Claims

1. A controller (50) of a Shared User Equipment-Side Distributed Antenna system (200), the Shared User Equipment-Side Distributed Antenna system (200) comprising a first base station network group (100a) and a second base station network group (100b), at least a first Shared User Equipment-Side Distributed Antenna Component (210) as well as a first user equipment (20, 20a) assigned to the first base station network group (100a) and a second user equipment (20, 20b) assigned to the second base station network group (100b);

wherein each Shared User Equipment-Side Distributed Antenna Component (210, 220) is configured to use ultra-high frequency in order to transmit at least one backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) to the first and/or the second base station network group (100a, 100b) and to use extremely-high frequency in order to transmit at least one frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) to the first and/or the second user equipment (20, 20b) and to forward a payload signal received via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) and to be transmitted via the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) while frequency converting the ultra-high frequency to the extremely-high frequency and to forward the payload signal received via the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) and to be transmitted via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) while frequency converting the extremely-high frequency to the ultra-high frequency;

wherein the first user equipment (20, 20a) is configured to communicate via a first frontend communication signal (21a_1) with the first Shared User Equipment-Side Distributed Antenna Component (210) and via a second frontend communication signal (21a_2) with a second Shared User Equipment-Side Distributed Antenna Component (220) or via a direct communication signal (102) directly with the first base station network group, wherein the first frontend communication signal (21a_1) is converted to a first backend communication signal (101a_1) used for communication with the first base station network group (100a) by the first Shared User Equipment-Side Distributed Antenna Component (210) and wherein the second frontend communication signal (21a_2) is converted to a second backend communication signal (101a_2) used for communication with the first base station

network group (100a) by the second Shared User Equipment-Side Distributed Antenna Component (220);

wherein the second user equipment (20, 20b) is configured to communicate via a first frontend communication signal (21b_1) with the first Shared User Equipment-Side Distributed Antenna Component (210) and via an second frontend communication signal (21b_2) with the second Shared User Equipment-Side Distributed Antenna Component (220) or via a direct communication signal (102) directly with the second base station network group, wherein the first frontend communication signal (21b_1) is converted to a first backend communication signal (101b_1) used for communication with the second base station network group (100b) by the second Shared User Equipment-Side Distributed Antenna Component (220) and wherein the second frontend communication signal (21b_2) is converted to a second backend communication signal (101b_2) used for communication with the second base station network group (100b) by the first Shared User Equipment-Side Distributed Antenna Component (210);

wherein the first and the second user equipment (20a, 20b) are configured to aggregate the first and the second frontend communication signals (21a_1, 21a_2, 21b_1, 21b_2) or the first frontend communication signal (21a_1, 21b_1) and the direct communication signal (102) in order to increase an available data rate;

wherein the controller (50) is configured to select first resources, wherein a first portion of the first resources characterizes settings of the first frontend communication signal (21a_1) and of the corresponding first backend communication signal (101a_1) and wherein a second portion of the first resources characterizes settings of the second frontend communication signal (21a_2) and of the corresponding second backend communication signal (101a_2), for the first user equipment (20, 20a) and to select second resources, wherein a first portion of the second resources characterizes settings of the first frontend communication signal (21b_1) and of the corresponding first backend communication signal (101b_1) and wherein a second portion of the second resources characterizes settings of the second frontend communication signal (21b_2) and of the corresponding second backend communication signal (101b_2), for the second user equipment (20, 20b), taking into account data rate requirements and/or data rate capabilities of the first and/or second user equipment (20a, 20b) and/or of the first and/or second base

station network group (100a, 100b) and/or such that the first frontend communication signals (21a_1, 21b_1) of the first and the second user equipment (20a, 20b) as well as the second frontend communication signals (21a_2, 21b_2) of the first and the second user equipment (20a, 20b) are distinguishable from each other and/or such that transmission losses caused by interferences within the first frontend communication signal (21a_1, 21b_1) and the second frontend communication signal (21a_2, 21b_2) of the first and second user equipment (20a, 20b) are reduced;

wherein the controller is configured to select first and second resources based on an evaluation of CSI-data indicating a signal strength at one of the user equipments being connected the controller or based on a channel measurement performed by the controller or based on a signal strength and noise or interference level of one of the user equipments.

