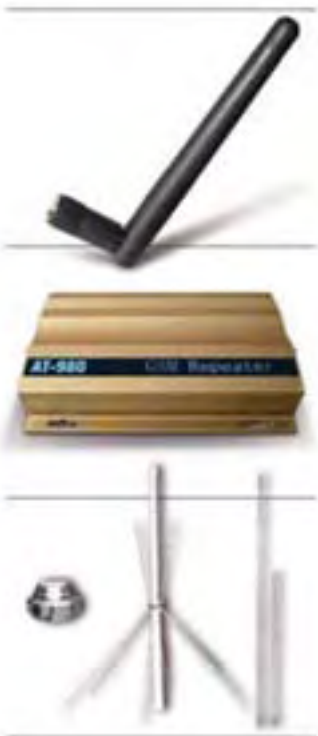


Wireless Communication Equipment



December 2010 US\$495

Essential sourcing intelligence for buyers

China manufacturer profiles

Detailed profiles of 30 suppliers with verified manufacturing and export credentials

Product & price trends

Prices and specifications of 133 top-selling export products

Supply centers & market trends

Coverage of leading and emerging supply centers, plus insight into capacity, output and R&D

WIRELESS COMMUNICATION EQUIPMENT

Supplier capability in China

EXECUTIVE SUMMARY

3G continues to drive growth in China's wireless communication equipment industry, with suppliers responding by improving functionality and technology applications.

In some segments, development is directed at releases emphasizing W-CDMA, CDMA2000 and TD-SCDMA standards to replace GSM units.

Makers are also leveraging their capability to customize products and are slowly moving toward the creation of proprietary solutions.

Small companies will be investing in R&D enhancements and collaborating with universities. Those eyeing the upscale segment, particularly tier 1 makers, will be integrating more functions such as camera modules, Wi-Fi and fax capability, and adopting new solutions and procurement strategies to lower expenses.

Suppliers are optimistic about the industry's prospects with regard to exports, projecting a 30 to 40 percent increase in shipments.

With 3G's broadening adoption worldwide, many countries and regions are installing or planning to establish the wireless distribution technology.

In emerging markets, growth will be driven by the rapid development of mobile communication. Target destinations in coming months will be Africa and some countries in the Asia-Pacific region such as India, Vietnam, Indonesia.

The following are some of the key trends observed in China's wireless communication equipment industry:

- Large enterprises are investing additional resources of up to 50 percent to support product development. Others are shortening the design and customization process. Those emphasizing the low-end and midrange segments are implementing

various cost-cutting measures.

- Manufacturers are enhancing monitoring functions and the usage of embedded solutions to support the widening adoption of digital wireless repeaters.

- Product development activities for new outdoor and indoor models are already in the pipeline.

- 3G WLAN antennas will soon edge out 2G application as demand for the latter wanes. The first application, combined with Wi-Fi, is gaining popularity as telecom carriers develop capabilities toward the former.

- Makers of base station antennas are focusing on multiband, decorative and high-end AED models to address rising demand.

- Companies are investing in R&D projects and exploring potential niche markets to stay afloat amid fierce price competition. In recent months, suppliers have been driven to push up quotes, although others managed to lower, or even maintain, rates.

This report covers base station and WLAN antennas, fixed wireless terminals, and repeaters. The products are detailed in separate sections, highlighting the key features and functions with their corresponding prices.

The Industry Overview section discusses suppliers' R&D activities, key trends and export projections in coming months.

The wireless communication equipment industry in mainland China is composed of approximately 350 manufacturers, engaged mostly in the low-end and midrange segments. Guangdong province is the main production center. Zhejiang and Fujian are the secondary manufacturing hubs, followed by Jiangsu and Hebei provinces.

Other companies are based in Fujian and Shaanxi provinces, Hong Kong and Taiwan.

In this report

- 30 in-depth company profiles
- 133 top-selling export products
- Supplier demographics
- Supplier survey
- Industry statistics & charts

METHODOLOGY

To produce this report, Global Sources surveyed a wide range of suppliers. Rather than focus simply on high-profile makers, we compiled a representative sample of large, midsize and emerging manufacturers. All profiled companies are export-oriented professional suppliers that are verified by Global Sources.

Each supplier is confirmed to be authentic with a legally registered business. All companies are visited three or more times to ensure they are export-ready and have real offices and products.

