

三

中国信息通信研究院泰尔终端实验室

2025年12月

AI

AR

AI

AI

AI

AI

AI

AI

AI

AI

AI	.....	1
	AI	.....2
		.....3
	AI	.....4
AI	.....	6
		.....6
		.....10
		.....15
		.....17
		.....18
AI	.....	19
		.....19
		.....24
		.....26
		.....28
		.....29
AI	.....	29
		.....32
		.....36
	.....	39
		.....39
		.....39
		.....40

1 AI	.....	3
2 AI	.....	5
3	2024-2029	25
4	2025H1	25

1 AI	.....	4
2	.....	21
3 AI	.....	30

AI	低		
			precedence
research	2024		721
		AI	
	20%		2034
4000		AI	

AI

AI

Rokid XREAL

INMO

AI

AI



1 AI

AI

AI

MIJIA 2

City

AI

Rayban-Meta

Wayfarer

V3

AURA AI

AR

AI+AR

X3 Pro Rokid

Glasses

AI

S1

G2 Gyges

StarV Air2

1 AI

AI			MIJIA2 City	
AI		AI	Rayban-Meta Wayfarer V3 AURA AI	Vlog
AI+ AR	AR	BirdBath 3D	X3 Pro Rokid Glasses G2 AI S1 StarV Air2	

AI

2022

2013 Google

Google Glass

2016

HoloLens

inside-

AR

Llama

OCR

AI

5

AI

AI

AI “ ”

1.

AI

$\geq 80\%$

Lumus

PVH

15

26

40

LCOS

AR

MicroLED

JBD “ II” 0.1 MicroLED

0.2 0.5

50%

AI

+MicroLED

AI S1 JBD

MicroLED “

+MicroLED” AI

SiC

AI

Meta Orion

70°

AI 2024

12

2.

AI

100—120mAh

8—14

3. AI

6nm

4nm AR1 Gen1 4nm
CPU GPU NPU ISP 4K
AI 25%

30%

<15mm <50g 三
导 ePoP

SoC LPDDR
40 mm² 3D SiP

CMOS
Chiplet

AI “ ” AI

1.

三

AI

AI

TensorFlow Lite Micro

“Hey

Meta” “ ” “ ”

AI

V3

+

5

RNNoise

iFLYREC

三

HRTF

AR

200Hz–8kHz

FFT

ML

2.

AI

≡

AI

/

“ ” “ ” “ ”