2. The controller (50) according to claim 1, wherein the first and the second resources comprise resources out of a group comprising a time-resources, frequency-resources, code-resources and/or space-resources.

3. The controller (50) according to claim 2, wherein the controller (50) is configured to control via a control signal the time-resources of the first and the second user equipment (20, 20b) and of the first and the second Shared User Equipment-Side Distributed Antenna Component (210, 220) comprising a memory by assigning respective time slots to the first and the second frontend communication signals (21a_1, 21a_2, 21b_1, 21b_2) and/or to the first and the second backend communication signal (101a_1, 101a_2, 101b_1, 101b_2), in order to perform TDM/TDMA modulation; and/or

wherein the controller (50) is configured to control via the control signal the frequency-resources of the first and the second user equipment (20, 20b) and of the first and the second Shared User Equipment-Side Distributed Antenna Component (210, 220) comprising a frequency and multiplexing converter (212, 222) by assigning respective carrier frequencies to the first and the second frontend communication signals (21a_1, 21a_2, 21b_1, 21b_2) and/or to the first and the second backend communication signal (101a_1, 101a_2, 101b_1, 101b_2), in order to perform FDM/FDMA modulation; and/or

wherein the controller (50) is configured to control via the control signal the code-resources of the first and the second user equipment (20, 20b) and of the first and the second Shared User Equipment-Side Distributed Antenna Component (210, 220) comprising a processor by assigning respective special coding schemes to the first and the second frontend communication signals (21a_1, 21a_2, 21b_1, 21b_2) and/or to the first and the second backend communication signal (101a_1, 101a_2, 101b_1, 101b_2), in order to perform TDM/TDMA modulation, in order to perform CDM/CDMA modulation; and/or

wherein the controller (50) is configured to control via the control signal the space-resources of the first and the second user equipment (20, 20b) using the first and the second Shared User Equipment-Side Distributed Antenna Component (210, 220) as virtual antennas by transmitting the respective first communication signals and/or the second frontend communication signals (21a_1, 21a_2, 21b_1, 21b_2) to the respective Shared User Equipment-Side Distributed Antenna Components (210, 220), in order to perform SDM/SDMA modulation; and/or

wherein the controller (50) is configured to control via the control signal the further resources comprising variable factors out of a group comprising carrier frequency, carrier spacing, signal power, polarization type, indices of the antenna element, beamforming parameters and/or DSSS-spreading parameters.

4. The controller (50) according to claim 3, wherein the frequency and multiplexing converter (212, 222) is configured to forward the payload signal without decoding.

5. The controller (50) according to claim 1, wherein the controller is configured to select first and second resources based on an evaluation of first grade CSI-data indicating a signal strength at a third user equipment being connected the controller via at least a third Shared User Equipment-Side Distributed Antenna Component or based on an evaluation of second grade CSI-data indicating a signal strength at a fourth user equipment being connected the controller via at least the third user equipment and third and fourth Shared User Equipment-Side Distributed Antenna Component.

6. The controller (50) according to claim 1, wherein a distance between antennas of the first Shared User Equipment-Side Distributed Antenna Component (210) and the

second Shared User Equipment-Side Distributed Antenna Component (220) are at least 0.5 or 10 times a wavelength of the ultra-high frequency in order to enable beam forming.

7. The controller (50) according to claim 1, wherein the first Shared User Equipment-Side Distributed Antenna Component (210) and/or the second Shared User Equipment-Side Distributed Antenna Component (220) are integrated in an electricity wall outlet socket, electrical light switches, electrical light outlet, a plug socket device that plugs into a wall socket on its one side and offers a free socket on its other side, a street lamp, or a car or in the first, second or a further user equipment (20, 20a, 20b).

