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VR		
AR		“ ”

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	324,510.3948
	002701.SZ
	0536-3055688
	http://www.goertek.com

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1

2019 7 2

3-1-1-8

“ ”

2019 9 17
2019 9 11 2019 9 16
2019 9 18

3

2019 9 19
2019 9 26

7

3-1-1-9

[2018]22

“ ”

3-1-1-12

2019 9 10

2019

2019 9 27

3-1-1-13

1

2

3

4

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1

1

2

3

4

5

2

1

	2017	2018	2019	213,922.62
86,772.27	128,054.22			194,657.60
70,631.11	134,863.43			

2

3

4

5

6

7

3

1

2

3

4

5

2017	101	32,451.04	213,922.62	15.17%
2018	10129,472.27	61,435.04	86,772.27	70.80%
2019				
				%

%

4

1

2

3

5

1

2

3

4

5

6

1

2

1

				2018	
		340	160	2,000	3,000
	A				
2018	2019				
1,758.42	2,038.16				0.11%
0.08%		2018	2019		
	339.20	12.64			0.0143%
0.0004%					

2

3

4

5

2

3

4

6

9 0

3-1-1-22

2

3

4

3-1-1-24

1

2

3

3-1-1-25

4

5

6

7

3-1-1-26

8

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1

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MEMS

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MEMS

1

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IDC

2019

13.9

2018

0.8%

5G

2020

2023

2023

15.4

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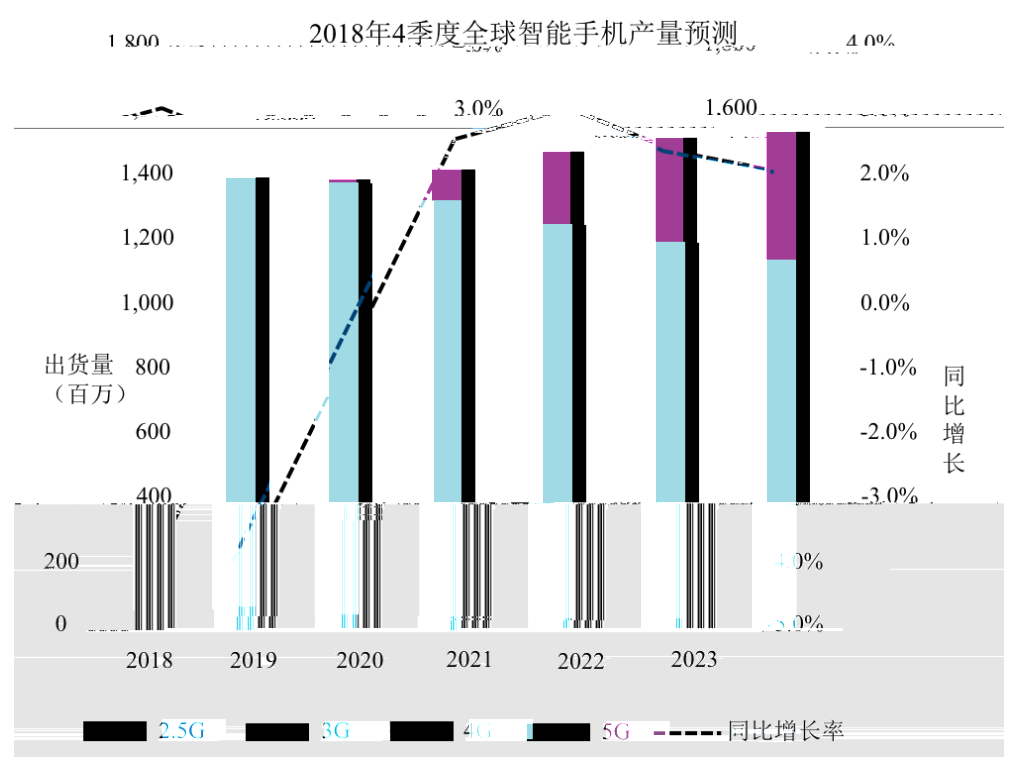
Yole Développement

Acoustic MEMS

3-1-1-27

and Audio Solutions 2017 MEMS -2017
2017 -2022 6% 2022

200



IDC 2019

/

MEMS

2022

80

2017

Yole Développement

3-1-1-29

MEMS		2019		2024			
8.3%				11.9%		2024	MEMS
185.08		2019		2024	MEMS		
						43.6%	
7.5%	11.0%	5.2%	8.4%	5.8%	6.5%		
2							
						TWS	
TWS						TWS	
1							
		IDC				2019	
TechSci Research		2022				190	TWS
2		TWS					
TWS							
TWS							
TWS							
		TWS				Strategy	
Analytics		2019				50%	2023
90%		TWS					

The diagram illustrates a network of nodes labeled 'TWS' and 'AI'. The nodes are arranged in a hierarchical or branching structure. At the top level, there are three 'TWS' nodes. The middle 'TWS' node is connected to two 'TWS' nodes below it. The left 'TWS' node is connected to one 'TWS' node below it. The right 'TWS' node is connected to one 'TWS' node below it. The middle 'TWS' node is also connected to one 'AI' node below it. The left 'TWS' node is connected to one 'AI' node below it. The right 'TWS' node is connected to one 'AI' node below it. The middle 'AI' node is connected to one 'TWS' node below it. The left 'AI' node is connected to one 'TWS' node below it. The right 'AI' node is connected to one 'TWS' node below it. The middle 'TWS' node is connected to one 'AI' node below it. The left 'TWS' node is connected to one 'AI' node below it. The right 'TWS' node is connected to one 'AI' node below it. The middle 'AI' node is connected to one 'TWS' node below it. The left 'AI' node is connected to one 'TWS' node below it. The right 'AI' node is connected to one 'TWS' node below it.

