

本次股票发行后拟在科创板市场上市，该市场具有较高的投资风险。科创板公司具有研发投入大、经营风险高、业绩不稳定、退市风险高等特点，投资者面临较大的市场风险。投资者应充分了解科创板市场的投资风险及本公司所披露的风险因素，审慎作出投资决定。



拓荆科技股份有限公司

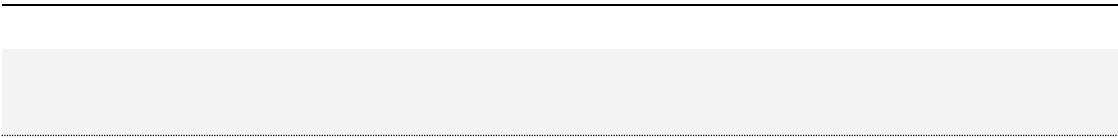
(辽宁省沈阳市浑南区东大街900号)

首次公开发行股票并在科创板上市招股意向书

CMS 招商证券

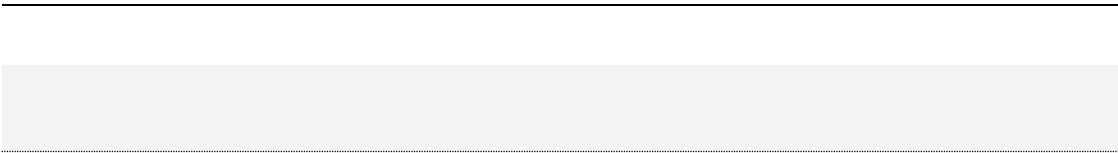


12 11 10 9 8 7 6 5 4 3 2 1





	A
	3,161.9800 25.00%
	1.00
	2022 4 8
	12,647.8797
	2022 1 4
	2022 3 18
	10% 316.1980
	22,256.7750
	12
	158.0990 T-2 5%
	24
	2022 3 29



13.02%      19    15    22    27      13.10% 10.95%  
12.50%

5,704.87      -10,322.29      -1,936.64      -1,169.99  
-14,993.05      -6,246.63      -5,711.62      -2,305.21

10,797.31      7,431.87      12,278.18      12,955.63  
152.84%    29.58%    28.19%    34.65%

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争

6-24

3-24

使 PECVD 争 ALD 争 SACVD 争

SACVD

PECVD ALD  
PECVD  
PECVD

1-1-4

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77.98% 100.00% 97.55%

88.69% ALD SACVD

ALD

14nm

17nm

DRAM

SACVD

40nm

ALD SACVD

ALD SACVD

ALD

SACVD

**Demo**

Demo

Demo

Demo

Demo

74

Demo

25

33.78%

Demo



2019	CVD	AMAT	
Lam	TEL	30% 21% 19%	ALD
	TEL	ASMI	
31% 29%			

ALD

ALD

100.00% 84.02% 83.78% 92.44%



30%

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2021 3 31

2021

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2021

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	2021 12 31	2020 12 31		
	251,772.82	181,406.91	70,365.91	38.79%
	119,333.76	112,249.87	7,083.89	6.31%
	119,260.77	112,220.97	7,039.80	6.27%

2021 12 31

251,772.82

2020 12

31 70,365.91 38.79%

1

44,107.78

3,071.29

2 2021

12,453.82

3

7,761.86

2021 12 31

119,333.76

119,260.77

2020 12 31

6.31% 6.27%

2

	2021 10-12	2020 10-12		2021	2020	
--	------------	------------	--	------	------	--

	<b>2021 10-12</b>	<b>2020 10-12</b>		<b>2021</b>	<b>2020</b>	
	38,406.52	27,232.88	41.03%	75,796.09	43,562.77	73.99%
	1.58	4,454.92	-99.96%	5,628.70	-1,375.68	-
	999.58	4,459.13	-77.58%	6,737.85	-1,169.99	-
	987.86	4,459.13	-77.85%	6,692.73	-1,169.99	-
	1,052.27	4,480.22	-76.51%	6,848.65	-1,148.90	-
	-5,894.98	1,176.03	-	-8,200.19	-5,711.62	-
	21,345.33	41,969.59	-49.14%	13,748.06	30,891.27	-55.50%

2021 2020 11,173.64  
41.03% 2021 2020  
32,233.32 73.99%

2021 2020 3,427.95  
76.51% 2021 2020  
4,464.65 10,851.58

2021 2020 7,997.55

2021  
20,624.26 2021 2020  
17,143.21

3

2021 15,048.84

2021

15,553.46

2022

	2022 1-3	2021 1-3		
	10,000.00 12,000.00	5,774.10	4,225.90 6,225.90	73.19% 107.82%
	-2,000.00 -700.00	-1,032.66	-967.34 332.66	-
	-3,000.00 -1,600.00	-2,400.90	-599.10 800.90	-

2022

7

2019

12

18,354.00

7

966

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5%

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5%

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5%

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7

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6.5710%

0.8212%

**1**

5,235.2715

39.6611%

~~19C6+4D~~  
%19C6+4D

2021 8 6

2021

0107 2219

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2020 4 26

2020 6-7

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**2**

**1**

2020 11 17

2021 8 6

2021 8 12

2022

2 25

**2**

2021 1 31

275.5406

2021 4 16

2021 7 7

**3**

6.5710%

623.3158

2021 3 1

2021 04 49

275.5406

2.9047%

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55%

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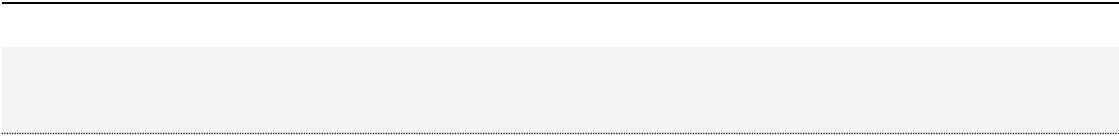
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20% 10%

10%





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5% .....	63
.....	74
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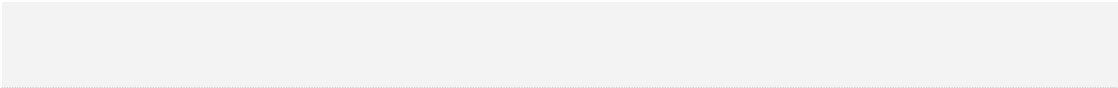
.....	99
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1	.....	332
2	.....	332
3	.....	334
4	.....	337
5	.....	345



		8  11
		AMAT Applied Materials, Inc. NASDAQ 4336
		LRCX Lam Research Corporation NASDAQ " " " "
		Novellus Systems Inc. NASDAQ NVLS 2012 6
		ASM International ASM
		Intel Corporation CPU
		Samsung Electronics Corporation CPU
KE		KOKUSAI ELECTRIC CORPORATION " KE"
		ICRD
		DRAM IDM

		IDM
		IDM
ICRD		Shanghai IC R&D Center
		002371.SZ
		688037.SH
		688082.SH
		A20569.SH
SEMI		Semiconductor Equipment and Materials International
Gartner		Gartner Group 1979 IT IT
Strategy Analytics SA		
		2018 2019 2020 2021 1-9
		2021 9 30

		2018 12 31	2019 12 31	2020 12 31	2021 9 30
		2018 12 31	2019 12 31	2020 12 31	2021 9 30
		2018	2019	2020	2021 1-9

⋮

		Silicon Wafer				4	6
		8	12				
IDM		Integrated Device Manufacture					
						90nm	65nm
		40nm	28nm	14nm	7nm	5nm	3nm
k							k
						28nm/14nm	
Demo		Demo					
Demo		Demo					
		LED					

Complementary Metal Oxide Semiconductor

CMOS  
CMOS

N-MOS P

FinFET FinFET		Fin Field-Effect Transistor
Fin		FinFET 3D
		WLP SiP FC TSV 2.5D 3D
2.5D		
3D TSV		TSV Through-siliconvia TSV TSV TSV TSV 3D
		TSV
Etch		
CVD		Chemical Vapor Deposition
PECVD		Plasma Enhanced Chemical Vapor Deposition
ALD		Atomic Layer Deposition
PE-ALD		Plasma Enhanced Atomic Layer Deposition
Thermal-ALD		Thermal Atomic Layer Deposition
SACVD		Sub-atmospheric Pressure Chemical Vapor Deposition

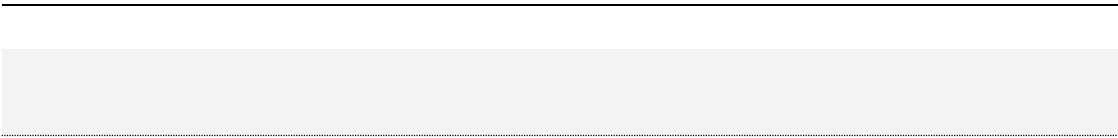
UV Cure

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UV

		PECVD
EFEM		Equipment front-end module
		SiO <sub>2</sub> SiN SiON
SiO <sub>2</sub>		
TEOS		Tetraethyl orthosilicate SiO <sub>2</sub>
SAF		
BPSG		Boro-phospho-silicate Glass
SiN		
SiON, DARC		Silicon Oxynitride
PSG		Phospho-silicate Glass
		-Si Lok Lok ADC ADC ACHM
ACHM		
Lok		
Lok		Lok Lok
ADC		Nitrogen Doped Carbide
ADC		Oxygen-doped Silicon Carbide
-Si		Amorphous Silicon
ONON NO stack No stack		- - - 3D NAND SiO <sub>2</sub> SiN
Thick TEOS		TEOS
SADP		Self-Aligned Double Patterning Fin FinFET
STI		Shallow Trench Isolation 0.25um

BSI	BSI	Back Side Illumination	CMOS
	FEOL	FEOL	
	BEOL	BEOL	
	ILD	Inter Layer Dielectric	
	IMD	Inter Metal Dielectric	
	PMD	Pre-Metal Dielectric	
	NFDARC, SiOC	Nitrogen Free Dielectric anti-reflective coating	





1		2022 3 29
2		2022 4 1
3	3fSPB%ñDBR G&0vQeP/TDR acePB%ñDBR2g#AB%ñHul3fSPB%ñDB4R \$f%B%B%	
4		2022 4 8
5		2

	<b>2021.9.30/ 2021 1-9</b>	<b>2020.12.31/ 2020</b>	<b>2019.12.31/ 2019</b>	<b>2018.12.31/ 2018</b>
	34.65%	28.19%	29.58%	152.84%

ALD

PECVD

SACVD

14nm

10nm

PECVD SACVD

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2016 2017 2019 "

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2022 3 8 174 153

21 98 77 21

2017 " "

2016 " 2019

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**1**

PECVD ALD SACVD

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**2**

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Demo

2019

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2016

2017

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PECVD SACVD

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" 90-65nm " " 1x nm 3D NAND  
PECVD " /

64/128 3D NAND FLASH 28/14nm 19/17nm DRAM  
2.5D 3D

25,125.15 43,562.77 37,389.57 7,064.40

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					2012 C35 GB/T4754-2017
		C3562			2018
				" 1	
		-1.2	-1.2.1	"	-
				"	

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					30,507.37      6,000.00 75,752.32
					40.27%      5%
10%				2021 9 30 189                              429 44.06%	
					10%
					2022 3 8 98
					5
					2018      2020 7,064.40      25,125.15      43,562.77 148.32%
					20% 4.36                      3

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		PECVD  PECVD SACVD
50		2022 3 8  98

	7,986.46	7,986.46	7.98%
	39,948.34	39,948.34	39.94%
ALD	27,094.85	27,094.85	27.09%
	25,000.00	25,000.00	24.99%
	<b>100,029.65</b>	<b>100,029.65</b>	<b>100.00%</b>





	A
	1.00
	25.00% 3,161.9800
	2022 1 4  2022 3 18  316.1980 10% 22,256.7750  12
	T-2 5% 158.0990 24
	12.45 2021 9 30
	A

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	0755-82943121
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	29 1-9
	010-88300772
	010-88300793

	20 3 22-31

	010-65881818
	010-65882651

争

	19 37 305-306
	010-52596085
	010-88019300

	388
	021-68808888
	021-68804868

	188
	021-58708888
	021-58899400

	3 AB
	819589015710001

2021 11 29

688012.SH 160 A

0.000026%

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0.0000029%

22.29%

45.00%

26.48%

1		2022 3 29
2		2022 4 1
3		2022 4 7
4		2022 4 8
5		2022 4 12
6		

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474.2970

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15.00%

2% 5%

10 5% 4,000

10 20 4%

6,000

20 50 3%

1

50 2% 10

5% 158.0990

2022 1 4

2022 3 18

10% 316.1980

22,256.7750

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	2022 3 8
	SVF025
	22,256.7750
	22,256.7750

1			2,954.7000	13.28%		
2			720.0000	3.23%		
3			1,688.4000	7.59%		
4			2,427.0750	10.90%		
5			1,336.6500	6.01%		
6			2,356.7250	10.59%		
7			1,055.2500	4.74%		
8			1,231.1250	5.53%		
9			773.8500	3.48%		
10			703.5000	3.16%		
11			703.5000	3.16%		
12			703.5000	3.16%		
13			633.1500	2.84%		
14			422.1000	1.90%		
15			352.0000	1.58%		
16			351.7500	1.58%		
17			281.4000	1.26%		

18			281.4000	1.26%		
19			281.4000	1.26%		
20			281.4000	1.26%		
21			211.0500	0.95%		
22			211.0500	0.95%		
23			211.0500	0.95%		
24			211.0500	0.95%		
25			201.0000	0.90%		
26			160.0000	0.72%		
27			140.7000	0.63%		
28			140.7000	0.63%		
29			140.7000	0.63%		
30			140.7000	0.63%		
31			140.7000	0.63%		
32			140.7000	0.63%		
33			137.5000	0.62%		
34			130.0000	0.58%		
35			100.5000	0.45%		
36			100.5000	0.45%		
37	GiYoul Kim		100.0000	0.45%		
38			100.0000	0.45%		
			<b>22,256.7750</b>	<b>100.00%</b>		



1

100%

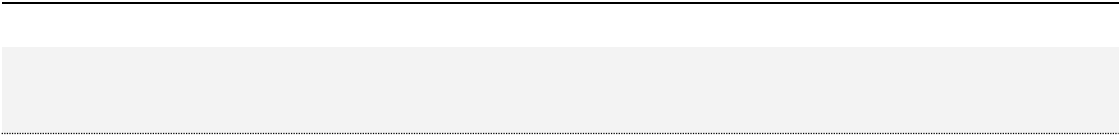
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12



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**使 PECVD 争 ALD 争 SACVD 争**

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PECVD ALD SACVD

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**Demo**

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Demo

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33.00% 31.99% 34.12% 45.55%

7,406.55      12,356.92      2018-2020      6,540.84      13,476.81  
92.59%    53.64%    17.00%

52,381.17      99,031.84      33,052.11      35,782.99  
48.61%      47.61%    41.78%    32.55%

17,016.48      23,503.18      36,746.35      59,321.12  
51.48%    65.68%    70.15%    59.90%

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				-12,801.52
-2,175.61	30,891.27	-7,597.27		
				2,475.84
21,344.45	26,997.70			37.34%
86.16%	62.97%			
			4,221.41	3,686.86
25,114.58	5,166.20			19.79%
27.61%	6.58%			13.50%
				4,691.53
	4,326.27	5,096.14	8,074.57	
	66.41%	17.22%	11.70%	21.60%



2020

2018

“ ” “ ” “ ”  
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争

2020

	Piotech Inc.
	9,485.8997
	2010 04 28
	2021 1 12
	900
	110168
	024-24188000
	024-24188000-8080
	<a href="http://www.sypiotech.cn">http://www.sypiotech.cn</a>
	<a href="mailto:ir@sypiotech.cn">ir@sypiotech.cn</a>
	024-24188000-8089

2010 4 28 1,000

600 400

60% 40%

2021 1 8

[2020]10046 2020 5 31

1,161,768,550.19 94,858,997 1

1,066,909,553.19

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2021 1 12

2021 6 15

94,858,997

2021 5 21

[2021]7249

2021 5 21

2018

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	114,281.27	25,851.77	88,429.50	25,125.15	-661.87
	-7,615.41	-	-7,615.41	-	-896.07
	416.40	-	416.40	-	166.23
	329.42	329.42	-	-	-

			%
11		150.0000	1.5813
12		138.0996	1.4558
13		138.0546	1.4554
14		138.0416	1.4552
15		138.0205	1.4550
16		138.0186	1.4550
17		137.9725	1.4545
18		137.7926	1.4526
19		123.4290	1.3012
20		99.0099	1.0438
21		78.7500	0.8302
22		77.8947	0.8212
23		62.7900	0.6619
24		50.0000	0.5271
25	YIJUN LIU	28.0000	0.2952
26	FUHUA LING	25.5000	0.2688
27		23.7450	0.2503
28	BIAO WU	17.5000	0.1845
29	REN ZHOU	17.5000	0.1845
30		16.8850	0.1780
31	SIAN CHE CYNTHIA CHANG	16.0000	0.1687
32		15.0000	0.1581
		<b>9,485.8997</b>	<b>100.0000</b>

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2021

1-1-54

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2020 5 31

-28,126.78

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2020 6 1 2020 12 31

41,991.94

2,650.28

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	<b>2021 1-9</b>	<b>2020 6-12</b>	<b>2020 1-5</b>	<b>2019</b>	<b>2018</b>
	-25,476.50	-28,126.78	-24,327.60	-22,390.96	-12,068.67

	<b>2021 1-9</b>	<b>2020 6-12</b>	<b>2020 1-5</b>	<b>2019</b>	<b>2018</b>
	5,796.38	2,650.28	-3,799.18	-1,936.64	-10,322.29
	-28,126.78	-	-	-	-
	<b>8,446.65</b>	<b>-25,476.50</b>	<b>-28,126.78</b>	<b>-24,327.60</b>	<b>-22,390.96</b>

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	2020 5 31		1,088,954,920.92
	94,858,997.00		1,274,060,433.49
	-281,267,776.65		1,303,267.08
	1	-	94,858,997
			994,095,923.92

[2021]120

		94,858,997.00
		1,274,060,433.49
		1,303,267.08
		-281,267,776.65
		94,858,997.00
	-	994,095,923.92

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2018 1 1

			%
1		2,512.1755	35.2959
2		1,729.7297	24.3026
3		780.0765	10.9600
4		600.0000	8.4300
5		297.0297	4.1732
6		282.1782	3.9646
7		180.0180	2.5292
8		162.1622	2.2784
9		123.4290	1.7342
10		99.0099	1.3911
11		78.7500	1.1064
12		62.7900	0.8822
13		50.0000	0.7025
14		28.0000	0.3934
15		25.5000	0.3583
16		23.7450	0.3336
17		17.5000	0.2459
18		17.5000	0.2459
19		16.8850	0.2372
20		16.0000	0.2248
21		15.0000	0.2107
		<b>7,117.4787</b>	<b>100.0000</b>

" "

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**2019 5**

2019 5

3.9646%

19 /

2019 5 6

**2019 5**

2019 5

4.215%

2019 5

4.215%

5,700

2019

4 23

2019 5 17

**2019 7**

2019 7

2.1075%

19.18 /

2,887.0245

2019 7 12

**2019 12**

701.2105

623.3158

77.8947

966

2019 12 27

2020 5 19

2020 03003

2021 1 14

	[2021]116		2020	5	18	
		2,368.421				9,485.8997
	<b>2021</b>	<b>1</b>		<b>东</b>		
		"		"	"	"
				<b>争</b>		
	<b>2010</b>	<b>4</b>				
<b>1</b>						
			1,000			60% 40%
		"	"		400	
<b>2</b>						
2010	3	26				
<b>3</b>						
	2014	1		40%		
		"	2014	1		
		"				
	<b>2014</b>	<b>1</b>		<b>东</b>	<b>代</b>	
			2014	1		40%

