



Wearables

- ✓ China supply market analysis
- ✓ Pricing guide
- ✓ 40 supplier profiles
- ✓ 10 hot products
- ✓ Product and supplier comparison tables

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Buyer's Guide to sourcing wearables

An exclusive and in-depth report on sourcing wearables in China, including supply market analysis, supplier profiles, hot products and a global forecast.

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China suppliers are ready for a wearables boom

With smart watches and fitness bands increasing in popularity, China manufacturers are ready to pounce on the next big opportunity in mobile electronics.

The market for wearable electronic devices has been brewing for some time and is poised for some significant growth in the future, but for now, many manufacturers in China are still in "wait and see" mode.

Among 42 manufacturers of wearable devices that responded to a Global Sources survey, all respondents said they are waiting for big players like Apple and Google to grow the wearables market. Earlier this year, Google announced Android Wear for brands to use in their own smart watches and other wearables, but the Apple Watch that will be available early 2015 is what is expected to bring about a market boom in the near future. Expectations are high given the way Apple changed the smartphone market with the iPhone and reinvented the tablet market with the iPad.

Though speculation is running high online and among certain media outlets, 85 percent of survey respondents said they currently accept a minimum order quantity for wearables valued at less than US\$5,000. This suggests that orders are still small in size in spite of growth seen in what is a nascent market.

Still, suppliers expect a boost in wearables demand after bigger companies start to join in greater numbers. More well-known Chinese brands like Huawei, ZTE and Xiaomi already have smart watches and smart bands available. Motorola Mobility, soon to be a subsidiary of Beijing-based Lenovo, will release later this year the much-anticipated Moto 360, a smart watch running Android Wear with a round display.

With the increasing interest, manufacturers are



Rocktech Displays' smart bracelet is geared towards athletic users, tracking metrics such as steps taken and calories burned.

anticipating more growth by the end of the year.

"I believe that there has never been an industry that has developed so fast like this," said Neo Wang, CEO of Shenzhen Yingqu Technology, a smart watch company also known by its brand name inWatch.

Wang said features in current wearables products do not maintain users' interest for long, but he is optimistic about the future.

"I believe the next round of breakout [functions] is not far away from us," he said.

The market is certainly growing. In February, the analyst group Canalys estimated that shipments of smart watches alone would jump 40 percent to 8 million in 2014 and that wearables would rise to 17 million. Canalys

estimated that shipments of smart watches could reach 45 million by 2017. Smaller manufacturers do not expect to be waiting that long, though.

Mifree Technology sales manager Weixin Mei said he believes many Chinese manufacturers will start making wearables in large numbers by December.

For now, there seems to be low acceptance and awareness among the public for wearable devices. While devices might appeal to early adopters and athletes, the cost of the devices and limited functionality mean wearables are still niche products.

"So far, there has not been a killer app in the market," Wang said, referring to the difficulty users have coming up with a reason to buy a smart watch.

It may also be the case, however, that consumers, like manufacturers, are waiting to see what is on the horizon from Apple and other big brands.

Among the Chinese companies that have already entered the wearables field, some are investing in research and development to try to come up with unique functions. One popular trend in smart watches in China, for example, is to give them SIM card slots, allowing them to operate as lone devices with their own wireless connections.

Popular smart watches so far have mostly been supplemental devices that connect to smartphones through Bluetooth. Android Wear is designed explicitly to operate this way.

Still, it might be difficult for Chinese manufacturers to shake its reputation of taking ideas from abroad and making cheaper versions for the local market.

Copycat China

For much of the international community, the term "made in China" is synonymous with "copycat" or "cheap," and this presents a hurdle for China's wearables industry. Suppliers often copy products



Brainlink from Macrointellect Ltd allows users to play select games via brain waves.

from big companies, competitors or other manufacturers and prefer managing costs to increasing R&D expenditures.

Among the companies surveyed by Global Sources, more than 90 percent responded that they spend less than 3 percent of sales revenue on R&D. By comparison, US computer and electronics companies were spending an average of nearly 10 percent of net sales on R&D in 2007, the last time data was compiled by the US National Science Foundation. However, concentrating on cost translates to lower prices in China, where many consumers are more price-sensitive than those in more developed economies.

