

### 京信通信系統控股有限公司 Comba Telecom Systems Holdings Limited

股份代號 Stock Code : 香港 Hong Kong : 2342 新加坡 Singapore : STC

## 2024 Annual Results Corporate Presentation

Persistent • Focus 繼往開來・凝心聚力 Innovation • Brilliant 創新發展・再創煇煌

## **Participating Management**

# Comba



### Mr. Fok Tung Ling

Chairman



### Ms. Huo Xinru

Executive Director & President of the Group & President of Comba Telecom Systems International



### Mr. Ken Chang

Executive Director & Group CFO

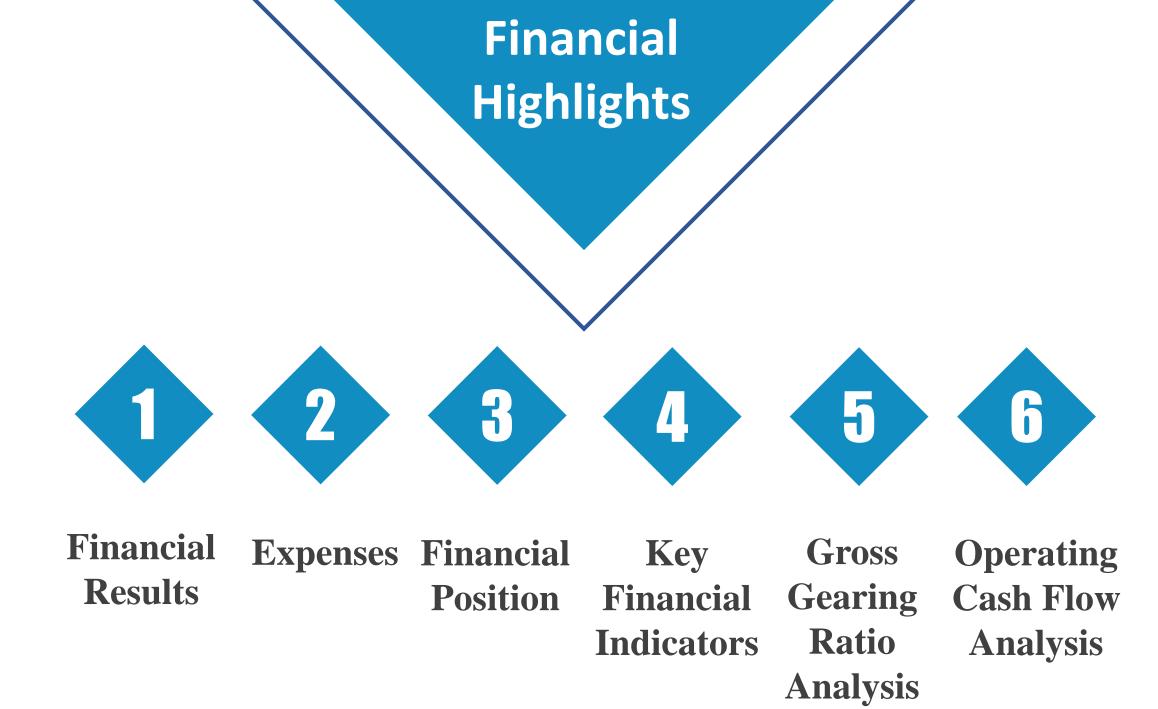
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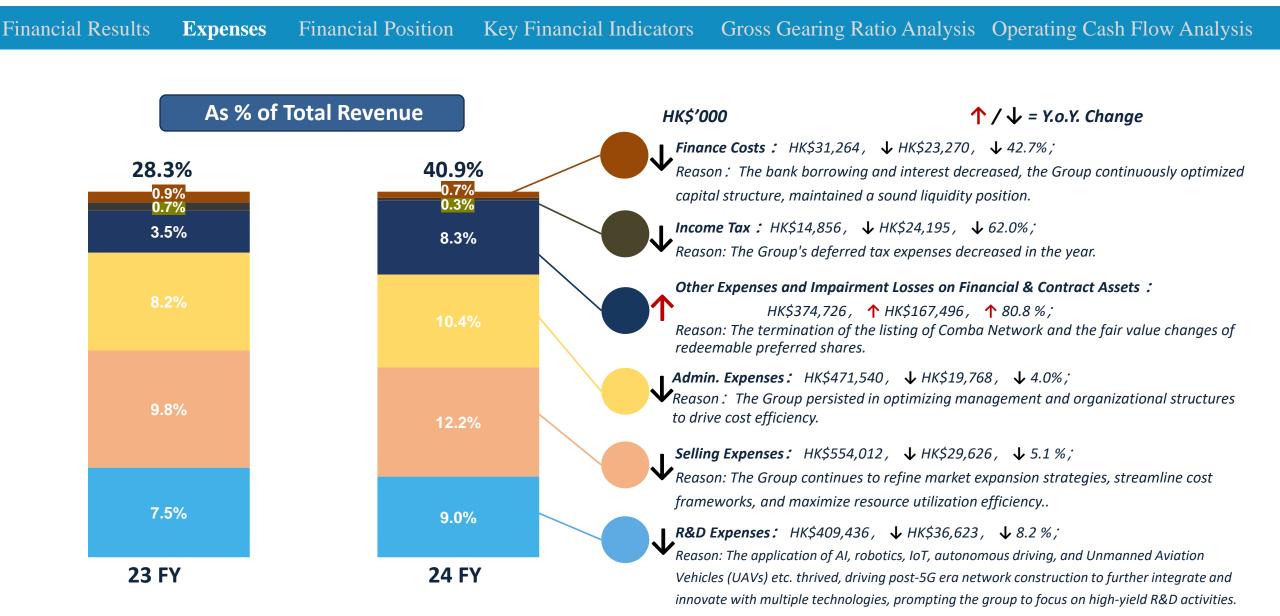
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Financial Results Expenses Financial	Position Key Finan	cial Indicators Gross	Gearing Ratio Analysi	s Operating Cash Flow Analysi	
	•	ear ended cember	Change	For the six month ended	
HK\$'000	2024	2023	Change	30 June 2024	
Revenue	4,528,263	5,981,974	↓ 24.3%	2,343,455	
Gross profit	1,171,116	1,662,687	↓ 29.6%	622,613	
Gross profit margin	25.9%	27.8%	<b>↓</b> 1.9pp	26.6%	
Operating Expense	(1,855,834)	(1,821,820)	↑ 1.9%	(845,724)	
Profit before tax	(538,718)	54,664	↓>100%	(142,672)	
Income tax	(14,856)	(39,051)	<b>↓62.0%</b>	(14,610)	
Profit attributable to shareholders	(564,191)	6,696	NA	(158,433)	
Net profit margin	(12.5%)	0.1%	<b>↓</b> 12.6pp	(6.8%)	
Basic profit per share (HK cents)	(20.41)	0.24	NA	(5.73)	
Dividend per share (HK cents)	-	-	-	-	
Total dividend payout	-	-	-	-	