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2014 5

1

2014 5	2,750	272.2772
3,000	297.0297	1,000
99.0099	" ALD	" " ALD
" "	"	1,010
100		

2

ALD

3

2015 7

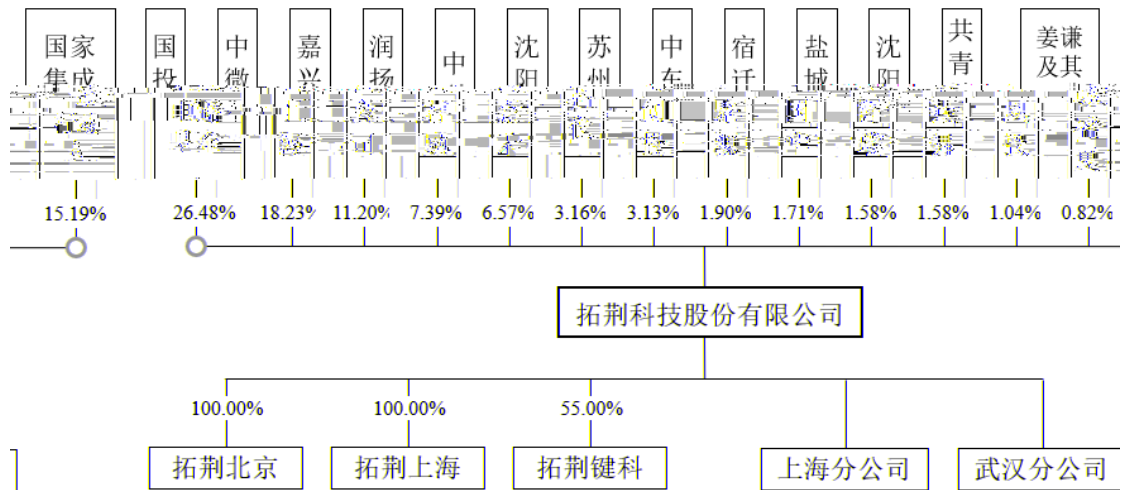
" 2015 7 "

2015 7

2015 7 2.8276% 0.9896% 0.9896% 0.8483%

10.10 /

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代

2019 1

1

1

	5,000.00		200.00	
	2020	12	11	
				16 6 2 217
				100.00%

2

2020.12.31/2020	-	-	-
2021.9.30/2021 1-9	19,091.18	297.31	97.31

2

1

	5,000.00 5000.00
	2020 12 25
	1211 10 304
	100.00%
	" ALD "

2

2020.12.31/2020	-	-	-
2021.9.30/2021 1-9	10,464.88	4,709.90	-290.10

3

1

2020 8 21

2020 9 30


	1,000.00	800.00
	2020	9 30
		8 3
	55.00%	
	20.00%	
	10.00%	
	10.00%	
	5.00%	

2

2020.12.31/2020			
-----------------	--	--	--

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2019 1 1 2019 5 5 9  
2 2

1 2019 5 6  
8 2  
2

1

2019 1 1 2021 1 12

2019 1 1 2021 1 12

2 2021 1 12

2021 1 12

2021 1 12

2021 1 12 9

3

6 2

1 2

---

2021 1 12

2021 1 12

2019 1 1

5%

1

5%

1

2,512.1755

26.4833%

	9,872,000.00
	2014 9 26 2024 9 25
	2 52 7 718

2

1,729.7297

18.2347%

	1,000,000.00
	2016 3 4 2024 3 3
	1142 23 4064-31

3

1,062.2547

11.1982%

	688012.SH
	GERALD ZHEYAO YIN
	61,624.4480
	2004 5 31
	188

MOCVD

4

851.2105

8.9734%

701.2105

7.3921%

150.0000

1.5813%


	14,220.00
	2018 8 3 2038 8 2
	1856 1 120 -69

	10,000.00
	2018 6 9 2023 6 8
	1002 X 5 6 B

5

623.3158

6.5710%

	13,200.00
	2019 10 14 2027 10 14
	519 2710

---

/

2021 9

24

36

2019 12 18

/

36

2021 3 30

11

3

" "

"

" "

"

1967	1			28.00
0.2952%		2014	2017	
1942	2			25.5000
0.2688%		2014	2017	
1962	5			17.5000
0.1845%		2014	2020	
1963	1			17.5000
0.1845%		2014	2020	

---

1950 7

16.00

0.1687%

11

78.7500

0.8302%

	88.9125
	2013 10 18 2028 10 17
	900 401

62.7900

0.6619%

	206.0469
	2013 10 21 2028 10 20
	900 417

23.7450

0.2503%

	27.8569
	2013 10 18 2028 10 17
	900 406

16.8850

0.1780%

	20.2423
	2013 10 18 2028 10 17
	900 419

138.0996

1.4558%

	15.1915
	2019 10 9 2034 10 8

---

138.0546

1.4554%

	15.1862
	2019 10 9 2034 10 8

138.0416

1.4552%

	15.1848
	2019 10 9 2034 10 8

138.0205

1.4550%

	15.1824
	2019 10 9 2034 10 8

---

138.0186

1.4550%

	15.1824
	2019 10 9 2034 10 8

137.9725

1.4545%

	15.1770
	2019 10 9 2034 10 8

⑪

137.7926

1.4526%

	15.1577
	2019 10 9 2034 10 8

--	--

2                      5%

5%

1

2019    12

19 /

966

18,354

2020    5    20

	/	/		
1			1,380,996	26,238,924.00
2			1,380,416	26,227,904.00
3			1,380,205	26,223,895.00
4			1,380,186	26,223,534.00
5			1,379,725	26,214,775.00
6			689,654	13,103,426.00
7			688,272	13,077,168.00
8			536,842	10,199,998.00
9			516,821	9,819,601.00
10			326,883	6,210,775.00
			<b>9,660,000</b>	<b>183,540,000.00</b>

---

"

"

2

5%

"

"

"

"

"

"

9,485.8997

3,161.9800

25.00%

			%
1		2,512.1755	26.4833
2		1,729.7297	18.2347
3		1,062.2547	11.1982
4		701.2105	7.3921
5		623.3158	6.5710



			%
2	SS	297.0297	3.13
3	SS	99.0099	1.04
4	CS	300.00	3.16
		<b>3,208.2151</b>	<b>33.81</b>

2

Ä&E

			%
1		123.4290	1.3012
2		50.00	0.5271
3		28.00	0.2952
4		25.5000	0.2688
5		17.5000	0.1845
6		17.5000	0.1845

7

---

	/	%	
		0.2688	
		0.1687	
		0.1581	
		0.1845	
		0.1845	

	/	%	
5		11.1982	
		0.8212	

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1

" "

" "

2

9

			%
1		2,512.18	26.4833
2		1,729.73	18.2347
3		701.2105	7.3921
4		623.3158	6.5710
5		297.0297	3.1313
6		180.018	1.8977
7		162.1622	1.7095
8		150.00	1.5813
9		150.00	1.5813

3

2019 12 16

SJJ396

2015 12 2

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P1028590

2019 12

" "

2019

12 31

**1**

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1981  
2004 12  
" "

2015 12

1979  
MBA 2004 4 2021 3

2021 4

2021 12

1979  
2004 8

2017 9

1944 1984

3

2015 12 2017 9 2021

1

1952  
1997 10 2021

1

1971  
1994 7

2021 1

1979



---

2021 1

1985

2011 8

2019 11

2019 11 2021 1

2021 1

1974

1998 10 2010 4

2010

4

3

1			2021 1	2024 1	
2			2021 1	2024 1	
3			2021 1	2024 1	
4			2021 1	2024 1	
5			2021 1	2024 1	
6			2021 1	2024 1	

1956

1982 2 2018 2

Codi Semiconductor, Inc.

2018

2

1971

2000

9 2011 2

PECVD ALD

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2011 3

1963

A&M

1984 8

2018 10

A&M  
Ecovoltz Inc.

Nonometrics Inc. Mattson Technology, Inc. Nonometrics Inc.

2018 11

1971

1993 5 2010 4

2010 4

1968

EMBA

1992 12 2009

9

2010 4

1983

2009 3 2019 11

2019 12

4

2			" 1x nm 3D NAND PECVD " " " A ALD " " A " / ALD SACVD
3			" A ALD " " B PECVD " " A " / SACVD
4			12 PECVD PF-300T " A ALD " PECVD
5			
6			HTM PECVD 12 ACHM PECVD
7			B PECVD " PECVD "

" "

" "

" " 1 " " 2

" " 3 "

1983

2010 7

2021 12 31


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		Advanced Micro-Fabrication Equipment International Pte. Ltd.		
		Advanced Micro-Fabrication Equipment Korea Ltd.		
		PDF Solution Inc.		





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2021 12 31

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2019 1 1

9

2019 4 3

2019 11 21

2021 1 8

2021

9

2021 11 24

2021 12 9

2024 1 7

2019 1 1

5

2020 12 11

2021 1 8

2021

2021 4 8

2021 4 30

2024 1 7

2019 1 1

7

---

2020 5 29

2021 1 8

2014 5 2020

5

2014 9 2020 5

2021 3

7

			/		
			66,600.00	3.23%	60,000
			200,000.00	1.33%	
			6,200,266	1.01%	
		Grenade Pte. Ltd.	174,277		
		Futago Pte. Ltd.	6,875		
			36,300.00	23.91%	330,000
			44,400.00	4.99%	40,000
			12,287.00	8.09%	111,700
			234,190.00	11.37%	49,000
			3,330.00	0.38%	3,000
			44,000.00	28.97%	400,000
			111,000.00	12.48%	100,000
			84,150.00	55.43%	765,000
			155,400.00	17.48%	140,000
			27,500.00	18.11%	250,000
			404,000.00	19.61%	40,000
			4,900.00	98.00%	
			33,110.00	21.80%	301,000
			30,183.00	19.91%	274,386
			14.00	0.01%	126
			14.00	0.01%	126
			557,840.00	27.07%	94,000
			11,000.00	3.95%	
			14,219.00	1.60%	2,900
			4,900.00	98.00%	

			/		
			14.00	0.01%	126
			14.00	0.01%	125
			14.00	0.01%	125
			90,687.00	10.20%	81,700
			22,189.00	10.96%	10,080
			11,000.00	0.53%	
			6,600.00	4.35%	60,000
			29,219.00	19.24%	265,630
			309,915.00	15.04%	36,230
			18,870.00	6.77%	17,000

4,000

1.10

1.10

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	/					
		500,000	655,000	1,155,000	1.2176%	630,000

	/					
		1,234,290	983,900	2,218,190	2.3384%	883,900
			446	446	0.0005%	
			110,868	110,868	0.1169%	
			370,000	370,000	0.3901%	330,000
			163,700	163,700	0.1726%	111,700
			500,000	500,000	0.5271%	400,000
		150,000	905,000	1,055,000	1.1122%	765,000
			290,000	290,000	0.3057%	250,000
			672,538	672,538	0.7090%	575,638
			582,582	582,582	0.6142%	490,802
			60,000	60,000	0.0633%	60,000
			318,860	318,860	0.3361%	265,630

2022 3 8

446

2021

9 30

615,091,572

6,200,266

1.0080%

Grenade Pte. Ltd. Futago Pte. Ltd.

0.0357%

1.0437%

110,868

7

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**1**

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	696.66	1,350.10	980.84	884.00
	5,738.27	-1,169.99	-1,936.64	-10,322.29
	12.14%	-	-	-

**2**

2020

			<b>2020</b>
1			219.14
2			59.34
3			-
4			-
5			-
6			-
7			-
8			-
9			-

			<b>2020</b>
10			173.22
11			-
12			-
13			-
14			-
15			37.59
16			241.78
17			190.78
18			197.54
19			64.32
20			64.26
21			62.00
22			40.13
			<b>1,350.10</b>

2020

2020

**1**

1

15.1920%

1-1-96

1			500,000	655,000	1,155,000
2			-	883,900	883,900
3			280,000	140,000	420,000
4			255,000	150,000	405,000
5			175,000	175,000	350,000
6			175,000	175,000	350,000
7			160,000	345,000	505,000
8			150,000	905,000	1,055,000
			<b>1,695,000</b>	<b>3,428,900</b>	<b>5,123,900</b>

11

11,481,700

12.1040%

2

2010

2020 4

2020 4

11

2

1

"

"

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"

"

"

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2

11

11 " "

3

	2020 4
	/

1,326,020



	10	2.33%
	41	9.56%
	14	3.26%
	10	2.33%
	<b>429</b>	<b>100.00%</b>

**3**

2021 9 30

	135	31.47%
	201	46.85%
	85	19.81%
	8	1.86%
	<b>429</b>	<b>100.00%</b>

**4**

2021 9 30

51	16	3.73%
41 50	41	9.56%
31 40	166	38.69%
30	206	48.02%
	<b>429</b>	<b>100.00%</b>

**1**

---

2

/%

	2021.9.30		2020.12.31		2019.12.31		2018.12.31	
	<b>414</b>	<b>96.50</b>	<b>295</b>	<b>93.35</b>	<b>259</b>	<b>94.87</b>	<b>264</b>	<b>94.96</b>
	66	15.38	46	14.56	41	15.02	33	11.87
	<b>15</b>	<b>3.50</b>	<b>21</b>	<b>6.65</b>	<b>14</b>	<b>5.13</b>	<b>14</b>	<b>5.04</b>
	3	0.70	8	2.53	0	0.00	0	0.00
	1	0.23	1	0.32	2	0.73	2	0.72
	9	2.10	11	3.48	10	3.66	10	3.60
	2	0.47	1	0.32	2	0.73	2	0.72
	<b>429</b>	<b>100.00</b>	<b>316</b>	<b>100.00</b>	<b>273</b>	<b>100.00</b>	<b>278</b>	<b>100.00</b>

3

	<b>2021 9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	6	6	4	1



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1

ALD

14nm

SACVD

PECVD

10nm

64/128

3D NAND FLASH

DRAM

FLASH

28/14nm

19/17nm DRAM

PECVD

Lok

Lok

ACHM

ADC

PECVD

2

PECVD

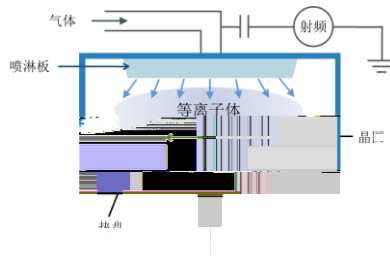
ALD

SACVD

---

3D

			90nm CMOS
40		3nm FinFET	100
	6	20	
1 PECVD			
PECVD			
		CVD	PECVD



PECVD

180-14nm

19/17nm DRAM 64/128 FLASH

SiO<sub>2</sub> SiN SiON BPSG PSG TEOS Lok Lok ACHM

ADC

2018


PECVD

2020

PECVD

PECVD

			/
12 PECVD PF-300T		PF-300T 28nm FLASH DRAM TSV OLED SiO <sub>2</sub> SiN SiON BPSG PSG TEOS Lok Lok ACHM ADC	
12 PECVD PF-300T eX		PF-300T eX 14nm-28nm FLASH DRAM SiO <sub>2</sub> SiN SiON BPSG PSG TEOS Lok Lok ACHM ADC	
12 PECVD PF-300T pX		PF-300T pX 10nm	
8 PECVD PF-200T		PF-200T 90nm 3D TSV SiO <sub>2</sub> SiN SiON TEOS 12 PECVD	
12 HTM PECVD NF-300H			NF-300H 19nm 32-128 3D NAND FLASH DRAM NF-300H NO stack Thick TEOS

			/
TFLITE		TFLITE SiO <sub>2</sub> SiN	LED

2 ALD

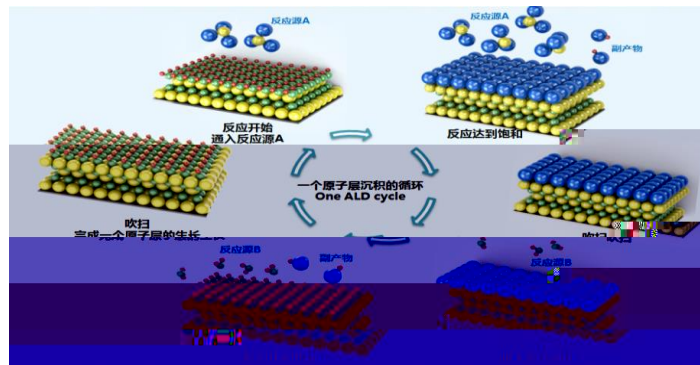
ALD

ALD

DRAM 3D NAND ALD

ALD

PE-ALD Thermal ALD



ALD

PE-ALD

PECVD

ALD

ALD

SiO<sub>2</sub> SiN

55-14nm

PE-ALD


28nm

Al<sub>2</sub>O<sub>3</sub>

AlN

Thermal ALD

ALD

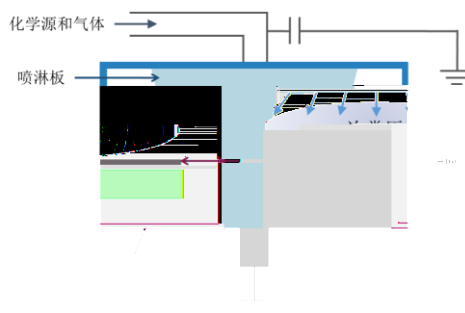
			/
12 PEALD FT-300T		FT-300T PE 28-14nm SADP STI Liner 55-40nm BSI 2.5D 3D TSV FT-300T SiO <sub>2</sub> SiN	
12 Thermal-ALD FT-300T		FT-300T Thermal 28nm FT-300T Al <sub>2</sub> O <sub>3</sub> AlN	
12 ALD FT-300H		FT-300H 128 3D NAND FLASH 19/17 nm DRAM SiO <sub>2</sub> SiN	

3 SACVD

SACVD

SACVD

Gap fill



SACVD

SACVD


BPSG SAF

12 40/28nm

8

90nm

SACVD

			/
12 SACVD SA-300T		SA-300T STI ILD BPSG SAF	40-28nm
8 SACVD SA-200T		SA-200T STI ILD BPSG SAF	90nm

3

	2021 1-9		2020		2019		2018	
PECVD	32,283.16	88.69%	41,824.53	97.55%	24,772.45	100%	5,170.28	77.98%
ALD	0.00	0.00%	184.48	0.43%	0.00	0.00%	1,459.58	22.02%
SACVD	4,115.89	11.31%	867.26	2.02%	0.00	0.00%	0.00	0.00%
	<b>36,399.05</b>	<b>100%</b>	<b>42,876.27</b>	<b>100%</b>	<b>24,772.45</b>	<b>100%</b>	<b>6,629.86</b>	<b>100%</b>

PECVD

" " "

" "

Global fundamental limited

"

" " 3

" " 1 " "

Global fundamental limited"

"

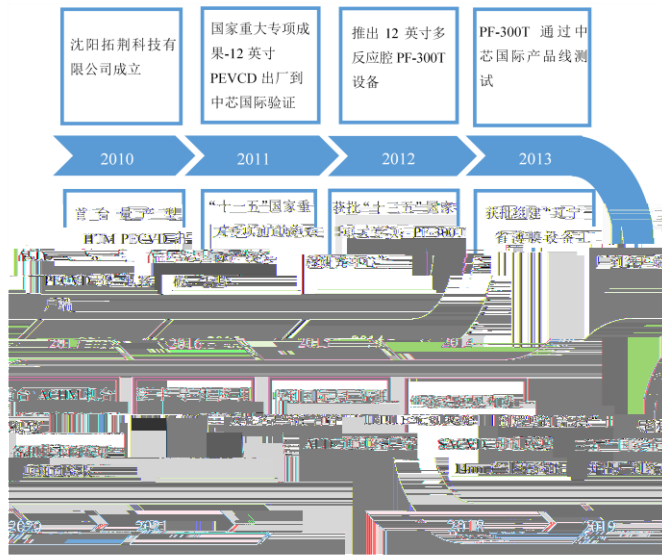
" " " "

