Claims

[Claim 1]

A wireless device including a plurality of wireless modules on a base substrate, which carries out a wireless communication using the wireless module adapted to a communication status, the plurality of wireless modules being detachably mounted on the base substrate, and at least one of frequencies and communication modes of which having different values, the wireless device comprising:

a device controller connected to the plurality of wireless modules via a signal line for selecting the wireless module adapted to the communication status; and

a terminal block and a communication interface which are connected to the device controller for external connection, wherein the wireless module selected by the device controller is used for carrying out the wireless communication of data obtained from the terminal block or the communication interface.

[Claim 2]

The wireless device according to claim 1, wherein the device controller selects the wireless module adapted to the communication status, and further includes a control unit for controlling an operation of the selected wireless module.

[Claim 3]

The wireless device according to claim 1,

wherein the wireless module includes a wireless modem adapted to the frequency and the wireless mode, and a module control unit, and

the module control unit is configured to communicate with the device controller using a common communication command via the signal line.

[Claim 4]

The wireless device according to claim 1, wherein the device controller includes a memory for setting network information of a wireless network system including a plurality of the wireless devices.

[Claim 5]

The wireless device according to claim 4, wherein the device controller sets the network information including an ID number for identifying the wireless device, an ID number of the wireless device as a counterpart of transmission and reception, and selection information of the wireless module to be used in the memory, and carries out the wireless communication with the wireless device as a destination of the transmission and reception using the selected wireless module.

[Claim 6]

A wireless network system provided with a plurality of wireless modules on a base substrate, which is configured to have a plurality of wireless devices for carrying out a wireless communication using the wireless module adapted to a

communication status,

wherein the plurality of wireless modules in the wireless device are detachably mounted on the base substrate, having frequencies and/or communication modes, at least one of which have different values;

the wireless device includes a device controller connected to the plurality of wireless modules via a signal line for selecting and operating the wireless module adapted to the communication status, and a terminal block and a communication interface which are connected to the device controller for external connection, and

the wireless module selected by the device controller is used for carrying out the wireless communication of data obtained from the terminal block or the communication interface between the wireless devices.

[Claim 7]

The wireless network system according to claim 6, wherein the device controller of the wireless device includes a control unit for selecting the wireless module adapted to the communication status and controlling an operation of the selected wireless module.

[Claim 8]

The wireless network system according to claim 6,

wherein the wireless module of the wireless device includes a wireless modem adapted to the frequency and a

wireless format, and a module control unit, and

the module control unit is configured to communicate with the device controller using a common communication command via the signal line.

[Claim 9]

The wireless network system according to claim 6, wherein the device controller of the wireless device includes a memory for setting network information.

[Claim 10]

The wireless network system according to claim 9, wherein the device controller of the wireless device sets the network information including an ID number for identifying the wireless device, an ID number of the wireless device as a counterpart of transmission and reception, and selection information of the wireless module to be used in the memory, and carries out the wireless communication with the wireless device as a destination of the transmission and reception using the selected wireless module.

Claims

[Claim 1]

A wireless device including a plurality of wireless modules on a base substrate, which carries out a wireless communication using the wireless module adapted to a communication status,

the plurality of wireless modules being detachably mounted on the base substrate and including a wireless modem for a wireless communication and a module control unit for controlling the wireless modules, and at least one of frequencies and communication modes of which having different values, the wireless device comprising:

a device controller connected to the plurality of wireless modules via a signal line for selecting the wireless module adapted to the communication status; and

a terminal block and a communication interface which are connected to the device controller for external connection,

wherein the device controller transmits data obtained from the terminal block or the communication interface to the module control unit using a common communication command without considering the type of wireless frequency and the type of wireless communication mode of each of the wireless modules,

the wireless module selected by the device controller is used for carrying out the wireless communication by the module control unit converting the common communication command into the communication mode adapted to the wireless modem.

[Claim 2]

The wireless device according to claim 1, wherein the device controller selects the wireless module adapted to the communication status, and further includes a control unit for controlling an operation of the selected wireless module.

[Claim 3]

The wireless device according to claim 1,

Wherein the wireless device carries out a wireless communication with the other wireless device that frequencies and communication modes same as the wireless device are available, and the other wireless device carries out a wireless communication by the frequencies and communication modes selected by the device controller.

[Claim 4]

The wireless device according to claim 1, wherein the device controller includes a memory for setting network information of a wireless network system including a plurality of the wireless devices.

[Claim 5]

The wireless device according to claim 4, wherein the device controller sets the network information including an ID number for identifying the wireless device, an ID number of the wireless device as a counterpart of transmission and reception, and selection information of the wireless module to be used in the memory, and carries out the wireless communication with the wireless device as a destination of the transmission and reception using the selected wireless module.

[Claim 6]

A wireless network system provided with a plurality of wireless modules on a base substrate, which is configured to have a plurality of wireless devices for carrying out a wireless communication using the wireless module adapted to a communication status,

wherein the plurality of wireless modules in the wireless device are detachably mounted on the base substrate, having frequencies and/or communication modes, at least one of which have different values, and including a wireless modem for a wireless communication and a module control unit for controlling the wireless modules;

the wireless device includes a device controller connected to the plurality of wireless modules via a signal line for selecting and operating the wireless module adapted to the communication status, and a terminal block and a communication interface which are connected to the device controller for external connection,

the device controller transmits data obtained from the terminal block or the communication interface to the module control unit using a common communication command without considering the type of wireless frequency and the type of wireless communication mode of each of the wireless modules, and

the wireless module selected by the device controller is used for carrying out the wireless communication by the module control unit converting the common communication command into the communication mode adapted to the wireless modem.

[Claim 7]

The wireless network system according to claim 6, wherein the device controller of the wireless device includes a control unit for selecting the wireless module adapted to the communication status and controlling an operation of the selected wireless module.

[Claim 8]

The wireless network system according to claim 6,

wherein the wireless device carries out a wireless communication with the other wireless device that frequencies and communication modes same as the wireless device are available, and the other wireless device carries out a wireless communication by the frequencies and communication modes selected by the device controller.

[Claim 9]

The wireless network system according to claim 6, wherein the device controller of the wireless device includes a memory for setting network information.

[Claim 10]

The wireless network system according to claim 9, wherein the device controller of the wireless device sets the network information including an ID number for identifying the wireless device, an ID number of the wireless device as a counterpart of transmission and reception, and selection information of the wireless module to be used in the memory, and carries out the wireless communication with the wireless device as a destination of the transmission and reception using the selected wireless module.

[Claim 11]

The wireless device according to claim 3,

Wherein the device controller controls to change the frequency or communication mode depending on a wireless communication state, for carrying out a wireless communication with the other wireless device.

[Claim 12]

The wireless network system according to claim 6,

Wherein the device controller controls to change the frequency or communication mode depending on a wireless communication state, for carrying out a wireless communication with the other wireless device.