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HIGH-RESOLUTION, LOW POWER, INTERGRATED AFTERSHOCK and MICROZONATION SYSTEM

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Refraction Technology, Inc. has developed a self-contained, fully integrated Aftershock System, model 160-03, providing the customer simple and quick deployment during aftershock emergency mobilization and microzonation studies. The 160-03 has no external cables or peripheral equipment for command/control and operation in the field. The 160-03 contains three major components integrated in one case: a) 24-bit resolution state-of-the art low power ADC with CPU and Lid interconnect boards; b) power source; and c) three component 2 Hz sensors (two horizontals and one vertical), and built-in $\pm$4g accelerometer. Optionally, the 1 Hz sensors can be built-in the 160-03 system at the customer's request.

The self-contained rechargeable battery pack provides power autonomy up to 7 days during data acquisition at 200 sps on continuous three weak motion and triggered three strong motion recording channels. For longer power autonomy, the 160-03 Aftershock System battery pack can be charged from an external source (solar power system). The data in the field is recorded to a built-in swappable USB flash drive. The 160-03 configuration is fixed based on a configuration file stored on the system.

The detailed specifications and performance are presented and discussed