Abstracts

Modeling of Active Antenna Array Coupling Effects--A Load Variation Method

S. Sancheti and V.F. Fusco. "Modeling of Active Antenna Array Coupling Effects--A Load Variation Method." 1995 Transactions on Microwave Theory and Techniques 43.8 (Aug. 1995 [T-MTT]): 1805-1808.

This paper presents a simple method for the calculation of the frequency and power variation of an active antenna operated in the presence of a reflecting surface. The situation modeled accounts for interdependent amplitude and phase dynamics and also allows for the extraction of active antenna array coupling coefficients. Analytical and experimental results are presented for both frequency and power variations of an individual element when operated in a strongly coupled imaged array environment. Here the nearest neighbor coupling is shown to be the dominant coupling mechanism.

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