

# In-car TVs



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# IN-CAR TVs

## Supplier capability in China

### EXECUTIVE SUMMARY

China's production and exports of in-car TVs are rising steadily, stimulated mainly by growing demand from both overseas and local markets. The rapid development of digital and networking technologies and the upcoming 2008 Beijing Olympic Games are major factors spurring demand growth. In 2009, domestic sales of in-car TVs are expected to surpass the 1 million-unit mark.

Encouraged by this positive outlook, many China suppliers will increase their production capacity despite the shortage of LCD panels. However, the limited LCD panel supply, combined with other factors such as rising production costs, will compel suppliers to raise their quotes.

Most makers aim to offer one-stop solutions to meet buyers' needs by expanding their product range to include entry-level in-car TVs to high-end multifunction models. Inspired by the digital home concept, several suppliers are beginning to develop all-in-one car multimedia systems.

The following are some of the key trends we see in China's in-car TV industry:

- Exports will increase by up to 20 percent in the coming months. North America, EU regions and Asia will remain as major export markets.
- Many suppliers will expand their capacity by upgrading existing facilities, setting up more production lines or moving to bigger factories.
- Price increases within a range of 5 to 10 percent are expected in early 2008. This is brought about by the growing adoption of LCD panels in other consumer electronics such as GPS systems and digital photo frames, putting a strain on LCD panel supply and resulting in a 20 to 30 percent spike in the cost of production.
- Functionality and value-added features, such as incorporating touchscreen panel, card reader, DVD

player, AM/FM radio, and USB and VGA port, are major product development focus of suppliers. New releases are also adopting bigger screen sizes from 8in to 10in.

This report covers the five main types of in-car TVs produced in China: flip down, headrest, in-dash, standalone and sun visor car TVs. All five product types have more or less equal production shares, although headrest and standalone car TVs take up slightly higher export volumes. Models with 7in LCD panels are the mainstream offering, although a wide range of screen sizes are available depending on the type of in-car TV. Suppliers are not only limited to producing these five types of in-car TVs. Most of them also offer products such as armrest in-car TVs, rear-view mirror in-car TVs and detachable flip down in-car TVs.

The Products & Prices section in this report discusses the features and price ranges of the main in-car TV products as well as suppliers' product development priorities. It details the materials and components used, as well as the supply and prices of these components.

The Industry Overview elaborates on the industry composition, highlighting key characteristics of different types of suppliers. It also discusses industry challenges faced by makers and factors affecting export prices.

About 100 makers are engaged in the production of in-car TVs in China. They are categorized as top-tier, second-tier and entry-level companies.

Guangdong province, particularly the city of Shenzhen, is a production hub of choice among makers due to its mature supporting industries for the production of consumer electronics. More than 80 percent of suppliers profiled in this report are based in this province.

### In this report

- 18 in-depth company profiles
- 25 short company profiles
- 161 top-selling export products
- Supplier demographics
- Supplier survey
- Industry statistics and 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 may or may not be clients of Global Sources.

The selection of suppliers is designed to reflect the composition of the industry in China in terms of geographic spread, business type and company ownership.

For each company profile, our research teams interviewed senior executives and export managers who discussed their recent performance and provided price, R&D, production and export forecasts for the next 12 months. The interviews were done in-person, by phone or email.

In each case, companies were required to answer specific questions designed to verify their manufacturing and export credentials, including their production and export statistics, and a breakdown of exports by product type and market. Our production checklist details the product-specific manufacturing capabilities of each supplier.

All suppliers participated in a survey designed to provide insight into product and price trends, and challenges facing the industry in the next 12 months. All survey questions are single choice. Results were calculated based on the actual number of valid responses to each question.

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## INDUSTRY OVERVIEW

China's in-car TV manufacturing industry is growing steadily, due mainly to strong foreign demand and an expanding domestic market. Optimistic of future growth, many suppliers are planning to expand their production capacity in the coming months. This is despite the continued shortage of LCD panels and rising production costs.

