 million yuan (170 million yen)
(3) Date of establishment	July 15, 2021	September 12, 2016
(4) Major shareholders and shareholding ratio	Dong Tie Zhou: 96.77% Shanghai Bochi Asset Management Co., Ltd.: 3.23%	Huang Wen Zeng: 28.00% Jin Zhi Hao: 26.00% Wang Hai Tao: 20.00% Ceng Zhi Hong: 15.00% Wang Wei: 11.00%
(5) Representative	GP: Shanghai Bochi Asset Management Co., Ltd. (Representative: Dou Wei Zhong)	Ceng Zhi Hong
(6) Contents of business	Investment in business establishment	Asset management Investment management
(7) Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8) Contribution amount	10 million yuan (170 million yen)	10 million yuan (170 million yen)

\*1 Chinese yuan = 17.0 yen

	No. 17	No. 18
(1) Company name	Zhuji Zhihe Enterprise Management Partnership,L.P.	Lanxi Puhua Haoyang Equity Inverstmnt Partnership,L.P.
(2) Capital	98.05 million yuan (1.67 billion yen)	97.4 million yuan (1.66 billion yen)
(3) Date of establishment	June 29, 2021	June 22, 2020
(4) Major shareholders	Qin Yue Zhou: 50.99%	Liu Zhi Tong: 12.32%

	and shareholding ratio	Liu Zhi Tong: 34.30% Shanghai Juemin Enterprise Management Partnership,L.P.: 14.71%	Ding Fu Ying: 10.27% Zhejiang Huaxia Engineering Management Co., Ltd.: 10.27% Hangzhou Perspective Investment Management Partnership,L.P.: 10.27% Wu Yi Hui: 7.19%
(5)	Representative	GP: Liu Zhi Tong	GP: Hangzhou Puyang Investment Management Co., Ltd. (Representative: Wu Yi Hui)
(6)	Contents of business	Corporate management Information consulting Market Planning Item planning and management Exhibition services Process construction design	Investment in shares
(7)	Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8)	Contribution amount	23 million yuan (390 million yen)	10 million yuan (170 million yen)

\*1 Chinese yuan = 17.0 yen

		No. 19
(1)	Company name	Jiaying Linying Equity Investment Partnership,L.P.
(2)	Capital	10 million yuan (170 million yen)
(3)	Date of establishment	April 13, 2021
(4)	Major shareholders and shareholding ratio	Chen Dan Yu: 99.95% Shanghai Core Investment Management Co., Ltd.: 0.05%
(5)	Representative	GP: Shanghai Core Investment Management Co., Ltd. (Representative: Li Ya Jun)
(6)	Contents of business	Investment in shares Investment in businesses
(7)	Relationship between FTSJ and the companies	There are no capital, personnel, or business relationships, and the company does not belong to related parties.
(8)	Contribution amount	10 million yuan (170 million yen)

\*1 Chinese yuan = 17.0 yen

## 6. Schedule

(1)	Date of resolution by FTSJ Board of Directors	After August 6, 2021 (being arranged)
(2)	Date of resolution by the Board of Directors of the Company	August 6, 2021
(3)	Settlement date	During August 2021 (being arranged)

## 7. Future outlook

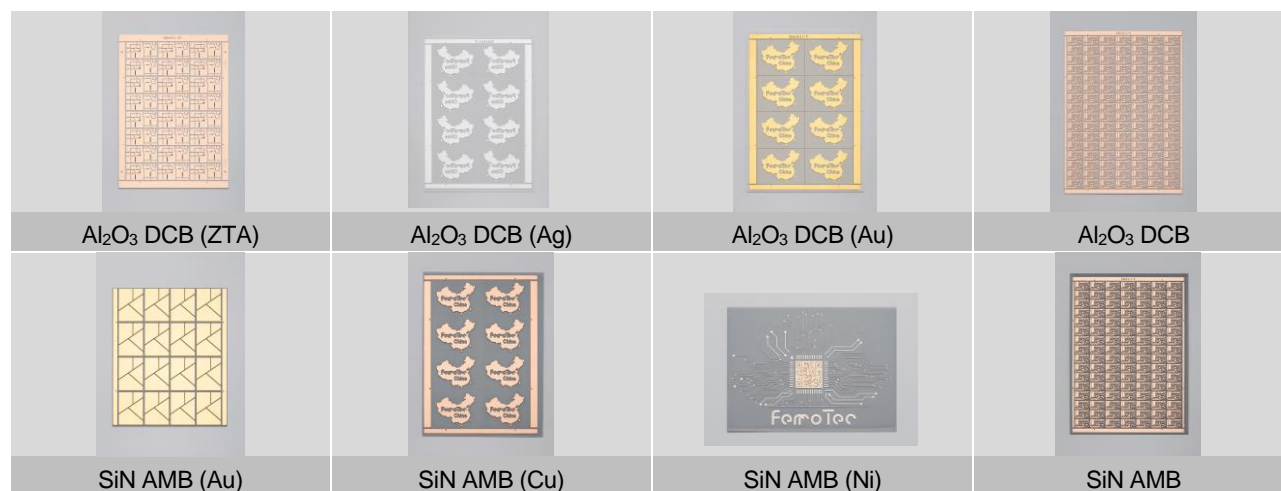
The impact of the transaction on consolidated earnings is currently under review. We will promptly announce details on this if deemed necessary.

<References>

**Appendix I: List of news releases concerning FTSJ**

News release date	Title
April 28, 2021	(Change of a Disclosed Item) Notice of the Establishment of a Research Institute in the Subsidiary that Manufactures Power Semiconductor Substrate
April 15, 2021	Notice of the Establishment of a Research Institute in the Subsidiary that Manufactures Power Semiconductor Substrate
March 19, 2021	(Addition/Correction of a Disclosed Item) Notice of the (Second) Issuance of New Shares through Third-Party Allotment by the Subsidiary that Manufactures Power Semiconductor Substrate
February 10, 2021	Notice of the (Second) Issuance of New Shares through Third-Party Allotment by the Subsidiary that Manufactures Power Semiconductor Substrate
November 17, 2020	Notice of the Issuance of New Shares through Third-Party Allotment by the Subsidiary that Manufactures Power Semiconductor Substrate

**Appendix II: Insulated heat dissipating substrates for power semiconductors handled by FTSJ (partial)**





Appendix III: Types of power semiconductors, voltage resistance and applications

Major markets for DCB and AMB: Industrial equipment, automobiles, electric railroads, and renewable energy

