C L A I M S

1. A wireless communication method for use in a wireless terminal, the method comprising:

receiving, from a wireless network node, at least one paging indication in a discontinuous reception, DRX, cycle, and

performing a paging operation based on the at least one paging indication in the DRX cycle.

~~2. The wireless communication method of claim 1, wherein the paging indication is conveyed by a downlink-control-information or a signal.~~

2~~3~~. The wireless communication method of claim 1 ~~or 2~~, wherein the paging indication is ~~predefined as~~ a downlink-control-information-based paging indication ~~indication or a sequence-based paging indication~~.

~~4. The wireless communication method of claim 1 or 2, wherein the paging indication is determined as a downlink-control-information-based paging indication or a sequence-based paging indication based on at least one of:~~

~~a number of paging occasions associated with the paging indication,~~

~~a number of paging occasions which are required to be monitored,~~

~~a number of paging occasions in a paging frame,~~

~~a capability of the wireless terminal,~~

~~a type of the wireless terminal,~~

~~a higher layer parameter, or~~

~~a number of sub-groups of wireless terminals in a paging occasion.~~

~~5. The wireless communication method of any of claim 1, 2 and 4, wherein the paging indication is determined as a downlink-control-information-based paging indication or a sequence-based paging indication based on at least one of:~~

~~a number of paging occasion groups associated with the paging indication,~~

~~a number of paging occasions which are not required to be monitored,~~

~~a number of paging frames in the DRX cycle,~~

~~a type of the DRX cycle,~~

~~a value of a predefined field,~~

~~an application scenario, or~~

~~a number of groups of wireless terminals associated with the at least one paging indication.~~

~~6. The wireless communication method of any of claims 1 2, 4 and 5, wherein the paging indication is determined as a downlink-control-information-based paging indication or a sequence-based paging indication based on at least one of:~~

~~an interval between paging frames,~~

~~a time length of the DRX cycle,~~

~~a period of synchronization signal block,~~

~~a number of beams,~~

~~a period of the paging indication,~~

~~an interval of the paging indications, or~~

~~a dedicated signaling.~~

3~~7~~. The wireless communication method of ~~any of~~ claim~~s~~ 1 or 2~~to 6~~, wherein a number of paging

occasions associated with the at least one paging indication is predetermined.

48. The wireless communication method of any of claims 1 to 36, wherein a number of paging occasions associated with the at least one paging indication is determined based on ~~at least one of:~~

a higher layer parameter~~,~~

~~a capability of the wireless terminal,~~

~~a number of paging frames in the DRX cycle,~~

~~a period of synchronization signal block,~~

~~a number of sub-groups of wireless terminals in a paging occasion,~~

~~a number of paging occasions in a paging frame, or~~

~~a density of paging occasions in the DRX cycle~~.

~~9. The wireless communication method of any of claims 1 to 6 and 8, wherein a number of paging occasions associated with the at least one paging indication is determined based on at least one of:~~

~~a type of the wireless terminal,~~

~~an application scenario,~~

~~a type of the DRX cycle,~~

~~a number of beams,~~

~~a number of groups of wireless terminals associated with the at least one paging indication, or~~

~~a period of the at least one paging indication.~~

~~10. The wireless communication method of any of claims 1 to 6, 8 and 9, wherein a number of~~

paging occasions associated with the at least one paging indication is determined based on at least one of:

an interval between paging frames, or

a time length of the DRX cycle.

11. The wireless communication method of any of claims 1 to 10, wherein at least one paging occasion associated with the at least one paging indication is determined based on at least one of:

a wireless terminal identifier associated with the at least one paging indication,

a wireless terminal sub-group identifier associated with the at least one paging indication,

a wireless terminal group identifier of the at least one paging indication, or

a number of paging occasions in a paging frame.

12. The wireless communication method of any of claims 1 to 11, wherein at least one paging occasion associated with the at least one paging indication is determined based on at least one of:

a number of paging frames in the DRX cycle,

at least one index of the at least one paging occasion, or

a number of the least one paging occasion associated with the first paging indication.

13. The wireless communication method of any of claims 1 to 12, wherein a time domain location of the at least one paging indication is determined based on at least one of:

at least one system frame number of at least one paging occasion associated with the at least one paging indication,

a number of paging occasions associated with a paging indication,

a number of paging frames in the DRX cycle,

a number of paging occasions in a paging frame,

a wireless terminal identifier associated with the at least one paging indication,

a number of wireless terminal sub-groups associated with the at least one paging indication, or

an offset between the at least one paging indication and the first paging occasion associated with the at least one paging indication.