Financial Results Expenses **Financial Position** Key Financial Indicators Gross Gearing Ratio Analysis Operating Cash Flow Analysis

	For the year ended 31 December			For the six month ended	
HK\$'000	2024	2023	Change	30 June 2024	
Net cash	744,759	853,389	↓12.7%	883,861	
Total assets	7,439,608	9,039,511	↓17.7%	8,730,236	
Total liabilities	4,726,254	5,524,422	↓14.4%	5,249,463	
Net assets	2,652,379	3,360,363	↓21.1%	3,274,258	
NAV per share(HK\$)	0.96	1.21	↓20.7%	1.19	

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**Return on average equity** 



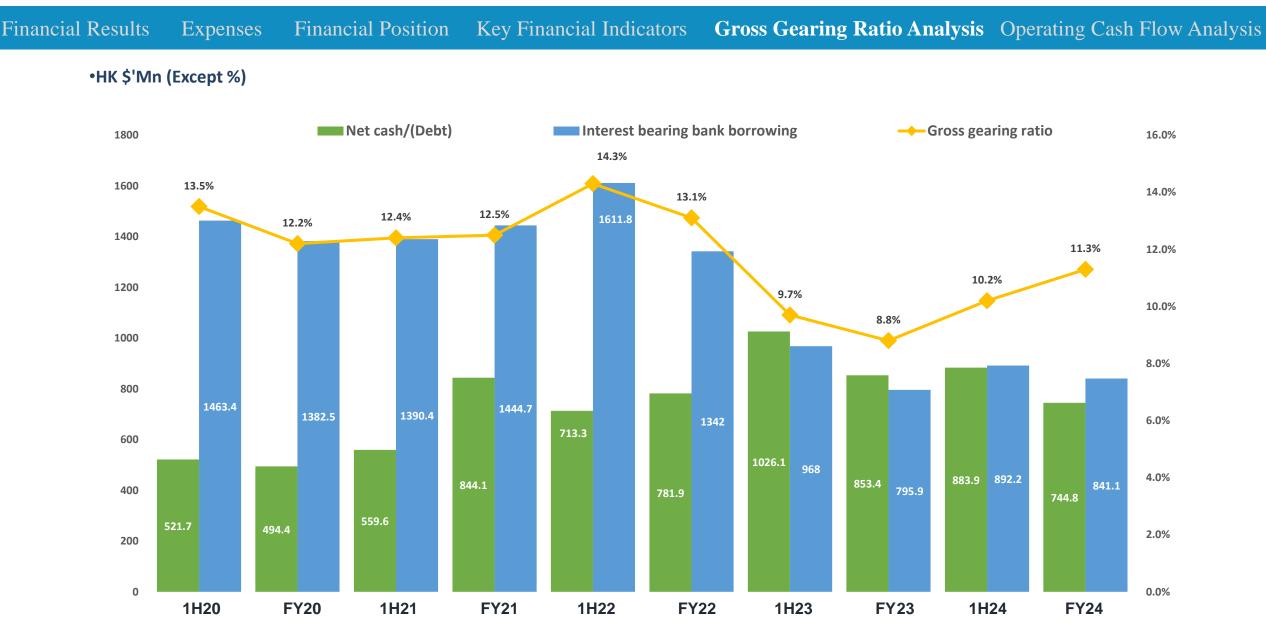
ll Results	Expenses	Financial Position	Key Financial Indica	ators Gross Geari	ng Ratio Analysis	Operating Cash Flow	
			For the year ended 31 December		For the six month ended		
			2024	2023	Change	30 June 2024	
Inven	ntory turnove	er days	123	117	个6days	132	
A/R t	urnover day	5	244	225	个19days	260	
A/P t	urnover days	5	345	325	<b>↑20</b> days	364	
Cash	conversion c	ycle	22	17	个5days	28	
Opera	ating cashflo	ws (HK\$)	339 Million	493 Million	<b>↓</b> 31.2%	157 Million	
Gross	s Gearing Rat	io	11.3%	8.8%	个2.5pp	10.2%	
Debt-	-to-assets rat	tio	63.5%	61.1%	<b>↑2.4pp</b>	60.1%	

