

Title (en)
SYSTEMS AND METHODS FOR WIRELESSLY PROJECTING POWER USING MULTIPLE IN-PHASE CURRENT LOOPS

Title (de)
ANORDNUNGEN UND VERFAHREN ZUR DRATHLOSEN LEISTUNGSPROJEKTION MITTELS MEHRERER IN-PHASE STROMSCHLEIFEN

Title (fr)
SYSTEMES ET PROCEDES PERMETTANT DE FOURNIR DE LA PUISSANCE EN RADIOFREQUENCE A L'AIDE DE BOUCLES DE COURANT EN PHASE

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Application
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Abstract (en)
[origin: WO0143056A1] First and second spaced apart in-phase current loops (120a, 120b) at least partially overlap in the axial direction. The first and second current loops may be first and second arrays (100) of in-phase current loops that are spaced apart and at least partially overlap in the axial direction. First and second arrays of arrays also may be provided that are spaced apart from one another and that at least partially overlap in the axial direction. Desirably high mid-field strength may be provided without violating guidelines for far field radiation in the axial direction or in the plane of the loops. A third array of in-phase current loops, an array of third in-phase current loops and/or an array of arrays of third in-phase current loops also may be provided that spaced apart from and at least partially overlapping the second loops in the axial direction, opposite the first loops. Third and fourth arrays of in-phase current loops also may be provided that are spaced apart from one another, at least partially overlap one another in the axial direction, and have different orientation than the first and second current loops, to reduce and preferably minimize nulls in the near field and mid field. A receive antenna (410) also may be provided between the overlapping portions of the first and second current loops. By providing a receive antenna at this position, the effects of the fields that are produced by the current loops on the receive antenna may be reduced and preferably minimized.

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