

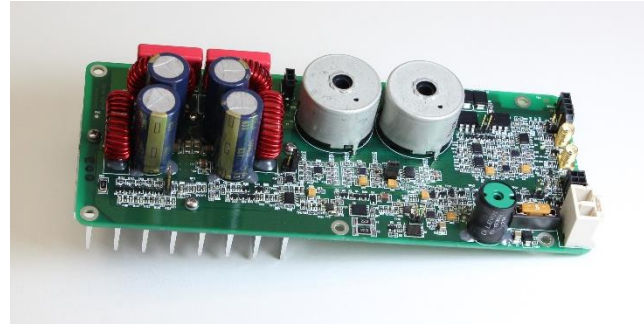


GeoSpectrum Technologies Inc.

Customizing Detection

M304 Transceiver Board

The M304 Transceiver board is a high power amplifier and low noise receive signal amplifier optimized for driving underwater transducers. The board contains a high voltage transmit/receive switch to allow two way communication with a single transducer for high power applications.



The board features a step up transformer and matching inductor that can be optimized to drive any GTI transducer. The transmit and receive chains contain high and low pass filters that can be set to cover the desired operating band.

M304 Amplifier Characteristics

Supply Voltage	30-32 V DC
Supply Current	100 mA Quiescent/Receive 6 A maximum (maximum transmit)
Operating Frequency	Up to 80 kHz
Receive/Transmit Filters	Low/high pass frequencies optional
Max Transmit Voltage	1000 Vrms
Max Transmit Power	200 W
Receive Channel Gain	32 dB (differential) 26 dB (single ended)
Receive channel IRN	$< 10\text{nV}/\sqrt{\text{Hz}}$
Receive output voltage	5 Vpp (differential)
Transmit input voltage	0-5Vpp, DC centered on 2.5V
Transmit/receive switch transition time	$< 1\text{ ms}$
Storage Temperature	-40°C to $+70^{\circ}\text{C}$
Operating Temperature	-20°C to $+55^{\circ}\text{C}$
Dimensions	20 x 8.5 x 6.5 cm

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