The listed contact person has been verified to represent the registered company. In each case, companies were required to answer specific questions designed to verify their manufacturing and export credentials.

All profiled suppliers participated in a survey designed to provide insight into product and price trends, and challenges facing the industry. All survey questions are single choice.

Suppliers are ranked based on a 6-star ranking system. Companies with a higher star ranking provide more business information and verification reports on their Global Sources online homepages.

Suppliers rated 5 or 6 stars have a Credit Check report from First Advantage or Sino-Trust and a Supplier Capability Assessment report provided by Bureau Veritas online.

The rankings are correct at the time of publication and may be subject to change.

CONTENTS

INDUSTRY OVERVIEW	7
Supplier summary	
Tech update: WiMAX antenna adoption to pick up in Taiwan	
Export statistics	
Main production centers	
Supplier demographics	
Products & prices	11
Price guides	
Exporter ranking	
Hong Kong: Indoor, outdoor applications supported	
Supplier survey	15
Export prices, price increases, export sales, target markets, capital expenditure, challenges, export capability, R&D focus	
SUPPLIER PROFILES	27
Supplier locations	
Industry composition	
Top 20 exports	
Supplier matrix	
Production checklist	
Supplier profiles	
PRODUCT GALLERY	83
Top-selling export products	

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INDUSTRY OVERVIEW

Advances in 3G continue to drive growth in the wireless communication industry in China. The technology is specifically prevalent in the fixed wireless terminal, wireless repeater and base station segments.

In the FWT category, for example, the application is edging out GSM versions with releases emphasizing W-CDMA, CDMA2000 and TD-SCDMA standards. Makers predict the GSM user base will shrink by more than 50 percent in 2013 once 3G units grab a bigger share of the market.

The same is happening in the other two lines as demand for 2G antennas weakens and carriers enhance their 3G capacity. Such configurations are now limited to optimization and new setups in developing countries.

Another application that is gaining popularity is 3G+Wi-Fi as telecom carriers develop structures and femtocell base stations to lower traffic fees and ease congestion.

To capitalize on these trends and consequently rejuvenate sales, China makers are strengthening product development initiatives, with efforts underscoring ease of installation and use. Companies are emphasizing systems integration to align with the operators' goal of combining aeriels with wireless equipment, which could reduce investment substantially.

In coming months, adjustable electrical downtilt models will see increased penetration in the base station antenna segment as more 3G deployments occur worldwide. Makers predict 80 percent of such infrastructure will utilize AED types. Some telecom operators employ these exclusively for 3G networks, and others for upgraded 2G systems.

Other suppliers are developing wide- and multiband variants for the past year alongside smart antenna models. These varieties are forecast to see expansive use in 3G networks, especially on the TD-SCDMA front. Bipolar and broadband types are in the

pipeline as well.

Some FWT enterprises are mass-producing CDMA2000 1xEV-DO and W-CDMA units to spur growth in the line. Companies are also developing TD-SCDMA variants with video function, and future versions with Wi-Fi capability on top of multimedia features, video playback, fax and high-speed Internet.

In terms of exports, manufacturers are upbeat about the industry's prospects. Shipments are forecast to increase by 30 to 40 percent. Such optimism is well-placed, given 3G technology's broadening adoption worldwide. Wireless networks are now commonly deployed in Europe and North America. Many countries and regions are also installing or planning to establish the wireless distribution method in their cities.

Moreover, applications are expanding beyond notebook PCs, breaching mobile phones and consumer electronics. In developing countries, growth is likewise forecast, driven by the rapid development of mobile communication. Target destinations in coming months will be India, Vietnam, Indonesia and Africa.

Coping measures

Amid these 3G-driven advancements, China makers are facing challenges

Supplier summary

Suppliers surveyed	30
Export sales	\$455.0mn
Export ratio	57%
OEM business	48%
Capacity utilized	70%
Annual R&D spending	\$48.4mn
Full-time employees	21,126

Data: All surveyed suppliers

brought about by fierce competition in the line, employing several strategies to circumvent the situation.

Some small suppliers, especially those in the WLAN antenna category, are investing in R&D enhancements and establishing partnership with universities to offer value add-ons.

