

Display Parts & Components



June 2010 US\$495



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China manufacturer profiles

Detailed profiles of 29 verified suppliers and contact details of an additional 47 exporters

Product & price trends

Prices and specifications of 109 top-selling export products

Supply centers & market trends

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

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DISPLAY PARTS & COMPONENTS

Supplier capability in China

EXECUTIVE SUMMARY

Suppliers of display parts and components in China continue to bolster the line amid a sustained upsurge in demand. To complement the expected 20 to 30 percent increase in output, they are intensifying R&D efforts. Product features are being upgraded to meet requirements in an expanding application base.

For LED displays, companies underscore outdoor models to take advantage of the broadening adoption in advertisements and similar setups. The line remains the industry's strongest category, with China being the world's largest manufacturing hub. Output is forecast to grow by 42 percent this year.

LEDs and LCD modules are seen as the next fast-developing segments, driven by traditional and emerging uses in consumer electronics and general lighting.

Diodes continue to benefit from the shift from CCFL and CFL to more-environment-friendly light sources in displays and lamps. For this reason, makers are enhancing luminous efficiency and reducing light attenuation further. DIP variants lead the supply of encapsulated products. SMD and high-power types are also offered.

Suppliers of LCD modules match panel trends, emphasizing TFT variants as TN and STN decline in importance. The TFT line is expected to have an increased manufacturing share exceeding 70 percent until 2011.

At the same time, the industry as a whole is pursuing the more long-term objective of being on a par with major players. Toward this end, key technology issues are being addressed, foremost of which is IPR.

The following are some of the key trends in China's display parts and components industry:

- Export sales are anticipated to increase in the months ahead, with many suppliers confident of growth topping 20 percent. They expect the

push to come mainly from the EU, where demand for "green" LED-based products is high.

- Makers are likewise extending their market reach to other areas such as North America, non-EU countries, the Asia-Pacific region and the Middle East. They are counting on the spreading environmental protection trend.

- Companies are boosting capital expenditure to fund R&D projects and widen their selections. Others will improve operating efficiency to prepare for an increase in orders.

- Product development will continue to focus on enhanced brightness and resolution to suit widening requirements.

- Amid bright prospects, suppliers are faced with price competition. A number have reduced their quotes and expect a slide in coming months as continued growth tightens rivalry further.

- Joint industry and government efforts to develop the sector as a complete supply chain are ongoing. This bid to break away from foreign dependence for technology also targets enhanced competitiveness in the global market.

This report covers LEDs, LED lights, cluster lamps and displays, and LCD backlights and modules manufactured in China. The products are discussed in separate sections, which detail common features found in mainstream models. Price and R&D trends are also included.

The Industry Overview discusses developments in this line, including growth opportunities in coming months. It identifies the factors shaping the segment.

The majority of China's manufacturers are based in Guangdong province, which is building up key city Shenzhen as a major center for optoelectronic supplies in the country.

In this report

- 29 in-depth company profiles
- 47 additional suppliers
- 109 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.

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INDUSTRY OVERVIEW

China continues to strengthen its display parts and components line in preparation for a sustained upsurge in demand. The industry through individual and concerted efforts is tackling IPR issues, amending material and component sourcing practices, and boosting R&D.

The China Solid State Lighting Alliance, for instance, is building a national pool that will track patents, acquisitions and cross licenses, and help makers take action in lawsuits. Especially in the aftermath of the US International Trade Commission's investigation of LED patent infringements in 2008, the sector is currently watching for developments. Some exclusive rights, including Nichia's 444 and Rothschild's 499, will be expiring in 2010 and the majority by 2016.

Local suppliers account for only about 5 percent of the world's LED patents, nearly all of which are noncore. Most are owned by a few top-tier companies from Japan, the US and Germany. Nichia, Toyoda Gosei, Toshiba, Lumileds, Cree and Osram are among them.

Mindful of this, mainland China enterprises purchase certified chips and phosphor powder. There are, however, other stipulations related to white light acquirement and some processes. For this reason, suppliers pay license fees to obtain corresponding endorsements.

To avoid legal problems altogether, a rising number of makers are sourcing from local providers. For LEDs, suppliers turn mostly to Ledman, Hongli and Nationstar. Those using imported units continue to work with Cree and Nichia.

For chips, however, the lack of acceptable local substitutes forces mainland suppliers to work with foreign partners, specifically Taiwan vendors. The challenge in this aspect is the limited stock of grade A ICs. These go mainly to Europe, the US, South Korea and Taiwan companies, leaving mainland enterprises with B and C solutions. To ensure a stable stock, some cultivate ties with Taiwan's tier 1 operations Epistar, Opto Tech and Huga, and Formosa Epitaxy and Arima in the second tier.

