

本公司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的投资风险及本公司所披露的风险因素，审慎作出投资决策。



首次公开发行股票并在科创板上市招股说明书

保荐机构（主承销商）

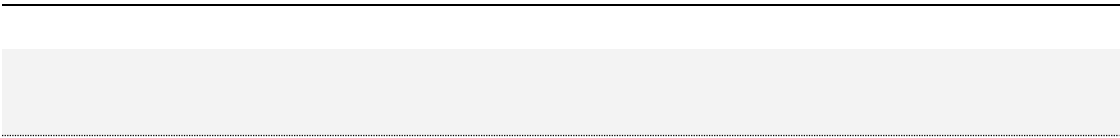
CMS 招商证券

（深圳市福田区福田街道福华一路 111 号）

联席主承销商

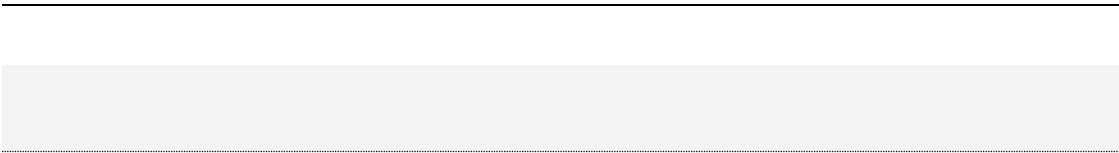
中信证券股份有限公司

招商证券股份有限公司





	A
	3,161.9800 25.00%
	1.00
	71.88
	2022 4 8
	12,647.8797
	2022 1 4
	2022 3 18
	308.0974
	9.74%
	22,256.7713
	12
	94.8594 6,818.4937 3%
	24
	2022 4 14



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%



6-24

3-24

PECVD

ALD

SACVD

SACVD

PECVD ALD
PECVD

PECVD

1-1-4

77.98% 100.00% 97.55%

88.69% ALD SACVD

ALD 14nm
17nm DRAM SACVD 40nm

ALD SACVD

SACVD ALD SACVD ALD

Demo

Demo

Demo

Demo

Demo

74

Demo

25

33.78%

Demo



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

	2021 10-12	2020 10-12		2021	2020	
	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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7

6.5710%

0.8212%

1

5,235.2715

39.6611%

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2021 8 6

2021

0107 2219

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2020 6-7

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2020 5

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2020 11 17

2021 8 6

2021 8 12

2022

2 25

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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%

55%

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10% 5%

2020 9

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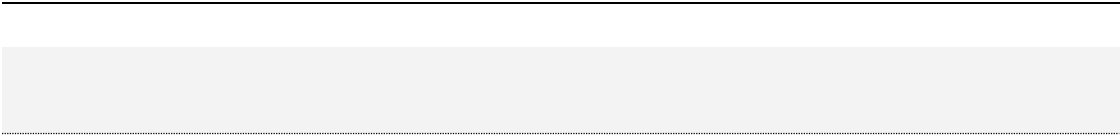
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20% 10%

98% 2%

98% 2%



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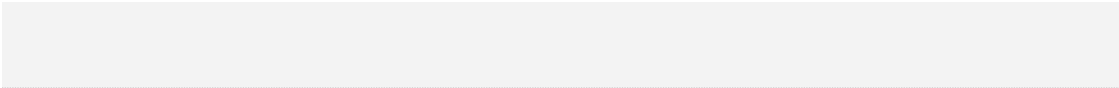
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5%	63
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1	332
2	332
3	334
4	337
5	345



		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

		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	
CMOS CMOS		Complementary Metal Oxide Semiconductor N-MOS P-MOS					

FinFET
FinFET

Fin Field-Effect Transistor

		PECVD
EFEM		Equipment front-end module
		SiO ₂ SiN SiON
SiO ₂		
TEOS		Tetraethyl orthosilicate SiO ₂
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 ₂ 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	



			2010 4 28
	9,485.8997		
	900		900
	C35		

	A		
	1.00		
	3,161.9800		
	3,161.9800		25%
	12,647.8797		
	71.88		

	12.45 9 30	2021	-0.60 2020
	26.16 9 30	2021	-0.45 2020
	2.75		
	A		
	227,283.12		
	212,759.73		
	ALD		
	1	500.00	11,636.54
	2	1,188.68	
	3	613.21	
	4		518.87
	5	66.10	
	1		13.86
		CA	

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

6

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

ALD

SACVD

PECVD



5

Demo

2019

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2016

2017

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PECVD SACVD

" 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

3

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

"		/
		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%
	100,029.65	100,029.65	100.00%





A1

	A
	1.00
	25.00% 3,161.9800
	71.88
	2022 1 4
	2022 3 18
	308.0974
	9.74% 22,256.7713
	12



	29 1-9
	010-88300772
	010-88300793

	20 3 22-31
	010-59572288
	010-65681022

	1366 B
	0571-88216888
	0571-88216999

	35
	010-65881818
	010-65882651

	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%
0.0000029%

22.29%

45.00%

26.48%

~~93.81%~~

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

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1		948,594	68,184,936.72	—	24
2		3,080,974	221,460,411.12	1,107,302.06	12
		4,029,568	289,645,347.84	1,107,302.06	—

2% 5%

10

5%

4,000

10

20

4%

6,000

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3%

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2%

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3%

94.8594

6,818.4937

2022 1 4

2022 3 18

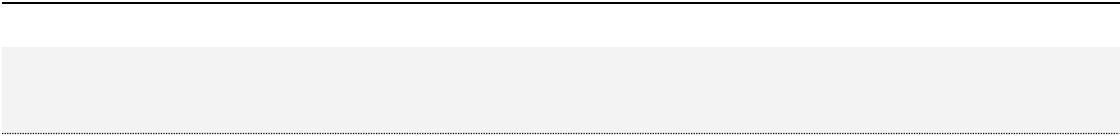
10% 316.1980

22,256.7750

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%		

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PECVD ALD SACVD

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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%



2020

2018

" " " " "

2020



2021 1 12

2021 6 15

94,858,997

2021 5 21

[2021]7249

2021 5 21

2018

	106,378.37	19,122.40	87,255.97	10,436.79	-4,696.17
	-8,318.81	-	-8,318.81	-	-2,057.36
	-4,224.60	3,000.62	-7,225.22	-3,366.87	-1,935.38
	-1,976.82	-	-1,976.82	-	-1,184.49
	1,427.02	1,427.02	-	-	-
	-685.99	-	-685.99	-	-685.99
	45.39	-320.83	366.22	-5.52	237.10
	-13,733.80	4,106.81	-17,840.62	-3,372.39	-5,626.12
	92,644.56	23,229.21	69,415.35	7,064.40	-10,322.29

2019

	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	-	-	-
	-	-	-	-	-390.48
	-	-196.46	196.46	-	-154.46
	-6,869.58	132.96	-7,002.55	-	-1,274.78
	107,411.69	25,984.73	81,426.96	25,125.15	-1,936.64

2020 2021 1-9

2021 5 21

[2021]120

			%
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
6		300.0000	3.1626
7		297.0297	3.1313
8		180.0180	1.8977
9		162.1622	1.7095
10		150.0000	1.5813

			%
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		140A3.704	

1

2020 5 31

-28,126.78

2

2020 6 1 2020 12 31

41,991.94

2,650.28

3

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

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

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

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
		7,117.4787	100.0000

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2019 5

2019 5

3.9646%

19 /

2019 5 6

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4.215%

2019 5

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2019

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2019 7

2.1075%

19.18 /

2,887.0245

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623.3158

77.8947

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2019 12 27

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2020 03003

2021 1 14

[2021]116

2014 5

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2014	5	2,750		272.2772	
	3,000		297.0297		1,000
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ALD

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

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

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2020.12.31/2020	5,566.58	515.63	-84.37
2021.9.30/2021 1-9	5,081.80	149.61	-366.02

5%

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1 2019 1 1 2021 1 12

2021 1 12

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1 2019 5 6
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2019 1 1 2021 1 12

2 2021 1 12

2021 1 12

2021 1 12

2021 1 12 9

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2021 1 12

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5%

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2,512.1755

26.4833%

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

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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

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623.3158

6.5710%

	13,200.00
	2019 10 14 2027 10 14
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15.1920%

2014 5 27 2015 4 20

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2019 12 18

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0.2952%

2014 2017

1942 2

25.5000

0.2688% Ä

2014 2017

19696

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%

10

	206.0469

2013

	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%

138.0186

1.4550%

	15.1824
	2019 10 9 2034 10 8

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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
			9,660,000	183,540,000.00

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5%

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"

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
		3,208.2151	33.81

2

			%
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		16.00	0.1687
8		15.00	0.1581
		292.9290	3.0881

	/	%	
1		1.3012	
		0.5271	
		0.2952	

	/	%	
		0.2688	
		0.1687	
		0.1581	
		0.1845	
		0.1845	
		0.8302	
		0.6619	
		0.2503	
		0.1780	
		1.4558	
		1.4554	
		1.4552	
		1.4550	
		1.4550	
		1.4545	
		1.4526	
2		7.3921	
		1.5813	
3		0.8302	
		0.2503	
		1.4558	
		1.4552	
4		1.4526	
		0.6619	
		0.1780	
		1.4554	
		1.4550	
		1.4550	
	1.4545		

	/	%	
5		11.1982	
		0.8212	

P1028590

2019 12

" "

2019

12 31

1

1				2021 1	2024 1
2				2021 1	2024 1
3				2021 1	2024 1
4				2021 12	2024 1
5				2021 1	2024 1
6				2021 1	2024 1
7				2021 1	2024 1
8				2021 1	2024 1
9				2021 1	2024 1

1965

1994 8 2014 8

SSTS

2014 9

1954 22.68 reW*nBT/F4 10.56 Tf954 22.68 reW*nBT/F4[Q TJETB 222.75.78 TJE7.73



1981

2004 12

" "

2015 12

1979

MBA 2004 4 2021 3

2021 4

2021 12

2002 8

2021 1

2

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

1961

1990

9 2013 9

Nashua Computer Products Western Digital, Santa

Clara, CA

NegevTech, Inc. Hitachi High-Technologies America

Honeywell International

2017 8

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

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

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

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

			/		
			69,300.00	45.64%	630,000
			27,750.00	3.12%	25,000
			97,229.00	64.06%	883,900
			44,400.00	4.99%	40,000

