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标题: Terahertz single pixel imaging based on a Nipkow disk

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摘要: We describe a terahertz single pixel imaging system based on a Nipkow disk. Nipkow disks have been used for fast scanning imaging systems since the first experimental television was invented in 1926. In our work, a Nipkow disk with 24 scanning lines was used to provide an axial resolution of 2 mm/pixel. We also show that by implementing a microscanning technique the axial resolution can be further improved to 0.5 mm/pixel. Imaging of several objects was demonstrated to show that this simple scanning system is promising for fast or real time terahertz imaging applications. (C) 2012 Optical Society of America

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