AI

OIS

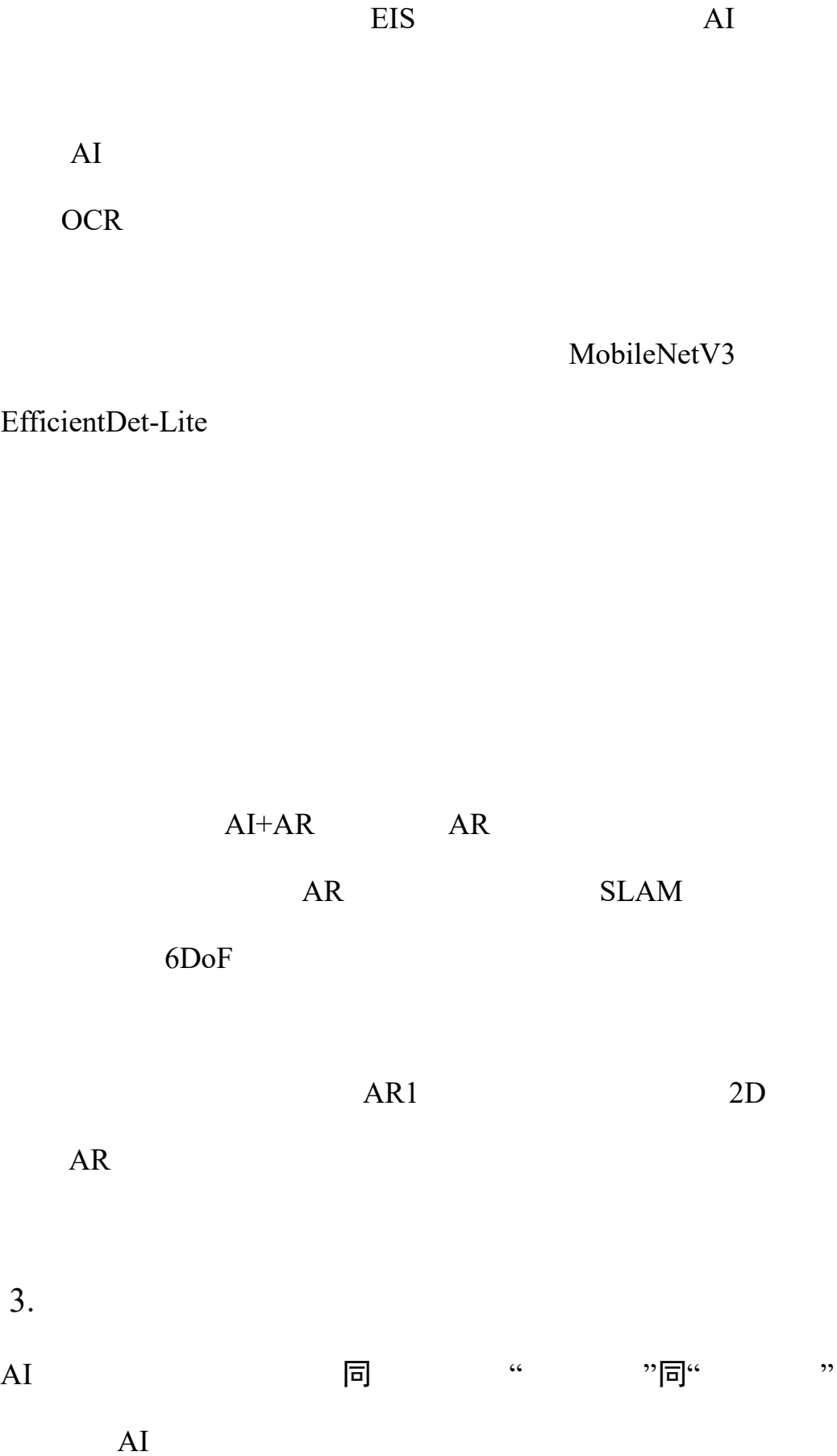
Ray-Ban Meta Rokid

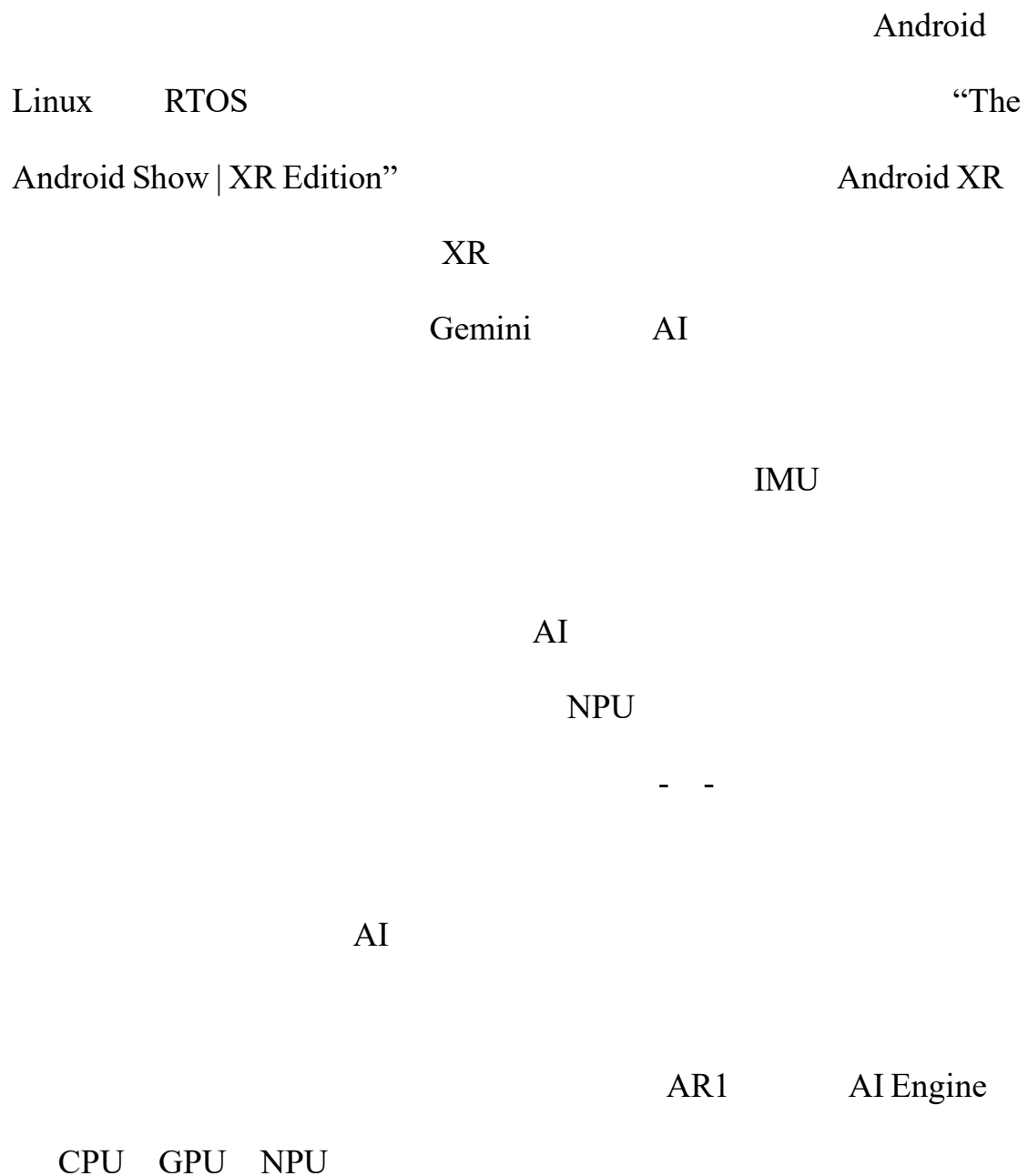
Glasses

1080p@30fps

EIS

10%–15%





TEE

AI

30

1.

争 四 AI

AI

“ ”

55

2.

低

三

AI+AR

$\geq 80\%$

300nits

3000nits

DC

PWM

$>3000\text{Hz}$

3—6

3.

三 低

AR

AR

AI

“

”

AI

AI

AI

1.

AI

三

AI

AI

“

”

AI

Always-on

2.

低 AI “ ”别“ ”

AI “

”

IDC 2026

AI 30%

75% AI

AI

AI “ ”

“ ”

AI

IMU

AR

“ — — ”

