CLAIMS

1. A method of wireless communication by a base station, comprising:

determining a synchronization signal (SS) index for a SS block, the SS block comprising a plurality of synchronization signals multiplexed for transmission on predetermined resources;

generating a first SS of the plurality of synchronization signals using the SS index;

frequency division multiplexing the first SS with at least a second synchronization signal (SSS) of the SS block, wherein the SSS comprises a secondary synchronization signal that carries information about a physical layer cell identity group number for the base station; and

transmitting the SS block including the first SS generated using the SS index frequency division multiplexed with the SSS on the predetermined resources, wherein the first SS is frequency division multiplexed with the SSS in at least one OFDM symbol, and wherein the SS index is conveyed using a shift of a pseudo-noise (PN) sequence of the first SS.

2. The method of claim 1, wherein the first SS comprises a demodulation reference signal for a physical broadcast channel (PBCH) of the SS block.

3. A method of wireless communication by a user equipment (UE), comprising:

receiving a synchronization signal (SS) block with a first SS comprising a SS index for the SS block frequency division multiplexed with a second synchronization signal (SSS) on predetermined resources, wherein the SSS comprises a secondary synchronization signal that carries information about a physical layer cell identity group number for a base station, wherein the first SS is frequency division multiplexed with the SSS in at least one OFDM symbol;

demultiplexing the first SS and the SSS and obtaining the SS index and the information about the physical layer cell identity group number for the base station, wherein the SS index is conveyed using a shift of a pseudo-noise (PN) sequence of the first SS; and

communicating with the base station based on information obtained from the SS block.

4. The method of claim 3, wherein the first SS comprises a demodulation reference signal for a physical broadcast channel (PBCH) of the SS block.

5. An apparatus for wireless communication, comprising:

means for determining a synchronization signal (SS) index for a SS block, the SS block comprising a plurality of synchronization signals multiplexed for transmission on predetermined resources;

means for generating a first SS of the plurality of synchronization signals using the SS index;

means for frequency division multiplexing the first SS with at least a second synchronization signal (SSS) of the SS block, wherein the SSS comprises a secondary synchronization signal that carries information about a physical layer cell identity group number for the apparatus; and

means for transmitting the SS block including the first SS generated using the SS index frequency division multiplexed with the SSS on the predetermined resources, wherein the first SS is frequency division multiplexed with the SSS in at least one OFDM symbol, and wherein the SS index is conveyed using a shift of a pseudo-noise (PN) sequence of the first SS.

6. The apparatus of claim 5, wherein the first SS comprises a demodulation reference signal for a physical broadcast channel (PBCH) of the synchronization block.

7. An apparatus for wireless communication, comprising:

means for receiving a synchronization signal (SS) block with a first SS comprising a SS index for the SS block frequency division multiplexed with a second synchronization signal (SSS) on predetermined resources, wherein the SSS comprises a secondary synchronization signal that carries information about a physical layer cell identity group number for a base station, wherein the first SS is frequency division multiplexed with the SSS in at least one OFDM symbol;

means for demultiplexing the first SS and the SSS and obtaining the SS index and the information about the physical layer cell identity group number for the base station, wherein the SS index is conveyed using a shift of a pseudo-noise (PN) sequence of the first SS; and

means for communicating with the base station based on information obtained for the SS block.

8. The apparatus of claim 7, wherein the first SS comprises a demodulation reference signal for a physical broadcast channel (PBCH) of the SS block.

9. The method of claim 1, wherein the SS block further comprises at least one OFDM symbol in which the first SS is sent and the SSS is not sent.

10. The method of claim 3, wherein the SS block further comprises at least one OFDM symbol in which the first SS is sent and the SSS is not sent.

11. The apparatus of claim 5, wherein the SS block further comprises at least one OFDM symbol in which the first SS is sent and the SSS is not sent.

12. The apparatus of claim 7, wherein the SS block further comprises at least one OFDM symbol in which the first SS is sent and the SSS is not sent.

13. The method of claim 3, wherein communicating with the base station includes communicating with the base station based on the SS index obtained for the SS block.

14. The apparatus of claim 7, wherein the means for communicating with the base station communicate with the base station based on the SS index obtained for the SS block.