

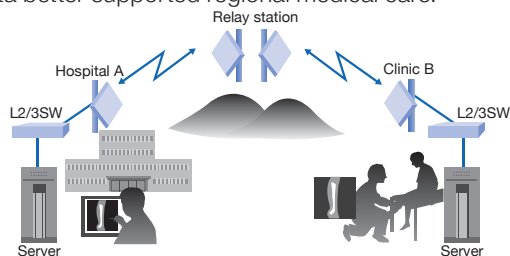
With Our Customers – In Pursuit of Leading-edge Needs –

Ahead of all others, we tackle new requirements arising from advances made in video technology.

Fast radio transmission realizes remote image reading and diagnosis on MRI.

We have realized a remote medical treatment relay line (with a wireless interval of about 8.5 km) by establishing a fast data transmission line with SINELINK® 25G between hospital A in Ichinoseki City, Iwate Prefecture, and clinic B about 10 km away.

The clinic B is equipped with MRI^{※1} whereas the hospital A has a specialist physician who reads and diagnoses the images. This speedy transmitting of large quantities of image data better supported regional medical care.



By eliminating the block noise generated during the reception of terrestrial digital broadcasting, the power-up booster^{※2} produces clear images.

In the reception of terrestrial digital broadcasting, a terminal far away from the transmission station or radio waves blocked by nearby buildings may cause mosaic-shaped square image distortion (block noise) on the TV screen. To combat that problem, we developed a power-up booster used in combination with a terrestrial digital antenna to significantly increase the reception quality, thereby positively eliminating block noise.

※The images are produced for explanatory use.



Voice

"Easy correction" is what users want.

Our conventional product required amplification adjustment and was not quite affordable. We tackled this challenge with the simple idea of seeking a booster specifically designed for terrestrial digital antennas. This entailed a long series of trial and error. For six months after we came up with the idea, we tackled the challenge from the perspective of an antenna engineer without being bound by established concepts, stuck to users' expectations, and targeted clear images until we finally succeeded in producing a product that makes a difference.

Atsushi Kaneko

Development Engineering Center
YAGI ANTENNA INC.

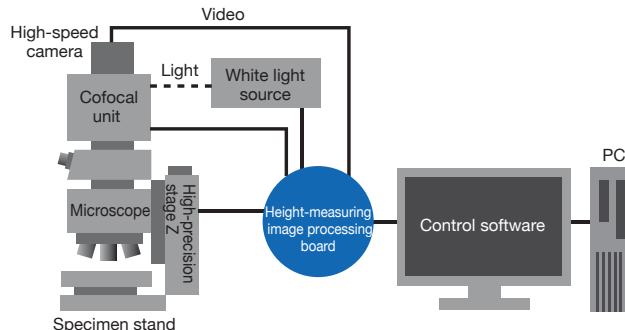


Expectations for a height-measuring function based on video technology

"Height-measuring equipment" refers to semiconductor inspection equipment used in the back-end processing of semiconductors. It combines conventional "CD (Critical Dimension) measurement equipment" with a function for measuring micron order level differences.

In the conventional process of semiconductor inspection, it sufficed merely to measure the widths of patterns on the wafer by using "CD measurement equipment". In recent years, however, there has been growing demand for a function to measure differences simultaneously (height-measuring function).

Thanks to the cooperation of users, business partners, and many other knowledgeable persons, we were able to shorten the tact time with unrivaled fast processing. We were also able to obtain bright confocal images, thereby contributing significantly to enhanced product yield and quality assurance in the semiconductor manufacturing process.



Voice

Users of our "height-measuring equipment" highly acclaim our equipment for its fast measurement and labor-saving effects in the inspection process. This equipment enhances the system by using a robot conveyor to convey wafers automatically and creates electronic files based on measuring conditions called "recipes," thereby conducting all processes from the unattended transfer of wafers to the output of inspection results. This has made it possible to save labor in the inspection process and consequently achieve user satisfaction. We will adopt a further series of ingenious ideas including parts in an attempt to further satisfy our users.

Takahiro Shimizu

Engineering Center
Hitachi Kokusai Denki Engineering Co., Ltd.



Glossary

- ※1 MRI Acronym for "Magnetic Resonance Imaging." It displays videos of cross-sectional images of all parts of the human body including the heart, arteries and veins.
- ※2 Booster A device for amplifying TV radio waves. TV radio waves are attenuated and become weak while being distributed through TV cables. These weakened waves are amplified and compensated for by using a booster.
- ※3 Tact time Processing time per operation of a tact time device.
- ※4 Confocal The ability to obtain a non-blurry image even with thick units having different focuses.