AI

AI

- -

AI

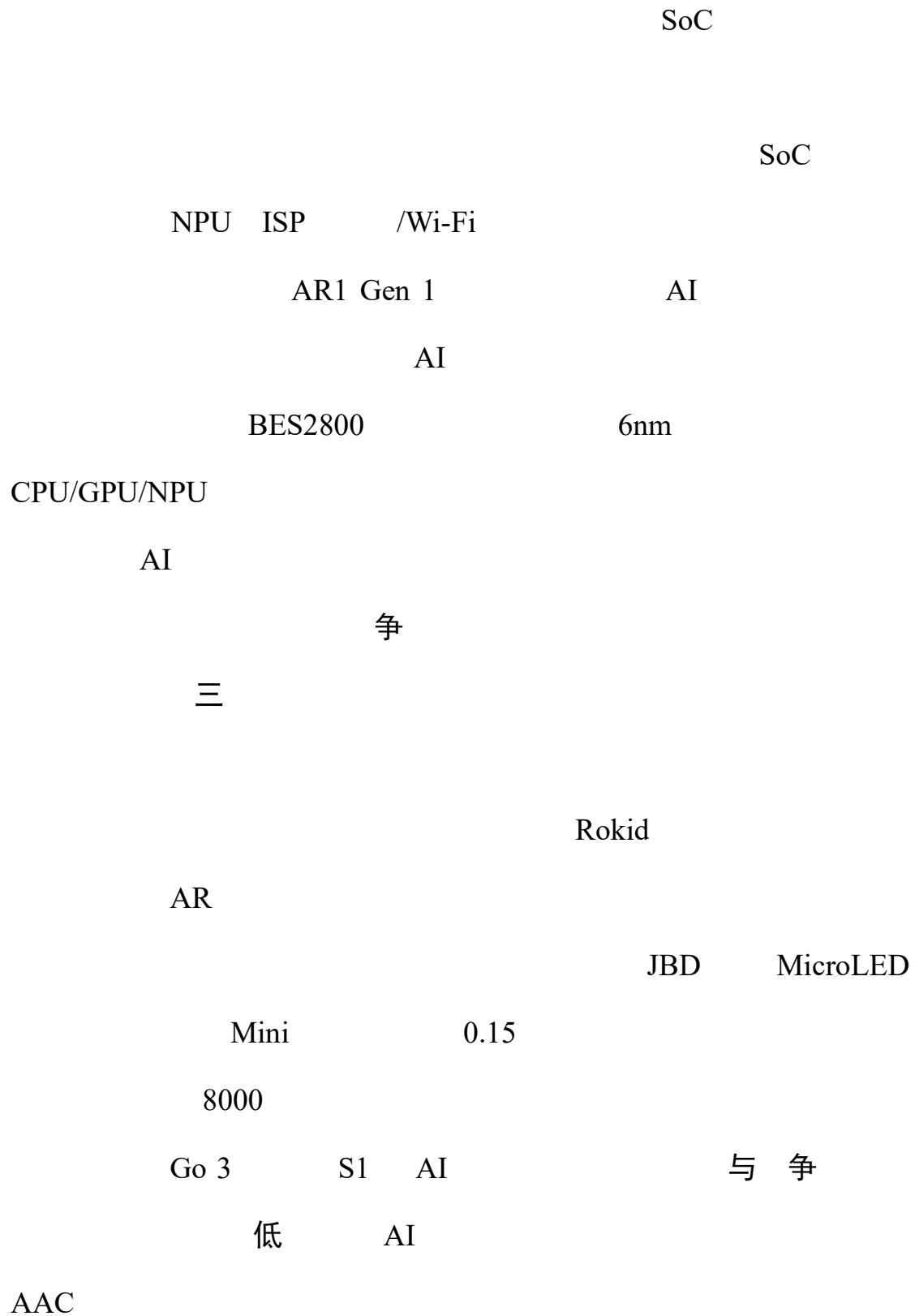
三

AI

AI

AI

AI



三

IMU

2

IMX 681	CMOS		CMOS 1.4μm 12MP 1/2.6" AI
MINI 2	MicroLED	JBD	MicroLED AR
ePOP			eMMC LPDDR 50% PCB AI
			0.5mm
Lhasa11			0.4mm FOV 30
SIDW40A			40 AR
0920			

ODM/OEM

AI

Rokid XREAL XR

Meta Pico

AI