14. The wireless communication method of any of claims 1 to 13, wherein a time domain location of the at least one paging indication is determined based on at least one of:

a time length of the DRX cycle,

a number of wireless terminal sub-groups associated with a paging occasion,

a wireless terminal sub-group identifier associated with the at least one paging occasion,

a number of wireless terminal groups associated with the at least one paging indication,

a wireless terminal group identifier of the at least one paging indication,

an interval between paging frames, or

a period of synchronization signal block.

15. The wireless communication method of any of claims 1 to 14, wherein a time domain location of the at least one paging indication is determined based on at least one of:

a type of the DRX cycle,

a time length of the DRX cycle,

a number of beams, or

~~a period of the at least one paging indication.~~

~~16. The wireless communication method of any of claims 1 to 12, wherein a time domain location of the at least one paging indication is determined based on at least one system frame number of at least one paging occasion associated with the at least one paging indication and an offset between the at least one paging indication and the first paging occasion associated with the at least one paging indication.~~

~~17. The wireless communication method of claim 16, wherein the time domain location of the at least one paging indication is determined by:~~

~~SFN_PEI = SFN_PO - PEI_PO_offset, or~~

~~SFN_PEI =(1024 + SFN_PO - PEI_PO_offset) mod 1024,~~

~~wherein:~~

~~SFN_PEI is the time domain location of the at least one paging indication,~~

~~SFO_PO is a system frame number of the first paging occasion associated with the at least one paging indication, and~~

~~PEI_PO_offset is the offset between the at least one paging indication and the first paging occasion associated with the at least one paging indication.~~

~~18. The wireless communication method of any of claims 1 to 12, wherein a time domain location of the at least one paging indication is determined based on at least one of a number of paging occasions associated with a paging indication, a wireless terminal identifier associated with the at least one paging indication, a number of paging frames in the DRX cycle or an offset between the at least one paging indication and the first paging occasion associated with the at least one paging indication.~~

19. The wireless communication method of claim 18, wherein the time domain location of the at least one paging indication is determined by:

(SFN_PEI + PEI_offset) mod T = X*P*(T/N),

wherein:

SFN_PEI is the time domain location of the at least one paging indication,

PEI_offset is the offset between the at least one paging indication and the first paging occasion associated with the at least one paging indication,

T is a time length of the DRX cycle,

X is X = floor[(UE_ID mod N)/P],

P is a number of wireless terminal identifiers corresponding to the same paging indication,

N is a number of paging frames in the DRX cycle,

UE_ID is a wireless terminal identifier associated with the at least one paging indication, and

floor is a floor function.

20. The wireless communication method any of claims 1 to 12, wherein a time domain location of the at least one paging indication is determined based on at least one of a number of paging occasions corresponding to the at least one paging occasion, a number of paging occasions in a paging frame, a wireless terminal identifier associated with the at least one paging indication, a number of paging frames in the DRX cycle, and an offset between the at least one paging indication and the first paging occasion associated with the at least one paging indication.

21. The wireless communication method of claim 20, wherein the time domain location of the at least one paging indication is determined by:

(SFN_PEI+PEI_offset) mod T = X*(P/Ns)*(T/N),

~~wherein:~~

~~SFN_PEI is the time domain location of the at least one paging indication,~~

~~PEI_offset is the offset between the at least one paging indication and the first paging occasion associated with the at least one paging indication,~~

~~T is a time length of the DRX cycle,~~

~~X = floor [(UE_ID mod N)/(P/Ns)],~~

~~P is a number of wireless terminal identifiers corresponding to the same paging indication,~~

~~N is the number of paging frames in the DRX cycle,~~

~~Ns is a number of paging occasions in a paging frame,~~

~~UE_ID is a wireless terminal identifier associated with the at least one paging indication, and~~

~~floor is a floor function.~~

5~~22~~. The wireless communication method of any of claims 1 to ~~21~~4, wherein the at least one paging indication comprises a downlink-control-information based paging indication,

wherein the downlink-control-information based paging indication comprises a bitmap indicating the paging operation.

6~~23~~. The wireless communication method of claim 5~~22~~, wherein the indicated paging operation comprises:

monitoring at least one paging occasion in the DRX cycle, or

remaining in an idle state or an inactive state in the DRX cycle.

7~~24~~. The wireless communication method of claim 5~~22~~ or 6~~23~~, wherein the paging indication

comprises at least one bit field,

wherein each bit field is associated with ~~a paging occasion,~~ a group of paging occasions~~, or a number of wireless terminal sub-groups corresponding to a paging occasion~~.