-18.8%

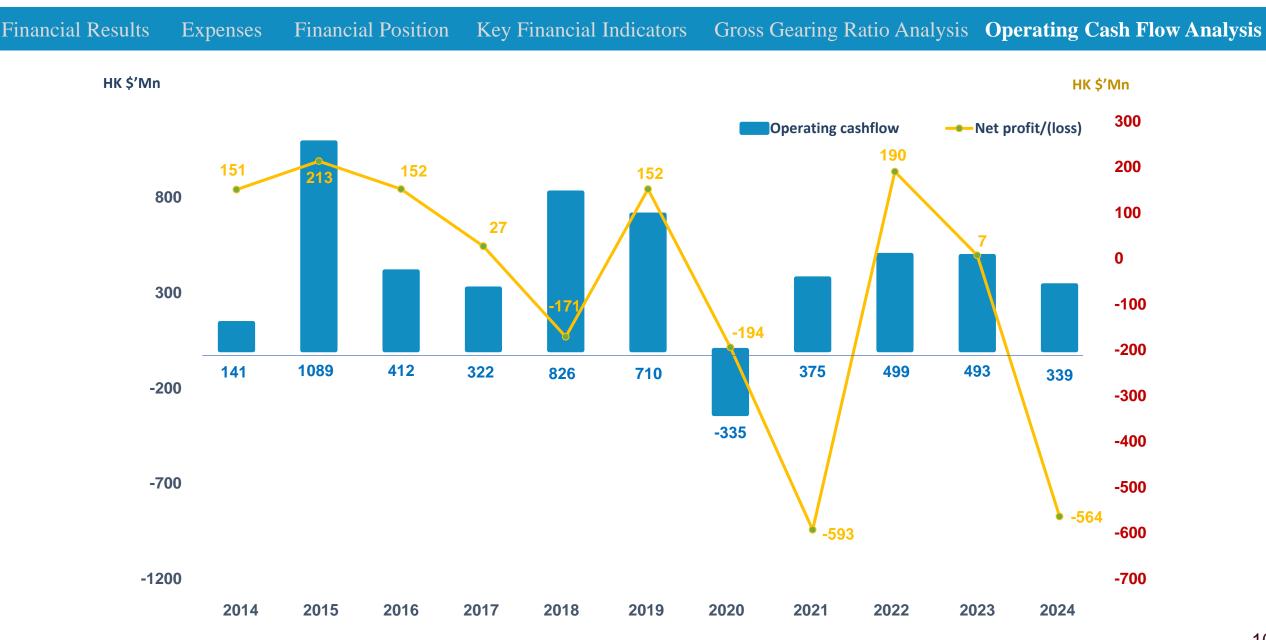
-9.2%

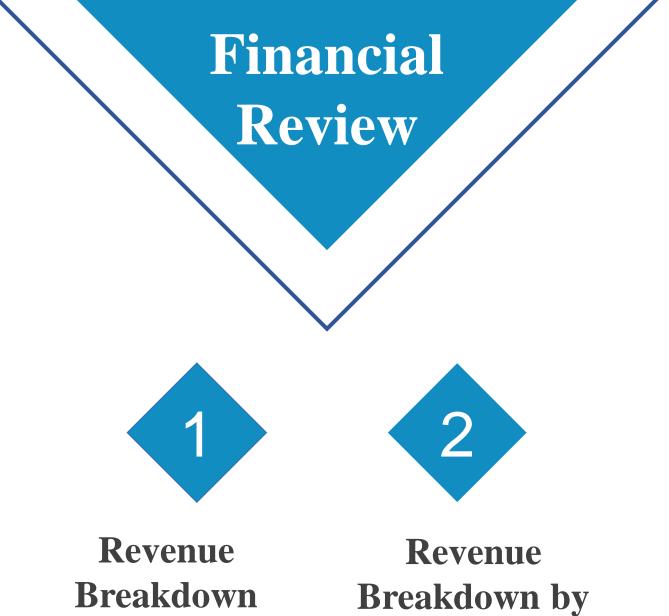
**↓**19.0pp

0.2%







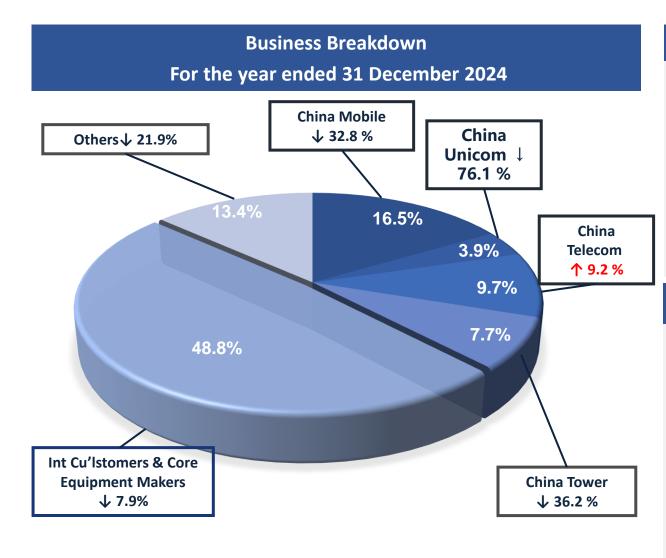


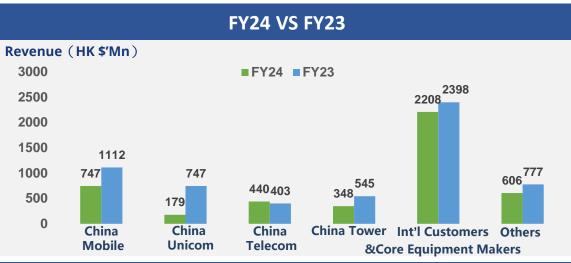
**Businesses** 

## **Financial Review**



### **Revenue Breakdown by Customers** Revenue Breakdown by Businesses





#### **Revenue Breakdown by Customers**

• Domestic Customers :

 Three major operators accounted for 30.1% of total revenue; Adding China Tower accounted for 37.8% of total revenue; (FY23: Three major operators accounted for 37.8%;

Adding China Tower accounted for 46.9%)

✓ China Telecom's revenue Y.o.Y ↑ 9.2%;

 Int'l Customers & Core Equipment Makers account for 48.8% of total revenue, Y.o.Y \* 8.7%;

