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Abstract

The major problems in characterizing metamaterials using free space measurements techniques are discussed in this report. The free space measurement is best suitable for composites like metamaterials due to its anisotropic in nature and also much machining of sample is not required for free space measurements. Also, the method for retrieving the complex permittivity and complex permeability were discussed and ambiguity in selecting the suitable solution for imaginary part of complex wave number is explained.