

# USB Switch Mainframes

## NI USB Switch Mainframes

- Complete chassis/controller solution for plug-and-play switch system
- Available in 4- or 12-slot configurations
- Accepts all NI SCXI switch modules
  - Multiplexers
  - Matrices
  - General-purpose relays
  - RF
  - Relay drivers
- Includes high-voltage analog backplane (HVAB) for signal routing between modules and to external measurement devices
- USB 2.0-compliant connection to any desktop, laptop, embedded controller, or USB hub

### Operating Systems

- Windows 2000/NT/XP

### Driver/Services Software (included)

- NI-SWITCH
- NI-DAQmx

### Compliance

- UL
- CE



National Instruments USB Switch Mainframes offer completely assembled chassis/controller combinations for fast switch-system setup and configuration. By taking advantage of the high-speed, ubiquitous USB 2.0 standard, you can insert an SCXI module in a slot, power on the mainframe, automatically configure the entire system, and begin closing relays in seconds. Also, with the large number of SCXI modules already available, NI USB Switch Mainframes provide access to more than 50 switch topologies without the need for external switch controllers.

## 4- and 12-Slot Configurations

Mainframes are available in 4-slot and 12-slot versions. The 4-slot version includes an SCXI-1000 chassis with a USB-1357 communication adapter/HVAB accessory installed. For higher-channel-count applications, the 12-slot version includes an SCXI-1001 chassis with a USB-1358 communication adapter/HVAB accessory installed. Each of these mainframes eliminates system setup tasks except for inserting the SCXI switch modules into the available slots and plugging in the USB cable.

## High-Voltage Backplane Assemblies

In addition to simple communication, many switch systems use two or more SCXI modules working together in a large multiplexer or matrix configuration. You can expand the multiplexer COMs or matrix rows through the HVAB. The USB switch mainframes can handle routing signals of up to 300V between modules. SCXI modules featuring HVAB connectivity include the NI SCXI-1127, SCXI-1128 SCXI-1129, and SCXI-1175. Use the HV8 to HV8 cable to connect the HVABs of several chassis together for even higher-density systems. You also can make a quick connection to a National Instruments digital multimeter (DMM) using the HV8 to

BAN4 cable, which routes the backplane signals from the back of the mainframe to each of the banana jack inputs of common DMMs.

## Software

All National Instruments USB Switch Mainframes are shipped with NI-SWITCH, an IVI-compliant driver offering complete functionality for all switch modules, and NI-DAQmx, complete measurement services software for hardware configuration and control. Use the NI-SWITCH Soft Front Panel for simple relay operations or debugging switch code/execution.

## Ordering Information

### 4-Slot USB Switch Mainframes

NI SCXI-1000 with USB HVAB option, 120 V .....778570-01

NI SCXI-1000 with USB HVAB option, 240 V .....778570-04

### 12-Slot USB Switch Mainframes

NI SCXI-1001 with USB HVAB option, 120 V .....778571-01

NI SCXI-1001 with USB HVAB option, 240 V .....778571-04

Both kits include one standard USB cable (1 m).

### Accessories

HV8 to HV8 multichassis cable (1 m) .....185437-01

HV8 to HV8 multichassis cable (2 m) .....185437-02

HV8 to BAN4 DMM cable (1 m) .....185444-01

HV8 to BAN4 DMM cable (2 m) .....185444-02