~~25. The wireless communication method of claim 24, wherein each bit field comprises 1 bit and is associated with a paging occasion,~~

~~wherein the paging status indicated by each bit field is determined based on at least one of:~~

~~a number of wireless terminal groups corresponding to the paging occasion,~~

~~a number of wireless terminal sub-groups corresponding to the paging occasion,~~

~~a number wireless terminal sub-groups required to monitor the paging occasion, or~~

~~a number wireless terminal sub-groups not required to monitor the paging occasion.~~

8~~26~~. The wireless communication method of claim 7~~24~~, wherein each bit field comprises S bit(s), where S is a non-negative value and determined based on a number of wireless terminal sub-groups corresponding to the paging occasion or the group of paging occasions.

~~27. The wireless communication method of any of claims 1 to 26, wherein the at least one paging indication comprises a first sequence-based paging indication and a second sequence-based paging indication,~~

~~wherein the first sequence-based paging indication indicates whether to monitor a plurality of paging occasions or a plurality of paging occasion groups, and~~

~~wherein the second sequence-based paging indication indicates whether to monitor a paging occasion or a paging occasion group.~~

~~28. The wireless communication method of any of claims 1 to 27, wherein the at least one paging~~

~~indication comprises a third sequence-based paging indication,~~

~~wherein the third sequence-based paging indication indicates whether to monitor a DCI-based paging indication.~~

~~29. The wireless communication method of any of claims 1 to 28, wherein the at least one paging indication comprises a fourth sequence-based paging indication and a fifth sequence-based paging indication,~~

~~wherein when at least one of the fourth sequence-based paging indication or the fifth sequence-based indication is successfully detected the method further comprises:~~

~~monitoring a downlink-control-information based paging indication, and~~

~~decoding the downlink-control-information based paging indication in accordance with the downlink-control-information not comprising sub-grouping information when the fourth sequence-based paging indication is successfully detected, and~~

~~decoding the downlink-control-information based paging indication in accordance with the downlink control information comprising sub-grouping information when the fifth sequence-based paging indication is successfully detected.~~

9~~30~~. A wireless communication method for use in a wireless network node, the method comprising:

transmitting, to a wireless terminal, at least one paging indication in a discontinuous reception, DRX, cycle,

wherein the at least one paging indication is associated with a paging operation of the wireless terminal in the DRX cycle.

~~31. The wireless communication method of claim 30, wherein the paging indication is conveyed by a downlink-control-information or a signal.~~

~~32~~10. The wireless communication method of claim ~~30 or 31~~9, wherein the paging indication is predefined as a downlink-control-information-based paging indication ~~or a sequence-based paging indication~~.

~~33. The wireless communication method of claim 30 or 31, wherein the paging indication is determined as a downlink-control-information-based paging indication or a sequence-based paging indication based on at least one of:~~

~~a number of paging occasions associated with the paging indication,~~

~~a number of paging occasions in a paging frame,~~

~~a higher layer parameter,~~

~~a number of sub-groups of wireless terminals in a paging occasion,~~

~~a number of groups of wireless terminals associated with the at least one paging indication, or~~

~~a period of synchronization signal block.~~

~~34. The wireless communication method of any of claims 30 to 33, wherein a number of paging occasions associated with the at least one paging indication is predetermined.~~

~~35. The wireless communication method of any of claims 30 to 34, wherein a number of paging occasions associated with the at least one paging indication is determined based on at least one of:~~

~~a higher layer parameter,~~

~~a number of paging frames in the DRX cycle,~~

~~a period of synchronization signal block,~~

~~a number of sub-groups of wireless terminals in a paging occasion,~~

~~a number of paging occasions in a paging frame, or~~

~~a density of paging occasions in the DRX cycle.~~

~~36. The wireless communication method of any of claims 30 to 39, wherein at least one paging occasion associated with the at least one paging indication is determined based on at least one of:~~

~~a wireless terminal identifier associated with the at least one paging indication,~~

~~a wireless terminal sub-group identifier associated with the at least one paging indication,~~

~~a wireless terminal group identifier of the at least one paging indication, or~~

~~a number of paging occasions in a paging frame, or~~

~~a number of paging frames in the DRX cycle.~~

~~37. The wireless communication method of any of claims 30 to 36, wherein a time domain location of the at least one paging indication is determined based on at least one of:~~

~~at least one system frame number of at least one paging occasion associated with the at least one paging indication,~~

~~a number of paging occasions associated with single paging indication,~~

~~a number of paging frames in the DRX cycle,~~

~~a number of paging occasions in a paging frame,~~

~~a wireless terminal identifier associated with the at least one paging indication,~~

~~a number of wireless terminal sub-groups associated with the at least one paging indication, or~~