There are still many companies in China that care about R&D, though. Dongguan World Tong Electronic Technology, which primarily produces Bluetooth speakers and smart watches, said it spends 120 percent of revenue on R&D, which CEO Hongxin Wu said she believes the company will earn back.

Research and development still seems like an afterthought to most manufacturers in China, though, which means they may not be as forward thinking in their strategies as the market will require. The wearables market is still maturing and the product life cycle could be long, which is something the tablet industry is currently dealing with. This means sustainable profits in wearables could be a long game, but many Chinese companies appear focused on short-term revenue streams by copying

and launching new products in quick succession without understanding the market. The result is that many products are lacking in quality and design.

Technical challenges

Besides the local challenges the industry faces, wearable devices still need to mature technologically.

Power consumption is consistently recognized as a big challenge for wearables producers. Many smart watches on the market today barely last a full day of use. This gives consumers yet another device that needs to be charged every day and most people are not accustomed to having to routinely monitor the power gauge on a watch. However, fixing the problem is challenging because smart watches consume much more power than traditional watches without adding a lot more space for larger batteries.

Size can still be a problem, though. Popular smart watches today are still bulky compared with traditional watches. In addition to fitting in rechargeable lithium-ion batteries, smart watches have many other components, including sensors used for pedometers and other kinds of health and exercise monitoring. These sensors will probably have to be further miniaturized in the future to be optimized for wearables.

Another hurdle is deciding on the right version of Bluetooth. Many wearables currently use Bluetooth 3.0, a generation behind the more power efficient Bluetooth 4.0, further exacerbating power woes. Additionally, it has been reported that some wearables coming out of China have trouble pairing with some high-end smartphones like those from Samsung and Apple.

Consumers might also be waiting for a more comfortable input system on smart watches. For now, most smart watches rely on a small touch screen and voice commands. Some Chinese manufacturers have produced smart watches with slide-out alphanumeric keyboards. Dongguan World



The Qingnu smart watch from Shenzhen KLX targets couples, allowing them to communicate back and forth.

Tong is trying something a little more advanced by working on a smart watch that contains a mini laser control system.

Converging fashion with tech

Given the bulk of modern smart watches, design is one of the biggest challenges the wearables industry needs to overcome. This is why many manufacturers see fashion as their most pressing concern.

This is what led inWatch's CEO to call fashion the company's "killer app". It is also why Shanghai Geak is producing smart watches with round displays instead of the more common rectangular display of most smart watches today (Motorola and LG have received considerable attention for their own round-faced smart watches, which many consider to be more aesthetically pleasing).

When the time comes that fashion and functionality converge in wearables, the devices will likely be playing an important role in people's lives. Users will use them to control household appliances, cars and other things used every day. The devices might be used to unlock a door or adjust the air conditioning according to a user's body temperature, according to Mei of Mifree Technology.

For now, though, the functionality of wearables remains limited by size and technology. Some functions do not work well in devices trying to be everything to everyone. Thus, the near future of wearables might see more specialization.

For example, Beijing-based Tanghai Sunwise Network Technology focuses mainly on smart bracelets for sports and fitness uses, and Shenyang-based Neusoft Xikang Technology designs wearables for medical uses. By dividing devices by purpose, manufacturers might be able to better control the quality of the experience.

Industry overview

Living up to its reputation as China's manufacturing hub, Guangdong province is home to about 90 percent of respondents to the Global Sources survey, with most based in Shenzhen. The percentage of manufacturers involved mostly in OEM, ODB and OBM are 64 percent, 18 percent and 18 percent, respectively.

Most manufacturers have less than 200 personnel on staff, with 64 percent of respondents saying they have between 50 and 200 personnel. Of companies

with more than 500 employees, only 13 percent make wearables.

Wearables from China are primarily exported to Europe and North America, with the survey showing that those markets make up 40 percent and 28 percent of wearables exports, respectively.


Currently, wearables manufacturers do not expect the category to exceed 30 percent of their products. Many wearables manufacturers have also been involved in smartphone and tablet production for several years. With wearables becoming more popular, more suppliers have been lured into giving the products a try. However, other mobile devices are still big sellers.

Smart watches: The first wave of wearables

Among the surveyed suppliers, nearly 50 percent of the wearable products they manufacture are smart watches, in which international buyers are primarily interested. Smart watches made in China can currently be divided into two main categories.

