Abstracts

Use of a transparent conductive thin-film on a glass substrate in active integrated antenna arrays with double strong coupling

K. Oshima, N. Kidera, K. Niwano, K. Ikawa, R. Sonoda and S. Kawasaki. "Use of a transparent conductive thin-film on a glass substrate in active integrated antenna arrays with double strong coupling." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 1569-1572 vol.3.

Active Integrated Antenna (AIA) arrays were fabricated on a glass substrate using a conductive thin film, which was thin enough to be transparent to realize a transparent RF component. It can be attached to a window glass keeping its visibility. This means a potential to develop to new applications in microwave communication. The AIA arrays, here, consist of CPW, double strong coupling and 2-element array. For the oscillation using the lossy transmission line, a backing conductor and a Partly Thickened Conductor (PTC) were used. It operated at 8.54 GHz with the in-phase mode and EIRP was 14.3 dBm.

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