

CLAIMS

What is claimed is:

1. A channel access method for a multi-link device, comprising:
performing, by the multi-link device, first channel contention on a first link, wherein an initial value of a backoff counter in the first channel contention is determined based on a first value of a contention window; and
performing, by the multi-link device, second channel contention on the first link when a value of the backoff counter becomes 0 in the first channel contention and transmission is not performed on the first link, wherein an initial value of the backoff counter in the second channel contention is determined based on a second value of the contention window, and the second value of the contention window is equal to the first value of the contention window, or the second value of the contention window is equal to a minimum value of the contention window,
wherein simultaneous transmit and receive (STR) is not supported between the first link and the second link.
2. The method according to claim 1, wherein that transmission is not performed on the first link comprises: when a time for which the first link waits for channel contention on a second link exceeds a preset time, a state of the second link is a busy state.
3. The method according to claim 1, wherein that transmission is not performed on the first link comprises: after the value of the backoff counter becomes 0 in the first channel contention, a length of a data packet received by the multi-link device on a second link exceeds a preset time.
4. The method according to any one of claims 1 to 3, wherein before the performing, by the multi-link device, second channel contention on the first link, the method further comprises:
detecting, by the multi-link device, a state of the first link in a first time period; and
if the state of the first link in the first time period is an idle state, determining, by the multi-link device, the first value of the contention window as the second value, or determining the second value of the contention window as the minimum value of the contention window.
5. The method according to any one of claims 1 to 4, wherein before the performing, by the multi-link device, second channel contention on the first link, the method further comprises:
performing, by the multi-link device, channel contention on the second link, and detecting a state of the first link when a value of a backoff counter becomes 0 in the channel contention;
suspending, by the multi-link device, the second link if the state of the first link is a busy state;
and
when the state of the first link changes from the busy state to the idle state, triggering the multi-link device to perform the second channel contention on the first link.
6. The method according to claim 5, wherein after the performing, by the multi-link device,

second channel contention on the first link, the method further comprises:

detecting, by the multi-link device, a state of the second link when a value of the backoff counter becomes 0 in the second channel contention; and

transmitting, by the multi-link device, data in parallel on the first link and the second link if the state of the second link is an idle state.

7. The method according to any one of claims 1 to 4, wherein before the performing, by the multi-link device, second channel contention on the first link, the method further comprises:

performing, by the multi-link device, channel contention on the second link, and detecting a state of the first link when a value of the backoff counter becomes 0 in the channel contention; and

transmitting, by the multi-link device, data on the second link if the state of the first link is a busy state.

8. A communication apparatus, comprising at least one processor and a memory storing computer instructions that when executed by the at least one processor, cause the apparatus to perform the method described in any one of claims 1 to 7.

9. A computer-readable storage medium, wherein the computer-readable storage medium stores instructions, and when the instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 7.

10. A computer program product comprising instructions, wherein when the instructions are run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 7.