CLAIMS

1. SUDAC comprising:

a first wireless communication interface, configured for using ultra-high frequency in order to establish at least one backend communication link with a base station; and

a second wireless communication interface, configured for using extremely-high frequency in order to establish at least one frontend communication link with a user equipment; and

a processor,

wherein the processor is configured for at least partially forwarding a first user information signal received via the frontend communication link as a first communication signal to be transmitted via the backend communication link while frequency converting the extremely-high frequency to the ultra-high frequency; or

wherein the processor is configured for at least partially forwarding a second communication signal received via the backend communication link as a second user information signal to be transmitted via the frontend communication link while frequency converting the ultra-high frequency to the extremely-high frequency;

wherein the processor is configured for extracting control information from the first user information signal and for controlling forward parameters of the first or the second wireless communication interface based on the control information, wherein the control information is a transmit power, a modulation scheme or is related to a frequency, a code, a space and/or a time slot to be utilized by the SUDAC;

wherein the forward parameters relates at least to one of a time, a frequency, a space or a code resource of the backend communication link or the frontend communication link; and

wherein the processor is configured for frequency converting the first user information signal received at extremely-high frequency to the first communication signal at the ultra-high frequency and for frequency converting the second

communication signal at the ultra-high frequency to the second user information signal at the extremely-high frequency; or

wherein the SUDAC comprises an analog to digital converter configured for digitizing the user information signal received at extremely-high frequency, and a digital to analog converter configured for analogizing a digitalized communication signal to obtain the communication signal at the ultra-high frequency wherein the processor is configured for generating the digitalized communication signal based on the digitalized user information signal.

2. SUDAC comprising:

a first wireless communication interface, configured for using ultra-high frequency in order to establish at least one backend communication link with a base station; and

a second wireless communication interface, configured for using extremely-high frequency in order to establish at least one frontend communication link with a user equipment; and

a processor,

wherein the processor is configured for at least partially forwarding a first user information signal received via the frontend communication link as a first communication signal to be transmitted via the backend communication link while frequency converting the extremely-high frequency to the ultra-high frequency; or

wherein the processor is configured for at least partially forwarding a second communication signal received via the backend communication link as a second user information signal to be transmitted via the frontend communication link while frequency converting the ultra-high frequency to the extremely-high frequency;

wherein the processor is configured for extracting control information from the first user information signal and for controlling forward parameters of the first or the second wireless communication interface based on the control information;

wherein the forward parameters relates at least to one of a time, a frequency, a space or a code resource of the backend communication link or the frontend communication link; and

wherein the processor is configured for frequency converting the first user information signal received at extremely-high frequency to the first communication signal at the ultra-high frequency and for frequency converting the second communication signal at the ultra-high frequency to the second user information signal at the extremely-high frequency; or

wherein the SUDAC comprises an analog to digital converter configured for digitizing the user information signal received at extremely-high frequency, and a digital to analog converter configured for analogizing a digitalized communication signal to obtain the communication signal at the ultra-high frequency wherein the processor is configured for generating the digitalized communication signal based on the digitalized user information signal;

wherein the frontend communication link comprises a plurality of control channels and at least one payload channel, wherein the payload channel is associated to a control channel and wherein the processor is configured for adapting parameters of the control channel to which the payload channel is associated based on the control information and wherein the processor is configured to forward information of the payload channel, wherein a bandwidth of the control channel, of a rendezvous-channel comprising a plurality of control channels and/or of the payload channel is adapted based on the adapting of the parameters.

3. SUDAC according to claim 1 or 2, wherein the frontend communication link comprises a plurality of control channels and at least one payload channel, wherein the processor is configured to reduce a bandwidth of the payload channel, wherein the processor is configured to, during a second time duration during which the bandwidth of the payload channel is reduced, increase a number of control channels when compared to a first time duration having a same length as the second time duration wherein the processor is configured to, during the first time duration, not reduce the bandwidth of the payload channel and wherein the processor is configured to forward the payload channel.

4. SUDAC according to one of previous claims, wherein the backend communication link comprises a plurality of backend control channels and at least one backend payload

channel and wherein the SUDAC is configured for transmitting or receiving control data to or from the base station, wherein the processor is configured to adapt a transmission characteristic of an antenna function of the base station based on the control data of a transmitted backend control channel or to adapt a function of the SUDAC based on the control data of a received backend control channel), wherein the function of the SUDAC relates to parameters of the frontend communication link or to switch the SUDAC to a sleep-mode.

5. SUDAC according to one of previous claims, wherein the frontend communication link comprises a first plurality of rendezvous channels, each rendezvous channel comprising a plurality of control channels, wherein the processor is configured for adapting an operation mode of the SUDAC based on the control information contained in the plurality of control channels.