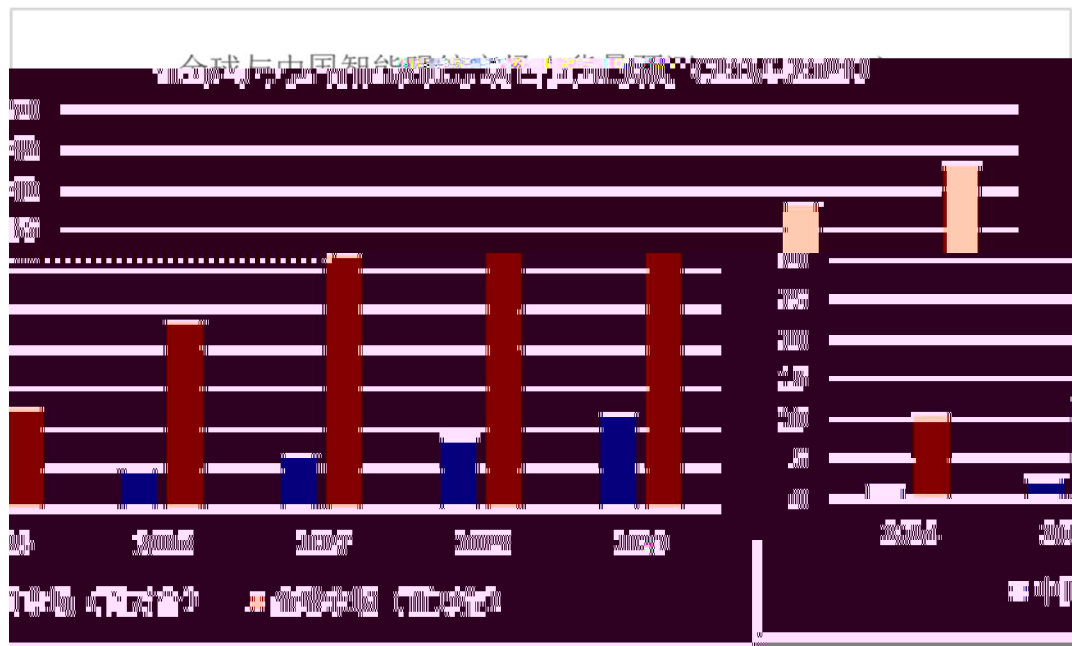
AI

AI

AI

AI

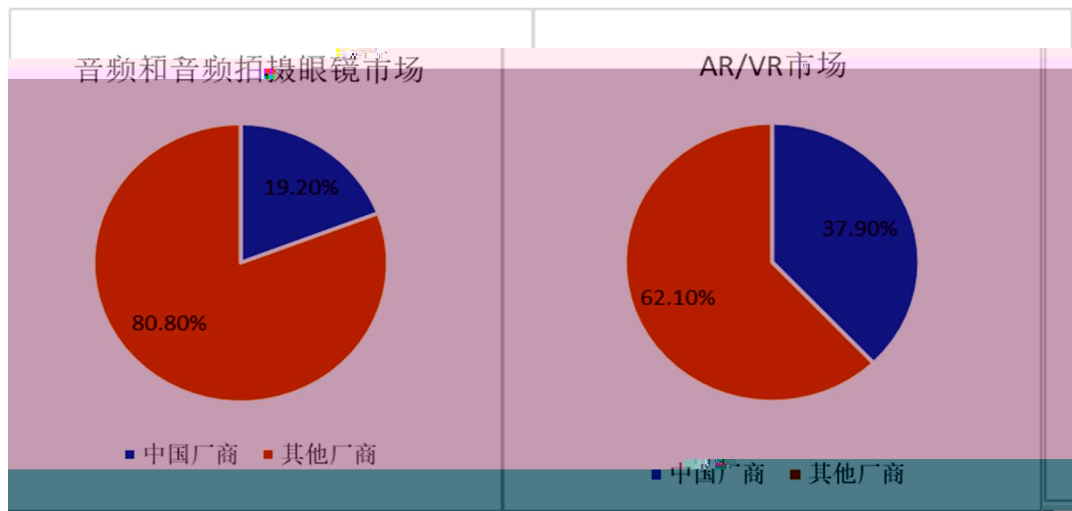
AR1	CMOS		
		IDC	2025
	406.5		108
64.2%	26.6%		2025
	1280	275	2029
	4,000		
	2025		Ray Ban-Meta
	52.5	17	
		AI	
	V3	AI	2
G1	StarV Air 2	AI+AR	
	2025		
Rokid Glasses	Meta Oakley	AI	AI
	AI		