Using this as a driving force, the mainland chip sector continues to

Supplier summary

Suppliers surveyed	29
Export sales	\$185.7mn
OEM business	33%
Annual R&D spending	\$19.7mn
Full-time employees	15,475

Data: All surveyed suppliers

enhance product quality, providing 1W high-power types that can deliver 80 to 90 lm/W. It is targeting to develop 130 lm/W units and realize mass production of 100 lm/W versions in 2010. In fact, locally made solutions are now expected to account for up to 50 percent of the requirement within the mainland, according to the National Solid State Lighting Planning Office. This is a significant improvement from 5 percent in 2003 and nil in 2002. The mainland has more than 60 enterprises providing mostly low-power and normal-brightness chips.

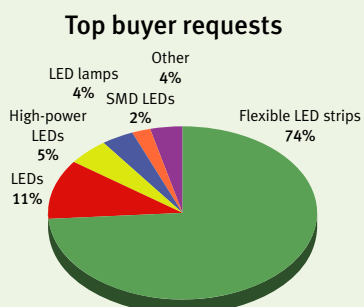
In conjunction with these efforts, suppliers of display parts and components are upgrading product features to take advantage

Global Sources online metrics

Optoelectronic components

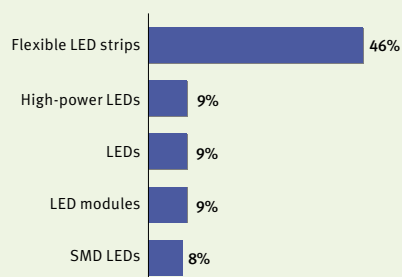
Online metrics are taken from buyer and supplier activity in the featured product group on www.globalsources.com in the month preceding publication of this update.

- **Buyer requests** track total inquiries from our worldwide community of more than 880,000 buyers.
- **Product profiles** represent the total number of unique products available from suppliers in our online catalogs.
- **New product postings** indicate the number of new product profiles added by suppliers during the period.

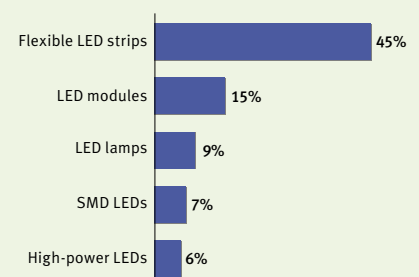


Percent of all online activity for this product group

Top product profiles



Top new product postings



Changzhou Beiter Electronic Co. Ltd



LEDs and LCD modules constitute Changzhou Beiter's display parts and components line. The products, which account for 40 percent of the company's total sales, generated \$600,000 in 2009.

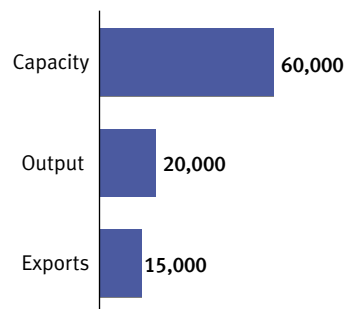
The maker operates an ISO 9001:2008-compliant factory in Jiangsu province with an area of 15,500sqm and 100 full-time employees. The average monthly capacity is 60,000 units, of which 33 percent is currently utilized. Seventy-five percent of output is exported.

OEM orders make up 25 percent of shipments and ODM 45 percent. The rest is sold under the supplier's in-house BTR brand. Sixty percent of deliveries abroad go to Europe. The other destinations are North America, the Asia-Pacific region and the Middle East.

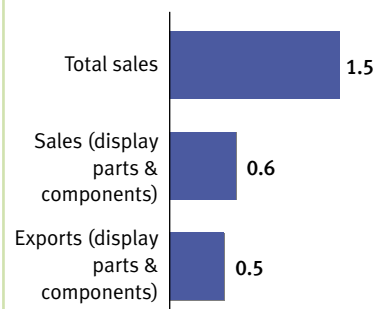
This year, Changzhou Beiter aims to raise shipments to the EU and expects overseas trade to increase by 10 to 20 percent. It plans to boost annual capital expenditure by more than 50 percent and will decrease product defects to strengthen competitiveness.

Profile

Production units/mth



Sales \$mn/yr



Contact details

Business contact

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Address

Lijia, Wujin, Changzhou, Jiangsu, China

Company facts

Year established	2000
Business type	Manufacturer
Company ownership	Mainland China-owned
Head office location	Changzhou (Jiangsu)
Number of factories	1
Factory location(s)	Changzhou (Jiangsu)
Total factory area	15,500sqm
No. of full-time employees	100
No. of R&D/design staff	5
No. of QC staff	6
Annual sales (all products)	\$1.5mn
Annual R&D spending	\$50,000
ISO certification	Yes

Sales & output: Display parts & components

Annual sales	\$0.6mn
Share of total sales	40%
Annual export sales	\$0.5mn
Total monthly capacity	60,000 units
Average monthly output	20,000 units
Capacity utilized	33%
Average monthly exports	15,000 units
Export ratio	75%
OEM % of exports	25%
ODM % of exports	45%
OEM % of exports	30%
Other products made	Electronic ballasts; rotary potentiometers, switches

