

Digital Signal Conditioning and Wireless Control Unit (SCON-3000)



- 24-bit resolution
- 3.7 GHz dual core micro-processor with 2 GB RAM and 16 GB solid state disk
- 10 kHz maximum control/acquisition loop rate (maximum rate dependent on resources used; 5 kHz typical)
- Accommodates up to 23 input/output channels in any combination
- Sample & Hold to eliminate data skew
- Readout for controller internal temperature, pump oil level, & external temperature
- Four (4) general purpose 0-5 VDC inputs
- Eights (8) digital inputs & eights (8) digital outputs
- 48-bit digital counter
- Watchdog timer to detect control program status for automatic interlock shutdown.
- TCP/IP, USB, and Wi-Fi Communications
- Power: 90-260 VAC / 50-60 Hz, 3.5 Amps max.

DESCRIPTION

The SCON-3000 is a digital signal conditioning and wireless control unit with complete and self-contained module that features a built-in function generator, data acquisition, and digital I/O unit. It features an integrated microprocessor based digital servo controller and includes the CATS software. The SCON-3000 system can accept load cells, pressure transducers, LVDTs, or other analog input signals, each channel features digital offset and gain, 24 bit resolution, and anti-alias filter.

Included with this system is CATS software with a Universal Test module that allows the user to create an unlimited variety of wave forms including user generated profiles such as a digitized earthquake record. The standard system also includes calculated inputs from one or several analog channels that can be directly servo controlled or monitored in real time.

The SCON-3000, can wirelessly communicate with the PC computer, allowing a user with a laptop computer to freely move around the laboratory while remaining in control of the testing system. A remote monitoring package allows user to monitor the status of the system and any test in progress via an app on a smartphone.