CLAIMS

1. A communication apparatus comprising;

circuitry, which in operation, determines one or more time domain windows for multiple physical uplink shared channel (PUSCH) transmissions, each length of the one or more time domain windows being no~~t~~ more than an overall length of the multiple PUSCH transmissions; and

a transmitter, which in operation, transmits reference signals based on the one or more time domain windows.

2. The communication apparatus of claim 1, wherein each length of the one or more time domain windows is indicated by ~~at least a downlink control information, an uplink control information, medium access control control element (MAC CE), or~~ radio resource control (RRC).

3. The communication apparatus of claim 1, wherein each length of the one or more time domain windows is determined ~~based~~ from a subset of candidate lengths of a time domain window.

4. The communication apparatus of claim 3, wherein each candidate length included in the subset is a number from ~~2~~ two up to a total number of the multiple PUSCH transmissions.

~~5. The communication apparatus of claim 3, wherein the subset of lengths is different based on a total number of the multiple PUSCH transmissions.~~

~~6.~~5. The communication apparatus of claim 1, wherein ~~each length of~~ the one or more time domain windows ~~is~~ includes lengths different from one another.

~~7.~~6. The communication apparatus of claim 1, wherein each length of the one or more time domain windows is determined based on a capability of the communication apparatus ~~or a channel condition or profile, and is indicated to a gNB~~.

~~8.~~7. The communication apparatus of claim 1, wherein each length of the one or more time domain windows is same as ~~a length of~~ an inter-slot frequency hopping interval.

~~9.~~8. The communication apparatus of claim 1, wherein ~~a length of~~ an inter-slot frequency hopping interval is a multiple of each length of the one or more time domain windows.

~~10. The communication apparatus of claim 1, wherein the reference signals are bundled based on each length of the one or more time domain windows.~~

~~11.~~9. The communication apparatus of claim 1, wherein each length of the one or more time domain windows is ~~used in a same frequency allocation of~~different from an inter-slot ~~a~~ frequency hopping interval.

~~12.~~10. The communication apparatus of claim 1, wherein each length of the one or more time domain windows is determined based on the number of symbols, slots, or repetitions allocated for the multiple PUSCH transmissions.

~~13.~~11. ~~The~~ A communication ~~apparatus of claim 1, wherein~~method comprising:

determining one or more time domain windows for multiple PUSCH transmissions, each length of the one or more time domain windows being no more than an overall length of ~~is equal to~~ the ~~number of consecutive~~multiple PUSCH transmissions ~~from~~; and

transmitting reference signals based on the one or more time domain windows~~multiple PUSCH transmissions~~.

~~14.~~12. ~~The~~ A communication ~~apparatus~~ method comprising:

receiving an indication of one or more time domain windows for multiple physical uplink shared channel (PUSCH) transmissions, each length of ~~claim 1, wherein~~ the one or more time domain windows being no more than an overall length of the multiple PUSCH transmissions; and

circuitry, which in operation, transmits reference signals based on ~~is further configured to assign each of~~ the one or more time domain windows ~~spatial information associated with one or more antennas or panels of the communication apparatus~~.

~~15.~~13. An integrated circuit comprising:

determination circuit, which in operation, determines one or more time domain windows for multiple physical uplink shared channel (PUSCH) transmissions, each length of the one or more time domain windows being no more than an overall length of the multiple PUSCH transmissions; and

transmitting circuit, which in operation, transmits reference signals based on the one or more time domain windows.

~~16.~~14. A base station comprising:

circuitry, which in operation, determines one or more time domain windows for multiple physical uplink shared channel (PUSCH) transmissions, each length of the one or more time domain windows being no~~t~~ more than an overall length of the multiple PUSCH transmissions; and

a transmitter, which in operation, indicates the one or more time domain windows to one or more communication apparatuses .

~~17.~~15. A communication method comprising:

determining one or more time domain windows for multiple physical uplink shared channel (PUSCH) transmissions, each length of the one or more time domain windows being no~~t~~ more than an overall length of the multiple PUSCH transmissions; and

indicating the one or more time domain windows to one or more communication apparatuses.

16. An integrated circuit comprising:

determination circuit, which in operation, determines one or more time domain windows for multiple physical uplink shared channel (PUSCH) transmissions, each length of the one or more time domain windows being no more than an overall length of the multiple PUSCH transmissions; and

transmitting circuit, which in operation, indicates the one or more time domain windows to one or more communication apparatuses.