The mobile phone battery presents one more challenge in the use of the MC1496 modulator. Depending on the charge of the battery, the voltage output fluctuates between 3.2V and 4V. The MC1496 gain fluctuates with the resulting variable rail. Without some way to determine the gain, precise recovery of the original signal would be impossible.

Once the electronics are integrated with the phone software, we plan to design a calibration system to account for this. Most gauge pressure sensors produce some output even when no pressure is applied. By reading the level of this zero-state output, it should be possible to determine the gain of the circuit for the upcoming measurement.

**CONCLUSION**

Significant progress has been made on the low-level electronic challenges which threaten the feasibility of this initiative. It has been demonstrated that amplitude modulation using the MC1496 modulator chip can be performed on 3.2V with negligible carrier injection and harmonics. Additionally,