Title (en)
  BEAMSTEERING USING METAMATERIALS

Title (de)
  STRAHLLENKUNG MIT METAMATERIALIEN

Title (fr)
  ORIENTATION DU FAISCEAU EN UTILISANT DES MÉTAMATÉRIAUX

Publication
  EP 3300172 A1 20180328 (EN)

Application
  EP 16190219 A 20160922

Priority
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Abstract (en)
  Examples of the invention present a transmitter arrangement comprising a standard beamforming antenna in conjunction with an active metamaterial structure that provides beamsteering capability and attaches to the existing antenna. The metamaterial structure is active and digitally controlled, positioned in front of the main antenna elements, and behaves like a phase shifter. Thus, additional beamsteering functionality is provided to existing beamforming arrangements without the need to change the existing basestation antenna. Standard antenna arrangements can be can be further optimised with this approach, which improves coverage by focusing or steering the beam in a certain direction, and improves capacity by reducing interference levels.

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Citation (search report)
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