" 5

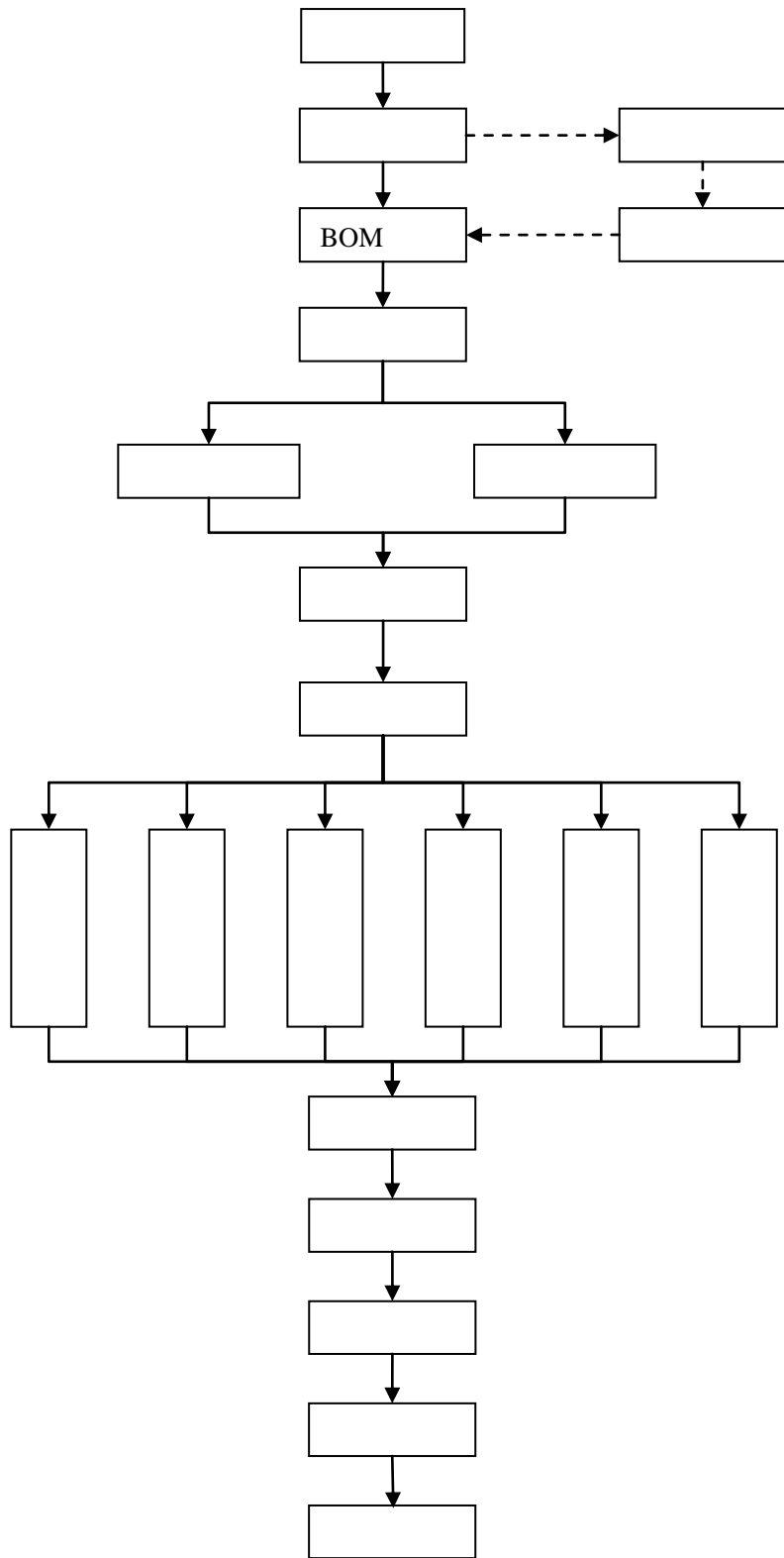
"

争

2010



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ISO14000

使

2012

C35

GB/T4754-2017

C3562

2018

**1**

2

2035	2021		IGBT MEMS
	2020		15 28 15 65 25% 130 10 25%
	2018		2018 1 1 130 10 25% 2018 1 1 65 150 15

			25% "
" "	2017		"

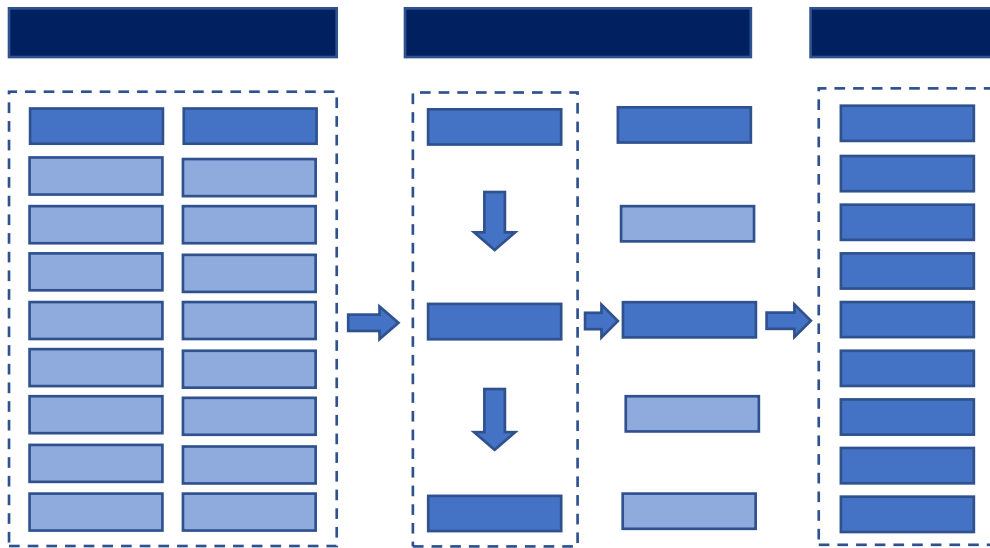
**3**

**争**

**1**

1

integrated circuit      80%



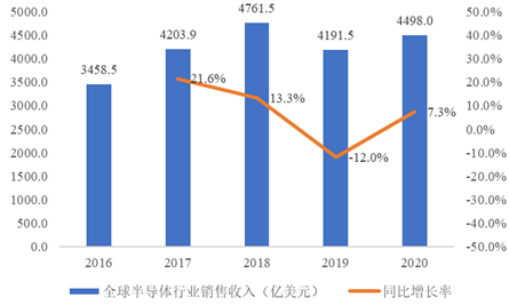
/

CMP

EDA IP

2

Gartner		2016	2018
	17.34%	2019	
	2020	4,498.0	
2019	7.3%	SIA	2021
	1,231	2018	1,227



Gartner

SIA 2020

2019

62.50%

35.00%

19.10%

9.70% 8.70%

EDA

"

"

3

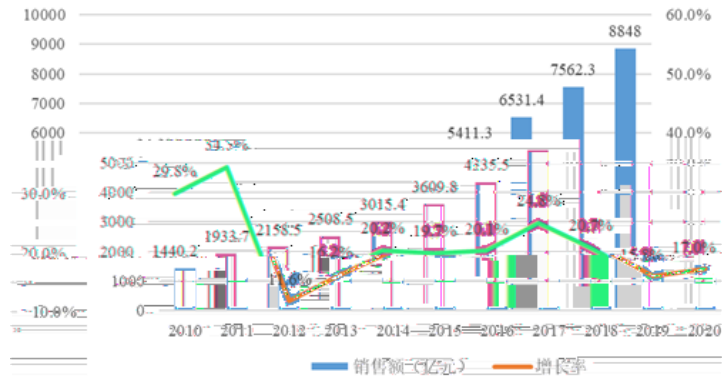
2010-2020

19.91%

2020

8,848

17%



2010

1-2%

4

5G

Gartner

2022

5,426.40

2020



Strategy Analytics

2022

2023

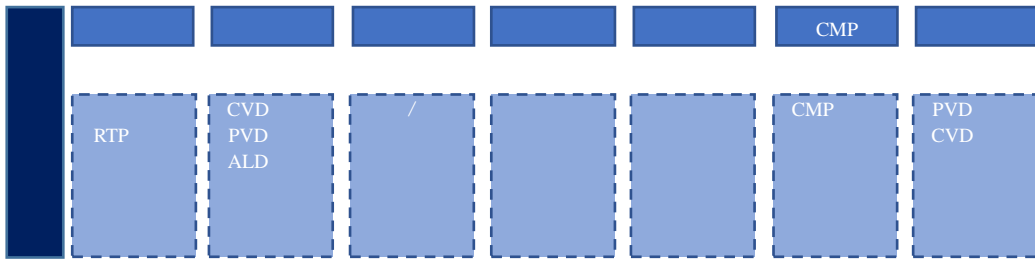
2

1

80%

/

/



80%

"

"

18-24

2

SEMI

2014

375

2020

712

11.28% 2020

19%

**2010-2020**



SEMI

AMAT

Lam

TEL

DNS

ASML ASML Holding N.V.

ASMI

3

35%

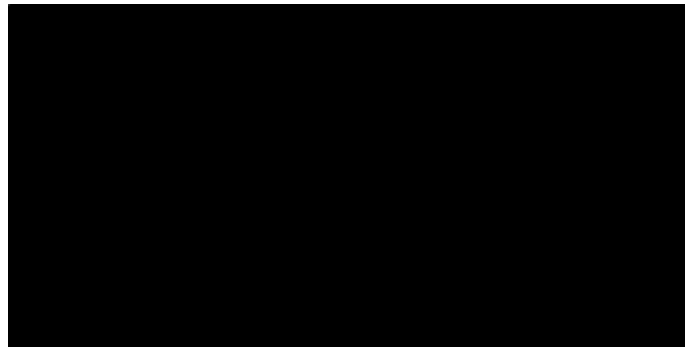
SEMI

2020

187.2

39%,

**2012-2020**



---

SEMI

28nm

14nm

IDM

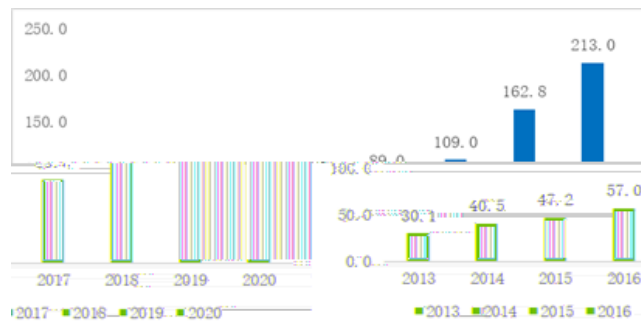
2020

213

17.5%

5%

1-2%



4

2019

3

1

/

ALD

CVD

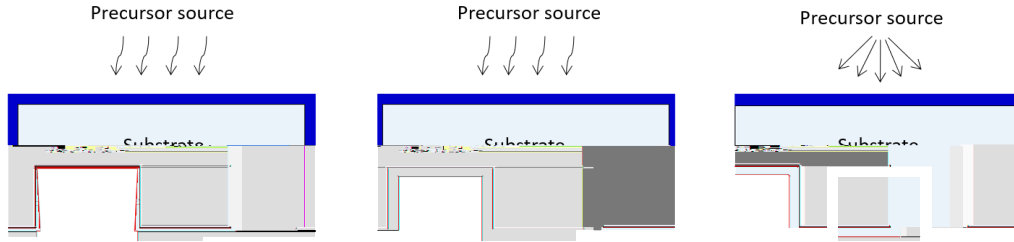
PVD

PVD CVD ALD

ALD

CVD

PVD



Characterization of Atomic Layer Deposited Thin Films: Conformality in High Aspect Ratio Pores and the Electrical Properties

CVD

CVD

CVD

PECVD SACVD APCVD LPCVD

APCVD

CVD

LPCVD

APCVD

APCVD

PECVD

90nm IC

SACVD

SACVD

400-550

30-600Torr

Gap

---

fill

ALD

ALD

CVD

ALD

ALD

28nm

28nm

FinFET

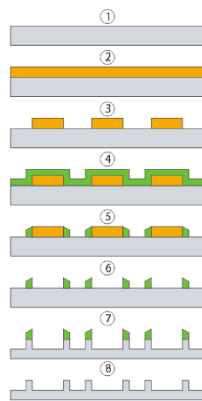
Fin

Fin

SADP

Self-Aligned Double Patterning

**SADP**



ALD

Spacer

Fin

ALD

k

STI BSI

CMOS

TSV

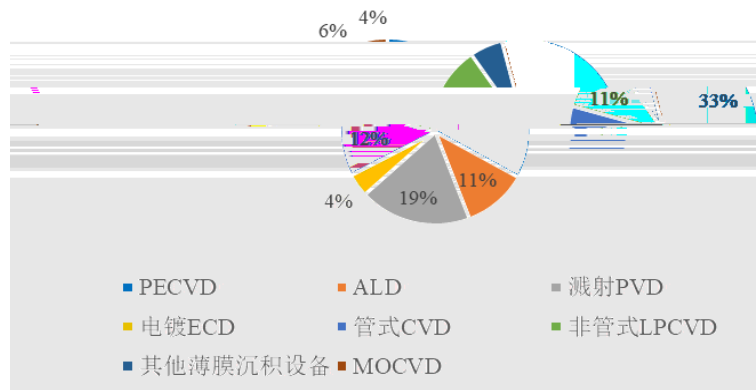
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Maximize Market Research 2017-2019  
2020

# 2 Hé k '0U9

172

11.2%



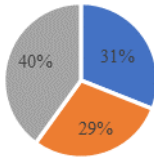
Gartner

ALD research and consulting ALD 32 Acumen 2026

172 2020 26.29% 2020 45.22  
 PECVD ALD 33% 11% 2020  
 PECVD 14.92 ALD 4.97

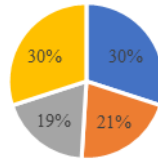
AMAT ASMI Lam TEL  
 2019 ALD TEL ASMI  
 31% 29% 40%  
 AMAT PVD 85%  
 CVD AMAT 30% Lam  
 21% TEL 19% 70%

全球ALD设备市场占比



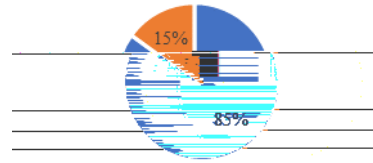
• TEL • ASM • 其他

全球CVD设备市场占比



• 应用材料 • 泛林半导体 • TEL • 其他

全球PVD设备市场占比



• 应用材料 • 其他

Gartner

3

Maximize Market Research

2025

2020

172

340

13.3%

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		/
180nm 8	CVD	9.9
	PVD	4.8
90nm 12	CVD	42
	PVD	24

FLASH 2D NAND 3D NAND

FLASH 2D 18%

3D 26% 3D NAND FLASH

**2D NAND 3D NAND**



SEMI

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" 90-65nm

" " 1x nm 3D NAND

PECVD

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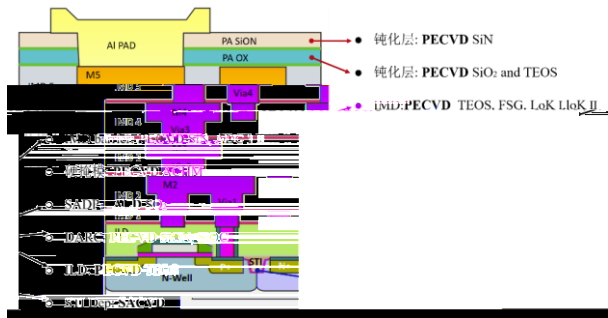
2

PECVD ALD SACVD

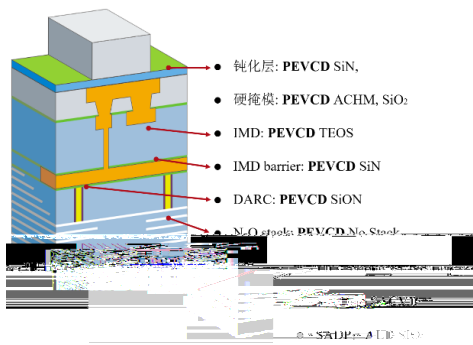
150

DRAM

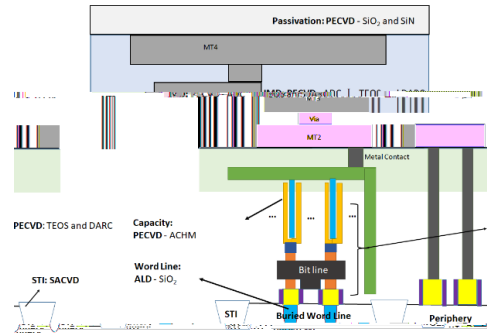
3D NAND FLASH



**3D NAND**



**DRAM**



**1 PECVD**

PECVD

3D

PECVD

16

PECVD

SiO <sub>2</sub> PECVD		/ Inter Layer Dielectric, Inter Metal Dielectric	130-28nm
		Passivation Layer	14nm 10nm
		Etch hardmask	
SiN PECVD	DRAM FLASH	Etch Stop Layer	130-28nm FLASH
		Inter Metal Dielectric	64 14nm
		Passivation Layer	128 FLASH 19/17DRAM

			2.5D 3D
SiON PECVD	DRAM FLASH	DARC Dielectric anti-reflective coating layer	130-28nm 64 FLASH 14nm 128 FLASH 19/17nm DRAM
BPSG PECVD		/ Inter Layer Dielectric, Inter Metal Dielectric	130-28nm
		Passivation Layer	
TEOS PECVD	DRAM FLASH	/ Inter Layer Dielectric, Inter Metal Dielectric	130-28nm 64 FLASH 14nm 128 FLASH 19/17nm DRAM
		Passivation Layer	
		Etch hardmask	
			2.5D 3D

SiOC  
PECVD

NFDARC  
Nitrogen free dielectric anti-reflective  
coating layer

65-28nm

NAND PECVD			
TFLITE	LED	Dielectric / Passivation	4/6
		Patterned Sapphire Substrate Hard Mask/Optical film	

2 ALD

ALD

PE-ALD

Thermal -ALD

SiO <sub>2</sub> PE-ALD		SADP      STI liner	28-14
		TSV	2.5D   3D
	CMOS	BSI	-

3 SACVD

SACVD

SACVD

BPSG SACVD			130-90nm
	DRAM		19/17
SAF SACVD			65-28nm   130nm
SA TEOS SACVD		SAB CAP SMT CAP	40-28nm   130nm

争

代

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2016

2017   2019

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PECVD SACVD

AMAT

Lam

TEL

ASMI

2019-2020

PECVD

16.65%

2020

2020

2

AMAT

Lam

TEL

ASMI

1

AMAT

1967

AMAT

AMAT

LED

15,700

2

Lam

1980

LRCX

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	Lam			
AMAT		ASML	ASML Holding N.V.	
				8,200
3	TEL			
	1963			8035.TYO
	TEL			
	TEL	11,000		
4	ASMI			
	1968			
			ASM	
	ALD		PEALD	
	ASMI			
	3%			
	29%	TEL	31%	ASMI
	2,500			
3				
	PECVD	ALD	SACVD	
	AMAT		Lam	TEL
ASMI				

---

	2018	167.05	45.00%	30.38
	2019	146.08	43.72%	27.06

2020

MTTR	

**1**

1

189

44.06%

2

2022 3 8

174

153

21

98

77

21

" 90-65nm

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" 1x nm 3D NAND PECVD

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PECVD ALD SACVD

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2016 2017 2019

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PECVD ALD SACVD

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5

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**1**

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7

NAND

3D NAND

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32/64

128/196

3

2010

2020

19.91%

2020

187.2

4

2

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2

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		2021 1-9	2020	2019	2018
		0	0	0	1
		0.00%	0.00%	0.00%	
SACVD		3	3	1	0
		1	1	0	0
		33.33%	33.33%	0.00%	0.00%