The first category is a Bluetooth watch. It connects

Smart watches price guide

FOB price 	Below US\$40	US\$40 to US\$80	US\$80 to US\$130	Above US\$130
Chipset	MTK 6260	MTK 6260, MTK 6577	MTK 6572 or MTK6577	MTK 6577 (mainly)
SIM card	7% supported	25% supported	70% supported	100% supported
Memory	32MB ROM, 32MB RAM	128MB RAM, 64MB ROM	512MB RAM, 4GB ROM	512MB (or 1GB) RAM, 4GBROM
Camera	No camera	Under 2MP or no camera	2MP to 5MP	3MP to 5MP
G-sensor	50% supported	80% supported	100% supported	100% supported
Battery	170mAh to 350mAh	210mAh to 600mAh	230mAh to 700mAh*	400mAh to 600mAh
Screen size	0.49-inch to 1.54-inch	0.96-inch to 2-inch	1.49-inch to 2-inch	1.54-inch to 2-inch
Touch panel	36% supported	78% supported	100% supported	100% supported
Summary	Basically a second screen of smart phone	Phone assistant with multi-functions	A watch phone	A watch phone with high quality raw material

*The information in this table was taken from a sample of 58 smart watches. Percentages represent how many devices in that pricing category included a given feature. *One product from this pricing tier in the sample of devices had 700mAh with the rest being 500mAh or lower.*

with smartphones via Bluetooth and is of limited use without the aid of the additional smart device. These smart watches can only pull information like notifications and text messages from smartphones. Normally, these devices contain functions such as pedometer, calling and SMS notifications, internet via Wi-Fi or Bluetooth, remote control, GPS, and music playback (usually streamed from a smartphone).

Another type of smart watch is what some call a watch phone. These devices contain SIM card slots, allowing them to operate independent of any additional hardware. Having its own SIM card allows the watch to make calls, surf the Internet and send texts and email all without the aid of a smartphone.

These smart watches can also interact with smartphones, though, as manufacturers recognize that not many people want to use the small screens on wearables to do everything they normally would with a phone. Still, watch phones are meant to serve as a phone replacement to some extent, possibly removing the need for a second phone, according to inWatch's Wang. This is something business travelers could find useful.

Smart bracelets: Emphasizing functionality

Smart bracelets are the second most popular wearables product and accounts for 21 percent of

those manufactured among the surveyed companies. Buyer inquiries made through GlobalSources.com show a similar popularity.

Most of smart bracelets are designed for athletic use, with functions such as pedometers and heart rate monitors. Normally, these devices must be paired with a smart phone, as many of them do not contain screens.


Bands used for sports use generally collect data such as step count and calorie consumption, which is then synchronized to smart devices via Bluetooth or NFC. Apps can then give recommendations to users on how to modify their activities.

Another kind of smart bracelet is one that acts as a phone assistant. It can remind users of incoming calls, SMS, email and appointments through vibrations.

"In the future, smart bracelets should combine with applications to meet users' specific needs, such as jogging smart bracelets," said Tanghai Sunwise CEO Xin Liu. The company is now working on a smart bracelet with an integrated payment function.

Mifree is also pushing the bounds of current smart bracelet functionality. The company has designed a smart bracelet with a removable Bluetooth headset, something Mei said he thinks will eventually replace Bluetooth headsets in the future.

Smart bracelets price guide

FOB price 	Below US\$20	US\$20 to US\$40	Above US\$40
Battery	45mAh to 200mAh	70mAh to 320mAh	70mAh to 320mAh
Standby time	48 hours to 120 hours	72 hours to 180 hours	100 hours to 180 hours
Screen size	0.91-inch	0.91-inch, 0.96-inch	0.91-inch, 0.96-inch
Touch panel	25% supported	37.5% supported	67% supported
Call answer	16% supported	87.5% supported	100% supported
SMS read	16% supported	50% supported	100% supported
MP3 control	8% supported	37.5% supported	67% supported
Anti-lost	8% supported	50% supported	33% supported
Weight	31g to 18g	29g to 10g	31g to 40g

The information in this table was taken from a sample of 23 smart bracelets. Percentages represent how many devices in that pricing category included a given feature.