Worldwide demand for in-car TVs will continue to rise in 2008, fueled by the rapid development of digital and networking technologies, which are expected to propel such products into the mainstream market.

Likewise, consumer demand in China is increasing at a steady pace. The annual growth rate of the in-car TV market from 2006 to 2009 will surpass 50 percent, according to industry reports.

Sales of in-car TVs are forecast to reach 600,000 units in 2008, up from 188,000 units in 2006, due to opportunities brought about by the Beijing Olympic Games. In 2009, sales of in-car TVs are expected to top 1 million units.

Most China suppliers are export-oriented and tend to focus on overseas markets with many catering to growing domestic demand as well. The suppliers surveyed for this report altogether exported about 76 percent of their total output in 2006.

The bulk of China's in-car TV exports are shipped to North America, the European Union and Asia. Suppliers in this report aggregately shipped 20 percent of their exports to North America, 19 percent to Asia and 18 percent to the EU in 2006. The remaining overseas shipments were shared almost equally among non-EU countries and the Middle East and Africa markets.

In-car TV exports are expected to continue rising in the coming months. Based on results of the survey conducted for this report, export sales for the country are projected to increase by about 5 to 10 percent in 2008. Some

surveyed makers anticipate even higher growth of more than 20 percent.

The bright outlook in the in-car TV industry is prompting many suppliers to expand their capacity. Survey results indicate that close to half of China's suppliers will increase production capacity by up to 20 percent in 2008. Some suppliers are so optimistic that they forecast production increases in excess of 50 percent.

Upgrading existing facilities is the most popular approach to expand production capacity. Close to half of the surveyed suppliers have plans to set up more production lines and purchase testing machines in the coming months.

Building or moving to a new factory is another way for manufacturers to increase their production capacity.

Four of the surveyed suppliers have already moved into their new factories this year. Among them is Shenzhen OWA, which is scheduled to set up at least two more production lines by the end of 2007.

### Higher quotes likely in 2008

The continued shortage of LCD panels could potentially put a dampener on production and export growth of in-car TVs. Due to the wide adoption of LCD screens by other consumer electronics

### Supplier summary

Suppliers surveyed	43
Export sales	\$147.5mn
Export ratio	76%
OEM business	79%
Capacity utilized	47%
Annual R&D spending	\$32.2mn
Full-time employees	10,220

Data: All surveyed suppliers

such as digital photo frames and GPS systems, LCD panels have been in short supply in the past year. The cost of LCD panels, thus, jumped 20 to 30 percent during this period. The upward price trend of LCD panels is expected to continue well into the first half of 2008.

This, coupled with the rising valuation of the yuan as well as increasing costs of raw materials and labor, will inevitably force suppliers to adjust their export prices in 2008.

However, survey results indicate any increase in export prices will most likely be modest. Almost two-thirds of suppliers interviewed for this report plan to raise quotes by only up to 5 percent.

### Industry composition

During the past few years, many newcomers have entered the in-car TV line in China. These new suppliers

### OEM/ODM/OBM partners

Company	Major customers
Audik	Motorola, GE (US); Nokia (Finland)
C-Bridge	TMI (US); Toyota (Japan)
Coagent	Autovox (Italy); Diesel Audio (US); Zulex (Thailand)
Emperor	jWIN, Crown (US); K.K. (Japan)
Guangzhou Weier	Audio Works (UK); Concept, HiFi (US)
Shenzhen Oceanstar	Soundstar (HK); Maplin (UK); Touchmate (Middle East)
Shenzhen SGDQ	Welco (Germany); Bravo, Starvision (US)
Waysion	Daewoo International (South Korea)
Zhangzhou Lilliput	Kodak (US); Saturn (Russia)

Data: All surveyed suppliers

### Coagent Electronic S&T Co. Ltd

Coagent is recognized as one of the biggest in-car entertainment device providers in China. Its product range includes in-car TVs/monitors, car GPS navigators, car DVD players and fault diagnostic systems.

