

AIRFLOW GENERATING DEVICE WITH DIFFERENTIAL MODULATION DRIVING AND ASYMMETRIC INITIAL DEFLECTION

ABSTRACT OF DISCLOSURE

An airflow generating device includes a first cell, disposed within a first region and a second cell, disposed within a second region. The first cell generates a first air pressure with a first polarity in the first region and the second cell generates a second air pressure with a second polarity in the second region. The second polarity is opposite to the first polarity. One of the first and second cells includes a film structure, which includes a flap pair. The flap pair includes a first flap and a second flap opposite to each other. The flap pair possesses an initial deflection difference or exhibits an average displacement difference between the first flap and the second flap. The flap pair operates at an ultrasonic frequency, such that the airflow generating device produces a plurality of air pulses at an ultrasonic pulse rate.

FIGURE 1