

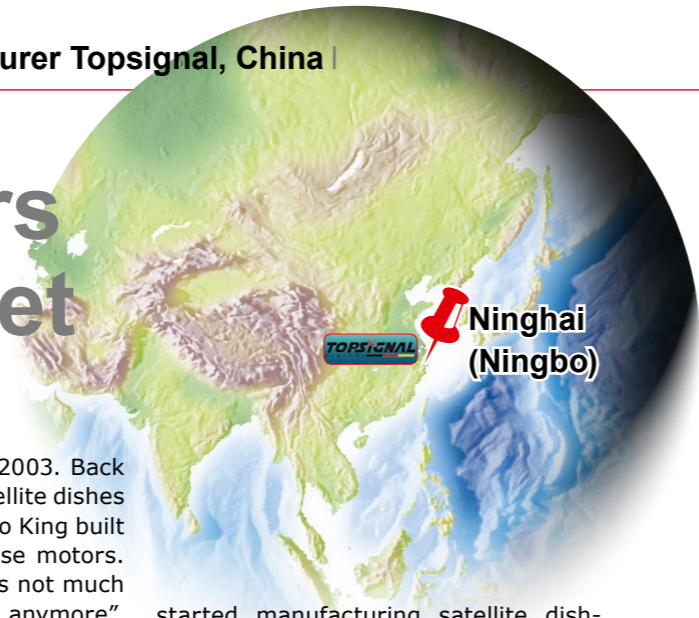
Success in the Millions From Topsignal

- OEM delivering exclusively to Wholesalers
- Specializes in large production quantities
- Produces millions of satellite dishes and LNBs
- Majority of shipments go to South America
- Expanding product palette to include high-quality LNBs and VSAT



■ Topsignal's production plant in Ninghai, China. The administration building is to the left and two of the four production buildings are to the right. Satellite dishes and LNBs are manufactured here in large quantities.

Enormous Numbers for the World Market



With a yearly production of five million satellite dishes and even more LNBs, Topsignal is one of the largest manufactures of these products. The company actually started in a completely different product segment: actuators and motors for satellite dishes. It's an unusual development that we had a look at in the small city of Ninghai. Ninghai is located near Ningbo which itself is a three-hour train ride south of Shanghai.

in Ninghai back in the year 2003. Back then antenna motors for satellite dishes were in demand and Zongbao King built a production facility for these motors. "Unfortunately, today there's not much demand for these motors anymore", explains Sales Manager James You to us. Order quantities have steadily decreased, "but we can still handle any kind of order since our storeroom is still fully stocked."

Two other product groups are today's sales giants at Topsignal: "In 2008 we

started manufacturing satellite dishes and in 2011 we started producing LNBs." The quantities are huge: nearly a half million satellite dishes are produced monthly and even more LNBs. The reason these production numbers are almost the same is simply that the dishes and LNBs are sold in sets. A

Zongbao King founded the company



■ Topsignal's Founder and Chairman of the Board Zongbao King

董 博 光
Chairman of the Board

large portion of their production is for the 60cm and 90cm variants; a smaller portion is for 75cm antennas.

Where do these antenna sets end up? "Roughly 80% of our production gets shipped to South America, above all to Brazil."

However you won't have much luck searching for the Topsignal brand name in Brazil: the company is an original equipment manufacturer (OEM) and the satellite dishes and LNBs are shipped without any name stenciled on them. "We work together with an agent who resells the sets in Brazil and adds the brand names of the large customers right there in Brazil."

Topsignal's next largest shipping zone

A small in-house team of 10 R&D engineers is currently working on this but Topsignal also receives additional design input from outside specialists for these new markets. "We are currently working on a new LNB series with specifications that are far better than our current production."

As you can see, Topsignal is consistently working on improving their products. At the moment, Topsignal's LNB assortment consists of Single, Twin and Quattro LNBs; additional variants are in the works.

Sales Manager James You is very optimistic with their new LNB series. He takes a look into his crystal ball: "In 2011 our sales amounted to roughly 50



■ The receptionist greets every visitor



TOPSIGNAL

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is The Middle East and Africa accounting for 15% of deliveries. The remaining production goes to large distributors and dealers in Southeast Asia. "1.5 and 1.7-meter mesh antennas are quite popular there."

Now Topsignal is looking to penetrate the large markets in Europe and North America. "We want to start there by concentrating on our LNB products such as the Ka-band LNB in the USA." But VSAT is also on the list of newly developed products from Topsignal.

million RMB (about US\$8 million), but for 2012 we foresee a 30% increase due in large part to our new and improved products."

With its enormous quantities, Topsignal has managed in just ten years to work its way up into the top class of manufacturers. With new and improved products and the expansion into new markets, Topsignal wants to continue this success.