IDC

3

2024-2029



IDC

4

2025H1

样 “ 与 ”

AI to C

力 AI

AI

“ ”

AI

争

“ ” “ ”

AI

AI

“

”

SDK

AR

AI

APP

“

”

低

AI

AI

AR

AI

“

”

AI

低 三

具

AI

AI

争

“ ”

三 AI

MicroLED

JBD

AI

“ ”

力

2026

AI

AI

力

XREAL Rokid

AI

AI

AR

AI

AI

AI

关

AI

AI

AI

3 AI

				AI
2	AI	2025 4		“ ” “ ”
AI	AI	2025 11		AI App
Ray-Ban Meta Wayfarer	AI	2023 9	Meta- RayBa n	Meta AI Llama
V3 AI	AI	2025 1		AI
AI	AI	2025 6		

Oakley Meta Vanguard AI	AI	2025 9	Meta- Oakley	
AI Pro	AI	2025 11		AI
Rokid Glasses	AI+AR	2025 9	Rokid	OCR
Meta Ray- Ban Display	AI+AR	2025 9	Meta- RayBa n	Wayfarer LCOS AR
AI S1	AI+AR	2025 11		
G2	AI+AR	2025 12		

1.

AI

AR

“

”

1AI
<div><div>/</div><div>/</div><div>“AI”</div><div>AI</div><div>1.</div><div>303</div><div>“3</div><div>”</div><div>80%</div></div>