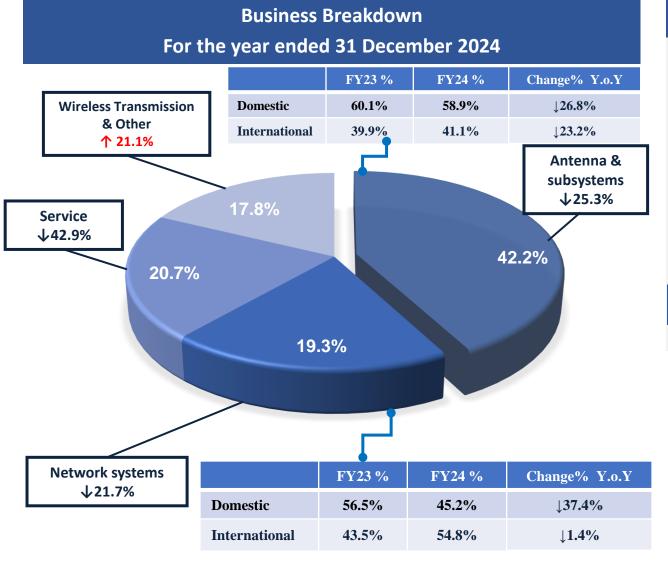
#### Other customers mainly include(ETL), in which

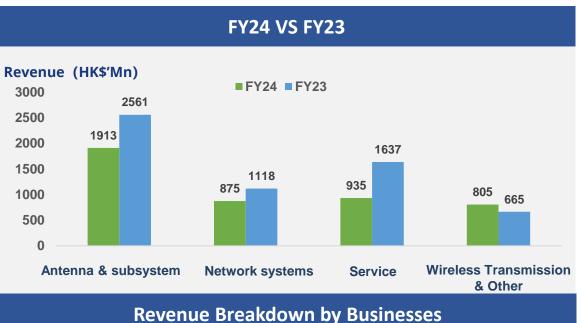
✓ ETL accounts for 3.9% of total revenue, the Laotian Kip revenue Y.o.Y ↑ 32.0%, revenue from the exchange of HKD ↑ 13.0% Y.o.Y

## **Financial Review**



### Revenue Breakdown by Customers Revenue Breakdown by Businesses





- Antenna & subsystems ↓25.3% Y.o.Y
- Network systems ↓21.7% Y.o.Y
- Service (Indoor coverage project and other project) ↓42.9% Y.o.Y
- - ✓ Wireless transmission accounts for 13.9% of the total revenue (FY23 accounts for 8.5%), revenue ↑ 23.6% Y.o.Y

## Industry Development



### Development Trend

 Pragmatic and Realistic: Navigating Through Cycles

### Global Wireless Network Development

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✓ Progress of Global 5G
 Network Deployment

### China 5G Construction

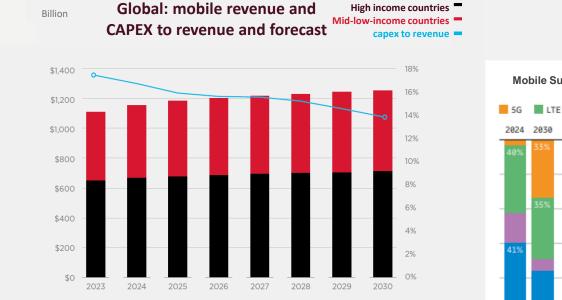
 ✓ Strategic Foundation for Deep Coverage and Integration of Cloud, Network, and Computing

## **1. Development Trend**

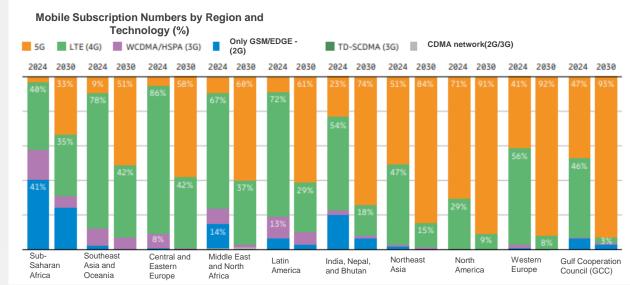


### **Pragmatic and Resilient: Navigating Industry Cycles**

- Since 2024, **global telecommunications operators' CAPEX to revenue** experienced an **overall slowdown**. 5G developed regions shifted investment focus to network optimization, green energy, AI Data Center and computing infrastructures.
- GSMA predicts: global operator CAPAX expected to reach \$1.5 trillion in 2030, OPEX to reach approximately 4 times of CAPEX, driving to further improve network+service automation, energy efficiency and carbon reduction to optimize operation and reduce costs.
- By addressing specific customer/application needs to monetize 5G network deployment, 5G enhancements, in-depth and extensive coverage, private networks, industry applications and end-to-end integration of cloud-network-computing-industry-intelligence will be a strategic imperative for revenue diversification.



Sources: GSMA The Mobile Economy Global 2024, GSMA Asia-Pacific Mobile Economy Report, GSMA The Mobile Economy China 2024, Ericsson Mobile Market Report November 2024

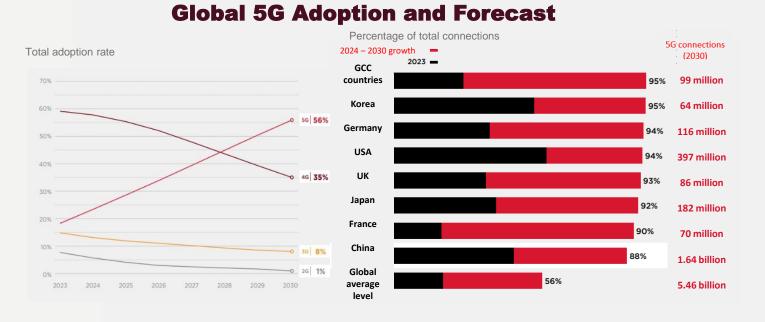


## 2. Global Wireless Network

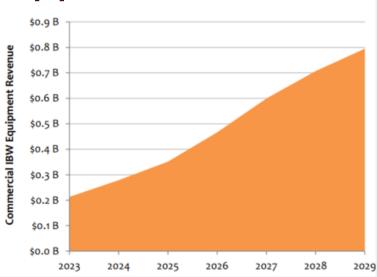
## Comba

### **Global 5G Network Deployment Advances Steadily**

- GSMA predicts: the number of global independent mobile user connections will reach 2.3 billion by 2025 and 5.46 billion by 2030, with 5G adoption rising to 56%.
- 5G indoor coverage continues to advance, with large-scale public infrastructure projects (airports, venues, subways, etc.) becoming primary application scenarios for 5G digital indoor solutions.
- The global 5G private network market projected to reach \$278 million in 2024, with a compound annual growth rate of 23% from 2024 to 2029, reach nearing \$800 million by 2029.
- Year 2024 marks the commercial launch of 5G-A, driving 5G network evolution and synergizing with explosive AI growth to accelerate industrial application scaling. Meanwhile, 6G technological breakthroughs and standardization are set to begin by 2025.
- The number of licensed cellular IoT connections is projected to reach 5.8 billion by 2030, supporting smart cities, smart manufacturing and other fields through 5G local area networks, IoT, private networks, and edge computing services.



