GEOMETRY DEPENDENCE OF VEGETATION ATTENUATION ON ISOLATED SINGLE TREES

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ABSTRACT

The dependence of vegetation attenuation on propagation geometry has been experimentally investigated at SHF band for isolated single trees. Two measurement heights (Trunk and Canopy) have been used in these experiments that involve three fully foliated trees, Common Whitebeam (Sorbus aria), Silver Maple (Acer Saccharinum) and Common Hazel (Corylus Avellana). Result shows that apart from frequency (f) and depth of penetration into vegetation (d), measurement geometry is another key parameter that determines the extent of signal loss in vegetation.

Keywords: Vegetation attenuation, propagation geometry, isolated trees, trunk, canopy.