## Comba

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

股份代號 Stock Code: 2342

# 2020 Annual Results Corporate Presentation

Persistent

Focus

繼往開來•凝心聚力

Innovation

Brilliant

創新發展•再創煇煌



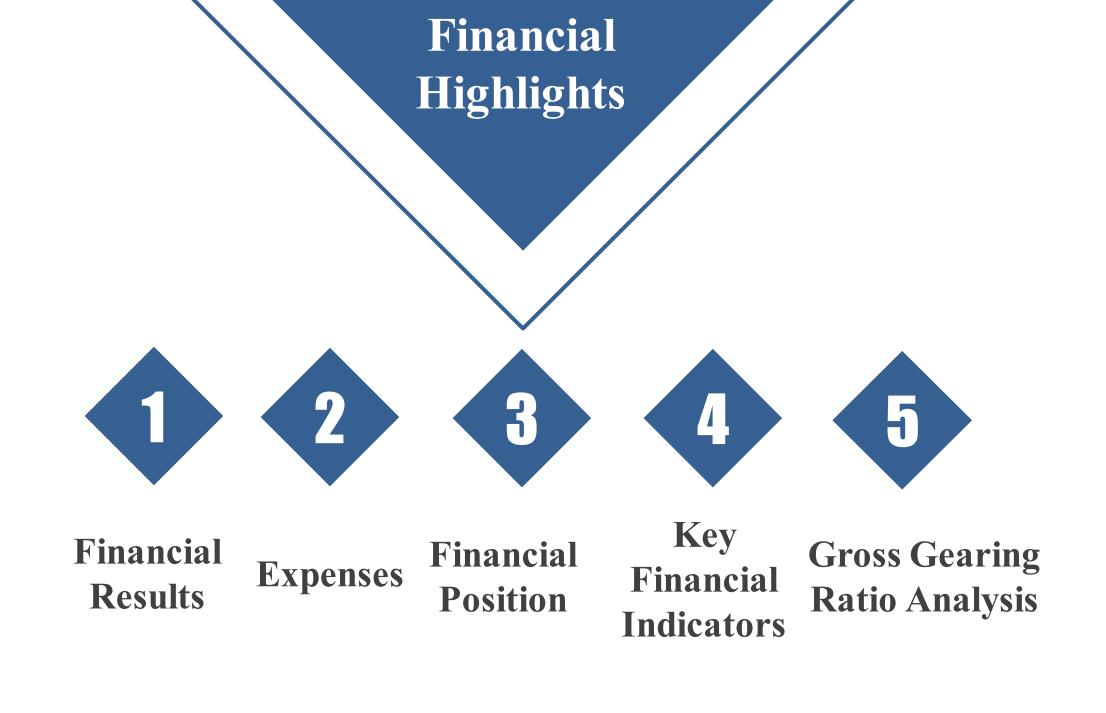
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**Financial Results** 

Expenses

Financial Position

Key Financial Indicators

	For the year ended 31 December		Change	For the six
HK\$'000	2020	2019		months ended 30 June 2020
Revenue	5,057,240	5,779,916	<b>↓12.5%</b>	2,238,485
Gross profit	1,445,181	1,776,184	<b>↓331,003</b>	726,610
Gross profit margin	28.6%	30.7%	<b>↓</b> 2.1pp	32.5%
Operating profit/(loss)	(199,812)	234,688	<b>↓</b> 434,500	81,258
Income tax	(23,011)	(61,853)	<b>↓38,842</b>	(39,139)
Profit/(loss) attributable to shareholders	(194,104)	151,749	NA	53,137
Net profit/(loss) margin	(3.8%)	2.6%	<b>↓</b> 6.4pp	2.4%
Basic earnings/(loss) per share (HK cents)	(7.36)	6.18	<b>↓</b> 13.54	2.09

