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## Tamagawa Holdings' Subsidiary Honored with the "Incentive Award" of the 33rd Kanagawa Industrial Technology Development Prize

Tamagawa Holdings' subsidiary Tamagawa Electronics Co., Ltd. ("Tamagawa Electronics") was honored with the 33rd Kanagawa Industrial Technology Development Prize, jointly sponsored by Kanagawa Prefecture and the Kanagawa Shimbun newspaper, for an optical transmission and power feed-type, high-bandwidth electro-magnetic wave measurement instrument ("Optical Power Feed RoF System") developed by Tamagawa Electronics.

## 1. Outline of the Optical Power Feed Rof System

In the automotive industry the functions fulfilled by electronic devices have been rising to prominence not only for hybrid vehicles but also for fuel efficiency and safety-enhancing systems such as collision-prevention and automated driving systems. These applications require the accurate measuring and mapping of electrical noise properties (electromagnetic compatibility, or EMC for short) which may lead to the malfunctioning of vehicle-mounted electronic devices. The Optical Power Feed Rof System developed by Tamagawa Electronics converts electrical noise directly into optical signals, and by achieving signal transfer and power feed over optical fiber enables accurate measurements without affecting the electrical field in the anechoic chamber. This measurement system for electromagnetic waves offers the benefits of small size, broad spectrum, and high accuracy. Moreover, this system covers also wave bands compatible with mobile telecommunications, making it a powerful instrument for assessing the specific properties of antennae of mobile phones and smartphones.





Photo: Electrical-to-optical wave converter

Illustration 1: The system testing for electrical noise

2. About the Kanagawa Industrial Technology Development Prize

The Kanagawa Industrial Technology Development Prize was incepted in 1984 and has since been sponsored jointly by Kanagawa Prefecture and the Kanagawa Shimbun newspaper. The purpose of the award is to encourage technology development and strengthen technology development capabilities. It is conferred on small and medium-sized enterprises in Kanagawa Prefecture noted for excellence in industrial technology and products. Technologies and products honored with the award are slated to be exhibited on the industrial technology exhibition "Technical Show Yokohama 2017" at the booth of Kanagawa Prefecture.

https://www.kanagawa-iri.jp/tech\_supports/product\_development/kanagawaprize.html

3. Further outlook

Tamagawa Electronics will continue to proactively develop new technologies aiming to further expand its business fields.