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Newzoo 2019	Global games market report		
2019	1,521	2018	9.6%
	479	2018	13.4%
Global games market report		2018	429.97
2022	607.6		9.03%
2	/		

cninf 巨潮资讯
www.cninfo.com.cn

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5G

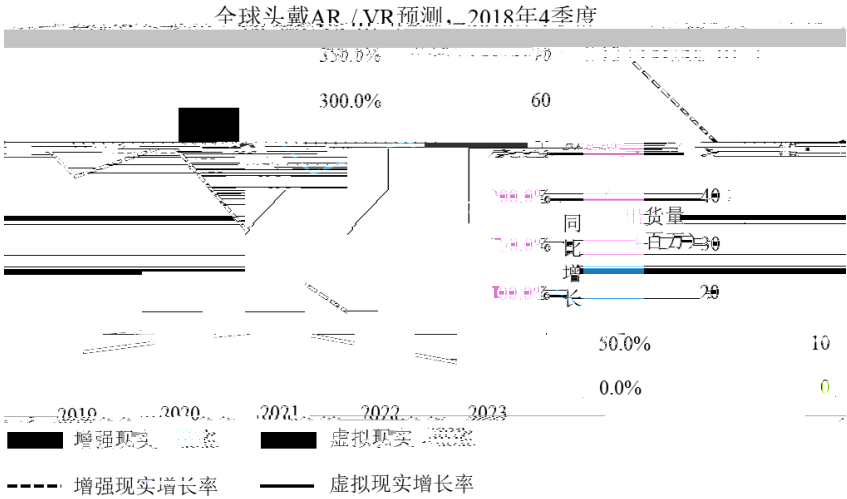
AR/VR

AR/VR

AR/VR

AR/VR

IDC		Worldwide Quarterly Augmented and Virtual Reality Headset Tracker				
		AR	VR	2019		
AR/VR		890	2018	54.1%	2019	2023
			66.7%	2023		6,860
AR		2023	3,190	2019	2023	
140.9% VR		2023	3,670	2019	2023	
46.7%						



IDC 2019

3

AI

VR AR

IDC 2019

19,800 2018 15.3%

45.6% 2019 9,060

27.4% 24.7% 2019 5,440 4,900

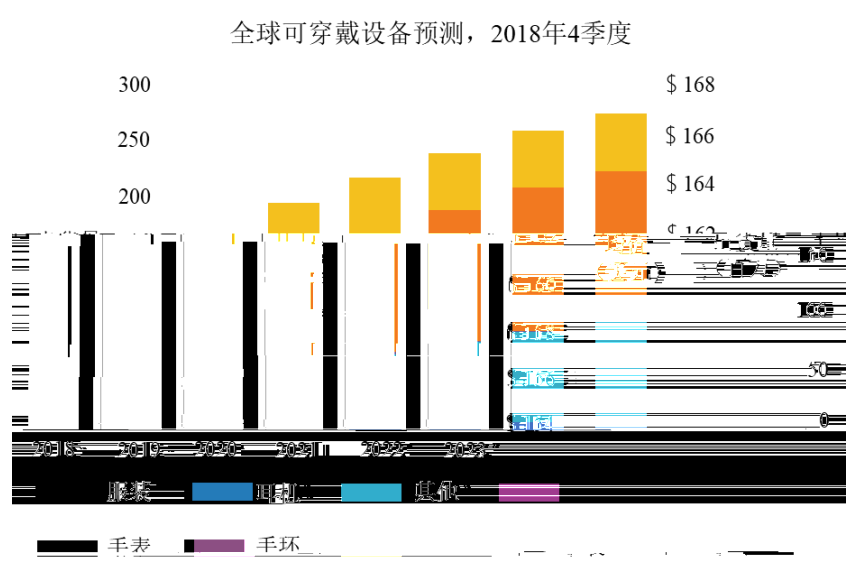
2023 27,900 2019 2023

8.9%

47.1% 31% 2023

850 8,650 13,130 5,040 2019 2023

30.2% 12.3% 9.7% 0.7%



IDC 2019

“ + ”

“ ”

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MEMS 3D

2

8,800

3

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IBM

(本页无正文,为《中信建投证券股份有限公司关于王平海先生担任公司外部发行

中介机构出具的发行保荐书》的签字盖章页)

项目协办人签名: 陈子晗

陈子晗

保荐代表人签名: 关峰

关峰

杨铭

杨铭

保荐业务部门负责人签名: 吕晓峰

吕晓峰

内核负责人签名: 林煊

林煊

保荐业务负责人签名: 刘乃生

刘乃生

保荐机构总经理签名:

李格平

李格平

保荐机构法定代表人签名:

王常青

王常青

中信建投证券股份有限公司

2020年12月28日

附件一：

保若代丰

敬告

敬告

敬告



附件二：

关于保荐代表人申报的在审企业情况及承诺事项的说明

中信建投证券股份有限公司就担任歌尔股份有限公司公开发行可转换公司债券项目的保荐代表人关峰、杨铭的相关情况作出如下说明：

保荐代表人	注册时间	在审企业情况 (不含本项目)	承诺事项	是/否	备注
		主板（含中小企业板）0家	最近3年内是否有过违规记录，包括被中国证监会采取过监管		
		科创板0家	再融资项目签字保荐代表人		已于2019年7月在科创板上市
		主板（含中小企业板）0家	最近3年内是否有过违规记录，包括被中国证监会采取过监管		