### Forecast for IBW Private Network Equipment Revenue



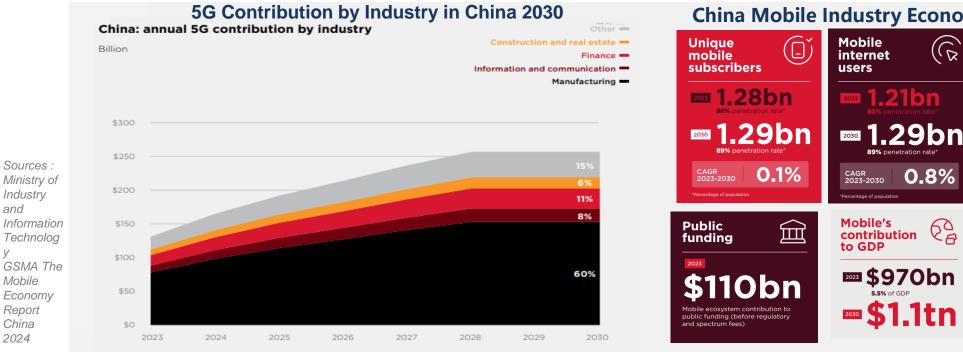
Source: GSMA 2024 Global Mobile Economy Report, Ericsson Mobility Report Data and Forecasts (June 2024), GSMA 2023 Global Mobile Economy Report, Ericsson Action Trends Report (2024), GSA Public Networks and Operators: GAMBoD Database Snapshot (2024), Mobile Experts In-Building Wireless 2024

## **3.** China **5G** Construction

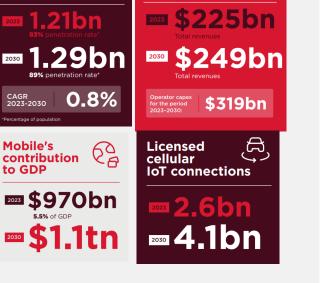


### Strategic Foundation for Deep Coverage and Integration of Cloud, Network, and Computing

- By the end of 2024, China will have a total of 12.65 million mobile phone base stations, including 4.251 million 5G base stations accounting for 33.6%, increased 4.5% compared to 2023, with a net addition of 874,000 stations. 5G investment is progressing steadily, focusing on deep coverage and enhancing network support for key scenarios, with approximately 85% of applications expected to occur indoors by 2025.
- 5G-A brings opportunities. New forces (e.g AI application, cloud computing, IoT, Vehicle-to-Everything V2X, drones) become 5G growth drivers.
- The number of licensed cellular IoT connections in China will reach 4.1 billion in 2030, and the integration of cloud, network, computing, in ٠ all scenarios will unleash the potential of applications
- The continued development of 5G private networks will see the manufacturing sector lead China's market growth in the Industrial 4.0 era.



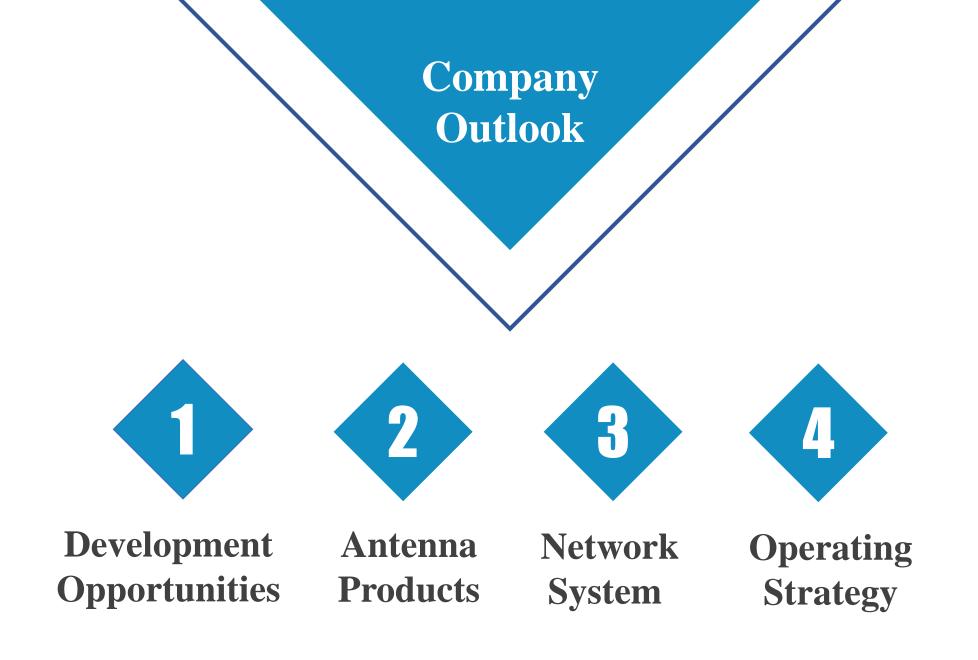
### **China Mobile Industry Economy Forecast**



**Operator** 

investment

revenues and





## **Development Opportunities**

Operators expands network coverage from extensive to in-depth

Developing countries progressively deploying the transition from 4G to 5G networks. Global 5G Indoor Distribution Upgrade

Operators focus on low-carbon, eco-friendly, energy-saving, and costs reduction with better efficiency

Integration of Cloud-Network-Computing –Industry-Intelligence, 5G+ Verticals growing rapidly

### 2. Antenna Products



#### Antenna Market Outlook Antenna Products Green innovative antenna solutions

Global operators are initiating the construction of 5G-A, with global demand for BSA exceeding 6 million units in the next three years.



