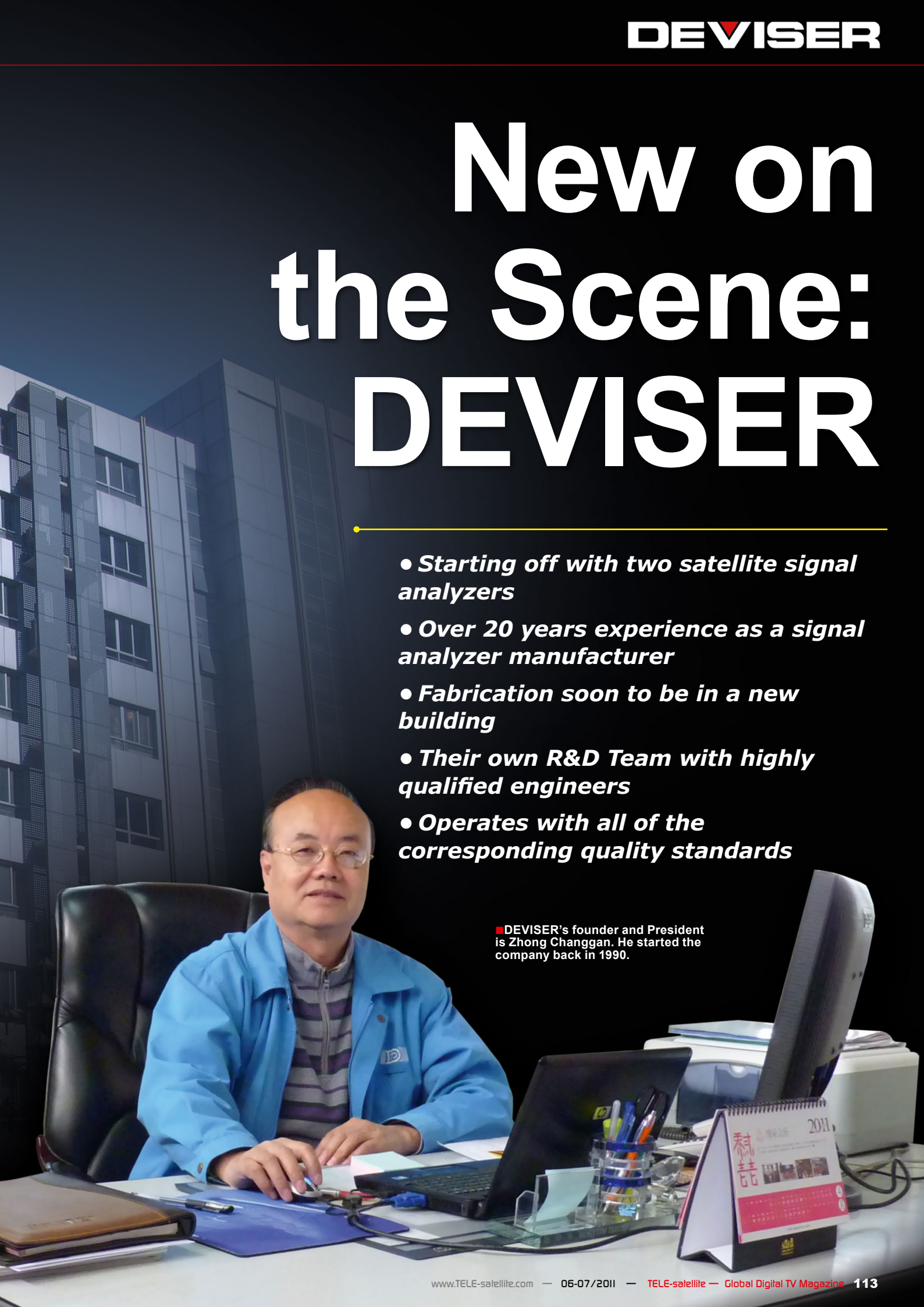
Signal Analyzer Manufacturer DEVISER, China

DEVISER's fiber optic R&D and manufacturing can be found in this building in Tianjin.

New on the Scene: DEVISER

- *Starting off with two satellite signal analyzers*
- *Over 20 years experience as a signal analyzer manufacturer*
- *Fabrication soon to be in a new building*
- *Their own R&D Team with highly qualified engineers*
- *Operates with all of the corresponding quality standards*



DEVISER's founder and President is Zhong Changgan. He started the company back in 1990.

DEVISER compliments its cable, telecommunications and fiber optic signal analyzer program with satellite technology

In October 2010, DEVISER began developing their first satellite signal analyzers. The result of this effort can already be found on store shelves: the basic S20 model for DVB-S satellite signal measurements. In July 2011 the follow-up model with a DVB-S2 tuner will appear and by October 2011 DEVISER is planning on a high-end S7000 model.

