

CLAIMS

1. A method for a wireless transmit/receive unit (WTRU), the method comprising:
receiving a transmission including at least a synchronization signal, the received transmission having a first subcarrier spacing based on a frequency region of the received transmission; and
determining frequency resources and a second subcarrier spacing based on the received transmission; and
monitoring for a system information block (SIB) using the determined frequency resources and second subcarrier spacing.
2. The method of claim 1, further comprising monitoring on a control channel transmission using the determined frequency resources and second subcarrier spacing.
3. The method of claim 1, wherein a master information block has a same subcarrier spacing as the synchronization signal.
4. The method of claim 1, wherein the synchronization signal includes a primary synchronization signal and a secondary synchronization signal.
5. The method of claim 1, wherein blind detection is used to detect the synchronization signal using a predetermined set of resources.
6. The method of claim 1, further comprising receiving using radio resource control signaling information related to boundaries between different subcarrier spacings.

7. A wireless transmit/receive unit (WTRU) comprising:
a receiver and a processor configured to receive a transmission including at least a synchronization signal, the received transmission having a first subcarrier spacing based on a frequency region of the received transmission; and
the processor configured, based on the received transmission, to determine frequency resources and a second subcarrier spacing; and
the receiver and the processor configured to monitor for a system information block (SIB) using the determined frequency resources and second subcarrier spacing.
8. The WTRU of claim 7 wherein, the receiver and the processor are further configured to perform the monitoring on a control channel transmission using the determined frequency resources and second subcarrier spacing.
9. The WTRU of claim 7, wherein a master information block has a same subcarrier spacing as the synchronization signal.
10. The WTRU of claim 7, wherein the synchronization signal includes a primary synchronization signal and a secondary synchronization signal.
11. The WTRU of claim 7, wherein the receiver and the processor use blind detection to detect the synchronization signal using a predetermined set of resources.
12. The WTRU of claim 7, wherein the receiver and the processor are configured to receive using radio resource control signaling information related to boundaries between different subcarrier spacing.

13. A base station comprising:

a transmitter and a processor configured to transmit a transmission including at least a synchronization signal, the transmission having subcarrier spacing selected from a first subcarrier spacing based on a frequency region of the transmission, wherein a master information block has a same subcarrier spacing as the synchronization signal; and

the transmitter and the processor configured to transmit a control channel, wherein frequency resources and a second subcarrier spacing for the control channel are determinable from the transmission.

14. The base station of claim 13, wherein the synchronization signal includes a primary synchronization signal and a secondary synchronization signal.

15. The base station of claim 13, wherein the transmitter and the processor are configured to transmit using radio resource control signaling information related to boundaries between different subcarrier spacings used by the base station.