WHAT IS CLAIMED IS:

1. A method for beam application, performed by a terminal device, the method comprising:

receiving downlink control information (DCI) from a network device, wherein the DCI comprises a unified transmission configuration indication (TCI) state; and

determining at least one of a beam application time for uplink (UL) transmission and/or a beam application time for downlink (DL) transmission corresponding to the unified TCI state;

wherein at least one of the beam application time for UL transmission or the beam application time for DL transmission is after a transmission time of a hybrid automatic repeat request (HARQ) acknowledgment character (ACK) feedback for the DCI, with a plurality of symbols therebetween;

wherein when the DCI and at least one of the UL transmission or DL transmission correspond to a component carrier of a same carrier; or the DCI and at least one of the UL transmission or DL transmission correspond to component carriers of different carriers, and a subcarrier space (SCS) corresponding to the DCI is greater than or equal to at least one of a SCS of the UL transmission or a SCS of the DL transmission;

wherein the plurality of symbols are at least one of:

a first number of symbols determined based on the SCS of the DL transmission, wherein the beam application time is the beam application time for DL transmission;

a second number of symbols determined based on the SCS of the UL transmission, wherein the beam application time is the beam application time for UL transmission; or

a third number of symbols determined based on the SCS of the UL transmission or the SCS of the DL transmission, wherein the beam application time is the beam application time for UL transmission and DL transmission.

2. The method according to claim 1, wherein when the DCI and at least one of the UL transmission or the DL transmission correspond to component carriers of different carriers, and the SCS corresponding to the DCI is smaller than at least one of the SCS of the UL transmission or the SCS of the DL transmission, the plurality of symbols comprise at least one of:

a fourth number of symbols and a fifth number of symbols, wherein the fourth number of symbols are determined based on the SCS of the DL transmission, the fifth number of symbols are determined based on the SCS of the DCI and a SCS of the DL transmission, and the beam application time is the beam application time for DL transmission;

a sixth number of symbols and a seventh number of symbols, wherein the sixth number of symbols are determined based on the SCS of the UL transmission, the seventh number of symbols are determined based on the SCS of the DCI and the SCS of the UL transmission, and the beam application time is the beam application time for UL transmission;or

an eighth number of symbols and a ninth number of symbols, wherein the eighth number of symbols are determined based on the SCS of the UL transmission, the ninth number of symbols are determined based on the SCS of the DCI and the SCS of the UL transmission; or the eighth number of symbols are determined based on the SCS of the DL transmission, the ninth number of symbols are determined based on the SCS of the DCI and

the SCS of the DL transmission; wherein the beam application time is the beam application time for UL transmission and DL transmission.

3. The method according to claim 1, wherein

the DL transmission comprises at least one of a DL channel or a DL reference signal,

the DL channel comprises at least one of: a physical downlink control channel (PDCCH), a physical downlink shared channel (PDSCH), or a physical broadcast channel (PBCH), and

the DL reference signal comprises at least one of: a synchronization signal block (SSB), a channel state information reference signal (CSI-RS), a demodulation reference signal (DMRS), or a positioning reference signal (PRS).

4. The method according to claim 1, wherein

the UL transmission comprises at least one of a UL channel or a UL reference signal,

the UL channel comprises at least one of: a physical uplink shared channel (PUSCH), a physical uplink control channel (PUCCH), or a physical random access channel (PRACH), and

the UL reference signal comprises at least one of: a sounding reference signal (SRS), or a demodulation reference signal (DMRS).

5. The method according to claim 1, wherein different component carriers corresponding to the DCI and at least one of the UL transmission or the DL transmission comprise:

different component carriers corresponding to different serving cells, or

different component carriers corresponding to serving cells and non-serving cells.

6. A method for beam application, performed by a network device, the method comprising:

sending downlink control information (DCI) to a terminal device, wherein the DCI comprises a unified transmission configuration indication (TCI) state; and

applying a beam according to the DCI;

wherein the DCI is configured to determine at least one of a beam application time for uplink (UL) transmission or a beam application time for downlink (DL) transmission corresponding to the unified TCI state;

wherein at least one of the beam application time for UL transmission or the beam application time for DL transmission is after a transmission time of a hybrid automatic repeat request (HARQ) acknowledgment character (ACK) feedback for the DCI, with a plurality of symbols therebetween.;

wherein when the DCI and at least one of the UL transmission or DL transmission correspond to a component carrier of a same carrier; or the DCI and at least one of the UL transmission or DL transmission correspond to component carriers of different carriers, and a subcarrier space (SCS) corresponding to the DCI is greater than or equal to at least one of a SCS of the UL transmission or a SCS of the DL transmission;

wherein the plurality of symbols are at least one of:

a first number of symbols determined based on the SCS of the DL transmission, wherein the beam application time is the beam application time for DL transmission;

a second number of symbols determined based on the SCS of the UL transmission, wherein the beam application time is the beam application time for UL transmission; or

a third number of symbols determined based on the SCS of the UL transmission or the SCS of the DL transmission, wherein the beam application time is the beam application time for UL transmission and DL transmission.

7. A communication device, comprising: a processor and a memory storing computer programs that when executed by the processor, cause the communication device to perform the method according to any one of claims 1 to 5.

8. A communication device, comprising: a processor and a memory storing computer programs that when executed by the processor, cause the communication device to perform the method according to claim 6.