Capability

Production checklist

Module design	Yes
Mold making	No
PCB subassembly	Yes
SMT	Yes
Plastic injection	No
Wafer processing	No
LED chipmaking	No
Bonding machines	2
Sorting machines	—
COG technology	Yes

Exports by product

LCD modules	90%
LCD backlights	—
LEDs	10%
LED lights/cluster lamps	—
LED displays & modules	—

Exports by market

North America	25%
European Union	50%
Europe (non-EU)	10%
Asia-Pacific	10%
Middle East	5%

Survey

- **Export prices**
Increased
- **Export price increase**
5-10%
- **Export sales**
Increase 10-20%
- **Target market**
European Union
- **Capital expenditure**
Increase more than 50%
- **Major challenge**
Price competition
- **Export capability**
Decrease product defects
- **R&D focus**
Better consistency

Popular export models



LCD module

Model	TM128128CKFWG48-11
MOQ	5,000 units
Packaging	Blister tray and carton
Delivery	60 days
Price	\$2.81

Description: 1.5in CSTN, negative; 128(RGB)x128 pixels; ≥120cd/mm brightness; 65,000 colors; -40 to 40-degree left to right, -25 to 35-degree top to bottom viewing angles; <1mA consumption; -20 to 70 C operating temperature; 3yr life span; 26.1x28.15mm; 10g; for mobile phones



LCD module

Model	TMT035E
MOQ	500 units
Packaging	Blister tray and carton
Delivery	70 days
Price	\$13.81

Description: 3.5in TFT, positive; 320(RGB)x240 pixels; ≥180cd/mm brightness; 65,000 colors; -40 to 40-degree left to right, -20 to 40-degree top to bottom viewing angles; <20mA consumption; -20 to 70 C operating temperature; 3yr life span; 70.08x52.56mm; 200g; for videophones



LCD module

Model	TM12864I6
MOQ	1,000 units
Packaging	Blister tray and carton
Delivery	60 days
Price	\$1.81

Description: 2.4in STN, positive; yellow-green; 128x64 pixels; ≥1cd/mm brightness; -25 to 25-degree left to right, -15 to 30-degree top to bottom viewing angles; <1mA consumption; -20 to 70 C operating temperature; 3yr life span; 53.74x28.09mm; 20g; for telephones, instrumentation

PRODUCT GALLERY

LCD modules



Changzhou Beiter
(profile page 38)
Model: TM128128CKFWG48-11
MOQ: 5,000 units
Packaging: Blister tray and carton
Delivery: 60 days
Price: \$2.81
Description: 1.5in CSTN, negative; 65,000 colors; 128(RGB)x128 pixels; ≥120cd/mm brightness; -40 to 40-degree left to right, -25 to 35-degree top to bottom viewing angles; <1mA consumption; -20 to 70 C operating temperature; 3yr life span; 26.1x28.15mm



Changzhou Beiter
(profile page 38)
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(profile page 38)
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MOQ: 1,000 units
Packaging: Blister tray and carton
Delivery: 60 days
Price: \$1.81
Description: 2.4in STN, positive; yellow-green; 128x64 pixels; ≥1cd/mm brightness; -25 to 25-degree left to right, -15 to 30-degree top to bottom viewing angles; <1mA consumption; -20 to 70 C operating temperature; 3yr life span; 53.74x28.09mm; 20g



Fujian Golden Vision
(profile page 48)
Model: GV035-14321A-GA
MOQ: 1,000 units
Packaging: Foam box and carton
Delivery: 30 days
Price: Negotiable
Description: 3.5in TFT, negative; white LED backlight; 72.1x54.4mm viewing area; 6:00 viewing direction; 0.219x0.219mm dot size; -20 to 70 C operating temperature; 1/240 duty drive method; transmissive polarizer; 76.5x63.9x2.75mm



Fujian Golden Vision
(profile page 48)
Model: GVLCM1602B-13498A
MOQ: 1,000 units
Packaging: Foam box and carton
Delivery: 30 days
Price: Negotiable
Description: COB LCD; STN, positive, YG display; yellow-green LED array backlight; 64x16mm viewing area; 6:00 viewing direction; 0.56x0.66mm dot size; -20 to 70 C operating temperature; 1/16 duty, 1/5 bias drive method; transfective polarizer



Fujian Golden Vision
(profile page 48)
Model: GVLCM12864G-13459A
MOQ: 1,000 units
Packaging: Foam box and carton
Delivery: 30 days
Price: Negotiable
Description: COB LCD; STN, positive, YG display; yellow-green LED array backlight; 64x16mm viewing area; 6:00 viewing direction; 0.56x0.66mm dot size; -20 to 70 C operating temperature; 1/16 duty, 1/5 bias drive method; transfective polarizer

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