

# Receivers made by BOXSAM

*BOXSAM can easily be considered an up-start company as it was founded only in 2002 with a seed capital of 15 million USD. Starting out with CATV products BOXSAM expanded its business to cover satellite receivers and some other interesting products as well in 2004. We paid a visit to this company to learn about their way of doing business.*

■ BOXSAM headquarters in Jinhua, some 200 km southwest of Shanghai. The Chinese characters on the roof mean "Science and Technology Centre" – an apt description for an ambitious manufacturer like BOXSAM.



■ BOXSAM is a private company with Xiaofeng Huang being the main investor and General Manager.



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BOXSAM is headquartered in the city of Jinhua in the eastern Chinese province of Zhejiang. With a population of around one million it is considered a small city by Chinese standards.

Jeffrey Zhao is Vice President of BOXSAM and his main area of responsibility is the Operator Market, which covers sales to content providers and network operators. He tells us that back in 2004 – the first year of receiver production – only 100,000 boxes left the premises. “By 2009 that figure had increased to three million receivers of all kinds, and for 2010 the target stands at five million receivers,” states Jeffrey Zhao.

No production facilities can be seen anywhere near the headquarters, so

the question arises where manufacturing actually takes place. Jeffrey Zhao has the answer: “Our manufacturing premises are located 6 km away.” In the beginning both administration and production were at the same place, “but demand soon outstripped capacity and so we built a 17,000 square meter manufacturing hall some time ago. Currently we are in the process of setting up a second manufacturing hall with some 40,000 square meters, which should be finished by the end of 2010. At that time we will also move our administration and offices there.”

Next, a company driver appears to take us to the production building where a total of 700 employees are kept busy on four floors. “In addition, we employ

almost 100 engineers in the city of Xi’an, which hosts an outstanding technical university,” Jeffrey Zhao explains.

BOXSAM’s pride and joy are four SMT lines for assembling circuit boards with truly breathtaking speed: “We operate three Samsung surface-mount technology lines and a brand new one from Panasonic,” Jeffrey Zhao tells on a tour around the hall. Naturally, all SMT lines are located in a clean room which can only be accessed through wind locks in which all dust particles are sucked from clothes. Artie Lee is the SMT Manager and he explains in the clean room that the four SMT lines have a combined maximum daily output of 28,000 circuit boards. “But this would mean running at top gear – on an average day we finish



# BOXSAM 浙江博尚电子有限公司 ZHEJIANG BOXSAM ELECTRONIC CO.,LTD.



■ BOXSAM Vice President Jeffrey Zhao in front of a display wall with a selection of the company's products.

approximately 20,000 boards." A total of 92 employees work in the SMT department to supervise insertion machines and to make sure a steady supply of required components is available.

Finally, Vice President Jeffrey Zhao points to the construction site right opposite the existing premises. "This is where our new manufacturing hall

is taking shape. We will use it also for antenna and LNB production."

This makes us prick our ears. How come BOXSAM is planning to break new ground with a whole new product line-up? "BOXSAM was granted one of the very few licences by the Chinese government for production and domestic sale of satellite antennas and LNBs. Taking

into account the fact that BOXSAM is also one of the official manufacturers for the Chinese DTH system we identified a great business opportunity and will be offering dishes and LNBs as well." While there is an endless number of dish and LNB manufacturers in China, most of them only possess export licences and are restricted from selling their products domestically in China – at least officially.

■ BOXSAM production hall with a net floor area of 17,000 square metres. The many dishes in front give a clear indication of what is going on inside.





■ View of the production hall with the RoHS assembly line (lead-free as a requirement for products dispatched to Europe, for example).

DVB-S2 receivers will increase to 10%.”

■ Tuner components for the mini DVB-T receiver are prepared.

It seems BOXSAM has friends in many places, not least among government officials. Jeffrey Zhao smiles and counters with interesting background information: “We are one of the suppliers to a syndicate pushing the roll-out of digital terrestrial TV (DVB-T) in African countries.” Now we’re talking! “We already ship MPEG-4 DVB-T receivers with built-in CONAX and chipset pairing to Nigeria, Kenya, Burundi, the Central African Republic, Rwanda and Uganda,” Jeffrey Zhao reveals even more details. “Zambia, Mauritius and Guinea will follow shortly.” This comes as quite a surprise

– we would never have thought that BOXSAM is one of the companies rolling out DTT in Africa!