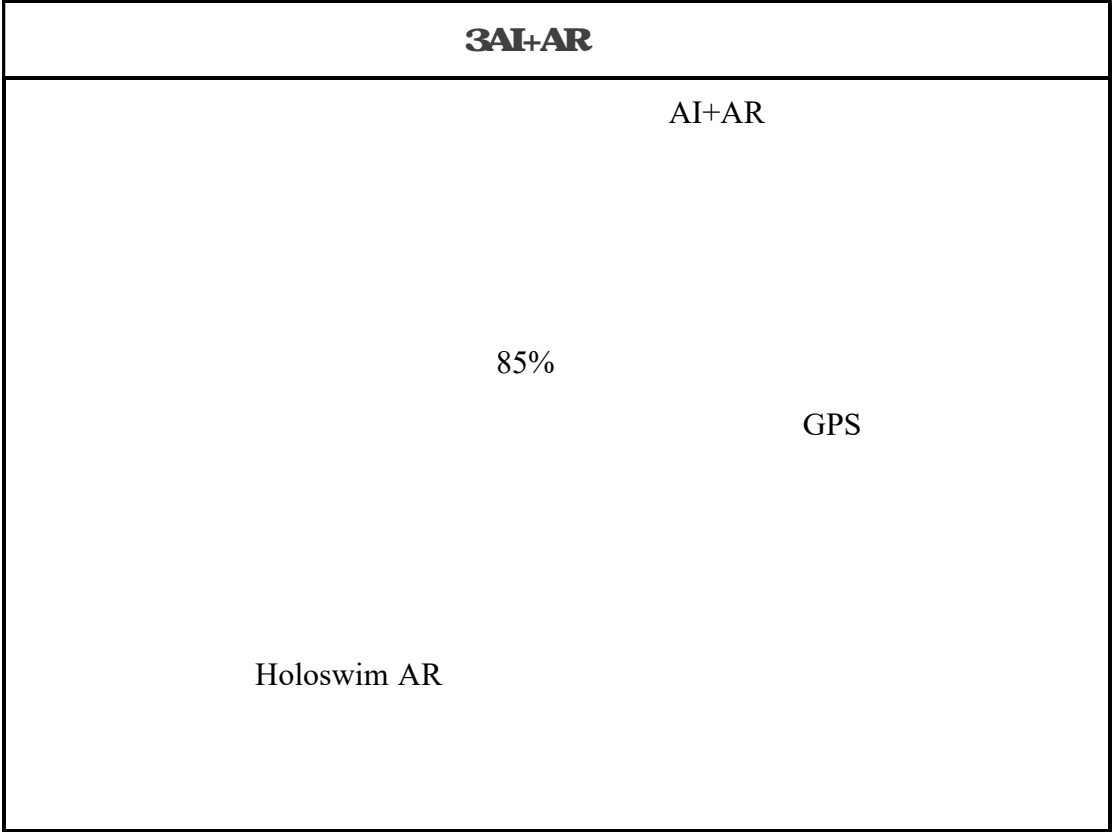
“

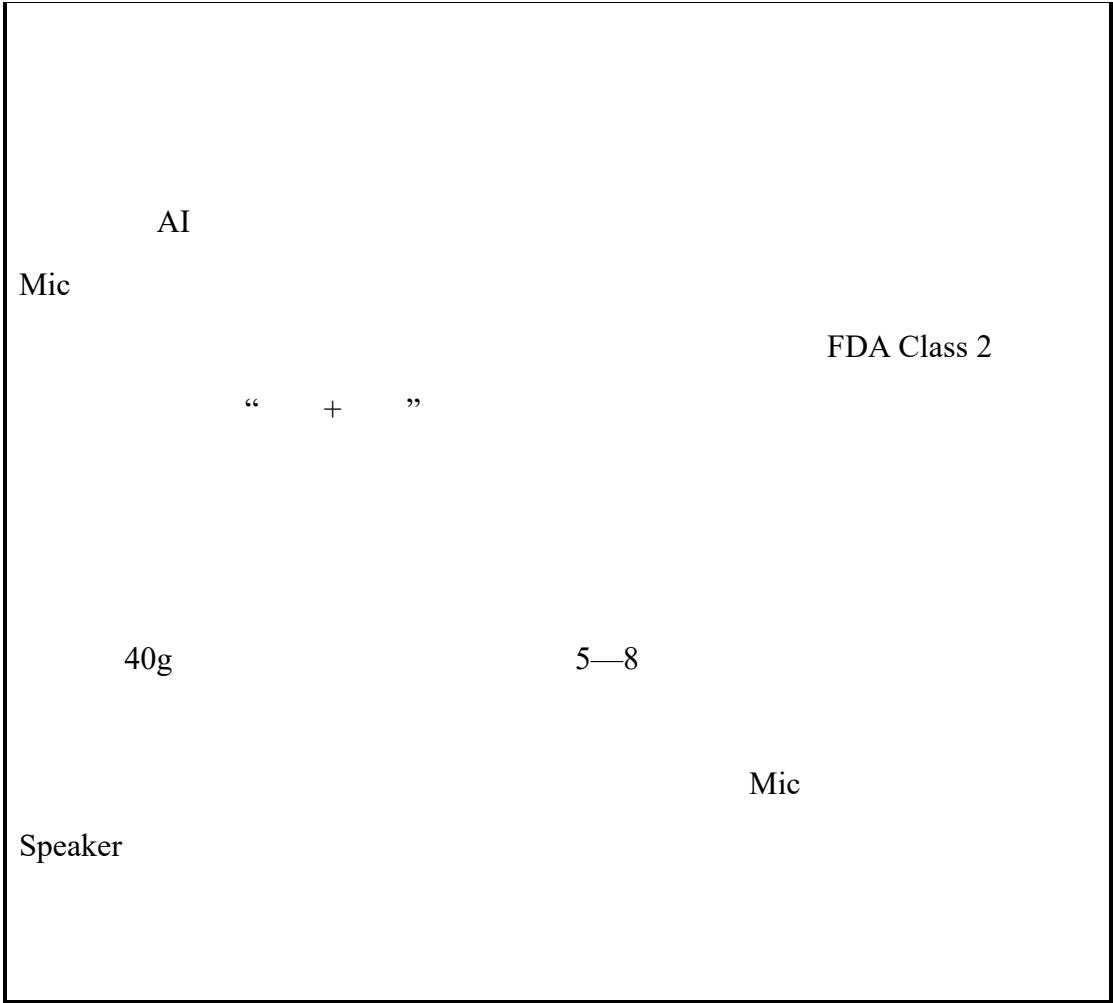
“ ”

The diagram is enclosed in a large rectangular frame. At the top center, the text "2AI" is displayed in a bold, black, sans-serif font. Below this, the text "Rokid Glasses" appears in a standard black, sans-serif font. Further down, the text "10" is centered. Below "10", the text "Rokid Glasses" is repeated. At the bottom center, the text "AI" is displayed. The text elements are arranged vertically, with quotation marks (" ") placed around the "10" and "AI" text, suggesting a specific context or relationship between these elements and the "Rokid Glasses" text.