Comparison Table: Profiles of 40 export-ready wearables suppliers

Name	Annual sales (in millions US\$)	Number of employees	Year started making wearables	Main two wearable categories	Main two markets	Small orders (in US\$)	R&D rate (% of sales revenue)
Anlong	2.00	150	2010	Watches (100%)	US (20%), Europe (60%)	<1,000	5.00%
Apollo	0.80	35	2013	Smart watches (60%); smart bracelets (40%)	US (40%), Europe (30%)	<5,000	0.40%
Charter Profit	20.00	200	2014	Smart bracelets (80%); smart watches (20%)	US (25%), Europe (30%)	<1,000	2.50%
Eelink	10.00	More than 1000	2009	N/A	N/A	<1,000	N/A
E-Ran	8.00	50-198	2014	Smart watches (35%); smart bracelets (65%)	Western Europe (30%), Australia (30%)	<1,000	2.01%
E-Tells	20.00	100	2012	Pedometer sports watches (50%); Bluetooth speaker watches (50%)	N/A	<1,000	2.00%
Etone	0.10	100	2012	Smart watches (80%); smart bracelets (20%)	Europe and America (40%)	<1,000	30.00%
Foronda	1.00	150-199	2010	Smart watches (45%); smart glasses (30%)	US (35%), Australia (30%)	<5,000	1.00%
Groo	1.50	120	2013	Smart watches (70%); smart bracelets (30%)	US (40%), Western Europe (40%)	<5,000	10.00%
Hansheng Winpower	15.00	388	N/A	Smart watches (35%); smart bracelets (30%)	US (20%), Europe (20%)	<1,000	N/A
Hopusmart	12.00	120	2007	Smart watches (70%); smart bracelets (30%)	Europe (35%), Asia (25%)	<1,000	8.33%
Jeasun	9.75	100	2011	Wearable sport action cameras (100%)	Australia (30%), Europe (50%)	<1,000	8.31%
KingFlash	4.80	150	2013	N/A	US (40%), Western Europe (20%)	<1,000	12.50%
KLX	0.48	N/A	2013	N/A	N/A	<5,000	26.67%
Koeok	5.00	30	2014	Smart bracelets (35%); wearable power banks (45%)	US (40%), Western Europe (60%)	<1,000	N/A
Langyin	4.00	150-200	2009	Video glasses (80%); video ski goggles (20%)	US (30%), Western Europe (30%)	<5,000	N/A
Leadfar	8.00	210	2006	Heating clothes (100%)	Western Europe (100%)	<10,000	0.81%
Lianxintai	8.00	100-200	2012	Smart watches (25%); GPS watches (30%)	Western Europe (30%), Australia (30%)	<1,000	0.15%
Linktop	50.00	1000	2013	Smart watches (40%); smart tracking devices (30%)	North America (30%), Europe (30%)	<10,000	10.00%

Buyer's Guide

Name	Annual sales (in millions US\$)	Number of employees	Year started making wearables	Main two wearable categories	Main two markets	Small orders (in US\$)	R&D rate (% of sales revenue)
Macrolect	1.60	50	2010	Brain wave game and practice device (100%)	N/A	<1,000	N/A
Mifree	4.80	75	2013	Bluetooth bracelets (40%); watch phones (30%)	Middle East (30%), Southeast Asia (20%)	<5,000	3.33%
Mingdongyue	4.87	199	2014	Smart watches (40%); smart bracelets (40%)	US (30%), Europe (40%)	<15,000	34.91%
Mustech	6.00	200	2013	Smart bracelets (60%); smart watches (40%)	US (28%), Europe (32%)	<1,000	N/A
Neusoft	32.50	700	2011	Smart watches (60%); smart bracelets (20%)	US (20%), Western Europe (80%)	<10,000	19.85%
Neway	5.00	200-300	2011	Smart watches (60%); smart bracelets (40%)	US (40%), Western Europe (30%)	<1,000	2.00%
Noitom	8.00	45	2012	Motion capture systems (40%); golf swing analyzers (60%)	US (50%), Europe (30%)	<5,000	9.06%
Oriver	3.25	150-200	2013	Smart watches (100%)	Western Europe (50%), Middle East (30%)	No	0.50%
Phiyang Hongye	5.00	350	2013	Smart watches (65%); smart bracelets (35%)	US (35%), Western Europe (40%)	<1,000	0.86%
Qiaoya	3.25	800	2012	Smart watches (90%)	US (30%), Australia (30%)	<1,000	17.54%
Rocktech Displays	5.34	80	2014	N/A	N/A	<5,000	N/A
SBD	15.00	150	2004	Camera sunglasses (60%); video glasses (20%)	N/A	<15,000	8.00%
Singlory	10.00	150	2013	N/A	N/A	<5,000	1.62%
SunriseWay	3.20	25	2008	Watch phones (100%)	N/A	<1,000	15.00%
Tenghai Sunwise	3.25	41	2011	Smart bracelets (60%); smart clothes (20%)	N/A	<1,000	40.00%
Top Watch	8.00	600	2009	Smart watches (90%); smart bracelets (10%)	North America (30%), Western Europe (50%)	<1,000	N/A
Topsky	3.20	75	N/A	Video glasses (100%)	N/A	<5,000	25.00%
Topten	1.00	50	2011	Smart watches (35%); others (65%)	N/A	<1,000	N/A
Winait	2.40	N/A	2012	Smart watches (50%); smart bracelets (50%)	US (30%), Western Europe (50%)	<1,000	N/A
Winnershine	4.80	100	2010	N/A	N/A	<1,000	1.67%
World Tong	0.20	100	2014	Smart watches (40%); smart bracelets (60%)	US (50%), Western Europe (30%)	<1,000	120.00%