			/		
			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

			/		
			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

	/					
		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%	490,80

1

	2021 1-9	2020	2019	2018
	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
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
			1,350.10

2020

2020

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
			1,695,000	3,428,900	5,123,900

11

11,481,700

12.1040%

2

2010

2020 4

2020 4

11

2

1

"

"

"

"

"

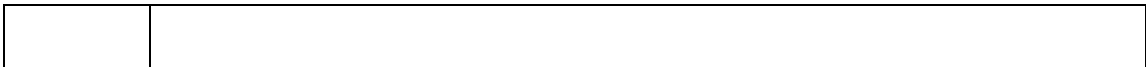
"

2

11

11 " "

3



1

2

	10	2.33%
	41	9.56%
	14	3.26%
	10	2.33%
	429	100.00%

3

2021 9 30

	135	31.47%
	201	46.85%
	85	19.81%
	8	1.86%
	429	100.00%

4

2021 9 30

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

1

/%

	2021.9.30		2020.12.31		2019.12.31		2018.12.31	
	414	96.50	295	93.35	259	94.87	264	94.96
	66	15.38	46	14.56	41	15.02	33	11.87
	15	3.50	21	6.65	14	5.13	14	5.04
	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	

3D

40

6

3nm FinFET

20

90nm CMOS


100

1 PECVD

PECVD

CVD

PECVD

			/
TFLITE		TFLITE SiO ₂ SiN	LED

2 ALD

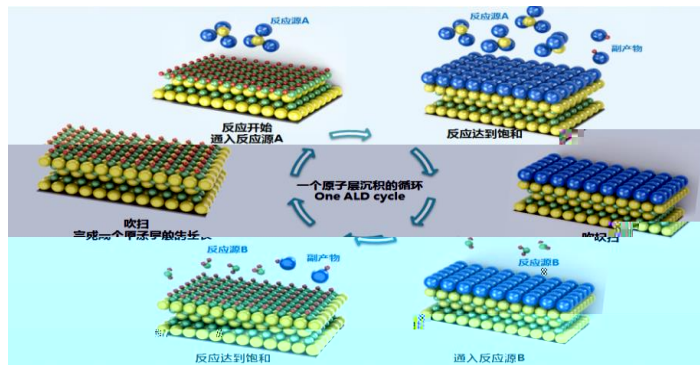
ALD

ALD

DRAM 3D NAND ALD

ALD

PE-ALD Thermal ALD



ALD

PE-ALD

PECVD

ALD

ALD

SiO₂ SiN

55-14nm

PE-ALD


28nm

Al₂O₃

AlN

Thermal ALD

ALD

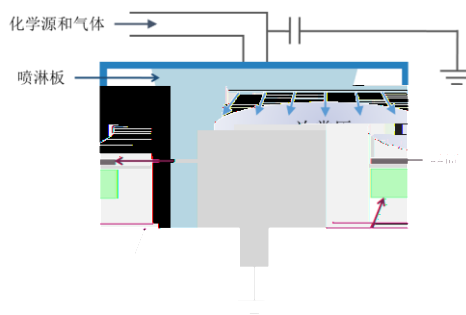
			/
12 PEALD FT-300T		FT-300T PE 28-14nm SADP STI Liner 55-40nm BSI 2.5D 3D TSV FT-300T SiO ₂ SiN	
12 Thermal-ALD FT-300T		FT-300T Thermal 28nm FT-300T Al ₂ O ₃ AlN	
12 ALD FT-300H		FT-300H 128 3D NAND FLASH 19/17 nm DRAM SiO ₂ SiN	

3 SACVD

SACVD

SACVD

Gap fill



SACVD

SACVD


BPSG SAF

12 40/28nm

8

90nm

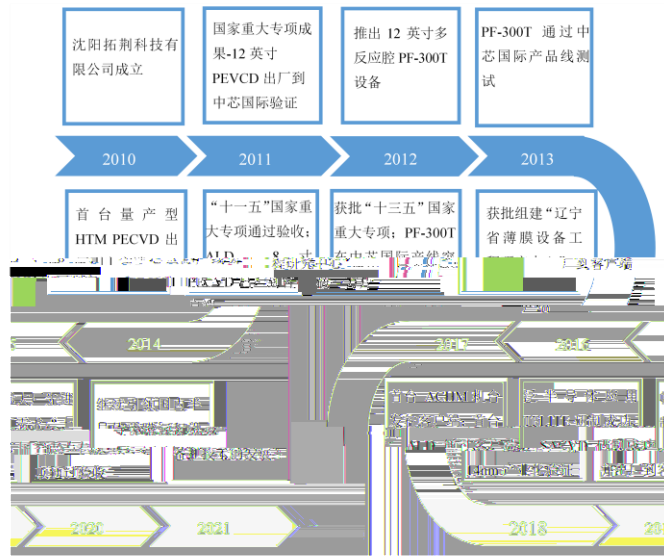
SACVD

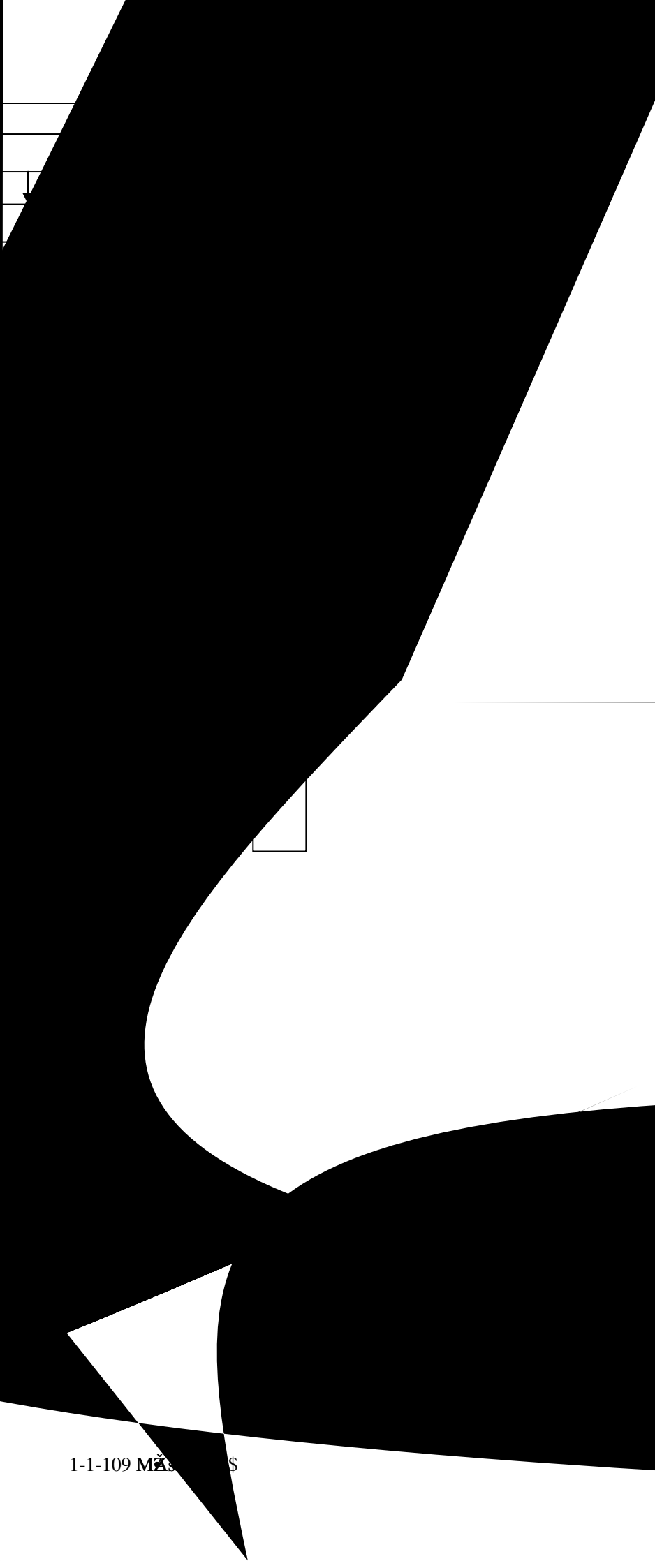
			/
12 SACVD SA-300T		SA-300T STI ILD BPSG SAF	40-28nm
8 SACVD SA-200T		SA-200T STI ILD BPSG SAF	90nm

3

2021 1

2010







ISO14000

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

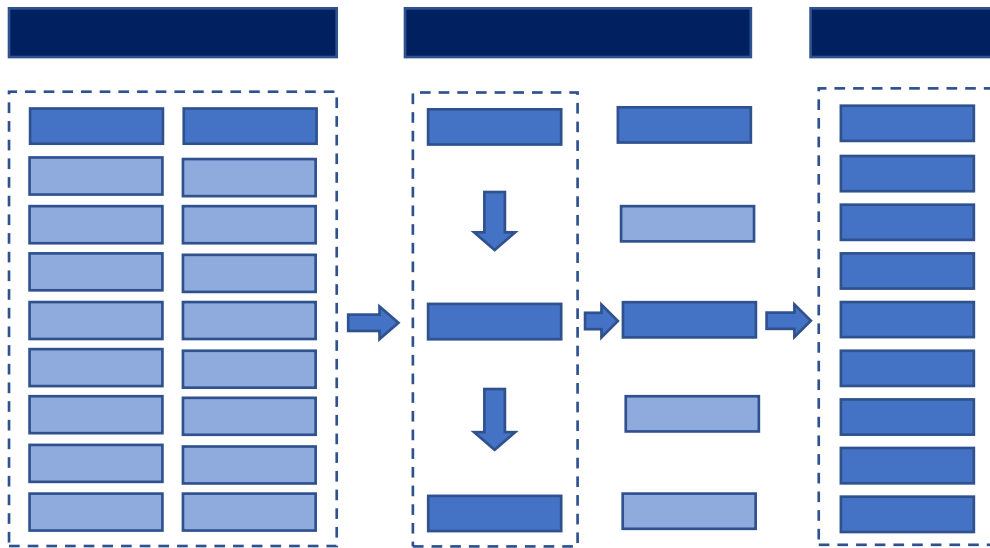
			25% "
" "	2017		"

