

Title (en)

ULTRA-BROADBAND ANTENNA ARRAY WITH CONSTANT BEAMWIDTH THROUGHOUT OPERATING FREQUENCY BAND

Title (de)

ULTRABREITBANDANTENNENGRUPPE MIT KONSTANTER STRAHLBREITE ÜBER DAS GESAMTE BETRIEBSFREQUENZBAND

Title (fr)

RÉSEAU D'ANTENNES À ULTRA-LARGE BANDE CONSTANTE SUR TOUTE LA LARGEUR DE BANDE DE FRÉQUENCE DE FONCTIONNEMENT

Publication

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Application

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Priority

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Abstract (en)

An antenna array (10) includes a plurality of antenna elements (12) coupled in a common area and extending radially outward from the common area. At least one of the plurality of antenna elements includes a first antenna portion and a second antenna portion arranged in a configuration such that a gap is formed between the first antenna portion and the second antenna portion. The gap includes first spacing associated with a first operating frequency and a first operating wavelength, and a second spacing associated with a second operating frequency and a second operating wavelength. A proportion of the first spacing to the first wavelength is substantially equal to a proportion of the second spacing to the second wavelength, thereby providing a constant beamwidth over an operating frequency band. A method of arranging a plurality of antenna elements in an antenna array is also disclosed.

IPC 8 full level

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Citation (search report)

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