

High Power Precision Analog Amplifier Design



SONAR transducer amplifiers from OTEC make traveling the seas safe. Kilowatt transducer amplifiers from OTEC clear the way.

OTEC redesigned our SONAR amplifier. Not only did they reduce its size, but they fixed our old turn-on and turn-off amplitude droop issues and provided us with proper transducer coupling. They got the heat management right too. We couldn't have done it without you, OTEC!

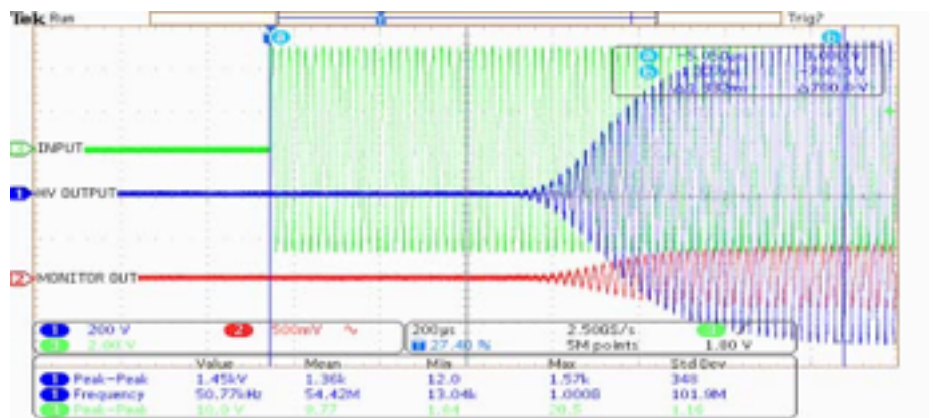
-VP Engineering, SONAR Division

SONAR Transducer Amplifier

SONAR transducer amplifiers produce the energy which excites underwater transducers into action. Sonar ranging equipment requires a precisely generated 50 to 100 KHz, kilowatt sinusoidal signal lasting between 1 and 10 milliseconds in length. The resulting ping travels a distance through saltwater uncovering underwater features. Precision high power analog design techniques make this amplifier flat over its entire operating band. Clean analog controls reduce output noise during listening periods.

Custom Transformer Design

Custom transformer design provides proper input and output signal coupling between the amplifier, its output transmission line, and the underwater transducer. Proper impedance coupling allows the kilowatt signal to do its work efficiently. Output reflection is minimized while output energy coupling is maximized.

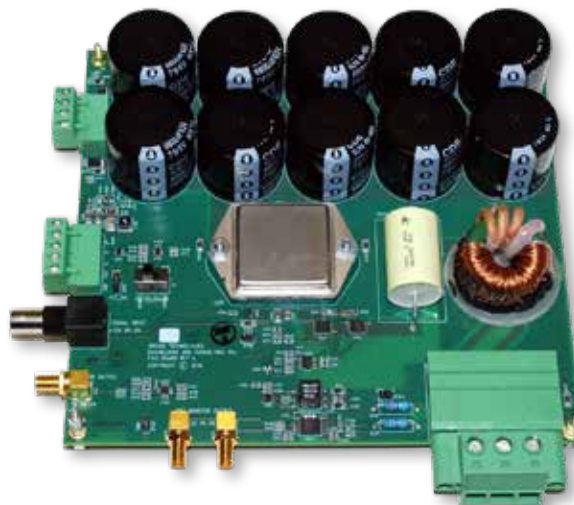


Kilowatt Output Pulse

Power management, amplifier duty cycle, output stage energy management, and overall device heat management are essential to the operation of a practical kilowatt amplifier.

Orchid Technologies: Precision Analog Design

The development of custom electronic products for our OEM clients is OTEC's entire business. The design of high performance analog amplifier electronics with rapid design cycles, demanding technical requirements, and unforgiving schedules sets us apart. Call Orchid Technologies today!



ORCHID TECHNOLOGIES
ENGINEERING & CONSULTING, INC.

Custom Engineering From Concept to Production

147 Main Street, Maynard, MA 01754 www.orchid-tech.com 978-461-2000 fax: 978-461-2003

Copyright © 2020 Orchid Technologies Engineering & Consulting Inc., all rights reserved. OTEC and the Orchid Technologies logo are trade marks of Orchid Technologies Engineering & Consulting, Inc. All other marks are the property of their respective owners.