3

1

1

integrated circuit 80%



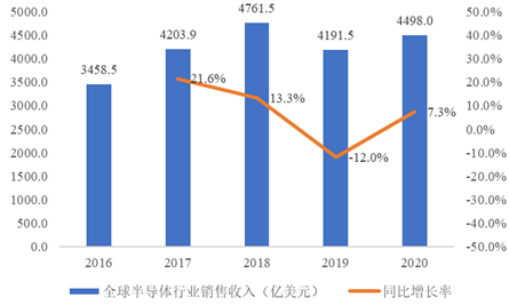
/

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

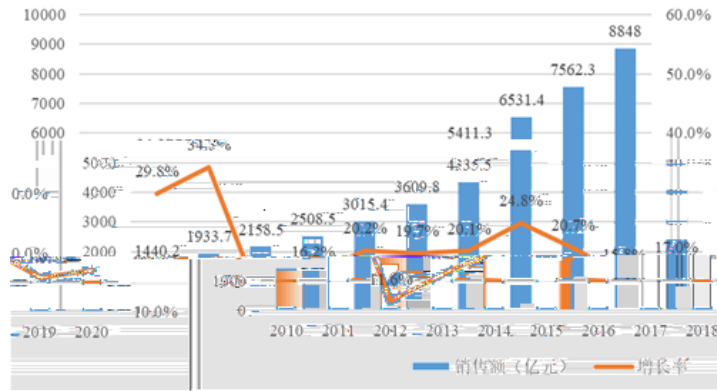
2010-2020

19.91%

2020

8,848

17%



2010

1-2%

4

5G

Gartner

2022

5,426.40

2020

1-1-115



Strategy Analytics

2022

2023

2

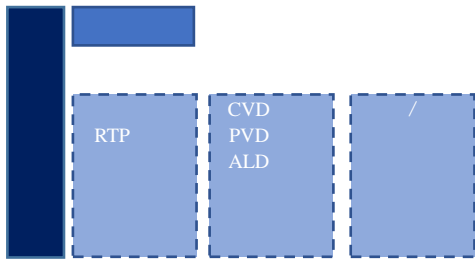
1

80%

/

/

π
ρ



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%

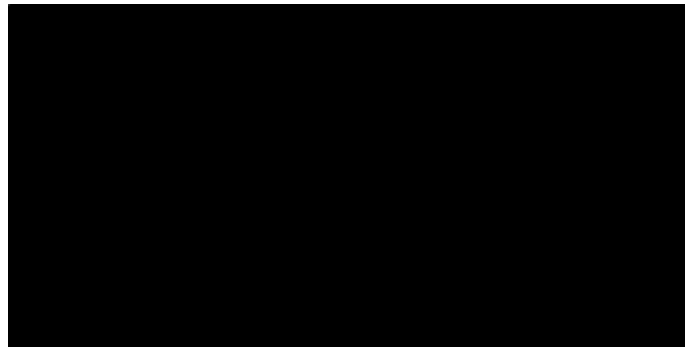
SEMI

2020

187.2

39%,

2012-2020



SEMI

28nm

14nm

IDM

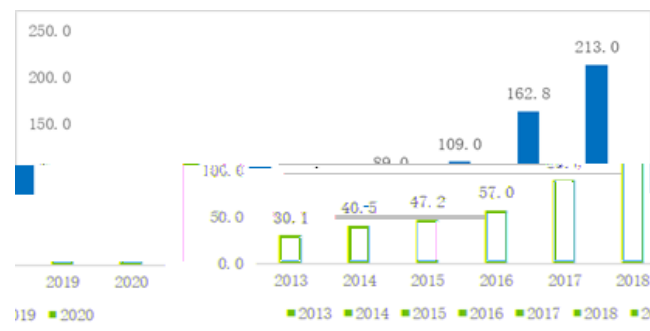
2020

213

17.5%

5%

1-2%



4

2019

1-1-119

3

1

/

ALD

CVD

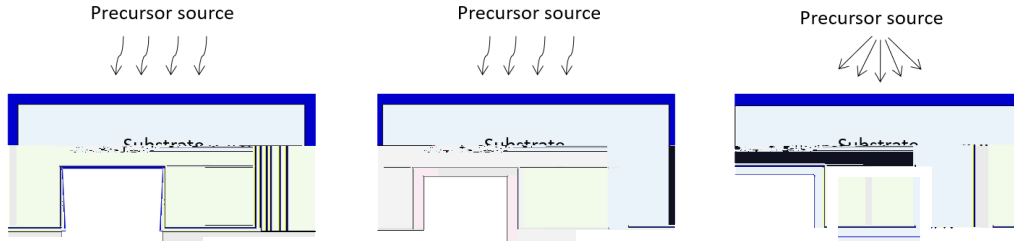
PVD

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

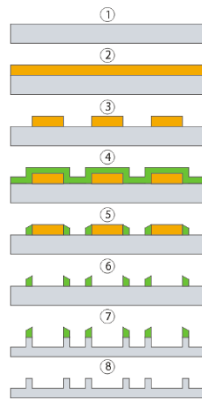
Fin

Fin

SADP

Self-Aligned Double Patterning

SADP



ALD

Spacer

Fin

ALD

k

STI BSI

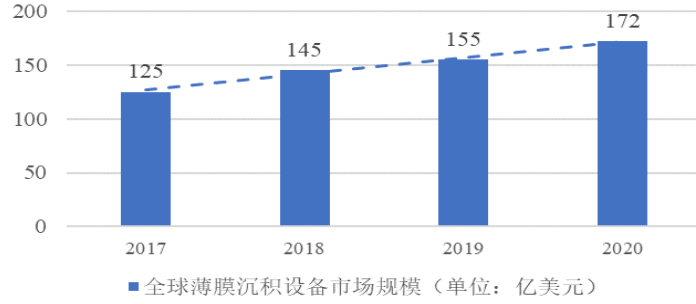
CMOS

TSV

Maximize Market Research

2017-2019

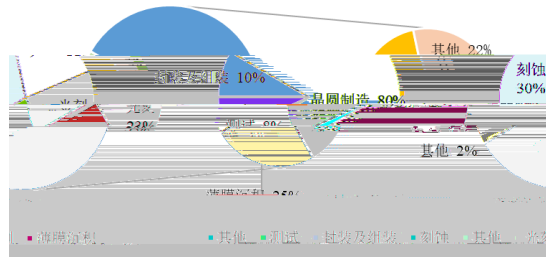
125 145 155 2020
 172 11.2%



Maximize Market Research

80%

25%



SEMI

PECVD

PVD

ALD

LPCVD

PECVD

33% ALD

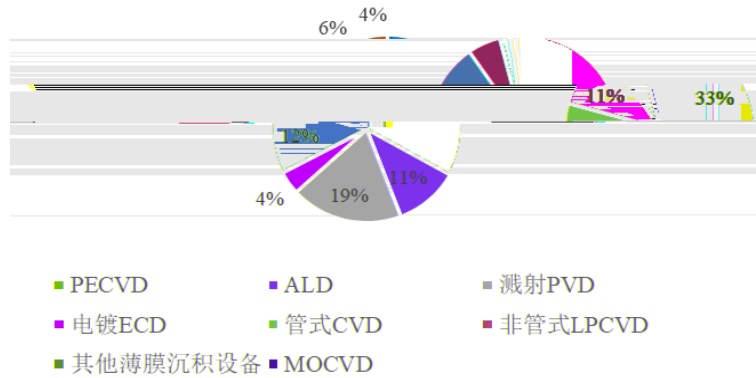
11% SACVD

PVD

PVD

ECD

23%

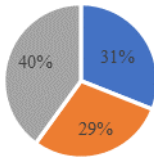


Gartner

Company	Year	Revenue (USD)	Market Share (%)
ALD	2020	32	26.29%
Acumen	2026	172	45.22%
PECVD	2020	14.92	33%
ALD	2020	4.97	11%

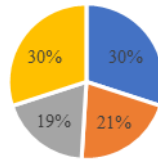
Company	Year	Revenue (USD)	Market Share (%)
AMAT	2019	31%	29%
ASMI	ALD	40%	85%
Lam	TEL	30%	70%
TEL	ASMI	21%	19%
AMAT	PVD	21%	19%
CVD	AMAT	21%	19%
TEL	Lam	21%	19%

全球ALD设备市场占比



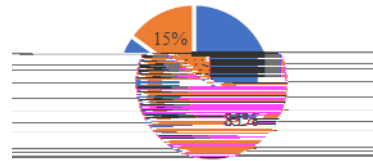
• TEL • ASM • 其他

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%



180nm 8

/

1

" 90-65nm

PECVD

"

/

" " 1x nm 3D NAND

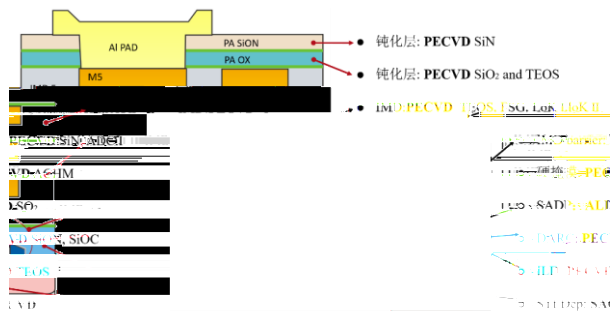
2

PECVD ALD SACVD

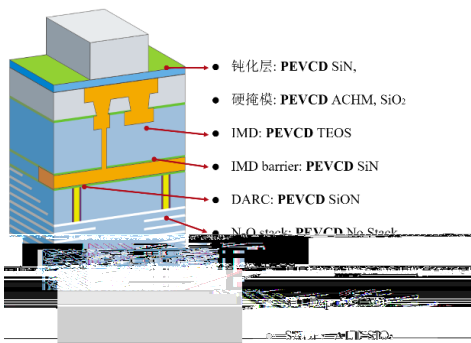
150

DRAM

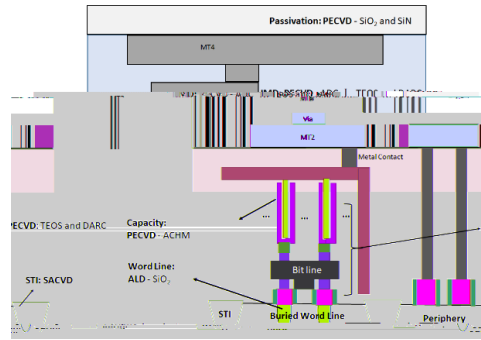
3D NAND FLASH



3D NAND



DRAM



1 PECVD

PECVD

3D

PECVD

16

PECVD

SiO ₂ PECVD		/ Inter Layer Dielectric, Inter Metal Dielectric	130-28nm	14nm
		Passivation Layer	10nm	
		Etch hardmask		
SiN PECVD	DRAM FLASH	Etch Stop Layer	130-28nm	64
		Inter Metal Dielectric	FLASH 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
FSG PECVD		Inter Metal Dielectric	130-65nm
HSN PECVD			