1 TM

PM

100%

2

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2020

ALD

2020

ALD

2018

ALD

3

PECVD	
ALD	ICRD
SACVD	

4

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2021 1-9	1		10,484.54	28.80%
	2		10,231.40	28.11%
	3		6,109.99	16.79%
	4		3,598.00	9.88%
	5		3,221.87	8.85%
			<b>33,645.79</b>	<b>92.44%</b>
2020	1		19,608.70	45.73%
	2		8,218.48	19.17%
	3		4,629.22	10.80%
	4		1,895.99	4.42%
	5		1,570.12	3.66%
			<b>35,922.51</b>	<b>83.78%</b>
2019	1		6,710.00	27.09%
	2		5,757.15	23.24%
	3		4,100.00	16.55%
	4		2,873.60	11.60%
	5		1,373.15	5.54%
			<b>20,813.90</b>	<b>84.02%</b>
2018	1		2,694.44	40.64%
	2		1,494.84	22.55%

	3		1,459.58	22.02%
	4		981.00	14.80%
			<b>6,629.86</b>	<b>100.00%</b>

1

Global fundamental limited

2

3

**2**

50%

100.00% 84.02% 83.78% 92.44%

1

IC Insights

2021-2025

2020 12

10

300mm

200mm

91% 54%

2018 2020

	<b>2020</b>	<b>2019</b>	<b>2018</b>
	59.65%	67.51%	60.55%

	<b>2020</b>	<b>2019</b>	<b>2018</b>
	54.33%	45.61%	57.07%
	83.36%	87.33%	92.49%
	85.71%	94.06%	99.09%
	<b>70.76%</b>	<b>73.63%</b>	<b>77.30%</b>
	<b>83.78%</b>	<b>84.02%</b>	<b>100.00%</b>

2021 1-9

2

10,000

			IC Insights	2020
				4
				1
		01347	IC Insights	2020
			5	2
			2020 NAND	1%
			7	1

CFM

Chipinsights

3

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2011			
12	PECVD	2018	2020
2013			2020
	2014		
	PF-300T		

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3

1

ICRD

ICRD

		2021 1-9	2020	2019	2018
		-	2,200.00	-	700.00
		-	4,629.22	-	1,459.58

ICRD

ICRD

ICRD

2002



IP

ICRD

ICRD

ICRD

ACHM Lok ADC

ICRD

ICRD

ICRD

Global fundamental limited

Global fundamental limited

Global fundamental limited

		<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>

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2016

" 90-65nm

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2017

Global fundamental limited

2017

2017 11

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			<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
			1,393.81	821.20	307.05	87.30

		<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
		30.01	870.60	-	-
		5.23	2.83	4.58	15.41
		10,686.55	19,985.19	6,834.70	1,106.16


9		
10		
11		

	2021 1-9		2020		2019		2018	
	19,733.70	28.20%	11,882.05	25.29%	5,591.00	27.69%	4,395.79	23.00%
	19,185.40	27.42%	11,343.25	24.14%	5,129.39	25.40%	4,747.43	24.84%
	8,357.90	11.94%	7,698.45	16.38%	3,270.08	16.19%	2,485.16	13.00%
	5,712.30	8.16%	3,522.71	7.50%	1,775.99	8.79%	1,280.83	6.70%
	5,117.55	7.31%	3,226.29	6.87%	1,209.23	5.99%	1,079.20	5.65%
	3,115.62	4.45%	3,163.55	6.73%	873.58	4.33%	1,652.58	8.65%
	3,668.89	5.24%	2,975.07	6.33%	934.60	4.63%	1,435.61	7.51%
	849.81	1.21%	1,209.56	2.57%	94.39	0.47%	671.12	3.51%
	1,282.26	1.83%	860.49	1.83%	664.21	3.29%	786.93	4.12%
	838.31	1.20%	545.38	1.16%	255.23	1.26%	128.97	0.67%
	2,116.62	3.02%	562.43	1.20%	396.78	1.96%	446.61	2.34%
	<b>69,978.35</b>	<b>100.00%</b>	<b>46,989.23</b>	<b>100.00%</b>	<b>20,194.48</b>	<b>100.00%</b>	<b>19,110.23</b>	<b>100.00%</b>

2019

2018 5.67%

2019

2018

2018

demo

2018

demo

2018

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2018

2019

2018

2

		<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
		99.91	100.43	99.04	100.00
		81.40	94.08	96.88	100.00
		82.95	88.95	100.26	100.00
		64.73	83.53	91.09	100.00
		75.53	81.56	90.66	100.00
		96.19	98.17	102.63	100.00
		74.40	89.61	89.84	100.00
		100.25	112.16	100.58	100.00
A		83.18	94.73	101.44	100.00
		81.66	101.77	96.94	100.00
		78.25	88.70	101.85	100.00
		80.90	84.12	95.70	100.00

2018                      100   2019                      2020                      2021   1-9                      2018

2

2020



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2

PECVD

ALD

SACVD

6

18

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EFEM

LOADLOCK

Transfer Module

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EFEM

4

PECVD ALD

10

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IC

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SACVD

7

ALD

3D NAND

PECVD

8

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	2021 1-9	2020	2019	2018	
	36,399.05	42,876.27	24,772.45	6,629.86	110,677.63
	37,389.57	43,562.77	25,125.15	7,064.40	113,141.89
	97.35%	98.42%	98.60%	93.85%	97.82%

93.85%

98.60% 98.42% 97.35%

97.82%

4

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3

**1**

1		-6	CC1-150	2011
2		-12	PECVD	2014
3				2017
4				2017
5		2019		2019
6				2017
7		2016		2017
8		2016		2017
9		2017		2018
10		2019		2020
11				2019
12				2021

**2**

1	90-65nm			2008.12 2016.6	35,763.02	
2	1x nm 3D NAND PECVD			2016.1 2020.12	52,290.83	
3	1x nm 3D NAND PECVD			2019.1 2020.6	7,012.77	
4	A ALD			2020.1 2021.12	10,016	
5	B PECVD			2020.1 2021.12	18,013	

6	A	-	-	-	-	-
7	B	-	-	-	-	-

### 1 PECVD

40nm	ADC Lok Lok 40nm ACHM PECVD				1,538
28nm-14nm	DARC HTN PECVD SiO <sub>2</sub> SiN a-Si TEOS				7,130
10nm	10nm PECVD				6,593
28nm	1 2				36,014

					994
TF-Lite	4/6	LED SiO <sub>2</sub> PECVD			291
12 HDPCV D	12	PECVD			3,806

**2 ALD**

ALD HTM SiO <sub>2</sub>					
-----------------------------	--	--	--	--	--

**1**

	<b>2021</b>	<b>1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	12,955.63		12,278.18	7,431.87	10,797.31
	37,389.57		43,562.77	25,125.15	7,064.40
	34.65%		28.19%	29.58%	152.84%

10,797.31      7,431.87      12,278.18  
 12,955.63      152.84%    29.58%    28.19%    34.65%  
 2018      100%

**2**

" " " " " " " " " " 3  
 "

1		ACHM		"		"		"	
		3D							

4		ALD A		
5		B PECVD		

**1**

2021 9 30

189

44.06%

**2**

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**3**

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**4**

**1**

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28

1Y DRAM  
2.5D-IC 3D-IC

128 LED  
3D NAND TSV

争 争

争

	14,107.99	3,185.65	-	10,922.33	77.42%
	8,331.99	3,414.35	-	4,917.65	59.02%
	<b>22,439.98</b>	<b>6,600.00</b>	-	<b>15,839.98</b>	<b>70.59%</b>

1

900

38,065.39

" 1 "

2

hAUBŮH&ŮhENŮC

	1	37,031,114.33	23,838,779.84	64.37%
	1	20,142,310.26	12,966,612.22	64.37%

24

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2022 3 8

1	900		2015 011	52,107.19			2064.11.17	

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2022

3 8

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2022 3 8

174

153

77

75

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21

17

4

98

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" 90-65nm

" " 1x nm 3D NAND

PECVD

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4

2022 3 8

5

1		sypiotech.cn	2010.03.04-2023.03.04
2		.cn	2015.09.30-2025.09.30
3		.com	2015.09.30-2025.09.30

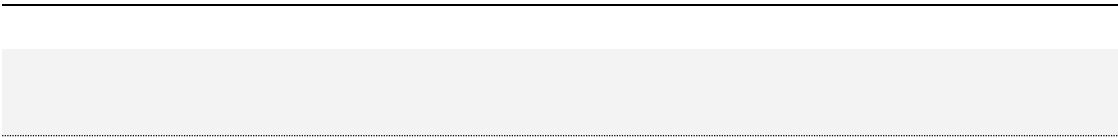
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GR202121001035

2021 12 14

2016 32

SEMI S2



**1**

2021 1 8

2021

**2**

2022 3 8

5

**1**

2021 1 8

2021



9

1

3

**2**

**3**

18

2022 3 8

7

**1**

2021 1 8

2021

3

6

2

**2**

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2

2022 3 8

4

**1**

2021 1 8

**2**

2021 1 8

3

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2021 1 8

2022 3 8

1

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SAP PLM OA

2020 7

SAP

2021 1 6

PLM

2021 9 2

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2021 9 30

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1

26.48%

3		11.20%
4		7.39% 8.97%
5		8.97% 1.58%
6		6.57%
7		15.1920%

5%

5%

2

5%

2021 12 31

5%

1		100.00%
2		100.00%
3		100.00%
4		100.00%
5		100.00%
6		100.00%
7		100.00%
8		100.00%
9	AMEC North America, Inc.	100.00%
10	AMEC Japan Co., Inc.	100.00%
11	Advanced Micro-Fabrication Equipment Korea Ltd.	100.00%
12	Advanced Micro-Fabrication Equipment International Pte. Ltd.	100.00%



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14		
15		

**6**

	<i>/</i>	
1		2021 1 8 2021 11 24
2		2021 1 8 2021 4 8
3		2017 9 6 2021 1 7
4		2017 1 1 2021 1 7
5		2017 1 1 2021 1 7
6		2017 9 6 2021 1 7
7		2017 1 1 2021 1 7
8		2017 4 13 2021 1 7
9		2017 1 1 2019 11 21

	/	
10		2017 1 1 2017 9 6
11		2017 1 1 2017 9 6
12		2017 9 6 2017 11 15
13		2017 11 15 2019 4 3
14		2017 1 1 2017 9 6
15		2017 1 1 2017 9 6
16		2017 9 6 2018 11 28
17		2017 1 1 2017 8 9 6.72%
18		2021 1
19		2020 2
20	ACM Research, Inc.	2021 5
21		2021 11 15
22		5%
23		2020 7
24		2020 9
25		2020 9
26		2021 8
27		2021 7
28		2020 10 30
29		2020 11 4
30		2020 11 4
31		
32		
33		

	/	
34		
35	Solayer GmbH	
36		2019 10
37		
38		2021 9
39		2001 2022 5 3 8
40		
41		
42		2021 4
43		
44		2020 1
45		2020 3
46		2019 12
47		2019 12 12
48		2019 12 2018 11
49		2019 11
50		2019 2021 9 11 17
51		2018 11 21
52		2019 11
53		2017 3

	/	
57		2021 1
58		
59		
60		
61		2021 10 15
62		2021 6
63		
64		
65		
66		8 2021 11 2019
67		8 2017
68		9 2017
69		2017 8
70		2017 2
71		9 2021 10 2018
72		2019 7
73		2020 1 20
74		2020 6 11
75		2017 8
76		2017 5
77		2017 9
78		11 2017
79		2018 6

	/	
80		2018 3
81		2018 5
82		2018 5
83		2018 6
84		2017 5
85		90.00%
86		
87		2017 9 8
88		2021 6 22
89		

90

1		20.00%
2		99.70%
3		8.97%
4		
5		98.00%

18

12

12

**1**

1

		2021 1-9	2020	2019	2018
			33.98	895.55	26.28
					44.20
			<b>33.98</b>	<b>895.55</b>	<b>70.47</b>

		2021	1-9	2020	2019	2018
		37,389.57		43,562.77	25,125.15	7,064.40
				0.08%	3.56%	1.00%

0.00  
 2019

70.47      895.55      33.98

1.00%   3.56%   0.08%   0.00%

2019

PECVD

2019      867.70      PECVD

PF-300T

851.20

32.93%      2019

31.99%

2016      2017

PECVD

		<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
		1,393.81	821.20	307.05	87.30
		25.13	67.02	20.62	10.75
		73.98	191.68	21.32	38.10
		101.95	135.56	149.76	89.88
			38.12	38.12	119.13
		110.49	157.44	52.36	
		7.35	42.83		
		1.60	3.20		
		<b>1,714.31</b>	<b>1,457.06</b>	<b>589.22</b>	<b>345.16</b>
		20,271.00	28,725.47	17,122.39	4,827.04
		8.46%	5.07%	3.44%	7.15%

345.16

589.22      1,457.06      1,714.31      7.15%

3.44%   5.07%   8.46%      2021   1-9



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SAP PLM OA

SAP

SAP

2017

2020

3

	<b>2021</b>	<b>1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
		681.04	1,309.32	1,008.89	968.97

2018    2019    2020    2021    1-9

968.97    1,008.89    1,309.32

681.04

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		2021 1-9	2020	2019	2018
				6.87	
				<b>6.87</b>	
		37,389.57	43,562.77	25,125.15	7,064.40
				0.03%	

2019

6.87

0.03%

2

		2021 1-9	2020	2019	2018
					22.22
					0.27
					<b>22.50</b>
		20,271.00	28,725.47	17,122.39	4,827.04
					0.47%

2018

22.50

0.47%

2018

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2018

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2019 12

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666 2020 1

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2019 11

592

202.99 2020

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1		2018-2020	955.81	
2		2018	44.20	
3			2,609.36	
4			123.52	
5			325.08	
6			477.15	
7		2018-2020	195.38	SAP PLM OA
8		2019-2020 <b>2021</b> <b>1-9</b>	320.29	
9		2020 2021 1-9	50.18	
10		2020 2021 1-9	4.80	
11			3,968.22	
12		2019	6.87	
13		2018	22.22	
14		2018	0.27	
15		2020	-	
16		2019-2020	666.00	
17		2019-2020	592.00	
18		2020	202.99	

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		2021.9.30		2020.12.31		2019.12.31		2018.12.31	
		-	-	24.00	0.24	110.94	1.11	30.48	0.30
		110.49	-	-	-	-	-	-	-
		<b>110.49</b>	<b>-</b>	<b>24.00</b>	<b>0.24</b>	<b>110.94</b>	<b>1.11</b>	<b>30.48</b>	<b>0.30</b>

110.49

PLM

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		2021.9.30	2020.12.31	2019.12.31	2018.12.31
		892.64	744.81	258.98	52.92
		60.94	61.31	14.00	5.60
		88.00	40.88	18.91	14.94
					70.00
			15.85	16.80	
		<b>1,041.57</b>	<b>862.85</b>	<b>308.68</b>	<b>143.46</b>
		773.93	463.30	55.84	
		<b>773.93</b>	<b>463.30</b>	<b>55.84</b>	
				592.00	
				666.00	
				<b>1,258.00</b>	

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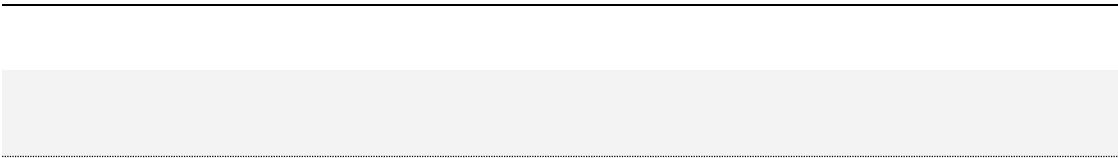
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[2022]8

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694,256,886.02	
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	<b>2021 9 30</b>	<b>2020 12 31</b>	<b>2019 12 31</b>	<b>2018 12 31</b>
	834.23			
	<b>252,474,518.97</b>	<b>298,024,307.97</b>	<b>58,735,192.25</b>	<b>56,490,157.77</b>
	<b>1,165,023,796.85</b>	<b>691,570,347.59</b>	<b>259,847,317.16</b>	<b>232,292,115.77</b>
	94,858,997.00	94,858,997.00	78,411,628.50	71,174,787.00
	1,001,575,585.12	1,280,812,453.49	977,830,688.99	845,585,030.67
	-	1,303,267.08	1,303,267.08	1,303,267.08
	84,466,514.33	-254,765,043.20	-243,276,027.54	-223,909,579.30
	<b>1,180,901,096.45</b>	<b>1,122,209,674.37</b>	<b>814,269,557.03</b>	<b>694,153,505.45</b>
	-625,975.59	289,071.44	-	-
	<b>1,180,275,120.86</b>	<b>1,122,498,745.81</b>	<b>814,269,557.03</b>	<b>694,153,505.45</b>
	<b>2,345,298,917.71</b>	<b>1,814,069,093.40</b>	<b>1,074,116,874.19</b>	<b>926,445,621.22</b>

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	<b>373,895,652.48</b>	<b>435,627,676.17</b>	<b>251,251,546.85</b>	<b>70,644,026.75</b>
	202,710,018.66	287,254,727.29	171,223,934.80	48,270,366.35
	4,761,891.55	2,185,328.84	2,195,898.70	2,110,727.48
	52,939,055.57	66,354,085.59	46,976,512.91	40,257,517.58
	23,478,596.10	27,932,438.64	21,442,074.96	22,504,724.76
	129,556,328.43	122,781,824.63	74,318,715.86	107,973,139.03
	-15,180,671.38	-10,358,884.67	-3,314,987.71	-3,163,711.40
	80,832,808.55	51,033,846.90	43,328,955.34	46,970,517.70
" "	-1,771,862.93	-5,209,649.49	-148,999.15	-2,882,623.31
" "	1,592,798.90	945,595.60	-964,609.54	-

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
" "	-12,968.60	-4,771.48	-	-7,390.19
" -"	<b>56,271,209.47</b>	<b>-13,756,822.62</b>	<b>-19,375,256.02</b>	<b>-103,228,232.85</b>
	1,111,524.30	2,072,507.32	39,404.58	5,347.47
	-	15,628.92	30,596.80	-
" -"	<b>57,382,733.77</b>	<b>-11,699,944.22</b>	<b>-19,366,448.24</b>	<b>-103,222,885.38</b>
	333,999.92		-	-
" -"	<b>57,048,733.85</b>	<b>-11,699,944.22</b>	<b>-19,366,448.24</b>	<b>-103,222,885.38</b>

57,963,780.88

" -"

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	2,200,766.10	2,570,145.66	1,838,195.92	40,011,866.33
	68,748,599.67	266,527,927.41	52,444,955.35	58,821,309.89
	785,578,382.10	909,461,629.80	273,044,388.39	213,339,166.00
	686,685,832.40	449,693,393.12	197,726,377.65	236,470,097.26
	91,135,201.95	72,577,425.41	64,185,926.06	59,785,822.15
	23,491,670.02	16,001,266.45	2,142,907.11	4,148,143.14
	60,238,425.78	62,276,839.83	30,745,230.35	40,950,269.79
	861,551,130.15	600,548,924.81	294,800,441.17	341,354,332.34
	<b>-75,972,748.05</b>	<b>308,912,704.99</b>	<b>-21,756,052.78</b>	<b>-128,015,166.34</b>
	-	-	-	-
	-	-	-	-
	1,150.00	467,983.21	-	1,896.55
	-	-	-	2,854,143.82
	1,150.00	467,983.21	-	2,856,040.37
	104,273,447.26	6,310,245.86	14,374,680.43	5,565,720.23
	-	-	-	-
	-	-	-	-