8. The controller (50) according to claim 1, wherein the first and second Shared User Equipment-Side Distributed Antenna Component (210, 220) are configured to transmit the first and the second frontend communication signals (21a_1, 21a_2, 21b_1, 21b_2) and the first and second backend communication signals (101a_1, 101a_2, 101b_1, 101b_2) between the first user equipment (20, 20a) and the first base station group and between the second user equipment (20, 20b) and second base station group in parallel.

9. The controller (50) according to claim 8, wherein the controller (50) controls the first and the second Shared User Equipment-Side Distributed Antenna Component (210, 220) such that the no payload signals are exchanged between the first user equipment (20, 20a) and the second base station group and between the second user equipment (20, 20b) and the first base station group.

10. The controller (50) according to claim 1, wherein the first and the second backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) of the first or the second user equipment (20, 20b) represents a superposition of ultra-high frequency signals transmitted via the first carrier and the second carrier by using at least two antennas (12a, 12b, 12c) of the respective base station (10, 10a, 10b) group.

11. The controller (50) according to claim 1, wherein the Shared User Equipment-Side Distributed Antenna system comprises a further Shared User Equipment-Side Distributed Antenna Component (210, 220) being configured to use ultra-high frequency in order to transmit a further backend communication signal to the first

and/or the second base station network group (100a, 100b) and to use extremely-high frequency in order to transmit a further frontend communication signal to the first and/or the second user equipment (20, 20b),

wherein the controller (50) is configured to use the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) and/or the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) of the further Shared User Equipment-Side Distributed Antenna Component instead of the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) and/or the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) of the first or second Shared User Equipment-Side Distributed Antenna Component (210, 220), if a link quality of the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) and/or the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) of the further Shared User Equipment-Side Distributed Antenna Component in view of the first and/or the second user equipment (20, 20b) is higher when compared to a link quality of the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) and/or the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) of the first or second Shared User Equipment-Side Distributed Antenna Component (210, 220) in view of the respective first and/or the second user equipment (20, 20b).

12. The controller (50) according to claim 1, wherein the controller (50) is a joint controller and/or shared controller (50) integrated into first and/or the second user equipment (20, 20b) and/or into the first and/or the second Shared User Equipment-Side Distributed Antenna Component (210, 220) or wherein the controller (50) is realized as a protocol or algorithm being executed via a control channel connecting the first and the second user equipment (20, 20b) and the first and the second Shared User Equipment-Side Distributed Antenna Component (210, 220).

13. The controller (50) according to claim 1, wherein the controller (50) is configured to provide information regarding available Shared User Equipment-Side Distributed Antenna Components (210, 220) to the first and/or second base station group (100a, 100b) such that the first and/or second base station group (100a, 100b) performs the resource allocation of the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) based on the information.

14. The controller (50) according to claim 1, wherein the controller (50) is configured to select or to initiate the selection of time-frequency-code resources used for the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) and to select the first and/or second resources enabling an assignment of the Shared User Equipment-Side Distributed Antenna Components (210, 220) to the respective user equipments (20, 20a, 20b) in order to allow use of multi user MIMO and/or such that the respective Shared User Equipment-Side Distributed Antenna Component (210, 2020) is used either by one of the user equipments (20, 20a, 20b) at any one time or by a plurality of the user equipments (20, 20a, 20b) simultaneously.

15. The controller (50) according to claim 14, wherein the controller (50) select the resources such that multiple simultaneous spreading codes are assigned to one of the user equipments (20, 20a, 20b) in order to allow rate splitting in a MU-MIMO transmission.

16. A first user equipment (20, 20a), comprising a controller (50) according to claim 1.

17. A Shared User Equipment-Side Distributed Antenna Component which is controllable by a controller according to claim 1.

18. A Shared User Equipment-Side Distributed Antenna system (200) comprising a first base station network group (100a) and a second base station network group (100b), a first and a second Shared User Equipment-Side Distributed Antenna Component (210, 220) as well as a first user equipment (20, 20a) assigned to the first base station network group (100a) and a second user equipment (20, 20b) assigned to the second base station network group (100b) and a controller (50) according to claim 1.