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

2 ALD

ALD

PE-ALD

Thermal -ALD

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

3 SACVD

SACVD

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

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	172.02	44.72%	36.19
	2018	110.77	46.63%	23.81
	2019	96.54	45.15%	21.91
	2020	100.45	45.88%	22.52
	2018	11,307.28	42.01%	2043.99
	2019	12,782.40	41.94%	2482.28
	2020	11,272.86	40.09%	1852.06
	2018	8.18	40.90%	1.57
	2019	12.84	49.73%	3.29
	2020	13.28	46.95%	2.85

MTRR	

1

1

189

44.06%

2

2022 3 8

174

153

21

98

77

21

" 90-65nm

"

" 1x nm 3D NAND PECVD

"

4

/

PECVD ALD SACVD

3

"

"

2016 2017 2019

"

"

PECVD ALD SACVD

4

5

2

1



2

1

1

2

7

NAND

3D NAND

32/64

128/196

3

2010

2020

19.91%

2020

187.2

4

2

1

2

1

		2021	1-9	2020	2019	2018
PECVD		49		50	22	9
		23		31	19	4
		46.94%		62.00%	86.36%	44.44%
ALD		1		1	0	0

		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

"

" "

" "

" " 2

"

2020

ALD

2020

ALD

2018

ALD

3

	PECVD	
	ALD	ICRD

I

5

"

"

"

"

"

"

1

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%
			33,645.79	92.44%



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

2021 1-9

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			IC Insights 2020
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			IC Insights 2020
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			2

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	2011 12 PECVD 2013 2014 PF-300T	2018 2020 IPO 733,016	
	2017 6 ICRD 2019	2018 2020 155nm 25 1	
	2015 2016	2018 2020 20 / 2020	

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		2021 1-9	2020	2019	2018
		970.51	367.15	178.05	74.32
		-	1,496.15	5,757.15	-

2014

EFEM

2016

" 90-65nm

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2017

Global fundamental limited

2017

2017 11

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			2021 1-9	2020	2019	2018
			1,393.81	821.20	307.05	87.30
			-	-	6.87	-
			124.00	186.80	252.00	62.00
			3.46	5.85	6.87	7.05
			1,002.34	682.93	430.22	507.91
			-	-	7.96	-
			4,400.83	2,878.48	1,320.01	941.76
			-	3.85	13.01	-
			2,176.38	1,253.83	575.94	453.40
			-	-	6.65	-
			56.79	52.59	160.82	262.52
			-	-	3.05	5.69
			375.35	312.80	154.71	72.03
			5.36	-	-	-

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			2021 1-9	2020	2019	2018
			2.46	9.83	9.79	-
			-	820.00	-	-
			0.69	0.68	0.90	-

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

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2		IO
3		EFEM
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	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%
	69,978.35	100.00%	46,989.23	100.00%	20,194.48	100.00%	19,110.23	100.00%

2019

2018 5.67%

2019

2018

2018

demo

2018

demo

2018

	2021 1-9	2020	2019	2018
	255.23	279.64	335.33	336.81
	493.04	567.66	560.73	517.46
/	0.52	0.49	0.60	0.65

50%

2021 1-9	1			8,816.15	12.60%
	2			6,070.08	8.67%
	3			4,400.83	6.29%
	4	Rorze Corporation		4,120.95	5.89%
	5	Brooks Automation, Inc.		3,448.90	4.93%
				26,856.90	38.38%
2020	1			5,635.80	11.99%
	2			3,836.76	8.17%
	3	Rorze Corporation		3,746.60	7.97%
	4			2,878.48	6.13%
	5	Brooks Automation, Inc.		2,581.50	5.49%
				18,679.14	39.75%
2019	1			1,931.28	9.56%
	2	XP POWER LLC		1,782.83	8.83%
	3	Rorze Corporation		1,429.48	7.08%
	4			1,368.41	6.78%
	5			1,320.01	6.54%
				7,832.01	38.78%

			PECVD	ALD	SACVD
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PECVD

ALD

SACVD

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PECVD ALD

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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%

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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

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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 ₂ SiN a-Si TEOS				7,130
10nm	10nm PECVD				6,593
28nm	1 2				36,014

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

2 ALD

ALD HTM SiO ₂	NAND	128 3D SiO ₂ ALD			10,016
28nm Thermal ALD AlOx		28nm Thermal ALD AlOx			3,860

3 SACVD

	28nm 5:1				1,140

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	2021	1-9	2020	2019	2018
	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%

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

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1		ACHM 3D		
2		PECVD		
3		3D NAND PECVD		

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128 3D NAND

1Y DRAM

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TSV

2.5D-IC 3D-IC

	14,107.99	3,185.65	-	10,922.33	77.42%

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1	900		2015 011	52,107.19			2064.11.17	

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" 90-65nm

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" 1x nm 3D NAND

PECVD

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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
4		.cn	2018.06.29-2028.06.29
5		.com	2018.06.29-2028.06.29

1	GB/T19001-2016/ISO 9001:2015	00219Q26844R3M	2019/12/9	2022/12/14
2	GB/T 24001-2016/ISO14001:2015	00219E33749R3M	2019/12/9	2022/12/14
3	GB/T 45001-2020/ISO 45001:2018	00219S23276R3M	2019/12/9	2022/12/14
4		03915312	2021/2/1	
5		GR202121001035	2021/12/14	2024/12/13
6		912101005507946696001 Z	2020/4/10	2025/4/9
7	SEMI S2	6400-1A-AS2/BA181201	-	-

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GR202121001035

2021 12 14

2016 32

SEMI S2



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1		26.48%
2		18.23%

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

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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%

13		95.00%

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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

	/	
34		
35	Solayer GmbH	
36		2019 10
37		
38		2021 9
39		2001 2022 5 3 8
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42		2021 4
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44		2020 1
45		2020 3
46		2019 12
47		2019 12 12 2019 12
48		2019 12 2018 11
49		2019 11 11 2021 9 17

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57		2021 1
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62		2021 6
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66		8 2021 11 2019
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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

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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
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90		2021 4
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95		2020 7
96		2019 12
97		2019 12
98		99.00% 2021 7
99		99.00% 2021 7

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

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		2021 1-9	2020	2019	2018
			33.98	895.55	26.28
					44.20
			33.98	895.55	70.47

		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

		2021 1-9	2020	2019	2018
		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		
		1,714.31	1,457.06	589.22	345.16
		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

2020

5%

300 CVD

		2021 1-9	2020	2019	2018
				6.87	
				6.87	
		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
					22.50
		20,271.00	28,725.47	17,122.39	4,827.04
					0.47%

2018

22.50

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2018

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666 2020 1

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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 2021 1-9	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	-	-	-	-	-	-	-
		110.49	-	24.00	0.24	110.94	1.11	30.48	0.30

110.49

PLM

2

		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	
		1,041.57	862.85	308.68	143.46
		773.93	463.30	55.84	
		773.93	463.30	55.84	
				592.00	
				666.00	
				1,258.00	



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	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	834.23			
	252,474,518.97	298,024,307.97	58,735,192.25	56,490,157.77
	1,165,023,796.85	691,570,347.59	259,847,317.16	232,292,115.77
	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
	1,180,901,096.45	1,122,209,674.37	814,269,557.03	694,153,505.45
	-625,975.59	289,071.44	-	-
	1,180,275,120.86	1,122,498,745.81	814,269,557.03	694,153,505.45
	2,345,298,917.71	1,814,069,093.40	1,074,116,874.19	926,445,621.22

	2021 1-9	2020	2019	2018
	373,895,652.48	435,627,676.17	251,251,546.85	70,644,026.75
	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	-

	2021 1-9	2020	2019	2018
" "	-12,968.60	-4,771.48	-	-7,390.19
" -"	56,271,209.47	-13,756,822.62	-19,375,256.02	-103,228,232.85
	1,111,524.30	2,072,507.32	39,404.58	5,347.47
	-	15,628.92	30,596.80	-
" -"	57,382,733.77	-11,699,944.22	-19,366,448.24	-103,222,885.38
	333,999.92		-	-
" -"	57,048,733.85	-11,699,944.22	-19,366,448.24	-103,222,885.38
" -"	57,963,780.88	-11,489,015.66	-19,366,448.24	-103,222,885.38
	-915,047.03	-210,928.56	-	-
	-	-	-	-
	57,048,733.85	-11,699,944.22	-19,366,448.24	-103,222,885.38
	57,963,780.88	-11,489,015.66	-	-
	-915,047.03	-210,928.56	-	-
:				
	0.61	-	-	-
	0.61	-	-	-

	2021 1-9	2020	2019	2018
	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
	-75,972,748.05	308,912,704.99	-21,756,052.78	-128,015,166.34
	-	-	-	-
	-	-	-	-
	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
	-	-	-	-
	-	-	-	-

	2021 1-9	2020	2019	2018
	104,273,447.26	6,310,245.86	14,374,680.43	5,565,720.23
	-104,272,297.26	-5,842,262.65	-14,374,680.43	-2,709,679.86
	-	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
	-3,595,567.76	302,449,910.73	119,177,791.71	-45,287,161.52
	378,682.36	-1,193,818.66	-	-
	-183,461,930.71	604,326,534.41	83,047,058.50	-176,012,007.72
	949,780,236.54	345,453,702.13	262,406,643.63	438,418,651.35
	766,318,305.83	949,780,236.54	345,453,702.13	262,406,643.63

	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
	1,992,917,463.33	1,555,320,568.96	856,558,704.83	694,256,886.02
	-	-	-	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
	297,497,190.90	210,513,600.16	217,558,169.36	232,188,735.20
	2,290,414,654.23	1,765,834,169.12	1,074,116,874.19	926,445,621.22
	-	-	-	30,156,652.33
	120,866,654.75	91,586,184.48	36,229,223.78	29,175,678.80

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	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	-	-
	903,774,138.18	392,868,364.20	201,112,124.91	175,801,958.00
	-	-	-	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
	201,432,504.80	250,142,848.87	58,735,192.25	56,490,157.77
	1,105,206,642.98	643,011,213.07	259,847,317.16	232,292,115.77
	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
	1,185,208,011.25	1,122,822,956.05	814,269,557.03	694,153,505.45
	2,290,414,654.23	1,765,834,169.12	1,074,116,874.19	926,445,621.22