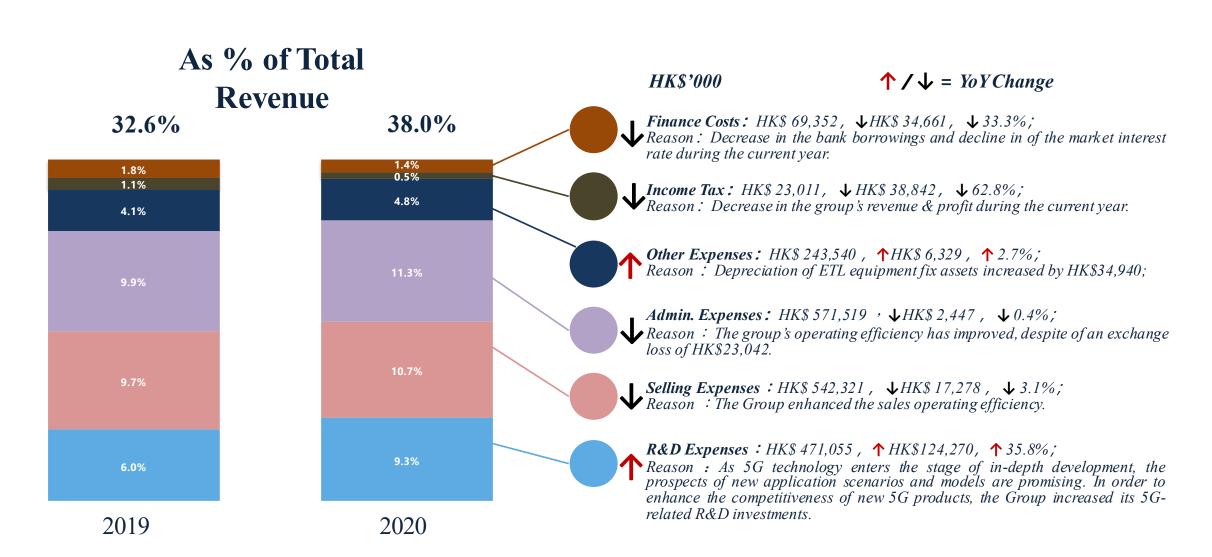


Financial Results

**Expenses** 

Financial Position

Key Financial Indicators





Financial Results

Expenses

**Financial Position** 

Key Financial Indicators

	As	As at		
HK\$'000	2020	2019	Change	30 June 2020
Net cash	494,381	349,772	<b>↑144,609</b>	521,729
Total assets	11,325,161	11,177,089	<b>^1.3%</b>	10,858,437
Total liabilities	6,775,127	7,280,072	<b>↓6.9</b> %	6,291,691
Net assets	4,106,913	3,461,209	<b>↑18.7%</b>	4,092,912
NAV per share(HK\$)	1.49	1.39	<b>↑</b> 7.2%	1.49



Financial Results

Expenses

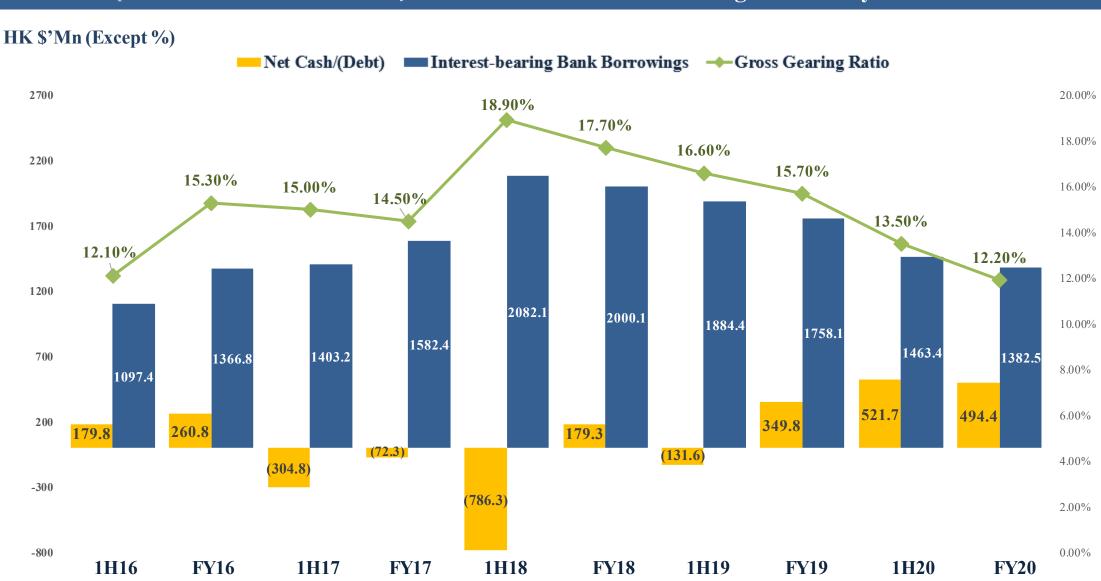
Financial Position

**Key Financial Indicators** 

	For the yea	For the six		
	2020	2019	Change	months ended 30 June 2020
Inventory turnover days	125	114	↑11 days	158
A/R turnover days	293	258	↑35 days	320
A/P turnover days	407	380	↑27 days	470
Cash conversion cycle	11	(8)	↑19 days	8
<b>Gross Gearing Ratio</b>	12.2%	15.7%	<b>↓</b> 3.5pp	13.5%
Debt-to-assets ratio	59.8%	65.1%	<b>↓</b> 5.3pp	57.9%
Return on average equity	(5.1%)	4.5%	<b>↓</b> 9.6pp	2.8%



Financial Results Expenses Financial Position Key Financial Indicators Gross Gearing Ratio Analysis





Revenue
Breakdown by
Customers



Revenue Breakdown by Businesses



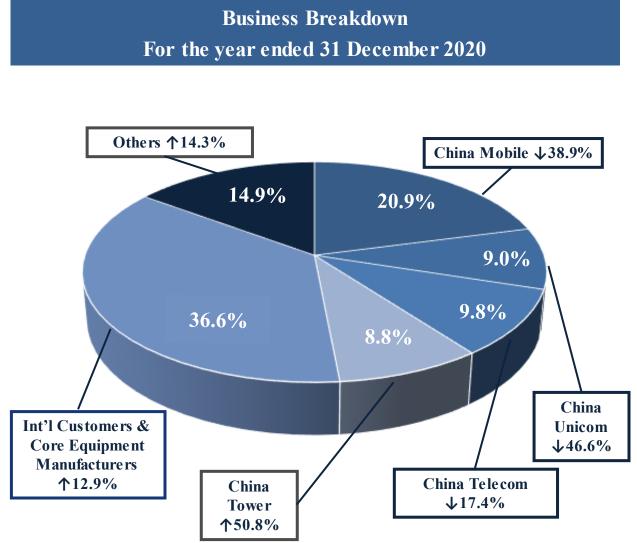
2010 – 2020 Financial Performance Analysis

