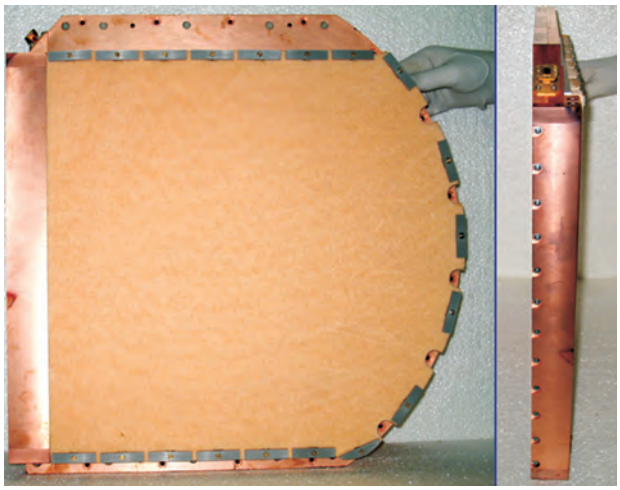
MM-WAVE DIFFRACTION ANTENNAS



W-band diffraction antenna for passive multi-beam imaging systems

Areas of Application

The antennas are to be used in radiometric systems for detecting various objects hidden behind opaque obstacles, in radar systems, and in mobile communication systems

Specification

Antenna gain factor is over 40dB, beam width in a given plane reaches several fractions of degree, the level of the broadside radiation is less than –20 dB, total losses are less than –3dB

Diffraction antenna for radar systems

Advantages

Unlike the existing analogs, antenna beam is scanned at a fixed position of the antenna. The antenna height does not exceed ten wavelengths. Weight is less than 4.0 g/cm^2 aperture. The multi-beam antenna version with frequency scanning has only one output. The antenna is easily adaptable to streamlined manufacture and has a low manufacturing cost

Diffraction omni-antenna for mobile communication systems

Stage of Development. Suggestions for Commercialization

IRL6, TRL5
Design and manufacture of product samples for launching commercial production. Trial products can be introduced to markets

IPR Protection

IPR3

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