	2021 1-9	2020	2019	2018
	364,537,628.71	437,467,676.17	251,251,546.85	70,644,026.75
	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

	2021 1-9	2020	2019	2018
	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
" -"	60,545,889.70	-12,932,612.38	-19,375,256.02	-103,228,232.85
	1,111,524.30	2,072,507.32	39,404.58	5,347.47
	-	15,628.92	30,596.80	-
" -"	61,657,414.00	-10,875,733.98	-19,366,448.24	-103,222,885.38
	-	-	-	-
" -"	61,657,414.00	-10,875,733.98	-19,366,448.24	-103,222,885.38
	61,657,414.00	-10,875,733.98	-19,366,448.24	-103,222,885.38

	2021 1-9	2020	2019	2018
	712,764,772.79	640,363,556.73	218,761,237.12	114,505,989.78
	2,200,766.10	2,570,145.66	1,838,195.92	40,011,866.33
	68,331,494.66	216,525,331.75	52,444,955.35	58,821,309.89
	783,297,033.55	859,459,034.14	273,044,388.39	213,339,166.00
	681,956,929.67	449,698,720.94	197,726,377.65	236,470,097.26

	2021 1-9	2020	2019	2018
	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

-63,117,752.40 259,552,425.77

	2021 1-9	2020	2019	2018
	-	-	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
	-3,120,000.00	301,949,910.73	119,177,791.71	-45,287,161.52
	378,682.36	-1,193,818.66	-	-
	-214,108,552.92	548,978,730.32	83,047,058.50	-176,012,007.72
	894,432,432.45	345,453,702.13	262,406,643.63	438,418,651.35
	680,323,879.53	894,432,432.45	345,453,702.13	262,406,643.63

[2022]8

2018 12 31 2019

12 31 2020 12 31 2021 9 30

2018 2019 2020 2021 1-9

				2018	2019
2020	2021	1-9			

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				7,064.40	25,125.15
43,562.77	37,389.57	2019	2020		
	255.66%	73.38%			
1	2018	2019			

2 2020 2021 1-9

2

		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		

0.5%

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	%
6	1.00
7-12	5.00
1-2	15.00
2-3	20.00

	%
3-4	30.00
4-5	50.00
5	100.00

2 2018

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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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			%	%
		20	5	4.75
		3-5	5	31.67-19.00
		5-10	5	19.00-9.50
		4	5	23.75

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	50	
	10	
	5-10	

1 2020 2021 1-9

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2019 1 1

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2019 1 1

2019 1 1

	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

14

2020 1 1

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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[2008]43

[2022]11

	2021 1-9	2020	2019	2018
	-1.30	-1.95	-2.06	-0.74
	8,184.57	5,096.14	4,326.27	4,691.53
	52.49	-	-	-
	1.15	207.16	2.94	0.53
	-64.05	-685.67	-17.17	-20.57
	8,172.86	4,615.68	4,309.98	4,670.76
" - "	-	-	-	-
	71.28	52.96	-	-
	8,101.59	4,562.72	4,309.98	4,670.76
	5,796.38	-1,148.90	-1,936.64	

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

1 [2018]32
 2018 5 1 17%
 16%
 2019 39 2019 4 1
 16% 13%
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	2021 1-9	2020	2019	2018
	15%	15%	15%	15%
	25%	25%		

2018 7 31

GR201821000060

2018-2020 15%

2022 1 7

2021

2021 12 14
 GR202121001035

2017 24

15%

2021

2021 1-9 15%

	2021 9 30 /2021 1-9	2020 12 31 /2020	2019 12 31 /2019	2018 12 31 /2018
	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
/	-1.93	6.37	1.06	-2.47
/	12.45	11.83	10.38	9.75

1 = + - + + +

2010

		%	/	
2021 1-9		5.03	0.61	0.61
		-2.00	-0.24	-0.24
2020		-1.11	/	/
		-5.52	/	/
2019		-2.83	/	/
		-9.11	/	/

2018

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				SEMI	
2014	375	2020	712		
11.28%					®

SEMI

2020

187.2

39%

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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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	2021 1-9	2020	2019	2018
	37,389.57	43,562.77	25,125.15	7,064.40
	17,118.56	14,837.29	8,002.76	2,237.37
	5,627.12	-1,375.68	-1,937.53	-10,322.82
	5,738.27	-1,169.99	-1,936.64	-10,322.29
	5,796.38	-1,148.90	-1,936.64	-10,322.29
	-2,305.21	-5,711.62	-6,246.63	-14,993.05

2018 255.66% 2018-2020 2020 2019 73.38% 2019 148.32%

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SEMI

2014

2020

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%
	37,389.57	100%	43,562.77	100%	25,125.15	100%	7,064.40	100%

2

	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%
	36,399.05	100%	42,876.27	100%	24,772.45	100%	6,629.86	100%

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
PF-300T					
	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%	
PF-200T					
	TM+PM	39	28	30	4
		/	-6.67%	650.00%	
	/TM+PM	297.20	346.67	329.96	245.25
		-14.27%	5.06%	34.54%	
		11,590.74	9,706.66	9,898.85	981.00
		/	-1.94%	909.06%	

TM+PM

PF-200T PF-300T

PF-300T PF-200T

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				
	1					
	2					
	3					
	4			2019		
			DRAM		2020	
	4					

	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%
	36,399.05	100%	42,876.27	100%	24,772.45	100%	6,629.86	100%

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%
	36,399.05	100%	42,876.27	100%	24,772.45	100%	6,629.86	100%

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

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	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%
	36,399.05	100%	42,876.27	100%	24,772.45	100%	6,629.86	100%

		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%
		100%	100%	100%
		2.59%	4.83%	8.04%
		16.40%	26.61%	14.87%
		45.45%	13.46%	26.18%
		35.57%	55.10%	50.91%
		100%	100%	100%
		13.79%	13.02%	6.90%

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

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%
	20,271.00	100%	28,725.47	100.00%	17,122.39	100%	4,827.04	100%

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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%
	19,818.68	100.00%	28,249.02	100.00%	16,846.58	100.00%	4,442.10	100.00%

PECVD

PECVD

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	2021 1-9		2020		2019		2018	
	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%
	19,818.68	100%	28,249.02	100%	16,846.58	100%	4,442.10	100%

88.69% 90.76% 90.38% 94.48% 2018
 2020
 " " " "

90%

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	2021 1-9		2020		2019		2018	
PECVD	13,981.84	84.33%	14,844.80	101.49%	7,925.87	100.00%	1,512.17	69.12%
PF-300T	9,210.26	55.55%	11,328.13	77.45%	4,844.15	61.12%	1,391.53	63.61%
PF-200T	4,771.58	28.78%	3,516.67	24.04%	3,081.72	38.88%	120.65	5.51%
ALD	0.00	0.00%	160.66	1.10%	0.00	0.00%	675.59	30.88%
SACVD	2,598.52	15.67%	-378.21	-2.59%	0.00	0.00%	0.00	0.00%
	16,580.36	100.00%	14,627.25	100.00%	7,925.87	100.00%	2,187.76	100.00%

2,187.76 7,925.87

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%
	45.55%	100.00%	34.12%	100.00%	31.99%	100.00%	33.00%	100.00%

2021 1-9

PECVD

PECVD

		2021	1-9	2020	2019	2018
PF-300T						
	TM+PM /	449.84		373.46	362.77	349.11
		20.45%		2.95%	3.91%	
	TM+PM /	249.61		241.74	244.62	233.15
		3.26%		-1.18%	4.92%	
		44.51%		35.27%	32.57%	33.22%
		10.99%		1.93%	2.52%	
		-1.75%		0.77%	-3.16%	
		9.24%		2.70%	-0.64%	
PF-200T						
	TM+PM /	297.20		346.67	329.96	245.25
		-14.27%		5.06%	34.54%	
	TM+PM /	174.85		221.07	227.24	215.09
		-20.91%		-2.71%	5.65%	
		41.17%		36.23%	31.13%	12.30%
		-10.61%		3.32%	22.52%	
		15.55%		1.78%	-3.68%	
		4.94%		5.10%	18.84%	
	PF-300T	-3.34%		0.96%	-1.44%	-20.92%

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2019 PF-300T 2018

2020	PF-300T	2019	2.70%	
1.93%		0.77%	2020	PF-300T
2019	2.95%	2020	PF-300T	
ACHM		2020		
2021 1-9	PF-300T	2020	9.24%	
2021 1-9		PF-300T		,
				,
2019	PF-200T	2018	18.84%	
2018	PF-200T			
PF-200T		2019	PF-200T	
2020	PF-200T	2019	5.10%	
3.32%		1.78%	2020	PF-200T
2019	5.06%	2020	PF-200T	ACHM
	2020			
2021 1-9	PF-200T	2020	4.94%	
-10.61%		15.55%	2021 1-9	PF-200T
	2018	PF-300T	PF-200T	
2018	PF-200T	PF-300T		
2018	PF-200T			
ALD				
2018	2020	ALD	46.23%	87.09%

ALD ICRD

2020 ALD 2018

SACVD

2020 2021 1-9 SACVD -43.61%

63.13%

2020

SACVD 2019 9 2020

2021 1-9 SACVD 2.5D

3D

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	2021 1-9		2020		2019		2018	
	45.55%	100.00%	34.48%	96.63%	31.90%	76.76%	33.00%	100.00%
	0.00%	0.00%	23.72%	3.37%	32.30%	23.24%	0.00%	0.00%
	45.55%	100.00%	34.12%	100.00%	31.99%	100.00%	33.00%	100.00%

2019

2020

2020 2017

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	2021	1-9	2020	2019	2018
		42.68%	37.67%	34.93%	35.50%
		39.59%	41.95%	46.21%	46.27%
			42.65%	44.67%	43.80%

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

2019

2018

2018 2020

2021 1-9

2020

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56.99% 18.70% 15.23% 14.16%

2018 2020

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	2021 1-9		2020		2019		2018	
	2,553.27	48.23%	2,785.78	41.98%	2,081.08	44.30%	1,458.37	36.23%
	1,819.95	34.38%	2,143.81	32.31%	1,238.62	26.37%	331.49	8.23%
	146.71	2.77%	380.60	5.74%	111.20	2.37%	107.77	2.68%
	19.23	0.36%	369.99	5.58%	200.17	4.26%	98.95	2.46%
	360.98	6.82%	333.38	5.02%	419.52	8.93%	465.42	11.56%

