

CANCELLATION PERFORMANCE DEGRADATION OF A FULLY ADAPTIVE YAGI ARRAY DUE TO INNER-ELEMENT COUPLING

Indexing terms: Antennas, Adaptive arrays

The effect of inner-element coupling on the cancellation performance of a fully adaptive Yagi array is considered. Graphs of the output residue power as functions of interference-to-noise ratio and bandwidth with and without the inner-coupling effect are presented. It is seen that mutual coupling, like any other frequency-dependent error source, poses a severe limitation to the ability of the array to counteract sidelobe interference.