# Comba

# **Enhancing Communications**





CORPORATE

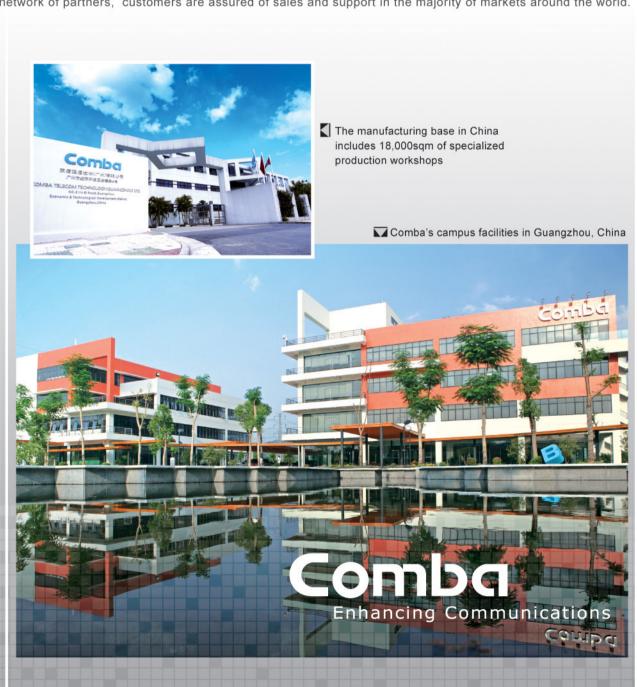
## **A**BOUT COMBA

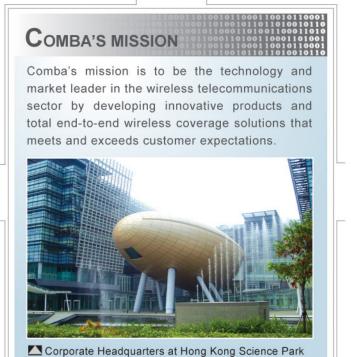
Comba Telecom is a supplier of infrastructure and wireless enhancement solutions to mobile operators and enterprises to enhance and extend their wireless communications networks.

Established in 1997, and listed on the Hong Kong Stock Exchange in 2003, Comba is one of the top 3 providers of wireless solutions in the world and the leading supplier of in-building wireless systems with over 50,000 installations around the globe.

From its research and development centers in China and USA, Comba possesses a comprehensive portfolio of 2G, 3G and next generation network products and services and is one of the world's leading solution providers of network coverage for in-building and outdoor environments, and wireless backhaul. These products include repeaters, antennas, digital microwave systems, power amplifiers and passive accessories supported by Comba's network solutions and services division.

With corporate headquarters in Hong Kong, Comba has over 40 offices around the world covering Asia Pacific, EMEA (Europe, Middle East and Africa), and the Americas. Through Comba's direct points of presence and network of partners, customers are assured of sales and support in the majority of markets around the world.







# RESEARCH & DEVELOPMENT

Operating in an industry characterized by rapid technological change, Comba keeps abreast of the latest technology and industry trends through ongoing investment in all aspects of research and development for 2G, 3G and next generation network technologies including WiMAX and LTE.

Our mission is to be the technology and market leader in wireless solutions, to achieve this, we continue to make deep investments in our R&D platforms, facilities and human resources.

Through its 4 R&D centers in China and USA, Comba's technological capabilities and resources include:

- >>> State-of-the-art RF simulation, design tools and testing equipment
- >>> In-house SMT and CNC machines fro quick filter and protypes
- )) Class 10,000 clean room facilities for microwave R&D and manufacturing
- )) The largest anechoic chamber in Asia Pacific for antenna product development
- ))) 600+ R&D engineers specializing in telecoms research
- Over 300 patented technologies

#### USA R&D Center



#### China R&D Center

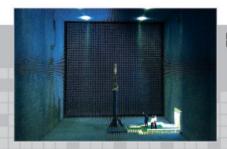


# Working with Academia and State organizations

Comba's R&D program includes joint research and academic programs with leading organizations within China. This includes:

- Research programs with institutions such as Tsinghua University, Beijing University of Posts & Telecommunications
- Guangzhou Engineering Research Center with the State Key Laboratory for digital microwave research
- Development of a masters degree course in Electronics and Communications Engineering with Tsinghua University
- Advisory role on China's telecoms standards: Comba has Comba has drafted and formulated more than ten state and industry standards
- Joint R&D laboratory in Hong Kong





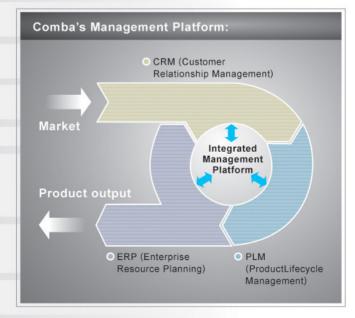
Comba's anechoic chamber is one of the largest in Asia Pacific at 40m×20m×20m

# Manufacturing & Resource Management

Comba's comprehensive production facilities is key for the provision of exceptional quality & service for clients. Adhering to international standards and processes, all products are subjected to rigorous testing and QA procedures.

Comba's production capabilities features:

- Full in-house manufacturing facilities in China (Guangzhou, Nanjing, Dongguan)
- ■■■ 10,000 m² of manufacturing floorspace in Guangzhou, China
- State of the Art manufacturing with 3 in-house SMT lines
- Large product burn-in facilities
- Excess of 200 sets of test equipment including signal generators, spectrum analyzers, network analyzers and PIM Testers
- Full scale deployment of enterprise resource management platform ISO-9100:2000 certified,
- ISO-14001 certified for environmental management



## PRODUCTS AND SOLUTIONS

Comba's solutions cover all major wireless technologies such as GSM, CDMA, CDMA2000, WCDMA, TD-SCDMA and WiMAX. Through its R&D centers, new products and solutions are continuously being researched including those for next generation network standards including LTE.

Comba products are manufactured according to international quality standards and processes. Products are CE, FCC and UL certified and RoHS compliant. Product groups are categorized according to the below.

ANTENNAS & SUBSYSTEMS include base station antennas, repeater/microcell antennas and indoor antennas and subsystems. Focusing on delivering application-driven antennas to meet the most demanding of conditions and environments, antennas are produced to exacting electrical specifications, low cost designs, durability and environmental considerations

**WIRELESS ENHANCEMENT** products such RF repeaters, optical repeaters and digital repeaters are optimized for installation in various external environments and internally within buildings. Product lines are available in band-selective, channel-selective and wideband models.

**WIRELESS TRANSMISSION** includes the full range of point-to-point digital microwave systems for wireless backhaul applications as well as wireless access and transport. Product lines include PDH (PDH radio system), Super PDH (TDM/IP radio system), SDH (STM-1 SDH radio system) and IP (native IP radio system).



## Total Solutions

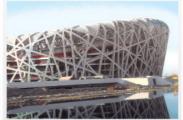
Comba offers customers complete in-building and outdoor wireless solutions including wireless backhaul. Through Comba's Network Solutions division, this includes:

- Turnkey wireless solutions
- Technical consultation
- In-building network designs
- Network optimization service
- Installation and commissioning
- Support and maintenance











#### Corporate Headquarters and Asia Pacific Sales

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