	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%
	5,293.91	100%	6,635.41	100%	4,697.65	100%	4,025.75	100%

20.64% 8.28%

6.39% 6.83%

2018-2020

2018-2020

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5%

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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	2021	1-9	2020	2019	2018
		10.14%	10.41%	10.12%	13.21%
		9.26%	11.34%	9.67%	8.23%
			10.49%	11.20%	10.91%
			9.51%	12.75%	40.61%
		9.70%	10.44%	10.94%	18.24%
		14.16%	15.23%	18.70%	56.99%

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4.72%

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30.27%

445.17

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	2021	1-9	2020	2019	2018
		7.42%	6.73%	5.59%	7.96%
		11.59%	17.37%	15.96%	13.61%
			4.99%	4.00%	3.71%
			9.37%	13.02%	55.60%
		9.51%	9.62%	9.64%	20.22%
		6.28%	6.41%	8.53%	31.86%

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	2021 1-9		2020		2019		2018	
	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%
					34.60	0.47%	267.03	2.47%
					431.87	100.00%	10,797.31	100.00%

ICRD
ICRD

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2019 2018 15.62% 2020

2019 5.49%

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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

	2021	1-9	2020	2019	2018
ALD	1,196.83		888.52	770.99	1,476.79
40nm	19.36		646.74	97.21	300.16
ALDHTM SiO ₂	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 AIOx	95.23		14.29	-	-
12 HDPCVD	342.78				
	12,955.63		12,278.18	7,431.87	10,797.31

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	2021	1-9	2020	2019	2018
	12.48%		14.55%	12.00%	7.21%
	12.59%		13.81%	16.45%	

2020

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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	1.29%
	32.35	0.09%	24.38	0.06%	22.82	0.09%	16.34	0.23%
	1.81	0.00%	-	0.00%	-	0.00%	-	0.00%
	-1,518.07	-4.06%	-1,035.89	-2.38%	-331.50	-1.32%	-316.37	-4.48%

	2021 1-9	2020	2019	2018
	8,074.57	5,096.14	4,326.27	4,691.53
	8.71	7.25	6.62	5.52
	8,083.28	5,103.38	4,332.90	4,697.05

	2021 1-9	2020	2019	2018	
A	4,693.24	1,224.58	-	-	
B PECVD	1,960.41	1,488.71	-	-	
A ALD	432.53	453.79	-	-	

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2,363.24

2,870.54

	2021 1-9	2020	2019	2018	
" "	-	-	9.56	69.19	
" "	2.85	4.23	3.93	0.12	
	0.35	52.91	7.78	7.78	
	-	-	164.40	17.51	

	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%

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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
	122,280	1,620,540	9,299,800	155,000			

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2014

2017

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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
	72.76	692.92	198.25	192.96

2019 929.98 2018 2020
2019 2018 2020
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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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288.26 14.90 520.96

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0.00 96.46 -94.56 -159.28

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	2021 1-9	2020	2019	2018
	111.15	207.25	3.94	0.53

	2021 1-9	2020	2019	2018
	-	1.56	3.06	-

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	2021 1-9		2020		2019		2018	
	-3,570.91	2,069.57	1,023.58	1,379.72	850.33	-	-514.71	-
	173.62	-	-	-	-	-	-	203.98
	235.51	684.76	789.71	509.25	391.09	356.64	437.03	377.51
	106.49	106.52	124.38	124.30	141.54	141.59	138.82	139.68
	-3,055.29	2,860.84	1,937.67	2,013.27	1,382.96	498.23	61.14	721.17

2018

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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	-

	2021 1-9	2020 1-9		
	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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	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	203,685.11	160,904.30	85,655.87	69,425.69
	86.85%	88.70%	79.75%	74.94%
	30,844.78	20,502.61	21,755.82	23,218.87
	13.15%	11.30%	20.25%	25.06%
	234,529.89	181,406.91	107,411.69	92,644.56
	100%	100%	100%	100%

2

	2021 9 30		2020 12 31		2019 12 31		2018 12 31	
	80,530.50	39.54%	100,399.75	62.40%	36,216.88	42.28%	27,545.21	39.68%
	350.00	0.17%	-	0.00%	40.00	0.05%	-	0.00%
	12,227.12	6.00%	7,189.17	4.47%	13,138.86	15.34%	6,271.99	9.03%
	4,504.38	2.21%	368.10	0.23%	207.80	0.24%	278.27	0.40%
	424.78	0.21%	300.44	0.19%	306.93	0.36%	1,499.40	2.16%
	97,838.83	48.03%	51,208.04	31.83%	34,997.69	40.86%	32,232.77	46.43%
	810.53	0.40%	264.82	0.16%	-	0.00%	-	0.00%
	182.36	0.09%	53.56	0.03%	-	0.00%	-	0.00%
	6,816.60	3.35%	1,120.42	0.70%	747.72	0.87%	1,598.04	2.30%
	203,685.11	100.00%	160,904.30	100%	85,655.87	100%	69,425.69	100%

95.14% 98.48% 98.69% 93.57%

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

39.68% 42.28% 62.40% 39.54%

2019 2018 8,671.67 31.48%
2019 12 2019 13,750.00

2020 2019 64,182.87 177.22%
2020 2020 30,891.27
64,036.36 31,250.00
2020 2019 12 31,250.00

2021 9 2020 19,869.25

10,427.23

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	-	2,399.00	-	-
	3,626.00	2,793.63	1,092.79	1,154.55
	48.90	229.10	438.70	150.00
	223.77	-	-	-
	3,898.67	5,421.73	1,531.49	1,304.55

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

2

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	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%

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	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%
	12,356.92	100.00%	7,406.55	100.00%	13,476.81	100.00%	6,540.84	100.00%

80%

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	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
	12,356.92	129.80	7,406.55	217.38	13,476.81	337.95	6,540.84	268.85

	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
	5	100.00	100.00	100.00	100.00	100.00

2021

2021 9 30		4,399.80	35.61%
		3,640.71	29.46%
		1,854.78	15.01%
		1,773.32	14.35%
		520.30	4.21%
		12,188.91	98.64%
2020 12 31		2,269.88	30.65%
		1,774.24	23.96%
		1,357.60	18.33%
		1,000.31	13.51%
		451.03	6.09%
		6,853.06	92.53%
2019 12 31		4,944.80	36.69%
		2,244.74	16.66%
		1,902.40	14.12%

		1,569.72	11.65%
		1,158.66	8.60%
		11,820.32	87.72%
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%
		5,947.22	90.92%

a.

b.

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ICRD

GLOBAL FUNDAMENTAL LIMITED

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	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%
	99,031.84	100.00%	52,381.17	100.00%	35,782.99	100.00%	33,052.11	100.00%
	-1,193.01	-1.20%	1,173.13	2.24%	785.31	2.19%	819.34	2.48%
	97,838.83	98.80%	51,208.04	97.76%	34,997.69	97.81%	32,232.77	97.52%

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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5,660.35

6,274.73 6,619.72 20,612.37

c

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	1,181.67	1,164.17	785.31	819.34
	-	-	-	-
	-	-	-	-
	10.62	8.96	-	-
	-	-	-	-
	0.73	-	-	-
	1,193.01	1,173.13	785.31	819.34

a

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
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Demo

4

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	404.69	301.86	314.16	980.87
	-	-	-	464.28
	38.53	36.24	45.94	26.94
	-	-	-	53.12
	443.23	338.10		

	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	-	-
	443.23	18.45	338.10	37.65	360.10	53.17	1,060.93	25.81

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 9 30		2020 12 31		2019 12 31		2018 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%
	30,844.78	100.00%	20,502.61	100.00%	21,755.82	100.00%	23,218.87	100.00%

99.86% 100% 98.96% 95.82%

2021 9 10,039.34 2020 10,342.18

1

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
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	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
	22,439.98	21,993.99	21,931.91	21,746.67
	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
	6,600.00	5,524.46	4,148.83	2,644.85
	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
	15,839.98	16,469.53	17,783.09	19,101.81

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

	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%
	5,431.97	100.00%	5,388.43	100.00%	5,281.97	100.00%	5,143.03	100.00%

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%
	1,755.63	100.00%	1,568.59	100.00%	1,309.24	100.00%	1,058.37	100.00%

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

75.68% 77.40% 56.91% 78.33%

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8

2021 9 30

1
 2018 3,015.67 12.98%

2

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	12,086.67	9,158.62	3,622.92	2,917.57
	10.37%	13.24%	13.94%	12.56%
	3,626.00	2,793.63	1,092.79	1,154.55
	30.00%	30.50%	30.16%	39.57%

2018 40% 2019 2020
 2021 9 30% 2020

3

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

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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%	-	0.00%	-	0.00%	-	0.00%
	3,534.76	14.00%	2,761.96	9.27%	1,250.49	21.29%	384.47	6.81%
	0.08	0.00%	-	0.00%	-	0.00%	-	0.00%
	21,623.11	85.64%	27,040.47	90.73%	4,623.03	78.71%	5,229.44	92.57%
	25,247.45	100.00%	29,802.43	100.00%	5,873.52	100.00%	5,649.02	100.00%

2020
 2019 407.40% 2020

1

2018-2020

2

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

	2021 9 30	2020 12 31	2019 12 31	2018 12 31	
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	
	403.89	447.16	504.76	561.32	
B	192.83	-	-	-	
	90.56	112.25	141.51	204.28	

	2021 9 30	2020 12 31	2019 12 31	2018 12 31	
" "	62.50	70.82	-	-	
	31.62	36.03	41.94	52.04	
	20.00	-	-	-	
	18.53	-	-	-	
" "	9.21	12.06	17.19	21.13	
	1.29	1.64	54.55	62.33	
	-	-	64.68	99.58	
" "	-	-	-	9.56	
	-	-	2.58	-	
	21,623.11	27,040.47	4,623.03	5,262.44	

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2021 9 30

2

	2021 9 30	2020 12 31	2019 12 31	2018 12 31
	2.23	4.09	4.26	3.95
	1.16	2.79	2.52	2.12
	49.67%	38.12%	24.19%	25.07%