19. A method for controlling a Shared User Equipment-Side Distributed Antenna system (200), the Shared User Equipment-Side Distributed Antenna system (200) comprising a first base station network group (100a) and a second base station network group (100b), at least a first Shared User Equipment-Side Distributed Antenna Component (210) as well as a first user equipment (20, 20a) assigned to the first base station network group (100a) and a second user equipment (20, 20b) assigned to the second base station network group (100b),

wherein each Shared User Equipment-Side Distributed Antenna Component (210, 220) is configured to use ultra-high frequency in order to transmit at least one backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) to the first and/or the second base station network group (100a, 100b) and to use extremely-high frequency in order to transmit at least one frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) to the first and/or the second user equipment (20, 20b) and to forward a payload signal received via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) and to be transmitted via the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) while frequency converting the ultra-high frequency to the extremely-high frequency and to forward the payload signal received via the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) and to be transmitted via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) while frequency converting the extremely-high frequency to the ultra-high frequency,

wherein the first user equipment (20, 20a) is configured to communicate via a first frontend communication signal (21a_1, 21b_1) with the first Shared User Equipment-Side Distributed Antenna Component (210, 220) and via a second frontend communication signal (21a_2, 21b_2) with a second Shared User Equipment-Side Distributed Antenna Component (220) or via a direct communication signal (102) directly with the first base station network group, wherein the first frontend communication signal (21a_1, 21b_1) is converted to a first backend communication signal (101a_1, 101b_1) used for communication with the first base station network group (100a, 100b) by the first Shared User Equipment-Side Distributed Antenna Component (210, 220) and wherein the second frontend communication signal (21a_2, 21b_2) is converted to a second backend communication signal (101a_2, 101b_2) used for communication with the first base station network group (100a, 100b) by the second Shared User Equipment-Side Distributed Antenna Component (210, 220);

wherein the second user equipment (20, 20b) is configured to communicate via a first frontend communication signal (21a_1, 21b_1) with the first Shared User Equipment-Side Distributed Antenna Component (210) and via a second frontend communication signal (21a_2, 21b_2) with the second Shared User Equipment-Side Distributed Antenna Component (220) or via a direct communication signal (102) directly with the second base station network group, wherein the first frontend

communication signal (21a_1, 21b_1) is converted to a first backend communication signal (101a_1, 101b_1) used for communication with the second base station network group (100a, 100b) by the second Shared User Equipment-Side Distributed Antenna Component (210, 220) and wherein the second frontend communication signal (21a_2, 21b_2) is converted to a second backend communication signal (101a_2, 101b_2) used for communication with the second base station network group (100a, 100b) by the first Shared User Equipment-Side Distributed Antenna Component (210, 220);

wherein the first and the second user equipment (20, 20b) are configured to aggregate the first and the second frontend communication signal (21a_2, 21b_2) or the first frontend communication signal (21a_1, 21b_1, 101a_1, 101b_1) and the direct communication signal (102) in order to increase an available data rate;

the method comprising the steps:

selecting first resources, wherein a first portion of the first resources characterizes settings of the first frontend communication signal (21a_1, 21b_1) and of the corresponding first backend communication signal (101a_1, 101b_1) and wherein a second portion of the first resources characterizes settings of the second frontend communication signal (21a_2, 21b_2) and of the corresponding second backend communication signal (101a_2, 101b_2), for the first user equipment (20, 20a); and

selecting second resources, wherein a first portion of the second resources characterizes settings of the first frontend communication signal (21a_1, 21b_1) and of the corresponding first backend communication signal (101a_1, 101b_1) and wherein a second portion of the second resources characterizes settings of the second frontend communication signal (21a_2, 21b_2) and of the corresponding second backend communication signal (101a_2, 101b_2), for the second user equipment (20, 20b),