6. SUDAC comprising:

a first wireless communication interface, configured for using ultra-high frequency in order to establish at least one backend communication link with a base station; and

a second wireless communication interface, configured for using extremely-high frequency in order to establish at least one frontend communication link with a user equipment; and

a processor,

wherein the processor is configured for at least partially forwarding a first user information signal received via the frontend communication link as a first communication signal to be transmitted via the backend communication link while frequency converting the extremely-high frequency to the ultra-high frequency; or

wherein the processor is configured for at least partially forwarding a second communication signal received via the backend communication link as a second user information signal to be transmitted via the frontend communication link while frequency converting the ultra-high frequency to the extremely-high frequency;

wherein the processor is configured for extracting control information from the first user information signal and for controlling forward parameters of the first or the second wireless communication interface based on the control information;

wherein the forward parameters relates at least to one of a time, a frequency, a space or a code resource of the backend communication link or the frontend communication link; and

wherein the processor is configured for frequency converting the first user information signal received at extremely-high frequency to the first communication signal at the ultra-high frequency and for frequency converting the second communication signal at the extremely-high frequency to the second user information signal at the ultra-high frequency; or

wherein the SUDAC comprises an analog to digital converter configured for digitizing the user information signal received at extremely-high frequency, and a digital to analog converter configured for analogizing a digitalized communication signal to obtain the communication signal at the ultra-high frequency wherein the processor is configured for generating the digitalized communication signal based on the digitalized user information signal;

wherein the first wireless communication interface is configured for establishing a further backend communication link to a further base station, using the ultra-high frequency, wherein the SUDAC is configured for receiving the first user information signal from the user equipment via the frontend communication link, wherein the first user information signal comprises a first information related to the user equipment and to the base station and a second information related to a further user equipment and to the further base station, wherein the SUDAC is configured for converting the extremely-high frequency and the first information to the ultra-high frequency and for converting the extremely-high frequency and the second information to the further ultra-high frequency.

7. SUDAC according to one of previous claims, wherein

the backend communication link comprises a backend payload channel and wherein the frontend communication link comprises a frontend payload channel;

wherein the backend communication link comprises a backend random access channel or wherein the frontend communication link comprises a frontend random access channel;

wherein the SUDAC is configured for receiving a random frontend information from a further user equipment using the frontend random access channel or to receive a random backend information from a further base station using the backend random access channel; and

wherein the SUDAC is configured for transmitting the random frontend information using the frontend communication link or the backend communication link or for sending the random backend information using the frontend communication link or the backend communication link.

8. SUDAC according to one of previous claims, wherein the SUDAC is configured for establishing a first and a second backend communication link, to receive a first and a second payload information using resources separated from each other and to transmit the frontend communication signal comprising the first and the second payload information to perform backend carrier aggregation; and/or

wherein the SUDAC is configured for establishing a first and a second frontend communication link, to receive a first and a second payload information using resources separated from each other and to transmit the backend communication signal comprising the first and the second payload information to perform frontend carrier aggregation.

9. SUDAC System comprising:

a SUDAC according to one of claims 1-8.

10. SUDAC System according to claim 9, wherein the SUDAC, is configured to determine an allocation of a utilized transmission resource for the SUDAC System.

11. Method for signal forwarding with a SUDAC

using ultra-high frequency in order to establish at least one backend communication link with a base station; and

using extremely-high frequency in order to establish at least one frontend communication link with a user equipment;

frequency converting the extremely-high frequency to the ultra-high frequency and at least partially forwarding a user information signal received via the frontend communication link as a communication signal to be transmitted via the backend communication link; or

frequency converting the ultra-high frequency to the extremely-high frequency and at least partially forwarding the communication signal received via the backend communication link as the user information signal to be transmitted via the frontend communication link;

extracting control information from the user signal and controlling forward parameters of a first or a second wireless communication interface based on the control information, wherein the control information is a transmit power, a

modulation scheme or is related to a frequency, a code, a space and/or a time slot to be utilized by the SUDAC; and

frequency converting the user information signal received at extremely-high frequency to the communication signal at the ultra-high frequency and frequency converting the communication signal at the extremely-high frequency to the communication signal at the ultra-high frequency; or

digitizing the user information signal received at extremely-high frequency, and analogizing a digitalized communication signal to obtain the communication signal at the ultra-high frequency and generating the digitalized communication signal based on the digitized user information signal.

12. Non transitory storage medium having stored thereon a computer program having a program code for performing, when running on a computer, a method according to claim 11.