The development of green, low-carbon wireless networks combined with AI, is driving demand for green antennas and smart management feeder systems in the 5G-A era.

### International

- Another base station antenna replacements peak season appears due to developing countries deploying 5G networks at scale
- Developed countries are developing 5G deployment from high volume to midlow volume region, increasing share of BSA demand
- Green antennas have excelled in testing with key operators, are now commercially deployed

International Operators Centralized Procurement for Base Stations Antenna Overview

Client	Project	Scale(Antennas)	Comba's winning bid
🔊 airtel	Airtel 2024-2025 BSA	80K	Rank 1st
telenor	Telenor 2024-2026 BSA	40K	Rank 1st
vodafone	Vodafone 2024-2025 BSA	40K	Rank 1st
	Turkey 2024 BSA	30K	Rank 1st
MTH	MTN 2021-2025 BSA	150K	Rank 1st
00000000	Ooredoo 2021-2025 BSA frame	100K	Rank 2nd
Claro-	American Movil 2024	20K	Rank 1st

#### China

- 5G low and medium-band network refarming and scale deployment will drive a stable demand for base station antennas
- The "Signal Upgrading" initiative increasing demand of antennas in multiple scenarios as: high-speed railways, transportation hubs, residential communities, buildings...
- The commercial value of green antennas is becoming prominent, and operators are fully transitioning their antenna procurement to green options.

Client	Project	Scale(Antennas)	Comba's winning bid
	China Mobile's Centralized Procurement of Green Multi-band Base Station Antenna Products from 2024 to 2025 (First Batch)	120K	Rank 1st
	China Mobile's Centralized Procurement of Green Multi-band Base Station Antenna Products from 2024 to 2025 (Second Batch)	270K	Rank 2nd
	China Mobile's Centralized Procurement of Multi-band Base Station Antenna Products from 2024 to 2025	250K	Rank 2nd
	China Mobile's Centralized Procurement of High-Speed Rail Antenna Products from 2024 to 2025	40K	Rank 2nd
	China Mobile's Centralized Procurement Project of Antenna Products for Special Scenarios from 2024 to 2025	1.14 million	Rank 2nd
	China Mobile's Passive Component Centralized Procurement Project from 2025 to 2026	18.08 million	Rank 1st
<b>伊肖电信</b> Сніма телесом	China Telecom Base Station Antenna (2023) Centralized Procurement Project	780K	Rank 2nd
	China Telecom Indoor Antenna (2023) Centralized Procurement Project	6.67 million	Rank 3rd
	China Telecom Passive Components (2023) Centralized Procurement Project	8.87 million	Rank 3rd
China Unicom 中国联通	2022-2024 China Unicom Base Station Antenna Centralized Procurement Project	1.35 million	Rank 1st
CHINA TOWER 中国铁塔	China Tower 2023 Centralized Tender for Spotlight-type Landscaping Antenna Products	700К	Rank 1st
	China Tower's 2024 POI Product Centralized Tender Project	20K	Rank 2nd

China's Major Operators Centralized Procurement for Base Stations Antenna Overview

## 2. Antenna Products



### Antenna Market Outlook Antenna Products Green innovative antenna solutions

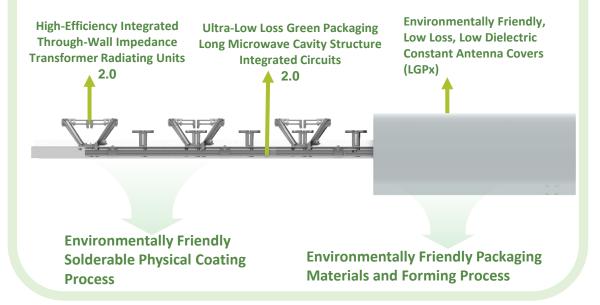
New-gen green antenna enhances the energy conversion efficiency of BSA by 20% + Empowering operators' green and low-carbon transformation, improving network quality Catalyze BSA upgrades and replacement demands

### New-gen product platform

Comprehensively upgraded FPTP 2.0, leading the industry in high quality

and sustainable development through continuous innovation in

### design, material, process and production.



### Sustainable development

### Customer values

#### Save power and reduce costs

(Scenarios e.g. urban, county, etc. with equal coverage)

- - 10 0 mile in per ;

#### **Expand signal coverage**

(rural, high-speed railway scenarios, etc., equal input power)

Signal coverage 
 <sup>1</sup> 25% <sup>2</sup>30%

#### Network quality enhancement

- in-depth/sea coverage level increase of **1-2dB**
- Number of antenna failure nodes ↓30%, low PIM

#### **Recycle and reduce costs**

 Save on recycling expenses of glass-reinforced cover \$\$80rmb/pair



#### **Carbon reduction in applications**

- Carbon reduction per 10,000 stations
   per year on average
  - ↓ 13-20 thousands tonnes

