CLAIMS

1. A transmission method executed by a transmission apparatus, the transmission method comprising:

generating a plurality of first transmission symbols z1 and a plurality of second transmission symbols z2 for each slot by using any one of N matrices F[i] with respect to a plurality of first modulated symbols s1 and a plurality of second modulated symbols s2, the plurality of first modulated symbols s1 being generated for each slot, the plurality of second modulated symbols s2 being generated for each slot, N being an integer that is two, the N matrices F[i] being regularly switched with two slots as one cycle, the N matrices F[i] satisfy

$$\mathbf{F}[i]=\frac{1}{\sqrt{2}}\begin{pmatrix} e^{j0} & e^{j0} \\ e^{j\frac{i\pi}{4}} & e^{j\left(\frac{i\pi}{4}+\pi\right)} \end{pmatrix}$$

i = 0, 2;

transmitting one or more first OFDM symbols including the plurality of first transmission signals z1 from a first antenna; and

transmitting one or more second OFDM symbols including the plurality of second transmission symbols z2 from a second antenna, the one or more first OFDM symbols and the one or more second OFDM symbols that are transmitted at a same frequency and time.

2. A transmission apparatus comprising:

signal processing circuitry that generates a plurality of first transmission symbols z1 and a plurality of second transmission symbols z2 for each slot by using any one of N matrices F[i] with respect to a plurality of first modulated symbols s1 and a plurality of second modulated symbols s2, the plurality of first transmission symbols z1 being generated for each slot, the plurality of second transmission symbols z2 being generated for each slot, N being an integer that is two, the N matrices F[i] being regularly switched with two slots as one cycle,

the N matrices F[i] satisfy

$$\mathbf{F}[i]=\frac{1}{\sqrt{2}}\begin{pmatrix} e^{j0} & e^{j0} \\ e^{j\frac{i\pi}{4}} & e^{j\left(\frac{i\pi}{4}+\pi\right)} \end{pmatrix}$$

i = 0, 2;

transmitting circuitry that transmits one or more first OFDM symbols including the plurality of first transmission symbols z1 from a first antenna, and transmits one or more second OFDM symbols including the plurality of second transmission symbols z2 from a second antenna, the one or more first OFDM symbols and the one or more second OFDM symbols that are transmitted at a same frequency and time.