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	104,273,447.26	6,310,245.86	14,374,680.43	5,565,720.23
	<b>-104,272,297.26</b>	<b>-5,842,262.65</b>	<b>-14,374,680.43</b>	<b>-2,709,679.86</b>
	-	313,000,002.00	137,499,998.00	-
	-	-	15,320,668.36	33,324,791.81
	-	-	12,580,000.00	-
	-	313,000,002.00	165,400,666.36	33,324,791.81
	-	-	45,584,783.87	76,428,787.18
	-	-	638,090.78	2,183,166.15
			-	-
	3,595,567.76	10,550,091.27	-	-
	3,595,567.76	10,550,091.27	46,222,874.65	78,611,953.33
	<b>-3,595,567.76</b>	<b>302,449,910.73</b>	<b>119,177,791.71</b>	<b>-45,287,161.52</b>
	<b>378,682.36</b>	<b>-1,193,818.66</b>	-	-
	<b>-183,461,930.71</b>	<b>604,326,534.41</b>	<b>83,047,058.50</b>	<b>-176,012,007.72</b>
	949,780,236.54	345,453,702.13	262,406,643.63	438,418,651.35
	<b>766,318,305.83</b>	<b>949,780,236.54</b>	<b>345,453,702.13</b>	<b>262,406,643.63</b>

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	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	719,310,598.80	948,649,686.56	362,168,782.00	275,452,133.79
	3,500,000.00	-	400,000.00	-
	123,000,449.23	73,822,594.48	131,388,588.66	62,719,948.71
	43,080,636.68	3,681,029.76	2,077,991.38	2,782,662.47
	58,436,685.59	2,864,502.56	3,069,298.49	14,994,004.70
	973,696,056.95	512,080,385.24	349,976,861.13	322,327,688.24
	2,648,200.50	2,648,200.50	-	-
	1,823,580.00	535,590.00	-	-
	67,421,255.58	11,038,579.86	7,477,183.17	15,980,448.11
	<b>1,992,917,463.33</b>	<b>1,555,320,568.96</b>	<b>856,558,704.83</b>	<b>694,256,886.02</b>
	-	-	-	60,000.00
	57,500,000.00	5,500,000.00	-	-
	157,488,478.62	164,682,844.14	177,830,871.35	191,018,140.79
	36,247,186.30			
	36,763,420.62	38,198,406.02	39,727,298.01	40,846,594.41
	-	-	-	-
	9,498,105.36	2,132,350.00	-	264,000.00
	<b>297,497,190.90</b>	<b>210,513,600.16</b>	<b>217,558,169.36</b>	<b>232,188,735.20</b>
	<b>2,290,414,654.23</b>	<b>1,765,834,169.12</b>	<b>1,074,116,874.19</b>	<b>926,445,621.22</b>
	-	-	-	30,156,652.33
	120,866,654.75	91,586,184.48	36,229,223.78	29,175,678.80

	<b>2021 9 30</b>	<b>2020 12 31</b>	<b>2019 12 31</b>	<b>2018 12 31</b>
	260,389,983.33	122,425,061.53	82,393,615.66	60,930,817.87
	-	-	56,002,078.20	46,842,000.00
	447,122,775.69	134,257,091.68	-	-
	15,024,039.53	21,832,003.79	11,081,991.19	6,716,786.32
	2,340,656.33	4,984,034.69	2,198,791.25	1,801,265.25
	44,246.50	330,566.11	13,206,424.83	178,757.43
	57,985,782.05	17,453,421.92	-	-
	<b>903,774,138.18</b>	<b>392,868,364.20</b>	<b>201,112,124.91</b>	<b>175,801,958.00</b>
	-	-	-	350,985.49
	30,231,880.67	27,619,567.44	12,504,894.76	3,844,737.99
	171,200,624.13	222,523,281.43	46,230,297.49	52,294,434.29
	<b>201,432,504.80</b>	<b>250,142,848.87</b>	<b>58,735,192.25</b>	<b>56,490,157.77</b>
	<b>1,105,206,642.98</b>	<b>643,011,213.07</b>	<b>259,847,317.16</b>	<b>232,292,115.77</b>
	94,858,997.00	94,858,997.00	78,411,628.50	71,174,787.00
	1,001,575,585.12	1,280,812,453.49	977,830,688.99	845,585,030.67
	-	1,303,267.08	1,303,267.08	1,303,267.08
	88,773,429.13	-254,151,761.52	-243,276,027.54	-223,909,579.30
	<b>1,185,208,011.25</b>	<b>1,122,822,956.05</b>	<b>814,269,557.03</b>	<b>694,153,505.45</b>
	<b>2,290,414,654.23</b>	<b>1,765,834,169.12</b>	<b>1,074,116,874.19</b>	<b>926,445,621.22</b>

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	<b>364,537,628.71</b>	<b>437,467,676.17</b>	<b>251,251,546.85</b>	<b>70,644,026.75</b>
	203,348,749.77	288,932,379.60	171,223,934.80	48,270,366.35
	4,397,427.86	2,183,961.84	2,195,898.70	2,110,727.48

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	44,226,625.03	66,354,085.59	46,976,512.91	40,257,517.58
	22,433,663.12	27,750,314.24	21,442,074.96	22,504,724.76
	121,923,765.23	120,164,551.48	74,318,715.86	107,973,139.03
	-15,028,130.17	-10,356,614.01	-3,314,987.71	-3,163,711.40
	77,981,665.47	48,915,306.00	43,328,955.34	46,970,517.70
" "	-1,716,740.90	-5,209,649.49	-148,999.15	-2,882,623.31
" "	1,058,405.86	927,505.16	-964,609.54	-
" "	-12,968.60	-4,771.48	-	-7,390.19
<b>" -"</b>	<b>60,545,889.70</b>	<b>-12,932,612.38</b>	<b>-19,375,256.02</b>	<b>-103,228,232.85</b>

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	84,489,040.08	72,153,895.09	64,185,926.06	59,785,822.15
	22,505,242.49	16,000,516.45	2,142,907.11	4,148,143.14
	57,463,573.71	62,053,475.89	30,745,230.35	40,950,269.79
	846,414,785.95	599,906,608.37	294,800,441.17	341,354,332.34
	<b>-63,117,752.40</b>	<b>259,552,425.77</b>	<b>-21,756,052.78</b>	<b>-128,015,166.34</b>
	-	-	-	-
	-	-	-	-
	1,150.00	467,983.21	-	1,896.55
	5,860.42	-	-	2,854,143.82
	7,010.42	467,983.21	-	2,856,040.37
	41,256,493.30	6,297,770.73	14,374,680.43	5,565,720.23
	52,000,000.00	5,500,000.00	-	-
	55,000,000.00	-	-	-
	148,256,493.30	11,797,770.73	14,374,680.43	5,565,720.23
	<b>-148,249,482.88</b>	<b>-11,329,787.52</b>	<b>-14,374,680.43</b>	<b>-2,709,679.86</b>
	-	312,500,002.00	137,499,998.00	-

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	-	-	15,320,668.36	33,324,791.81
	-	-	12,580,000.00	-
	-	312,500,002.00	165,400,666.36	33,324,791.81
	-	-	45,584,783.87	76,428,787.18
	-	-	638,090.78	2,183,166.15
	3,120,000.00	10,550,091.27	-	-
	3,120,000.00	10,550,091.27	46,222,874.65	78,611,953.33
	<b>-3,120,000.00</b>	<b>301,949,910.73</b>	<b>119,177,791.71</b>	<b>-45,287,161.52</b>
	<b>378,682.36</b>	<b>-1,193,818.66</b>	-	-
	<b>-214,108,552.92</b>	<b>548,978,730.32</b>	<b>83,047,058.50</b>	<b>-176,012,007.72</b>
	894,432,432.45	345,453,702.13	262,406,643.63	438,418,651.35
	<b>680,323,879.53</b>	<b>894,432,432.45</b>	<b>345,453,702.13</b>	<b>262,406,643.63</b>

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2020      2021      1-9      2018      2019

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43,562.77      37,389.57      2019      7,064.40      25,125.15  
2020  
255.66%      73.38%

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2      2020      2021      1-9

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		33,052.11	35,782.99
52,381.17	99,031.84	819.34	785.31
1,173.13	1,193.01	32,232.77	34,997.69
51,208.04	97,838.83		

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		2	55%	2020 9 30
		2	100%	2020 12 11
		2	100%	2020 12 25

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7-12	5.00
1-2	15.00
2-3	20.00

	%
3-4	30.00
4-5	50.00
5	100.00

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	200	10%

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	%	%	%
6	1.00	1.00	1.00
7-12	5.00	5.00	5.00
1-2	15.00	15.00	15.00
2-3	20.00	20.00	20.00
3-4	30.00	30.00	30.00
4-5	50.00	50.00	50.00
5	100.00	100.00	100.00

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		5-10	5	19.00-9.50
		4	5	23.75

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	2018 12 31		2019 1 1
	275,452,133.79	4,642,800.00	280,094,933.79
	14,994,004.70	-4,642,800.00	10,351,204.70
	30,156,652.33	43,826.43	30,200,478.76
	178,757.43	-43,826.43	134,931.00

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2020 1 1

	2019 12 31		2020 1 1
	131,388,588.66	-14,093,432.41	117,295,156.25
	-	13,557,842.41	13,557,842.41
	-	535,590.00	535,590.00
	56,002,078.20	-56,002,078.20	-
	-	49,384,832.58	49,384,832.58
	-	6,617,245.62	6,617,245.62

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	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	-1.30	-1.95	-2.06	-0.74
	8,184.57	5,096.14	4,326.27	4,691.53
	52.49	-	-	-

		17% 16% 13%	1
		25% 15%	2
		7%	
		3%	
		2%	
	1.2%	30%	
		1.2% 12%	
	12%		

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 16%  
 2019 39 2019 4 1  
 16% 13%  
 2

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	15%	15%	15%	15%

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	<b>2021 9 30</b> <b>/2021 1-9</b>	<b>2020 12 31</b> <b>/2020</b>	<b>2019 12 31</b> <b>/2019</b>	<b>2018 12 31</b> <b>/2018</b>
	2.23	4.09	4.26	3.95
	1.16	2.79	2.52	2.12
	48.25%	36.41%	24.19%	25.07%
	49.67%	38.12%	24.19%	25.07%
	3.78	4.17	2.51	1.22
	0.27	0.65	0.50	0.17
	5,532.71	-602.35	-594.74	-9,023.10
	5,796.38	-1,148.90	-1,936.64	-10,322.29
	-2,305.21	-5,711.62	-6,246.63	-14,993.05
	34.65%	28.19%	29.58%	152.84%
/	-0.80	3.26	-0.28	-1.80

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2 2021 1-9

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2014

375

2020

SEMI

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SEMI

2020

187.2

39%

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**1**

148.32%

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33.00% 31.99% 34.12% 45.55%

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152.84% 29.58% 28.19% 34.65%

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11.28% 2020  
39%

187.2

PECVD

ACHM Lok

PECVD ALD SACVD

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2018 2020

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	2021 1-9		2020		2019		2018	
	36,399.05	97.35%	42,876.27	98.42%	24,772.45	98.60%	6,629.86	93.85%
	990.52	2.65%	686.50	1.58%	352.70	1.40%	434.55	6.15%
	<b>37,389.57</b>	<b>100%</b>	<b>43,562.77</b>	<b>100%</b>	<b>25,125.15</b>	<b>100%</b>	<b>7,064.40</b>	<b>100%</b>

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	2021 1-9		2020		2019		2018	
PECVD	32,283.16	88.69%	41,824.53	97.55%	24,772.45	100%	5,170.28	77.98%
PF-300T	20,692.42	56.85%	32,117.87	74.91%	14,873.60	60.04%	4,189.28	63.18%
PF-200T	11,590.74	31.84%	9,706.66	22.64%	9,898.85	39.96%	981.00	14.80%
ALD	0.00	0.00%	184.48	0.43%	0.00	0.00%	1,459.58	22.02%
SACVD	4,115.89	11.31%	867.26	2.02%	0.00	0.00%	0.00	0.00%
	<b>36,399.05</b>	<b>100%</b>	<b>42,876.27</b>	<b>100%</b>	<b>24,772.45</b>	<b>100%</b>	<b>6,629.86</b>	<b>100%</b>

PECVD

ALD

SACVD

PECVD

PECVD

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PECVD

12 PECVD PF-300T 8 PECVD PF-200T PF-300T  
 28nm FLASH DRAM PF-200T  
 90nm 3D TSV  
 1 TM PM PM  
 1-3 PM PF-300T

PF-200T

		2021 1-9	2020	2019	2018
<b>PF-300T</b>					
	TM+PM	46	86	41	12
		/	109.76%	241.67%	
	/TM+PM	449.84	373.46	362.77	349.11
		20.45%	2.95%	3.91%	
		20,692.42	32,117.87	14,873.60	4,189.28
		/	115.94%	255.04%	
<b>PF-200T</b>					
	TM+PM	39	28	30	4
		/	-6.67%		

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2021 1-9 PF-300T 2020 20.45% 2021 1-9  
Lok PF-300T ex

2019 PF-200T 2018 34.54%  
2018 1 PF-200T PF-200T  
2021 1-9 ,  
2020 14.27% PF-200T

PECVD

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2019

DRAM

2020

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	2021 1-9		2020		2019		2018	
	14,684.94	40.34%	18,904.97	44.09%	10,810.00	43.64%	981.00	14.80%
	8,466.92	23.26%	12,611.71	29.41%	9,761.87	39.41%	1,459.58	22.02%
	7,216.18	19.83%	8,218.48	19.17%	1,373.15	5.54%	1,494.84	22.55%
	6,031.00	16.57%	3,141.11	7.33%	0.00	0.00%	0.00	0.00%
	0.00	0.00%	0.00	0.00%	1,500.00	6.06%	0.00	0.00%
	0.00	0.00%	0.00	0.00%	1,327.43	5.36%	2,694.44	40.64%
	<b>36,399.05</b>	<b>100%</b>	<b>42,876.27</b>	<b>100%</b>	<b>24,772.45</b>	<b>100%</b>	<b>6,629.86</b>	<b>100%</b>

5

	2021 1-9		2020		2019		2018	
	36,399.05	100%	41,429.27	96.63%	19,015.30	76.76%	6,629.86	100%
	0.00	0.00%	1,447.00	3.37%	5,757.15	23.24%	0.00	0.00%
	<b>36,399.05</b>	<b>100%</b>	<b>42,876.27</b>	<b>100%</b>	<b>24,772.45</b>	<b>100%</b>	<b>6,629.86</b>	<b>100%</b>

2020                      5,757.15                      1,447.00                      2017                      2019  
23.24%                      3.37%

6

	2021 1-9		2020		2019		2018	
	5,294.30	14.55%	1,444.83	3.37%	0.00	0.00%	0.00	0.00%
	5,195.10	14.27%	740.00	1.73%	0.00	0.00%	0.00	0.00%
	25,909.65	71.18%	13,693.74	31.94%	3,428.00	13.84%	4,154.02	62.66%
	/	/	26,997.70	62.97%	21,344.45	86.16%	2,475.84	37.34%
	<b>36,399.05</b>	<b>100%</b>	<b>42,876.27</b>	<b>100%</b>	<b>24,772.45</b>	<b>100%</b>	<b>6,629.86</b>	<b>100%</b>

		2020	2019	2018
		18.15%	19.33%	3.67%
		24.89%	21.82%	24.73%
		21.90%	21.39%	31.14%
		35.06%	37.47%	40.46%
		<b>100%</b>	<b>100%</b>	<b>100%</b>
		2.59%	4.83%	8.04%
		16.40%	26.61%	14.87%
		45.45%	13.46%	26.18%
		35.57%	55.10%	50.91%
		<b>100%</b>	<b>100%</b>	<b>100%</b>
		13.79%	13.02%	6.90%

		<b>2020</b>	<b>2019</b>	<b>2018</b>
		21.52%	26.38%	26.06%
		27.03%	36.92%	21.47%
		37.66%	23.67%	45.57%
		<b>100%</b>	<b>100%</b>	<b>100%</b>
		7.08%	0.34%	0.71%
		8.55%	16.36%	35.76%
		23.13%	31.02%	0.59%
		61.24%	52.27%	62.94%
		<b>100%</b>	<b>100%</b>	<b>100%</b>
		10.40%	9.38%	4.83%
		17.84%	22.79%	25.35%
		29.38%	25.70%	19.84%
		42.38%	42.13%	49.97%
		<b>100%</b>	<b>100%</b>	<b>100%</b>

2020

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	2021 1-9		2020		2019		2018	
	19,818.68	97.77%	28,249.02	98.34%	16,846.58	98.39%	4,442.10	92.03%
	452.32	2.23%	476.45	1.66%	275.81	1.61%	384.94	7.97%
	<b>20,271.00</b>	<b>100%</b>	<b>28,725.47</b>	<b>100.00%</b>	<b>17,122.39</b>	<b>100%</b>	<b>4,827.04</b>	<b>100%</b>

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	2021 1-9		2020		2019		2018	
PECVD	18,301.32	92.34%	26,979.73	95.51%	16,846.58	100.00%	3,658.11	82.35%
PF-300T	11,482.17	57.94%	20,789.74	73.59%	10,029.46	59.53%	2,797.75	62.98%
PF-200T	6,819.15	34.41%	6,189.99	21.91%	6,817.13	40.47%	860.35	19.37%
ALD	0.00	0.00%	23.83	0.08%	0.00	0.00%	783.99	17.65%
SACVD	1,517.36	7.66%	1,245.46	4.41%	0.00	0.00%	0.00	0.00%
	<b>19,818.68</b>	<b>100.00%</b>	<b>28,249.02</b>	<b>100.00%</b>	<b>16,846.58</b>	<b>100.00%</b>	<b>4,442.10</b>	<b>100.00%</b>

PECVD

PECVD

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	<b>2021 1-9</b>		<b>2020</b>		<b>2019</b>		<b>2018</b>	
	18,723.81	94.48%	25,531.29	90.38%	15,290.75	90.76%	3,939.76	88.69%
	232.32	1.17%	603.01	2.13%	321.78	1.91%	160.60	3.62%
	862.55	4.35%	2,114.72	7.49%	1,234.06	7.33%	341.73	7.69%
	<b>19,818.68</b>	<b>100%</b>	<b>28,249.02</b>	<b>100%</b>	<b>16,846.58</b>	<b>100%</b>	<b>4,442.10</b>	<b>100%</b>

14,627.25      16,580.36      2019      262.28%      2020  
84.55%

PECVD

PECVD      69.12%      100%      101.49%      84.33%

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	2021 1-9		2020		2019		2018	
PECVD	43.31%	88.69%	35.49%	97.55%	31.99%	100.00%	29.25%	77.98%
PF-300T	44.51%	56.85%	35.27%	74.91%	32.57%	60.04%	33.22%	63.18%
PF-200T	41.17%	31.84%	36.23%	22.64%	31.13%	39.96%	12.30%	14.80%
ALD	0.00%	0.00%	87.09%	0.43%	0.00%	0.00%	46.29%	22.02%
SACVD	63.13%	11.31%	-43.61%	2.02%	0.00%	0.00%	0.00%	0.00%
	<b>45.55%</b>	<b>100.00%</b>	<b>34.12%</b>	<b>100.00%</b>	<b>31.99%</b>	<b>100.00%</b>	<b>33.00%</b>	<b>100.00%</b>

2021 1-9

PECVD

PECVD

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**2021**

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2020

PF-300T

2019

2.70%

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	ALD	ICRD
2020	ALD	

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	42.68%	37.67%	34.93%	35.50%
	39.59%	41.95%	46.21%	46.27%
		42.65%	44.67%	43.80%
		38.17%	31.27%	25.27%
	<b>41.13%</b>	<b>40.11%</b>	<b>39.27%</b>	<b>37.71%</b>
	<b>45.55%</b>	<b>34.12%</b>	<b>31.99%</b>	<b>33.00%</b>