Gallery View: 10 innovative wearables from China

Here is a collection of unique and new wearable devices available for sourcing.

Although most wearables produced in China comprise smart watches and smart bracelets, some companies are breaking the mold and developing other types of advanced devices such as motion-tracking systems.

Smart watches made in China can be divided into two main categories. Bluetooth watches and watch phones. The former connect with smartphones and are of limited use without the aid of the additional smart device. Watch phones, on the other hand, contain SIM card slots, allowing them to operate

independent of any additional hardware.

Smart watch manufacturers see fashion as their most pressing concern, while technical issues such as high power consumption and small screen size are also big challenges.

Another hurdle for suppliers is deciding on the right version of Bluetooth. Many wearables currently use Bluetooth 3.0, a generation behind the more power efficient Bluetooth 4.0, further exacerbating power woes.



Watch phone with sapphire glass display

Watch phone EDOX-W02 from Dongguan World Tong Electronic Technology Co. Ltd is a high-end product that uses sapphire glass for the touch screen and leather for its strap. The display screen is 1.54 inches with a resolution of 240x240 pixels. The built-in camera has a resolution of 3MP and battery capacity is 600mAh. The device uses a dual core 1.3GHz chipset with 1GB RAM and 8GB ROM. The cost of a sample is US\$230.

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Watch phone supports 720p video

Shenzhen Mingdongyue Technology Co. Ltd offers watch phone 3G A with a 1.3GHz chipset, 512MB RAM, 4GB ROM and a 1.54in display. The 5MP camera, which is placed on the right side of the device, can support 720p video. The battery capacity is 600mAh, and the cost is US\$99.

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Intelligent bracelet has 2 weeks stand-by time

Beijing Tenghai Shiyang Technical Co. has launched an intelligent bracelet called TGE Ultra-thin Bracelet, which has a stand-by time of about two weeks. The company claims it is an "intelligent" bracelet because it can recognize and switch to running mode automatically. The device is made of PTU with an OLED display, weighs 10g and measures 105x70x8.5mm. The cost is US\$30.



Smart bracelet with detachable Bluetooth headset

MI-H1 from Mifree Technology Co. Ltd is a smart bracelet with a detachable Bluetooth headset. The bracelet has an LED display and comes with various functions such as pedometer, calorie consumption record, sleep monitoring and call reminders. The device will be available in October 2014 at a price of US\$62.

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Affordable smart watch for US\$35

The E833 from Shenzhen Hexiang Electronics Co. Ltd is an entry-level smart watch with multiple functions such as pedometer, email, SMS, MP3, call, vibration alarm, QQ. It features a MTK6260-ARM7 360MHz chipset with 128MB RAM and 64MB ROM. The 235mAh battery can last for two days. The display is a 1.54-inch 128x128-pixel touch screen.

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Minimalist style smart bracelet

Model H9 from Guangdong Appscomm Co. Ltd is a minimalist style smart bracelet that looks more like a traditional watch. It has a 32mm round OLED screen, and runs on Android 4.3 or above. The watch supports Bluetooth 4.0, and features sports and sleep monitoring functions, reminders and data synchronization. The price is US\$30.

