What is claimed is:

1. A channel measurement method, comprising:

separately determining, by each first device, a first mask sequence, and transforming, by the first device, the first mask sequence to obtain a second mask sequence, and processing, by the first device, a first measurement sequence with the second mask sequence to obtain a second measurement sequence, wherein the first mask sequence corresponds to the first device; and

carrying, by the first device, the second measurement sequence in a channel measurement frame, and sending, by the first device, the channel measurement frame to at least one second device ~~for channel measurement~~.

2. The method according to claim 1, wherein the first mask sequence separately determined by the first device comprise:

a first mask sequence determined through mutual negotiation between first devices; or

a first mask sequence assigned by one of the first devices; or

a first mask sequence assigned by a third device.

3. The method of claim 1, wherein the transforming the first mask sequence to obtain the second mask sequence comprises:

selecting and extending a subsequence of the first mask sequence to generate the second mask sequence; wherein at least one subsequence is selected.

4. The method according to claim 3, wherein a plurality of subsequences of a same length are selected, and the number of the plurality of subsequences is less than or equal to the number of non-zero elements in the first measurement sequence; and, an intersection of the plurality of subsequences is an empty set, and a union of the plurality of subsequences is the first mask sequence.

5. The method of claim 3, wherein the number of the second mask sequence equals to the number of the subsequence.

6. The method according to any one of claims 3 to 5, wherein the selecting and

extending the subsequence of the first mask sequence to generate the second mask sequence comprises:

~~for one subsequence,~~ in a case where a length of the subsequence is N, the number of non-zero elements in the first measurement sequence is M, ~~and~~ the quotient of M divided by N is an integer K, ~~repeating the subsequence K times in a relationship to generate the corresponding second mask sequence; wherein the relationship comprises an equality relationship or a multiple relationship~~ and the remainder Z of M divided by N is zero, the second mask sequence encompasses K repetitions of the subsequence; and

in a case where the length of the subsequence is N, the number of non-zero elements in the first measurement sequence is M, ~~and~~ the quotient of M divided by N is an integer K ~~and a remainder Z, repeating the subsequence K times in the relationship, and complementing remaining Z digits with first Z digits of the subsequence; and performing zero padding on the subsequence after the repeating for K times so that the subsequence after zero padding has a length equal to the first measurement sequence, and a position of zero in the subsequence after zero padding corresponds to a position of zero in the first measurement sequence~~ and the remainder Z of M divided by N is greater than zero, the second mask sequence encompasses K repetitions of the subsequence followed by the first Z elements of the subsequence.

7. The method according to claim 1, wherein first mask sequences ~~corresponding to first devices have a same length and are orthogonal to each other~~ are orthogonal and with a same length.

8. A channel measurement method, comprising:

performing channel measurement, by a second device, ~~inner product~~based on a third measurement sequence ~~with a first mask sequence, and extending a value of the inner product to obtain a channel measurement result between the second device and a corresponding~~ and a channel measurement frame from a first device, and ~~generate a feedback frame that is sent to the first device~~ sending measurement results back to the first device through a feedback frame;

wherein the third measurement sequence is ~~obtained by transforming from~~ a variant of a second measurement sequence ~~contained in a channel measurement frame received by the second device, and the channel measurement frame is formed from a~~

channel measurement frame sent from the first device passing through a channel.

9. The method according to claim 8, wherein a number of the second measurement sequence is the same as a number of a second mask sequence.

10. The method according to claim 8, wherein a second mask sequence is obtained by transforming from the first mask sequence, which comprises a process of: selecting and extending a subsequence of the first mask sequence to generate the corresponding second mask sequence; wherein at least one subsequence is selected; and

the third measurement sequence is obtained by transforming from the second measurement sequence, which comprises a process of:

combining specific subsequences in the second measurement sequence to form the third measurement sequence, wherein the specific subsequences have the same length as the subsequence of the first mask sequence, and have the same position as an extended position of the subsequence of the first mask sequence; and the third measurement sequence has the same length as the first mask sequence, and a number of the third measurement sequence and a number of non-zero elements in the first measurement sequence are related to the length of the selected subsequence of the first mask sequence.

11. The method according to claim 10, wherein the performing, by the second device, inner product on the third measurement sequence with the first mask sequence, and extending the value of the inner product to obtain the channel measurement result between the second device and the corresponding first device comprises:

setting a relationship between a measurement result of the position of the specific subsequences and the value of the inner product to obtain a channel measurement result between the second device and each first device; wherein the relationship comprises: an equality relationship or a linear function relationship.

12. The method according to claim 9, wherein the performing, by the second device, inner product on the third measurement sequence with the first mask sequence, and extending the value of the inner product to obtain the channel measurement result between the second device and each first device comprises:

performing, by the second device, Fourier transform on the channel measurement frame to obtain a frequency domain sequence of each symbol, combining, by means of a length of subsequence of the first mask sequence, frequency domains of symbols to obtain an estimation sequence of the same length as the first mask sequence, and controlling, according to an inner product of each estimation sequence and the first mask sequence of the corresponding first device, channel state information on a subcarrier where the estimation sequence is located to be equal to a value of the inner product.

~~13~~9. A channel measurement apparatus, comprising a processor and a storage, wherein the storage is configured to store a program which, when executed by the processor, causes the processor to:

~~an acquisition module configured to~~ determine a first mask sequence and transform the first mask sequence to obtain a second mask sequence, and mask a first measurement sequence with the second mask sequence to obtain a second measurement sequence; wherein the first mask sequence corresponds to the channel measurement apparatus; and

~~a transmitting module configured to~~ carry the second measurement sequence in each channel measurement frame, and send the channel measurement frame to at least one receiving device ~~for channel measurement~~.

~~14~~10. A channel measurement apparatus, comprising a processor and a storage, wherein the storage is configured to store a program which, when executed by the processor, causes the processor to perform the method of claim 8~~:~~

~~a measurement module configured to perform inner product on a third measurement sequence with a first mask sequence, and extend a value of the inner product to obtain a channel measurement result between the second device and a corresponding transmitting device, and generate a feedback frame that is sent to the transmitting device;~~

~~wherein the third measurement sequence is obtained by transforming from a second measurement sequence contained in a received channel measurement frame that is formed from a channel measurement frame sent from the transmitting device passing through a channel~~.

~~15~~11. An electronic device, comprising:

one or more processors; and

a storage storing one or more programs thereon which, when executed by the one or more processors, cause at least one operation of the channel measurement method according to any one of claims 1 to ~~12~~ 8 to be implemented.

~~16~~12. A computer-readable storage medium having a computer program stored thereon which, when executed by a processor, causes at least one operation of the channel measurement method according to any one of claims 1 to ~~12~~ 8 to be implemented.