2018-2020

2021 1-

	<b>2021 1-9</b>		<b>2020</b>		<b>2019</b>		<b>2018</b>	
	-1,518.07	-4.06%	-1,035.89	-2.38%	-331.50	-1.32%	-316.37	-4.48%
	<b>19,079.33</b>	<b>51.03%</b>	<b>20,670.95</b>	<b>47.45%</b>	<b>13,942.23</b>	<b>55.49%</b>	<b>16,757.17</b>	<b>237.21%</b>

2019  
2018      2018    2020  
2021    1-9  
2020  
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1  
  
56.99%    18.70%    15.23%    14.16%  
2018      2020  
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	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
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	2021 1-9		2020		2019		2018	
	143.57	2.71%	276.28	4.16%	116.88	2.49%	133.84	3.32%
	113.08	2.14%	217.54	3.28%	203.09	4.32%	161.23	4.00%
	-	0.00%	-	0.00%	106.18	2.26%	26.86	0.67%
	52.12	0.98%	51.95	0.78%	42.89	0.91%	48.33	1.20%
	21.85	0.41%	33.00	0.50%	114.49	2.44%	110.16	2.74%
	18.63	0.35%	22.26	0.34%	23.15	0.49%	22.51	0.56%
	30.25	0.57%	17.61	0.27%	35.81	0.76%	1,054.95	26.21%
	14.27	0.27%	3.20	0.05%	4.59	0.10%	5.86	0.15%
	<b>5,293.91</b>	<b>100%</b>	<b>6,635.41</b>	<b>100%</b>	<b>4,697.65</b>	<b>100%</b>	<b>4,025.75</b>	<b>100%</b>

2021 1-9	2,761.96	1,819.95	1,047.16	3,534.75
2020	1,250.49	2,143.81	632.35	2,761.96
2019	384.47	1,238.62	372.61	1,250.49
2018	517.82	331.49	464.84	384.47

5,533.87

2,516.96

	2016 2018 3%-5% 2019 2020
	2%
	3% 5%

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242.27%

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2018-2020

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2020

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25.96%

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	<b>2021</b>	<b>1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
		10.14%	10.41%	10.12%	13.21%
		9.26%	11.34%	9.67%	8.23%

	2021 1-9		2020		2019		2018	
	1,480.11	63.04%	1,589.06	56.89%	1,417.02	66.09%	1,546.48	68.72%
	17.10	0.73%	452.16	16.19%	6.99	0.33%	13.86	0.62%
	313.18	13.34%	237.24	8.49%	185.32	8.64%	63.09	2.80%
	205.79	8.76%	218.11	7.81%	228.16	10.64%	226.81	10.08%
	209.26	8.91%	231.53	8.29%	222.52	10.38%	272.36	12.10%
	49.04	2.09%	40.72	1.46%	65.94	3.08%	97.59	4.34%
	73.38	3.13%	24.43	0.87%	18.26	0.85%	30.28	1.35%
	<b>2,347.86</b>	<b>100%</b>	<b>2,793.24</b>	<b>100%</b>	<b>2,144.21</b>	<b>100%</b>	<b>2,250.47</b>	<b>100%</b>

5.64% 3.65% 3.96%

21.89%

2018

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	<b>2021 1-9</b>		<b>2020</b>		<b>2019</b>		<b>2018</b>	
	4,645.45	35.86%	3,806.90	31.01%	2,651.82	35.68%	4,981.58	46.14%
	3,673.06	28.35%	3,694.03	30.09%	2,701.16	36.35%	2,310.11	21.40%
	3,463.12	26.73%	3,221.07	26.23%	662.35	8.91%	1,657.75	15.35%
	626.40	4.83%	909.87	7.41%	862.53	11.61%	1,022.15	9.47%
	329.91	2.55%	243.25	1.98%	282.69	3.80%	313.76	2.91%
	32.71	0.25%	207.76	1.69%	68.28	0.92%	67.37	0.62%
	152.87	1.18%	165.17	1.35%	168.45	2.27%	177.56	1.64%
	32.11	0.25%	30.14	0.25%	34.60	0.47%	267.03	2.47%
	<b>12,955.63</b>	<b>100%</b>	<b>12,278.18</b>	<b>100.00%</b>	<b>7,431.87</b>	<b>100.00%</b>	<b>10,797.31</b>	<b>100.00%</b>

2018

2018

PECVD

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PECVD

2018-2020

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ICRD

2018                      2020                      ICRD

2021                      1-9

2018                      2020

2021    1-9

2019                      2018                      15.62%    2020

2019                      5.49%

2019

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	2021 1-9	2020	2019	2018
3D NAND PECVD	721.01	3,518.41	3,674.64	4,520.12
28nm	4,177.78	2,708.24	-	-
28nm-14nm	2,484.90	1,777.83	1,742.56	1,745.99
PF-200T/PF-300&PF-300T	1,758.05	1,444.15	1,064.19	2,752.35

	<b>2021</b>	<b>1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
ALD		1,196.83	888.52	770.99	1,476.79
40nm		19.36	646.74	97.21	300.16
ALDHTM SiO <sub>2</sub>		851.15	613.16	-	-
		1,110.22	353.00	64.98	1.90
		119.62	188.59		
TF-Lite		78.71	125.26	17.29	-
28nm Thermal ALD AlOx		95.23	14.29	-	-
12 HDPCVD		342.78			
		<b>12,955.63</b>	<b>12,278.18</b>	<b>7,431.87</b>	<b>10,797.31</b>

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2020

2019  
2018

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		SAP

	2021 1-9		2020		2019		2018	
	-	0.00%	-	0.00%	60.59	0.24%	86.66	1.23%
	1,511.25	4.04%	1,146.69	2.63%	476.09	1.89%	510.32	7.22%
	-40.97	-0.11%	86.42	0.20%	61.18	0.24%	90.94	1.2eW*

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	
A	4,693.24	1,224.58	-	-	
B PECVD	1,960.41	1,488.71	-	-	
A ALD	432.53	453.79	-	-	
02	-	-	2,363.24	2,870.54	
02	218.12	293.45	300.69	300.89	

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	
" "	-	-	9.56	69.19	
" "	2.85	4.23	3.93	0.12	
	0.35	52.91	7.78	7.78	
	-	-	164.40	17.51	
	-	24.50	-	-	
	-	50.00	-	-	
	39.38	96.49	-	-	
	-	30.00	30.00	-	
	-	-	10.00	-	
	285.10	211.85	-	-	
	-	-	-	22.00	
	1.17	23.70	38.20	45.02	
	-	64.68	-	17.00	
	45.00	-	-	-	
B	23.17				
	10.00				
R&D	-	-	-	106.00	
	7.27	28.59	15.84	26.94	
	<b>8,074.57</b>	<b>5,096.14</b>	<b>4,326.27</b>	<b>4,691.53</b>	

	2021 1-9	2020	2019	2018
	8,074.57	5,096.14	4,326.27	4,691.53
	37,389.57	43,562.77	25,125.15	7,064.40
	21.60%	11.70%	17.22%	66.41%

2018

2020

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	2021 1-9	2020	2019	2018			
	-	-	-	100,000	2014 1		
	3,080	9,900	13,300	15,000			1.11
	-	-	-	40,000	2015 7		
	119,200	1,610,640	9,286,500	-	2019 12		19.00
	<b>122,280</b>	<b>1,620,540</b>	<b>9,299,800</b>	<b>155,000</b>			

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2018 2019  
68.92 35.70 2019

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	2021 1-9	2020	2019	2018
	21.85	33.00	114.49	110.16
	17.10	452.16	6.99	13.86
	32.71	207.76	68.28	67.37
	1.10	-	8.49	1.57
	<b>72.76</b>	<b>692.92</b>	<b>198.25</b>	<b>192.96</b>

2019 929.98 2018 2020  
2019 2018 2020  
2019 928.65  
19

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2020 5 31

2020 6 2020

2019

2020 12 31

2021 3630

	/	
2014	10.10	2015 3295
2015	11.11	2015 3695

		/		
2016		18.50	2017	3411
2017		18.50	2017	3411
2018		19.00	2018	3695
2019		19.00	2019	3500
2020	1-5	19.00	2019	3500
2020	6-12	24.50	2021	3630
2021	1-9	24.50	2021	3630

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2018

2019 1 1

288.26 14.90 520.96

177.19

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2019 1 1

0.00 96.46 -94.56 -159.28

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	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	111.15	207.25	3.94	0.53

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	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	-	1.56	3.06	-

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2024

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2021 1-9

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	2021 1-9	2020 1-9		
	37,389.57	16,329.89	21,059.67	128.96%
	5,627.12	-5,830.60	11,457.72	-

	<b>2021 1-9</b>	<b>2020 1-9</b>		
	5,738.27	-5,629.12	11,367.39	-
	5,704.87	-5,629.12	11,333.99	-
	5,796.38	-5,629.12	11,425.49	-
	-2,305.21	-6,887.65	4,582.44	-

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2 2020 1-9

2021 1-9

21,059.67

128.96%

11,425.49

4,582.44

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	<b>2021 9 30</b>		<b>2020 12 31</b>		<b>2019 12 31</b>		<b>2018 12 31</b>	
	203,685.11	86.85%	160,904.30	88.70%	85,655.87	79.75%	69,425.69	74.94%
	30,844.78	13.15%	20,502.61	11.30%	21,755.82	20.25%	23,218.87	25.06%
	<b>234,529.89</b>	<b>100%</b>	<b>181,406.91</b>	<b>100%</b>	<b>107,411.69</b>	<b>100%</b>	<b>92,644.56</b>	<b>100%</b>



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	<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>
	80,530.50	100,399.75	36,216.88	27,545.21
	0.45	0.12	0.18	0.15
	76,631.38	94,977.90	34,685.21	26,240.51
	3,898.67	5,421.73	1,531.49	1,304.55

	<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>
	-	-	140.02	-
	<b>3,898.67</b>	<b>5,421.73</b>	<b>1,671.51</b>	<b>1,304.55</b>

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	<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>
	12,356.92	7,406.55	13,476.81	6,540.84
	129.80	217.38	337.95	268.85
	12,227.12	7,189.17	13,138.86	6,271.99
	1.05%	2.93%	2.51%	4.11%

	<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>
	12,356.92	7,406.55	13,476.81	6,540.84
	66.84%	-45.04%	106.04%	-
	37,389.57	43,562.77	25,125.15	7,064.40
	-	73.38%	255.66%	-
	-	17.00%	53.64%	92.59%

2021 1-9

2018-2020

2020

2018

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2018

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5,046.31

2019

2020

	2021 9 30		2020 12 31		2019 12 31		2018 12 31	
6	12,226.12	98.94%	6,536.83	88.26%	12,232.00	90.76%	5,232.91	80.00%
7-12	120.82	0.98%	9.98	0.13%	26.13	0.19%	189.79	2.90%
1-2	9.98	0.08%	408.71	5.52%	1,002.29	7.44%	439.60	6.72%
2-3	-	-	451.03	6.09%	9.39	0.07%	624.76	9.55%
3-4	-	-	-	-	207.00	1.54%	53.78	0.82%

	2021		2020		2019		2018	
	9	30	12	31	12	31	12	31
6	12,226.12	122.26	6,536.83	65.37	12,232.00	122.32	5,232.91	52.33
7-12	120.82	6.04	9.98	0.50	26.13	1.31	189.79	9.49
1-2	9.98	1.50	408.71	61.31	1,002.29	150.34	439.60	65.94
2-3	-	-	451.03	90.21	9.39	1.88	624.76	124.95
3-4	-	-	-	-	207.00	62.10	53.78	16.14
	<b>12,356.92</b>	<b>129.80</b>	<b>7,406.55</b>	<b>217.38</b>	<b>13,476.81</b>	<b>337.95</b>	<b>6,540.84</b>	<b>268.85</b>

%

2018	6	1.00	5.00	1.00	1.00	1.00
	7-12	5.00	5.00	5.00	5.00	5.00
	1-2	15.00	10.00	10.00	15.00	15.00
	2-3	20.00	30.00	20.00	20.00	20.00
	3-4	30.00	50.00	25.00	30.00	30.00
	4-5	50.00	80.00	30.00	50.00	50.00
	5	100.00	100.00	100.00	100.00	100.00
2019	6	2.75	5.00	1.00	1.00	1.00
	7-12	2.75	5.00	5.00	5.00	5.00
	1-2	24.63	10.00	10.00	15.00	15.00
	2-3	70.86	30.00	20.00	20.00	20.00
	3-4	99.58	50.00	25.00	30.00	30.00
	4-5	100.00	80.00	30.00	50.00	50.00
	5	100.00	100.00	100.00	100.00	100.00
2020	6	2.20	5.00	1.00	1.00	1.00
	7-12	2.20	5.00	5.00	5.00	5.00

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	1-2	14.84	10.00	10.00	15.00	15.00
	2-3	60.78	30.00	20.00	20.00	20.00
	3-4	96.49	50.00	25.00	30.00	30.00
	4-5	100.00	80.00	30.00	50.00	50.00
		100.00	100.00	100.00	100.00	

		1,569.72	11.65%
		1,158.66	8.60%
		<b>11,820.32</b>	<b>87.72%</b>
2018 12 31		3,342.29	51.10%
		1,734.01	26.51%
		317.89	4.86%
		300.31	4.59%
		252.72	3.86%
		<b>5,947.22</b>	<b>90.92%</b>

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ICRD

GLOBAL FUNDAMENTAL LIMITED

	<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>
	12,356.92	7,406.55	13,476.81	6,540.84
	11,209.07	6,954.40	13,422.71	6,540.84
	90.71%	93.90%	99.60%	100.00%

	2021		2020		2019		2018	
	9	30	12	31	12	31	12	31
	18,917.83	19.10%	8,916.73	17.02%	5,919.63	16.54%	10,260.48	31.04%
	19,012.47	19.20%	5,204.95	9.94%	6,274.73	17.54%	2,525.28	7.64%
	1,599.90	1.62%	1,414.76	2.70%	-	0.00%	3,135.06	9.49%
	59,321.12	59.90%	36,746.35	70.15%	23,503.18	65.68%	17,016.48	51.48%
	138.36	0.14%	85.61	0.16%	74.85	0.21%	101.38	0.31%
	42.17	0.04%	12.76	0.02%	10.61	0.03%	13.42	0.04%
	<b>99,031.84</b>	<b>100.00%</b>	<b>52,381.17</b>	<b>100.00%</b>	<b>35,782.99</b>	<b>100.00%</b>	<b>33,052.11</b>	<b>100.00%</b>
	-1,193.01	-1.20%	1,173.13	2.24%	785.31	2.19%	819.34	2.48%
	<b>97,838.83</b>	<b>98.80%</b>	<b>51,208.04</b>	<b>97.76%</b>	<b>34,997.69</b>	<b>97.81%</b>	<b>32,232.77</b>	<b>97.52%</b>

99.66% 99.76% 99.81%

99.82%

a

2019 2018 4,340.85 42.31%  
 2018 demo 2018

demo

2018

2018

2020 2021 9

b

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3 0 1 1

5,660.35

6,274.73      6,619.72      20,612.37

c

	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	<b>9 30</b>	<b>12 31</b>	<b>12 31</b>	<b>12 31</b>
	1,181.67	1,164.17		

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2018	579.32	284.53	44.51	819.34
2019	819.34	14.90	48.93	785.31
2020	785.31	521.14	142.28	1,164.17
2021 1-9	1,164.17	169.67	152.17	1,181.67

100%

b

2020 TFLITE 8.96 2021  
 9 1.65

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Demo

Demo

Demo

4

**2021**  
**9 30**

**2020**  
**12 31**

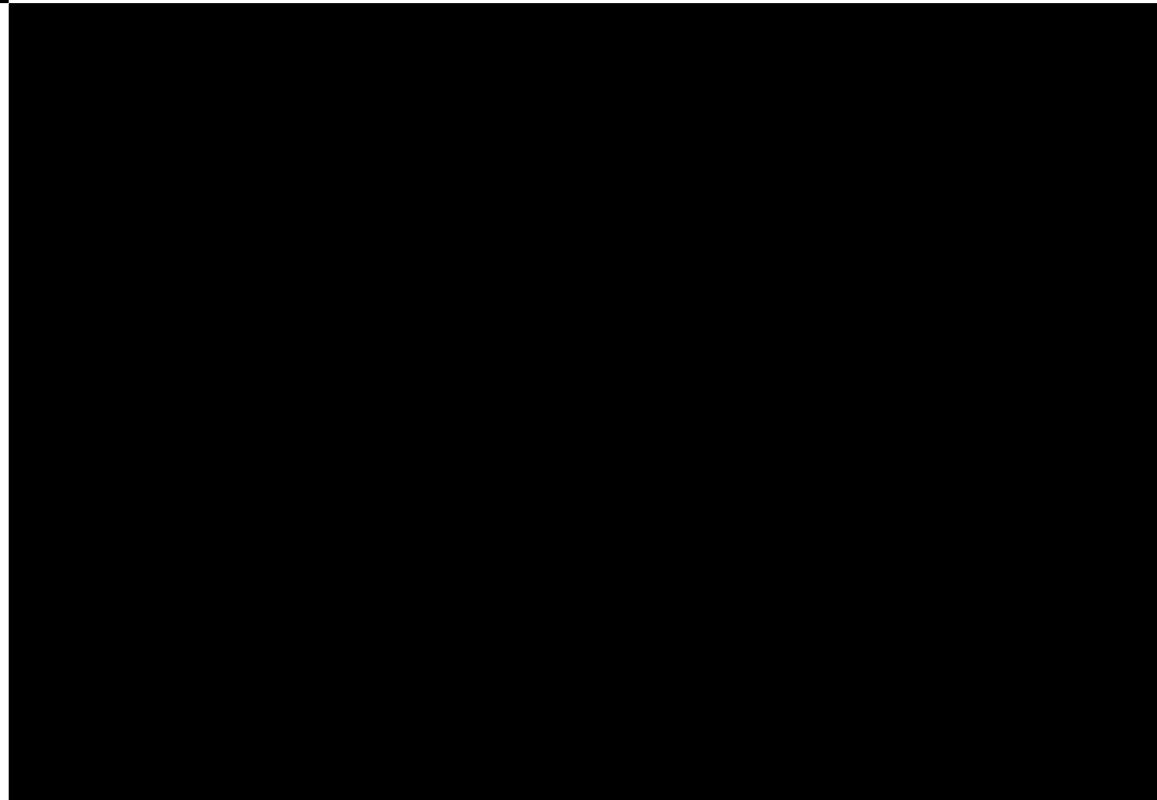
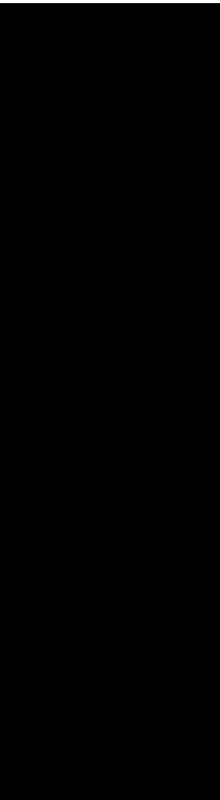
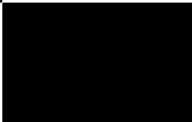
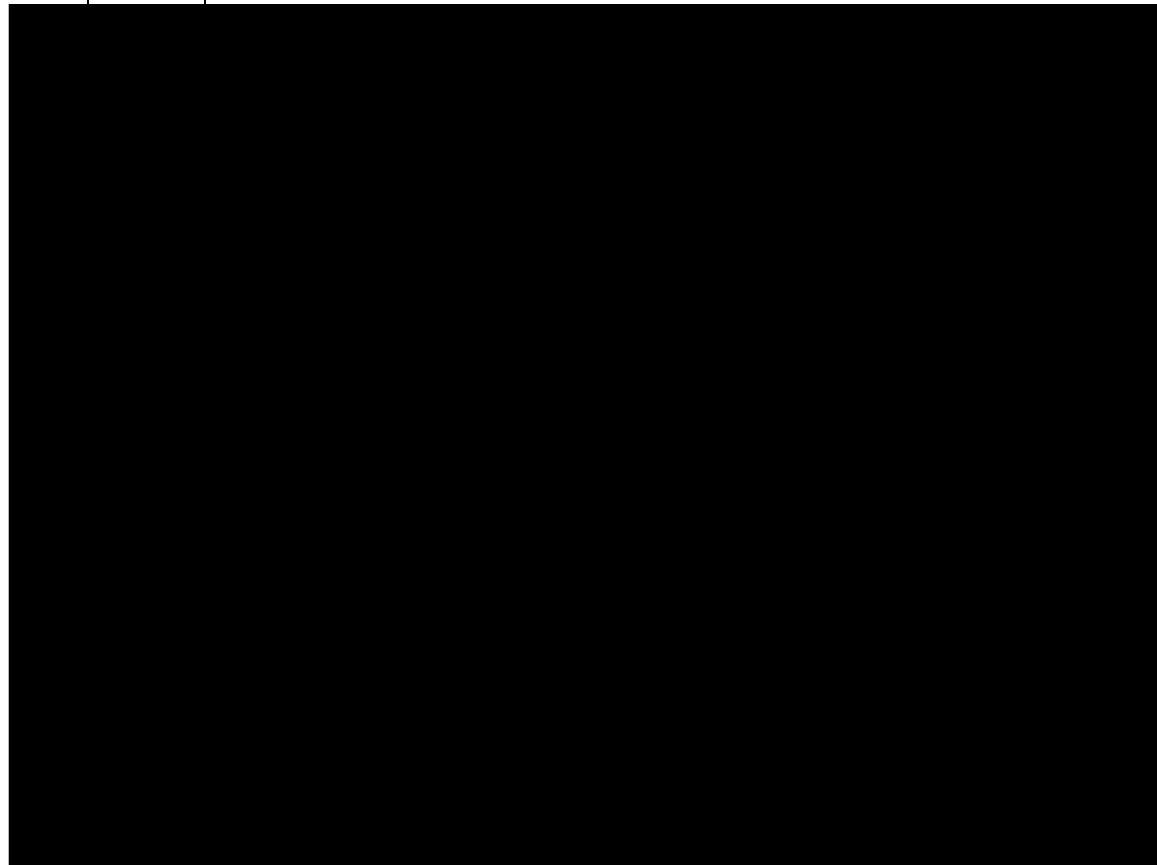
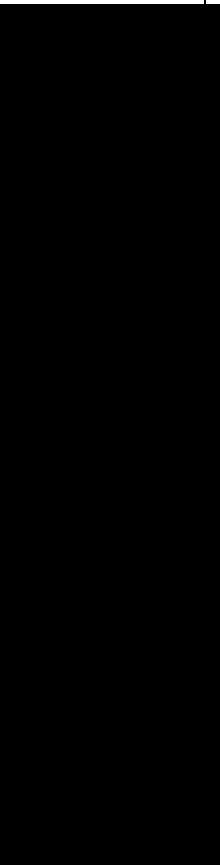
	2021		2020		2019		2018	
	9	30	12	31	12	31	12	31
1-2	46.12	6.92	14.44	2.17	12.05	1.81	105.13	15.77
2-3	6.67	1.33	6.68	1.34	105.03	21.01	0.64	0.13
3-4	0.02	0.00	105.00	31.50	0.20	0.06	1.18	0.35
4-5	-	-	-	-	1.18	0.59	-	-
	<b>443.23</b>	<b>18.45</b>	<b>338.10</b>	<b>37.65</b>	<b>360.10</b>	<b>53.17</b>	<b>1,060.93</b>	<b>25.81</b>

