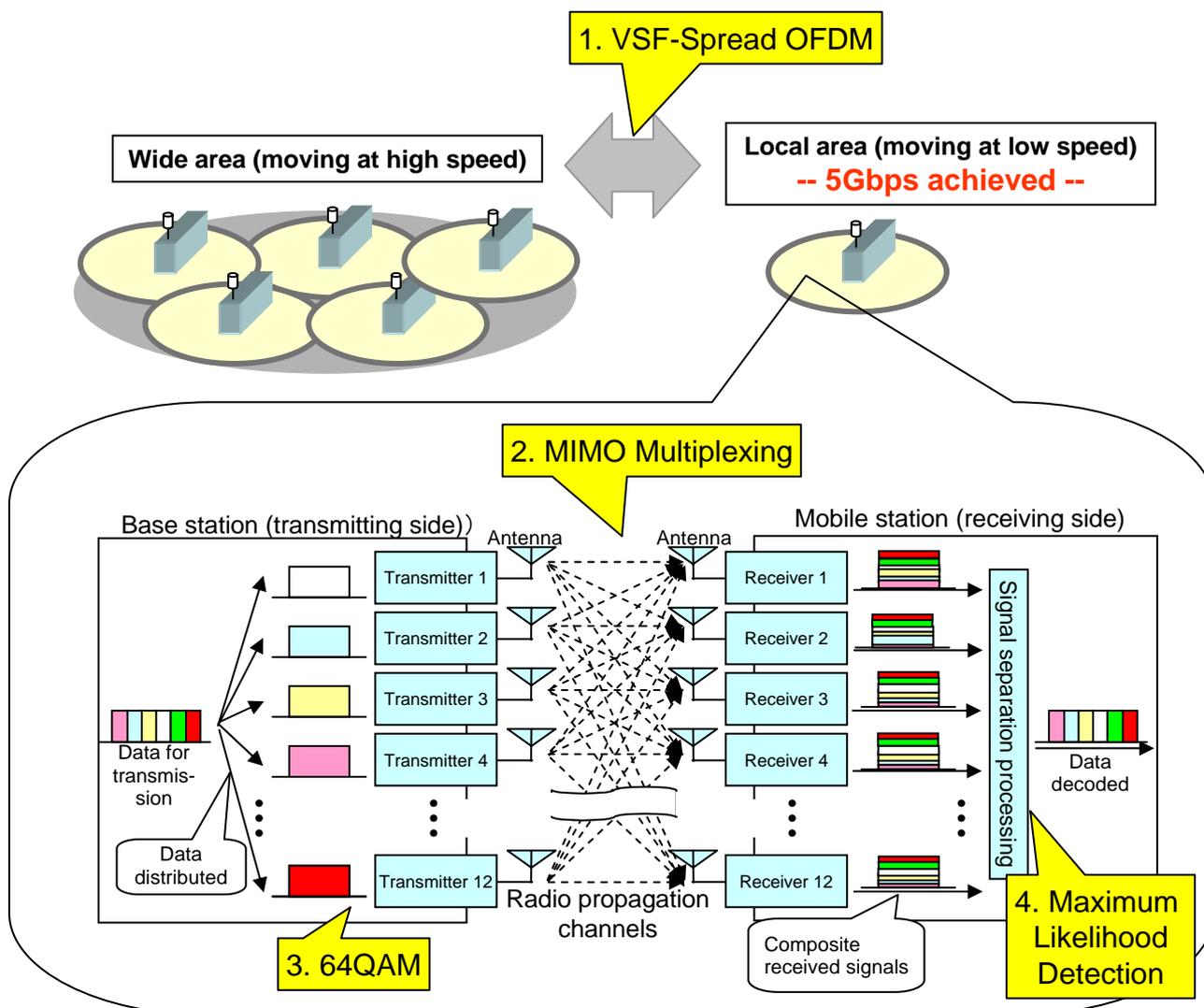


## Main Technologies of 5Gbps Packet Transmission Experiment



### 1. Variable Spreading Factor – Spread Orthogonal Frequency Division Multiplexing

Fast packet transmission technology using same radio access system for any local environment by controlling spreading factor in accordance with indoor/outdoor environment and transmission conditions.

### 2. MIMO Multiplexing

Transmission of different signals from multiple antennas at same time using same frequency.

### 3. 64 Quadrature Amplitude Modulation

System for converting data to transmitted signals. After conversion, data is represented as combinations of 64 signal points with different phases and amplitudes. Six bits of data are sent per transmission.

### 4. Maximum Likelihood Detection

Decoding data by comparing received signal with all possible signal points. Guarantees accuracy, but requires high-volume computation. DoCoMo has reduced computation to about one-fifteenth that for conventional MLN with proprietary technology for processing received signals.