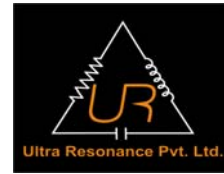


# Ultra Resonance Pvt Ltd.

Innovation & Entrepreneurship Development Centre  
Sardar Patel Institute Of Technology, Andheri (West)  
Mumbai-400058



Amogh Vakadkar (Director)  
Kunal Rege (Director)  
Rohan Thakur (Director)  
Dr. Surendra Singh Rathod (Joint Director)



Product: **UltraResonator**

Project : **Ultrasonic Broadband Generator**

Ultra Resonance Pvt. Ltd. was established in the year 2013 by the promoters Amogh Vakadkar, Kunal Rege and Rohan Thakur at Innovation & Entrepreneurship Development Centre, Sardar Patel Institute Of Technology, Andheri (West), Mumbai.

Every ultrasonic transducer has a resonant frequency of operation at which it produces optimum output. When ultrasonic transducer is used in electronic systems, there is variation in the frequency at which resonance occurs. In order to produce optimum output it is necessary to keep a track of the frequency at which the transducer will yield optimum output. A tracking algorithm needs to be implemented in order to hunt the resonant frequency of the transducer. The frequency at which the voltage across the ultrasonic transducer comes in phase with the current flowing through it, is called the electrical resonant frequency of the ultrasonic transducer. The product “UltraResonator” relates to an ultrasonic piezoelectric transducer driving system that allows tuning of an ultrasonic transducer over a broad range of frequencies. The broadband generator functions like a closed loop system to lock the resonant frequency of the transducer and also follows the variations in the transducer resonant frequency due to temperature changes, load changes or changes in factors that affect the transducer resonant frequency.

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