

Title (en)
SYSTEM AND METHOD FOR CALIBRATION OF PHASED ARRAY ANTENNA HAVING INTEGRAL CALIBRATION NETWORK IN PRESENCE OF AN INTERFERING BODY

Title (de)
SYSTEM UND VERFAHREN ZUR KALIBRIERUNG EINER PHASENARRAYANTENNE MIT INTEGRIERTEM KALIBRIERUNGSNETZWERK BEI VORHANDENSEIN EINES INTERFERIERENDEN KÖRPERS

Title (fr)
SYSTÈME ET PROCÉDÉ POUR CALIBRER UNE ANTENNE RÉSEAU À COMMANDE DE PHASE AYANT UN RÉSEAU DE CALIBRAGE INTÉGRAL EN PRÉSENCE D'UN CORPS INTERFÉRANT

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Application
EP 10763037 A 20100818

Priority
• IL 2010000673 W 20100818
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Abstract (en)
[origin: WO2010150269A2] A method for calibrating an antenna comprising a phased array of antenna elements connected to a plurality of transceivers, the method comprising providing an RF source located close to the antenna and synchronized with the transceivers, determining, per antenna element, a calibration ratio adapted to accommodate for presence of at least one interfering structure electromagnetically interfering with a signal transmitted from the RF source and received by the antenna, wherein the determining includes generating simulated far field and near field signals so as to simulate a signal transmitted by an RF source located at infinity and located near the RF source respectively, internally injecting an internal signal into the antenna via an internal injection network, using the RF source to externally inject an external signal into the antenna; and, for each individual antenna element, computing said calibration ratio by combining information characterizing the internal and external signals as received by the individual antenna element with a correction factor characterizing the simulated far field and near field signals; and calibrating the antenna using the per-antenna element calibration ratios adapted to accommodate for presence of at least one interfering structure.

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