#### Pollution reduction in material

 Reduce highly contaminated plated surfaces by material processing ↓80%

#### Three wastes in production

Production reduction of solder emissions
 ↓65%, improve occupational health

#### **Eco-friendly by recycling**

 Eco-friendly radome, recycling rate 100%

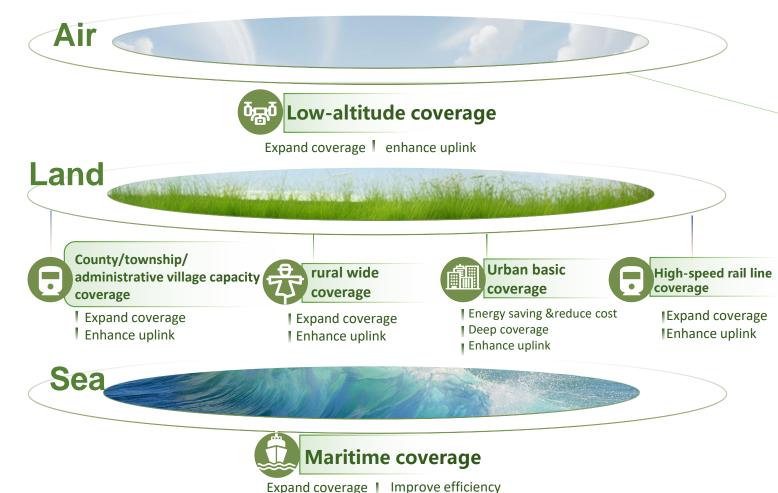
## 2. Antenna Products



### Antenna Market Outlook Antenna Products Green innovative antenna solutions

Green antenna solution for air land sea stereoscopic all-scene is in full commercial use, bringing continuous performance increment.

Domestic operators have started planning for low-altitude network construction





Joint innovation with partners in low altitude networks:

- China First Trial: pilot verification of 2.1G NR air-toground integrated stereo coverage network
- Planning for 3.5G and 4.9G low-altitude threedimensional coverage network

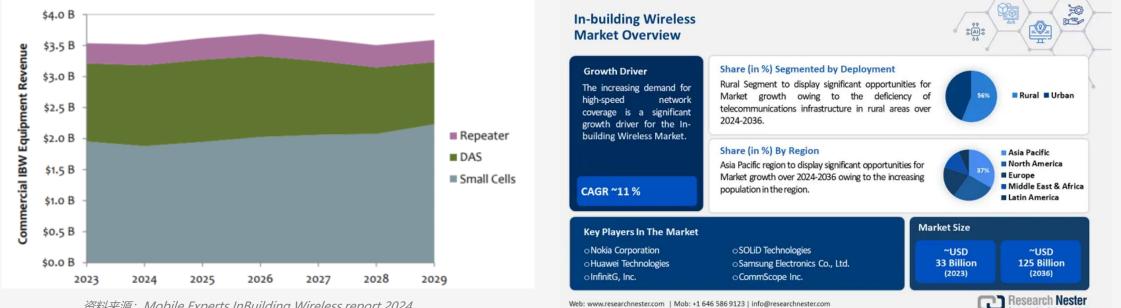


### Network Product Market Outlook Network Product 5G private network solutions 5G-A Passive IoT Solution

#### International Market: Indoor coverage services steadily increasing

#### active expansion into indoor distribution and 5G/LTE enterprise private network markets

- The neutral host model is gaining traction, with co-constructed & shared indoor wireless network coverage solutions witnessing growth in regions like APAC and Americas.
- DAS demands remain stable in co-construction and sharing-oriented major venues and infrastructure facilities; private network development drives Small Cell expansion.
- 5G/LTE private network solutions are being scaled and experimental networks established across global markets.
- Through 2025 to 2029, the indoor distribution product market is forecast to sustain steady investment growth.



资料来源: Mobile Experts InBuilding Wireless report 2024

Connect, Lead, Accomplish



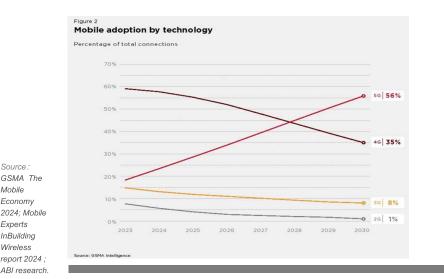
### Network Product Market Outlook Network Product 5G private network solutions 5G-A Passive IoT Solution

### International market overview

- The global rollout of 5G licenses across major economies is driving market momentum for indoor coverage upgrades, with demand expected to grow steadily over the next two years.
- 5G digital active indoor systems have gained industry consensus, particularly in highlight application scenarios: large-scale public infrastructure projects.
- Macro RAN investments are slowing, while developing nations are in the early stages of their 5G investment cycles, sustaining growth opportunities. ٠
- 5G Private Networks: rising demand fueled by standardized frameworks, maturing ecosystems, and diversified applications, foreseeing a significant future market potential.
- Open RAN (O-RAN): Open interfaces and virtualization are now industry norms, with ecosystems expanding into verticals like private networks.

#### 5G upgrade becomes the main driving force

It is expected that 5G connectivity will reach 5.5 billion by 2030, with over 50% of the connections being 5G



Source

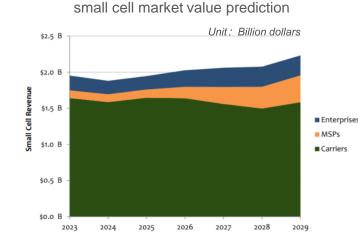
Mobile

Experts

Wireless

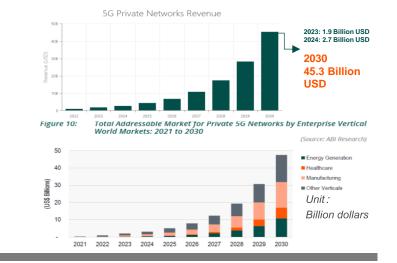
#### Small cell business grows stable

#### The number of small cells will maintain an average annual growth rate of 2% in 2022-2029



#### Upward trend demand for private networks

5G private networks become an essential demand for vertical industries, especially in manufacturing, energy and healthcare.



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### Network Product Market Outlook Network Product 5G private network solutions 5G-A Passive IoT Solution

Chinese Market Overview: Operators and industries benefit from targeted policy-backed initiatives, with clearer demands for precision network coverage. Comba all-scenario product solutions stand out.

- To advance next-gen productivity and deepen the integration of digital and real economies, moderate pre-deployment of new infrastructure is encouraged. Requirements for 5G and gigabit connectivity include "coverage" and "perception."
- Signal Upgrade: The notice on the "Signal Upgrade" initiative aims to strengthen mobile network coverage in key areas, roads, and rural regions by the end of 2025, enhancing deep and continuous coverage with improved uplink and downlink access speeds.
   Broadband Frontier: The notice on accelerating "Broadband Frontier" development emphasizes improving 5G network coverage in

remote areas, targeting gigabit fiber access in county towns and rural communities by the end of 2025. Broadband coverage in specific

areas will reach 100%.