Based in Foshan, Guangdong province, Coagent ships the bulk of its output to Middle East/Africa and Southeast Asia, with a 40 percent share each. The remaining 20 percent is delivered to Russia.

All exports are shipped as OEM orders, although Coagent has established its own brand in countries such as Vietnam and Indonesia. This is because the company is shifting its focus to build its own brand. It also plans to explore the US market in the near future and go public within the next three years.

Coagent has acquired a 166,500sqm land from the local government to set up an industrial park for production expansion. The company's 1,200 employees have just moved into the 53,280sqm factory, the first phase of its industrial park development.

The factory currently has a monthly capacity of 60,000 units, which is expected to increase to 100,000 units by the end of 2007.

Coagent has acquired CE, FCC and E-mark approvals for its products. The company also has ISO 9001:2000 and ISO/TS16949 certifications.

To ensure product quality, Coagent has set up a dust-free SMT workshop in the factory equipped with two air shower rooms at the gate. The workshop holds four Fuji SMT lines, which include one full automatic line that is equipped with an automatic optical inspection (AOI) machine. Workers are required to wear anti-static bracelets when working.

All products also undergo a four-hour aging and functionality test, while QA technicians carry out 10 percent sampling inspection before warehousing.

#### Capability

##### Production checklist

Assembly lines	10
R&D/design staff	190
QC staff	50
Mold making in-house	No
Plastic injection molding in-house	No
SMT in-house	Yes
Automatic insertion machines	Yes
Aging room	Yes

##### Exports by product

In-dash car TVs	100%
Flip down car TVs	—
Sun visor car TVs	—
Headrest car TVs	—
Standalone car TVs	—

##### Exports by market

Nth America	—
European Union	—
Europe (non-EU)	20%
Middle East/Africa	40%
Asia	40%
Other	—

#### Outlook

- **Export prices**  
Increase
- **Export sales**  
Increase more than 20%
- **Production capacity**  
Increase more than 50%
- **Expansion plan**  
Build or move to new or additional factory
- **Main target market**  
Nth America
- **Hot product trend**  
Value-added functions
- **Major challenge**  
Labor shortage
- **Efficiency improvement**  
Upgrade management systems
- **Capability improvement**  
Widen product range

#### Profile

##### Company facts

Year established	1998
Head office location	Foshan (Guangdong)
Business type	Manufacturer: Direct exporter
Ownership	Mainland China-owned
Factory location(s)	Foshan (Guangdong)
Total factory area	53,280sqm
Full-time employees	1,200
Total annual sales (all products)	\$30.0mn
Annual R&D spending	•
ISO certified	Yes

##### Sales & output: In-car TVs

Annual sales	•
Share of total sales	•
Annual export sales	•
Total monthly capacity	60,000 units
Average monthly output	•
Capacity utilized	•
Average monthly exports	•
Export ratio	•
OEM % of exports	100%
ODM % of exports	—
OBM % of exports	—

• Information not disclosed

**Products**

Adding new functionalities is a major product development focus for Coagent. The company has released a series of intelligent in-car information systems with integrated fault diagnostic function, which displays tire pressure and fault indication.

It has also developed several product models that are specially designed for some popular vehicle models such as Toyota Corolla and Audi A6.

With 190 personnel dedicated to product development, Coagent is scheduled to release 14 new products in 2007.

The lead time to develop a new model is four-and-a-half months, but the company is working on cutting the design and development lead time to three months by the second half of 2008.

Although the bulk of Coagent's products go to the after-sales markets, the company has set up supplier partnerships with some local vehicle makers in China, such as the FAW Group and Shanghai Huizhong Automotive Manufacturing Co. Ltd.

