



June 5, 2024
Fujikura.Ltd.

Fujikura exhibits 5G millimeter-wave phased array antenna module(PAAM)

『FutureAccess™』 high-power version Type-C at the IMS 2024 in the United States

Fujikura Ltd. (President and CEO: Naoki Okada) will present the latest 28-GHz-band phased array antenna module (PAAM) 『FutureAccess™』 high-power version Type-C for 5G base stations at the IEEE MTT-S International Microwave Symposium 2024*¹ (IMS2024). At the exhibition booth, we will showcase the Type-C module and demonstrate for the first time a 256-element antenna module equipped with 4 PAAMs. Additionally, Five oral presentations on PAAMs will be delivered at the symposium, including joint presentations with Rohde & Schwarz*², Avnet*³, and MathWorks*⁴.

IMS2024 website: <https://ims-ieee.org/>

Contents of the Fujikura Booth

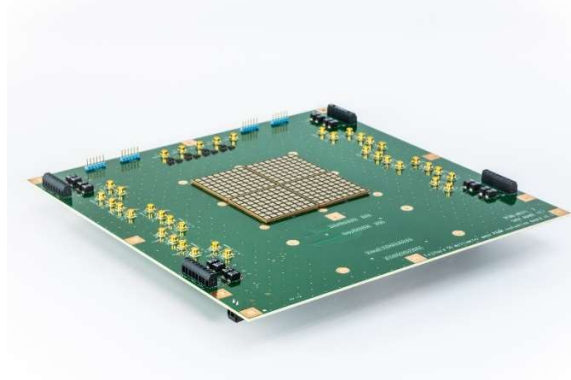
In addition to the static display featuring the "FutureAccess™" Type-C module, we will also have a 256-element antenna module with four PAAMs arranged in a 2x2 arrangement for a live demonstration.

In the demo, the R&S®ATS800B CATR benchtop antenna test system *⁵ provided by Rohde & Schwarz will be used to create a far-field*⁶ in a compact environment.

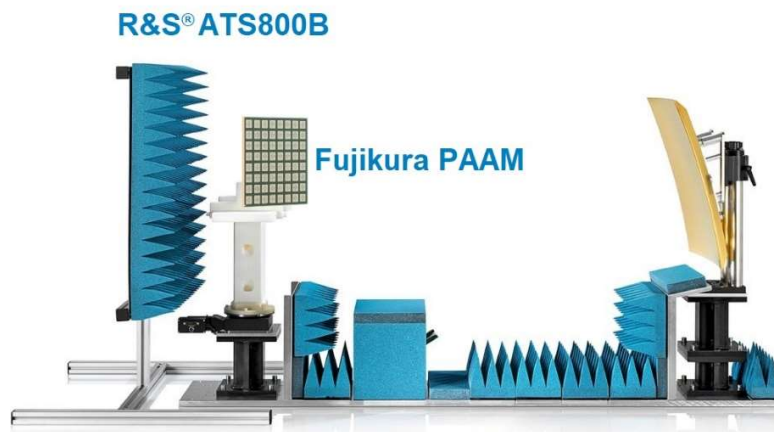
The transmitting output of an antenna module composed of 4 PAAMs is 16 times that of a single PAAM, and the receiving sensitivity is 4 times that of a single PAAM, greatly improving communication distance with mobile media. What sets our PAAM apart is its unique calibration-free design, which allows for this exceptional transmission and reception performance without the need for calibration.

You will be able to check its reception performance in a live demo.

If you are at the venue, please stop by booth #2060.



『FutureAccess™』 2 × 2 PAAM



R&S® ATS800B CATR benchtop antenna test system

<28 GHz-band phased array antenna module (PAAM) 『FutureAccess™』 >

The Fujikura PAAM is a fully integrated module consisting of an array antenna, beamformer ICs, a frequency converter IC and filters. It offers the highest performance in the industry and is intended for both indoor and outdoor applications such as fixed wireless access connecting a telecommunications carrier and its subscribers, high-speed mobile wireless access for mobile terminals, and trunk lines between carrier backbone networks and base stations (wireless backhaul).

*1 International Microwave Symposium 2024

This is an international symposium attended by radio-frequency and microwave engineers and researchers from around the world. This year it will be held in Washington, DC, USA from June 16th to June 21st. The symposium will consist of multiple technical conferences and commercial exhibitions.

*2 Rohde & Schwarz

The company's headquarters are located in Munich, Germany. The company develops, manufactures, and sells electronic products, and its wide product portfolio plays an important role in building secure networks around the world. The company's cutting-edge solutions are used around the world in fields such as electronic measurement, secure communications, network/cybersecurity, and broadcast/media. In addition to its already established business areas, the company is actively working on future technologies such as AI, industrial IoT (IIoT), 6G, cloud solutions and quantum technologies. For more information about Rohde & Schwarz, please visit <https://www.rohde-schwarz.com>.

*3 Avnet

The company's headquarters are located in Phoenix, Arizona. As a leading global technology distributor and solutions provider, Avnet has served customers' evolving needs for an entire century. The company supports customers at each stage of a product's lifecycle, from idea to design and from prototype to production. Their unique position at the center of the technology value chain enables them to accelerate the design and supply stages of product development so customers can realize revenue faster. Decade after decade, Avnet helps its customers and suppliers around the world realize the transformative possibilities of technology. For more information about Avnet, please visit <https://www.avnet.com>.

*4 MathWorks

The company's headquarters are located in Natick, Massachusetts. A global software development company that leads the industry in mathematical calculations. Engineers and scientists around the world rely on MathWorks products to accelerate discovery, innovation, and development. For more information about MathWorks, please visit <https://www.mathworks.com/>.

*5 R&S®ATS800B CATR benchtop antenna test system

An extremely compact far-field over-the-air (OTA) test system based on compact antenna test range (CATR) technology.

*6 Far field

An area where the measurement point is far enough away from the antenna that the antenna gain can be considered constant. Normally, the distance required for far-field measurements increases proportionately to the antenna aperture diameter square, and measurement errors increase at shorter distances.