- Universal Telecom Service: The compensation mechanism for broadband telecom services in rural and remote areas will be improved to bridge the digital divide. 2025 marks the 10th anniversary of this service, which will continue to advance.
- 5G RedCap: "Notice on Promoting the Technological Evolution and Application Innovation Development of 5G RedCap": By 2025, cities at or above the county level will achieve large-scale coverage of 5G RedCap, creating demonstration benchmarks in the industry.
- 5G + Industrial Internet: "Guidelines for Pilot Construction of the Integrated Application of '5G + Industrial Internet'": The work meeting on industrial and information technology at the end of 2024 proposed key work for 2025 to "promote the construction of independent industrial 5G networks," supporting telecom companies and industrial enterprises to jointly carry out pilot construction of independent 5G networks and accelerate commercialization.
- Low Altitude Economy: In December 2023, the central economic work conference proposed to develop several strategic emerging industries, including the low-altitude economy. In 2024, "low-altitude economy" was first included in the government work report.
- Satellite Internet: "Implementation Opinions on Promoting Future Industrial Innovation Development" point out the need to promote the industrial application of next-generation mobile communication, satellite internet, and quantum information technologies.

Network Enhancement

Industry Empowerment



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### Network Product Market Outlook Network Product 5G private network solutions 5G-A Passive IoT Solution

Focusing on the precise construction needs for "in- depth and extensive coverage to eliminate weak and blind spots"

Building a highly effective, value-adding and evolving superior network for customers which helping clients "signals upgrade".

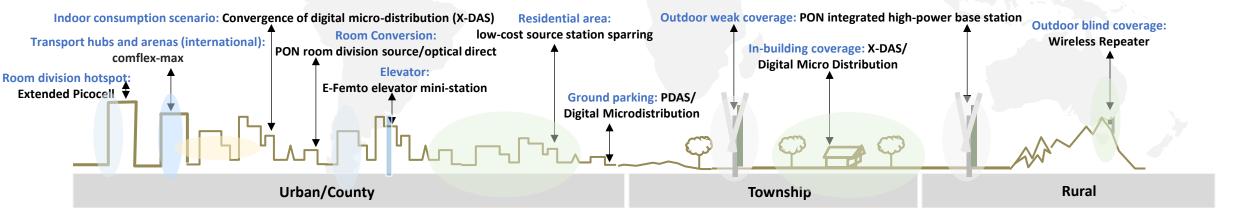
**Series of Innovative Products:** 

- Launched a highly cost-effective 5G dual-mode home base station product, officially entering the 5G era for Home Femto
- Introduced a multi-frequency, multi-mode high-power PON series base station to quickly achieve rural coverage, aiding signal upgrades
- Released the Comflex-Max series of ultra-high bandwidth, large-capacity co-built shared indoor distribution products

Based on the jointly designed and co-owned intellectual property baseband SoC chip with partners, along with Comba's independently developed fully commercialized protocol stack, we launched the industry's most integrated and cost-effective 4G + 5G dual-mode home base station product

Outdoor integrated-distributed converged design with multi-band, multi-mode & 4G/5G convergence, compatible with XGPON/GPON backhaul, reducing transmission requirements while enhancing uplink user experience. No need for machine room installation or dedicated transmission, with overall costs reduced by about 50% and power consumption decreased by about 20%

Utilize ultra-wideband digital predistortion technology, achieving an instantaneous bandwidth of 400MHz per RF channel. Supports multi-band co-construction and sharing in large scenarios (among 2G/3G/4G/5G networks). Supports coupling of macro base station RF signals and open network baseband signal input, significantly reducing shared network energy consumption





Network Product Market Outlook Network Product Form 5G private network solutions 5G-A Passive IoT Solution

Industry 5G Private Network Portfolio: comprehensive, end-to-end solutions with 5G Core (5GC), Network Management System (NMS) multi-band support/Scalable power (low/high) /indoor/outdoor/customization base stations, industrial/vertical-specific modules

Spearheaded by **the energy and education** industries, breakthroughs in the deployment of 5G private networks are being realized across multiple vertical industries.

**Pilot networks** with overseas manufacturing leaders & educational institutions demonstrated **superior system performance**, validated by clients.

**Ecosystem Collaboration:** Partnerships with top-tier integrators, core network providers, and digital solution partners deliver **end-to-end 5G private network value.** 





Network Product Market Outlook Network Product Form 5G Private Network Solutions 5G-A Passive IoT Solutions

Solution expansion direction: focus on "Internet of Everything" with ultra-low-cost solutions, initially

targeting warehousing/logistics and apparel retail chains, then expanding to broader scenarios.

1. Focus on large-scale enterprise clients, target parent companies first, then replicate across subsidiaries, achieve scaled commercial replication of large warehouse through the implementation of the '' One-Code-throughout '' programme



"One-Code-throughout" enables end-to-end refined asset management and efficient digital tracking, laying the foundation for lean asset operations. This is critical for widespread adoption of passive IoT technology.

2. Apparel Retail Chain Expansion with pilot-to-scale model, establish benchmarks via flagship deployments (e.g., HLA, a leading apparel brand), then replicate to other large retailers with pre-tagged inventories.

- By 2024, standardized deployment frameworks finalized, enabling rapid replication.
- 14 commercial contracts for passive IoT solutions signed.

## 4. Operating Strategy

### Comba

### **Operating Strategy**

### **Development**

Continue to deepen the presence in operator market, fully leverage professional expertise to explore enterprise and consumer network/ products.



Optimize resource allocation, precisely deliver.



### Innovation

Continuously enhance leading-edge product R&D capabilities to maintain industry leading position.



Reduce total operating expenditure, significantly boost organizational efficiency.



# Thank you!

