WHAT IS CLAIMED IS:

1. An interference coordination method implemented in a base station, wherein the method comprises:

determining (S101) whether intra-device interference exists between uplink transmission and downlink transmission to be performed by user equipment (UE) in two frequency bands;

if it is determined that intra-device interference exists between the uplink transmission and downlink transmission to be performed by the UE in two frequency bands, stopping (S102) sending downlink transmission scheduling information of one frequency band to the UE, or sending (S102) a blank subframe or an almost blank subframe to the UE, in a time interval during which the UE is scheduled to send uplink transmission in at least one frequency band of the two frequency bands; or

stopping (S103) sending uplink transmission scheduling information of at least one frequency band in the two frequency bands to the UE in a time interval of sending downlink transmission scheduling information of one frequency band to the UE.

2. The method of claim 1, wherein if it is determined (S101) that intra-device interference exists between the uplink transmission and downlink transmission to be performed by the UE in two frequency bands, stopping (S102) sending downlink transmission scheduling information of one frequency band to the UE in a time interval during which the UE is scheduled to send uplink transmission in at least one frequency band of the two frequency bands, comprises:

stopping (S202) sending downlink transmission scheduling information of a second frequency band to the UE in a time interval during which the UE is scheduled to send uplink transmission in a first frequency band, if it is determined that a harmonic interference exists between the uplink transmission to be performed by the UE in the first frequency band and the downlink transmission to be performed by the UE in the second frequency band, wherein preferably the stopping (S103) sending the uplink transmission scheduling information of at least one frequency band in the two frequency bands to the UE in the time interval of sending downlink transmission scheduling information of one frequency band to the UE, comprises:

stopping (S203) sending the uplink transmission scheduling information of the first

frequency band to the UE in a time interval of sending downlink transmission scheduling information of the second frequency band to the UE,

or

if it is determined (S101) that intra-device interference exists between the uplink transmission and downlink transmission to be performed by the UE in two frequency bands, the stopping (S102) sending downlink transmission scheduling information of one frequency band to the UE in a time interval during which the UE is scheduled to send uplink transmission in at least one frequency band of the two frequency bands, comprises:

stopping (S204) sending downlink transmission scheduling information of a first frequency band to the UE in a time interval during which the UE is scheduled to send uplink transmission in the first frequency band and in a second frequency band simultaneously, after determining that an intermodulation interference exists between the uplink transmission of the UE both in the first frequency band and in the second frequency band and the downlink transmission of the UE in the first frequency band simultaneously, wherein preferably the stopping (S103) sending the uplink transmission scheduling information of at least one frequency band in the two frequency bands to the UE in the time interval of sending downlink transmission scheduling information of one frequency band to the UE, comprises:

stopping (S205) sending the scheduling information used by the UE to simultaneously send uplink transmission in the first frequency band and in the second frequency band to the UE in a time interval of sending downlink transmission scheduling information of the first frequency band to the UE.

3. The method of claim 1, wherein the method further comprises:

receiving (S401, S501) the interference withstand capability information reported by the UE before determining whether intra-device interference exists between uplink transmission and downlink transmission to be performed by the UE in two frequency bands;

the determining (S101) whether intra-device interference exists between uplink transmission and downlink transmission to be performed by the UE in two frequency bands comprising:

determining, according to the interference withstand capability information received and

the information of the UE accessing the network, whether intra-device interference exists between uplink transmission and downlink transmission to be performed by the UE in two frequency bands.

4. The method of claim 2, wherein the method further comprises:

sending (S403, S503) configuration information to the UE, after determining (S402) that a harmonic interference exists between the uplink transmission to be performed by the UE in the first frequency band and the downlink transmission to be performed by the UE in the second frequency band or determining (S502) that an intermodulation interference exists between the uplink transmission to be performed by the UE in the first frequency band and in the second frequency band and the downlink transmission in the first frequency band to be performed by the UE simultaneously, wherein the configuration information is used for instructing the UE to enable an interference coordination function,

wherein preferably the stopping (S203) sending the uplink transmission scheduling information of the first frequency band to the UE in the time interval of sending downlink transmission scheduling information of the second frequency band to the UE, comprises:

receiving a scheduling request for uplink transmission in the first frequency band sent by the UE, and sending the uplink transmission scheduling information of the first frequency band, after sending the downlink transmission scheduling information of the second frequency band to the UE,

or

wherein preferably the stopping (S205) sending the scheduling information used by the UE to send uplink transmission in the first frequency band and in the second frequency band to the UE in the time interval of sending downlink transmission scheduling information of the first frequency band to the UE, comprises:

receiving a scheduling request for uplink transmission in the first frequency band and in the second frequency band sent by the UE, and sending the uplink transmission scheduling information of the first frequency band and the second frequency band, after sending the downlink transmission scheduling information of the first frequency band to the UE.