How does a company like DEVISER end up producing satellite signal analyzers? TELE-satellite paid a visit to the company in Tianjin, a large seaport located on the Chinese east coast.

The high-speed train traveled at 330 km/h and brought us from the brand new Beijing South train station to the equally brand new Tianjin train station. Tianjin is a city with more than 10 million inhabitants and is home to many different industrial companies.

Surprisingly, DEVISER is one of the oldest firms in Tianjin. It was founded under the name DELY back in 1990 by Zhong Changgan, an aircraft engineer. He explains to us: "Back then the first cable TV networks were being built up but there were no signal analyzers available." Zhong Changgan recognized this opportunity and founded China's first manufacturer of cable TV analyzers. This product group still makes up most of their sales today. "80% of our signal analyzers are for cable TV", lists founder and President Zhong Changgan, "while 10% are for fiber optic cable and 5% are for telecommunications." The remaining 5% are expected to be made up of the newly started satellite signal analyzers.

Sales Director Overseas Markets Jason Wu explains to us where DEVISER delivers its products: "50% are shipped to the USA, 15% each goes to Europe and India with the remaining

■ DEVISER's new office and production represented by this architects model. In October 2011 DEVISER will move all departments currently housed in different locations throughout Tianjin, into this new building

A friendly greeting awaits you at DEVISER's entrance. The company operates domestically under the name DELY Electronics Instruments. The brand name DEVISER is only used for exports. Some of the many certificates DEVISER has accumulated over the years are hanging here on the wall. Included in that assortment are internationally recognized certifications for ISO 90001 (Quality Management) and ISO 10012 (Quality Measurement Standards). In addition, DEVISER is also CE, ROHS and UL certified as well as many others.

20% finding their way to South Korea and other Southeast Asian countries." According to Jason Wu, "We only use the name DEVISER for our exports."

Who actually uses DEVISER's products? Jason Wu gives an overview of their customers: "It is primarily professional cable operators that need to set up and maintain large cable networks. You need professional signal analyzers for that." Of course this brings up the question as to why DEVISER began producing satellite signal analyzers. "Not too long ago we expanded into fiber optic cable", comments Jason Wu, "the only thing missing was satellite reception."

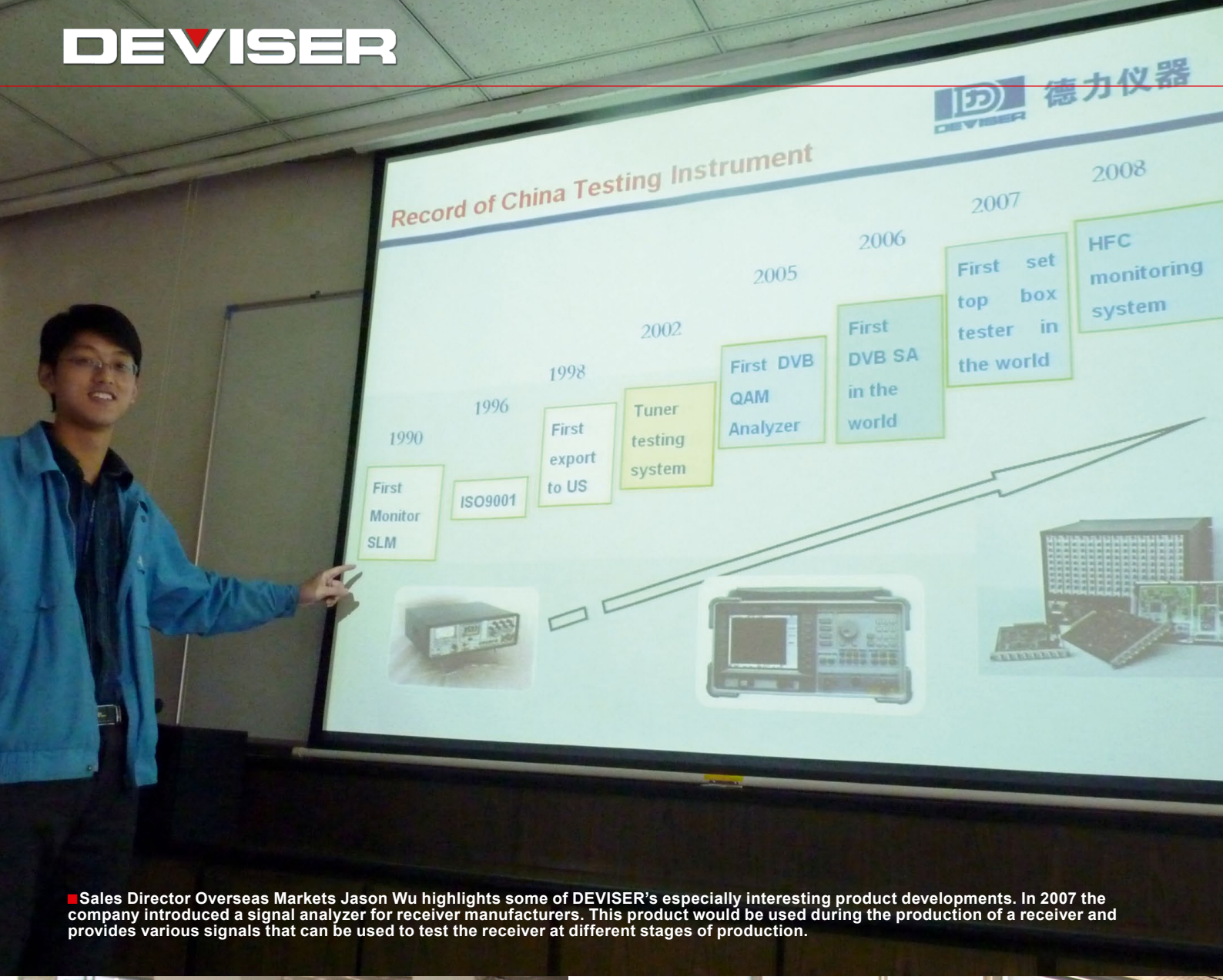
Considering that DEVISER has more than 20 years experience in this market, it should come as no surprise that of their 260 employees, 85 of them are engineers. Divided into four different R&D teams, these highly qualified engineers are constantly working on improvements to their analyzers and on new product features as well as new product development such as the brand new satellite signal analyzers.

