

Original Paper

Realization of Medical Ultrasound Power Measurement by Radiation Force Balance Method

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Abstract

Ultrasound has wide applications in medical instruments for both diagnostic and therapeutic purposes. As medical ultrasound is being used on human bodies, it is particularly important that the output power level must be well known for safety reasons. To meet this increasing need, we have realized a medical ultrasound power measurement system based on radiation force balance method. In this paper, we will discuss the system set-up in the National Metrology Centre (NMC), Agency for Science, Technology and Research (A*STAR), Singapore and the uncertainty evaluation of this system.

Keywords

Radiation force balance – Medical ultrasound – Ultrasonic power measurement