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(54) Title (EN): JOINT RECEIVER AND RECEIVING METHOD FOR NAVIGATION SIGNALS LOCATED AT ADJACENT FREQUENCIES

(54) Title (FR): RÉCEPTEUR CONJOINT ET PROCÉDÉ DE RÉCEPTION POUR SIGNAUX DE NAVIGATION SITUÉS À DES FRÉQUENCES ADJACENTES

(57) Abstract:

(EN): It is provided a joint receiver and receiving method for navigation signals located at adjacent frequencies. The joint receiving method includes: receiving a first navigation signal and a second navigation signal which are located at adjacent frequencies (S1); and calculating a frequency estimation of a virtual wideband navigation signal constructed based on the first navigation signal and the second navigation signal (S2), wherein the virtual wideband navigation signal is an asymmetric BOC-like navigation signal having a virtual carrier and a virtual sub-carrier. With the joint receiver and joint receiving method, not only power gain but also bandwidth gain can be obtained, and the ranging precision can be significantly improved.

(FR): L'invention concerne un récepteur conjoint et un procédé de réception pour des signaux de navigation situés à des fréquences adjacentes. Le procédé de réception conjointe consiste à : recevoir un premier signal de navigation et un second signal de navigation qui sont situés à des fréquences adjacentes (S1); et calculer une estimation de fréquence d'un signal de navigation à large bande virtuel construit sur la base du premier signal de navigation et du second signal de navigation (S2), le signal de navigation à large bande virtuel étant un signal de navigation de type BOC asymétrique ayant une porteuse virtuelle et une sous-porteuse virtuelle. Avec le récepteur conjoint et le procédé de réception conjointe, non seulement un gain de puissance mais également un gain de bande passante peuvent être obtenus, et la précision de télémétrie peut être considérablement améliorée.

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