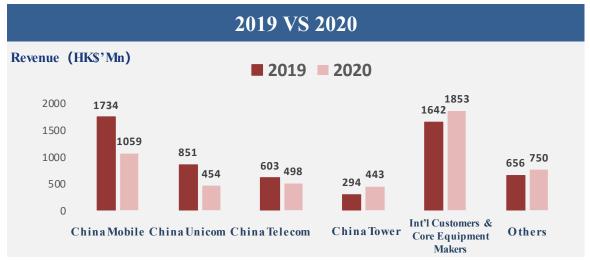


Revenue Breakdown by Customers

Revenue Breakdown by Businesses

2010 – 2020 Financial Performance Analysis





Customer Breakdown

#### • Domestic Customers:

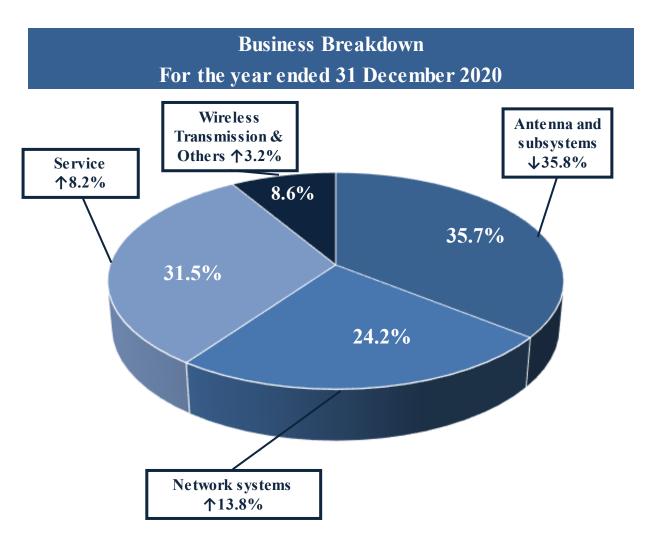
- ✓ Three major operators accounted for 39.7% of total revenue, ↓36.9% yoy;
- ✓ China Tower accounted for 8.8% of total revenue, **↑50.8%** yoy;
- Core Equipment Vendors accounted for 18.8% of total revenue, \$\dagger^26.1\%\ yoy;
- Other customers include Railway Transit, ETL, among which,
  - ✓ Railway Transit accounted for 3.7% of total revenue,  $\sqrt{9.9\%}$  yoy;
  - ✓ ETL accounted for 3.3% of total revenue, ↑7.2% yoy;

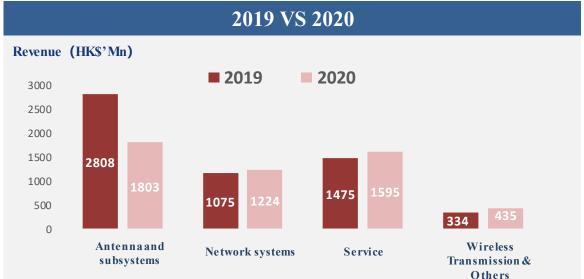


Revenue Breakdown by Customers

Revenue Breakdown by Businesses

2010 – 2020 Financial Performance Analysis





#### **Business Breakdown**

Note: In order to better reflect the group's different products income nature,

the business income with the feature of network products is reclassified.

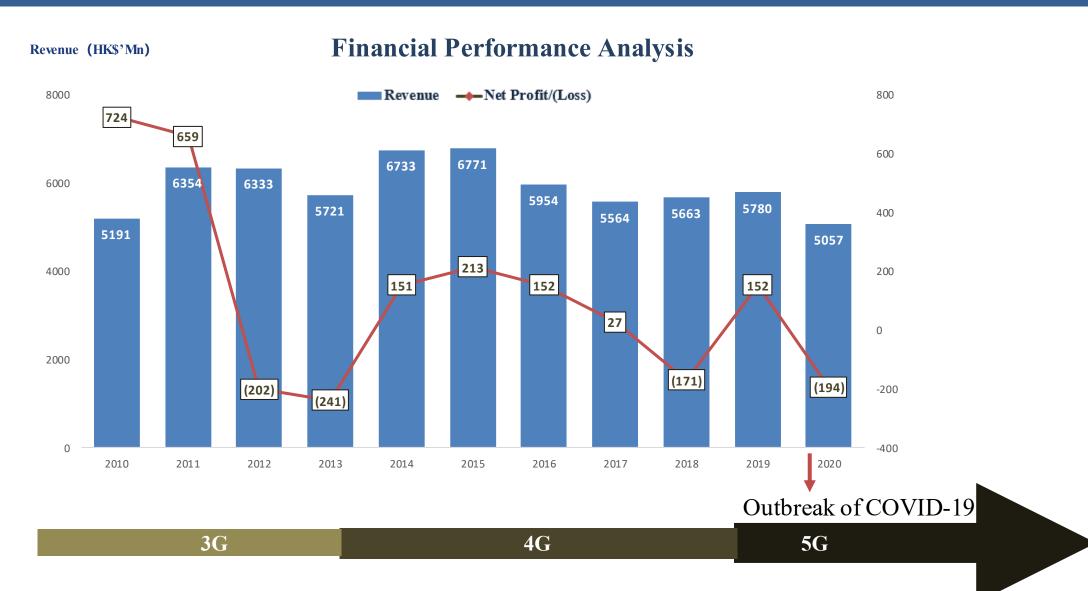
- Network systems (mainly include wireless access & wireless enhancement)
   13.8% yoy;
- Service (Indoor coverage project and other project) ↑8.2% yoy;
- Among Wireless transmission & Others include,
  - ✓ Wireless transmission accounted for 5.2% of total revenue, ↑52.0% yoy;
  - ✓ ETL accounted for 3.3% of total revenue, ↑7.2% vov;



