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(57) Abstract :
ABSTRACT A Compact Inset-Fed 2x 2 E-Shaped Patch Antenna Array with and without DGS for High Frequency Multiband Applications This patent presents a single and compact 2x2 array E-Shaped Microstrip Patch Antennas (MPA’s) for Ku, K and Ka band applications. The proposed 2x2 array E-Shaped MPA has overall dimensions of 13.5 mm x 17.8 mm x 1 mm which is a very compact size for high frequency applications. The simulated results reveal that the proposed 2x2 array E-Shaped MPA is resonating at multiple bands such as (12.28-14.52 GHz), (17.74-20.68 GHz), (20.96-23.34 GHz), (31.04 – 33.8 GHz) and (36.64 – 40 GHz) with max bandwidth of 5.6 GHz, Return loss below -10dB, VSWR<2 and a Peak Gain of 7.4 dB. RT duriod is used as a substrate with dielectric constant of 2.2 which is very much suitable for high frequency applications

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