CLAIMS

1. A method for transmitting an uplink signal, wherein the method comprises:

receiving, by a terminal device, uplink grant information transmitted by a network device, wherein the uplink grant information is used to instruct the terminal device to transmit a first uplink channel in a first sub-slot and to transmit a second uplink channel in a second sub-slot, wherein the first uplink channel comprises uplink data and does not comprise a reference signal, the second uplink channel comprises a reference signal and does not comprise uplink data, the first sub-slot and the second sub-slot are adjacent sub-slots on a first carrier, the first sub-slot is located previous to the second sub-slot, and the reference signal comprised in the second uplink channel is used to demodulate the uplink data comprised in the first uplink channel;

if the terminal device is to transmit at least two uplink channel in the first sub-slot and the total transmitting power of the at least two uplink channel exceeds a maximum transmitting power of the terminal device, determining, by the terminal device, whether to transmit the first uplink channel in the first sub-slot according to a priority of uplink channel, wherein the priority of uplink channel from low to high comprises:

an uplink channel without Hybrid Automatic Repeat request-Acknowledgement HARQ-ACK on a subframe;

an uplink channel without HARQ-ACK in a slot;

an uplink channel without HARQ-ACK without reference signal in a sub-slot;

an uplink channel without HARQ-ACK with reference signal in a sub-slot;

an uplink channel with HARQ-ACK on a subframe;

an uplink channel with HARQ-ACK in a slot;

an uplink channel with HARQ-ACK in a sub-slot;

wherein if the first uplink channel does not comprise the HARQ-ACK, determining, by the terminal device, whether to transmit the first uplink channel in the first sub-slot according to the priority of uplink channel without HARQ-ACK with reference signal in a sub-slot.

2. The method according to claim 1, wherein if the terminal device determines, according to the priority of uplink channel, to transmit the first uplink channel in the first sub-slot, the method further comprising:

if the first uplink channel does not comprise the HARQ-ACK, determining, by the terminal device, whether to transmit the second uplink channel in the second sub-slot according to the priority of uplink channel without HARQ-ACK with reference signal in a sub-slot; or

if the first uplink channel comprises the HARQ-ACK, determining, by the terminal device, whether to transmit the second uplink channel in the second sub-slot according to the priority of uplink channel with HARQ-ACK in a sub-slot.

3. The method according to claim 1, wherein if the terminal device determines, according to the priority of uplink channel, not to transmit the first uplink channel in the first sub-slot, the method further comprising:

not transmitting, by the terminal device, the second uplink channel in the second sub-slot.

4. The method according to any one of claims 1 to 3, wherein in the case that whether the uplink channel comprises the HARQ-ACK and whether the uplink channel comprises the reference signal has same situation, a priority of uplink channel transmitted on a second carrier is lower than a priority of uplink channel transmitted on the first carrier,

wherein the first carrier is a carrier in a primary physical uplink control channel PUCCH group configured for the terminal device, and the second carrier is a carrier in a secondary PUCCH group configured for the terminal device.

5. The method according to any one of claims 1 to 3, wherein the terminal device has a capability of uplink channel concurrent transmission for different time lengths, and is configured to be able to perform the uplink channel concurrent transmission for different time lengths.

6. A terminal device, comprising:

a receiving unit, configured to receive uplink grant information transmitted by a network device, and the uplink grant information is used to instruct the terminal device to transmit a first uplink channel in a first sub-slot and to transmit a second uplink channel in a second sub-slot, wherein the first uplink channel comprises uplink data and does not comprise a reference signal, the second uplink channel comprises a reference signal and does not comprise uplink data, the first sub-slot and the second sub-slot are adjacent sub-slots on a first carrier, the first sub-slot is located previous to the second sub-slot, and the reference signal comprised in the second uplink channel is used to demodulate the first uplink data comprised in the first uplink channel;

a determining unit, configured to, if the terminal device is to transmit at least two uplink channel in the first sub-slot and the total transmitting power of the at least two uplink channel exceeds a maximum transmitting power of the terminal device, determine, according to a priority of uplink channel, whether to transmit the first uplink channel in the first sub-slot, wherein the priority of uplink channel from low to high comprises:

an uplink channel without Hybrid Automatic Repeat request-Acknowledgement HARQ-ACK on a subframe;

an uplink channel without HARQ-ACK in a slot;

an uplink channel without HARQ-ACK without reference signal in a sub-slot;

an uplink channel without HARQ-ACK with reference signal in a sub-slot;

an uplink channel with HARQ-ACK on a subframe;

an uplink channel with HARQ-ACK in a slot;

an uplink channel with HARQ-ACK in a sub-slot.

wherein the determining unit is specifically configured to: if the first uplink channel does not comprise the HARQ-ACK, determining, by the terminal device, whether to transmit the first uplink channel in the first sub-slot according to the priority of uplink channel without HARQ-ACK with reference signal in a sub-slot.

7. The terminal device according to claim 6, wherein if determining, according to a priority of uplink channel, to transmit the first uplink channel in the first sub-slot, the determining unit is further configured to:

if the first uplink channel does not comprise the HARQ-ACK, determine whether to transmit the second uplink channel in the second sub-slot according to the priority of uplink channel without HARQ-ACK with reference signal in a sub-slot; or

if the first uplink channel comprises the HARQ-ACK, determining, by the terminal device, whether to transmit the second uplink channel in the second sub-slot according to the priority of uplink channel with HARQ-ACK in a sub-slot.

8. The terminal device according to claim 6, wherein if the terminal device determines, according to the priority of uplink channel, not to transmit the first uplink channel in the first sub-slot, the determining unit is further configured to:

not transmit the second uplink channel in the second sub-slot.

9. The terminal device according to any one of claims 6 to 8, wherein, in the case that whether the uplink channel comprises the HARQ-ACK and whether the uplink channel comprises the reference signal has same situation, a priority of uplink channel transmitted on a second carrier is lower than a priority of uplink channel transmitted on the first carrier,

wherein the first carrier is a carrier in a primary physical uplink control channel PUCCH group configured for the terminal device, and the second carrier is a carrier in a secondary PUCCH group configured for the terminal device.

10. The terminal device according to any one of claims 6 to 8, wherein the terminal device has a capability of uplink channel concurrent transmission for different time lengths, and is configured to be able to perform the uplink channel concurrent transmission for different time lengths.

11. A terminal device, wherein the terminal device comprises a processor for calling instructions stored in a memory to perform the method according to any one of claims 1 to 5.

12. A computer readable storage medium having a computer program stored thereon, wherein when the computer program is executed by a computing device, implementing the method according to any one of claims 1 to 5.

13. A chip, wherein the chip comprises a processor that may call and run a computer program from a memory to enable a device on which the chip is mounted to perform the method for transmitting an uplink signal according to any one of claims 1 to 5.