

# **A Three-disc Window based on Triangular Lattice of Dielectric Rods for High Power Gyro Amplifiers**

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A three-disc microwave window has a matching dielectric disc at each side of the central ceramic disc for W-band gyro amplifiers is studied. The two discs are made of two dimensional triangular lattice of BeO rods to obtain a lower effective relative permittivity as well as keep a high thermal conductivity. Numerical simulation results show a better than -15 dB reflection over the operating frequency band of 0.09~0.11THz. The propose structure can meet the strict requirements of the high power broadband gyro amplifiers.