AI

AI





4

AI

5	AI+AR

INMO GO2	AI+AR	
40	90	4

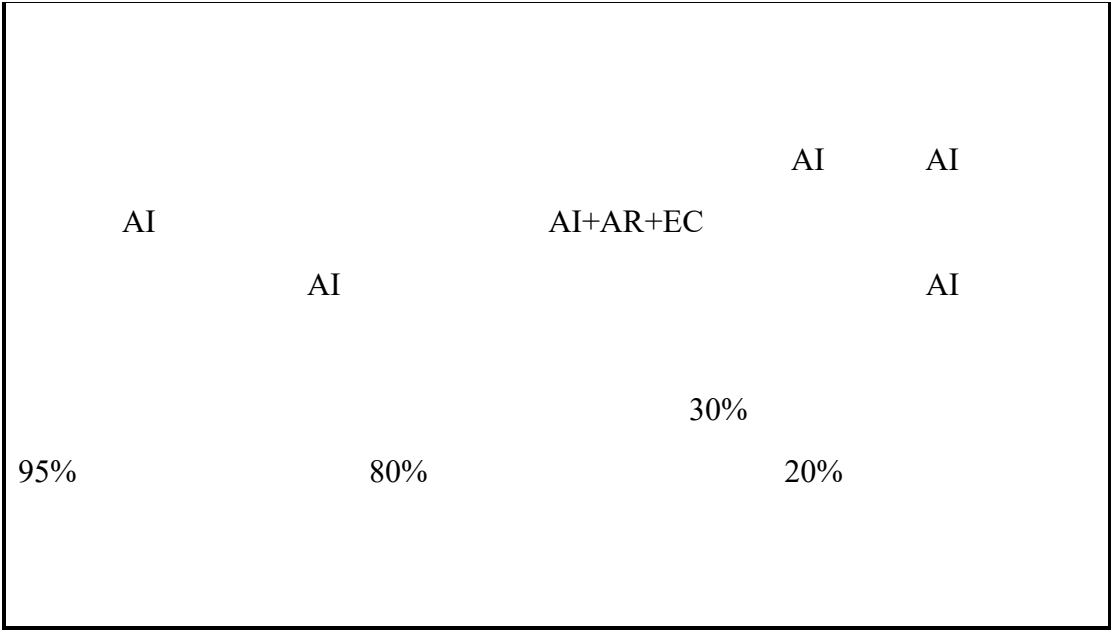
1.公

AI

AR

AI

6	AI



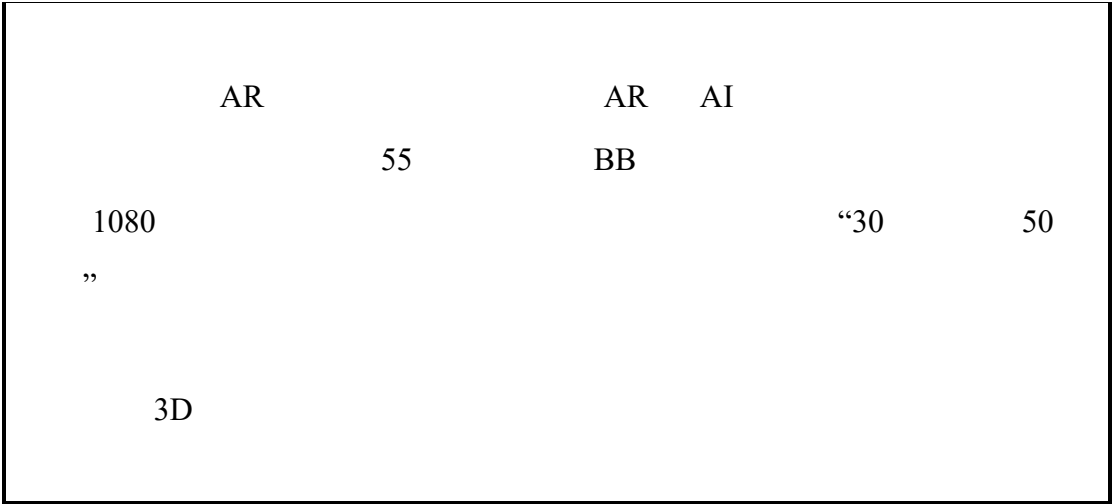
2.