Revenue Breakdown by Customers

Revenue Breakdown by Businesses

2010 – 2020 Financial Performance Analysis



## Industry Development







## Global Wireless Network Development

✓ Global wireless network development under impact of COVID-19

## China Wireless Network Development

✓ 5G development has entered an in-depth stage

## **5G+ Industrial Application**

✓ 5G+, empower industries

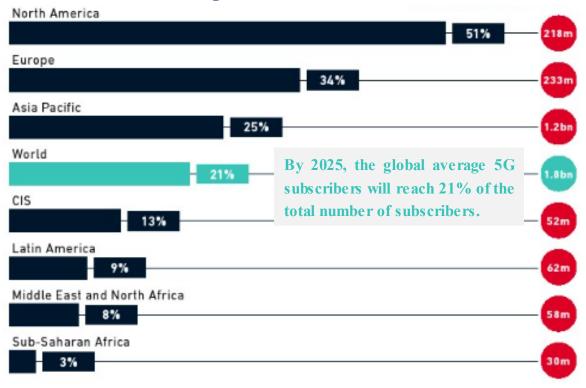
## 1. Global Wireless Network Development



#### Global wireless network development under impact of COVID-19.

• The global 5G development is gradually recovering, with the number of 5G commercial networks increasing to 140 and the number of 5G users increasing to 250mm. Global operators are expected to spend more than 50% of their CAPEX (\$890bn) on 5G networks in the next 5 years.

#### Forecast of global 5G subscribers in 2025



Source: Global Mobile Trends 2021

#### Latest progress of 5G commercial use in the US, Japan, South Korea and Europe



- ❖ AT&T achieves nationwide 5G coverage. Both corporate and individual users can access to the network;
- ❖ Verizon plans to have 30,000 5G base stations by the end of 2021.

#### Japan

❖ In March, NTT, Softbank, and KDDI launched 5G commercial services.



NTT promoted OpenRAN and deployed millimeter wave technology in 2020, and it will build 20,000 5G base stations in 2022.



- ❖ By the end of 2020, number of 5G users has reached 11.9 million;
- \* "Radio Wave Revitalization Plan 2021" stated that 470 MHz frequency band would be "added" to the 5Gmid and low band.

#### Europe



- Germany DT plans to cover 80% of the population with 5G by the end of 2021 and start SA networking experiments; Vodafone Germany's 5G network operates with 700MHz, 1800MHz and 3.5GHz frequency bands, and plans to cover 30 million people by the end of 2021.
- ❖ The German Federal Network Administration has issued more than 70 5G independent private network licenses. Well-known companies such as BMW, Bosch, Volkswagen, BASF and Lufthansa have responded positively, and have completed several 5G private networks.

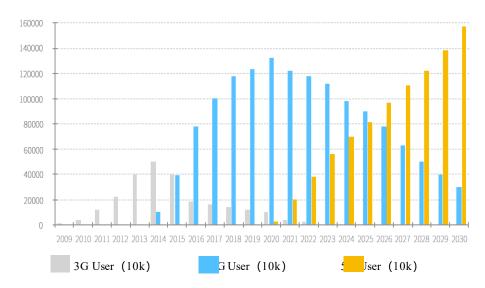
### 2. China 5G Construction



#### 5G development has entered an in-depth stage.

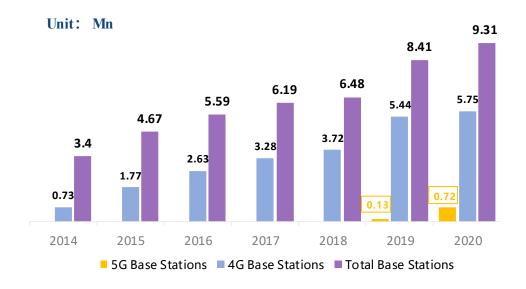
- By the end of 2020, China has built more than **718,000 5G base stations**, basically covering all cities above prefecture level nationwide and achieving **scale deployment of independent network** across the country;
- In 2021, the 5G network will solve coverage, capacity, speed and other issues through the joint networking of **low and medium frequencies**, extend coverage to all counties and major developed towns, and continue to improve the accuracy and in-depth coverage of covered areas;

#### Estimated Number of 3/4/5G Users in China (2020-2030)



Data Source: China 5G Economic Report 2020

#### Accumulative number of mobile communication base stations in China, 2014-2020



Data source: MIIT

## 3. 5G+Industry Applications



#### 5G+, empower industries.

With the advancement of 5G construction, 5G has derived a variety of application scenarios. In the past two years, several typical 5G+converged applications have been emerging, and explosive growth is expected to see in the future.