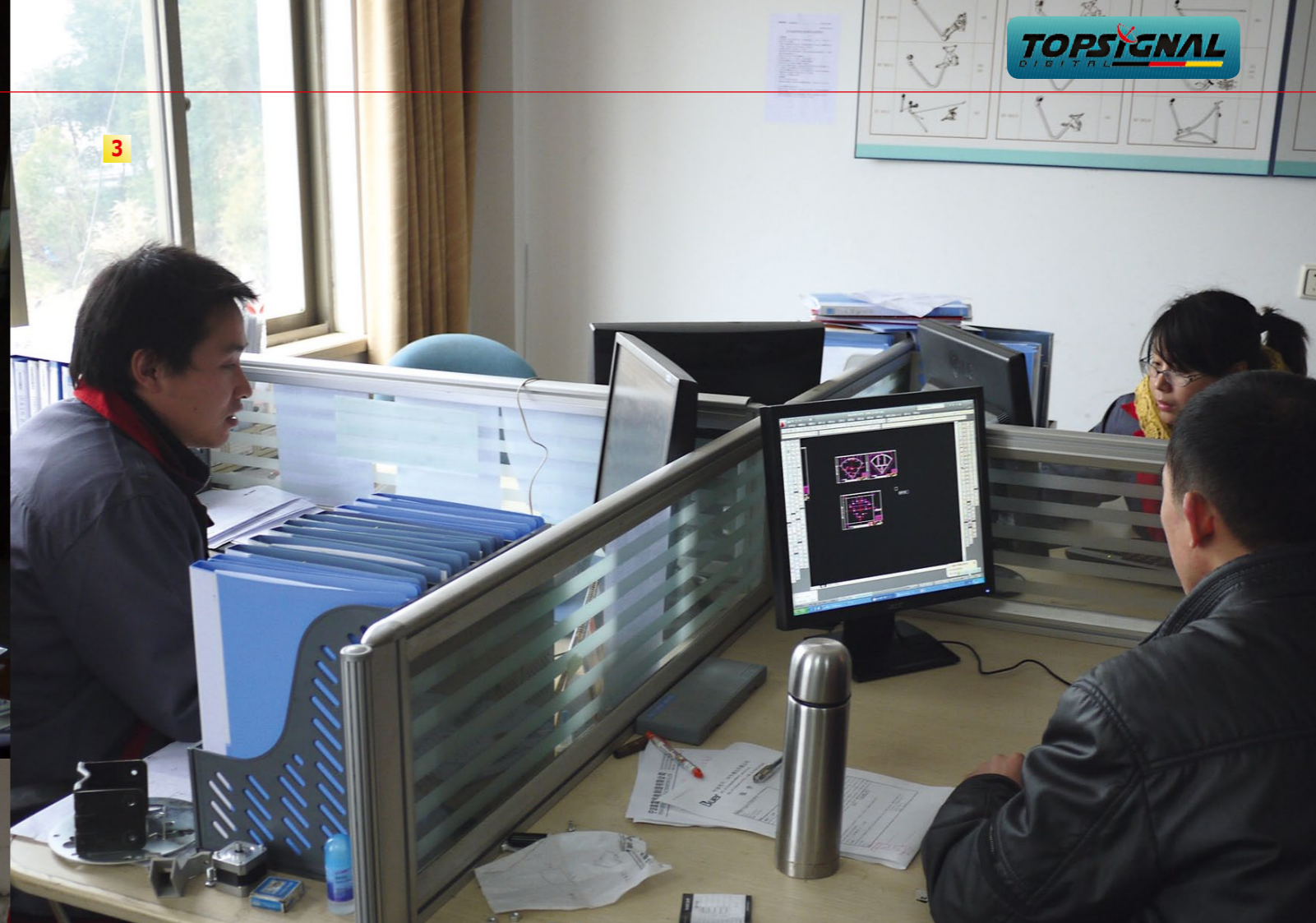
The next 10 years should be very exciting at Topsignal!

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1. Chaofeng Ge is General Manager. He coordinates production and is always on the phone coordinating production with customer orders.
2. James You is Sales Manager and counts on the help of the Lion in front of the entrance to Topsignal's building.

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3. Some of the R&D engineers. A total of 10 engineers work here.
4. View of the four production buildings as seen from the administration building

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1. This is just a small portion of the in-line storage area. The dishes wait here for further assembly.

2. One of the many steps involved in a completed dish: the raw shapes are hung on a chain and driven through a paint station.

3. Another paint station is used for the smaller dishes.

4. Employees inspect each and every dish for defects. Those that pass inspection are placed on a pallet; those that fail are removed from the rest.

5. The mounting holes are punched here

6. Topsignal sells satellite antennas and LNBS in sets. Naturally mounts are also included. Wall mounts are pressed into shape here. Topsignal uses pipes with 42mm and 47mm diameter depending on the size of the dish.

7. How do the holes get into the mounts? Yes exactly, with this machine. Topsignal has more than one of these machines and they are used to punch holes in the mounts.

8. The mounts travel along a long chain through the paint station where they are spray painted by workers and then dried.



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9. Topsignal requires an enormous amount of raw materials. Truckloads of tubes are delivered that only a short time later become mounts.

10. The LNB mount is shaped. A waveguide is pulled along and then shaped into the proper form with a press.

11. The LNB mounts also need holes. This takes place here.

12. The required pieces are pressed from an endless roll of sheet metal which will then be converted into the dish mounts.

13. The dish mounts are prepared here. The spacers are formed here and fitted with the necessary holes.

14. Workers hang the antenna mounts for passage through the paint station.

15. Topsignal also has mast mounts. A worker can be seen here punching holes in the mast brackets.

16. Topsignal also manufactures mesh antennas. The panels are stamped here.

17. The assembly pieces for the mesh dishes are prepared here.

18. The LNB mounts for the PFA mesh dishes



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19. Peter Lin is the LNB Production Manager. "We operate four production lines and work in eight-hour shifts."

20. A look at LNB production

21. Each LNB is tested for functionality

22. If everything checks out, the LNBs are packed for shipping. As an OEM, Topsignal ships the LNBs in neutral packaging without any brand names.



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23. The quality control station takes sample LNBS and checks to see that they function correctly.

24. One of the quality checks involves testing the LNBS in a refrigerated environmental chamber. Topsignal has two of these test chambers.

25. If there are defective LNBS, they are checked out here to identify weak spots

26. Workers can be seen here packing completed products for shipment. It's always pallet-size shipments because of the enormous numbers involved



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