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(71) Applicant(s):

ZTE CORPORATION [CN/CN]; ZTE Plaza Keji Road South, Hi-Tech Industrial Park Nanshan Shenzhen, Guangdong 518057 (CN) *(for all designated states)*

(72) Inventor(s):

CHEN, Xianming; c/o ZTE Corporation ZTE Plaza Keji Road South, Hi-Tech Industrial Park Nanshan Shenzhen, Guangdong 518057 (CN)

DAI, Bo; c/o ZTE Corporation ZTE Plaza Keji Road South, Hi-Tech Industrial Park Nanshan Shenzhen, Guangdong 518057 (CN)

LIU, Kun; c/o ZTE Corporation ZTE Plaza Keji Road South, Hi-Tech Industrial Park Nanshan Shenzhen, Guangdong 518057 (CN)

YANG, Weiwei; c/o ZTE Corporation ZTE Plaza Keji Road South, Hi-Tech Industrial Park Nanshan Shenzhen, Guangdong 518057 (CN)

FANG, Huiying; c/o ZTE Corporation ZTE Plaza Keji Road South, Hi-Tech Industrial Park Nanshan Shenzhen, Guangdong 518057 (CN)

(74) Agent(s):

AFD CHINA INTELLECTUAL PROPERTY LAW OFFICE; Suite B 1601A, 8 Xue Qing Rd., Haidian Beijing 100192 (CN)

(54) Title (EN): TRANSMITTING AND RECEIVING CONTROLLING INFORMATION IN WIRELESS COMMUNICATIONS

(54) Title (FR): TRANSMISSION ET RÉCEPTION D'INFORMATIONS DE COMMANDE DANS DES COMMUNICATIONS SANS FIL

(57) Abstract:

(EN): This disclosure provides techniques for reducing waste of user equipment (UE) resources caused in transmission of a Physical Uplink Shared Channel (PUSCH) when a UE conducts searching for downlink control information (DCI) outside of a PUSCH transmission. This disclosure defines a first search space on the basis of an existing second search space that was used to receive DCI information to schedule a PUSCH. The first search space can be used to obtain a DCI having an ACK feedback. This disclosure provides systems and methods for determining the location of the first search space to receive a second DCI having ACK feedback during a PUSCH repetitive transmission and whether the second search space should be used for the second DCI instead. Outside of the PUSCH transmission, the UE receives DCI in the second search space, decreasing the unnecessary searching of DCI and increasing network efficiency.

(FR): La présente invention concerne des techniques de réduction du gaspillage des ressources d'équipement utilisateur (UE) provoquées par la transmission d'un canal partagé en liaison montante physique (PUSCH) lorsqu'un UE effectue une recherche d'informations de commande en liaison descendante (DCI) à l'extérieur d'une transmission de PUSCH. La présente invention définit un premier espace de recherche sur la base d'un second espace de recherche existant qui a été utilisé pour recevoir des informations DCI afin de planifier un PUSCH. Le premier espace de recherche peut être utilisé pour obtenir des DCI ayant un retour ACK. La présente invention concerne des systèmes et des procédés afin de déterminer l'emplacement du premier espace de recherche pour recevoir des secondes DCI ayant un retour ACK pendant une transmission répétitive de PUSCH et déterminer si le second espace de recherche doit être utilisé pour les secondes DCI à la place. En dehors de la transmission de PUSCH, l'UE reçoit des DCI dans le second espace de recherche, ce qui réduit la recherche inutile de DCI et augmente l'efficacité du réseau.

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Declarations:

Declaration made as applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate

Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America