5. An interference coordination method implemented in a user equipment (UE), wherein the method comprises:

receiving (S404, S504) configuration information sent by a base station, wherein the configuration information is sent after the base station determines that a harmonic interference exists between uplink transmission to be performed by the UE in a first frequency band and downlink transmission of the UE in a second frequency band, or that an intermodulation interference exists between the uplink transmission to be performed by the UE in the first frequency band and in the second frequency band and the downlink transmission in the first frequency band to be performed by the UE simultaneously; and

enabling (S404, S504) the interference coordination function according to the configuration information,

wherein the method further comprises:

either

stopping (S405) sending a scheduling request for the uplink transmission in the first frequency band to the base station in a time interval of receiving scheduling information of the downlink transmission in the second frequency band sent by the base station, after the interference coordination function is enabled according to the configuration information,

or

wherein the method further comprises:

stopping (S505) sending a scheduling request for the uplink transmission in the first frequency band and in the second frequency band to the base station in a time interval of receiving scheduling information of the downlink transmission in the first frequency band sent by the base station, after the interference coordination function is enabled according to the configuration information.

6. The method of claim 5, wherein the method further comprises:

reporting (S401, S501) interference withstand capability information of the UE to the base station before the process of receiving the configuration information sent by the base station is implemented, so that the base station determines whether the harmonic interference or the intermodulation interference exists according to the interference withstand capability

information and information of the UE accessing a network.

7. An interference coordination apparatus (1100) implemented in a base station, wherein the apparatus comprises:

a determining module (61), configured to determine whether intra-device interference exists between uplink transmission and downlink transmission to be performed by user equipment (UE) in two frequency bands;

a first coordination module (62), configured to stop sending downlink transmission scheduling information of one frequency band to the UE, or send a blank subframe or an almost blank subframe to the UE, in a time interval during which the UE is scheduled to send uplink transmission in at least one frequency band of the two frequency bands, if the determining module (61) determines that intra-device interference exists between the uplink transmission and downlink transmission to be performed by the UE in two frequency bands; or

a second coordination module (63), configured to stop sending uplink transmission scheduling information of at least one frequency band in the two frequency bands to the UE in a time interval of sending downlink transmission scheduling information of one frequency band to the UE, if the determining module (61) determines that intra-device interference exists between the uplink transmission and downlink transmission to be performed by the UE in two frequency bands.

8. The apparatus of claim 7, wherein the first coordination module (62) further comprises:

a first coordination submodule (621), configured to stop sending downlink transmission scheduling information of the second frequency band to the UE in a time interval during which the UE is scheduled to send uplink transmission in the first frequency band, if it is determined that the harmonic interference exists between the uplink transmission to be performed by the UE in the first frequency band and the downlink transmission to be performed by the UE in the second frequency band, wherein preferably the second coordination module (63) comprising:

a second coordination submodule (631), configured to stop sending the uplink transmission scheduling information of the first frequency band to the UE in a time interval of sending downlink transmission scheduling information of the second frequency band to the UE,

or

wherein the first coordination module (62) comprising:

a third coordination submodule (622), configured to stop sending downlink transmission scheduling information of the first frequency band to the UE in a time interval during which the UE is scheduled to send uplink transmission in the first frequency band and in the second frequency band simultaneously, if it is determined that the intermodulation interference exists between the uplink transmission to be performed by the UE both in the first frequency band and in the second frequency band and the downlink transmission to be performed by the UE in the first frequency band simultaneously, wherein preferably the second coordination module (63) comprising:

a fourth coordination submodule (632), configured to stop sending the scheduling information used by the UE to send uplink transmission in the first frequency band and in the second frequency band to the UE in a time interval of sending downlink transmission scheduling information of the first frequency band to the UE.

9. The apparatus of claim 7, wherein the apparatus further comprises:

a receiving module (64), configured to receive the interference withstand capability information reported by the UE before the determining module (61) determines whether intra-device interference exists between uplink transmission and downlink transmission to be performed by the UE in two frequency bands;

a determining module (61), configured to determine, according to the interference withstand capability information received and the information of the UE accessing the network, whether intra-device interference exists between uplink transmission and downlink transmission to be performed by the UE in two frequency bands.

