

Abstracts

Tapered slot antenna integrated with velocity-matched distributed photodetector

Bo-Shiou Ke, Tai Chau, Yongxi Qian, Ming-Chiang Wu and Tatsuo Itoh. "Tapered slot antenna integrated with velocity-matched distributed photodetector." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1241-1244.

We propose and demonstrate the integration of tapered slot antenna (TSA) and velocity-matched distributed photodetector (VMDP) which is potentially useful for millimeter-wave power combining and phased arrays, as well as RF front-ends for analog fiber optic links. The concept is confirmed by photomixing and antenna measurement with an X-band prototype, and is readily scalable to higher frequencies where the inherent tremendous bandwidth of optics can be fully employed.

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