Hangzhou Steam Turbine Group built a 5G 3D scanning and modeling inspection system, which transmits massive data to the cloud in real time through the 5G network.

The 70th Anniversary National Day event live broadcast, using 5G technology 5G+4K special high point and closing ground perspective, with free and flexible viewing angle.

Vulcan Mountain's 5G smart medical solution solves the problems of insufficient bandwidth, network instability, and large delays in the telemedicine system, and realizes digital "face-to-face" medical treatment.

**SG MR smart teching at Suzhou Xingzhou School.** A panoramic video of HD quality, transmitting up to several hundred megabytes of data in just a few seconds.

Beijing Fangshan 5G Autonomous Driving Demonstration Zone case, information sharing, data interaction, to achieve a variety of vehicle-road cooperation application scenarios and realize some autonomous driving applications.

Source: White Paper on Converged Application Development 5G 2020

With the release of the R16 standard for uRLLC and mMTC scenarios, as well as the advancement of the R17 standard and the development of "new infrastructure", 5G business will gradually expand from consumption to various vertical industries, and 5G+ industry application scenarios will also be fully promoted.

## **Company Outlook**



#### **Antenna Products**

- ✓ Antenna Market Outlook
- ✓ Macro Base Station Antenna Technology/Product/Market Development
- ✓ Broad Indoor Coverage Scenario Solution
- 5G Road Coverage Solution



### **Network System**

- ✓ Broad Market Outlook of 5G Small Cell
- ✓ 2020 Commercial Use of 5G Small Cell Series Products
- ✓ FLeX5—5G private network platform for vertical industry
- ✓ OpenRAN Open Network Solution



### **Business Operation**

- ✓ Market Outlook
- Operating Strategy



**Antenna Market Outlook** 

Macro Base Station Antenna Technology/Product/Market Development

Broad Indoor Coverage Scenario Solutions

5G Ro ad Coverage Scenario Solutions

#### Domestic Market: 5G BSA entering peak demand period

- ✓ At the end of 2020, the MIIT issued mid and low band 5G licenses to China Mobile, China Telecom and China Unicom to accelerate 5G high-quality network construction;
- ✓ China Mobile and China Broadcasting Network (CBN) co-construct 700MHz, while China Telecom and China Unicom build 2.1GHz together, and have gradually stepped into the stage of large-scale procurement.

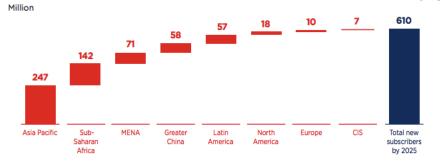
Mid and low-band 5G co-construction and sharing



## Overseas Market: investment to enjoy explosive growth after easing of the pandemic

- ✓ Epidemic has raised the demand for online interactive services like online meeting, with network load at higher levels, driving operators to increase 5G investment;
- ✓ Each country/region has different stages of network development. **4G/5G networks** will continue to grow, and so as the demand for antenna products

#### Global new mobile users forecast in 2025



the number of global mobile users is still growing, with over 600 million new mobile users expected in 2025.

#### Global 5G network development status in 2020



Different countries/regions are at different stages of communication network development, and most countries still have demands for 4G network construction.

Commercialized 5G

Plans for Commercial 5G

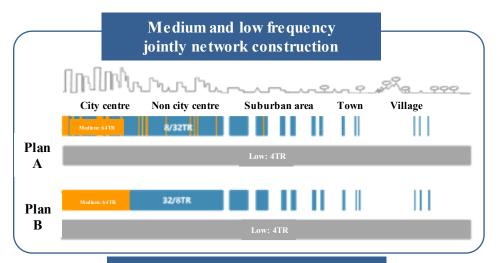
source: GSMA 2021 Global Mobile Trends Report

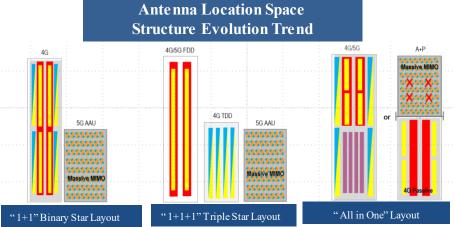


Antenna Market Outlook Macro Base Station Antenna Technology/Product/Market Development

Broad Indoor Coverage Scenario Solutions 5G Road Coverage Scenario Solutions

Co-deployment of 4G/5G networks, the new 5G spectrum and spectrum re-cultivation, and the antenna location space evolution drive à văriety of antenna forms.



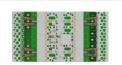


Important form in 5G era Important form in China Important form in overseas

#### Comba Series 5G Antenna Product

#### AAU Antenna Module (AAS/AFU)

Partner of a major equipment vendor, shipment of over 200k units in 2020. In 2021, as the international 5G construction gradually resumes, the demand of such product will maintain a steady growth.



