Abstract

Excitation methods used in patch antennas have been discussed in this paper. A semi-ellipticmonopole UWBantenna excited using edge port is the focus of this paper. Antennas operating in the UWB range must function in the presence of existingnarrow band communication systems like WiMAX, C-band, WLAN,X-band etc. Thus, appropriate excitation method must be employed to ensure accurate antenna operation. Two methods ofproviding excitation to the antenna namely - inset feed andoutside edge feed excitation have been parametrically analyzed to obtain optimum results. Both methods have utility in providing excitation to an antenna, but do not establish a basis for comparison on similar aspects as they
are application dependent. In the inset fed antenna good radiation pattern and return loss was observed while the gain was not consistent for the entire UWB range. The outside edge fed antenna shows a slight improvement in gain.

References


Index Terms

Computer Science

Communication
Keywords
Semi-elliptic Patch Antenna  Monopole Antenna  Ultra-wideband  Edge Port Excitation

Inset Feed

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