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Title: Space feed transmission method terahertz wave, involves passing mixed frequency signal through coplanar waveguide transmission line, and diffraction micro-lens array which is distributed with power feed antenna

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Abstract: NOVELTY - The method involves converging radio frequency signal to focal plane array (3) by diffraction object lens (1) and diffraction imaging micro-lens array (2). An oscillation signal is converged into plane wave. A diffractive lens (5) is distributed and converged on planar Schottky mixing node through power diffraction micro-lens array (4) evenly. The radio frequency signal and local oscillation signal are mixed at same time. The mixed frequency signal passes through coplanar waveguide transmission line. The diffraction micro-lens array is distributed with power feed antenna.

USE - Space feed transmission method terahertz wave.

ADVANTAGE - The radio frequency signal and loss the vibration signal can be reduced. The imaging quality can be improved. The focal plane array imaging structure can be reduced for reducing difficulty in manufacturing. The manufacturing cost can be reduced.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for focal plane imaging structure for space feed transmission.

DESCRIPTION DRAWING(S) - The drawing shows a schematic view the focal plane imaging structure.

Diffraction object lens (1)

Diffraction imaging micro-lens array (2)

Focal plane array (3)

Micro-lens array (4)

Diffractive lens (5)

Derwent Class Code(s): W02 (Broadcasting, Radio and Line Transmission Systems)

Derwent Manual Code(s): W02-B03A; W02-B04B; W02-B05; W02-C01A1

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