Abstract

Frequency Selective Surfaces (FSS) with two novel designs have been presented in this paper.
Both the designs are based on the slots cut on the reference circular patch resulting in multiple resonating frequencies (3 bands in case of the first design & 4 bands in case of the second one within 20GHz). Size reductions of 61.1% & 81.5% have been achieved respectively in the two proposed designs. The resonating frequencies of the first band are obtained at 5.8GHz & 4GHz respectively. Investigation is done on patch without slot & then patch with the specific slots mentioned earlier. A comparative study has also been carried out with respect to the reference patch with radius of 12 mm & the FSSs with two novel designed slot cut on the reference patch. The FSSs with these particular designs will work as a band stop filter in microwave range radio communication. ANSOFT® software has been used for designing & theoretical findings.

References


Index Terms

Computer Science
Computing, Communication

And Sensor Network

Keywords
Design of Two Multiband Frequency Selective Surfaces with Novel Shaped Slots on Circular Patch

Frequency Selective Surface  Method Of Moment  Slot  Size Reduction  Resonating Frequency