CLAIMS:

1. A beamformer device (110), configured to:

transmit a request to a beamformee device (120), the request comprising a set of sounding tone indices, the set of sounding tone indices indicating tones for which a report (121) of beamforming information is requested from the beamformee device (120), wherein the tones are defined according to a first WiFi scheme,

wherein the set of sounding tone indices is based on a first tone plan (400) defined by the first WiFi scheme for a partial channel bandwidth and on a second tone plan (200) defined by a second WiFi scheme for a full channel bandwidth, wherein the partial channel bandwidth is any subset of the full channel bandwidth,

wherein the sounding tone indices are based on a reuse of the sounding tone indices (1100, 1200) defined for resource units of the second tone plan (200) and a definition which resource units of the second tone plan (200) correspond to resource units of the first tone plan (400).

2. The beamformer device (110) of claim 1,

wherein the first WiFi scheme is 802.11be WiFi, and

wherein the second WiFi scheme is 802.11ax WiFi.

3. The beamformer device (110) of claim 1 or 2,

wherein the first WiFi scheme is supporting channel bandwidths of 80 MHz, 160 MHz, 80 + 80 MHz, 240 MHz and 320 MHz.

4. The beamformer device (110) of one of the preceding claims,

wherein the second WiFi scheme is supporting a channel bandwidth of 80 MHz.

5. The beamformer device (110) of one of the preceding claims,

wherein the full channel bandwidth is 80 MHz.

6. The beamformer device (110) of one of the preceding claims,

wherein the sounding tone indices are based on a new unified sounding index set (500, 600, 700) that comprises sounding tone indices for both, the first tone plan (400) for the partial channel bandwidth and the second tone plan (200) for the full channel bandwidth.

7. The beamformer device (110) of one of claims 1 to 5,

wherein the sounding tone indices are based on a new sounding index set (800, 900, 1000) for the partial channel bandwidth and additional center tones indices for the full channel bandwidth.

8. The beamformer device (110) of claim 6 or 7,

wherein the set of sounding tone indices for a channel bandwidth greater than the full channel bandwidth, in particular for a channel bandwidth of 160 MHz, 80 + 80 MHz, 240 MHz or 320 MHz, is based on a duplication of rules defined for the set of sounding tone indices within each segment of the full channel bandwidth.

9. The beamformer device (110) of one of the preceding claims,

wherein the request to the beamformee device (120) indicates a channel bandwidth,

wherein the indicated channel bandwidth is a full channel bandwidth defined for the first WiFi scheme.

10. The beamformer device (110) of claim 9,

wherein the indicated channel bandwidth is a full channel bandwidth of 80 MHz, 80 + 80 MHz, 160 MHz, 240 MHz, 320 MHz or any partial bandwidth thereof.

11. The beamformer device (110) of one of the preceding claims,

wherein the set of sounding tone indices is defined per channel bandwidth and per number of tones, Ng, in particular for Ng=4 and Ng=16.

12. A method (2800) for requesting beamforming information, the method comprising:

transmitting (2801), by a beamformer device (110), a request to a beamformee device, the request comprising a set of sounding tone indices, the set of sounding tone indices indicating tones for which a report of beamforming information is requested from the beamformee device, wherein the tones are defined according to a first WiFi scheme,

wherein the set of sounding tone indices is based on a first tone plan defined by the first WiFi scheme for a partial channel bandwidth and on a second tone plan defined by a second WiFi scheme for a full channel bandwidth, wherein the partial channel bandwidth is any subset of the full channel bandwidth;

wherein the sounding tone indices are based on a reuse of the sounding tone indices (1100, 1200) defined for resource units of the second tone plan (200) and a definition which resource units of the second tone plan (200) correspond to resource units of the first tone plan (400); and

receiving (2802) the report of beamforming information from the beamformee device based on the set of sounding tone indices.

13. A beamformee device (120), configured to:

transmit a report (121) of beamforming information to a beamformer device (110) based on a set of sounding tone indices received from the beamformer device (110),

wherein the set of sounding tone indices are indicating tones for which a report of beamforming information is requested from the beamformee device (120), wherein the tones are defined according to a first WiFi scheme,

wherein the set of sounding tone indices is based on a first tone plan defined by the first WiFi scheme for a partial channel bandwidth and on a second tone plan defined by a second WiFi scheme for

a full channel bandwidth, wherein the partial channel bandwidth is any subset of the full channel bandwidth,

wherein the sounding tone indices are based on a reuse of the sounding tone indices (1100, 1200) defined for resource units of the second tone plan (200) and a definition which resource units of the second tone plan (200) correspond to resource units of the first tone plan (400).