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(54) Title (EN): ORTHOGONAL TIME FREQUENCY SPACE COMMUNICATION SYSTEM COMPATIBLE WITH OFDM

(54) Title (FR): SYSTÈME DE COMMUNICATION DANS L'ESPACE TEMPS-FRÉQUENCE ORTHOGONAL COMPATIBLE AVEC OFDM

(57) Abstract:

(EN): A system and method for orthogonal time frequency space communication and waveform generation. The method includes receiving a plurality of information symbols and encoding an NxM array containing the plurality of information symbols into a two-dimensional array of modulation symbols by spreading each of the plurality of information symbols with respect to both time and frequency. The two-dimensional array of modulation symbols is then transmitted using M mutually orthogonal waveforms included within M frequency sub-bands.

(FR): L'invention concerne un système et un procédé de communication dans l'espace temps-fréquence orthogonal et de génération de formes d'onde. Le procédé consiste à recevoir une pluralité de symboles d'informations et à coder un réseau NxM contenant la pluralité de symboles d'informations en un réseau bidimensionnel de symboles de modulation par étalement de chaque symbole de la pluralité de symboles d'informations par rapport au temps et à la fréquence. Le réseau bidimensionnel de symboles de modulation est ensuite transmis au moyen de M formes d'ondes orthogonales entre elles incluses dans M sous-bandes de fréquence.

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