2021 9

2020

		2021	2020	2019	2018
		9 30	12 31	12 31	12 31
		32.16%	40.39%	39.25%	65.58%

2020

2021

1-9

	2021 1-9	2020	2019	2018
	-7,597.27	30,891.27	-2,175.61	-12,801.52
	5,704.87	-1,169.99	-1,936.64	-10,322.29
	-13,302.14	32,061.26	-238.96	-2,479.23
	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
	-13,302.14	32,061.26	-238.96	-2,479.23

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

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	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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	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

2

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
		4.90	4.41	3.43
		4.17	2.51	1.22
		1.20	1.01	0.94

		2020	2019	2018
		0.66	0.72	0.93
		1.21	1.44	1.51
		0.63	0.72	0.24
		0.93	0.97	0.91
		0.65	0.50	0.17

2021 1-9

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2021

	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	
	100,029.65	100,029.65	-

2021 3 31 2021

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PECVD

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3	2%	783.30	1.96%

7

PECVD

ALD

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ALD

ALD

28nm-10nm

ALD

2

3

1		12,186.98	44.98%
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%
2		13,204.20	48.73%
2.1		3,119.20	11.51%
2.2		600.00	2.21%
2.3		9,485.00	35.01%

3	2%	507.83	1.87%
4		1,195.84	4.41%
		27,094.85	100.00%

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36

		T+6	T+12	T+18	T+24	T+30	T+36
1							
2							
3							
4							

T 6 12

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2021 8 17

2108-310115-04-05-492438

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2021 9 18

ALD

[2021]78

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ALD
SiO₂ PE-ALD
ALD ALD

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33,222.22

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ALD

13

1

PECVD

PE-ALD

SACVD

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2

3

189

44.06%

4

2019

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10nm

PECVD

ALD

Thermal ALD

PE ALD

SACVD

12

28nm

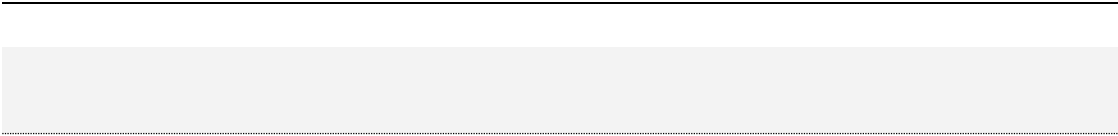
SACVD

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024-24188000-8013

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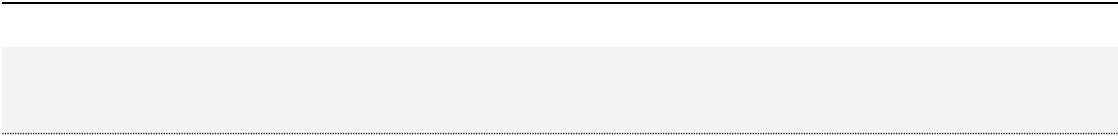
"

5%

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

	2020	5,304.92			
	2021	6,946.15			
		22,573.29			
	2018	1,629.31	ALD PECVD SACVD		
	2019	5,873.51			
	2020	9,600.50			
	2021	3,096.00			
		20,199.32			
	2020	9,756.11	PECVD SACVD		2020 12 31
	2021	475.29			
		10,231.40			
	2021	7,789.10	PECVD SACVD		
		7,789.10			

	2020	6,920.80	PECVD		
	2021	26,838.33			
		33,759.13			
	2021	31,213.70	PECVD		
		31,213.70			
	2021	5,330.00	PECVD SACVD		
		5,330.00			
	2021	4,847.60	PECVD		

		4,847.60			
	2021	2,920.00	PECVD		
		2,920.00			

1,000

2021					
MKS Instruments Hong Kong Limited	2021/6/7	USD	870.02		
NGK INSULATORS,LTD.	2021/2/23	JPY	60,000.00		
Rorze Corporation	2021/9/5	JPY	57,304.20		
Rorze Corporation	2021/7/13	JPY	55,508.90		
Rorze Corporation	2021/7/13	JPY	47,671.32		

2020					
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					
XP POWER LLC	2019/9/12	USD	62.44		
XP POWER LLC	2019/11/5	USD	55.64		
Durex Industries	2019/12/3	USD	52.00		
MKS Instruments Hong Kong Limited	2019/9/12	USD	47.22		
	2019/11/7	CNY	319.52		
2018					
	2018/6/15	CNY	308.08		
XP POWER LLC	2018/12/26	USD	44.08		
	2018/8/9	CNY	257.69		
Brooks Automation, Inc.	2018/6/15	USD	34.40		
Rorze Corporation	2018/5/31	JPY	3,600.00		

					%	
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					



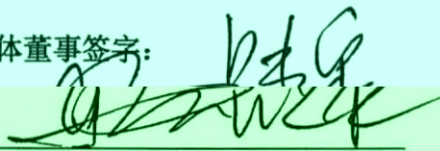
“ ”

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招股说明书不存在虚假记载、误导性陈述或重大遗漏，并对其真实性、准确性、完整性承担个别和连带的法律责任。

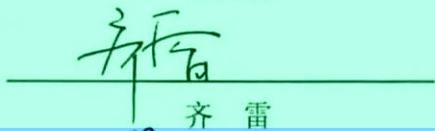
全体董事签字：



GUANGQUAN LU (吕光泉)



杨征帆



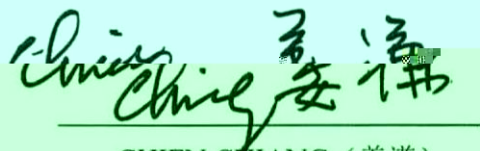
齐雷



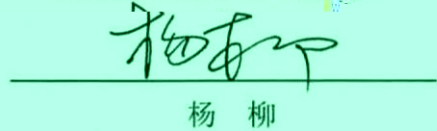
吴汉明



赵国庆



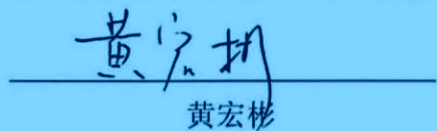
CHEN CHIYANG (陈赐阳)



杨柳



GERALD ZHEYAO YIN (尹志尧)



黄宏彬



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、完整性承担个别和连带的法律责任。

全体监事签字：

李洪波 叶强

郭伟



一、发行人全体董事、监事、高级管理人员声明

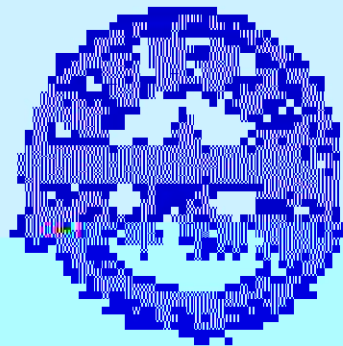
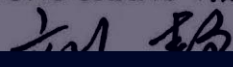
本公司全体董事、监事、高级管理人员声明如下：



JASON LEE TIAN (田晓明)



HSIAO-YUNG CHANG (张孝勇)



二、发行人主要股东声明

本公司或本人承诺本招股说明书不存在虚假记载、误导性陈述或重大遗漏，并对其真实性、准确性、完整性承担个别和连带的法律责任。



三、保荐人（主承销商）声明

本公司已对招股说明书进行了核查，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。

项目协办人：

胡明勇
胡明勇

保荐代表人：

刘宪广
刘宪广

张贺
张贺

保荐机构总经理：

吴宗敏
吴宗敏

保荐机构法定代表人：

霍达
霍达



招商证券股份有限公司

2022年4月14日

招股说明书的声明

本人已认真阅读拓荆科技股份有限公司招股说明书的全部内容，确认招股说明书不存在虚假记载、误导性陈述或者重大遗漏，并对招股说明书真实性、准确性、完整性、及时性承担相应法律责任。

保荐机构总经理：

吴宗敏

吴宗敏

保荐机构法定代表人：

翟

翟



招商证券股份有限公司

司声明

四、联席主承销商声明

四、联席主承销商声明

说明书进行了核查，确认不存在虚假记载、误导性陈述或重

本公司已对招股

重大遗漏，并对其重



发行人律师声明

本所及经办律师已阅读招股说明书, 确认招股说明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说明书中引用的法律意见书和律师工作报告的内容无异议, 确认招股说明书不致因上述内容而出现虚假记载、误导性陈述或重大遗漏, 并对其真实性、准确性和完整性承担相应的法律责任。



[2022]8

[2022]9

七、资产评估机构声明（一）

本机构及

王晨煜



王晨煜



王少岩

北京中企华资产评估有限责任公司

2022年4月14日



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说明书，确认招股说明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发行人在招股说明书中引用的资产评估报告的内容无异议，确认招股说明书不致因上述内容而出现虚假记载、误导性陈述或重大遗漏，并对其真实性





验资机构声明

本所及签字注册会计师与拓荆科技（杭州）股份有限公司（以下简称“拓荆科技”）于2021年12月31日共同出具了《验资报告》（天健验（2021）120号）的内容无矛盾之处。本所及签字注册会计师对拓荆科技股份有限公司在招股说明书中引用的上述报告的内容无异议，确认招股说明书不致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的法律责任。



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

验资复核机构声明

天健会计师事务所(特殊普通合伙)受杭州利林股份有限公司首次公开发行股票招股说明书

本所及签字注册会计师

于2022年4月14日对利林股份有限公司招股说明书进行了复核

并出具了天健会验字(2022)第010001号验资复核报告

本所及签字注册会计师对招股说明书内容的真实性、准确性和完整性不承担任何法律责任

本所及签字注册会计师

对招股说明书内容的真实性、准确性和完整性不承担任何法律责任

本所及签字注册会计师

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本所及签字注册会计师

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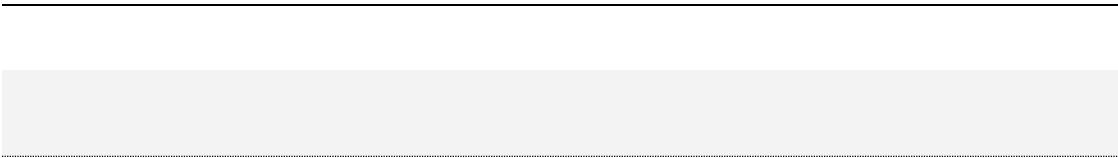
本所及签字注册会计师

陈鑫 徐银
陈鑫 徐银

事务所负责人：王 国 海
王 国 海

天健会计师事务所(特殊普通合伙)