~~an offset between the at least one paging indication and the first paging occasion associated with the at least one paging indication.~~

~~38. The wireless communication method of any of claims 30 to 37, wherein a time domain location of the at least one paging indication is determined based on at least one of:~~

~~a time length of the DRX cycle,~~

~~a number of wireless terminal sub-groups associated with a paging occasion,~~

~~a wireless terminal sub-group identifier associated with the at least one paging occasion,~~

~~a number of wireless terminal groups associated with the at least one paging indication,~~

~~a wireless terminal group identifier of the at least one paging indication,~~

~~an interval between paging frames, or~~

~~a period of synchronization signal block.~~

~~39. The wireless communication method of any of claims 30 to 38, wherein a time domain location of the at least one paging indication is determined based on at least one of:~~

~~a type of the DRX cycle,~~

~~a time length of the DRX cycle,~~

~~a number of beams, or~~

~~a period of the at least one paging indication.~~

11~~40~~. The wireless communication method of ~~any of~~ claim~~s~~ ~~30~~ 9 or~~to~~ 10~~39~~, wherein the at least one paging indication comprises a downlink-control-information based paging indication,

wherein the downlink-control-information based paging indication comprises a bitmap indicating the paging operation.

12~~41~~. The wireless communication method of claim 11~~40~~, wherein the indicated paging operation

comprises:

monitoring at least one paging occasion in the DRX cycle, or

remaining in an idle state or an inactive state in the DRX cycle.

1342. The wireless communication method of claim 1140 or 1241, wherein the paging indication comprises at least one bit field,

wherein each bit field is associated with ~~a paging occasion or~~ a group of paging occasions.

~~43. The wireless communication method of claim 42, wherein each bit field comprises 1 bit and is associated with a paging occasion,~~

~~wherein the paging status indicated by each bit field is determined based on at least one of:~~

~~a number of wireless terminal groups corresponding to the paging occasion,~~

~~a number of wireless terminal sub-groups corresponding to the paging occasion,~~

~~a number wireless terminal sub-groups required to monitor the paging occasion, or~~

~~a number wireless terminal sub-groups not required to monitor the paging occasion.~~

4414. The wireless communication method of claim 4213, wherein each bit field comprises S bit(s) where S is a non-negative value and determined based on a number of wireless terminal sub-groups corresponding to the paging occasion or the group of paging occasions.

~~45. The wireless communication method of any of claims 30 to 44, wherein the at least one paging indication comprises a first sequence-based paging indication and a second sequence-based paging indication,~~

~~wherein the first sequence-based paging indication indicates whether to monitor a plurality of~~

~~paging occasions or a plurality of paging occasion groups, and~~

~~wherein the second sequence-based paging indication indicates whether to monitor a paging occasion or a paging occasion group.~~

~~46. The wireless communication method of any of claims 30 to 45, wherein the at least one paging indication comprises a third sequence-based paging indication,~~

~~wherein the third sequence-based paging indication indicates whether to monitor a DCI-based paging indication.~~

~~47. The wireless communication method of any of claims 30 to 46, wherein the at least one paging indication comprises at least one of a fourth sequence-based paging indication and a fifth sequence-based paging indication,~~

~~wherein the method further comprises:~~

~~transmitting a downlink-control-information based paging indication,~~

~~wherein the downlink-control-information based paging indication is encoded in accordance with the downlink-control-information not comprising sub-grouping information when the fourth sequence-based paging indication is transmitted, and~~

~~wherein the downlink-control-information based paging indication is encoded in accordance with the downlink control information comprising sub-grouping information when the fifth sequence-based paging indication is transmitted.~~

~~48~~15. A wireless terminal, comprising:

a communication unit, configured to receive, from a wireless network node, at least one paging indication in a discontinuous reception, DRX, cycle, and

a processor configured to perform a paging operation based on the at least one paging

indication in the DRX cycle.

~~49~~16. The wireless terminal of claim ~~48~~15, wherein the processor is further configured to perform a wireless communication method of any one of claims 2 to ~~29~~8.

~~50~~17. A wireless network node, comprising:

a communication unit, configured to transmit, to a wireless terminal, at least one paging indication in a discontinuous reception, DRX, cycle,

wherein the at least one indication is associated with a paging operation of the wireless terminal in the DRX cycle.

~~51~~18. The wireless network node of claim 50, further comprising a processor configured to perform a wireless communication method of any one of claims ~~31~~ 10 to ~~47~~14.

~~52~~19. A computer program product comprising a computer-readable program medium code stored thereupon, the code, when executed by a processor, causing the processor to implement a wireless communication method recited in any one of claims 1 to ~~47~~14.