

CLAIMS

1. A transmission time indication method for unlicensed band, applied to a network device, and comprising:

listening channel state; and

when the channel state is idle, indicating first channel occupancy time (COT) information, wherein the first COT information is used to indicate a remaining COT of the network device, and the remaining COT is remaining channel occupancy time calculated from a slot indicating the first COT information.

2. The method according to claim 1, wherein the indicating first channel occupancy time (COT) information comprises:

indicating the first COT information in a first slot, a first partial slot or a first mini-slot for transmission.

3. The method according to claim 2, wherein after the indicating the first COT information in a first slot, a first partial slot or a first mini-slot for transmission, the indicating the first channel occupancy time COT information further comprises:

indicating first COT information periodically;

wherein a unit of a period for indicating the first COT information is millisecond, subframe or slot.

4. The method according to claim 3, wherein the period comprises at least one slot, and the first COT information is located in any slot in the period.

5. The method according to claim 4, wherein if the total channel occupancy time of a network device increases, the first COT information indicated in the next period is obtained based on the first COT information indicated in the previous period and the increased channel occupancy time.

6. The method according to claim 1, wherein a unit of the remaining COT is millisecond, subframe, slot, mini-slot or symbol;

wherein the remaining COT is a value obtained by rounding up the actual remaining time in the unit of the remaining COT; or the remaining COT is a value obtained by rounding down the actual remaining time in the unit of the remaining COT.

7. The method according to claim 1, wherein the first COT information is carried by an initial signal, downlink control information (DCI) or sequence;

wherein the initial signal is carried by physical downlink control channel (PDCCH), or the initial signal is located in the first preset location in the domain of the PDCCH, or, the sequence is located in the second preset location in the domain of the PDCCH.

8. The method according to claim 1, wherein before listening channel state, the method further comprises:

when second COT information is received, determining a COT ending time of neighbor cell network device based on the second COT information, the COT ending time is used to determine the time for listening channel state, the second COT information is sent by the neighbor cell network device, and the second COT information is used to indicate the remaining COT of the neighbor cell network device.

9. The method according to claim 8, wherein the listening channel state comprises:

listening the channel state from the COT end; or

listening the channel state from the previous slot/subframe prior to the COT ending time.

10. A transmission time indication method for unlicensed band, applied to a terminal, and comprising:

receiving first channel occupancy time (COT) information, wherein the first COT information is used to indicate a remaining COT, and the remaining COT is remaining channel occupancy time calculated from a slot indicating the first COT information; and

performing physical downlink control channel (PDCCH) blind detection within the remaining COT.

11. The method according to claim 10, wherein the receiving first channel occupancy time COT information comprises:

receiving the first COT information in a first slot, a first partial slot or a first mini-slot for transmission.

12. The method according to claim 11, after the receiving the first COT information in a first slot, a first partial slot or a first mini-slot for transmission, the receiving first channel occupancy time COT information further comprises:

receiving first COT information periodically;

wherein a unit of a period for receiving the first COT information is millisecond, subframe or slot.

13. The method according to claim 12, wherein the period comprises at least one slot, and the first COT information is located in any slot in the period.

14. The method according to claim 10, wherein a unit of the remaining COT is millisecond, subframe, slot, mini-slot or symbol;

wherein the remaining COT is a value obtained by rounding up the actual remaining time in the unit of the remaining COT; or the remaining COT is a value obtained by rounding down the actual remaining time in the unit of the remaining COT.

15. The method according to claim 10, wherein the first COT information is carried by an initial signal, downlink control information (DCI) or a sequence;

wherein the initial signal is carried by physical downlink control channel (PDCCH), or the initial signal is located in a first preset location in the domain of the PDCCH, or, the sequence is located in a second preset location in the domain of the PDCCH.

16. A network device, comprising:

a listening module, configured to listen channel state;

a sending module, configured to indicate first channel occupancy time (COT) information when the channel state is idle, wherein the first COT information is used to indicate a remaining COT of the network device, and the remaining COT is remaining channel occupancy time calculated from a slot indicating the first COT information.

17. A terminal, comprising:

a receiving module, configured to receive first COT information, wherein the first COT information is used to indicate a remaining COT, and the remaining COT is remaining channel occupancy time calculated from a slot indicating the first COT information; and

a detection module, configured to perform physical downlink control channel (PDCCH) blind detection within the remaining COT.

18. A network device, comprising: a memory, a processor and a program stored in the memory and executable on the processor, wherein when the program is executed by the processor, the steps of the transmission time indication method for unlicensed band according to any one of claims 1 to 9 are performed.

19. A terminal, comprising: a memory, a processor and a program stored in the memory and executable on the processor, wherein when the program is executed by the processor, the steps of the transmission time indication method for unlicensed band according to any one of claims 10 to 15 are performed.

20. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, the steps of the transmission time indication method for unlicensed band according to any one of claims 1 to 9 are performed, or when the computer program is executed by a processor, the steps of the transmission time indication method for unlicensed band according to any one of claims 10 to 15 are performed.