

Title (en)

METHOD AND APPARATUS FOR INCREASING POWER HANDLING CAPABILITIES OF HIGH TEMPERATURE SUPERCONDUCTING DEVICES

Title (de)

VERFAHREN UND VORRICHTUNG ZUM STEIGERN DER LEISTUNGSVERWALTUNGSMÖGLICHKEITEN VON HOCHTEMPERATUR-SUPERLEITERN

Title (fr)

PROCEDE ET APPAREIL POUR AUGMENTER LA TENUE EN PUISSANCE DE DISPOSITIFS SUPRACONDUCTEURS POUR HAUTES TEMPERATURES

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Abstract (en)

[origin: WO9626555A1] In a stripline transmission system (fig. 1), a center conductor (12) having edges (14) is disposed between generally planar, substantially parallel ground planes (16, 18). A first dielectric (22) supports the center conductor (12) which is disposed between the first and second ground planes (16, 18). Gap portions (20) are formed adjacent the center conductor edges (14), the gap (20) containing a dielectric having a dielectric constant lower than that of the solid dielectric (22). The dielectric in the gap (20) is preferably air or vacuum. In one embodiment (fig. 2), the gap portion (42) extends in the region laterally exterior to the center conductor edges (32) and between the ground planes (34, 36). In a microstrip embodiment (50 in fig. 3), a substrate (52) has substantially parallel first and second faces (54, 56), the first face (54) bearing a center conductor (58) having edges (64) with adjacent troughs (62) formed into the first face (54), and a ground plane (60) on the second face (56). Reduced losses and improved linearity results, thereby providing applications for components such as filters, receivers and transmitters.

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