

## **LATERALLY EXCITED BULK WAVE DEVICE WITH ACOUSTIC MIRRORS**

### **ABSTRACT**

A laterally excited bulk acoustic wave device is disclosed. The laterally excited bulk acoustic wave device can include a first solid acoustic mirror, a second solid acoustic mirror, a piezoelectric layer that is positioned between the first solid acoustic mirror and the second solid acoustic mirror, an interdigital transducer electrode on the piezoelectric layer, and a support substrate arranged to dissipate heat associated with the bulk acoustic wave. The interdigital transducer electrode is arranged to laterally excite a bulk acoustic wave. The first solid acoustic mirror and the second solid acoustic mirror are arranged to confine acoustic energy of the bulk acoustic wave. The first solid acoustic mirror is positioned on the support substrate.

[Fig. 11B]