CLAIMS

[Claim 1]

A transmission device comprising:

a transmitter for generating a data signal, the transmitter comprising an output section, the output section comprising:

a driver section that is able to transmit the data signal by using three or more predetermined number of voltage states and set voltages in each of the voltage states, wherein the predetermined number of the voltage states include a first voltage state, a second voltage state, and a third voltage state that is between the first voltage state and the second voltage state; and

a control section that sets an emphasis voltage that is based on a transition among the predetermined number of the voltage states, and thereby causes the driver section to perform emphasis,

wherein the emphasis voltage in a case of making a transition from the first voltage state to the second voltage state is greater than the emphasis voltage in a case of making a transition from the first voltage state to the third voltage state.

[Claim 2]

The transmission device according to claim 1,

wherein the driver section includes:

a first driver section that selectively sets a voltage state at a first output terminal to any of the first voltage state, the second voltage state, and the third voltage state;

a second driver section that selectively sets a voltage state at a second output terminal to any of the first voltage state, the second voltage state, and the third voltage state; and

a third driver section that selectively sets a voltage state at a third output terminal to any of the first voltage state, the second voltage state, and the third voltage state, and

wherein the voltage states at the first output terminal, the second output terminal, and the third output terminal differ from one another.

[Claim 3]

The transmission device according to claim 2, wherein

the data signal indicates a sequence of a symbol, and

the control section sets, in accordance with the sequence of the symbol, the emphasis voltage at each of the first output terminal, the second output terminal, and the third output terminal.

[Claim 4]

The transmission device according to claim 3, further comprising:

a signal generation section that generates, on a basis of a transition signal indicating symbol transition, a first symbol signal indicating a symbol, and a second

symbol signal indicating a symbol that is earlier by one symbol than the symbol indicated by the first symbol signal,

wherein the control section sets, on a basis of the first symbol signal and the second symbol signal, the emphasis voltage at each of the first output terminal, the second output terminal, and the third output terminal.

[Claim 5]

The transmission device according to claim 4, wherein the first driver section, the second driver section, and the third driver section respectively set, on a basis of the first symbol signal, voltage states at the first output terminal, the second output terminal, and the third output terminal.

[Claim 6]

The transmission device according to claim 3, further comprising a signal generation section that generates, on a basis of a transition signal indicating symbol transition, a symbol signal indicating a symbol,

wherein the control section sets, on a basis of a sequence of the symbol indicated by the symbol signal, the emphasis voltage at each of the first output terminal, the second output terminal, and the third output terminal.

[Claim 7]

The transmission device according to claim 2, wherein

the first driver section includes:

a first circuit that is provided on a path from a first power supply to the first output terminal; and

a second circuit that is provided on a path from a second power supply to the first output terminal, and

the control section sets an impedance ratio of an impedance of the first circuit to an impedance of the second circuit, and thereby sets the emphasis voltage at the first output terminal.

[Claim 8]

The transmission device according to claim 7, wherein the control section sets the impedance ratio to cause a parallel impedance of the impedance of the first circuit and the impedance of the second circuit to be constant.

[Claim 9]

The transmission device according to claim 7, wherein

the first circuit includes a plurality of first sub-circuits each including a first resistor and a first transistor that are provided on the path from the first power supply to the first output terminal,

the second circuit includes a plurality of second sub-circuits each including a second resistor and a second transistor that are provided on the path from the second power supply to the first output terminal, and

the control section sets number of first transistors to be turned ON out of the first transistors that are provided in the first circuit, and sets number of second

transistors to be turned ON out of the second transistors that are provided in the second circuit, and thereby sets the emphasis voltage at the first output terminal.

[Claim 10]

The transmission device according to claim 9, wherein

the plurality of first sub-circuits are grouped into a plurality of first groups,

the plurality of second sub-circuits are grouped into a plurality of second groups, and

the control section causes the first transistors in the first circuit to turn ON and OFF in a unit of the first group, and causes the second transistors in the second circuit to turn ON and OFF in a unit of the second group, and thereby sets the emphasis voltage at the first output terminal.

[Claim 11]

The transmission device according to claim 10, wherein

the plurality of first groups include a first sub-group and a second sub-group, and

number of the first sub-circuits that belong to the first sub-group differs from number of the first sub-circuits that belong to the second sub-group.

[Claim 12]

The transmission device according to claim 1, wherein the voltages in each of the voltage states are able to be set to have same number of voltages as the

predetermined number, the voltages differing from one another.

[Claim 13]

The transmission device according to claim 1, wherein the emphasis comprises de-emphasis.

[Claim 14]

The transmission device according to claim 1, wherein the emphasis comprises pre-emphasis.

[Claim 15]

A transmission method comprising:

generating a data signal;

transmitting the data signal by using three or more predetermined number of voltage states, wherein the predetermined number of the voltage states include a first voltage state, a second voltage state, and a third voltage state that is between the first voltage state and the second voltage state; and

setting an emphasis voltage that is based on a transition among the predetermined number of the voltage states, and thereby performing emphasis, wherein the emphasis voltage in a case of making a transition from the first voltage state to the second voltage state is greater than the emphasis voltage in a case of making a transition from the first voltage state to the third voltage state.

[Claim 16]

A communication system provided with a transmission device according to at least one of claims 1 to 14 and a reception device.