

## SERIES 9000 DRIVE ELECTRONICS

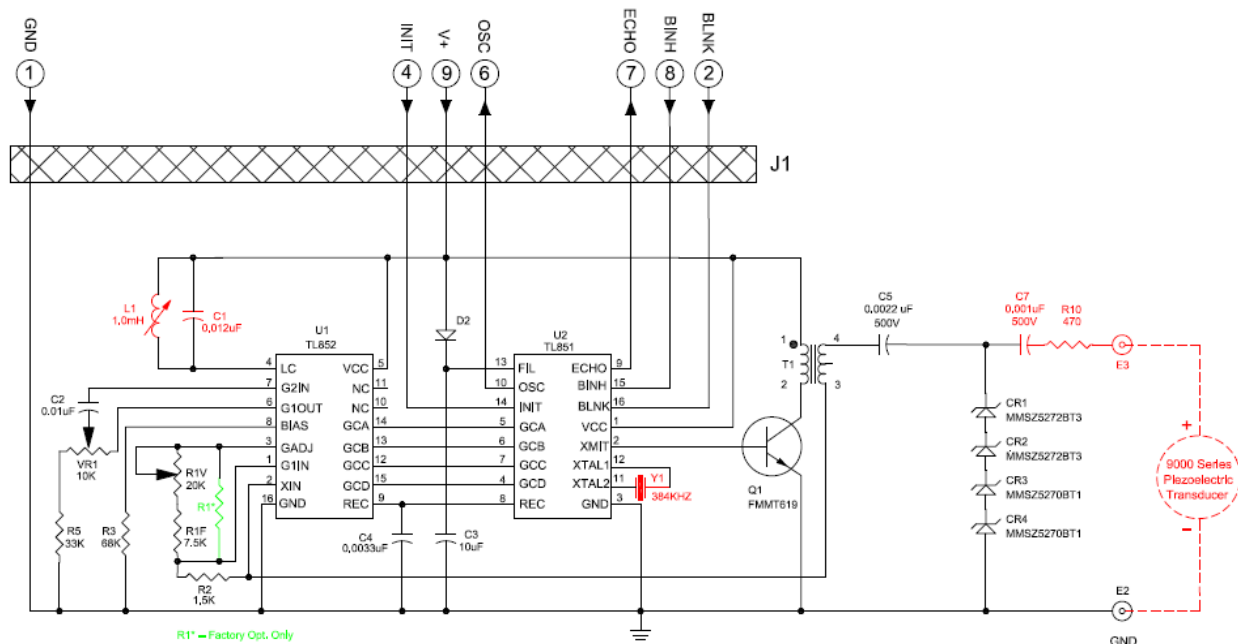
### Using the Series 6500 Sonar Ranging Module Rev. 2.52 with the Series 9000 Transducer

This application note provides information and modification details to assist you in connecting the Series 9000 Piezoelectric transducers to the Series 6500 Sonar Ranging Module.

To use the 9000 series transducer with the 6500 Sonar Ranging Module, modifications must be made to the module:

1. The LC circuit must be re-tuned for 45 kHz, by changing the C1 capacitor from .01 $\mu$ f to .012 $\mu$ f.
2. The L1 then is re-tuned to be optimized for 45 kHz.
3. An additional RC circuit must be added to the output transformer to provide an impedance match between the module and the 9000 series transducer.
4. The ceramic resonator Y1, presently 420 kHz, must be changed to 384 kHz.

Attached is a schematic which outlines the changes.



#### Parts Changed:

- C1 – Change from .01  $\mu$ f to .012  $\mu$ f capacitor
- Y1 – Change resonator from 420 kHz to 384 kHz

#### Parts Added:

- C7 – 1000 pf capacitor
- R10 – 470 ohm resistor

Connect the Transducer (+) lead to the E3 location on the PCB

