

Moving towards the production of the Next-Generation Capsule Endoscope



With Rotation, Capturing 360° –Whole Inner Surface Images!

With its rotational movement, the duplex shell structure capsule captures 780,000 images of the inner surface of the small intestine and colon. The images are stacked to generate a vast and long "inner body map."

You can freely walk on this inner body map.

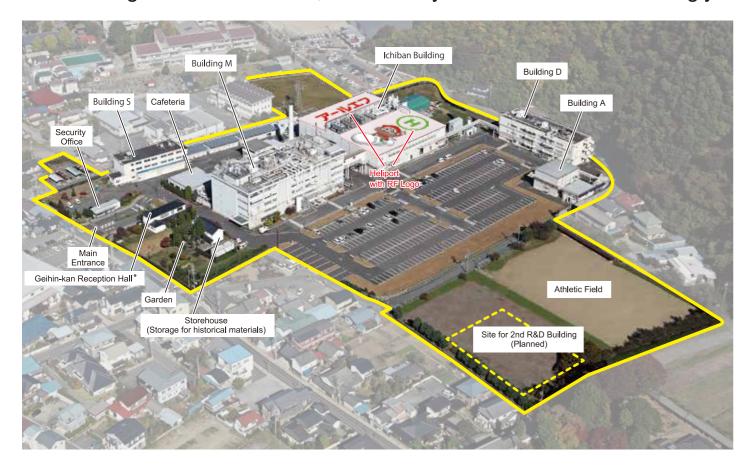
In addition, the images captured every 2 years can be superimposed, and you can mark the areas, the appearance of which has changed, even though the change is minimal.

Lab Town Suzaka

RF SYSTEM Lab.

RF acquired Fujitsu Suzaka Factory in March 2017.

After its large-scale renovation, each facility will be released accordingly.





Geihin-kan Reception Hall

* Geihin-kan Reception Hall

Geihin-kan was constructed in 1880 as a reception hall of Tanaka Reeling Company. Following the postwar depression of 1920, Tanaka was merged with Katakura Reeling Company. Then Fujitsu acquired this hall in 1942 and RF in March 2017.



Building M from athletic field



US Federal Standard Class 100 Clean Room (Ichiban Building)

Clean Room

The Clean Room is free from micro-level dust, fine particles, and bacteria that are eliminated by using a special filter. In addition, the temperature and humidity in the room are strictly controlled.

The class of the Clean Room is determined by the number of particles with size more than 0.5 µm. In general, Class 1000 is used for producing high-reliability parts, and Class 100 is for crystal purification or producing pharmaceuticals.



US Federal Standard Class 1000 Clean Room (Building M)

Front page article of a local newspaper "The Suzaka Shinbun" on April 1st, 2017

RF from Nagano city acquired Fujitsu Suzaka Factory

- To be the main manufacturing base of RF -

RF Co., Ltd., located in Nagano, Japan, which produces and distributes medical and industrial equipment, acquired Suzuka factory (located at Koku town in Suzuka city) from Fujitsu (Tokyo, Japan). The factory will be remodeled and will be the "center base of the production" of RF. The production capacity and operation date have not been scheduled yet. The Suzuka factory has not been used since 2015. With the entry of a new company in Suzuka city, the industry of the city is expected to be active and create more employment opportunities for its citizens.

The company acquired the factory site, factory buildings and its surrounding land (including employee dormitory site, athletic field, and parking area), accounting for a total area of 54,000 m², owing to its good business performance and aim to expand. The cost of acquiring the land and buildings has not been announced. However, it will serve as the largest office (factory) for the company and will be used as the R&D site.

Inner Capsule

Capturing images with rotating intermittently by 7.5 degrees. One rotation takes approx. 6 seconds.



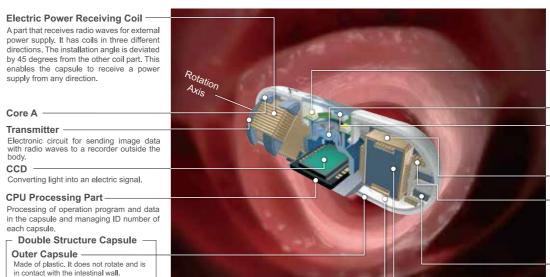
The company intends to initiate the operation of the factory in an early period with remodeling the interior and exterior of Suzuka factory and renovating the equipment. The company announces that it will be actively employing people in this area and is planning to proceed its business partnership and technical cooperation with the local companies. In addition, the environmental measures including the observation of PCB in groundwater under the factory land will be taken over by RF from Fujitsu. In an interview with this paper, the company spokesperson said, "In Suzuka city, there are many companies in diverse business fields. We would like to proceed our business with the cooperation of those local companies and try contributing to the business in the region."

RF Co., Ltd. was founded in 1998. The company's founder Mr. Jiro Maruyama, who hails from Ueda city, serves as the president. The company develops, manufactures, and distributes medical and industrial X-ray CT equipment, various endoscopes, and cameras. The medical equipment business is the strength of the company. It owns a total of 20 manufacturing facilities and stores in Japan. According to a major credit research company, Teikoku Databank, Ltd., the company's annual sales amount for May 2016 was JPY 12 billion.

Although Fujitsu Suzuka factory had been leased by Taiyo Yuden Mobile Technology in 2015, it has not been used since then and was had been an outstanding issue. Mr. Kanbayashi of the Chamber of Commerce said, "I feel the company has a big motivation to be more active and expand, and I am expecting that the company would activate the local economy of Suzuka city. The residents of Suzuka city have a deep attachment to the Fujitsu Suzuka factory site, and also it has a large capacity. We are relieved to hear that the factory was taken over by another company." The city mayor Mr. Masao Miki said, "The Prefecture and Fujitsu made a good effort to attract a company to take over the factory. The company is operating in medical business category, which is rare in this city, and we appreciate the acquisition in terms of employment and tax income."



Structural Drawing of the Capsule Endoscope





Actual Size

_ White LED

Like flashing of a camera, the white light emitting diode (LED) blinks flashing and illuminates the intestines.

- Fluorescent LED

This LED emits ultraviolet light. For finding a tumor, it irradiates ultraviolet rays to cause tumor cells to emit light.

- COIL XYZ

Electromagnet

This electromagnet is for rotating the interior capsule. N pole and S pole are periodically reversed and rotate the interior capsule by using the magnetic force between the horseshoe type permanent magnet.

- Permanent Magnet

Core B (45°)

(Diameter : 9mm, Length : 23mm)

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