#### 4G/5G (≤8TR) Integrated Convergent Antenna

Scale supply in Asia Pacific, Europe, South America, Middle East, and China Operators central procurements with 800k+ units will kick off in 2021.



#### A+P Integrated Convergent Antenna

An important solution for 5G dual location space scenarios, with extremely high technical threshold and Comba has start R&D cooperation with core equipment vendor.



#### FDD Ultra Multi-Port Multi-System Shared Antenna

The main solutions for FDD network, and FDD networks currently occupies an absolute proportion globally. Shipment of 210k+ units in 2020, and won tenders of VF/TF/Telenor and other overseas telcos and kept steady supply.



#### FDD/TDD Hybrid Multi-System Shared Antenna

• The only solution for FDD/TDD hybrid networking. Scale supply achieved in Asia Pacific and Europe 5G network in 2020, and trial network kicked off in South America and Middle East. Demand of 5G scale deployment will keep going up.



#### FDD Hybrid Beam Multi-System Shared Antenna

Important solution for 4G network expansion. Scale applied in India, Asia Pacific, South America and other areas in 2020, and demand is expected to go up in areas with dense population and increasing capacity needs in 2021.

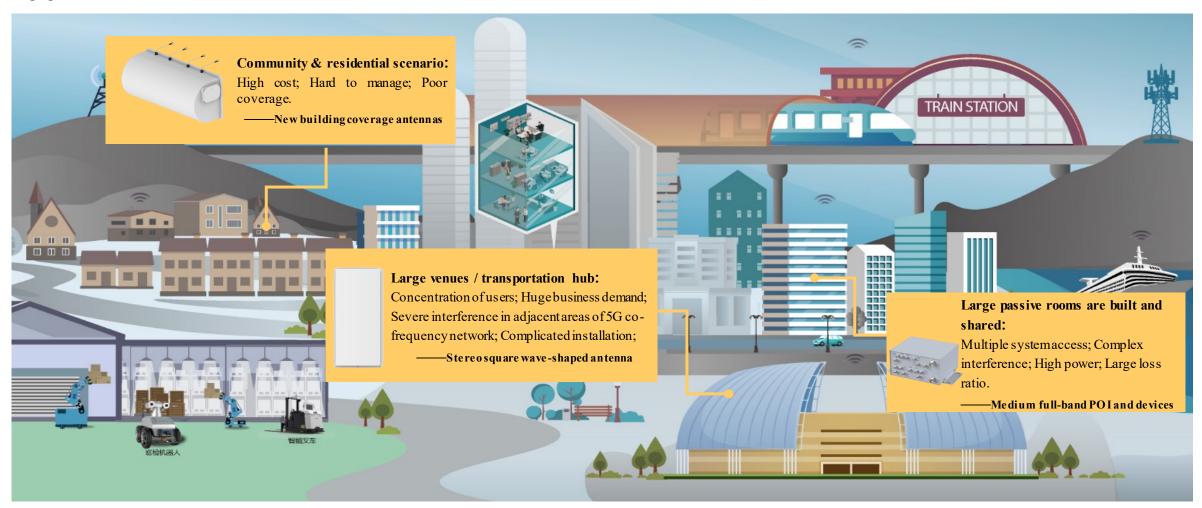




Antenna Market Outlook Macro Base Station Antenna Technology/Product/Market Development Broad Indoor Coverage Scenario Solutions 5G Road Coverage Scenario Solutions

Provide solutions for 5G broad indoor coverage in scenarios with hotspot coverage for telcos.

Won tenders and **achieved scale application in multiple provinces**, and telcos will strengthen the 5G blind-area and deep coverage deployment plan in 2021, bringing contribution of sales increment.





Antenna Market Outlook Macro Base Station Antenna Technology/Product/Market Development Broad Indoor Coverage Scenario Solutions 5G Road Coverage Scenario Solutions

Unique and innovative solutions designed for operators' 5G high-speed rail, highways, tunnels and other scenarios;

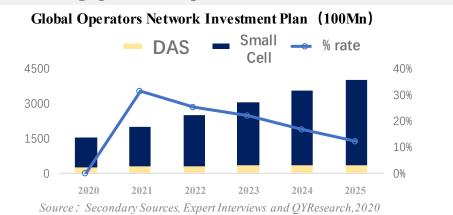
Product preparations and large-scale pilot projects have been finished, while large-scale applications have been completed in some





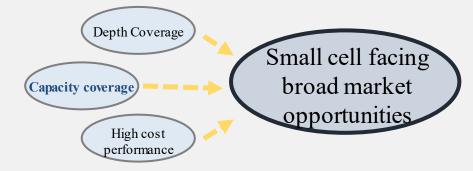
5G Construction New Phase: Optimistic 5G Indoor Coverage and 5G+ Industry Private Network Market Outlook; 5G Small Cell Series Products Expected to Explode.

Globally, the investment outlook for small cell products and related coverage products is positive.



