

# Abstracts

## Thin film ZnO based bulk acoustic mode filters

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*C.W. Seabury, P.H. Kobrin, R. Addison and D.P. Havens. "Thin film ZnO based bulk acoustic mode filters." 1997 MTT-S International Microwave Symposium Digest 1. (1997 Vol. I [MWSYM]): 181-184.*

We have used thin film ZnO bulk mode resonators on an acoustically reflecting solid glass substrate to produce a variety of filters in the 1-3 GHz frequency bands. Power handling is large (>2W). Overall filter dimensions are very small ( $\text{cm} \times 1 \text{ mm}$ ), while lithography requirements are undemanding ( $>10 \text{ \mu m}$ ). A range of ladder filters has been produced with an average rejection to insertion loss ratio of  $\text{dB} \sim 10$ . Monolithic inductors have also been used to improve characteristics over specified bands.

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