# Large-capacity technology for wireless access

IOWN Evolution New Value Creation in Wireless Network



## Background

Extreme high-speed and high-capacity are needed in 6G to achieve 100 Gbps.THz-bands are promising for celler systems.

### Summary

We propose modulation and demodulation techniques on terahertz bands for 6G radios and distributed MIMO system using high-frequency band.

### **RF Imperfection Compensation Technology Using AI**



compensation by machine learning



Use of machine learning to ensure required signal quality even for low-performance circuits

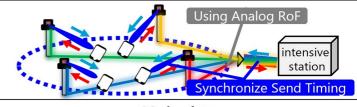
Multi-User Transmission Technology in High-Frequency Band Distributed Antenna System



Distributed Antenna

Spatial resource
allocation to multiple
users using multiple
candidate antennas

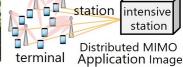
### Analog RoF technology to accommodate TDD radio system



#### **6G simulator**



Evaluate each technology at the system level base-



### **Features**

- Area coverage by line-of-sight radio waves with a distributed antenna
- Multi-User Transmission Technology in High-Frequency Band Distributed Antenna System
- Technology to estimate reference points by machine learning and to demodulate distorted signals with high quality

## | Future\_benefits

We realize stable large-capacity wireless transmission even in a mobile / shielded environment in the high frequency band.

## **Exhibiting Company**

NIPPON TELEGRAPH AND TELEPHONE CORPORATION

### Contact

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