2019  
SSNEGroup, Inc. 27.29 2020  
1 1  
2017  
105.00 2021  
5  
278.27 207.80 368.10  
4,504.38 2018 2020  
2021 9  
ICRD 2,512.51

	2021		2020		2019		2018	
	9	30	12	31	12	31	12	31
1	4,463.06	99.08%	324.61	88.19%	163.80	78.83%	256.32	92.11%
1-2	-	0.00%	-	0.00%	44.00	21.17%	21.95	7.89%
2-3	41.32	0.92%	43.49	11.81%	-	0.00%	-	0.00%

2021		2020	
9	30	12	31
-	0.00%	-	0.00%

2018		
9	12	31
-	0.00%	- 0.00%



	2021		2020		2019		2018	
	9	30	12	31	12	31	12	31
	-	0.00%	-	0.00%	-	0.00%	6.00	0.03%
	15,839.98	51.35%	16,469.53	80.33%	17,783.09	81.74%	19,101.81	82.27%
	10,039.34	32.55%	-	0.00%	-	0.00%	-	0.00%
	167.88	0.54%	-	0.00%	-	0.00%	-	0.00%
	3,676.34	11.92%	3,819.84	18.63%	3,972.73	18.26%	4,084.66	17.59%
	140.30	0.45%	-	0.00%	-	0.00%	-	0.00%
	980.94	3.18%	213.24	1.04%	-	0.00%	26.40	0.11%
	<b>30,844.78</b>	<b>100.00%</b>	<b>20,502.61</b>	<b>100.00%</b>	<b>21,755.82</b>	<b>100.00%</b>	<b>23,218.87</b>	<b>100.00%</b>

99.86% 100% 98.96% 95.82%

2021 9 2020 10,342.18  
10,039.34

1

	2021		2020		2019		2018	
	9	30	12	31	12	31	12	31
	10,922.33	68.95%	11,409.31	69.28%	12,082.34	67.94%	12,751.62	66.76%
	294.33	1.86%	210.21	1.28%	158.44	0.89%	195.67	1.02%
	4,570.79	28.86%	4,838.89	29.38%	5,519.09	31.04%	6,119.24	32.03%
	52.53	0.33%	11.12	0.07%	23.22	0.13%	35.28	0.18%

	2021		2020		2019		2018	
	9	30	12	31	12	31	12	31
	15,839.98	100.00%	16,469.53	100.00%	17,783.09	100.00%	19,101.81	100.00%

98.79% 98.98% 98.66% 97.81%

a

	2021	2020	2019	2018
	9	12	12	12
	30	31	31	31
	14,107.99	14,090.19	14,090.19	14,090.19
	789.93	654.40	535.22	466.66
	7,400.03	7,158.61	7,200.19	7,083.50
	142.03	90.80	106.32	106.32
	<b>22,439.98</b>	<b>21,993.99</b>	<b>21,931.91</b>	<b>21,746.67</b>
	3,185.65	2,680.88	2,007.85	1,338.57
	495.60	444.18	376.78	270.99
	2,829.25	2,319.71	1,681.10	964.26
	89.50	79.68	83.10	71.04
	<b>6,600.00</b>	<b>5,524.46</b>	<b>4,148.83</b>	<b>2,644.85</b>
	10,922.33	11,409.31	12,082.34	12,751.62
	294.33	210.21	158.44	195.67
	4,570.79	4,838.89	5,519.09	6,119.24
	52.53	11.12	23.22	35.28
	<b>15,839.98</b>	<b>16,469.53</b>	<b>17,783.09</b>	<b>19,101.81</b>

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2021 1-9

10,039.34

b

				%
			20	5
			3-7	0-5
			3-10	5
			3	0
			5	5
			20	5
			5-10	5
			5	5
			5	5
			10	5
			5-10	5
			3-5	5
			5	5
			4-5	5
			10	3
			3	3

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				%
			5	3
			5	3
			4	3
			20	5
			3-5	5

5-10

	2021 9 30		2020 12 31		2019 12 31		2018 12 31	
	3,402.84	62.64%	3,402.84	63.15%	3,402.84	64.42%	3,402.84	66.16%
	1,548.94	28.52%	1,548.94	28.75%	1,548.94	29.33%	1,410.00	27.42%
	480.19	8.84%	436.65	8.10%	330.19	6.25%	330.19	6.42%
	<b>5,431.97</b>	<b>100.00%</b>	<b>5,388.43</b>	<b>100.00%</b>	<b>5,281.97</b>	<b>100.00%</b>	<b>5,143.03</b>	<b>100.00%</b>

93.58% 93.75% 91.90% 91.16%

	2021 9 30		2020 12 31		2019 12 31		2018 12 31	
	460.74	26.24%	409.52	26.11%	341.23	26.06%	272.94	25.79%
	1,139.42	64.90%	1,046.58	66.72%	891.69	68.11%	742.58	70.16%
	155.47	8.86%	112.49	7.17%	76.32	5.83%	42.84	4.05%
	<b>1,755.63</b>	<b>100.00%</b>	<b>1,568.59</b>	<b>100.00%</b>	<b>1,309.24</b>	<b>100.00%</b>	<b>1,058.37</b>	<b>100.00%</b>

	2021 9 30		2020 12 31		2019 12 31		2018 12 31	
	91,254.93	78.33%	39,354.60	56.91%	20,111.21	77.40%	17,580.20	75.68%
	25,247.45	21.67%	29,802.43	43.09%	5,873.52	22.60%	5,649.02	24.32%
	<b>116,502.38</b>	<b>100.00%</b>	<b>69,157.03</b>	<b>100.00%</b>	<b>25,984.73</b>	<b>100.00%</b>	<b>23,229.21</b>	<b>100.00%</b>

75.68% 77.40% 56.91% 78.33%

2

	2021 9 30		2020 12 31		2019 12 31		2018 12 31	
	-	0.00%	-	0.00%	-	0.00%	3,015.67	17.15%
	12,086.67	13.24%	9,158.62	23.27%	3,622.92	18.01%	2,917.57	16.60%
	26,440.52	28.97%	12,242.51	31.11%	8,239.36	40.97%	6,093.08	34.66%
	-	0.00%	-	0.00%	5,600.21	27.85%	4,684.20	26.64%
	44,514.16	48.78%	13,425.71	34.11%	-	0.00%	-	0.00%
	1,873.61	2.05%	2,242.46	5.70%	1,108.20	5.51%	671.68	3.82%
	487.45	0.53%	505.88	1.29%	219.88	1.09%	180.13	1.02%
	4.78	0.01%	34.09	0.09%	1,320.64	6.57%	17.88	0.10%
	61.04	0.07%	-	0.00%	-	0.00%	-	0.00%



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	2019		2018	69.38%
	2018	19,110.23	2019	20,194.48
2019		2018		

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13,425.71	44,514.16				
			4,684.20	5,600.21	0.00
0.00	2020	1	1		
	2020		0	2020	2021 9
	13,425.71		44,514.16		
5					
			671.68	1,108.20	2,242.46
1,873.61					
2021 9			2020		2020
6					

	<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>
	252.44	-	-	-
	173.62	-	-	-
	33.01	482.25	194.39	159.93
	11.79	11.82	11.74	11.79
	5.21	5.21	5.21	5.21
	11.39	6.59	8.54	3.19
	<b>487.45</b>	<b>505.88</b>	<b>219.88</b>	<b>180.13</b>

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7

17.88      1,320.64      34.09  
4.78      2019      2019  
1,258.00      2020

8

2020      2021      9      1,745.34  
5,786.69      2020  
2021      9      13%

3

	2021	9	30	2020	12	31	2019	12	31	2018	12	31
	-		0.00%	-		0.00%	-		0.00%	35.10		0.62%
	89.50		0.35%									

1

2018-2020

2

	<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>
	21,623.11	27,040.47	4,623.03	5,262.44
	-	-	-	-33.00
	<b>21,623.11</b>	<b>27,040.47</b>	<b>4,623.03</b>	<b>5,229.44</b>

> b3B@iN\$RBr8N6

	<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>	
A	6,041.18	10,734.42	-	-	
	4,503.04	4,788.15	-	-	
PECVD B	3,413.66	4,906.21	-	-	
PECVD B	450.00	450.00	-	-	
ALD A	3,373.05	2,135.08	-	-	
02	1,956.64	2,174.77	2,468.22	2,768.90	
	1,055.11	1,171.88	1,327.59	1,483.29	>Ct×

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	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	
	<b>9 30</b>	<b>12 31</b>	<b>12 31</b>	<b>12 31</b>	
" "	62.50	70.82	-	-	
	31.62	36.03	41.94	52.04	
	20.00	-	-	-	
	18.53	-	-	-	

"

"

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2019                2018                        2021    9                2020  
                                2020                                        2019  
                                2020  
     2020  
                                2020

3

		<b>2021</b> <b>9    30</b>	<b>2020</b> <b>12   31</b>	<b>2019</b> <b>12   31</b>	<b>2018</b> <b>12   31</b>
		7.65	3.41	4.29	2.12
		1.68	2.58	5.84	2.35
			2.39	2.93	1.34
			1.76	1.30	1.79
		<b>4.66</b>	<b>2.54</b>	<b>3.59</b>	<b>1.90</b>
		<b>2.23</b>	<b>4.09</b>	<b>4.26</b>	<b>3.95</b>
		6.69	2.54	3.08	1.19
		0.72	1.58	4.69	1.19
			1.36	2.18	0.71
			0.94	0.54	0.75
		<b>3.71</b>	<b>1.61</b>	<b>2.62</b>	<b>0.96</b>
		<b>1.16</b>	<b>2.79</b>	<b>2.52</b>	<b>2.12</b>
		12.89%	24.68%	21.43%	40.09%
		51.43%	34.79%	18.93%	42.09%
			43.12%	36.55%	77.19%
			58.98%	80.10%	102.95%

		<b>2021</b> <b>9 30</b>	<b>2020</b> <b>12 31</b>	<b>2019</b> <b>12 31</b>	<b>2018</b> <b>12 31</b>
		<b>32.16%</b>	<b>40.39%</b>	<b>39.25%</b>	<b>65.58%</b>
		<b>49.67%</b>	<b>38.12%</b>	<b>24.19%</b>	<b>25.07%</b>

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	<b>2021</b> <b>1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	71,462.90	64,036.36	21,876.12	11,450.60
	37,389.57	43,562.77	25,125.15	7,064.40
/	191.13%	147.00%	87.07%	162.09%

85%

2

-12,801.52

-2,175.61

30,891.27

-7,597.27

2018-2020

2018

2019

2020

2021

1-9

	<b>2021 1-9</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
	<b>-7,597.27</b>	<b>30,891.27</b>	<b>-2,175.61</b>	<b>-12,801.52</b>
	<b>5,704.87</b>	<b>-1,169.99</b>	<b>-1,936.64</b>	<b>-10,322.29</b>
	<b>-13,302.14</b>	<b>32,061.26</b>	<b>-238.96</b>	<b>-2,479.23</b>
	17.91	426.41	111.36	288.26
	1,102.12	1,454.98	1,506.53	1,480.66
	16.53			
	187.04	259.35	250.87	242.19
" "	1.30	0.48	-	0.74
" "	-	1.48	2.06	-
" "	-36.03	119.38	35.07	107.55
" "	-140.22			
" "	-46,802.84	-16,740.45	-2,779.82	-10,590.24
" "	-7,478.68	2,802.39	-5,024.08	2,232.78
" "	39,757.97	43,044.33	5,460.78	3,565.87
	72.76	692.91	198.25	192.96
	<b>-13,302.14</b>	<b>32,061.26</b>	<b>-238.96</b>	<b>-2,479.23</b>

2020

32,061.26

2020

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-270.97 -1,437.47

-584.23 -10,427.23

2021 1-9

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-4,528.72

11,917.78 30,244.99 -359.56

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2021 1-9

/%

	2021 1-9	2020 1-9		/%
	71,462.90	22,415.73	49,047.17	218.81%
	68,668.58	28,776.28	39,892.30	138.63%
	-7,597.27	-11,078.32	3,481.05	
	-10,427.23	-358.41	-10,068.82	
	-359.56	30,194.99	-30,554.55	

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556.57 1,437.47 631.02

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	2021 1-9	2020	2019	2018
	3.78	4.17	2.51	1.22
	0.27	0.65	0.50	0.17

2021 1-9

2020

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2018-2020

		2020	2019	2018
		7.22	4.82	3.40
		4.33	3.63	5.02
		4.19	3.80	3.91
		3.85	5.37	1.40
		<b>4.90</b>	<b>4.41</b>	<b>3.43</b>
		<b>4.17</b>	<b>2.51</b>	<b>1.22</b>
		1.20	1.01	0.94



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	7,986.46	7,986.46	> 2103-210112-04-02-424612 <
	39,948.34	39,948.34	< 2103-210112-04-02-185923 >
ALD	27,094.85	27,094.85	2108-310115-04-05-492438
	25,000.00	25,000.00	
	<b>100,029.65</b>	<b>100,029.65</b>	-

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28nm-10nm      PECVD

10nm      PECVD      UV Cure

**2**

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<b>1</b>		<b>8,052.02</b>	<b>20.16%</b>
1.1		8,052.02	20.16%
<b>2</b>		<b>31,113.023</b>	<b>77.88%</b>
2.1		4,284.32	10.72%
2.2		5,300.00	13.27%

2.3





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7

PECVD

ALD 争

1

ALD

ALD

28nm-10nm ALD

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3

<b>1</b>		<b>12,186.98</b>	<b>44.98%</b>
1.1		6,877.10	25.38%
1.2		289.52	1.07%
1.3		2,064.80	7.62%
1.4		738.51	2.73%
1.5		2,217.05	8.18%
<b>2</b>		<b>13,204.20</b>	<b>48.73%</b>
2.1		3,119.20	11.51%
2.2		600.00	2.21%
2.3		9,485.00	35.01%

<b>3</b>	<b>2%</b>	<b>507.83</b>	<b>1.87%</b>
<b>4</b>		<b>1,195.84</b>	<b>4.41%</b>
		<b>27,094.85</b>	<b>100.00%</b>

**3**

36

		<b>T+6</b>	<b>T+12</b>	<b>T+18</b>	<b>T+24</b>	<b>T+30</b>	<b>T+36</b>
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2021 8 17

2108-310115-04-05-492438

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ALD

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SiO<sub>2</sub> PE-ALD  
ALD ALD

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PE-ALD

SACVD

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PECVD

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Thermal ALD

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	2018	2,441.00	PECVD		
	2019	12,517.91			
	2020	16,343.19			
	2021	20,721.70			
		<b>52,023.80</b>			
	2018	2,966.07	PECVD		2018 10 15
	2019	7,356.15			

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		<b>4,847.60</b>			
	2021	2,920.00	PECVD		
		<b>2,920.00</b>			

<b>2020</b>					
Brooks Automation, Inc.	2020/10/13	USD	348.18		
XP POWER LLC	2020/3/19	USD	248.12		
MKS Instruments Hong Kong Limited	2020/10/16	USD	232.28		
Rorze Corporation	2020/6/29	JPY	23,318.13		
XP POWER LLC	2020/7/22	USD	146.49		

**2019**

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					%	
2017.8.11		5500.00	5,614.4933	6	5.539	