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3G Android watch phone

Launched in July 2014, model S6 from Neway Electronic Co. Ltd is a watch phone that costs US\$120. The device runs on Android 4.0.4 and features a dual core CPU. The display is a 1.54-inch touch screen with 240x240-pixel resolution. It has a 2MP camera, and can be used with 2G or 3G with a mini SIM card.

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Smart watch with high-end hardware configuration

Shenzhen Salon Technologies Co. Ltd offers model Swear-3, a smart watch with high-end hardware configuration. The device uses an MTK A9 dual core chipset with 512MB RAM and 4GB ROM. The watch has a 5MP camera, and can support a single SIM card and an extra TF card. The FOB price is US\$125.

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Movement tracking system

The Perception Neuron project from Beijing Noitom Technology Co. Ltd is a movement tracking system that can be used in various ways, such as for visual and special effects, game interaction, virtual reality, sports analysis and stage performance. The price for a single hand movement tracking system is US\$200, while a full-body system costs US\$500.

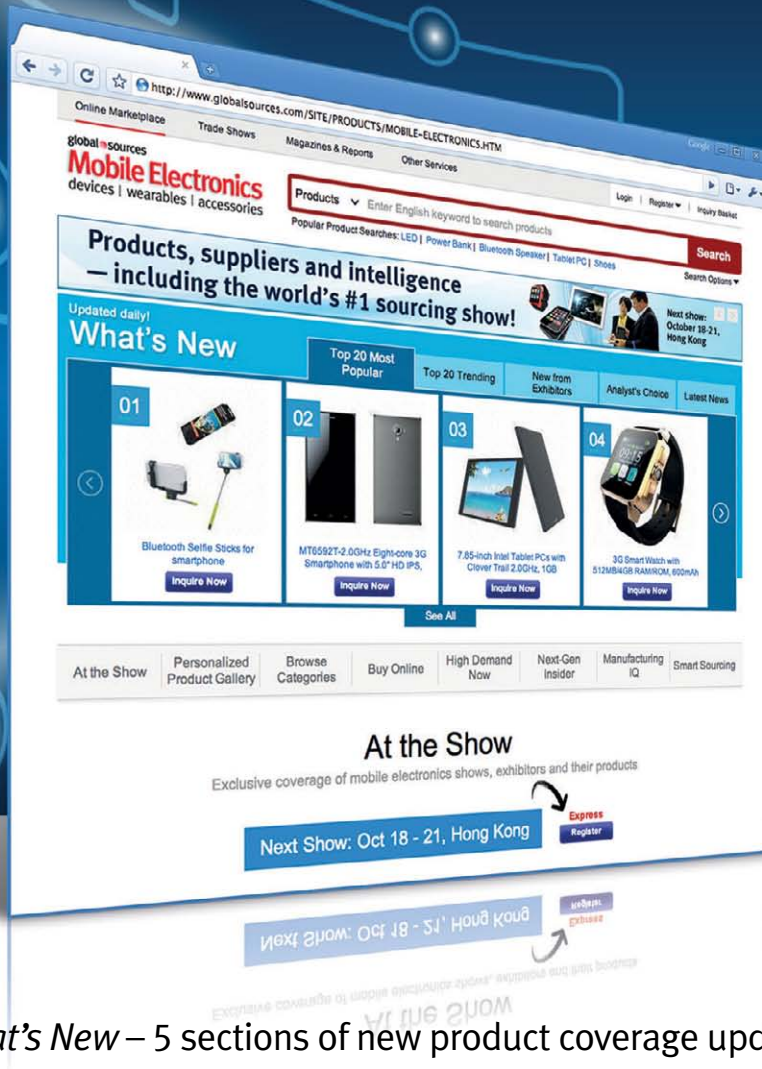


Sports helmet camera with 170-degree view angle

Model EX8-cag24 from Jeasun Technology Co. Ltd is a sports helmet camera with 170 degree field of viewing and HDMI real-time output. It features a 5MP digital image sensor, 1.5 inch TFT LCD for video playback, and built-in mic and speaker. Storage is on micro SD HC/SD, TF card up to 32GB. The FOB price is US\$75.

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