We’re even more curious now. What does the range of BOXSAM products look like with regard to turnover? Jeffrey Zhao calls up some tables on his laptop computer and states that “in 2009 some 50% of sales were achieved with DVB-S receivers, 40% with DVB-T receivers and the remaining 10% with DVB-C. The situation will be a bit different in 2010 with a production share of 40% envisaged for DVB-S, 35% for DVB-T and 15% for DVB-C. The HDTV market share with

Which regions are prime markets for BOXSAM products? “30% each go to Europe and the Middle East,” Jeffrey Zhao goes on, “while 15% each go to South-east Asia and Africa, with the remaining 10% being exported to South America.” Yet, even though BOXSAM devices can be found virtually all over the world, the BOXSAM name does never pop up in all these countries. Jeffrey Zhao explains why. “We act as an OEM manufacturer and only supply large trading partners and content providers.” This, however, is set to change, as Jeffrey Zhao reveals some of the company’s future strategies. “In 2010 we will enter the market with our own brand name in India, the CIS countries, the Middle East and Africa.”

To that end BOXSAM has already devised campaigns and opened regional

■ Construction site of the new production hall which will cover a total of 40,000 square metres.





■ Meet Artie Lee, Manager of the SMT production lines. They, too, are RoHS certified.

BOXSAM launch in the near future? "Q3 will see the presentation of a DVB-S2/T combo receiver, apart from MPEG-4 DVB-T and DVB-C receivers with built-in CONAX and chipset pairing," Jeffrey Zhao states and continues that "pay TV providers might also like the fact that we are fully NDS licensed." Apart from DVB receivers BOXSAM also manufactures ISDB-T receivers for South America and even products you might not really expect from a receiver manufacturer, such as a Worldspace radio, for example. "Unfortunately, this is only a niche product," Jeffrey Zhao admits, "and demand is quite low." A different but just as surprising product that sells remarkably well is a small DAB and FM receiver. "In Britain we're hard pressed to meet demand," he explains, "while in other countries hardly anybody asks for it." Digital DAB radio covers almost all of Great Britain, but other countries are yet to experience the DAB breakthrough. When that happens, BOXSAM will be perfectly positioned to provide required consumer hardware. Yet there's one more BOXSAM gadget that has caught our attention: tiny scart receivers for DVB-T. "One model sports a movable scart connector," Jeffrey Zhao says and explains "we sell whole truckloads of these in southern European countries like Portugal, Spain and Italy."

■ Faults are examined in a separate clean room. This is where a BOXSAM employee uses X-rays to detect any deficiencies.

sales offices. Jeffrey Zhao proudly tells us that "in 2008 we opened an office in Spain, followed in 2009 by Dubai and by the end of 2010 both Moscow and Sao Paulo will have a BOXSAM office."

That's what we can well and truly call a global strategy and with this in mind it comes as now surprise that BOXSAM is also a regular at many special fairs and exhibitions. "In 2010 we will have stands at SET in Sao Paulo, IBC in Amsterdam and IFA in Berlin," he goes through this year's agenda. "And in 2011 we will present ourselves at CSTB in Moscow, CABSAT in Dubai, the Hong Kong and Canton Fair as well as at ANGA in Cologne."

So which innovative products will

In the end, we leave BOXSAM with a surprising revelation: This is a company that is way up there with the best in many fields and does not hide its ambitions of becoming a global player. BOXSAM boxes are ready to conquer the world!

## Production of a Power Pack for a Satellite Receiver.



1. This is what a circuit board for four power packs looks like, before it is punched in this machine.

2. Larger components are added manually to power pack circuit boards.

3. From assembly to testing: this employee checks the performance of a finished power pack circuit board.

# Receiver Assembly



1. Assembly of a receiver's front panel.
2. Circuit boards are fitted into the receiver case.
3. After assembly is completed, receivers are tested on this line. Each receiver has to undergo 15 different checks, starting at this line with functional testing of the power pack. Apart from

4. All receivers that have passed the tests are piled up here before being moved to the ground floor warehouse.
- making sure video and audio meet specifications, each receiver is even subjected to manual vibration testing. A dedicated employee is in charge of each testing station.

5. Rack after rack with a virtual endless supply of components for all the insertion machines.
6. BOXSAM acts as an OEM manufacturer for many trade brands and content providers. Here you can see Yimin Hong, Vice President Manufacturing, in a room with sample products manufactured for different brands.