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(54) Title (EN): WIRELESS COMMUNICATION APPARATUS AND WIRELESS COMMUNICATION METHOD

(54) Title (FR): APPAREIL DE COMMUNICATION SANS FIL ET PROCEDE DE COMMUNICATION SANS FIL

(54) Title (JA): 無線通信装置及び無線通信方法

(57) Abstract:
(EN): A wireless communication apparatus comprises: a designation unit that generates format designation information for designating, to another wireless communication apparatus, a transmission/reception format; a first transmission unit that wirelessly transmits the format designation information to the other wireless communication apparatus; an acquisition unit acquires a packet; a propagation channel estimation unit that estimates, on the basis of the packet, upstream propagation channel information indicating a propagation channel from the other wireless communication apparatus to the local wireless communication apparatus; a calibration factor calculation unit that calculates a calibration factor on the basis of both downstream propagation channel information indicating a propagation channel from the local wireless communication apparatus to the other wireless communication apparatus and the upstream propagation channel information; a transmission weight value calculation unit that calculates a transmission weight value on the basis of the calibration factor and the upstream propagation channel information; and

a second transmission unit that wirelessly transmits, on the basis of the transmission weight value, a predetermined signal to the other wireless communication apparatus.

(FR): L'invention concerne un appareil de communication sans fil qui comprend : une unité de désignation qui génère des informations de désignation de format pour désigner, pour un autre appareil de communication sans fil, un format de transmission/réception ; une première unité de transmission qui transmet de manière sans fil les informations de désignation de format à l'autre appareil de communication sans fil ; une unité d'acquisition qui acquiert un paquet ; une unité d'estimation de canal de propagation qui estime, sur la base du paquet, des informations de canal de propagation amont indiquant un canal de propagation allant de l'autre appareil de communication sans fil à l'appareil de communication sans fil local ; une unité de calcul de facteur d'étalonnage qui calcule un facteur d'étalonnage sur la base à la fois d'informations de canal de propagation aval indiquant un canal de propagation allant de l'appareil de communication sans fil local à l'autre appareil de communication sans fil, et des informations de canal de propagation amont ; une unité de calcul de valeur de poids de transmission qui calcule une valeur de poids de transmission sur la base du facteur d'étalonnage et des informations de canal de propagation amont ; et une seconde unité de transmission qui transmet de manière sans fil, sur la base de la valeur de poids de transmission, un signal prédéterminé à l'autre appareil de communication sans fil.

(JA): 無線通信装置は、送受信の形式を他無線通信装置に対して指定する形式指定情報を生成する指定部と、他無線通信装置に形式指定情報を無線送信する第１送信部と、パケットを取得する取得部と、パケットに基づいて、他無線通信装置から自無線通信装置への伝搬チャネルを示す上り伝搬チャネル情報を推定する伝搬チャネル推定部と、自無線通信装置から他無線通信装置への伝搬チャネルを示す下り伝搬チャネル情報と、上り伝搬チャネル情報とに基づいて、校正係数を算出する校正係数算出部と、校正係数と、上り伝搬チャネル情報とに基づいて、送信重み付け値を算出する送信重み付け値算出部と、送信重み付け値に基づいて、他無線通信装置に所定信号を無線送信する第２送信部とを備える。

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