The success of these engineers can be seen in the production and sales numbers. "In our first year 1990 we produced roughly 100 units", remembers DEVISER founder Zhong Changgan, "in 2010 we reached sales of 30,000 units." This resulted is sales of about US$ 20 million for 2010. "For 2011 we are expecting in increase in sales of 20%", says Sales Director Overseas Markets Jason Wu.

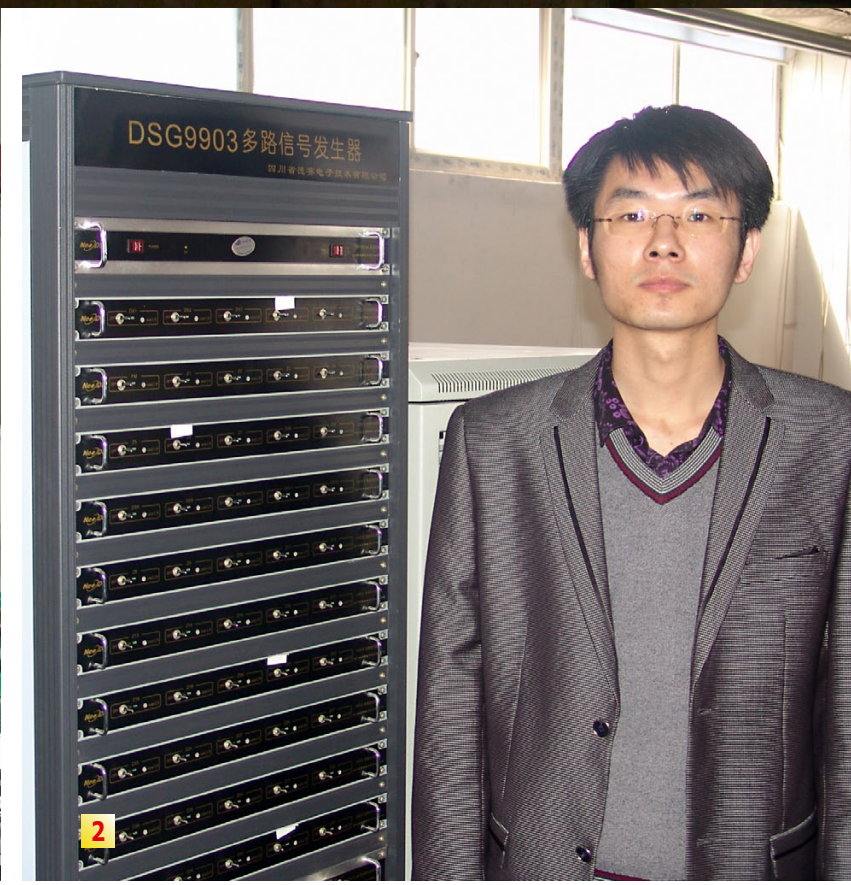
He bases this in part due to the new satellite signal analyzer sector: "We're expecting, for example, that the new S20 satellite signal analyzer will net us sales of about 15,000 units for the next three years and from the high-end S7000 model about 500 units per year."

