CLAIMS

1. A method of transmitting a sounding reference signal, SRS, by a user equipment, UE, the method comprising:

receiving, from a base station, BS, SRS configuration information related with configuration of SRS resources for antenna switching;

transmitting, to the BS, a first SRS ~~for~~ on a first antenna port ~~in~~ of a first SRS resource based on the SRS configuration information; and

transmitting, to the BS, a second SRS ~~for~~ on a second antenna port ~~in~~ of a second SRS resource based on the SRS configuration information,

wherein the first SRS resource and the second SRS resource are configured in a same slot,

~~wherein the first SRS resource includes one or more first SRS symbols and the second SRS resource includes one or more second SRS symbols,~~

~~wherein the SRS configuration information includes consecutive Orthogonal Frequency Division Multiplexing, OFDM, symbols configured for the first SRS resource and the second SRS resource,~~

~~wherein the SRS configuration information includes a parameter related to SRS antenna switching,~~

~~wherein the first SRS and the second SRS are transmitted according to antenna switching based on the parameter,~~

wherein at least one empty symbol is configured between the first SRS resource and the second SRS resource based on a subcarrier spacing configured for the UE~~for antenna switching, and~~

~~wherein each of the at least one empty symbol is a symbol in time domain~~.

2. The method of claim 1,

wherein ~~the SRS configuration information includes an indicator~~the at least one empty symbol is configured as a gap for the antenna switching~~, and~~

~~wherein the each of the at least one empty symbol is a symbol in which the UE does not transmit data~~.

3. The method of claim 1,

wherein the first SRS resource and the second SRS resource configured within a plurality of

consecutive Orthogonal Frequency Division Multiplexing, OFDM, symbols of the same slot~~the at least one empty symbol is configured based on a multiple of 15 kHz subcarrier-spacing~~.

4. The method of claim 1,

wherein the SRS configuration information further includes a number of antenna ports for transmission of the SRS~~the number of the one or more first SRS symbols are one, two or four.~~

~~5. The method of claim 1,~~

~~wherein the number of the one or more second SRS symbols are one, two or four.~~

~~6. The method of claim 1,~~

~~wherein the SRS configuration information further includes information on frequency.~~

~~7. The method of claim 6,~~

~~wherein the information on frequency includes frequency position and frequency hopping.~~

~~8~~5. The method of claim 1, further comprising:

receiving, from the BS, information representing whether the at least one empty symbol is configured between the first SRS resource and the second SRS resource~~wherein the SRS configuration information includes a number of SRS ports and a transmission comb type~~.

~~9~~6. The method of claim ~~1~~5,

wherein the ~~SRS configuration~~ information is received through ~~any one of~~ radio resource control, RRC, a medium access control channel element, MAC CE, or downlink control information, DCI.

~~10~~7. A user equipment, UE, for transmitting a sounding reference signal, SRS, the UE comprising:

a transceiver connected with at least one processor; and

the at least one processor configured to:

receive, from a base station, BS, SRS configuration information related with configuration of SRS resources for antenna switching;

transmit, to the BS, a first SRS ~~for~~ on a first antenna port ~~in~~ of a first SRS resource based on the SRS configuration information; and

transmit, to the BS, a second SRS ~~for~~ on a second antenna port ~~in~~ of a second SRS resource based on the SRS configuration information,

wherein the first SRS resource and the second SRS resource are configured in a same slot,

~~wherein the first SRS resource includes one or more first SRS symbols and the second SRS resource includes one or more second SRS symbols,~~

~~wherein the SRS configuration information includes consecutive Orthogonal Frequency Division Multiplexing, OFDM, symbols configured for the first SRS resource and the second SRS resource,~~

~~wherein the SRS configuration information includes a parameter related to SRS antenna switching,~~

~~wherein the first SRS and the second SRS are transmitted according to antenna switching based on the parameter,~~

wherein at least one empty symbol is configured between the first SRS resource and the second SRS resource based on a subcarrier spacing configured for the UE~~for antenna switching, and~~

~~wherein each of the at least one empty symbol is a symbol in time domain~~.

~~11~~8. The UE of claim ~~10~~7,

wherein ~~the SRS configuration information includes an indicator~~ the at least one empty symbol is configured as a gap for the antenna switching~~, and~~

~~wherein the each of the at least one empty symbol is a symbol in which the UE does not transmit data~~.

~~12~~9. The UE of claim ~~10~~7,

wherein the first SRS resource and the second SRS resource configured within a plurality of consecutive Orthogonal Frequency Division Multiplexing, OFDM, symbols of the same slot~~the at least one empty symbol is configured based on a multiple of 15 kHz subcarrier spacing~~.

~~13~~10. The UE of claim ~~10~~7,

wherein the SRS configuration information further includes a number of antenna ports for transmission of the SRS~~the number of the one or more first SRS symbols are one, two or four~~.

~~14~~11. The UE of claim ~~10~~7,

wherein the at least one processor is further configured to receive, from the BS, information representing whether the at least one empty symbol is configured between the first SRS resource and the second SRS resource~~the number of the one or more second SRS symbols are one, two or four~~.

~~15~~12. The UE of claim ~~10~~7,

wherein the ~~SRS configuration~~ information is received through radio resource control, RRC, a medium access control channel element, MAC CE, or downlink control information, DCI~~further includes information on frequency~~.