二〇二二年四月十四日



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
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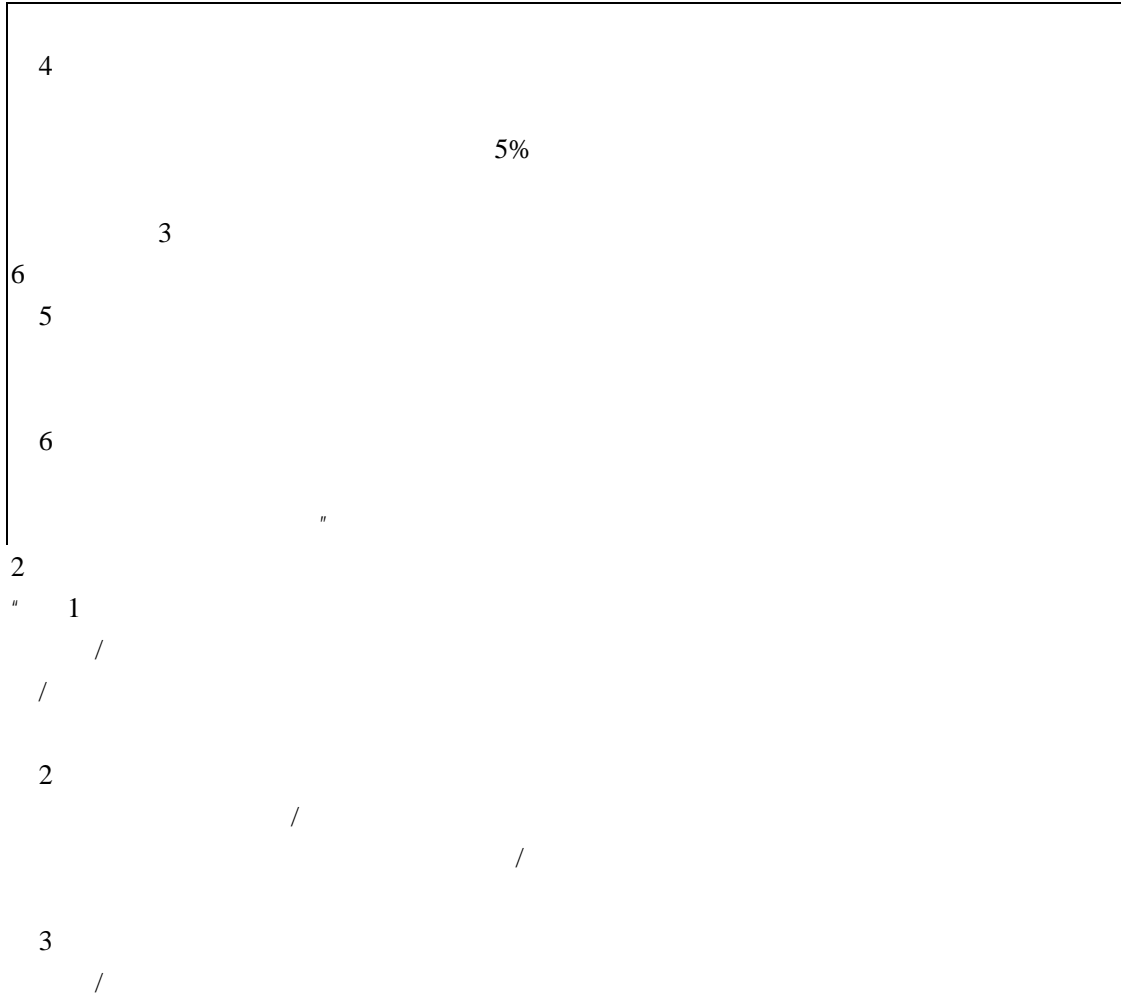
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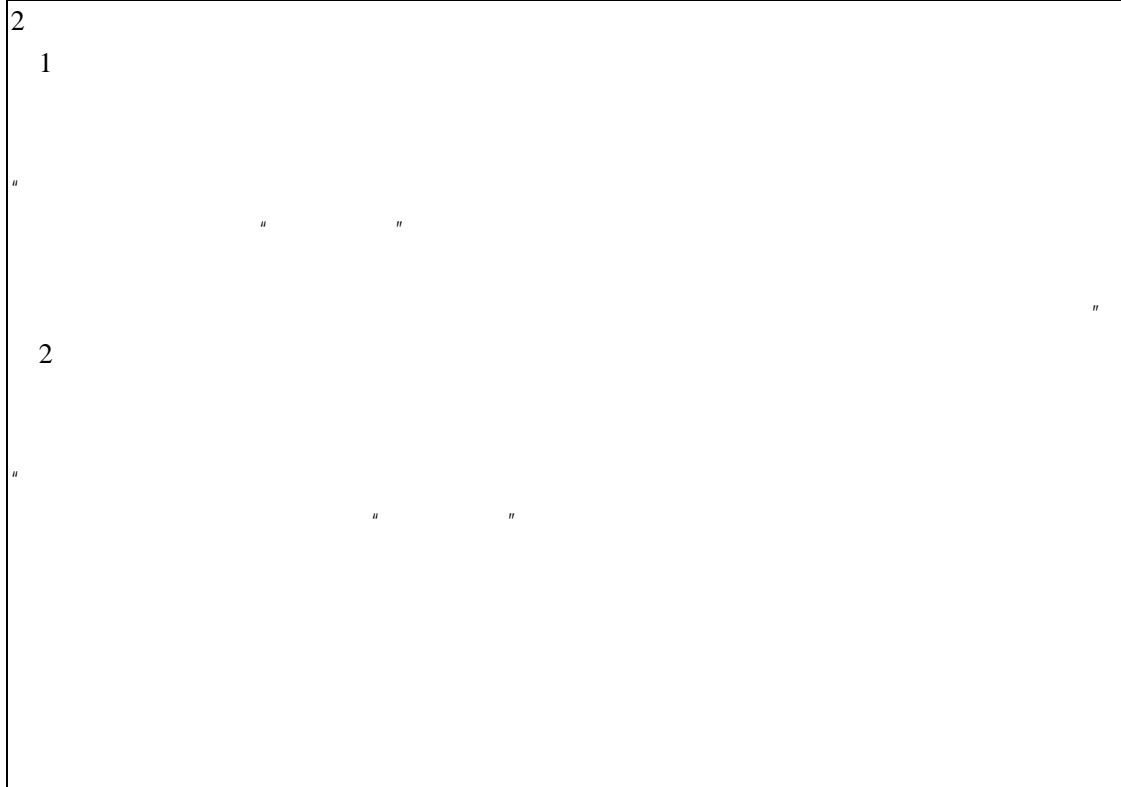
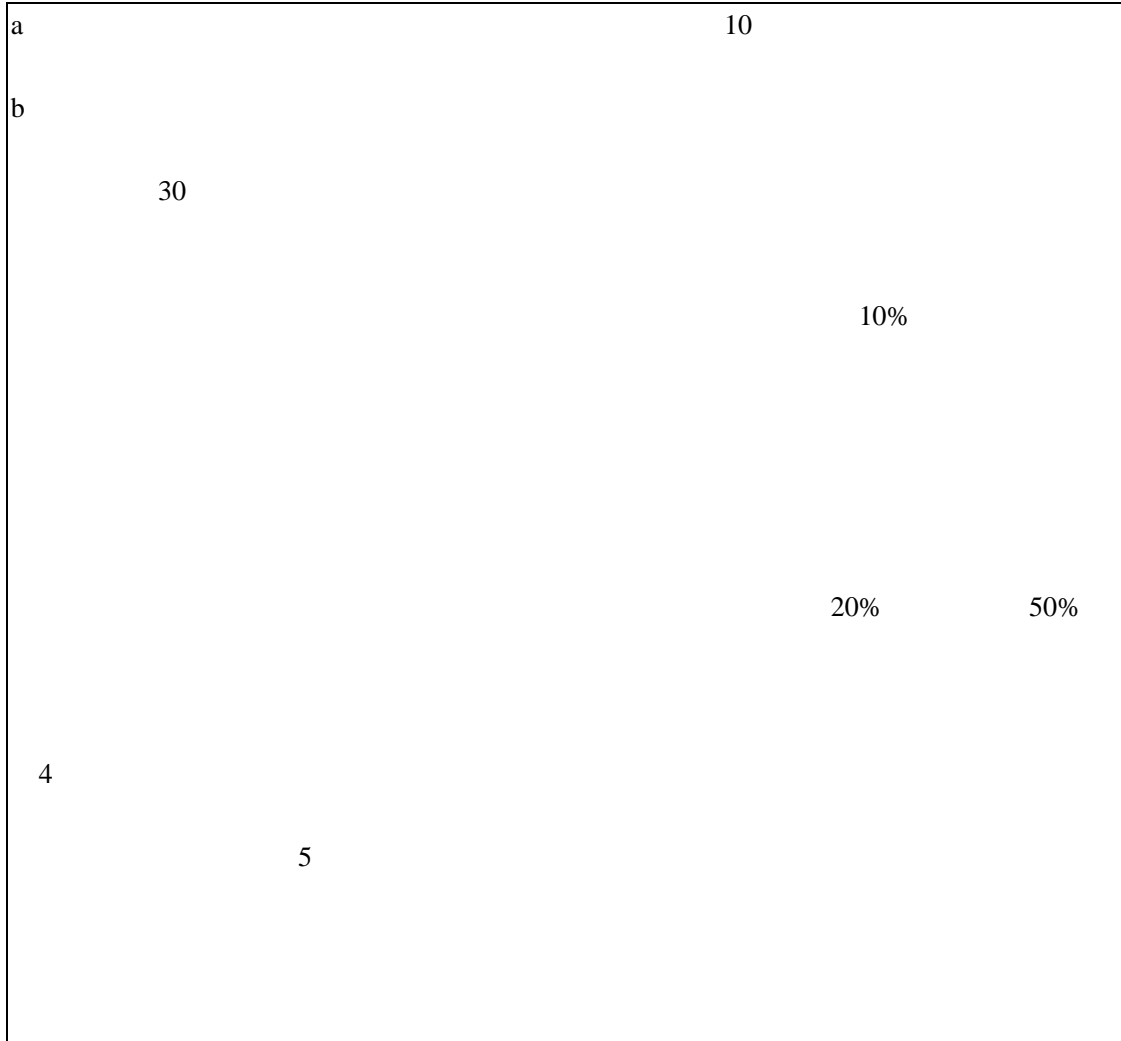
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