

FUJIKURA NEWS 4

2020 No.465

Fujikura Modern history -1

Toward New Era

In 1959, Tokyo has been chosen to be the venue for the Olympic Games, which promoted the manufacturing and laying of long-distance cables including submarine cables jointly planned with the US's AT&T for TV broadcasting. The construction of the sports stadiums and highways also started. With Tokaido Shinkansen having been constructed, Fujikura took charge of laying communication lines and cables between Shinyokohama and Hiratsuka. The company developed many new technologies, which are still relevant for the present, including one introduced in the automatic train control (ATC) system of Japan National Railways

Laying of OF cables for Tokaido Shinkansen



Electronics

Board to Board Connector, the FB35AB series, for smartphones



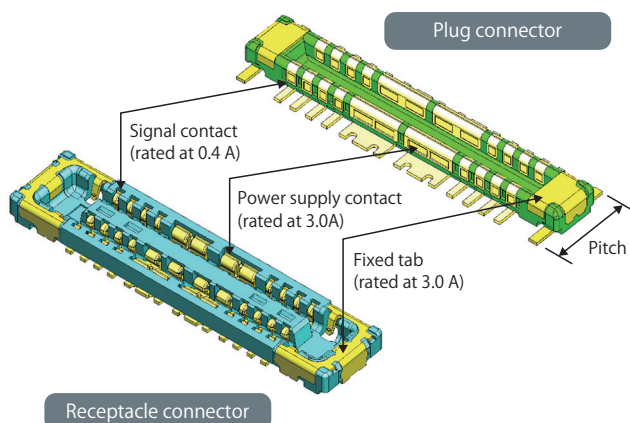
2020 4

Smartphones and mobile devices have always become more sophisticated in functionality while connectors are required to conduct higher currents and be made smaller and lighter. To meet the demands, Fujikura commercialized board to board connectors, the FB35 series, and enjoy a good reputation from customers. With the aim of enabling our product to carry higher currents and be smaller, we have developed a smaller board to board connector with a

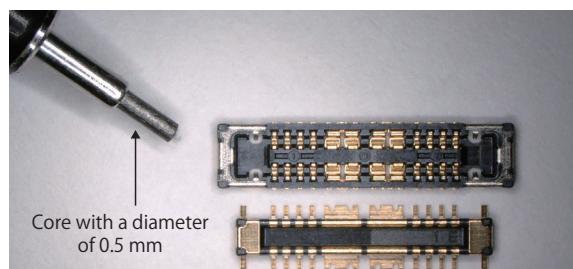
mating height of 0.6 mm and a width of 1.8 mm for large currents.

The connector accommodates two 3A fixed-tab electrodes and four 3A power-supply contact electrodes in addition to a signal contact with a rated current of 0.4 A.

Furthermore, the fixed tab not only handles high currents but also supports the connector to prevent breakage that can occur at the time of fitting.



● Figure 1: connector appearance



● Figure 2: Appearance

● Table 1: Specifications

	Current product	New product
Series	FB35AA	FB35AB
Mated height	0.8mm	0.6 mm
Width	1.8mm	
Rated voltage	AC 30 V (r.m.s.) / DC 30 V	
Rated current	Signal contact : 0.4 A / pin Fixing tab : 3.0 A / pin	Signal contact : 0.4 A / pin Power supply contact : 3.0 A / pin Fixing tab : 3.0 A / pin
Withstand voltage	AC 200 V (r.m.s.) / min.	
Insulating resistance	DC 200V 100MΩ or higher	
Contact resistance	Signal contact : 30 mΩ or lower Fixing tab : 20 mΩ or lower	Signal contact : 30 mΩ or lower Power supply contact : 20 mΩ or lower Fixing tab : 20 mΩ or lower
Operation temperature range	-40 °C ~ +85 °C	
Number of cores	Signal contact : 18 Fixing tab : 2	Signal contact : 16 Power supply contact : 4 Fixing tab : 2