Similarly, FWT companies are optimistic that infrastructure developments in 3G will be able to enliven the sector. Manufacturers eyeing the upscale segment will be integrating more functions such as camera modules, Wi-Fi and fax capability. Some enterprises are adopting new solutions and procurement strategies to bring down outlay.

For the past two years, there has been little growth in the FWT line due to the rising popularity of mobile handsets. While traditional fixed wireless phones supporting 2G standards are expected to maintain

Tech update

WiMAX antenna adoption to pick up

Although low demand is limiting China's current output of WiMAX antennas, some manufacturers forecast orders will pick up in the next 12 months. Kenbotong even predicts adoption of the category will surpass WLAN in certain areas, including Russia and South Asia.

In fact, the WiMAX equipment and device industry is expected to reach nearly \$5 billion by 2013, according to Infonetics Research. Much of this growth will come from strong demand

from developing countries.

Most China makers of WLAN antennas can provide WiMAX types as the technologies adopted are similar.

The lack of industrywide standards, however, presents a problem to domestic companies. Each country has different requirements and working frequencies. So although it is easy for suppliers to release low-end models based on rough parameters such as VSWR or F/B ratio, manufacturing quality products can be difficult.

Awit Inc.



Founded in 2008, Awit offers fixed wireless terminals, which generated \$2 million in exports in 2009. The line accounted for 7 percent of the supplier's \$30 million sales from all its products that year.

The company maintains ISO 9001 and 14000-certified operations in Jiangsu province, including a 7,000sqm factory that can manufacture up to 5,000 units of wireless communication equipment each month.

The plant has 215 full-time employees. One hundred of them are

assigned to product development and 16 to quality management.

Awit allocates 9 percent of its total yearly revenue for R&D, and utilizes 88 percent of its monthly production capacity.

Last year, the maker shipped an average of 4,385 units overseas every 30 days. Export revenue is expected to increase by less than 10 percent in the next 12 months.

The company plans to raise annual capital expenditure by up to 50 percent, targeting the EU market. It retained export prices in 2H10.

Company facts

Year established	2008
Business type	Manufacturer
Company ownership	Mainland China-owned
Head office location	Wuxi (Jiangsu)
Number of factories	1
Factory location(s)	Wuxi (Jiangsu)
Total factory area	7,000sqm
No. of full-time employees	215
No. of R&D/design staff	100
No. of QC staff	15
Annual sales (all products)	\$30.0mn
Annual R&D spending	\$2.7mn
ISO certification	Yes

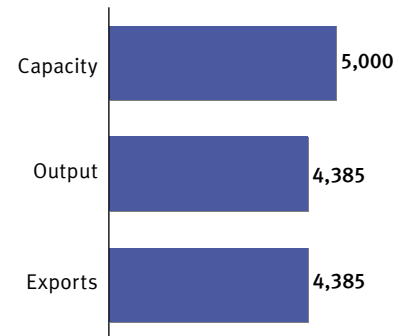
Sales & output: Wireless communication equipment

Annual sales	\$2.0mn
Share of total sales	7%
Annual export sales	\$2.0mn
Total monthly capacity	5,000 units
Average monthly output	4,385 units
Capacity utilized	88%
Average monthly exports	4,385 units
Export ratio	100%
OEM % of exports	100%
ODM % of exports	—
OBM % of exports	—
Other products made	GPS trackers, mobile phones

Profile

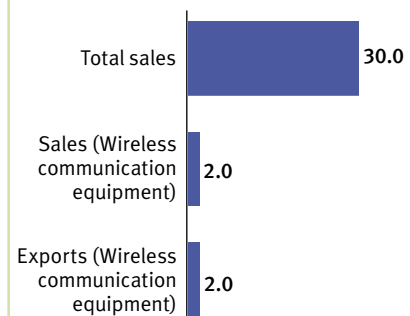
Production

units/mth



Sales

\$mn/yr



Contact details

Business contact

LEE Julie

Phone

(86-755) 8382-5060

Fax

(86-755) 8343-7643

E-mail

awitsd@awit.com.cn

julie.li@awit.com.cn

URL

www.awit.com.cn

www.globalsources.com/awit.co

Address

Unit 1609B, Tower B, Chuangxin Science and Technology Plaza, Tian'an Cyber Park, Chegongmiao, Futian, Shenzhen, Guangdong, China