taking into account requirements of the first and/or second user equipment (20, 20b) and/or of the first and/or second base station network group (100a, 100b) and/or such that the first frontend communication signals (21a_1, 21b_1) of the first and the second user equipment (20, 20b) as well as the second frontend communication signals (21a_2, 21b_2) of the first and the second user equipment (20, 20b) are

distinguishable from each other and/or such that transmission losses caused by interferences within the first frontend communication signal (21a_1, 21b_1) and the second frontend communication signal (21a_2, 21b_2) of the first and second user equipment (20, 20b) are reduced;

wherein the selection of the first and second resources is based on an evaluation of CSI-data indicating a signal strength at one of the user equipments being connected the controller or based on a channel measurement performed by the controller or based on a signal strength and noise or interference level of one of the user equipments.

20. Computer readable digital storage medium having stored thereon a computer program having a program code for performing, when running on a computer, the method according to claim 19.

21. A controller (50) of a Shared User Equipment-Side Distributed Antenna system (200), the Shared User Equipment-Side Distributed Antenna system (200) comprising a first base station network group (100'), at least a first Shared User Equipment-Side Distributed Antenna Component (210, 220) and at least a first Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) as well as a first user equipment (20, 20a),

wherein each Shared User Equipment-Side Distributed Antenna Component (210, 220) is configured to use ultra-high frequency in order to transmit at least one backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) to the first base station network group (100a, 100b) or at least one inter-backend communication signal (103) to the Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) and to use extremely-high frequency in order to transmit at least one frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) to the first user equipment (20, 20a) and to forward a payload signal received via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) or received via the inter-backend communication signal (103) and to be transmitted via the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) while frequency converting the ultra-high frequency to the extremely-high frequency and to forward the payload signal received via the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) and to be transmitted via the backend communication signal (101a_1,

101a_2, 101b_1, 101b_2) or to be transmitted via the inter-backend communication signal (103) while frequency converting the extremely-high frequency to the ultra-high frequency;

wherein each Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) is configured to use extremely-high frequency in order to transmit at least one frontend communication signal (22) to the first base station network group (100') and to use ultra-high frequency in order to transmit at least one inter-backend communication signal (103) to the first Shared User Equipment-Side Distributed Antenna Component (210, 220) or in order to transmit at least one backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) to the first user equipment (20, 20a) and to forward a payload signal received via the frontend communication signal (22) and to be transmitted via the inter-backend communication signal (103) or via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) while frequency converting the extremely-high frequency to the ultra-high frequency and to forward the payload signal received via the inter-backend communication signal (103) or received via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) and to be transmitted via the frontend communication signal (22) while frequency converting the ultra-high frequency to the extremely-high frequency;

wherein the first user equipment (20, 20a) is configured to communicate via a first direct communication signal (101) with the first base station group directly or via a first frontend communication signal (21a_1) with the first Shared User Equipment-Side Distributed Antenna Component (210), wherein the first frontend communication signal (21a_1) is converted to a first backend communication signal (101a_1) used for communication with the first base station network group (100a) by the first Shared User Equipment-Side Distributed Antenna Component (210); and/or wherein the first frontend communication signal (21a_1) is converted to a first inter-backend communication signal (101a_1) used for communication with the first base station network group (100a) via the Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) by the first Shared User Equipment-Side Distributed Antenna Component (210);

wherein the controller (50) is configured to select first resources, wherein a first portion of the first resources characterizes settings of the first frontend

communication signal (21a_1) and of the corresponding first backend communication signal (101a_1) or of the inter-backend communication signal (103), taking into account data rate requirements and/or data rate capabilities of the first and the second user equipment (20, 20a, 20b) and/or of the first base station network group (100a, 100b), and/or such that the first frontend communication signals (21a_1, 21b_1) of the first user equipment (20, 20a) are distinguishable from other signals and/or such that transmission losses caused by interferences within the first frontend communication signal (21a_1, 21b_1) of the first user equipment (20, 20a) are reduced;

wherein the controller is configured to select first and second resources based on an evaluation of CSI-data indicating a signal strength at one of the user equipments being connected the controller or based on a channel measurement performed by the controller or based on a signal strength and noise or interference level of one of the user equipments.