10. The apparatus of any one of claims 8 to 9, wherein the apparatus further comprises:

a sending module (65), configured to send to the UE the configuration information used for instructing the UE to enable the interference coordination function, after the first coordination submodule (621) determines that the harmonic interference exists between the uplink transmission to be performed by the UE in the first frequency band and the downlink transmission to be performed by the UE in the second frequency band or the third coordination submodule (622) determines that the intermodulation interference exists between the uplink

transmission to be performed by the UE in the first frequency band and in the second frequency band and the downlink transmission in the first frequency band to be performed by the UE simultaneously,

wherein preferably a second coordination submodule (631) is configured to receive the scheduling request for uplink transmission in the first frequency band sent by the UE, and sending the uplink transmission scheduling information of the first frequency band, after sending the downlink transmission scheduling information of the second frequency band to the UE,

or

wherein preferably the fourth coordination submodule (632) is configured to receive the scheduling request for uplink transmission in the first frequency band and in the second frequency band sent by the UE, and sending the uplink transmission scheduling information of the first frequency band and the second frequency band, after sending the downlink transmission scheduling information of the first frequency band to the UE.

11. An interference coordination apparatus (1200) implemented in a user equipment (UE), wherein the apparatus comprises:

a receiving module (64, 91), configured to receive configuration information sent by a base station, wherein the configuration information is sent after the base station determines that a harmonic interference exists between uplink transmission to be performed by the UE in a first frequency band and downlink transmission to be performed by the UE in a second frequency band or that an intermodulation interference exists between the uplink transmission to be performed by the UE in the first frequency band and in the second frequency band and the downlink transmission in the first frequency band to be performed by the UE simultaneously;

an enabling module (92), configured to enable an interference coordination function according to the configuration information received by the receiving module (64),

wherein the apparatus further comprises:

a first coordination module (62), configured to stop sending the scheduling request for the uplink transmission in the first frequency band to the base station in the time interval of receiving the scheduling information of the downlink transmission in the second frequency

band sent by the base station, after the enabling module (92) enables the interference coordination function according to the configuration information,

or

wherein the apparatus further comprises:

a second coordination module (63), configured to stop sending the scheduling request for the uplink transmission in the first frequency band and in the second frequency band to the base station in the time interval of receiving the scheduling information of the downlink transmission in the first frequency band sent by the base station, after the enabling module (92) enables the interference coordination function according to the configuration information.

12. The apparatus of claim 11, wherein the apparatus further comprises:

a reporting module, configured to report the interference withstand capability information of the UE to the base station before the process of receiving the configuration information sent by the base station is implemented, so that the base station determines whether the harmonic interference or the intermodulation interference exists according to the interference withstand capability information and the information of the UE accessing the network.

13. A base station, comprising:

a processor;

a memory, used for storing instructions executable by the processor;

wherein the processor is configured to:

determine whether intra-device interference exists between uplink transmission and downlink transmission to be performed by user equipment (UE) in two frequency bands; and

if it is determined that intra-device interference exists between the uplink transmission and downlink transmission to be performed by the UE in two frequency bands, stop sending downlink transmission scheduling information of one frequency band to the UE, or sending a blank subframe or an almost blank subframe to the UE, in a time interval during which the UE is scheduled to send uplink transmission in at least one frequency band of the two frequency bands; or

stop sending uplink transmission scheduling information of at least one frequency band in the two frequency bands to the UE in a time interval of sending downlink transmission

scheduling information of one frequency band to the UE.

14. User equipment (UE), comprising:

a processor (1220); and

a memory (1204), used for storing instructions executable by the processor (1220);

wherein the processor (1220) is configured to:

receive configuration information sent by a base station, wherein the configuration information is sent after the base station determines that a harmonic interference exists between uplink transmission to be performed by the UE in a first frequency band and downlink transmission to be performed by the UE in a second frequency band or that an intermodulation interference exists between the uplink transmission to be performed by the UE in the first frequency band and in the second frequency band and the downlink transmission in the first frequency band to be performed by the UE simultaneously; and

enable an interference coordination function according to the configuration information;

configured to

stop sending a scheduling request for the uplink transmission in the first frequency band to the base station in a time interval of receiving scheduling information of the downlink transmission in the second frequency band sent by the base station, after the interference coordination function is enabled according to the configuration information, or configured to

stop sending a scheduling request for the uplink transmission in the first frequency band and in the second frequency band to the base station in a time interval of receiving scheduling information of the downlink transmission in the first frequency band sent by the base station, after the interference coordination function is enabled according to the configuration information.

15. A computer readable storage medium having stored thereon a computer program, wherein the program is executed by a processor to implement the steps of the interference coordination method of any one of claims 1 to 6.