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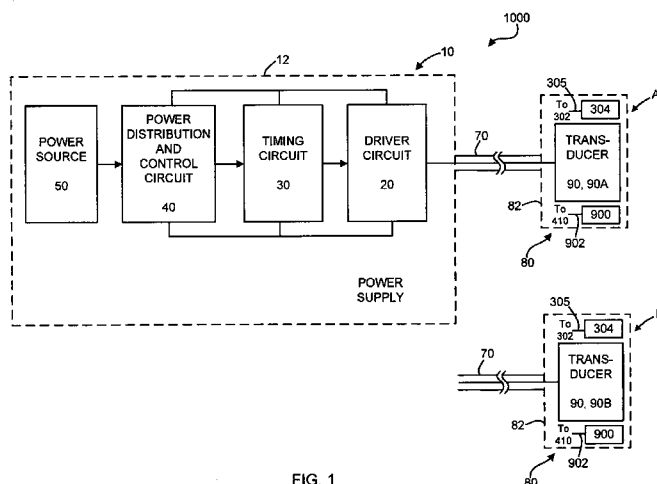


FIG. 1



(57) Abstract: In one embodiment, there is provided in an ultrasound wave generating apparatus a low output impedance transistor based driver circuit that has the ability to apply a drive signal at a frequency corresponding to an ultrasound transducer's resonant frequency. The low output impedance of the driver circuit allows for a substantial portion of the energy to be delivered to the ultrasound transducer and converted to ultrasound energy. The power transfer efficiency of the presented circuit allows ultrasound drivers to be powered by portable battery packs, while still delivering high ultrasound acoustic power. The ultrasound driver can provide energy in sufficient amounts making it suitable for a range of ultrasound driving applications including but not limited to therapeutic low and high power clinical systems, high intensity focused ultrasound HIFU, acoustical welding, industrial inspection, and other various forms of low-to-high power acoustic devices. Other embodiments of ultrasound transducer drivers and of other components of portable ultrasound generator apparatus in various embodiments are set forth herein.



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A. CLASSIFICATION OF SUBJECT MATTER		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5199299 A1 (HUGHES, MICHAEL S. et al.) 06 April 1993 See Abstract and Figures 1-4.	1-34
A	US 2003-0039173 A1 (YURCHENKO, OLEKSANDR V. et al.) 27 February 2003 See Claims 1-14 and Figures 1-8.	1-34
A	US 5425704 A1 (SAKURAI, TOMOHISA et al.) 20 June 1995 See Abstract, Claims 1-8 and Figures 2-6.	1-34
A	US 4958327 A1 (SAITOH, SHIROH et al.) 18 September 1990 See Abstract and Figures 1-7.	1-34
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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