Jason Wu already knows who wants to buy these analyzers: "We already have quite a few preorders. One customer in South America has placed an order for one thousand units and our distributors in Europe and India are in the process of forwarding orders to us." The confidence in the experience and expertise of the DEVISER engineers is so high that units are being sold before they are even manufactured. Even so, DEVISER is naturally open to additional buyers. "Distributors who have contact with satellite installers and local cable operators should send me an e-mail", suggests Jason Wu who is responsible for product exports.

If you want to meet Jason Wu in person, you can find him and DEVISER's Chief Engineer Cao Yuliang at a number of different trade shows such as CABSAT (Dubai), CCBN (Beijing), SCaT (Mumbai), Cable Tec (Atlanta), KCTA (Daegu) and many others. And if you want to know more about how their satellite signal analyzers work, you merely have to wait for the next issues of TELE-satellite: we will be presenting test reports of DEVISER's new analyzers in upcoming issues.



■ Sales Director Overseas Markets Jason Wu highlights some of DEVISER's especially interesting product developments. In 2007 the company introduced a signal analyzer for receiver manufacturers. This product would be used during the production of a receiver and provides various signals that can be used to test the receiver at different stages of production.



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R&D Team

1. Chief Engineer is Cao Yuliang. He coordinates the four R&D teams and is a contact person for customers at trade shows. He can provide the answers when customers have special requests or when they would like new features incorporated into the signal analyzers. He says, "DEVISER has invested over US$ 1.5 million into the most modern technology to further develop new signal analyzers." The success of this strategy can be seen in the 30 patents that the DEVISER team has already received.

2. Division Manager for satellite and cable is Kong Xiangsen. He is standing here next to a modulator cabinet used to provide signals for analyzer testing.

3. The engineers proudly present one of the first samples of the new high-end S7000 satellite signal analyzer. To the far left is Chief Engineer Wang Zhiying and to the far right is Chief Software Engineer Wang Renping.

4. A signal analyzer also needs a housing. Anjinhao is the case designer at DEVISER and developed the housing for the new S7000 signal analyzer; on his desk are samples of other DEVISER signal analyzer types.

Sales Team

1. Jason Wu enjoys reading TELE-satellite. He is in charge of the Overseas Sales Team that is made up of four employees. He travels often and can be found at many trade shows at the DEVISER stand.
2. Customers in Asia contact Aaron.
3. Vicky Han is the contact for customers in North America.

Production

4. Production Manager is Li Hong Xiao. He oversees the 100 employee strong production staff and distributes work loads among his workers. We see him here next to a signal generator that is used when a production series is complete to calibrate and test for proper function of the units.
5. A look in the stock room entrance. Employees here watch over the many components needed for the production of many different signal analyzer models.
6. A section of the production area. The signal analyzers are produced in small assembly lines and test stations.

Production

7. The SMT machine. Components are automatically put in place here.

8.Testing takes place after production. The AOI (Automatic Optical Inspector) performs a visual inspection automatically.

9. Many tasks have to be handled manually. Tuners are being assembled here.

10. Signal analyzer covers are completed here.

11. Here an employee is testing the signal analyzer.

12. One of the many test stations where completed signal analyzers are tested for proper operation.

13. Before the housing sections are put together, an employee performs a complete test of a signal analyzer.

14. The signal analyzer is complete but does it work correctly? In Final Test various parameters are checked with high-quality signal generators to calibrate the analyzer.

15. Completed units are fitted with batteries and charged here for 36 hours.

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Quality Control

16. One unit is pulled from each production run and put through a series of special tests. Every possible parameter is checked and compared to desired values. This guarantees consistent quality in DEVISER's signal analyzers.

17. Highly professional cable signal analyzers valued at several thousand dollars are also manufactured by DEVISER and, just like all the other units, undergo an aging test. The analyzers must remain within all tolerance limits throughout the aging test during which a variety of measurement tests are performed to verify that tolerance limits are not exceeded.

All of DEVISER's analyzers have an operational life span of over 10,000 hours.

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Quality Control

18. DEVISER analyzers in an age test with broadband monitors. Various signals are periodically applied in order to test the analyzer's measurement of these signals.

19. DEVISER analyzers are not only used at room temperature. For this reason, every unit must undergo an environmental test. The analyzers must perform correctly in temperatures up to 50°C. This employee is performing an environmental test using multiple signal generators.

20. Because of the many different signal analyzer models manufactured by DEVISER, a large number of signal generators are also needed. A selection of these generators are available in this room where production samples are tested.

21. Spectrum analyzers are tested in another room. Various spectrums are generated that the DEVISER signal analyzer must display correctly.

22. If a DEVISER analyzer should happen to fail after many years of service, After Sales Manager Yue Tianhong is the right person to talk to. With her six repair technicians, she can bring every DEVISER signal analyzer back to life.