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Title:Experiment studies on two-dimension terahertz raster scan imaging

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Abstract:In this article, two kinds of THz two-dimension raster scan imaging methods are investigated. An array scanning system, which uses a Pyrocam III camera as the detecting device, and a point-wise scanning system, which adapts a Golay cell as the detector, are designed and tested with imaging experiments. The speed, scale and quality aspects of the two systems are analyzed. The experimental results show the point-wise scanning system has higher contrast and precision performances, with a lower scanning speed, and it could be used to scan detailed small-scale textures. The array scanning system has faster scanning speed, with lower resolution, and it could be deployed for rapid, large-scale scans. © Springer Science+Business Media, LLC 2012.

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