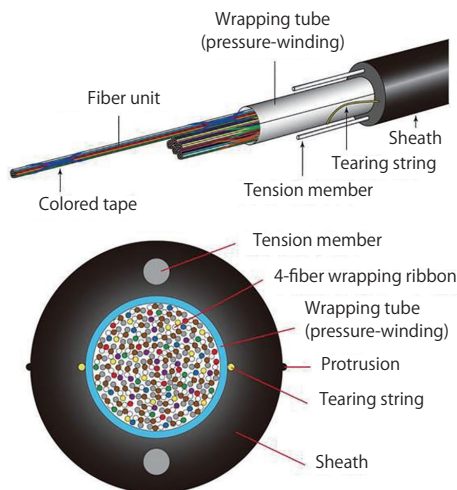
Power & Telecom

Small-diameter High-density Slot-less Optical Fiber Cable Registered in NETIS (New Technology Information System) of the Land, Infrastructure, Transport and Tourism



A small-diameter high-density slot-less optical fiber cable that uses SWR®/WTC® has been registered in NETIS (New Technology Information System) of the Land, Infrastructure,

Transport and Tourism (NETIS resister No.: KT-190087-A). NETIS is a database system, which has been set up by the ministry to utilize new technologies by sharing and providing relevant information, and only technologies that are found eligible are registered in the system.



● Drawing of cross-section of 3000-fiber optical fiber cable

Fujikura's small-diameter high-density slot-less optical fiber cables are expected to:

- ① allow drawing work easier due to its small diameter and light weight.
- ② improve workability with its small diameter, light weight and small bending radius.
- ③ accommodate more fibers and enable the laying in existing conduits or overhead.
- ④ reduce the impact on the environment due to reduced load on the joint use poles in aerial installation.

Optical Cable Systems Division telcon@jp.fujikura.com

Information

Fujikura Introduced in TV Tokyo Corporation's Program, Unknown Gulliver—Excellent Company File



Fujikura was introduced in a TV program called Unknown Gulliver—Excellent Company File, which was created by TV Tokyo-related company and broadcast from 6 to 6:30 p.m. on February 29, 2000. The TV program focuses on excellent companies that enjoy a good reputation among people in relevant industries worldwide and introduce attractive aspects of the companies.

the scenes and electronic components, which can seldom be seen in daily life. We will continually contribute to society with our "Tsunagu" (connecting in Japanese) technology.

The TV program featured an interview, where our CEO, Masahiko Ito, talked with a college student reporter about Fujikura's business and history. It also showed the installation of optical fibers into houses using Fujikura-made optical splicers, the optical fiber manufacturing site in Sakura Plant, and our development effort devoted to millimeter-modules. This has provided a good opportunity for the exhibition of our technologies, including infrastructures as a force behind



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Excellent Award in Flying Car Competition



Fujikura technologically supports a start-up company based on the University of Tokyo, teTra aviation corp. (teTra hereafter). A project team centering tetra has been granted Pratt & Whitney Disruptive Award for the most excellent company and a prize of 100,000 dollars in GoFly Contest of developing one-manned air mobility. GoFly is a flying car competition, so to speak, sponsored mainly by Boeing, and attracted 855 participating teams from 103 countries worldwide. Out of them, 24 teams were selected for advancing to the final flying judgment that was held in Silicon Valley.

TeTra team, which is the only one that moved into the final examination out of the companies from the Asia region, has won the glory with their flying device, teTra 3, with vertical take-off and landing capabilities.

To meet the demand for a lighter weight body, Fujikura has worked on slimming down the size of the cables and connectors in the main wiring part while Fujikura Composite has used CFRP (carbon fiber reinforced plastic) in the shaft of teTra 3. Both companies supported the development. In the future, through collaboration with teTra or other companies, we will develop products and

services and promote commercialization toward the realization of a mobility society where people move around safely and freely as described in our 2030 vision.

*CFRP carbon fiber reinforced plastic



● Flying device with vertical take-off and landing abilities, tetra 3



● teTra team

✉ New Business Development Center ask-bridge@jp.fujikura.com

Fujikura Publishes Fujikura Group Integrated Report 2019

Fujikura has published Fujikura Group Integrated Report 2019 (in Japanese and English). This report includes the Group's business models, financial information, and ESG (environmental, social, governance) activities. The report has been compiled to gain the understanding of stakeholders including shareholders, investors, and customers regarding our mid-and-long-term value creation stories.