Capability

In-house processes

Software design	Yes
Housing design	No
PCB assembly	Yes
Mold making	Yes
Plastic injection	Yes
Passive intermodulation test	Yes
Signal improvement or anti-interference test	Yes

Exports by product

Base station antennas	—
WLAN antennas	—
Marine antennas	—
GSM/CDMA wireless antennas	—
Fixed wireless terminals	100%
Wireless signal immobilizers	—
Wireless repeaters	—
WiMAX equipment	—
GSM gateways	—

Exports by market

North America	—
European Union	—
Europe (non-EU)	—
Asia-Pacific	—
Middle East	—
South Africa	100%

Survey

- **Export prices**
Stayed the same
- **Export sales**
Increase less than 10%
- **Target market**
European Union
- **Capital expenditure**
Increase up to 50%
- **Major challenge**
Price competition
- **Export capability**
Improve operating efficiency
- **R&D focus**
Improve functionality

Popular export model



Fixed wireless terminal

Model	T65
MOQ	3,000 units
Packaging	Colored box
Delivery	35 days
Price	•

Description: Fixed wireless phone; GSM 900MHz, DCS 1,800MHz or 850, 1,900MHz frequency; MTK6223; 2.5in FSTN screen, 128x64 pixels; 1,200mAh Li-ion battery; 12hr talk, 300hr standby time; black, blue, green; 187x216x75mm; 615g

• Information not disclosed

PRODUCT GALLERY

Base station antennas



Eahison
(profile page 32)
Model: EHS08091721TX651518ED
MOQ: 50 units
Packaging: Carton
Delivery: 30 days
Price: •
Description: 804 to 960MHz; 1,710 to 2,170MHz frequency; 15/18dBi gain; ≤ 1.5 VSWR; ≥ 25 dB F/B ratio; ± 45 -degree polarization; 65-degree beamwidth; 1566x284x122mm; 18kg



Guangzhou Sunrise
(profile page 40)
Model: SRO-SA-360-11T
MOQ: 1,000 units
Packaging: Carton
Delivery: 15 days
Price: •
Description: 806 to 960MHz frequency; 11 ± 0.5 dBi gain; > 14 dB return loss; < 1.5 VSWR; dual slant vertical polarization; 360-degree horizontal, 7-degree vertical beamwidth; 300W rated power, 50ohm impedance



Guangzhou Sunrise
(profile page 40)
Model: SRD-DY-65-18/18R
MOQ: 1,000 units
Packaging: Carton
Delivery: 15 days
Price: •
Description: 1710 to 2,170MHz; 18 ± 0.5 dBi gain; > 14 dB return loss; < 1.5 VSWR; ± 45 -degree dual slant polarization; 65 ± 6 -degree horizontal, 7-degree vertical beamwidth; 0 to 10-degree electrical downtilt



Guangzhou Sunrise
(profile page 40)
Model: SRD-TDW-100/90-12R
MOQ: 1,000 units
Packaging: Carton
Delivery: 15 days
Price: •
Description: 1,880 to 1,920MHz, 2,010 to 2,025MHz, 2,300 to 2,400MHz frequency; ± 45 -degree dual slant polarization; 5-degree vertical beamwidth; > 30 front-to-back ratio; 50W rated power, 50ohm impedance; N-female connector



Guangzhou Sunrise
(profile page 40)
Model: SRD-TZ-65-161616R
MOQ: 1,000 units
Packaging: Carton
Delivery: 15 days
Price: •
Description: 806 to 960MHz, 1,710 to 2,170MHz frequency; 16, 16, 16 ± 0.5 dBi gain; > 14 dB return loss; < 1.5 VSWR; ± 45 -degree dual slant; 65-degree ± 6 horizontal, 12-degree vertical beamwidth; 0 to 10-degree electrical downtilt



Kenbotong
(profile page 56)
Model: KBT65DP1416-0820AE
MOQ: 50 units
Packaging: Carton
Delivery: 10 days
Price: •
Description: Dual-band base station antenna; 806 to 896, 870 to 960, 1,710 to 1,880, 1,850 to 1,990, 1,920 to 2,170MHz frequency; ≤ 1.5 VSWR; 45-degree polarization; 13.5, 14, 15.5, 15.8, 16dBi gain; 0 to 15-degree electrical downtilt

• Information not disclosed

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