1

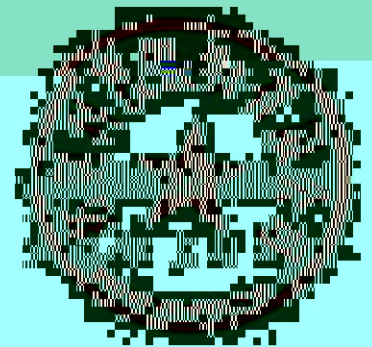
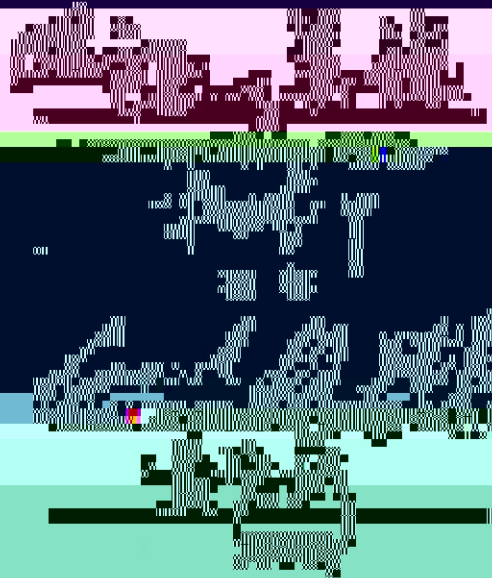
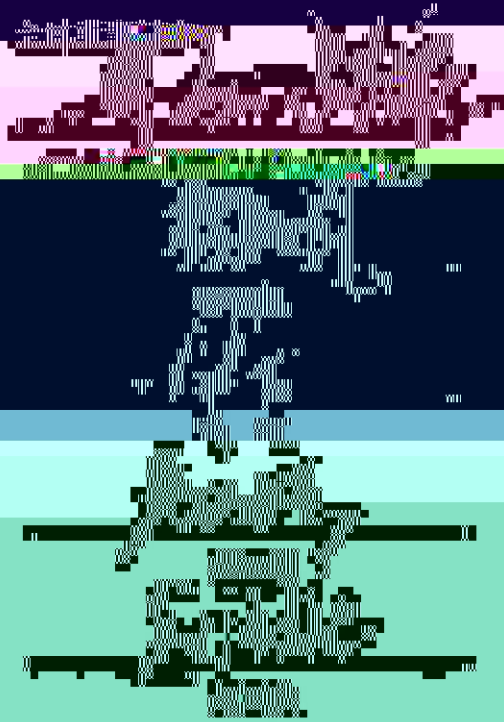
						%	
2017.6.28		1	5,011.92	4,500.00	6	5.6239	
		2					
		3					
		4					



## 第十二节 声明

### 一、发行人全体董事、监事、高级管理人员声明

本公司全体董事、监事、高级管理人员承诺：本募集说明书引用的财务报告数据真实、准确、完整，不存在虚假记载、误导性陈述或重大遗漏。如有虚假记载、误导性陈述或重大遗漏，本公司全体董事、监事、高级管理人员愿意承担相应的法律责任。



一、发行人全体董事、监事、高级管理人员声明

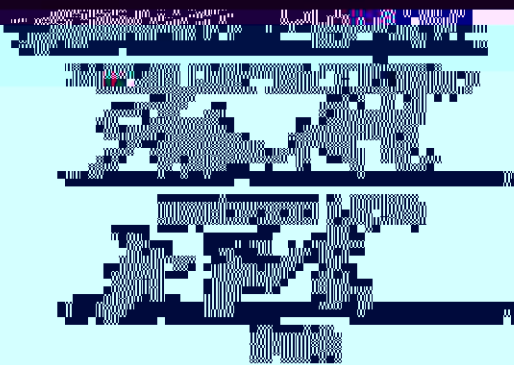
责任。

全体董事签字：

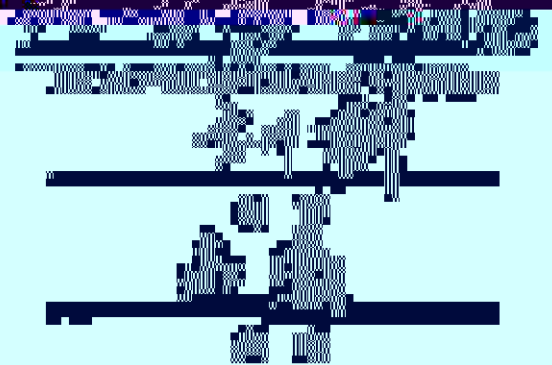


## 一、发行人全体董事、监事、高级管理人员声明

本公司全体董事、监事、高级管理人员承诺本招股意向书不存在虚假记载、误导性陈述或重大遗漏，并承担相应的法律责任。



Red circular stamp of the Board of Directors. The text inside the stamp is illegible due to heavy redaction.



Red circular stamp of the Board of Supervisors. The text inside the stamp is illegible due to heavy redaction.



Red circular stamp of the Senior Management. The text inside the stamp is illegible due to heavy redaction.


## 二、发行人主要股东声明

本公司对本次发行上市招股说明书不存在虚假记载、误导性陈述或者重大遗漏，并对其真实性、准确性、完整性及个别和局部的法律责任。

法定代表人签字：

\_\_\_\_\_

楼宇光



国家集成电路产业投资基金股份有限公司



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### 三、保荐人（主承销商）声明

本公司已对招股意向书进行了核查，确认了



初版白皮书的吉

环境信用评级法定代表人：

霍二达



2022年 月 日

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## 联席主承销商声明

本公司已对招股意向书进行了核查，确认不存在虚假记载、误导性陈述或重大遗漏，并对其真实性、准确性、完整性承担相应的法律责任。



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## 发行人律师声明

本所及经办律师已阅读招股意向书，确认招股意向书与本所出具的法律意见书和律师工作报告无矛盾之处。本所及经办律师对发行人在招股意向书中引用的法律意见书和律师工作报告的内容无异议，确认招股意向书不致因上述内容而出



天健会计师事务所  
Pan-China Certified Public Accountants

地址：杭州市钱江路1366号  
邮编：310020  
电话：(0571) 8821 6888  
传真：(0571) 8821 6999

## 审计机构声明

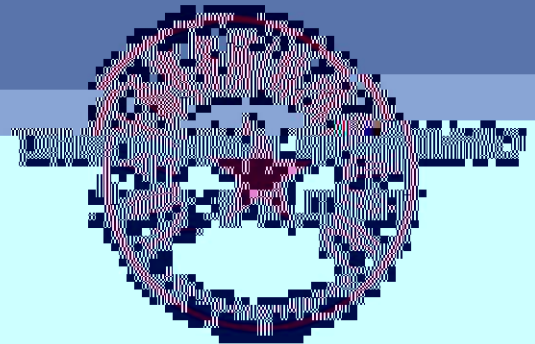
本会计师事务所已阅读《招商科技股份有限公司首次公开发行股票招股说明书》

天健会计师事务所  
TIANJIAN CPAs

天健会计师事务所  
TIANJIAN CPAs

天健会计师事务所  
TIANJIAN CPAs

天健会计师事务所  
TIANJIAN CPAs



十、 资产评估机构声明

我们或重大遗漏，并对其实质性和准确性、完整性承担相应的法律责任。

评估机构负责人：

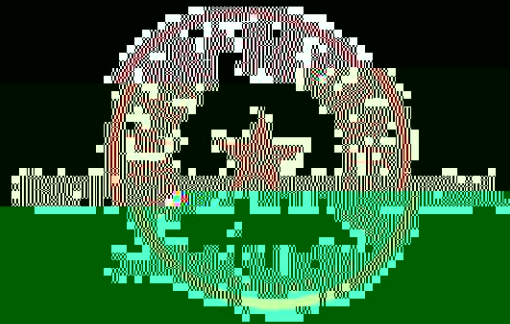
权恩完

资产评估师

王晨煜

资产评估师

王晨煜



## 七、资产评估机构声明（二）

本机构及签字注册资产评估师已阅读招股意向书，确认招股意向书与本机构出具的沃克森国际评报字（2021）第 0620 号追溯资产评估报告、沃克森国际评报字（2021）第 0621 号追溯资产评估报告无矛盾之处。本机构及签字注册资产评估师对招股意向书中涉及资产评估相关内容，如招股意向书引用的资产评估报告结论、资产评估假设前提、评估方法选择或重大假设、评估程序、评估结论、评估报告内容的真实性、准确性、完整性承担相应的法律责任。

评估机构负责人：

  
徐伟建

签字资产评估师：

  
徐海鹏

  
徐伟建

沃克森（北京）国际资产评估有限公司

2022 年 3 月 29 日





地址：杭州市钱江路1366号

邮编：310020

电话：(0571) 8921 8888

传真：(0571) 8921 6999

# 验资机构声明

本所及签字注册会计师已阅读《拓荆科技股份有限公司首次公开发行股票并

本所及签

承销意向书》，确认招股意向书与本所出具

的《验资报

告》(天健验(2021)120号)的内容无矛盾之处。本所及签字注册

陈海  
印

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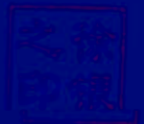
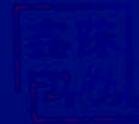
王海  
印





## 验资复核机构声明

本所及签字注册会计师已阅读《拓荆科技股份有限公司首次公开发行股票并在科创板上市招股意向书》（以下简称招股意向书），确认招股意向书与本所出具的《宁波临空资本复核报告》（天健验（2021）116号）的内容无矛盾之处。本所及签字注册会计师对拓荆科技股份有限公司在招股意向书中引用的上述报告的内容无异议，确认招股意向书不存在因上述内容而出现虚假记载、误导性陈述或重大遗漏，并对引用的上述内容的真实性、准确性和完整性承担相应责任。



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1	900-1 1-4		2019 0290319	9,235.07		
2	900-2 1-2		2019 0290359	9,615.08		
3	900-3		2019 0290352	13,242.99		
4	900-4		2019 0290346	5,929.75		
5	900-5		2019 0290340	12.25		
6	900-6		2019 0290330	30.25		

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1			9 4 SZ10-R59	8		2021.6.1-2022.5.31
2			501 403	1 4 128.4		2021.10.9-2022.4.8

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5			100 E1 2FA	66.1		2021.1.1-2022.12.31
6			D108-1&D208-2	55.14		2020.12.21-2022.12.20
7			9 904 2	90		2021.6.16-2022.6.15
8			75 2401	100		2021.04.08-2022.04.07
9			28 1 401	125		2021.1.5-2023.1.4
10			7-1-1802	129.53		2020.11.1-2022.10.31
11			9-2-2404	130		2020.12.26-2022.12.25
12			49 4-16-1	80.63		2021.03.05-2022.03.04
13			389 42 301	110.56		2021.06.15-2024.06.14
14			38 3 301 A	129.32		2021.06.10-2022.06.09
15			C C-909	75.19		2021.06.10-2022.06.09
16			3 1 A 5 501-10	568		2021.07.01-2024.05.30
17			5	80.47		2021.05.12-2023.05.11
18			99 2# 203	354		2021.11.15-2026.12.14
19			10 2501	132.95		2021.11.20-2022.11.19
20			40 11 402	60		2021.12.17-2022.12.17

21			2# 901	144.72		2022.1.15-2023.1.14
22			168 3 1309	108.41		2022.1.20-2023.1.19
23			9#3001	111.1		2022.2.18-2023.1.17
24			99 16# 116	84		2022.1.1-2026.12.30

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1		48881796	37			2021.3.21-2031.3.20
2	<b>tech Pio</b>	42116687	37			2020.11.28-2030.11.27
3	ThinFilmLite	38930046	7			2020.02.21-2030.02.20

4	ThinFilmLite	38930045	37			2020.02.21-2030.02.20
5	<b>TFLITE</b>	38930044	7			2020.02.21-2030.02.20
6	<b>TFLITE</b>	38930043	37			2020.02.21-2030.02.20
7	<b>Piotech</b>	34370246	7			2021.01.14-2031.01.13
8	<b>Piotech</b>	34357464	11			2021.01.14-2031.01.13
9	<b>Piotech</b>	34346794	37			2019.10.14-2029.10.13
10	<b>拓荆科技</b>	30904119	7			2019.02.21-2029.02.20
11	<b>拓荆科技</b>	30904118	11			2019.02.21-2029.02.20
12	<b>拓荆科技</b>	30904117	37			2019.02.21-2029.02.20
13		30904116	7			2020.08.28-2030.08.27
14		30904115	11			2020.03.28-2030.03.27
15		30904114	37			2020.11.28-2030.11.27
16		30904113	7			2019.06.28-2029.06.27
17		30904112	11			2019.02.21-2029.02.20
18		30904111	37			2019.02.21-2029.02.20
19		9336023	9			2012.04.28-2022.04.27
20		9335971	9			2014.06.14-2024.06.13

21		13894102	9			2015.2.21-2025.2.20
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1	<b>拓荆科技</b>	01972025	37			2019.02.16-2029.02.15
2		01960373	7 37			2018.12.16-2028.12.15
3		01965559	37			2019.01.16-2029.01.15
4		01965564	37			2019.01.16-2029.01.15
5		01965560	37			2019.01.16-2029.01.15
6	<b>拓荆科技</b>	01758765	7			2016.03.16-2026.03.15
7	<b>Piotech</b>	01794521	7			2016.10.01-2026.09.30

2		6350900	7 37			2020.08.31-20 30.08.31	

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3		ZL201510 367887.2			2015.06.29	2020.10.30	
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17	ZL201610 695640.8								
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42		ZL201510 516352.7			2015.08.21	2018.01.12	
43		ZL201510 178153.X			2015.04.15	2017.11.21	
44		ZL201510 582457.2			2015.09.14	2017.11.21	
45		ZL201510 152481.2			2015.04.01	2017.10.03	
46		ZL201510 541793.2			2015.08.28	2017.09.05	
47		ZL201510 359908.6			2015.06.25	2017.08.11	
48		ZL201510 179038.4			2015.04.15	2017.03.22	
49		ZL201410 240588.8			2014.05.30	2016.09.28	
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51		ZL201510 315852.4			2015.06.10	2016.09.28	
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69		ZL200610 046308.5			2006.04.14	2009.05.20	
70		ZL201820 036849.8			2018.01.10	2018.09.11	
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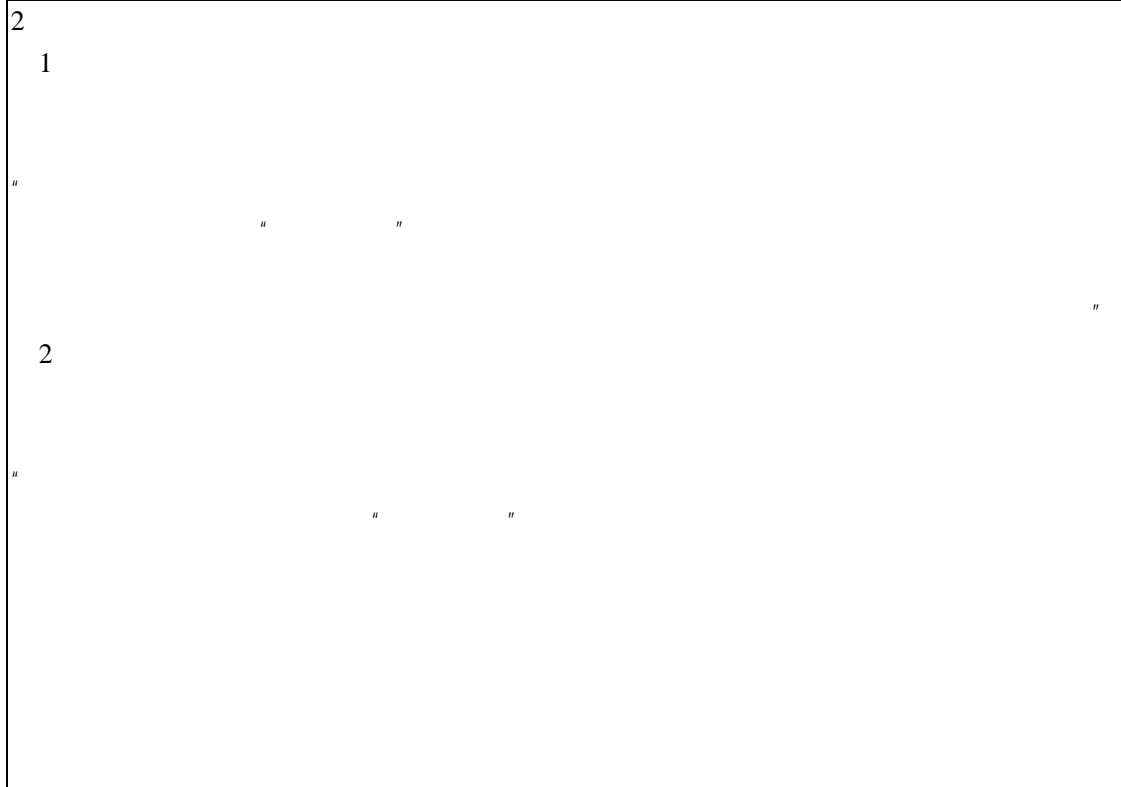
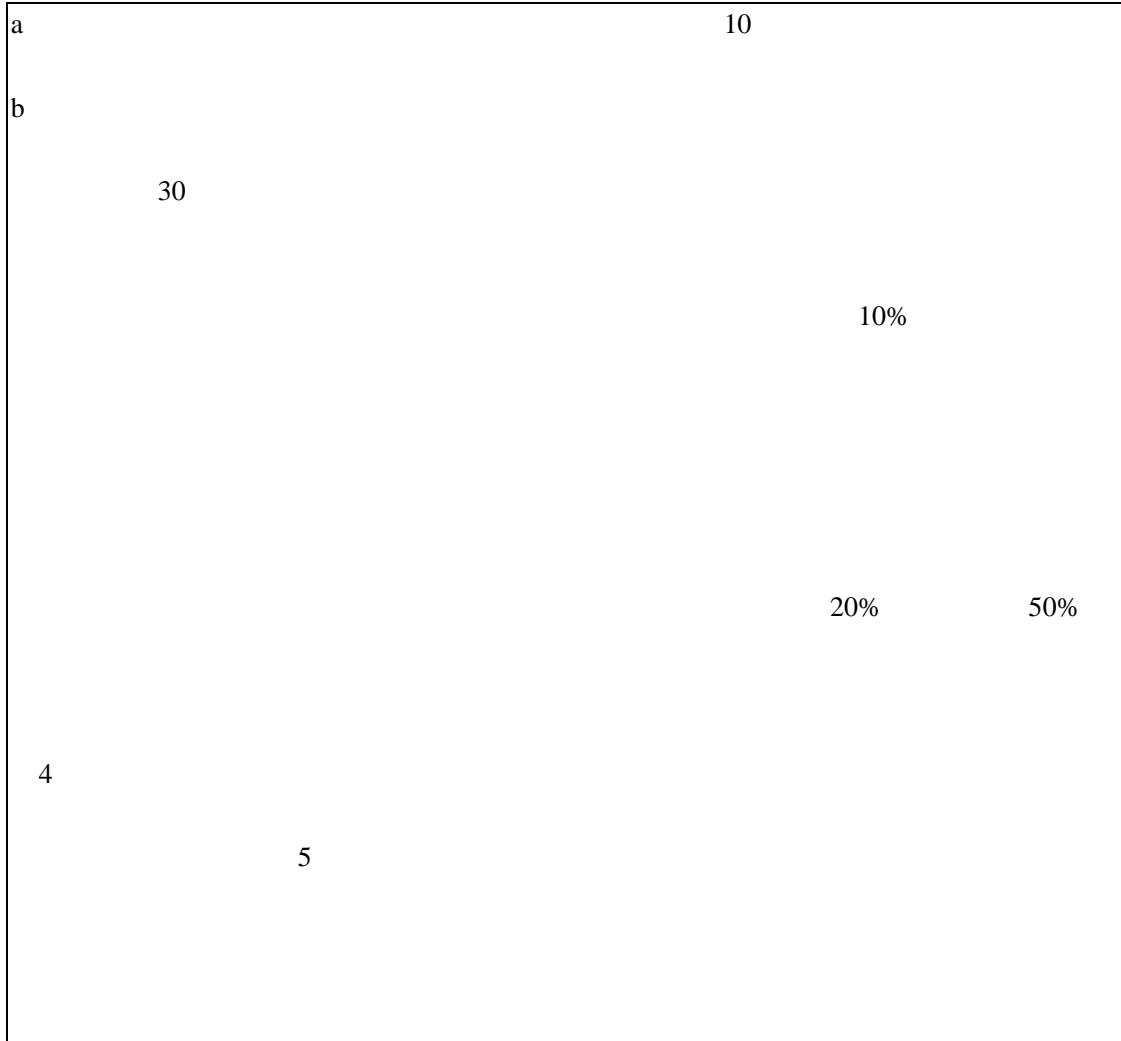
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