This report contains pages that cover Fujikura's history of providing social problem solving products, which we have inherited since the founding of the company, and three competitive edges of the company. In addition, for our stakeholders' further understanding of the Fujikura Group, the report has taken in CSV Story featuring our production sites and Outside Directors' Messages toward Increasing

Company Value, which clearly states outside directors' commitments for the first time.

We hope you will find it worth expecting the Fujikura Group's sustainable growth and our initiatives toward solving social challenges.

Fujikura Group Integrated Report 2019

● Japanese edition URL:

<https://www.fujikura.co.jp/esg/index.html>

● English edition URL:

<https://www.fujikura.co.jp/eng/esg/index.html>

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Information

Birth of Essential Woods— about Origin of Name of Bio Garden, “The Fujikura-Kiba Millennium Woods”

According to some dictionaries, woods are interpreted only in two ways: one is a place where trees closely grow; and the other is a thicket of trees where a shrine is located. Regarding the first interpretation, the scale of the area accounts for a large part as an element for the definition as well as the density of trees, but it is difficult to fix a clear criterion in terms of the scale.

The expression of woods implies a feeling of awe and sensing of creatures in instinct in addition to the area of thicket of trees and the maturity of them. This means that a thicket of trees around a shrine is sublimated to woods by the existence of God even if the area is small or trees are thinly scattered.

The larger the woods are, the more they can accommodate different creatures because the woods maintain a certain level of naturalness. The Imperial Palace owns about 115 ha of woods, Institute for Nature Study in Meguro Ward about 20 ha, and Meiji Shrine about 70 ha. These woods represent those in Tokyo, which show limitations in the scale of greenery. The Fujikura-Kiba Millennium Woods only have about an area of 0.2 ha without a shrine.

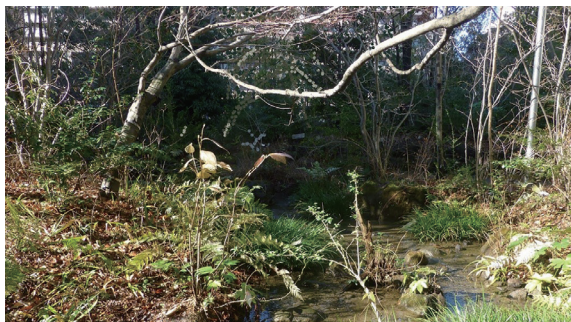
Considering these aspects, the area cannot be defined woods. However, Fujikura has regarded woods as a keyword

that represents the company’s attitude. The Fujikura-Kiba Millennium Woods were formed to materialize our desire of opening it to the public as the place symbolizing the redevelopment in Kiba, supporting people emotionally with space filled with nature, and responding to the change of the world,

The common name, Bio-garden, was named with the intention to manage biotope, which focuses on creatures life, while the Millennium Woods with our desire to continue close relationship between the company and local community for a long time in Kiba.

All the woods haven’t become woods in a blink. We hope the Fujikura-Kiba Millennium Woods are always the woods for the community and people and all the creatures.

*This article was created by excerpting and editing an article contributed to a magazine, City Park No. 228 (March 2020).



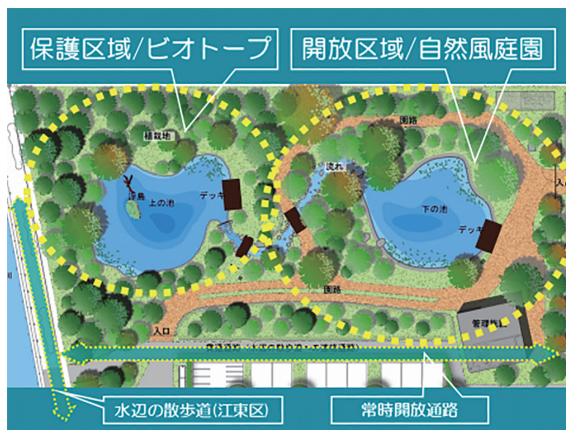
● Stream in the woods



● A corner of the woods



● Overhead picture of the bio-garden



● Bio-garden map

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