AI

CT

AI

7AR			
“30	50	”	
	BB		
	600		
		BB	70

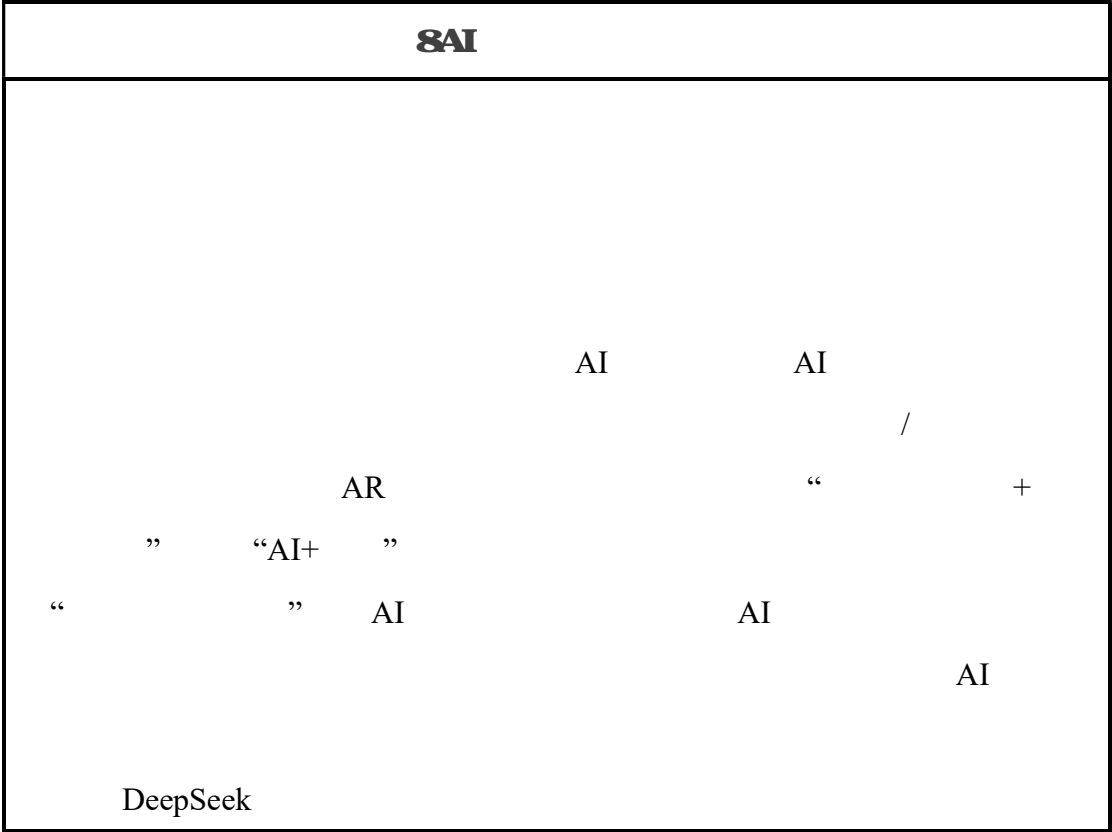


3.

AI+AR

AI

3D



	AR	“
”		
AI	“	”

AI

MicroLED/LCOS

AI

eSIM

AI

AI

AI

AR

AI

“ ” “ ”

≡

“AI + ”

AI

≡

AI

AI

AI

	Artificial Intelligence (AI)
	Augmented Reality (AR)
	Beamforming
	Chiplet
	Cloud-Edge Synergy
	Complementary Metal-Oxide-Semiconductor (CMOS)
	Central Processing Unit (CPU)
	Degree of Freedom (DoF)
	Digital Signal Processor (DSP)
	Electronic Image Stabilization (EIS)
	embedded MultiMediaCard (eMMC)
	Fast Fourier Transform FFT
	Field Of View (FOV)
	Flexible Printed Circuit (FPC)
	Frame Per Second (FPS)
	Graphics Processing Unit (GPU)
	Human Factors Engineering
	Head Related Transfer Functions (HRTF)
	Inertial Measurement Unit (IMU)
	Image Signal Processor (ISP)
	Liquid Crystal Display (LCD)
	Large Language Model (LLM)

	Low Power Double Data Rate (LPDDR)
	Multi-frame Fusion
	Multimodal Interaction
	Neural Processing Unit (NPU)
	Optical Character Recognition (OCR)
	Original Design Manufacturer (ODM)
	Original Entrusted Manufacture (OEM)
	Organic Light-Emitting Diode (OLED)
	Optical Image Stabilization (OIS)
	Operating System (OS)
	Optical Waveguide
	Printed Circuit Board (PCB)
	Personal Agent
	Simultaneous localization and mapping SLAM
	System on Chip (SoC)
	Trusted Execution Environment (TEE)
	Vergence-accommodation conflict (VAC)
	Virtual Reality (VR)
	Extended Reality (XR)

中国信息通信研究院 泰尔终端实验室

52

100191

010 62300393

010 62304980

www.caict.ac.cn