22. The controller according to claim 21, wherein the Shared User Equipment-Side Distributed Antenna Component (210, 220) and/or the Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) are formed by an user equipment (20, 20a, 20b).

23. The controller according to claim 21, wherein the controller (50) is configured to select the first resources such that the first user equipment (20, 20a) communicates via the first frontend communication signal (21a_1) with a further user equipment forming the first Shared User Equipment-Side Distributed Antenna Component (210) in order to operate in a device-to-device operation mode.

24. A method for controlling a Shared User Equipment-Side Distributed Antenna system (200), the Shared User Equipment-Side Distributed Antenna system (200) comprising a first base station network group (100'), at least a first Shared User Equipment-Side Distributed Antenna Component (210, 220) and at least a first Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) as well as a first user equipment (20, 20a),

wherein each Shared User Equipment-Side Distributed Antenna Component (210, 220) is configured to use ultra-high frequency in order to transmit at least one

backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) to the first base station network group (100a, 100b) or at least one inter-backend communication signal (103) to the Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) and to use extremely-high frequency in order to transmit at least one frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) to the first user equipment (20, 20a) and to forward a payload signal received via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) or received via the inter-backend communication signal (103) and to be transmitted via the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) while frequency converting the ultra-high frequency to the extremely-high frequency and to forward the payload signal received via the frontend communication signal (21a_1, 21a_2, 21b_1, 21b_2) and to be transmitted via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) or to be transmitted via the inter-backend communication signal (103) while frequency converting the extremely-high frequency to the ultra-high frequency;

wherein each Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) is configured to use extremely-high frequency in order to transmit at least one frontend communication signal (22) to the first base station network group (100') and to use ultra-high frequency in order to transmit at least one inter-backend communication signal (103) to the first Shared User Equipment-Side Distributed Antenna Component (210, 220) or in order to transmit at least one backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) to the first user equipment (20, 20a) and to forward a payload signal received via the frontend communication signal (22) and to be transmitted via the inter-backend communication signal (103) or via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) while frequency converting the extremely-high frequency to the ultra-high frequency and to forward the payload signal received via the inter-backend communication signal (103) or received via the backend communication signal (101a_1, 101a_2, 101b_1, 101b_2) and to be transmitted via the frontend communication signal (22) while frequency converting the ultra-high frequency to the extremely-high frequency;

wherein the first user equipment (20, 20a) is configured to communicate via a first direct communication signal (101) with the first base station group directly or via a first frontend communication signal (21a_1) with the first Shared User Equipment-

Side Distributed Antenna Component (210), wherein the first frontend communication signal (21a_1) is converted to a first backend communication signal (101a_1) used for communication with the first base station network group (100a) by the first Shared User Equipment-Side Distributed Antenna Component (210); and/or wherein the first frontend communication signal (21a_1) is converted to a first inter-backend communication signal (101a_1) used for communication with the first base station network group (100a) via the Base Station Shared User Equipment-Side Distributed Antenna Component (260, 270) by the first Shared User Equipment-Side Distributed Antenna Component (210);

the method comprising the steps:

selecting first resources, wherein a first portion of the first resources characterizes settings of the first frontend communication signal (21a_1) and of the corresponding first backend communication signal (101a_1) or of the inter-backend communication signal (103) ,

taking into account data rate requirements and/or data rate capabilities of the first and the second user equipment (20, 20a, 20b) and/or of the first base station network group (100a, 100b), and/or such that the first frontend communication signals (21a_1, 21b_1) of the first user equipment (20, 20a) are distinguishable from other signals and/or such that transmission losses caused by interferences within the first frontend communication signal (21a_1, 21b_1) of the first user equipment (20, 20a) are reduced;

wherein the selection of the first and second resources is based on an evaluation of CSI-data indicating a signal strength at one of the user equipments being connected the controller or based on a channel measurement performed by the controller or based on a signal strength and noise or interference level of one of the user equipments.