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**Popular export models**



**In-dash car TV**

Model	CA3006
Minimum order	500 units
Packaging type	•
Delivery time	30 days
Indicated price	•

**Description:** 7in touchscreen TFT LCD; 2-DIN; TV tuner; AM/FM radio tuner; PAL, NTSC, SECAM support; 4x50W amplifiers; BBE; remote control; night mode; automatic light sensor; DVD, VCD, CD, MP3, MPEG-4, CD-R playback; special for Toyota Prado; optional CDC, GPS



**In-dash car TV**

Model	CA1606
Minimum order	500 units
Packaging type	•
Delivery time	30 days
Indicated price	•

**Description:** 7in touchscreen TFT LCD; 1-DIN; PAL, NTSC, SECAM support; remote control; BBE; FM/AM radio tuner; RDS; GPS; Bluetooth; SD card reader; USB port; telephone mute; automatic light sensor; iPod connection; DVD, VCD, CD, MP3, MPEG-4, CD-R, JPEG, WMA playback



**In-dash car TV**

Model	CA3002
Minimum order	500 units
Packaging type	•
Delivery time	30 days
Indicated price	•

**Description:** 6.5in TFT LCD; 2-DIN; TV tuner; AM/FM radio tuner; DVD player; reverse video input; 4x50W amplifiers; automatic light sensor; remote control; BBE; OSD menu; DVD, VCD, CD, MP3, CD-R playback

• Information not disclosed

## PRODUCT GALLERY

### Flip down car TVs



**Aima**  
(profile page 62)  
**Model:** AT-9288  
**Minimum order:** 100 units  
**Packaging type:** Carton  
**Delivery time:** 7 days  
**Indicated price:** •  
**Description:** 9.2in widescreen LCD; 1440x234 pixels; 250:1 contrast ratio; 380cd/m<sup>2</sup> brightness; TV tuner; NTSC, PAL support; stereo speakers; remote control; DVD, VCD, CD, CD-R, CD-RW, MP3 playback; English, Chinese OSD menu



**C-Bridge**  
(profile page 63)  
**Model:** MF7001L  
**Minimum order:** 1,000 units  
**Packaging type:** Carton  
**Delivery time:** 30 days  
**Indicated price:** \$75.00  
**Description:** 7in TFT LCD; PAL, NTSC, optional SECAM support; B/G.D/K.I media system, optional M; 2-way 1VP-P, A/V2, earphone, antenna outputs; 0.2W maximum audio output; CATV full frequency signal (470MHz); multilanguage OSD menu



**Dongguan Goodshin**  
(profile page 63)  
**Model:** RM-TV1040A  
**Minimum order:** 100 units  
**Packaging type:** Carton  
**Delivery time:** 5 days  
**Indicated price:** •  
**Description:** 10.4in TFT LCD; CATV/TV receiver (470MHz); PAL, NTSC, optional SECAM support; B/G D/K sound system, optional M; 1VP-P two-way, A/V2, A/V input jack, 12V input jack; 0.2W maximum audio output; multilanguage OSD menu



**Emperor**  
(profile page 28)  
**Model:** MOD-9200  
**Minimum order:** 1,000 units  
**Packaging type:** Carton  
**Delivery time:** 45 days  
**Indicated price:** •  
**Description:** 9.2in TFT LCD; DVD player; optional TV tuner; PAL, NTSC support; FM transmitter; IR; full function remote control; DVD, VCD, CD, SVCD playback; 12V power input; 12W power consumption



**Emperor**  
(profile page 28)  
**Model:** MOM-702F  
**Minimum order:** 1,000 units  
**Packaging type:** Carton  
**Delivery time:** 45 days  
**Indicated price:** •  
**Description:** 7in TFT LCD; optional TV tuner; FM transmitter; IR; full function remote control; 12V DC power input; 12W power consumption



**Emperor**  
(profile page 28)  
**Model:** MOM-1500  
**Minimum order:** 1,000 units  
**Packaging type:** Carton  
**Delivery time:** 45 days  
**Indicated price:** •  
**Description:** 15in TFT LCD; DVD player; optional TV tuner; FM transmitter; IR; full function remote control; 12V DC power input; 12W power consumption

• Information not disclosed

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