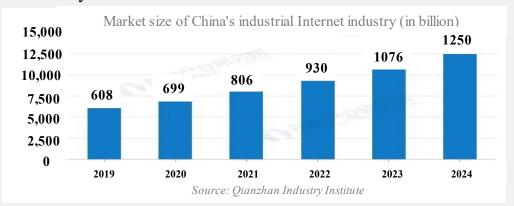
The total investment in Global Small Cell DAS market equipment reached \$121.2 billion in 2019 and is expected to grow at a CAGR of 19%, of which Small Cell equipment investment accounts for 80% to 90%.

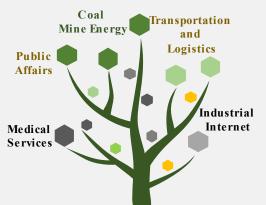
Domestically, 2021 is expected to be the first year of scale deployment of 5G small cells, and operators will gradually promote the procurement.



## 5G+ vertical industry will be a new blue ocean business with huge market potential.

- GSMA expects the total market size of 5G-enabled global vertical industries to reach nearly \$700 billion by 2030.
- Industry research predicts that the market size of China's industrial Internet industry will grow to a level of RMB1.25 trillion by 2024.





#### **5G's important mission:**

To empower different industries and facilitate the digital, network and intelligent transformation of traditional ones.



#### 5G network systems products achieved fully commercial use and business expansion.



#### Telcos 5G Public Network Progress: In 2020, Comba network system products were fully on trial.

- ✓ Got 31 5G Extended Picocell trials of three operators and good reviews on low-cost 5G solutions;
- ✓ Got **first prize** in 5G Extended Picocell testing of China Mobile and China Unicom;
- ✓ Got **commercial contracts** of 5G Small Cell with provincial level operators;
- ✓ Promote China Mobile 5G Extended Small Cell **central procurement**;

Vertical Industry Progress: Comba has established end to end 5G solution for industry and got breakthrough in business expansion.

- ✓ Achieved **scale commercial use** in Smart Mining business, and launched first 5G mining system, and completed running of **3** 5G mining network in 2020.
- ✓ Achieved **business breakthrough** in Smart Hospital business
  - ♦ Worked with Beijing University Hospital(Shenzhen) to distribute Smart Hospital 5G solution;
  - ❖ Worked with Guangdong Mobile to build Smart Hospital 5G solution in Zhongshan University Hospital;
- ✓ Developed 5G private network trials in Industrial Internet, Energy, and Transportation business areas;

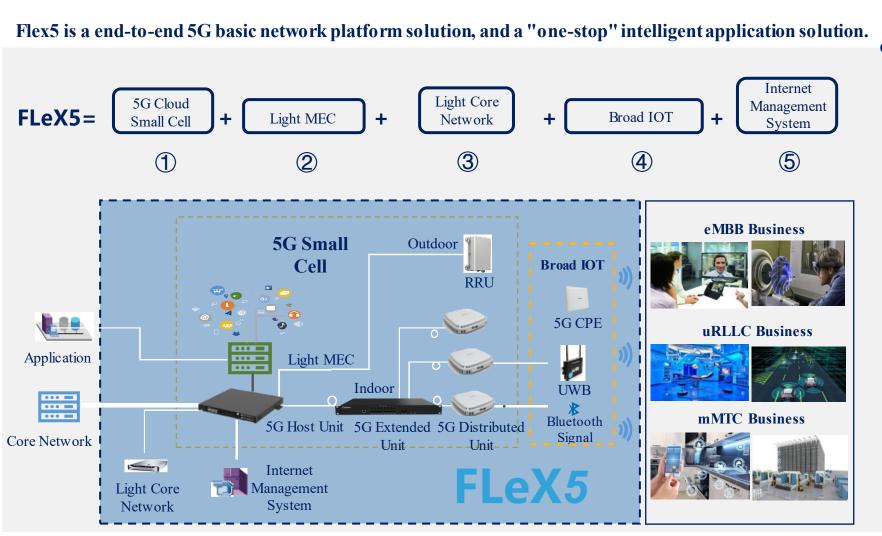


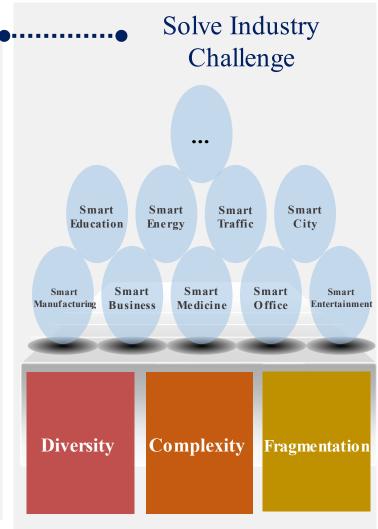






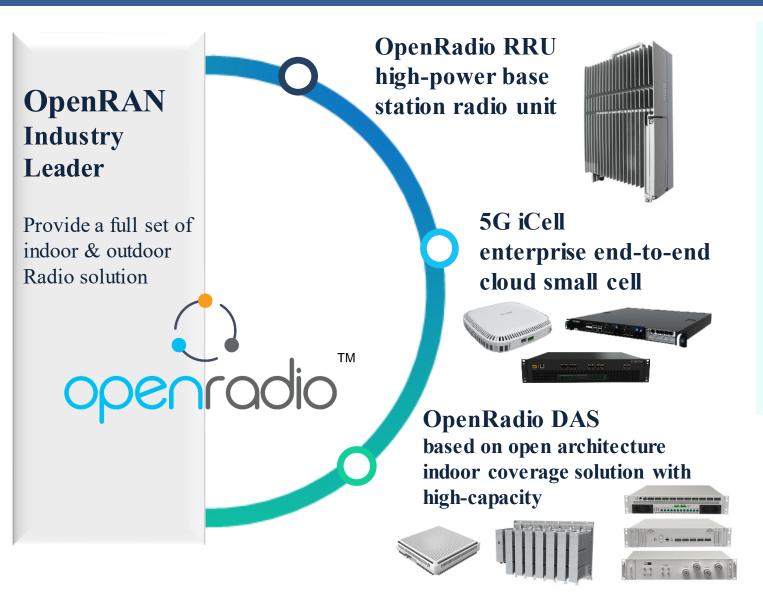
#### Comba 5G private network platform FLeX5 for vertical industries has been commercialized.







#### Culculate in OpenRAN area, expand market, and dig out new demand.



## Mass production and commercial use of new platform for high-power base station RRU

- Simultaneously launch series products of frequency band and power;
- Achieve breakthroughs in multi-frequency RRU and 5G technologies;
- Test the interoperability with industry-leading vBBU vendors;
- Bulk supply to Europe telcos, and achieve first launch of commercial deployment;
- Conduct preliminary product testing for global multiple operators' network tests;
- As the only RRU supplier, participate in Vodafone's commercial trial network (Ireland);
- Participated in the Vodafone O-RU RFI (Request for Information) and ranked among the top in a number of competitions;

- ✓ Nominated for GSMA and LightReading Annual Awards for technological advancemen (GLOMO & Leading Lights 2020)
- ✓ Three high-power RRU products won TIP (Telecom Infra Project) Field Trial Badge

## 3. Business Operation



#### Market Outlook

#### **Business Operation Strategy**

In 2020, revenue of domestic market  $\sqrt{23.7}\%$  yoy, although sales from three operators decreased, sales from China Tower speed up and revenue grew  $\sqrt[4]{50.8}\%$ .

#### In 2021, Antenna business:

- Push the industry environment developing in good way, and make sure the leading position;
- Catch the opportunity of 700Mhz new demand and 2.1Ghz re-framing demand;
- Promote the broad indoor coverage and road coverage products to increase the future sales;

#### In 2021, Network Systems business:

- Keep launching competitive macro/micro/pico small cell solutions, and push telcos to apply 5G indoor coverage solutions faster;
- Build 5G end to end network platform solution, and push the 5G+ private network product commercial use;
- Get more cooperation with government organizations & enterprises;

#### In 2021, New business:

• Explore intelligent technology field such as AGV cars, visual inspection and other;









In 2020, revenue from international and OEM market  $\uparrow 12.9\%$ . Despite of the global outbreak of COVID-19, sales still increased from some areas such as Europe in which sales  $\uparrow 40.8\%$ , cooperation with global renowned core equipment vendors in 5G kept going up, and OEM  $\uparrow 26.1\%$ .

#### In 2021, Antenna business:

- Expand key countries/areas of key customers to make sure project commercialized; Europe market is taken as a critical market and India/South America/Asia Pacific market chances are important. Develop S&OP power and control the production speed.
- Cultivate the core equipment vendors, and make sure key position of partners with Ericsson;
- Increase marketing & technical resources in 4G/5G (≦8TR) convergent BSA and A+P integrated antenna;

#### In 2021, Network Systems business:

- Promote cooperation with leading global vendors, develop strategic partners, expand sales tunnels, and promote commercialization in the OpenRAN.
- Expand business size with multiple cooperation modes;
- Consolidate DAS, repeater and private network coverage solution.



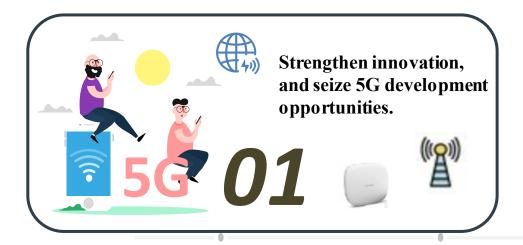
## 3. Business Operation



Market Outlook

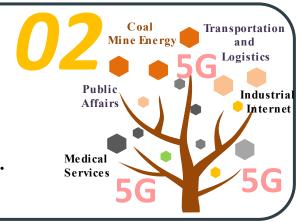
**Business Operation Strategy** 

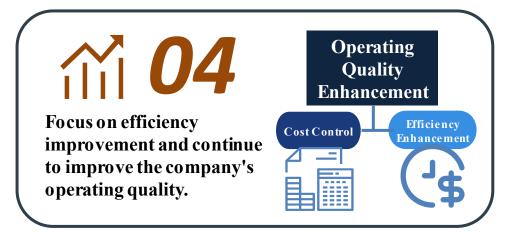
## **Group's General Strategy**



Expand to the field of intelligent technology (AGV, machine vision, etc.), looking for new business growth points.

Enhance the solution capabilities of 5G+ vertical industries, and expand of the enterprise market (5G ToB market).







## Thanks!